

USAFETAC/DS-78/004

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USAFETAC  
Air Weather Service ( MAC )

LEVEL II

REVISED UNIFORM SUMMARY OF  
SURFACE WEATHER OBSERVATIONS

MALMSTROM, FB MT/GREAT FALLS WEAN# 24112  
N 47 30 W 111 11 FLD ELEV 3523 FT GFA WMO #

PARTS A-F

FOR FROM HOURLY OBS: DEC 67 - NOV 77  
FOR FROM DAILY OBS: DEC 45 - NOV 77

JUN 12 1978

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This technical report has been reviewed and is approved for publication.

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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
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18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) *RUSSWO Relative humidity *Climatological data *Montana Daily temperature Atmospheric pressure Snowfall Extreme snow depth Extreme surface winds Climatology Sea-level pressure Psychrometric summary Surface winds Extreme temperature Ceiling versus visibility (over)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This six-part statistical summary of surface weather observations for Malmstrom AFB, Great Falls, Montana contains the following parts: (A) Weather Conditions; Atmospheric Phenomena; (B) Precipitation, Snowfall and Snow Depth (daily amounts and extreme values); (C) Surface Winds; (D) Ceiling Versus Visibility; Sky Cover; (E) Psychrometric Summaries (daily maximum and minimum temperatures, extreme maximum and minimum temperatures, psychrometric summary of wet-bulb temperature depression versus dry-bulb temperature, means and standard deviations of dry-bulb, wet-bulb, and dew-point temperatures, and relative (over).		

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19. \*\*Malmstrom AFB, Great Falls, Montana  
Percentage frequency of distribution tables  
Dry-bulb temperature versus wet-bulb temperature  
Cumulative percentage frequency of distribution tables

20. humidity); and (F) Pressure Summary (means, standard deviations, and observation counts of station pressure and sea-level pressure). Data in this report are presented in tabular form, in most cases in percentage frequency of occurrence or cumulative percentage frequency of occurrence tables.

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THE VALUES CONTAINED HEREIN HAVE BEEN QUALITY CONTROLLED  
(A) REMOVE ERRONEOUS DATA. HOWEVER, BECAUSE RESOURCES  
AVAILABLE FOR QUALITY CONTROL ARE FINITE, A FEW ERRORS  
MAY REMAIN; WHEN THEY HAPPEN, SUCH ERRORS USUALLY  
APPEAR IN THE TABULATIONS AS A PERCENTAGE FREQUENCY OF ".0",  
INDICATIVE OF ONLY ONE OCCURRENCE. THESE MAY OR MAY NOT BE  
VALID. OBVIOUS ERRORS OR IMPOSSIBLE CONDITIONS WHICH WERE  
NOT DISCOVERED UNTIL AFTER THE FINAL SUMMARY WAS PRODUCED  
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U S AIR FORCE  
ENVIRONMENTAL TECHNICAL  
APPLICATIONS CENTER

## REVISED UNIFORM SUMMARY OF SURFACE WEATHER OBSERVATIONS

### HOURLY OBSERVATIONS

Hourly observations are defined as those record or record-special observations recorded at scheduled hourly intervals.

### DAILY OBSERVATIONS

Daily observations are selected from all data recorded on reporting forms and combined into Summary of the Day observations. (Selected from record-special, local, summary of the day, remarks, etc.)

### DESCRIPTION OF SUMMARIES

Preceding each section is a brief description of the data comprising each part of the Revised Uniform Summary of Surface Weather Observations and the manner of presentation. Tabulations are prepared from hourly and daily observations recorded by stations operated by the U. S. Services and some foreign stations using similar reporting practices.

Unless otherwise noted the following summaries are included for this station:

#### PART A WEATHER CONDITIONS

ATMOSPHERIC PHENOMENA

#### PART B PRECIPITATION

SNOWFALL

SNOW DEPTH

#### PART C SURFACE WINDS

#### PART D CEILING VERSUS VISIBILITY

SKYCOVER

#### PART E DAILY MAX, MIN, & MEAN TEMP

EXTREME MAX & MIN TEMP

PSYCHROMETRIC-DRY VS WET BULB

MEAN & STD DEV -  
(DRY BULB, WET BULB, & DEW POINT)

RELATIVE HUMIDITY

#### PART F STATION PRESSURE

SEA LEVEL PRESSURE

### STANDARD 3-HOUR GROUPS

All summaries requiring diurnal variations are summarized in eight 3-hour periods corresponding to the following sets of hourly observations: 0000-0200, 0300-0500, 0600-0800, 0900-1100, 1200-1400, 1500-1700, 1800-2000, 2100-2300 hours local standard time.

### MISSING HOUR GROUPS

Summary sheets are omitted when stations maintaining limited observing schedules did not report certain three-hour periods for any particular month during the available period of record. Such missing sheets are listed below, and are applicable to all summaries prepared from hourly observations.

JANUARY \_\_\_\_\_

APRIL \_\_\_\_\_

JULY \_\_\_\_\_

OCTOBER \_\_\_\_\_

FEBRUARY \_\_\_\_\_

MAY \_\_\_\_\_

AUGUST \_\_\_\_\_

NOVEMBER \_\_\_\_\_

MARCH \_\_\_\_\_

JUNE \_\_\_\_\_

SEPTEMBER \_\_\_\_\_

DECEMBER \_\_\_\_\_

78 11 28 036

STATION NO OR SUMMARY 24112	STATION NAME MALMSTROM AFB MONTANA/GREAT FALLS	LATITUDE N 47 30	LONGITUDE W 111 11	FIELD ELEV (FT) 3523	CALL SIGN GFA	WMO NUMBER
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### STATION LOCATION AND INSTRUMENTATION HISTORY

NUMBER OF LOCATION	GEOGRAPHICAL LOCATION & NAME	TYPE OF STATION	AT THIS LOCATION		LATITUDE	LONGITUDE	ELEVATION ABOVE MSL		OBS PER DAY
			FROM	TO			FIELD (FT)	HT. BARO.	
1	Great Falls Montana	AAF	Dec 67	Jul 72	N 47 30	W 111 11	3523 ft	3465 ft	24
2	Same	Same	Aug 72	Nov 77	Same	Same	Same	Same	24

NUMBER OF LOCATION	DATE OF CHANGE	SURFACE WIND EQUIPMENT INFORMATION				REMARKS, ADDITIONAL EQUIPMENT, OR REASON FOR CHANGE
		LOCATION	TYPE OF TRANSMITTER	TYPE OF RECORDER	HT ABOVE GROUND	
1	Dec 67	Located 760 ft from centerline of Rnwy, 2240 ft ESE of Base Operations	AN/GMQ-11	RO-2	15 ft	
2	Apr 68	1. Located 500 ft NW of Rnwy, 250 ft SW of Taxiway S. 2. Located 1000 ft SW end of Rnwy 20, 500 ft SE from the centerline	Same	Same	Same	
3	Nov 77	1. Same 2. Same	Same	Same	13 ft	



NUMBER OF LOCATION	DATE OF CHANGE	SURFACE WIND EQUIPMENT INFORMATION				REMARKS, ADDITIONAL EQUIPMENT, OR REASON FOR CHANGE
		LOCATION	TYPE OF TRANSMITTER	TYPE OF RECORDER	HT ABOVE GROUND	

PART A

WEATHER CONDITIONS

This summary is a percentage frequency occurrence of various atmospheric phenomena and obstructions to vision, derived from hourly observations, and is presented in two tables as follows:

1. By month and annual, all hours and years combined.
2. By month, all years combined, by standard 3-hour groups.

A percent value of ".0" in these tables indicates less than .05 percent, which is usually only one occurrence. The various phenomena included in each category on the forms are listed below:

Thunderstorms - All reported occurrences of thunderstorm, tornado, and waterspout.

Rain and/or drizzle - All liquid precipitation, falling to the ground, not freezing.

Freezing rain and/or freezing drizzle (glaze) - Precipitation falling in liquid form, but freezing on contact with an unheated surface.

Snow and/or sleet (ice pellets) - Included are snow, snow pellets, sleet, snow grains, ice crystals, and ice pellets from Jan 68 and later. (Snow pellets also known as soft hail)

Hail - Occurrences of hail and small hail are included.

Percentage of observations with precipitation - Included in this category are the observations when one or more of the above phenomena occurred. Since more than one type of precipitation may be reported in the same observation, the sums of the individual categories may exceed the percentages of the observations with precip.

Fog - Included are fog, ice fog, and ground fog.

Smoke and/or haze - Occurrences of smoke, haze, or combinations of smoke and haze are included.

Blowing snow - Occurrences of blowing snow (also drifting snow when reported from non-WBAN sources).

Dust and/or sand - Included are blowing dust, blowing sand, and dust.

Continued on Reverse

Blowing spray - This item if reported, is not shown in a separate category on this form but is included in the computation Percentage of Observations with Obstructions to Vision, below.

Percentage of observations with obstructions to vision - Included in this category are the observations when one or more of the above obstructions to vision occurred. Since more than one type of obstruction may be reported in the same observation, the sums of the individual categories may exceed the percentage total columns. Also, although precipitation may reduce visibility, it is not considered an obstruction to vision for purposes of this summary; therefore, the percentage total of obstructions to vision need not reflect the total observations with reduced visibility.

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## WEATHER CONDITIONS

24112  
 STATION

MALMSTROM AFB MT/GREAT FALLS  
 STATION NAME

68-77  
 YEARS

JAN  
 MONTH

### PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER-STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS.
JAN	00-02		.4	.2	20.5		21.2	5.2		.6		5.8	930
	03-05		.4	.2	22.7		22.9	6.5		.5		7.0	930
	06-08		.4	.2	22.3		22.7	7.6		.9		8.3	930
	09-11		.3		19.0		19.4	10.4	.1	1.4		11.9	930
	12-14		.4		16.9		17.1	9.1		1.2	.1	10.4	930
	15-17				14.4		14.4	6.9	.2	.6	.2	8.0	930
	18-20		.5	.2	17.1		17.5	5.5		.2		5.7	930
	21-23		.2	.2	17.7		18.2	4.8		.6		5.5	930
TOTALS			.3	.1	18.8		19.2	7.0	.0	.8	.0	7.8	7440

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 USAF ETAC  
 AIR WEATHER SERVICE/MAC

## WEATHER CONDITIONS

24112 MARMSTROM AFB MT/GREAT FALLS 68-77 FEB  
 STATION STATION NAME YEARS MONTH

### PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER-STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS.
FEB	00-02				14.4		14.4	6.7		.4		7.1	849
	03-05		.1		13.2		13.3	6.8		.1		6.9	849
	06-08		.7		12.2		12.7	7.7		.4		7.7	849
	09-11		.2	.2	13.7		14.1	8.8	.2	.2	.1	9.0	849
	12-14		.5	.4	11.8		12.2	6.1	.5			6.1	849
	15-17		.1	.1	9.1		9.2	3.2	.1			3.2	849
	18-20		.1	.2	8.6		9.0	3.1				3.1	849
	21-23		.2	.1	13.2		13.4	3.9		.1		4.0	849
TOTALS			.2	.1	12.0		12.3	5.8	.1	.2	.0	5.9	6792

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**WEATHER CONDITIONS**

24112 MALMSTROM AFB MT/GREAT FALLS 58-77 MAR  
STATION STATION NAME YEARS MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER  
 CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER-STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS.
MAR	00-02		1.1		13.3		14.3	4.6		.4	.1	4.8	930
	03-05		1.4		12.2		13.4	4.7		.6	.1	5.1	930
	06-08		.8		12.9		13.7	5.4	.2	1.5		6.1	930
	09-11		.9		13.8		14.6	4.8	.4	1.4		5.7	930
	12-14		.2		12.4	.1	12.7	4.5	.5	1.2	.2	5.5	930
	15-17	.1	.4		11.0		11.3	3.1		1.4		3.8	930
	18-20		.9		10.3		11.2	2.4		1.6		3.7	930
	21-23		1.5		11.4		12.7	2.5		.9		3.3	930
TOTALS		.0	.9		12.2	.0	13.0	4.0	.1	1.2	.1	4.8	7440

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 USAF ETAC  
 AIR WEATHER SERVICE/MAC

## WEATHER CONDITIONS

24112 MALMSTRUM AFB MT/GREAT FALLS 68-77 APR  
 STATION STATION NAME YEARS MONTH

### PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER- STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS.
APR	00-02		2.9	.3	11.4		14.1	4.9		.2		5.1	900
	03-05		2.9	.3	12.7		15.8	5.2		.1		5.3	900
	06-08		3.3	.4	10.8		14.2	7.3		.2		7.3	900
	09-11		2.9		11.3		13.7	5.8		.3		5.8	900
	12-14	.1	3.6		10.8		13.1	4.6		.7		4.9	900
	15-17	.4	3.6		7.8		10.4	3.6		.4		3.8	900
	18-20	.3	3.9		5.6		8.4	2.2		.2		2.2	900
	21-23		4.0		10.0		12.8	3.4				3.4	900
TOTALS		.1	3.4	.1	10.1		12.8	4.6		.3		4.7	7200

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

## WEATHER CONDITIONS

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 MAY  
STATION STATION NAME YEARS MONTH

### PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER-STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS.
MAY	00-02	.3	10.3		.9		11.1	1.2				1.2	930
	03-05	.2	10.0		.6		10.4	1.5				1.5	930
	06-08		10.2		1.1		10.5	2.0				2.0	930
	09-11	.2	8.6		1.4		9.2	.9				.9	930
	12-14	1.1	11.1		1.4		11.8	1.1				1.1	930
	15-17	1.6	10.9		.6	.1	11.2	1.0				1.0	930
	18-20	.8	10.4		.3		10.5	.9				.9	930
	21-23	.6	11.2		.4		11.3	.8				.8	930
TOTALS		.6	10.3		.8	.0	10.8	1.2				1.2	7440



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 AIR WEATHER SERVICE/MAC

**WEATHER CONDITIONS**

24112 MARMSTROM AFB MT/GREAT FALLS 68-77 JUN  
STATION STATION NAME YEARS MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER  
 CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER-STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS.
JUN	00-02	.1	7.3		.3		7.7	.6				.6	900
	03-05	.2	8.3		.3		8.7	1.7				1.7	900
	06-08		7.8		.3		8.1	3.8				3.8	900
	09-11	.1	8.7		.3		8.9	2.2				2.2	900
	12-14	1.2	8.4		.1		8.4	.2				.2	900
	15-17	3.3	10.2				10.2	.3				.3	900
	18-20	3.4	12.2			.1	12.2	1.0				1.0	900
	21-23	1.1	9.1		.3		9.2	.9				.9	900
TOTALS		1.2	9.0		.2	.0	9.2	1.3				1.3	7200

DATA PROCESSING BRANCH  
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## WEATHER CONDITIONS

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 JUL  
STATION STATION NAME YEARS MONTH

### PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER- STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS.
JUL	00-02	.1	2.8				2.8	.1				.1	930
	03-05	.5	5.1				5.1	.4				.4	930
	06-08	.9	3.3				3.3	1.1				1.1	930
	09-11	.4	4.2				4.2	.4				.4	930
	12-14	.3	1.6				1.6						930
	15-17	2.3	3.5		.1		3.5						930
	18-20	2.3	3.4		.3		3.4				.3	.3	930
	21-23	2.0	4.8		.2		4.8						930
TOTALS		1.1	3.6		.1		3.6	.3			.0	.3	7440

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 USAF ETAC  
 AIR WEATHER SERVICE/MAC

## WEATHER CONDITIONS

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 AUG  
STATION STATION NAME YEARS MONTH

### PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER-STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS.
AUG	00-02	1.0	5.7				5.7	.3				.3	930
	03-05	.3	4.4				4.4	.8				.8	930
	06-08	.1	5.7				5.7	1.1				1.1	930
	09-11	.1	5.2				5.2	.8				.8	930
	12-14	.4	4.8				4.8	.8				.8	930
	15-17	2.7	6.1				6.1	.5				.5	930
	18-20	3.2	7.1				7.1	.6				.6	930
	21-23	2.0	8.9				8.9	.2				.2	930
TOTALS		1.2	6.0				6.0	.6				.6	7440

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 USAF ETAC  
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## WEATHER CONDITIONS

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      SEP  
STATION      STATION NAME      YEARS      MONTH

### PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER-STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS.
SEP	00-02		4.4		1.9		6.0	1.2				1.2	900
	03-05	.3	5.2		2.4		7.7	1.6				1.6	900
	06-08	.1	5.6		2.2		7.6	1.6				1.6	900
	09-11		5.6		1.7		7.1	1.9				1.9	900
	12-14	.1	3.4		1.4		4.8	1.2				1.2	900
	15-17	.2	5.3		.9		6.1	.8				.8	900
	18-20	.3	4.8		1.2		5.7	1.1				1.1	900
	21-23		5.4		1.2		6.4	.6				.6	900
TOTALS		.1	5.0		1.6		6.4	1.3				1.3	7200

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## WEATHER CONDITIONS

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 UCT  
STATION STATION NAME YEARS MONTH

### PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER- STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS.
OCT	00-02	.1	3.0	.1	6.1		9.1	3.1				3.1	930
	03-05		3.4		6.5		9.6	4.0				4.0	930
	06-08		2.7		6.2		8.8	4.1				4.1	930
	09-11		3.0		5.6		8.6	3.7				3.7	930
	12-14		2.5		6.0		8.2	2.8				2.8	930
	15-17		3.4		3.5		6.9	1.9				1.9	930
	18-20		4.3		4.1		8.1	1.7				1.7	930
	21-23	.2	3.4	.2	6.7		10.2	3.3				3.3	930
TOTALS		.0	3.2	.0	5.6		8.7	3.1				3.1	7440

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

## WEATHER CONDITIONS

24112 MARMSTRON AFB MT/GREAT FALLS 68-77 NDV  
 STATION STATION NAME YEARS MONTH

### PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER- STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS.
NDV	00-02		1.1	.2	10.3		11.4	4.8		.9		5.7	900
	03-05		.9		9.2		10.1	6.2		1.0		7.2	900
	06-08		1.6	.2	8.4		10.2	7.1		.4		7.6	900
	09-11		1.2	.1	10.8		11.9	8.3	.1	.4		8.6	900
	12-14		1.6		9.7		10.8	5.0	.2	.9		5.6	900
	15-17		1.7		8.1		9.6	3.2		1.4		4.0	899
	18-20		.8		7.6		8.2	3.3		.7		3.9	897
	21-23		.6	.3	6.7		7.5	3.6		.7		4.2	897
TOTALS			1.2	.1	8.9		10.0	5.2	.0	.8		5.9	7193

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

**WEATHER CONDITIONS**

24112 MALMSTROM AFB MT/GREAT FALLS 67-76 DEC  
STATION STATION NAME YEARS MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER  
 CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER-STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL <sup>1</sup> NO. OF OBS.
DEC	00-02				17.2		17.2	4.9		.9		5.8	930
	03-05				17.0		17.0	5.3		.8		6.0	930
	06-08		.3		16.7		16.9	5.8	.2	.8		6.3	930
	09-11			.2	15.8		16.0	6.0	.6	.9		6.8	930
	12-14		.5		15.1		15.6	5.2	.8	1.3		5.9	930
	15-17		.3		12.4		12.7	4.8	.1	.6		5.3	930
	18-20				15.8		15.8	4.6	.1	.8		5.4	930
	21-23		.2	.2	16.9		17.3	5.1		.6		5.7	930
TOTALS			.2	.1	15.9		16.1	5.2	.2	.8		5.9	7440

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

## WEATHER CONDITIONS

24112 MALMSTROM AFB MT/GREAT FALLS 67-77 ALL  
 STATION STATION NAME YEARS MONTH

### PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER- STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS.
JAN	ALL		.3	.1	18.8		19.2	7.0	.0	.8	.0	7.8	7440
FEB			.2	.1	12.0		12.3	5.8	.1	.2	.0	5.9	6792
MAR		.0	.9		12.2	.0	13.0	4.0	.1	1.2	.1	4.8	7440
APR		.1	3.4	.1	10.1		12.8	4.6		.3		4.7	7200
MAY		.6	10.3		.8	.0	10.8	1.2				1.2	7440
JUN		1.2	9.0		.2	.0	9.2	1.3				1.3	7200
JUL		1.1	3.6		.1		3.6	.3			.0	.3	7440
AUG		1.2	6.0				6.0	.6				.6	7440
SEP		.1	5.0		1.6		6.4	1.3				1.3	7200
OCT		.0	3.2	.0	5.6		8.7	3.1				3.1	7440
NOV			1.2	.1	8.9		10.0	5.2	.0	.8		5.9	7193
DEC			.2	.1	15.9		16.1	5.2	.2	.8		5.9	7440
TOTALS			.4	.0	7.2	.0	10.7	3.3	.0	.3	.0	3.6	87665



## PART A

## ATMOSPHERIC PHENOMENA

This summary is a presentation of the percentage of days with occurrence of various atmospheric phenomena. These data are obtained from all recorded information on the reporting forms or from hourly data and combined into a daily observation.

The descriptions of the phenomena in the Weather Conditions Summary above also apply for the categories summarized in these daily tabulations. However, it should be noted that in this summary the columns headed "% OF OBS WITH PRECIP" and "% OF OBS WITH OBST TO VISION" show the percentage of days rather than the percentage of observations. Since more than one type of precipitation or more than one type of obstruction may occur in the same daily observation, the sum of the values in the individual categories may differ from the total columns.

A percent value of ".0" in the table indicates less than .05 percent, which is usually only one occurrence.

This presentation is by month with annual totals, and is prepared with all years combined.

- NOTES: (1) A day with rain and/or drizzle was not separately reported in the WBAN data prior to year 1949. Therefore, percentages in this column are restricted to the period Jan 1949 and later.
- (2) A day with freezing rain and/or freezing drizzle is also properly reported as a day with rain and/or drizzle.
- (3) A day with dust and/or sand is included in this summary only when visibility is reduced to less than  $5/8$  mile.

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

XXWEATHER CONDITIONS  
 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  
 ATMOSPHERIC PHENOMENA

24112      MALMSTRDM AFB MT/GREAT FALLS      46-77      ALL  
 STATION      STATION NAME      YEARS      MONTH

PERCENTAGE OF DAYS WITH VARIOUS ATMOSPHERIC PHENOMENA  
 FROM DAILY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER-STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS.
JAN	DAILY		6.4	.5	47.5		50.3	24.7	2.1	5.3	.1	27.3	990
FEB		.2	6.3	.8	40.8	.1	43.3	21.0	1.7	3.8		23.2	901
MAR		.3	12.1	.1	41.6	.1	47.6	19.2	1.1	3.4	.1	21.4	991
APR		2.2	28.9	.9	29.6	.5	43.3	16.2	.6	1.3		16.8	959
MAY		10.1	51.1		7.4	1.6	50.0	9.6	.9	.1	.2	10.6	992
JUN		20.7	51.7		.9	1.9	50.0	7.8			.2	8.0	958
JUL		22.7	37.2		.1	1.8	35.7	2.2	.1		.1	2.4	992
AUG		18.3	39.6		.1	1.0	37.3	2.7	.1		.3	3.0	991
SEP		4.2	35.8	.3	6.2	.4	36.0	6.6	.1		.1	6.7	959
OCT		.8	24.0	1.2	15.2	.3	31.4	9.3	.2	.3		9.5	992
NOV			14.3	1.0	29.2		37.6	14.7	.7	2.6	.3	15.9	958
DEC		.1	7.8	1.6	37.7		40.8	20.0	1.7	.1		21.4	960
TOTALS		6.6	26.3	.5	21.4	.6	42.1	12.8	.8	1.7	.1	13.8	11643

## PART B PRECIPITATION, SNOWFALL & SNOW DEPTH

This part of the Uniform Summary consists of eight summaries derived from daily observations as follows:

- \* 1. The first set presents, in three tables, the percentage frequency of various daily amounts of PRECIPITATION, SNOWFALL, and SNOW DEPTH. The daily amount summary is prepared by month and annual, all years combined, and includes percent of days with measurable amounts; percent of days having none, traces, and given amounts; and means, greatest and least monthly amounts. (The last three statistics are omitted from the snow depth summary because of their doubtful and limited value.) A total count of valid observations is given for months and annual. Stations are included in which a portion or all of the period may contain months with missing days. This will be noted on the summary pages. A percent value of ".0" in these daily amount tables indicates less than .05 percent which is usually only one occurrence.
- \* 2. The second set of three tables presents the extreme daily amounts, by individual year and month, of PRECIPITATION, SNOWFALL, and SNOW DEPTH for the entire period of record available. Also provided are the means and standard deviations for each month and annual (all months) and the total valid observation count. An asterisk (\*) is printed in any year-month block when the extreme value is based on an incomplete month (at least one day missing for the month). When a month has valid observations reported but no occurrences, zeros are given in the tables as follows:

EXTREME DAILY PRECIPITATION	"00"	equals none for the month (hundredths)
EXTREME DAILY SNOWFALL	".0"	equals none for the month (tenths)
EXTREME DAILY SNOW DEPTH	"0"	equals none for the month (whole inches)
3. The third set of two tables provides the total monthly amounts of PRECIPITATION and SNOWFALL for each year-month and annual. Also prepared are the means, standard deviations, and total number of valid observations for each month and annual (all months). An asterisk (\*) is printed in each data block if one or more days are missing for the month. No occurrences for a month are indicated in the same manner as in the extreme tables above. If a trace becomes the extreme or monthly total in any of these tables it is printed as "TRACE."

Continued on Reverse Side

\* Values for means and standard deviations do not include measurements from incomplete months.

- NOTES: (1) The above studies may also be prepared for stations operating for less than full months for portions or all of the period of record. This may include stations operating 5 or 6 days a week and those with only random days missing. An asterisk (\*) in the data blocks will give an indication that a month is incomplete. Please refer to Station History at front of book and observation counts in each summary to evaluate the amounts of data missing.
- (2) Hail was included in snowfall occurrences in the summary of day observations prior to Jan 56, but these occurrences have been removed from snowfall category and counted as Hail in these summaries.
- (3) Snow Depth was recorded and punched at various hours during the period available from U. S. operated stations. The hours used by each service for each period are as follows:

Air Force Stations:

Beginning thru 1945 at 0800LST  
Jan 46-May 47 at 1230GMT  
Jun 57-present at 1200GMT

U. S. Navy and National Weather Service (USWB)

Beginning thru Jun 52 at 0030GMT  
Jul 52-May 57 at 1230GMT  
Jun 57-present at 1200GMT

2  
 DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# DAILY AMOUNTS

PERCENTAGE FREQUENCY OF  
 PRECIPITATION  
 (FROM DAILY OBSERVATIONS)

24112 HALLMSTRUM AFB MT/GREAT FALLS 45-77  
 STATION STATION NAME YEARS

PRECIP.	AMOUNTS (INCHES)														PERCENT OF DAYS WITH MEASUR- ABLE AMTS	TOTAL NO. OF OBS.	MONTHLY AMOUNTS (INCHES)		
	NONE	TRACE	.01	.02-.4	.06-.10	.11-.25	.26-.50	.51-1.00	1.01-2.50	2.51-5.00	5.01-10.00	10.01-20.00	OVER 20.00	MEAN			GREATEST	LEAST	
	SNOWFALL NONE	TRACE	0.1-0.4	0.5-1.4	1.5-2.4	2.5-3.4	3.5-4.4	4.5-6.4	6.5-10.4	10.5-15.4	15.5-25.4	25.5-50.4	OVER 50.4						
SNOW- DEPTH	NONE	TRACE	1	2	3	4-6	7-12	13-24	25-36	37-48	49-60	61-120	OVER 120						
JAN	47.6	25.5	4.6	9.1	6.6	4.4	1.4	.5	.1					26.9	992	.76	2.96	.09	
FEB	53.8	23.1	4.2	8.7	4.8	4.7	1.2	.1						23.1	904	.53	1.65	.01	
MAR	50.0	23.9	3.8	10.2	4.4	5.2	2.0	.4						26.1	992	.79	2.49	.09	
APR	51.0	22.5	4.2	8.0	4.7	5.6	3.1	.5	.3					26.5	960	1.09	3.31	.06	
MAY	47.2	22.1	2.7	7.0	4.0	8.1	4.3	2.7	1.6					30.7	991	2.56	6.55	.31	
JUN	46.5	19.5	3.1	7.6	5.8	6.9	5.2	3.4	1.7	.2				34.0	959	2.80	5.17	.24	
JUL	62.0	16.0	2.2	5.9	3.3	5.0	3.4	1.5	.5					22.0	992	1.31	3.75	TRACE	
AUG	59.9	17.7	2.3	5.9	3.2	5.2	3.5	1.3	.6					22.4	992	1.41	4.89	.06	
SEP	61.8	16.5	2.8	6.9	3.1	5.3	2.1	1.3	.3					21.8	960	1.01	3.41	.10	
OCT	66.9	14.8	2.5	4.9	3.7	4.9	1.1	.8	.2					18.2	992	.76	2.79	TRACE	
NOV	59.6	20.0	2.5	6.7	5.3	4.5	1.1	.2		.1				20.4	960	.69	3.93	.02	
DEC	56.9	20.3	3.7	7.6	4.5	4.8	1.8	.3	.1					22.9	992	.74	2.01	.02	
ANNUAL	55.3	20.2	3.2	7.4	4.4	5.3	2.5	1.1	.5	.0				24.6	11686	1.47	×	×	

DATA PROCESSING BRANCH  
 USAF/ETAC/DL A  
 AIR WEATHER SERVICE/MAC

**EXTREME VALUES**  
**PRECIPITATION**

(FROM DAILY OBSERVATIONS)

24112 MALHSTRGM AFB MT/GREAT FALLS 45-77  
STATION STATION NAME YEARS

24 HOUR AMOUNTS IN INCHES

MONTH YEAR	JAN.	FEB	MAR.	APR	MAY	JUN	JUL	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
45												.65	
46	.11	.09	.35	.38	.67	1.28	.57	.26	.56	.56	.64	.17	1.28
47	.31	.27	.72	.06*	.20*	1.13	.05	.18	.34	.20	.25	.32	* 1.13
48	.14	.09	.20	.20	1.14	1.19	.80	.35	.15	.39	.19	1.30	1.30
49	.88	.31	.35	.04	1.72	.73	.84	.15	.26	.40	.01	.30	1.72
50	.25	.01	.50	.29	.22	.94	1.59	2.00	.32	.02	.31	.13	2.00
51	.27	.73	.42	2.02	1.06	.46	1.05	.66	.70	.20	.19	.30	2.02
52	.08	.37	.26	.38	.32	.87	.13	.52	.14	.12	.18	.09	.87
53	.05	.32	.16	.46	2.05	3.01	TRACE	.91	.73	.18	.08	.35	3.01
54	.13	.20	.11	.17	.22	2.24	.41	.82	.73	1.27	.06	.02	2.24
55	.99	.36	.29	.75	1.28	.45	1.05	.05	.07	.33	.46	.34	1.28
56	.20	.08	.12	.24	.31	.72	.51	.35	.18	.24	.11	.28	.72
57	.14	.25	.13	.17	1.79	.74	.24	.33	.65	.14	.10	.05	1.79
58	.10	.44	.15	.25	.64	.87	.67	.21	.11	.16	.23	.30	.87
59	.21	.21	.09	.22	1.41	1.02	.11	.40	.75	.33	3.19	.22	3.19
60	.07	.25	.03	.53	.57	.43	.16	1.35	.13	.05	.30	.06	1.35
61	.08	.27	.47	.18	.64	.23	.53	.12	.39	.12	.26	.12	.64
62	1.11	.14	.20	.38	1.84	1.15	.31	1.16	.28	.75	.18	.18	1.84
63	.18	.13	.31	.43	.80	.79	.43	.20	.14	.33	.10	.30	.80
64	.37	.24	.42	.31	1.64	3.12	.42	.62	.12	TRACE	.23	.38	3.12
65	.64	.23	.09	.35	.51	1.80	.67	.80	.74	TRACE	.50	.30	1.80
66	.62	.31	.53	.39	1.03	.75	.62	1.09	.22	1.04	.31	.25	1.09
67	.34	.13	.84	.67	.48	.80	.49	.12	1.23	.82	.17	.38	1.23
68	.37	.08	.36	.63	1.48	1.06	.10	1.14	1.13	.03	.80	.76	1.48
69	.23	.14	.30	.10	.76	1.86	.50	.12	.10	.19	.11	.32	1.86
70	.26	.37	.22	.39	1.58	1.91	.46	.45	.12	.24	.12	.15	1.91
71	.17	.14	.36	.30	.57	.52	.19	.80	.98	.20	.04	.19	.98
72	.33	.19	.25	.22	1.02	.13	1.28	.43	.36	.22	.14	.42	1.28
73	.09	.08	.12	1.88	.58	.54	.07	.49	.70	.38	.18	.52	1.88
74	.16	.05	.22	.33	.92	1.57	.37	1.22	.47	.25	.13	.10	1.57
MEAN													
S. D.													
TOTAL OBS.													

NOTE \* (BASED ON LESS THAN FULL MONTHS)

USAF ETAC FORM 0-88-3 (OLA)

DATA PROCESSING BRANCH  
 USAF/ETAC/DL A  
 AIR WEATHER SERVICE/MAC

**EXTREME VALUES**  
**PRECIPITATION**

(FROM DAILY OBSERVATIONS)

24112 MALMSTRÖM AFB MT/GREAT FALLS 45-77  
STATION STATION NAME YEARS

24 HOUR AMOUNTS IN INCHES

MONTH YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
75	.31	.08	.26	1.82	.99	.93	.72	.54	.34	.95	.26	.07	1.82
76	.11	.19	.27	.50	.31	1.21	.59	1.61	.21	.15	.40	.16	1.61
77	.20	.07	.18	.13	.77	1.11	1.41	.45	1.02	.34	.10		
MEAN	.300	.213	.290	.474	.946	1.111	.542	.622	.449	.331	.323	.296	1.618
S. D.	.268	.145	.181	.498	.527	.720	.400	.479	.335	.314	.551	.248	.661
TOTAL OBS.	992	904	992	960	991	939	992	992	960	992	960	992	11686

NOTE \* (BASED ON LESS THAN FULL MONTHS)

USAF ETAC FORM 0-88-5 (OLA)

DATA PROCESSING BRANCH  
 USAF/ETAC/DL A  
 AIR WEATHER SERVICE/MAC

XXXXXXXXXXXXXXXXXXXX  
 EXTREME VALUES  
 XXXXXXXXXXXXXXXXXXXX  
 MONTHLY PRECIPITATION

(FROM DAILY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 45-77  
 STATION STATION NAME YEARS

TOTAL MONTHLY PRECIPITATION IN INCHES

MONTH YEAR	JAN.	FEB.	MAR	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
45												1.52	
46	.13	.19	.67	.54	2.03	3.51	1.49	.70	1.76	1.80	1.23	.41	14.46
47	.54	.79	1.18	.24*	.31*	2.02	.09	.30	.99	.36	1.25	.90	* 8.97
48	.73	.37	.93	.47	3.58	3.38	1.76	.59	.33	.39	.43	2.01	14.97
49	2.96	.73	1.00	.06	2.87	1.70	1.41	.24	.61	.93	.02	.76	13.29
50	.87	.01	1.88	1.13	.66	2.01	3.73	3.20	.44	.05	.93	.19	15.12
51	.42	.95	1.34	2.24	1.85	2.04	2.88	1.84	1.51	1.04	.35	1.67	18.13
52	.19	.93	.77	.40	1.18	1.11	.13	.78	.19	.12	.75	.09	6.64
53	.19	.61	.48	2.02	6.35	5.19	TRACE	1.40	1.06	.18	.08	1.04	18.80
54	.58	.45	.75	.64	.78	4.82	.72	1.96	1.82	1.72	.08	.02	14.34
55	1.11	1.21	1.52	2.52	4.02	1.12	3.75	.06	.10	.61	2.01	.86	18.89
56	.63	.21	.23	.68	1.44	2.22	1.19	1.20	.23	.75	.19	.58	9.56
57	1.38	.58	.47	.62	2.60	3.10	.49	1.07	1.31	.92	.38	.12	13.04
58	.32	1.65	.56	.52	1.34	4.63	2.26	.61	.15	.39	.63	1.01	14.07
59	.82	.53	.24	.67	3.26	2.38	.21	.60	1.55	1.08	3.93	.25	15.52
60	.20	.42	.09	1.60	2.25	.83	.45	3.74	.40	.05	.67	.10	10.80
61	.10	.33	.67	.84	1.61	.33	1.32	.24	1.58	.24	.79	.20	8.25
62	1.51	.47	.46	.52	5.31	2.70	1.45	1.70	.40	1.54	.28	.71	17.05
63	.81	.21	.36	1.03	1.70	3.21	.94	.42	.49	1.15	.17	.88	11.37
64	.40	.35	1.64	1.70	5.17	4.76	1.59	1.45	.39	TRACE	.70	.87	19.02
65	1.10	1.03	.45	1.57	1.43	5.19	1.77	1.95	1.92	TRACE	1.04	.66	18.11
66	1.71	.82	1.07	.91	1.21	2.38	1.31	1.67	.32	1.72	1.48	.83	15.43
67	.72	.48	2.49	2.21	1.88	3.42	1.53	.24	2.71	1.63	.49	1.72	19.52
68	1.16	.25	.83	1.32	2.88	3.32	.12	2.76	3.41	.04	.87	1.31	18.27
69	1.46	.35	.61	.30	1.48	4.79	1.37	.20	.18	1.03	.13	.50	12.40
70	.96	1.30	.62	.92	4.43	4.26	1.27	.49	.32	.66	.41	.42	16.30
71	.75	.46	.71	.44	2.59	.82	.35	1.50	1.60	.48	.13	.73	10.56
72	.89	.31	.62	.60	2.20	.24	1.96	1.56	.78	.71	.20	1.21	11.28
73	.09	.20	.26	2.87	1.04	1.35	.09	.99	1.41	.88	.86	1.32	11.36
74	.40	.12	.69	.63	4.33	1.74	.68	4.89	1.01	.43	.20	.19	15.31
MEAN													
S. D.													
TOTAL OBS.													

NOTE \* (BASED ON LESS THAN FULL MONTHS)

USAF ETAC FORM 0-88-5 (OLA)



DATA PROCESSING BRANCH  
 USAF/ETAC/OL A  
 AIR WEATHER SERVICE/MAC

XXXXXXXXXXXXXXXXXXXX  
 EXTREME VALUES  
 XXXXXXXXXXXXXXXXXXXX  
 MONTHLY PRECIPITATION

(FROM DAILY OBSERVATIONS)

24112 MALMSIROM AFB MT/GREAT FALLS 45-77  
STATION STATION NAME YEARS

TOTAL MONTHLY PRECIPITATION IN INCHES

MONTH YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
75	.86	.31	.75	3.31	3.90	4.69	1.44	2.38	.73	2.79	.54	.20	21.90
76	.27	.28	.40	1.21	1.16	4.04	1.99	2.57	.31	.20	.59	.53	13.55
77	.71	.12	.57	.25	2.59	1.39	2.18	1.88	2.28	.56	.34		
MEAN	.780	.532	.791	1.093	2.559	2.804	1.311	1.412	1.009	.764	.692	.744	14.577
S. D.	.590	.382	.518	.827	1.479	1.537	.975	1.132	.827	.662	.746	.529	3.643
TOTAL OBS.	992	904	992	960	991	959	992	992	960	992	960	992	11686

NOTE \* (BASED ON LESS THAN FULL MONTHS)

USAF ETAC FORM 0-88-5 (OLA)

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/HAC

# DAILY AMOUNTS

PERCENTAGE FREQUENCY OF  
 SNOWFALL  
 (FROM DAILY OBSERVATIONS)

24112 MALMSTRUM AFB MT/GREAT FALLS 46-77  
STATION STATION NAME YEARS

PRECIP.	AMOUNTS (INCHES)													PERCENT OF DAYS WITH MEASURABLE AMTS	TOTAL NO. OF OBS.	MONTHLY AMOUNTS (INCHES)		
	NONE	TRACE	.01	.02-.05	.06-10	.11-.25	.26-.50	.51-1.00	1.01-2.50	2.51-5.00	5.01-10.00	10.01-20.00	OVER 20.00			MEAN	GREATEST	LEAST
	SNOWFALL	TRACE	0.1-0.4	0.5-1.4	1.5-2.4	2.5-3.4	3.5-4.4	4.5-6.4	6.5-10.4	10.5-15.4	15.5-25.4	25.5-50.4	OVER 50.4					
SNOW-DEPTH	TRACE	1	2	3	4-6	7-12	13-24	25-36	37-48	49-60	61-120	OVER 120						
JAN	50.9	23.5	9.7	10.1	2.6	1.5	.7	.8	.2					25.6	992	8.8	23.4	.9
FEB	56.6	21.3	8.5	9.5	1.9	1.0	.6	.3	.2					22.0	904	6.2	21.5	.1
MAR	56.9	20.5	8.2	8.8	2.7	1.5	.5	.8	.1					22.7	992	7.8	21.8	1.2
APR	68.4	15.3	6.4	5.6	1.9	1.0	.3	.6	.3	.1				16.3	960	6.4	20.6	TRACE
MAY	91.7	5.4	1.3	.8	.5	.2								2.8	992	.8	5.0	.0
JUN	99.0	.6		.2	.1		.1							.4	960	.2	4.5	.0
JUL	99.8	.2													992	TRACE	TRACE	.0
AUG	99.8	.2													992	TRACE	TRACE	.0
SEP	93.3	4.3	.7	.8	.3	.4		.1						2.4	960	1.0	10.0	.0
OCT	84.4	9.1	1.9	2.6	1.1	.3	.3	.2	.1					6.6	992	2.6	13.3	.0
NOV	68.4	15.0	4.7	6.9	2.4	1.5	.4	.5	.2					16.6	960	6.5	18.1	TRACE
DEC	60.2	18.6	7.8	6.9	3.5	2.0	.8	.1						21.1	961	7.4	18.3	.1
ANNUAL	77.4	11.2	4.1	4.3	1.4	.8	.3	.3	.1	.0				11.4	11657	47.7	×	×

DATA PROCESSING BRANCH  
 USAF/ETAC/OL A  
 AIR WEATHER SERVICE/MAC

**EXTREME VALUES**

**SNOWFALL**

(FROM DAILY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 46-77  
STATION STATION NAME YEARS

24 HOUR AMOUNTS IN INCHES

MONTH YEAR	JAN.	FEB	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
46	2.2	.9	3.5	.1	TRACE	.0	.0	.0	.0	1.4	6.5	1.7	6.5
47	3.1	2.7	7.2	.9	.0	.0	.0	.0	1.7	.2	2.3	2.3	7.2
48	1.4	.9	2.0	2.0	.4	.0	TRACE	.0	TRACE	3.9	1.9	2.4	3.9
49	3.8	3.1	3.6	TRACE	1.9	TRACE	.0	.0	TRACE	4.0	TRACE	3.0	4.0
50	2.8	.1	4.6	3.4	1.4	4.0	.0	.0	2.7	TRACE	3.2	1.3	4.6
51	2.8	9.8	4.3	1.3	1.0	1.0	.0	.0	.3	1.8	1.9	3.0	9.8
52	.8	3.7	2.8	.2	.0	.0	.0	.0	.0	.0	1.8	.9	3.7
53	.5	3.2	1.5	1.4	1.3	.0	.0	.0	.0	.0	TRACE	3.5	3.5
54	1.3	1.8	1.5	1.8	.3	TRACE	.0	.0	6.3	7.7	.7	.2	7.7
55	8.0	3.6	2.9	7.6	2.4	.0	.0	.0	TRACE	.8	5.8	3.4	8.0
56	2.6	.8	1.2	2.4	2.6	.0	.0	TRACE	TRACE	1.5	.7	3.1	3.1
57	3.7	2.5	.5	3.9	.0	.0	.0	.0	.5	1.6	1.0	.1	3.9
58	1.1	8.1	2.8	1.0	.0	.0	.0	.0	TRACE	.1	2.6	4.4	8.1
59	5.7	6.0	1.8	1.9	TRACE	.0	.0	.0	.8	3.3	9.5	3.5	9.5
60	.9	2.9	.6	5.5	2.4	.0	.0	.0	.0	TRACE	3.4	1.0	5.5
61	.8	.2	5.5	1.7	TRACE	.0	.0	.0	.1	.1	4.6	1.5	5.5
62	4.6	3.0	1.9	TRACE	TRACE	.0	.0	.0	1.6	.0	1.8	1.8	4.6
63	2.2	1.2	3.1	4.3	TRACE	.0	.0	.0	.0	.0	1.0	3.0	4.3
64	6.1	2.0	3.3	2.5	TRACE	.0	.0	.0	TRACE	TRACE	1.7	3.8	6.1
65	6.4	2.3	.9	2.3	.1	TRACE	.0	.0	2.1	.0	5.0	3.0	6.4
66	5.9	3.1	5.4	1.4	TRACE	.0	.0	TRACE	.0	2.2	3.1	3.0	5.9
67	3.6	1.3	6.3	7.0	3.3	.0	.0	.0	.0	.6	4.9	3.8	7.0
68	3.7	.5	5.6	6.3	.2	.0	.0	.0	3.4	.1	3.4	6.0	6.3
69	7.0	1.6	3.0	1.1	TRACE	2.2	.0	.0	.0	1.6	.5	3.2	7.0
70	2.5	3.9	2.4	9.6	1.4	.0	.0	.0	1.2	1.6	2.5	2.1	9.6
71	3.7	1.6	1.7	1.8	TRACE	.0	.0	.0	TRACE	2.2	1.6	2.8	3.7
72	5.2	5.0	3.6	2.1	TRACE	.0	TRACE	.0	.8	3.6	4.1	3.6	5.2
73	.9	.5	.6	14.5	TRACE	.0	.0	.0	3.2	1.6	5.3	3.5	14.5
74	4.6	.6	1.6	.9	TRACE	.0	.0	.0	.4	.5	TRACE	1.4	4.6
75	3.3	1.4	5.6	5.5	TRACE	.0	.0	.0	.0	5.9	1.7	.7	5.9
MEAN													
S. D.													
TOTAL OBS.													

NOTE \* (BASED ON LESS THAN FULL MONTHS)

USAF ETAC FORM 0-88-5 (OLA)

DATA PROCESSING BRANCH  
 USAF/ETAC/OL A  
 AIR WEATHER SERVICE/MAC

**EXTREME VALUES**

**SNOWFALL**

(FROM DAILY OBSERVATIONS)

24112 MÅLMSTROM AFB MT/GREAT FALLS 46-77  
STATION STATION NAME YEARS

24 HOUR AMOUNTS IN INCHES

MONTH YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
76	1.1	1.9	5.5	4.6	TRACE	TRACE	.0	.0	.0	.3	4.0	2.9	5.5
77	2.4	.7	2.5	1.1	1.6	.0	.0	.0	.0	3.4	2.5		
MEAN	3.28	2.53	3.10	3.13	.63	.23	TRACE	TRACE	.78	1.56	2.78	2.58	6.16
S. D.	2.027	2.201	1.826	3.171	.973	.808	.000	.000	1.416	1.895	2.144	1.298	2.412
TOTAL OBS.	992	904	992	960	992	960	992	992	960	992	960	961	11657

NOTE \* (BASED ON LESS THAN FULL MONTHS)

USAF ETAC FORM 0-88-5 (OLA)

DATA PROCESSING BRANCH  
 USAF/ETAC/OL A  
 AIR WEATHER SERVICE/MAC

XXXXXXXXXXXXXXXXXXXX  
 EXTREME VALUES  
 XXXXXXXXXXXXXXXXXXXX  
 MONTHLY SNOWFALL

(FROM DAILY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 46-77  
STATION STATION NAME YEARS

TOTAL MONTHLY SNOWFALL IN INCHES

MONTH YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
46	3.0	2.6	4.5	.1	TRACE	.0	.0	.0	.0	4.7	10.3	4.1	29.3
47	5.4	7.9	11.6	1.2	.0	.0	.0	.0	2.4	.2	11.7	6.1	46.5
48	6.0	3.4	9.5	3.3	.4	.0	TRACE	.0	TRACE	3.9	3.3	6.0	35.8
49	11.4	7.3	9.1	TRACE	2.0	TRACE	.0	.0	TRACE	4.6	TRACE	8.3	42.7
50	9.1	.1	18.8	5.9	1.6	4.5	.0	.0	2.7	TRACE	9.3	1.4	53.4
51	4.3	12.2	16.5	2.2	1.5	1.0	.0	.0	.3	4.4	3.4	18.3	64.1
52	1.9	9.8	6.9	.2	.0	.0	.0	.0	.0	.0	7.5	.9	27.2
53	1.4	6.1	3.1	3.0	1.3	.0	.0	.0	.0	.0	TRACE	10.5	25.4
54	7.4	1.8	8.3	6.1	.3	TRACE	.0	.0	10.0	8.9	.7	.2	43.7
55	9.0	12.6	15.3	19.0	3.8	.0	.0	.0	TRACE	.8	18.1	8.3	86.9
56	6.0	2.1	2.3	5.6	5.0	.0	.0	TRACE	TRACE	2.2	1.4	8.3	32.9
57	16.3	6.1	2.0	6.4	.0	.0	.0	.0	.5	6.1	3.3	.1	40.8
58	1.7	21.5	6.3	1.6	.3	.0	.0	.0	TRACE	.1	7.8	14.2	53.2
59	20.5	13.7	3.6	3.9	TRACE	.0	.0	.0	.9	7.1	15.4	3.8	68.9
60	3.5	6.2	1.2	12.8	2.4	.0	.0	.0	.0	TRACE	10.6	3.1	39.8
61	1.5	.2	5.5	2.7	TRACE	.0	.0	.0	.1	.1	14.2	3.4	27.7
62	14.6	6.4	3.6	TRACE	TRACE	.0	.0	.0	1.6	.0	1.8	3.4	31.4
63	8.4	2.1	3.6	8.6	TRACE	.0	.0	.0	.0	.0	1.1	8.8	32.6
64	6.2	3.4	10.4	7.4	TRACE	.0	.0	.0	TRACE	TRACE	6.2	10.1	43.7
65	9.4	11.5	5.1	8.8	.1	TRACE	.0	.0	2.9	.0	8.5	7.4	53.7
66	16.8	7.7	10.7	4.0	TRACE	.0	.0	TRACE	.0	2.7	16.0	8.6	66.5
67	8.2	4.8	21.8	20.6	3.8	.0	.0	.0	.0	.6	8.4	17.2	85.4
68	11.5	1.7	9.4	8.5	.2	.0	.0	.0	3.4	.1	4.1	18.0	56.9
69	23.4	4.0	6.6	1.1	TRACE	2.2	.0	.0	.0	4.1	.7	5.4	48.3
70	8.9	15.2	5.5	17.4	2.2	.0	.0	.0	1.8	3.3	6.6	6.9	67.8
71	16.4	7.0	6.8	2.0	TRACE	.0	.0	.0	TRACE	4.8	2.1	11.4	50.5
72	17.6	6.7	9.4	2.2	TRACE	.0	TRACE	.0	.8	6.3	4.7	11.6	59.3
73	.9	2.1	1.7	20.5	TRACE	.0	.0	.0	3.9	1.7	15.1	9.1	55.0
74	10.4	1.7	5.4	2.1	TRACE	.0	.0	.0	.4	.7	TRACE	2.7	23.4
75	10.7	4.7	12.9	16.4	TRACE	.0	.0	.0	.0	13.3	6.5	2.2	64.7
MEAN													
S. D.													
TOTAL OBS.													

NOTE \* (BASED ON LESS THAN FULL MONTHS)

USAF ETAC FORM 0-88-5 (OLA)

2  
 DATA PROCESSING BRANCH  
 USAF/ETAC/OL A  
 AIR WEATHER SERVICE/MAC

XXXXXXXXXXXXXXXXXXXX  
**EXTREME VALUES**  
 XXXXXXXXXXXXXXXXXXXX  
**MONTHLY SNOWFALL**

(FROM DAILY OBSERVATIONS)

24112 MALSSTROM AFB MT/GREAT FALLS 46-77  
 STATION STATION NAME YEARS

TOTAL MONTHLY SNOWFALL IN INCHES

MONTH YEAR	JAN	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG	SEP.	OCT.	NOV.	DEC	ALL MONTHS
76	2.7	3.5	6.6	9.3	TRACE	TRACE	.0	.0	.0	.3	6.2	9.3	37.9
77	7.4	1.0	6.5	1.3	1.6	.0	.0	.0	.0	3.6	4.7		
MEAN	8.81	6.18	7.63	6.38	.82	.24	TRACE	TRACE	.99	2.64	6.49	7.39	48.24
S. D.	5.919	4.916	5.007	6.301	1.349	.884	.000	.000	2.005	3.201	5.239	5.004	16.792
TOTAL OBS.	992	904	992	960	992	960	992	992	960	992	960	961	11657

NOTE \* (BASED ON LESS THAN FULL MONTHS)

USAF ETAC FORM 0-88-5 (OIA)

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# DAILY AMOUNTS

PERCENTAGE FREQUENCY OF  
 SNOW DEPTH  
 (FROM DAILY OBSERVATIONS)

24112 MALMSTRÖM AFB MT/GREAT FALLS 45-77  
STATION STATION NAME YEARS

PRECIP.	AMOUNTS (INCHES)													PERCENT OF DAYS WITH MEASURABLE AMTS	TOTAL NO. OF OBS.	MONTHLY AMOUNTS (INCHES)										
	NONE	TRACE	.01	.02-.05	.06-10	.11-.25	.26-.50	.51-1.00	1.01-2.50	2.51-5.00	5.01-10.00	10.01-20.00	OVER 20.00			MEAN	GREATEST	LEAST								
	SNOWFALL	TRACE	0.1-0.4	0.5-1.4	1.5-2.4	2.5-3.4	3.5-4.4	4.5-6.4	6.5-10.4	10.5-15.4	15.5-25.4	25.5-50.4	OVER 50.4			SNOW-DEPTH	NONE	TRACE	1	2	3	4-6	7-12	13-24	25-36	37-48
JAN	34.3	12.0	12.2	9.3	7.0	15.5	7.9	1.8	.1					53.7	992											
FEB	49.0	11.8	9.4	7.1	6.1	11.6	4.3	.7						39.2	904											
MAR	57.6	9.8	7.2	5.6	5.7	10.9	2.7	.5						32.7	992											
APR	84.3	6.0	3.9	1.5	1.1	1.9	.9	.4						9.7	960											
MAY	98.2	1.2	.3	.2	.1									.6	992											
JUN	99.8			.1	.1									.2	960											
JUL	100.0														992											
AUG	100.0														992											
SEP	98.3	.8	.5	.3										.8	960											
OCT	92.7	3.5	1.5	1.2	.8	.4								4.1	992											
NOV	68.9	8.2	6.0	4.7	3.4	6.9	1.9							22.9	960											
DEC	48.0	10.2	9.6	9.2	6.9	9.4	6.6	.3						41.8	992											
ANNUAL	77.6	5.3	4.2	3.3	2.6	4.7	2.0	.3	.0					17.1	11689											

DATA PROCESSING BRANCH  
 USAF/ETAC/OL A  
 AIR WEATHER SERVICE/MAC

# EXTREME VALUES

## SNOW DEPTH

(FROM DAILY OBSERVATIONS)

24112 MALMSTRGM AFB MT/GREAT FALLS 45-77  
STATION STATION NAME YEARS

### DAILY SNOW DEPTH IN INCHES

MONTH YEAR	JAN	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP	OCT.	NOV.	DEC	ALL MONTHS
45												16	
46	2	2	0	0	0	0	0	0	0	2	7	6	7
47	3	4	5	1	0	0	0	0	TRACE	TRACE	4	2	5
48	5	2	4	2	TRACE	0	0	0	0	0	1	2	5
49	27	7	6	TRACE	2	0	0	0	1	5	0	6	27
50	6	3	8	2	TRACE	4	0	0	2	3	4	4	8
51	3	10	15	1	TRACE	0	0	0	TRACE	3	3	11	15
52	10	7	7	TRACE	0	0	0	0	0	0	7	6	10
53	1	2	6	TRACE	TRACE	0	0	0	0	0	TRACE	4	6
54	9	2	4	2	1	0	0	0	1	2	1	TRACE	9
55	8	4	6	13	2	0	0	0	0	TRACE	7	7	13
56	3	3	1	1	3	0	0	0	0	1	1	4	4
57	7	9	2	1	0	0	0	0	1	3	4	TRACE	9
58	1	11	8	TRACE	0	0	0	0	0	TRACE	4	9	11
59	8	17	2	1	0	0	0	0	0	3	11	2	17
60	5	5	4	8	0	0	0	0	0	0	6	3	8
61	2	TRACE	4	2	0	0	0	0	0	1	7	3	7
62	10	3	3	TRACE	0	0	0	0	0	0	2	4	10
63	7	7	TRACE	5	0	0	0	0	0	0	1	7	7
64	6	2	4	4	0	0	0	0	0	0	6	9	9
65	7	5	5	3	0	0	0	0	2	0	5	3	7
66	12	4	6	1	0	0	0	0	0	0	8	7	12
67	4	1	7	7	1	0	0	0	0	0	5	8	8
68	9	3	7	5	0	0	0	0	2	0	0	10	10
69	18	14	8	0	0	2	0	0	0	2	1	4	18
70	5	5	9	7	0	0	0	0	1	3	2	4	9
71	14	3	3	3	0	0	0	0	0	2	2	5	14
72	10	5	4	TRACE	0	0	0	0	TRACE	4	4	6	10
73	3	1	1	17	TRACE	0	0	0	TRACE	TRACE	6	4	17
74	7	4	2	1	0	0	0	0	0	TRACE	0	3	7
MEAN													
S. D.													
TOTAL OBS.													

NOTE \* (BASED ON LESS THAN FULL MONTHS)

USAF ETAC FORM 0-88-5 (OLA)



DATA PROCESSING BRANCH  
USAF/ETAC/OL A  
AIR WEATHER SERVICE/MAC

**EXTREME VALUES**

**SNOW DEPTH**

(FROM DAILY OBSERVATIONS)

24112 MALMSTRUM AFB MT/GREAT FALLS 45-77  
STATION STATION NAME YEARS

**DAILY SNOW DEPTH IN INCHES**

MONTH YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MCNTHS
75	4	5	6	14	0	0	0	0	0	3	6	3	14
76	3	2	6	3	0	0	0	0	0	TRACE	5	4	6
77	7	1	7	3	0	0	0	0	0	1	4		
MEAN	7.1	4.8	5.0	3.3	.3	.2	.0	.0	.3	1.2	3.9	5.2	10.3
S. D.	5.205	3.867	3.048	4.337	.729	.780	.000	.000	.644	1.491	2.791	3.326	4.825
TOTAL OBS.	992	904	992	960	992	960	992	992	960	992	960	992	11688

NOTE \* (BASED ON LESS THAN FULL MONTHS)

USAF ETAC FORM 0-88-3 (OIA)

U S AIR FORCE  
ENVIRONMENTAL TECHNICAL  
APPLICATIONS CENTER

PART C

SURFACE WINDS

Presented in this part are various tabulations of surface winds as follows:

- \*1. Extreme Values - Peak Gusts: Derived from daily observations and presented by individual year and month for the entire period of record available. Speeds are presented in knots, while directions are given in 16 compass points from the beginning of record through June 1968, and in tens of degrees starting in July 1968. The extreme is selected and printed from available peak gusts for each year-month, however an asterisk (\*) is printed in the data block if less than 90% (3 or more missing observations) of the peak gusts are available for the month. An ALL MONTHS value is presented when every month of the year has valid observations. Means and standard deviations are also computed when four or more values are present for any column. A total raw count of valid observations is presented for each month and ALL MONTHS.

NOTE: According to Federal Meteorological Handbook No. 1 specifications (formerly Circular N), "peak gust data are recorded only at stations with continuous instantaneous wind-speed recorders."

2. Bivariate percentage frequency tabulations: Derived from hourly observations, these tabulations are a percentage frequency of wind directions to 16 compass points and calm by wind speeds (knots) in increments of Beaufort classifications. Percentages are shown by both directions and speed, and in addition the mean wind speed is given for each direction.

A separate category is provided on the form for variable winds, which are reported in some data sources. In these data where light and variable winds are reported with no directions but with speeds given, the speeds will be summarized in the appropriate groups opposite the column headed VRBL.

- a. Three tables are prepared for ALL WEATHER surface winds, all years combined, by: (1) Annual - all hours combined, (2) By month - all hours combined, and (3) By month - by standard 3-hour groups.
- b. A separate annual table is also presented for surface winds meeting INSTRUMENT CLASS conditions as follows: Ceiling 200 through 1400 feet inclusive with visibility equal to or greater than 1/2 mile, and/or visibility 1/2 through 2-1/2 miles inclusive with ceiling equal to or greater than 200 feet.

NOTE: A percentage frequency of ".0" in these tables represents one or more occurrences amounting to less than ".05" percent.

\* Values for means and standard deviations do not include measurements from incomplete months.

DATA PROCESSING BRANCH  
 USAF/ETAC/DL A  
 AIR WEATHER SERVICE/MAC

**EXTREME VALUES**  
 SURFACE WINDS

(FROM DAILY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 46-77  
STATION STATION NAME YEARS

DAILY PEAK GUSTS IN KNOTS

MONTH YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MONTHS																
46			SW *43	NNW*26W	*26SSW*45	SSW*56	SSW*30	SW *38																					
47		WSW*49						WSW 54	WSW 50	SW 45	SSW 35																		
48		W 61	S 59	SW 43	W 49	W 37	W 56	SSW 43	SSW 45	SSW 49	SSW 54																		
49	SW 50	WSW 57	WSW 46	SSW*47	NNW 39	SSW 45	WSW*43	SSW 61	SW 57	NNW 62	WSW 63	W 52	WSW 63																
50	WSW 49	NNW 45	WSW 54	WSW 63	W 44	WSW 43	W 50	WSW 44	WSW 42	WSW 50	WSW 49	W 43	WSW 63																
51	W 46	WSW 49	NNW 52	NNW 36	NNW 55	NNE 42	SW 54	WSW 30	WSW 33	W 47	W 48	SW 40	NNW 55																
52	WSW 44	WSW 50	NNW 43	WSW*36	W *41	W 51	NNW 58	NNW 43	WSW 41	WSW 43	W 44	WSW 47	NW 58																
53	SSW 52	W 48	WSW 49	WSW 42	WSW 53	NNW 39	W 38	WSW 60	W 46	NNW 35	W 43	W 57	WSW 60																
54	SW *50																												
55																													
56																													
57											18*	25	11* 14																
58	18*	31	11*	13	18*	33	11*	29	11*	24	18/	46	12*	25	11*	39	18*	37	11*	14	18*	27	11*	29	18/	46			
59	22*	23	12*	31	18*	27	22*	28	11*	28	34*	29	18*	25	18*	25	11*	25	11*	25	11*	28	11*	33	18*	20	11*	33	
60	11*	18	11*	33	12*	29	12*	25	11*	21	11*	33	11*	30	11*	35	11*	30	11*	30	11*	30	18*	27	11*	31	11*	35	
61	11*	22	12*	14	12*	17	18*	34	11*	28	11*	40	12*	25	11*	21	18*	34	11*	24		11*	18						
62	11*	31	18*	41	18*	33	18*	30	11*	30	11*	29	15*	26	11*	39	11*	34	22*	17	11*	24	12*	9	11*	17	18*	41	
63	18*	51	11*	24	33*	28	18*	31	11*	23	12*	24	33*	24	22*	26	22*	26	18*	29	22*	20	18*	31				18*	51
64	18*	26	12*	35	11*	36	18/	42	11*	34	12*	30	11*	32	18*	29	11*	25	11*	35	11*	17	18*	29				18/	42
65	18*	41	12*	28	18*	31	11*	28	18*	40	11*	32	33*	26	12*	25	11*	27	18*	26	22*	35	11*	20				18*	41
66	18*	16	11*	26	18*	30	18/	39	22*	39	22*	28	22*	25	18*	24	12*	20	11*	27	11*	35	18*	25				18/	39
67	18*	22	18*	40	12*	46	18*	24	18*	29	22*	28	18*	36	33/	42	11*	29		11*	32	18*	33						
68	11*	43	22*	23	18*	25	18*	33	11*	37	11*	23	34*	50	22*	54	27/	38	26/	39	26/	43	21/	50				22*	54
69	21/	33	22/	38	24/	38	24/	43	30/	39	4/	33	28/	41	25/	50	21*	30	34*	28		25*	37						
70	24/	50	28/	54	24/	44	26/	48	24/	34	26/	78	24/	48	28/	40	24/	50	23/	41	25/	46	24/	46				26/	18
71	25/	46	24/	45	27/	44	5/	49	26/	45	26/	36	28/	38	24/	49	36/	42	29/	50	30/	49	25/	44				29/	50
72	26/	50	24/	55	25/	50	25/	40	22/	37	30/	39	27/	54	32/	30	25/	31	24/	35	22/	48	25/	55				24/	55
73	25/	38	24/	31	26/	43	28/	40	26/	48	13/	33	26/	42	30/	62	25/	35	25/	44	25/	40	23/	44				30/	62
74	27/	53	27/	40	25/	54	28/	40	26/	42	2/	36	29/	44	29/	32	25/	36	28/	39	24/	44	24/	54				25/	54
75	24/	43	24/	36	24/	40	35/	31	26/	35	24/	33	24/	50	24/	41	28/	35	27/	45	25/	51	23/	46				25/	51
MEAN																													
S. D.																													
TOTAL OBS.																													

NOTES \* (BASED ON LESS THAN FULL MONTHS)

USAF ETAC FORM 0-88-3 (OLA)

\* (BASED ON LESS THAN FULL MONTHS AND +100 KNOTS)

DATA PROCESSING BRANCH  
 USAF/ETAC/DL A  
 AIR WEATHER SERVICE/MAC

**EXTREME VALUES**  
 SURFACE WINDS

(FROM DAILY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 46-77  
STATION STATION NAME YEARS

DAILY PEAK GUSTS IN KNOTS

MONTH YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
76	24/ 48	24/ 50	25/ 45	36/ 39	26/ 41	27/ 54	22/ 47	25/ 36	32/ 32	23/ 38	23/ 42	23/ 45	27/ 54
77	23/ 41	25/ 44	25/ 45	20/ 36	26/ 35	27/ 39	22/ 44	2/ 46	33/ 32	23/ 39	22/ 48		
MEAN	45.9	46.9	47.1	42.1	42.6	44.0	47.4	44.9	40.3	43.6	46.4	48.4	58.2
S. D.	5.663	8.262	5.788	7.324	6.734	11.225	6.548	10.160	7.683	6.772	6.054	5.257	8.217
TOTAL OBS.	598	569	664	666	676	683	686	693	661	619	625	584	7739

NOTES \* (BASED ON LESS THAN FULL MONTHS)  
 † (BASED ON LESS THAN FULL MONTHS AND +100 KNOTS)

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 24112 STATION NAME MALMSTRUM AFB MT/GREAT FALLS YEAR 68-77 MONTH JAN  
 CLASS ALL WEATHER HOURS (L.S.T.) 0000-0200  
 CONDITION \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.1	1.6	1.1	.2								4.0	5.7
NNE	1.0	1.4	1.3	.4	.1							4.2	6.6
NE	1.1	1.5	1.0	1.2								4.7	7.1
ENE	.6	1.2										1.8	3.8
E	.4	.1										.5	3.0
ESE	.1	.1										.2	3.5
SE	.2											.2	2.0
SSE	.4											.4	2.5
S	.9	.6										1.5	3.6
SSW	.6	2.8	1.2	.1	.8	.4						5.9	8.7
SW	1.8	3.5	6.0	6.9	2.8	2.2						23.2	11.7
WSW	1.4	3.0	4.5	6.5	5.8	1.2	.1					22.5	12.6
W	.6	1.5	1.4	2.4	1.2	.1	.1					7.3	11.4
WNW	.4	.6	.5	.3								1.9	6.8
NW	1.0	.8	.6	.4								2.8	5.9
NNW	1.0	1.0	.8	.3								3.0	5.8
VARBL													
CALM												15.7	
	12.7	19.8	18.4	18.7	10.6	3.9	.2					100.0	8.4

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      66-77      JAN

STATION      STATION NAME      YEARS      MONTH

ALL WEATHER      0300-0500

CLASS      HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.5	1.1	1.2	.6	.1		.1					3.7	7.8
NNE	.8	1.4	1.6	.3	.1	.2						4.4	7.8
NE	1.3	1.4	.9	.6	.1							4.3	6.2
ENE	.3	.5										.9	3.3
E	.4		.1									.5	3.2
ESE													
SE	.2											.2	2.0
SSE	.3	.2	.1									.6	3.8
S	.8	.2	.2	.1								1.3	4.5
SSW	1.1	2.7	1.2	1.6	1.0	.2						7.7	9.2
SW	1.4	5.6	5.8	6.2	1.6	1.7	.2					22.6	10.8
WSW	.9	3.4	5.2	6.7	3.9	1.8	.1	.1				22.0	12.6
W	.8	2.5	1.7	3.1	.6	.3						9.0	10.0
WNW	.2	.6	.3	.4								1.6	7.3
NW	.1	.6	.5									1.3	6.0
NNW	.5	1.2	1.4	.3								3.4	6.6
VARBL													
CALM												16.3	
	9.6	21.5	20.2	20.1	7.4	4.3	.4	.1				100.0	8.3

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112      STATION NAME: MALMSTROM AFB MT/GREAT FALLS      YEAR: 68-77      MONTH: JAN  
 CLASS: ALL WEATHER      HOURS (L.S.T.): 0600-0800  
 CONDITION: \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.4	1.5	1.2	.8		.1						4.0	7.8
NNE	1.0	1.9	1.2	.4	.1							4.6	6.5
NE	1.1	1.7	1.0	.5	.1							4.4	6.6
ENE	.2	.4	.3									1.0	5.1
E	.8	.1										.9	2.4
ESE													
SE	.1											.1	3.0
SSE	.2	.4										.6	3.7
S	.8	.5	.4	.2								1.9	5.6
SSW	.5	2.2	1.3	1.0	.5	.1						3.6	8.4
SW	1.6	4.6	6.2	5.2	1.3	1.8	.4					21.2	11.0
WSW	1.1	3.7	4.8	6.9	4.5	2.0	.1	.1				23.2	12.9
W	1.0	1.9	3.2	2.9	1.1	.3						10.4	10.2
WNW	.1	.8	.5	.2								1.6	7.0
NW	.4	1.2	.5	.1	.1							2.4	6.1
NNW	1.1	.9	.5	.1								2.6	4.8
VARBL													
CALM												15.5	
	10.3	21.8	21.3	18.3	7.7	4.4	.5	.1				100.0	8.3

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

JAN  
MONTH

ALL WEATHER  
CLASS

0900-1100  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	1.3	.9	.5	.1							3.5	6.9
NNE	1.4	2.2	2.2	1.3	.1							7.1	7.3
NE	1.5	1.5	1.3	.2	.1							4.6	5.6
ENE	.6	.9	.4									1.9	4.8
E	.3	.2										.5	3.0
ESE													
SE	.1											.1	2.0
SSE	.4			.1								.5	5.2
S	.2	.9	.1	.1								1.3	4.9
SSW	1.3	1.5	.8	1.2	.9	.3						5.9	9.6
SW	1.4	3.0	4.9	8.3	3.0	1.1	.4	.1				22.3	12.1
WSW	.8	2.6	4.3	7.1	4.3	2.8	1.2					23.0	14.4
W	.5	1.4	2.5	2.6	.6	.1	.2					8.0	10.6
WNW	.4	1.3	.2	.1								2.0	5.2
NW	.3	.5	.6	.3	.1							1.9	7.6
NNW	.6	1.3	.9									2.8	5.6
VARBL													
CALM												14.4	
	10.8	18.5	19.0	21.8	9.2	4.3	1.8	.1				100.0	9.0

TOTAL NUMBER OF OBSERVATIONS 930



DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      JAN

STATION      STATION NAME      YEARS      MONTH

ALL WEATHER

CLASS

CONDITION

1200-1400

HOURS (L.S.T.)

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.9	1.0	1.4	1.1	.3	.1						4.7	8.5
NNE	1.2	1.8	1.1	1.0	.1	.1						5.3	7.2
NE	2.2	1.7	1.5	.4								5.8	5.7
ENE	1.1	.8	.2									2.0	3.5
E	.8	.2	.2									1.2	3.6
ESE	.3	.3										.6	3.5
SE		.1										.1	4.0
SSE													
S	.1	.2			.1							.4	7.3
SSW	.9	.2	.3	1.6	1.2	.3						4.5	12.7
SW	1.1	2.4	3.5	6.8	3.4	2.6	.2	.1				20.1	13.6
WSW	.2	1.6	4.2	6.9	5.7	3.4	1.0					23.0	15.7
W	.4	1.3	2.3	3.9	1.7	1.2	.3	.1				11.2	13.6
WNW	.1	1.1	1.4	.5	.1	.1						3.3	8.8
NW	.3	.8	.1	.1	.1							1.4	5.9
NNW	.9	.9	1.0	.2								2.9	5.7
VARBL													
CALM												13.3	
	10.3	14.3	17.2	22.5	12.8	7.8	1.5	.2				100.0	10.3

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTRUM AFB MT/GREAT FALLS      68-77      JAN  
STATION      STATION NAME      YEARS      MONTH

ALL WEATHER      1500-1700  
CLASS      HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.9	2.0	1.1	.8	.2							4.9	7.0
NNE	1.3	1.6	.9	1.3								5.1	7.1
NE	1.6	2.4	1.1	.2	.1							5.4	5.5
ENE	2.0	1.1	.5									3.7	4.0
E	.8	.1										.9	2.4
ESE	.3											.3	2.3
SE	.2	.2	.1									.5	4.2
SSE	.6											.6	2.3
S	.6	1.0	.1	.1								1.8	4.1
SSW	.9	.9	1.3	.9	.2							4.1	7.8
SW	.6	1.5	4.1	6.0	2.7	1.3	.1					16.3	12.7
WSW	.5	2.2	3.9	8.0	4.1	3.0	.6	.1				22.4	14.6
W	.5	1.2	2.9	4.4	2.0	1.1	.2	.1				12.5	13.2
WNW	.3	.4	.8	.5								2.0	8.2
NW	.4	.9	.2	.2	.3							2.0	7.7
NNW	1.0	1.2	.4	.1								2.7	4.8
VARBL													
CALM												14.7	
	12.7	16.6	17.3	22.5	9.7	5.4	1.0	.2				100.0	9.0

TOTAL NUMBER OF OBSERVATIONS      930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      JAN  
STATION      STATION NAME      YEARS      MONTH

ALL WEATHER  
CLASS

1800-2000  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.5	1.3	1.5	.5	.1							4.0	7.3
NNE	1.8	1.5	1.0	.6	.3	.1						5.4	6.9
NE	1.3	1.7	1.3	.4								4.7	5.6
ENE	.8	.8	1.2									2.7	5.6
E	.6	.3										1.0	3.0
ESE		.1	.1									.2	6.0
SE	.3	.2										.5	2.8
SSE	.4	.3										.8	3.6
S	1.5	.6	.5	.1	.1							2.9	4.6
SSW	.3	2.3	1.0	1.2	.1		.1					4.9	8.4
SW	1.1	3.2	6.2	4.9	2.5	1.0	.2					19.1	11.2
WSW	.5	2.2	4.8	6.9	4.9	2.2	.5					22.0	13.9
W	.5	2.2	2.8	2.2	1.1	.1	.1	.1				9.0	10.1
WNW	1.0	.5	.3	.1								1.9	4.4
NW	.6	1.1	.1	.1								1.9	4.6
NNW	.8	.4	.5	.1	.3							2.2	7.6
VARBL													
CALM												16.7	
	12.2	18.7	21.4	17.2	9.5	3.3	1.0	.1				100.0	8.2

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112      STATION NAME: MALMSTROM AFB MT/GREAT FALLS      YEARS: 68-77      MONTH: JAN  
 CLASS: ALL WEATHER      HOURS (L.S.T.): 2100-2300  
 CONCLUSION: \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.1	.6	1.1	.8	.1	.2						3.9	8.1
NNE	1.7	1.9	1.8	.2	.1							5.8	5.7
NE	1.2	1.8	.9	.8	.2							4.8	6.9
ENE	.6	.9	.2	.3								2.0	5.6
E	.5	.1										.6	2.5
ESE	.1											.1	2.0
SE	.2											.2	3.0
SSE	.6	.1	.1	.1								1.0	3.9
S	1.2	.9	.2	.1								2.4	4.2
SSW	.5	1.7	.9	.6	.6	.3						4.7	9.7
SW	1.7	4.6	5.5	6.0	3.2	1.3	.2					22.6	11.2
WSW	1.0	2.0	5.3	6.5	4.7	2.2	.1					21.7	13.4
W	.9	1.5	2.2	2.3	1.3	.3	.2					8.6	11.3
WNW	.4	.8	.6	.2								2.0	6.6
NW	.5	1.2	.5	.1								2.4	5.5
NNW	.5	.6	.6									1.8	5.5
VARBL													
CALM												15.3	
	12.9	18.8	19.9	18.0	10.3	4.3	.5					100.0	8.5

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      JAN

STATION      STATION NAME      YEARS      MONTH

ALL WEATHER

CLASS

CONDITION

ALL

HOURS (L.G.T.)

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	1.3	1.2	.7	.1	.1	.0					4.1	7.4
NNE	1.3	1.7	1.4	.7	.1	.1						5.2	6.9
NE	1.4	1.7	1.1	.6	.1							4.9	6.1
ENE	.8	.8	.4	.0								2.0	4.5
E	.6	.1	.0									.8	2.9
ESE	.1	.1	.0									.2	3.5
SE	.2	.1	.0									.3	3.1
SSE	.4	.1	.0	.0								.6	3.6
S	.8	.6	.2	.1	.0							1.7	4.6
SSW	.8	1.8	1.0	1.0	.7	.2	.0					5.4	9.3
SW	1.3	3.6	5.3	6.3	2.6	1.6	.2	.0				20.9	11.7
WSW	.8	2.6	4.6	6.9	4.7	2.3	.5	.0				22.5	13.8
W	.7	1.7	2.4	3.0	1.2	.4	.1	.0				9.5	11.4
WNW	.4	.8	.6	.3	.0	.0						2.1	6.9
NW	.5	.9	.4	.2	.1							2.0	6.2
NNW	.8	.9	.8	.1	.0							2.7	5.8
VARBL													
CALM												15.2	
	11.4	18.7	19.3	19.9	9.7	4.7	.9	.1				100.0	8.7

TOTAL NUMBER OF OBSERVATIONS 7440

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112 STATION NAME: MALMSTRÖM AFB MT/GREAT FALLS YEARS: 68-77 MONTH: FEB  
 CLASS: ALL WEATHER HOURS (L.S.T.): 0000-0200  
 CONDITION: \_\_\_\_\_

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.7	.6	.5	.5								2.2	6.5
NNE	.6	1.5	.9	.2								3.3	6.0
NE	1.1	1.5	.6	.1	.1							3.4	5.6
ENE	.4	.6	.1									1.1	4.6
E	.2		.2	.1								.6	7.2
ESE													
SE	.4											.4	2.3
SSE	.1	.2										.4	3.7
S	1.2	.9										2.1	3.4
SSW	1.1	1.6	1.9	.7	.6	.1						6.0	8.3
SW	2.4	4.9	8.8	8.0	1.1	.9						26.1	9.7
WSW	.7	3.5	5.2	6.9	3.1	1.3	.2					21.0	11.9
W	1.1	2.1	2.1	2.8	.6	.2						9.0	9.4
WNW	.4	.4	.6	.1								1.4	6.1
NW	.1	.4	.8									1.3	7.4
NNW	.5	.1	.9	.2	.1							1.9	8.0
VARBL													
CALM												19.9	
	10.7	18.5	22.7	19.8	5.5	2.6	.2					100.0	7.4

TOTAL NUMBER OF OBSERVATIONS 849

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      FEB

STATION      STATION NAME      YEAR      MONTH

ALL WEATHER

CLASS

0300-0500

HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.5	.9	.1	.1	.1							1.8	5.7
NNE	.4	1.3	1.4	.8								3.9	8.0
NE	.5	.8	.4	.2								1.9	5.4
ENE	.6	.5	.2									1.3	4.0
E	.4	.1										.5	3.0
ESE	.1											.1	3.0
SE	.1											.1	2.0
SSE	.2	.2		.1								.6	5.0
S	.6	.9	.4									1.9	4.6
SSW	2.1	1.6	1.6	1.4	.1							6.9	6.9
SW	2.6	3.9	10.2	7.8	1.8	.2	.2					26.7	9.8
WSW	.8	3.5	4.9	6.5	3.2	.7	.4					20.0	11.7
W	1.3	2.7	2.2	2.5	1.2	.2						10.1	9.5
WNW	.9	.7	.6	.2								2.5	5.8
NW	.5	.7	.8	.2								2.2	6.6
NNW	.1	.9	.1	.1	.1							1.4	6.8
VARBL													
CALM	X	X	X	X	X	X	X	X	X	X	X	18.0	
	11.7	19.0	23.1	20.0	6.5	1.2	.6					100.0	7.5

TOTAL NUMBER OF OBSERVATIONS      849

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALNSTROM AFB MT/GREAT FALLS 68-77 FEB  
STATION NAME YEARS MONTH

ALL WEATHER  
CLASS

0600-1800  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.5	.9	.5	.1								2.0	5.5
NNE	.7	.9	.6	1.1								3.3	7.9
NE	.5	1.5	.4	.5								2.8	6.3
ENE		.4	.1									.5	5.8
E	.1	.2										.4	4.3
ESE			.1									.1	7.0
SE	.1	.1										.2	3.5
SSE	.2	.4										.6	3.6
S	.9	.9	.7	.2								2.8	5.4
SSW	1.1	2.2	1.3	1.9	.9	.1						7.5	9.2
SW	2.1	4.6	8.0	8.0	.9	.4						24.0	9.5
WSW	2.1	3.1	5.8	6.6	2.1	.7						20.4	10.1
W	1.4	3.7	3.1	2.4	.4	.1						11.0	7.2
WNW	.2	.6	.4	.5								1.6	6.8
NW	1.1	.5	.5	.1	.2	.1						2.5	7.1
NNW	.6	.6	.2	.1								1.5	5.1
VARBL													
CALM												18.7	
	11.7	20.6	21.6	21.4	4.6	1.4						100.0	7.2

TOTAL NUMBER OF OBSERVATIONS 849



DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112 STATION NAME: MALMSTROM AFB MT/GREAT FALLS YEARS: 68-77 MONTH: FEB  
 CLASS: ALL WEATHER HOUR: 0900-1100  
 CONDITION: \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.5	1.1	.7	.6	.1							2.9	7.7
NNE	1.3	1.3	1.1	1.1								4.7	6.9
NE	.5	1.3	.8	.9								3.5	7.7
ENE	.8	1.1	.4	.2								2.5	5.2
E	.2	.1										.4	3.7
ESE		.1										.1	4.0
SE	.1	.1										.2	3.5
SSE	.5	.2										.7	3.7
S	.1	.4	.5	.1	.2							1.3	9.2
SSW	.8	.2	.8	1.2	1.1							4.1	11.7
SW	1.5	1.9	4.8	10.5	3.4	1.1	.4	.1				23.7	12.7
WSW	1.1	2.0	6.7	8.5	3.6	1.5	.5					22.9	12.6
W	1.8	1.9	2.2	2.6	1.1	.9	.2					10.7	11.1
WNW	.7	.5	.7	.4	.1							2.4	7.0
NW	.6	.5	.5									1.5	5.2
NNW	.4	.8	.7	.1	.1							2.1	6.6
VARBL													
CALM												16.3	
	10.5	13.4	19.9	26.1	8.7	3.5	1.1	.1				100.0	9.1

TOTAL NUMBER OF OBSERVATIONS 849

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 FEB  
STATION STATION NAME YEARS MONTH  
 ALL WEATHER 1200-1400  
CLASS HOURS (L.S.T.)  
 \_\_\_\_\_  
CONDITION  
 \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥56	%	MEAN WIND SPEED
N	.8	1.5	1.9	.5								4.7	6.8
NNE	.9	2.1	1.8	.9								5.8	6.6
NE	.9	2.4	1.6	.5								5.4	6.5
ENE	1.1	1.4	.1	.1	.1							2.8	4.9
E	1.2	.6	.2									2.0	3.9
ESE			.1									.1	9.0
SE	.1		.2									.4	6.7
SSE	.1											.1	2.0
S	.2	.1	.4	.1								.8	6.3
SSW	.4	.8	.7	1.8	.8	.4	.1					4.9	12.3
SW	.2	.9	3.8	8.4	3.3	1.6	.4					18.6	14.2
WSW	.6	2.0	3.4	7.7	5.2	2.7	.9	.2				22.7	15.3
W	.5	1.1	3.4	4.0	1.9	1.	.2	.1				12.8	14.0
WNW	.4	.9	.9	.7	.5	.4	.1					3.9	11.3
NW	.2	.8	.5	.2	.1	.1						2.0	8.6
NNW	1.3	1.1	1.1	.5								3.9	6.2
VARBL													
CALM												9.0	
	9.0	15.8	20.1	25.3	11.9	6.8	1.8	.4				100.0	10.7

TOTAL NUMBER OF OBSERVATIONS 849

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/HAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      FEB  
STATION      STATION NAME      YEARS      MONTH  


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ALL WEATHER      1500-1700  
CLASS      HOURS (L.S.T.)  


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CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.5	2.6	1.2	.8								6.1	5.9
NNE	.8	3.3	1.3	.5	.2							6.1	6.5
NE	1.3	3.5	2.4	.9								8.1	6.2
ENE	1.3	2.0	.2									3.5	4.2
E	1.6	.8		.1								2.6	3.7
ESE		.1	.4									.5	7.0
SE		.1	.1									.2	8.0
SSE	.1											.1	2.0
S	.5	.5	.4	.4	.1							1.8	7.4
SSW	.4	.7	1.4	1.2	.5							4.1	9.9
SW	.8	2.2	6.8	5.3	3.3	.6						19.1	11.7
WSW	.2	.9	4.2	8.0	3.2	1.6	.2	.1				18.6	14.1
W	.2	.8	2.4	2.9	2.1	1.4	.1					10.0	14.3
WNW	.1	1.3	.7	.9	.9	.1						4.1	11.6
NW	.5	.9	.5	.7		.1						2.7	8.1
NNW	.8	1.4	1.3	.9								4.5	7.5
VARBL													
CALM	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	7.8	
	10.2	21.3	23.2	22.7	10.4	3.9	.4	.1				100.0	9.4

TOTAL NUMBER OF OBSERVATIONS      849

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112 STATION NAME: MALMSTROM AFB MT/GREAT FALLS YEARS: 68-77 MONTH: FEB  
 CLASS: ALL WEATHER HOURS (L.S.T.): 1800-2000  
 CONDITION: \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.5	1.4	1.2	.2								4.4	5.0
NNE	1.8	2.2	1.9	.4	.1							6.4	5.9
NE	1.1	1.9	1.9	.6								5.4	6.3
ENE	.7	1.3										2.0	3.9
E	.5	.4										.8	3.3
ESE	.2											.2	3.0
SE	.1	.1	.1	.1								.5	7.0
SSE	.5	.2	.1									.8	3.9
S	.5	2.0	.6	.2	.1							3.4	5.8
SSW	1.2	4.2	2.7	1.5	.1							9.8	7.2
SW	.6	3.3	6.2	4.5	.8	.7	.1					16.3	10.4
WSW	.4	2.1	4.1	6.1	2.6	.2						15.5	11.8
W	.9	1.3	3.7	4.1	.2	.1						10.4	10.0
WNW	.7	1.3	1.1	.4								3.4	6.6
NW	.7	1.1	.7	.4								2.8	6.3
NNW	.2	.4	.1	.8								1.5	9.7
VARBL													
CALM												16.4	
	11.5	23.2	24.4	19.3	4.0	1.1	.1					100.0	7.1

TOTAL NUMBER OF OBSERVATIONS 849

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 FEB  
STATION STATION NAME YEARS MONTH

ALL WEATHER  
CLASS

2100-2300  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.4	.4	1.2	.6	.2							2.7	9.5
NNE	1.3	1.6	1.3	.2								4.5	5.7
NE	1.4	1.4	.8	.4								4.0	5.4
ENE	.5		.1									.6	4.0
E	.1		.1									.2	6.0
ESE	.2		.1									.4	4.3
SE		.1	.1									.2	6.0
SSE	.2	.2	.2									.7	4.8
S	.8	1.6	.5	.2	.1							3.3	5.7
SSW	1.3	2.9	2.6	1.4	.6	.1						9.0	8.1
SW	.7	4.6	9.4	5.1	2.0	.4						22.1	9.9
WSW	.8	3.3	5.5	6.8	1.3	.6						18.4	10.8
W	.9	2.6	1.9	2.6	.5	.1						8.6	8.9
WNW	.7	.7	.6	.1	.1							2.2	6.1
NW	.4	.8	1.1	.2								2.5	6.8
NNW	.6		.5	.1								1.2	6.5
VARBL													
CALM												19.4	
	10.4	20.4	26.0	17.8	4.8	1.2						100.0	7.1

TOTAL NUMBER OF OBSERVATIONS 849

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112 STATION NAME: MALMSTROM AFB MT/GREAT FALLS YEARS: 8-77 MONTH: FEB

CLASS: ALL WEATHER MONTH: ALL

CONDITION: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	1.2	.9	.4	.1							3.4	6.5
NNE	1.0	1.8	1.3	.6	.0							4.7	6.6
NE	.9	1.8	1.1	.5	.0							4.3	6.2
ENE	.7	.9	.2	.0	.0							1.8	4.5
E	.5	.3	.1	.0								.9	4.0
ESE	.1	.0	.1									.2	5.4
SE	.1	.1	.1	.0								.3	5.2
SSE	.3	.2	.0	.0								.5	4.0
S	.6	.9	.4	.2	.1							2.2	5.7
SSW	1.0	1.8	1.6	1.4	.6	.1	.0					6.6	8.8
SW	1.4	3.3	7.3	7.2	2.1	.7	.1	.0				22.1	10.9
WSW	.8	2.6	5.0	7.1	2.9	1.2	.3	.0				19.9	12.4
W	1.0	2.0	2.6	3.0	1.0	.6	.1	.0				10.3	10.8
WNW	.5	.8	.7	.4	.2	.1	.0					2.7	8.3
NW	.5	.7	.7	.2	.0	.0						2.2	7.1
NNW	.6	.7	.6	.4	.0							2.3	7.0
VARBL													
CALM												15.7	
	10.7	19.0	22.6	21.6	7.1	2.7	.5	.1				100.0	8.2

TOTAL NUMBER OF OBSERVATIONS 6792

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      64-77      MAR  
STATION      STATION NAME      YEARS      MONTH

ALL WEATHER  
CLASS

0000-0200  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	.9	1.0	.6		.1						3.3	7.9
NNE	1.1	1.4	1.0	.6								4.1	6.1
NE	.2	1.6	.6	.2								2.7	6.4
ENE	.3	.5										.9	4.1
E	.2	.1	.1									.4	4.5
ESE		.2										.2	4.0
SE	.2	.5										.8	3.7
SSE	.2	.4	.1									.8	4.4
S	.8	1.5	.5									2.8	5.2
SSW	1.6	4.3	1.5	1.5	.1							9.0	6.5
SW	1.8	6.6	8.8	5.4	.6							23.2	8.5
WSW	1.3	4.7	5.3	7.7	1.7	.8	.1					21.6	10.6
W	.6	2.3	2.6	1.2	.2	.1						7.0	8.0
WNW	.2	.9	.4	.1								1.6	6.2
NW	.5	.4	1.0	.2								2.2	6.6
NNW	.5	.8	.4	.2	.2	.2						2.4	9.2
VARBL													
CALM												17.1	
	10.4	27.1	23.3	17.8	2.9	1.2	.1					100.0	6.8

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALMSTRUM AFB MT/GREAT FALLS  
STATION NAME

66-77  
YEARS

MAR  
MONTH

ALL WEATHER  
CLASS

0300-0500  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.3	1.0	1.0	.3	.2	.1						2.9	8.4
NNE	.9	1.9	1.0	.5								4.3	6.2
NE	.6	.4	.6	.3								2.0	6.4
ENE	.9	.2										1.1	2.6
E	.1	.2										.3	3.3
ESE													
SE	.1	.4		.1								.6	5.8
SSE	1.0	.3	.1									1.4	3.3
S	1.4	.8	.5	.3								3.0	5.1
SSW	1.4	4.0	1.7	.6								7.7	6.1
SW	2.3	6.8	8.4	4.8	1.1	.1						23.4	8.5
WSW	1.4	3.3	7.7	6.3	1.9	.8						21.5	10.2
W	1.2	1.8	2.4	1.4	.6		.1					7.5	8.5
WNW	.8	1.1	.5	.4								2.8	6.0
NW	.1	.8	.5	.1								1.5	7.1
NNW	.6	.3	.5	.4		.2						2.2	8.5
VARBL													
CAIM												17.6	
	13.6	23.3	25.1	15.8	3.9	1.2	.1					100.0	6.7

TOTAL NUMBER OF OBSERVATIONS 930



DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112

MALMSTRQM AFB MT/GREAT FALLS

68-77

MAR

STATION

STATION NAME

YEARS

MONTH

ALL WEATHER

0600-0800

CLASS

HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.4	.6	.8	.8	.4							3.0	9.6
NNE	.8	1.7	1.3	.5	.2							4.5	7.5
NE	.6	1.1	.8	.2								2.7	5.8
ENE	1.0	.4	.1									1.5	3.4
E	.1	.4										.5	4.0
ESE	.1											.1	2.0
SE	.1											.1	2.0
SSE	.2	.1	.1	.1								.5	6.0
S	1.2	1.1	.8	.3								3.3	5.5
SSW	1.5	3.4	1.8	1.1								7.8	6.6
SW	1.9	5.8	9.9	5.4	1.3	.2						24.5	8.9
WSW	1.2	4.4	8.2	7.6	1.8	.6	.1					24.0	10.4
W	1.0	2.6	1.8	1.0	.1	.2						6.7	7.6
WNW	.3	.9	.4	.4	.1	.2						2.4	9.1
NW	.3	.6	.3	.2								1.5	6.4
NNW	.3	.2	.6	.3								1.5	7.7
VARBL													
CALM												15.3	
	11.1	23.4	26.9	18.0	4.0	1.3	.1					100.0	7.2

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTRUM AFB MT/GREAT FALLS      68-77      MAR  
STATION      STATION NAME      YEARS      MONTH

ALL WEATHER      0900-1100  
CLASS      HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.9	.5	1.8	2.2	.3							5.7	9.4
NNE	1.3	.9	1.6	.6	.3							4.7	7.3
NE	1.1	.9	1.0	.1								3.0	5.4
ENE	1.2	.8		.1								2.0	3.7
E	.4	.2		.1								.8	4.6
ESE	.1	.1										.2	3.0
SE			.1									.1	7.0
SSE	.3	.1										.4	2.8
S	.4	.2	.2	.1	.1							1.1	7.0
SSW	1.1	1.4	1.2	2.6	1.5	.1						7.8	11.0
SW	.5	2.3	3.3	7.7	4.2	1.0						19.0	13.0
WSW	.5	2.0	3.9	11.9	4.8	2.5	.5					26.2	14.4
W	.3	2.8	2.2	3.3	2.4	1.0	.2					12.2	12.6
WNW	.2	1.1	.9	.5	.1							2.8	8.1
NW	.2	1.2	.9	.1	.1	.1						2.6	7.5
NNW	.3	.6	.6	.3	.2	.1						2.3	8.8
VARBL													
CALM												9.0	
	8.9	15.1	17.6	29.8	14.1	4.7	.8					100.0	10.5

TOTAL NUMBER OF OBSERVATIONS      930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

66-77  
YEARS

MAR  
MONTH

ALL WEATHER  
CLASS

1200-1400  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.8	.8	1.3	3.3	.5							6.7	10.9
NNE	.1	2.0	1.8	.9	.2							5.1	8.1
NE	1.2	1.9	1.5	.8								5.4	6.6
ENE	.6	1.2	.2	.1								2.2	4.7
E	.6	.2	.1									1.0	3.3
ESE	.1	.2										.3	4.0
SE	.2											.2	2.0
SSE	.3	.2	.2									.8	5.0
S	.3	.4	.3	.1	.3							1.5	8.1
SSW	.1	.8	1.0	1.8	.9	.3						4.8	12.6
SW	.2	1.0	4.3	4.7	4.3	1.2	.2					15.9	14.0
WSW	.4	1.7	3.1	6.3	6.6	3.7	.6	.2				22.7	16.0
W	.3	1.4	2.3	4.3	2.6	3.0	.2					14.1	14.8
WNW	.5	.8	1.9	1.6	.3							5.4	9.8
NW	.6	.6	1.3	.5	.3	.1						3.5	9.0
NNW	.3	1.0	1.8	1.8	.3							5.3	9.9
VARBL													
CALM												5.3	
	6.9	14.2	21.2	26.3	16.6	8.3	1.1	.2				100.0	11.7

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112 STATION NAME: MALMSTROM AFB MT/GREAT FALLS YEARS: 68-77 MONTH: MAR  
 CLASS: ALL WEATHER HOURS (L.S.T.): 1500-1700  
 CONDITION: \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.3	1.5	2.0	2.3	1.0	.1						8.2	9.7
NNE	1.3	1.9	1.8	2.0	.4	.1						7.6	8.4
NE	.8	1.8	2.6	.4								5.6	6.7
ENE	.4	1.6	.5	.1								2.7	5.7
E	.3	.5	.5									1.4	5.6
ESE	.2		.2									.4	6.0
SE	.3	.1	.4	.1								1.0	6.4
SSE	.2	.1	.4	.1								.9	6.6
S	.4	.3	.6	1.0	.1							2.5	9.0
SSW	.3	1.4	1.9	1.8	.8							6.2	10.3
SW	.5	1.7	1.8	5.8	2.2	.8						12.8	12.8
WSW	.2	1.1	2.9	7.5	4.0	2.2	.6	.1				18.6	15.4
W	.3	.8	2.3	4.0	3.8	2.4						13.4	15.4
WNW	.2	.3	1.6	1.4	.8	.3						4.6	12.0
NW	1.1	.6	1.7	1.5	.2							5.2	8.4
NNW	.4	1.4	1.3	1.1	.2							4.4	8.5
VARBL													
CALM												4.5	
	8.4	15.3	22.8	29.1	13.3	5.8	.6	.1				100.0	11.0

TOTAL NUMBER OF OBSERVATIONS: 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112 STATION NAME: MALMSTROM AFB MT/GREAT FALLS YEARS: 68-77 MONTH: MAR  
 CLASS: ALL WEATHER HOURS (L.S.T.): 1800-2000  
 CONDITION: \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥56	%	MEAN WIND SPEED
N	.6	2.0	1.8	1.7	.4	.1						6.8	9.1
NNE	1.1	2.6	1.9	1.3	.3							7.2	7.7
NE	1.6	2.2	1.5	.1								5.4	5.4
ENE	.8	.8	.2	.1								1.8	4.6
E	.8	.3										1.1	3.0
ESE	.2	.3										.5	3.8
SE	.2	.1	.1									.4	4.5
SSE	.4	.3		.1								.9	4.6
S	1.6	2.2	1.5	.6								5.9	6.0
SSW	.8	3.8	3.3	.8	.2							8.8	7.1
SW	.5	4.1	3.8	3.2	.9	.5						13.0	9.7
WSW	.3	1.7	5.1	6.8	.9	.2	.2					15.2	11.3
W	.2	1.4	4.0	5.6	1.7	.3		.1				13.3	11.9
WNW	.5	.3	.9	.8								2.5	8.2
NW	.1	.3	.4									.9	6.0
NNW	.8	1.6	.9	1.0	.3							4.5	7.7
VARB:													
CALM												11.8	
	10.5	24.0	25.4	22.0	4.7	1.2	.2	.1				100.0	7.8

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112      STATION NAME: MALMSTRÖM AFB MT/GREAT FALLS      YEARS: 68-77      MONTH: MAR  
 CLASS: ALL WEATHER      HOURS (L.S.T.): 2100-2300  
 CONDITION: \_\_\_\_\_

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.5	1.4	.9	.9	.2	.1						4.0	8.3
NNE	1.1	1.3	1.6	1.0	.3							5.3	7.7
NE	.6	2.2	1.3	.3								4.4	6.1
ENE	.2	.6										.9	4.4
E													
ESE	.1		.1									.2	6.0
SE	.1	1.3	.2	.1								1.7	5.7
SSE	.2	.6	.2									1.1	4.9
S	1.6	2.9	1.6	.2								6.3	5.2
SSW	.8	4.7	2.0	.6	.4							8.6	6.8
SW	1.0	5.5	7.8	2.9	1.0	.1						18.3	8.5
WSW	.4	2.5	6.3	8.1	.9	.4	.2					18.8	10.9
W	.8	2.0	3.2	2.7	.2							8.9	9.0
WNW	.2	.6	.4	.4								1.7	6.9
NW	.4	.6	.6	.1								1.8	6.0
NNW	.6	1.0	1.2	.3	.2							3.3	7.3
VARBL													
CALM												14.6	
	8.7	27.3	27.6	17.6	3.2	.6	.2					100.0	7.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTRUM AFB MT/GREAT FALLS      68-77      MAR

STATION      STATION NAME      YEARS      MONTH

ALL WEATHER      ALL

CLASS      HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.7	1.1	1.3	1.5	.4	.1						5.1	9.4
NNE	.9	1.7	1.5	.9	.2	.0						5.3	7.5
NE	.8	1.5	1.2	.3								3.9	6.1
ENE	.7	.8	.1	.1								1.6	4.4
E	.3	.3	.1	.0								.7	4.2
ESE	.1	.1	.0									.3	4.4
SE	.2	.3	.1	.0								.6	5.2
SSE	.4	.3	.1	.0								.8	4.7
S	1.0	1.2	.8	.3	.1							3.3	6.0
SSW	.9	3.0	1.8	1.4	.5	.1						7.6	8.0
SW	1.1	4.2	6.0	5.0	1.9	.5	.0					18.8	10.2
WSW	.7	2.7	5.3	7.8	2.8	1.4	.3	.0				21.1	12.5
W	.6	1.9	2.6	2.9	1.5	.9	.1	.0				10.4	11.8
WNW	.4	.7	.9	.7	.2	.1						3.0	8.9
NW	.4	.7	.8	.3	.1	.0						2.4	7.6
NNW	.5	.9	.9	.7	.2	.1						3.2	8.5
VARBL													
CALM												11.9	
	9.7	21.2	23.7	22.1	7.8	3.0	.4	.1				100.0	8.6

TOTAL NUMBER OF OBSERVATIONS      7440

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 APR  
STATION STATION NAME YEARS MONTH

ALL WEATHER 0000-0200  
CLASS HOURS (L.S.T.)

CONDITIO

SPEED (KNTS) DIR.	1-3	4-5	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.7	1.1	1.0	.6	.1							3.4	7.5
NNE	.9	1.3	.7	1.1	.6							4.6	8.4
NE	.7	.6	.9	.9	.3							3.3	9.0
ENE	.4	.4		.3	.2							1.4	8.6
E	.3	.2										.6	3.4
ESE		.7	.1									.8	5.7
SE	.3	.3	1.0									1.7	6.7
SSE	.8	1.0	1.1	.2								3.1	6.0
S	2.2	3.7	1.7	.1								7.7	5.0
SSW	1.6	4.2	2.0	.4								8.2	5.6
SW	2.3	5.6	6.3	2.8	.2	.1						17.3	7.6
WSW	.9	3.9	6.1	5.2	.3	.2						16.7	9.3
W	1.0	2.6	2.6	2.0	.2							8.3	8.3
WNW	.2	.9	1.4	.3								2.9	7.7
NW	.9	.7	.9	.4	.1							3.0	6.7
NNW	.3	.7	.9	.6								2.4	7.9
VARBL													
CALM												14.6	
	13.6	27.8	26.7	15.0	2.1	.3						100.0	6.4

TOTAL NUMBER OF OBSERVATIONS 900



DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112	MALMSTROM AFB MT/GREAT FALLS	68-77	APR
STATION	STATION NAME	YEARS	MONTH
ALL WEATHER			0300-0500
CLASS			HOURS (L.S.T.)
CONDITION			

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.7	1.1	1.3	.2	.3							3.7	7.3
NNE	.9	1.3	.9	.7	.3							4.1	7.5
NE	.6	.7	.7	.6	.3							2.8	8.8
ENE	.2	.4	.2	.2	.3							1.4	9.5
E	.2	.8										1.0	3.8
ESE	.2	.3										.6	3.6
SE	.4											.4	2.0
SSE	.8	1.0	.1									1.9	3.8
S	2.0	2.9	.8	.2								5.9	4.6
SSW	2.3	3.4	1.7	.8								8.2	5.6
SW	2.8	5.1	7.3	3.4	.2							18.9	7.6
WSW	1.4	4.8	6.8	3.8	1.2		.1					18.1	8.9
W	.8	2.8	3.1	1.8	.2							8.7	7.9
WNW	.7	1.3	1.1	.3								3.4	6.3
NW	.4	.8	.7	.3								2.2	6.9
NNW	.1	1.0	1.0	.2								2.3	7.0
VARBL													
CALM												16.3	
	14.6	27.8	25.7	12.6	3.0		.1					100.0	6.1

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

APR  
MONTH

ALL WEATHER  
CLASS

0600-0800  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥56	%	MEAN WIND SPEED
N	.8	1.3	1.4	.6	.2	.4						4.8	8.9
NNE	.3	1.4	1.1	.8	.3							4.0	8.8
NE	.4	1.2	.8	.4	.1	.2						3.2	8.4
ENE	.1	.1		.1								.3	6.7
E	.3	.2	.1									.7	4.0
ESE	.1		.1	.1								.3	6.7
SE	.3	.3										.7	3.7
SSE	.4	.2	.2									.9	4.3
S	2.3	1.7	.3	.4	.1							4.9	5.2
SSW	1.0	2.1	1.6	1.0	.2							5.9	7.5
SW	2.4	4.7	5.6	4.8	1.0	.4						18.9	9.0
WSW	1.1	4.8	5.3	5.1	1.8	.3						18.4	9.9
W	.9	3.0	2.3	1.9	.6	.2						8.9	8.6
WNW	.7	1.1	1.3	.1								3.2	5.9
NW	.4	.4	1.0	.7	.1							2.7	8.5
NNW	.6	1.1	1.1	.9	.2							3.9	8.2
VARBL													
CALM												18.3	
	12.3	23.8	22.3	16.9	4.7	1.7						100.0	6.9

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 24112 STATION NAME MALMSTROM AFB MT/GREAT FALLS YEARS 68-77 MONTH APR  
 CLASS ALL WEATHER HOURS (L.S.T.) 0900-1100  
 CONDITION \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.1	1.2	1.9	1.8	.6	.2						6.8	9.2
NNE	1.1	1.2	1.0	1.4	.2							5.0	8.4
NE	.4	1.3	.4	.3	.2	.2						3.0	8.6
ENE	.1	.2	.3	.1		.1						.9	9.0
E	.2	.6	.1	.2								1.1	6.3
ESE	.4	.1										.6	2.6
SE	.1	.3										.4	4.0
SSE	.6	.1										.7	2.8
S	.6		.6	.4	.1							1.7	8.5
SSW	.7	.4	1.9	1.9	.8							5.7	11.1
SW	1.0	1.4	3.9	5.2	1.1	.6						13.2	11.2
WSW	.9	1.6	4.8	7.8	3.6	1.9	.3	.2				21.0	13.6
W	2.0	2.6	6.2	4.0	1.9	1.2	.2					18.1	10.8
WNW	.3	.7	.6	1.7	.1	.2						3.6	10.3
NW	.6	1.4	1.0	.8								3.8	7.3
NNW	.3	1.1	2.2	1.8	.1							5.6	9.4
VARBL													
CALM												9.0	
	10.4	14.3	24.9	27.4	8.7	4.4	.6	.2				100.0	9.7

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 24112 STATION NAME MALMSTROM AFB MT/GREAT FALLS YEARS 68-77 MONTH APR  
 CLASS ALL WEATHER HOURS (L.H.T.) 1200-1400  
 CONDITION \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.7	2.9	2.6	2.7	1.0	.2						10.0	9.8
NNE	.6	1.1	1.2	1.0								3.9	7.9
NE	.9	.9	1.2	.6	.2	.1						3.9	8.0
ENE	.3	.4	.6	.6	.1	.3						2.3	10.6
E	.9	1.0	.2	.2	.1							2.4	5.6
ESE	.3	.7	.1									1.1	4.5
SE	.4	.1	.1									.7	3.5
SSE	.2	.6		.1								.9	4.9
S	.3	1.3	.8	.9	.1							3.4	8.4
SSW	.6	.3	1.7	2.0	.6	.1						5.2	11.0
SW	.9	1.6	3.7	4.0	1.0	.4						11.6	10.8
WSW	.6	1.0	4.2	5.8	2.8	2.0	.9					17.2	14.3
W	1.2	2.8	5.4	4.0	3.1	1.6	.3					18.4	12.3
WNW	.3	1.1	1.6	.9	.1							4.0	8.5
NW	.7	.8	1.6	.7	.3	.1						4.1	9.0
NNW	.8	1.3	2.1	1.2	.4							5.9	8.7
VARBL													
CALM												4.9	
	9.7	17.9	27.0	24.6	9.9	4.9	1.2					100.0	10.2

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MARMSTROM AFB MT/GREAT FALLS 68-77 APR  
STATION STATION NAME YEARS MONTH  
 ALL WEATHER 1500-1700  
CLASS HOURS (L.S.T.)  
 \_\_\_\_\_  
CONDITION  
 \_\_\_\_\_

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-53	≥56	%	MEAN WIND SPEED
N	.6	1.4	2.6	3.0	.8							8.3	10.4
NNE	.3	.8	2.2	.4	.7							4.4	9.5
NE	1.2	1.1	.9	1.2	.3	.2						5.0	8.9
ENE	.2	.7	1.6	.7	.3	.1						3.6	9.8
E	.3	1.1	.9	.3	.3	.1						3.1	8.6
ESE	.3	.2	.7									1.2	5.4
SE	.2	.1	.6	.2								1.1	7.6
SSE	.8	.9	.6	.3								2.6	5.8
S	.9	1.3	.8	.9								3.9	6.7
SSW	.1	1.1	2.6	2.0	.1							5.9	9.5
SW	.9	1.1	3.3	3.3	.8	.2						9.7	10.5
WSW	.1	.8	2.8	4.4	3.4	2.0	.3					13.9	15.4
W	1.1	2.1	4.9	5.7	2.9	1.4	.1					18.2	12.5
WNW	.3	.7	1.9	.8	.7	.1						4.4	10.5
NW	.6	.7	1.9	.8	.3	.2						4.4	9.5
NNW	.1	1.6	2.7	1.8	.6	.1						6.8	9.9
VARBL													
CALM												3.4	
	8.1	15.7	30.7	25.9	11.2	4.6	.4					100.0	10.5

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112 STATION NAME: MALMSTROM AFB MT/GREAT FALLS YEARS: 66-77 MONTH: APR  
 CLASS: . ALL WEATHER HOURS (L.S.T.): 1800-2000  
 CONDITION: \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥56	%	MEAN WIND SPEED
N	.6	1.8	3.0	1.6	.3							7.2	8.7
NNE	.8	1.7	1.7	1.3								5.4	7.5
NE	.6	1.7	1.9	1.0	.4							5.6	8.7
ENE	.7	1.1	1.1	.7	.3							3.9	8.2
E	1.1	.9	.9									2.9	4.9
ESE	.4	.3	.7	.4	.1							2.0	8.0
SE	.6	1.2	.9	.1								2.8	6.0
SSE	.4	.9	1.0	.1								2.4	6.4
S	.7	2.9	1.6		.1							5.2	5.7
SSW	.2	3.0	1.6	.4	.1							5.3	6.7
SW	1.0	3.8	2.8	1.7	.2							9.4	7.6
WSW	.2	1.9	2.7	5.2	2.2	.7	.1					13.0	12.8
W	.4	2.4	3.1	4.6	2.2	.6						13.3	11.8
WNW	.2	.8	1.2	1.3	.4	.1						4.1	10.4
NW	.7	1.7	1.4	.9								4.7	7.3
NNW	.1	.8	.7	.6								4.3	9.0
VARBL													
CALM												8.3	
	9.2	26.8	26.3	21.3	6.6	1.5	.1					100.0	8.2

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTRUM AFB MT/GREAT FALLS      68-77      APR  
STATION      STATION NAME      YEARS      MONTH

ALL WEATHER      2100-2300  
CLASS      HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.7	1.0	1.2	.7	.1							3.7	7.8
NNE	.8	.9	1.0	1.3								4.0	7.8
NE	.9	1.7	1.2	1.2								5.0	7.3
ENE	.7	.8	.6	.3	.1	.1						2.6	7.4
E	.7	.6	.4									1.7	4.9
ESE	.4	.6	.2	.3								1.6	6.5
SE	.2	1.1	.4	.4								2.2	6.7
SSE	1.1	1.7	2.1	.3	.1							5.3	6.8
S	1.2	4.9	1.8	.1	.1							8.1	5.4
SSW	1.1	4.0	1.6	.2								6.9	5.5
SW	.6	5.2	6.4	1.6		.1						13.9	7.7
WSW	.4	4.7	3.2	5.3	.8							14.4	9.4
W	.3	1.3	3.0	2.8	.6	.1						8.1	10.2
WNW	.8	1.1	1.9	.4	.4							4.7	8.1
NW	.7	.9	1.4	.2								3.2	6.6
NNW	.9	.8	1.3	1.3	.1							4.4	8.3
VARBL													
CALM												10.2	
	11.4	31.1	27.9	16.7	2.3	.3						100.0	6.9

TOTAL NUMBER OF OBSERVATIONS      900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

APR  
MONTH

ALL WEATHER  
CLASS

ALL  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.7	1.5	1.9	1.4	.4	.1						6.0	9.0
NNE	.7	1.2	1.2	1.0	.3							4.4	8.2
NE	.7	1.1	1.0	.8	.2	.1						4.0	8.4
ENE	.3	.5	.5	.4	.2	.1						2.1	8.9
E	.5	.7	.3	.1	.1	.0						1.7	5.8
ESE	.3	.4	.2	.1	.0							1.0	5.9
SE	.3	.4	.4	.1								1.2	5.8
SSE	.6	.8	.6	.1	.0							2.2	5.8
S	1.3	2.3	1.0	.4	.1							5.1	5.7
SSW	.9	2.3	1.8	1.1	.2	.0						6.4	7.5
SW	1.5	3.6	4.9	3.3	.6	.2						14.1	8.8
WSW	.7	2.9	4.5	5.3	2.0	.9	.2	.0				16.6	11.6
W	1.0	2.4	3.8	3.3	1.5	.6	.1					12.8	10.8
WNW	.4	1.0	1.4	.7	.2	.1						3.8	8.6
NW	.6	.9	1.2	.6	.1	.0						3.5	7.8
NNW	.5	1.0	1.5	1.2	.2	.0						4.5	8.8
VARBL													
CALM												10.6	
	11.2	23.1	26.4	20.0	6.1	2.2	.3	.0				100.0	8.1

TOTAL NUMBER OF OBSERVATIONS

7200



DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

MAY  
MONTH

ALL WEATHER  
CLASS

0000-0200  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥56	%	MEAN WIND SPEED
N	.6	1.1	1.0	.4		.1						3.2	7.1
NNE	.4	1.4	.5	.5	.2							3.1	7.7
NE	.9	.6	1.4	.5	.2							3.7	7.4
ENE	.3											.3	2.0
E	.6	1.0	.1									1.7	4.1
ESE	.5	1.0	.3	.1								1.9	5.2
SE	.3	1.0	.4	.2								1.9	6.3
SSE	1.0	1.4	.3	.1								2.8	4.6
S	2.5	4.9	.9	.1								8.4	4.6
SSW	1.6	6.7	1.8	.4								10.5	5.4
SW	1.9	8.5	4.6	1.7	.3							17.1	6.6
WSW	1.0	5.1	6.2	2.2	.4	.2						15.1	8.0
W	.9	1.9	2.4	1.1	.2							6.5	7.7
WNW	.2	1.3	.8	.3								2.6	6.9
NW	.1	.8	.8	.3								1.9	8.1
NNW	.2	.5	.3	.4								1.5	7.8
VARBL													
CALM												17.7	
	13.1	37.1	21.8	8.5	1.4	.3						100.0	5.4

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

MAY  
MONTH

ALL WEATHER  
CLASS

0300-0500  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.4	.9	1.3	.5								3.1	7.4
NNE	.9	1.1	1.0	.5	.2							3.7	7.2
NE	.5	.9	.3	.2								1.9	5.5
ENE	.6	.2	.1	.1								1.1	4.2
E	.2	.5										.8	4.1
ESE	.3	.2	.1									.6	4.2
SE	.5	.5	.1	.1								1.3	4.8
SSE	1.5	.8	.2									2.5	3.4
S	2.4	2.8	.4	.1								5.7	4.1
SSW	2.9	3.5	2.7	.4								9.6	5.5
SW	2.9	5.9	7.1	1.5	.9							18.3	7.2
WSW	1.8	5.6	5.1	2.6	.1	.1						15.3	7.5
W	1.7	3.4	1.6	.6	.1							7.5	6.0
WNW	.5	.6	1.0	.8	.1							3.0	8.4
NW	.4	1.0	.6	.3	.1							2.5	7.1
NNW	.1	1.0	.4	.6								2.2	8.2
VARBL													
CALM												21.1	
	17.8	28.9	22.0	8.5	1.5	.1						100.0	5.1

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 24112 STATION NAME MALMSTROM AFB MT/GREAT FALLS YEARS 68-77 MONTH MAY  
 CLASS ALL WEATHER HOURS (L.S.T.) 0600-0800  
 CONDITION \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.9	.6	1.8	1.0								4.3	8.0
NNE	1.2	1.2	.8	1.1	.1							4.3	7.5
NE	.6	.5	.2	.3	.1							1.8	6.8
ENE	.8	.3		.1	.1							1.3	4.8
E	.8	.3										1.1	2.9
ESE	.3		.1	.1								.5	3.6
SE	.4	.3	.8	.1								1.6	6.5
SSE	.8	.5	.1	.1								1.5	4.8
S	1.5	2.0	.2	.3								4.1	4.6
SSW	1.7	1.8	1.9	.6								5.1	6.2
SW	2.3	2.9	7.4	3.3	1.1	.4						17.4	8.9
WSW	1.5	3.4	4.8	5.5	1.4							16.7	9.8
W	1.8	3.8	2.7	1.7	.1	.1						10.2	7.0
WNW	.5	.8	.4	.5	.1							2.4	7.8
NW	.6	.9	.9	.3	.2							2.9	7.6
NNW	.1	.9	1.1	.4	.1							2.6	8.4
VARBL													
CALM												21.2	
	15.8	20.3	23.2	15.6	3.3	.5						100.0	6.2

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 AF  
 HER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALMSTRÖM AFB MT/GREAT FALLS 68-77 MAY  
STATION STATION NAME YEARS MONTH  
 ALL WEATHER 0900-1100  
CLASS HOURS (L.S.T.)  
 \_\_\_\_\_  
CONDITION  
 \_\_\_\_\_

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	1.4	1.3	2.0	1.2								5.9	7.1
NNE	.5	1.8	1.4	1.1	.2							5.1	8.0
NE	.5	1.7	1.6	.9	.1							4.8	7.7
ENE	.3	1.1	.5	.4	.1	.1						2.6	8.1
E	.9	1.4	.4	.1								2.8	4.6
ESE	.3	.2										.5	3.2
SE	.1	.2	.1									.4	5.3
SSE		.5		.1								.6	6.2
S	.8	.5	.3	.1								1.7	4.1
SSW	.4	1.0	.1	.2	.1							1.8	5.1
SW	.9	1.6	3.3	4.8	1.6	.4						12.7	11.0
WSW	.9	1.9	4.0	7.6	2.4	1.3	.3					18.4	13.0
W	1.1	3.9	5.2	3.7	1.2	.9	.1					15.9	10.1
WNW	.8	2.4	2.2	.8	.3	.1						6.5	7.7
NW	.4	1.4	1.4	.6		.2						4.1	8.2
NNW	.5	1.3	1.6	1.0	.1							4.5	8.1
VARBL													
CALM												11.6	
	9.8	22.3	24.2	22.6	6.1	3.0	.4					100.0	8.4

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      MAY  
STATION      STATION NAME      YEARS      MONTH

ALL WEATHER      1200-1400  
CLASS      HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	2.5	2.5	1.5	.1							7.3	7.9
NNE	.5	1.5	1.3	.9	.3							4.5	8.1
NE	.6	1.3	2.3	1.6	.2							6.0	8.8
ENE	.4	1.4	1.1	1.2	.1							4.2	8.7
E	.5	2.5	.6	.4	.1							4.2	6.6
ESE	.3	1.2	.3	.3	.1							2.3	7.0
SE	.2	.3	.2									.8	5.1
SSE	.3	.3	.2									1.1	4.1
S	.4	1.0	.6									2.0	5.3
SSW	.3	1.4	.8	.6	.1							3.2	7.5
SW	1.0	1.9	2.6	3.0	1.3	.3						10.1	10.6
WSW	.3	1.6	3.1	6.1	2.6	1.0	.1					14.8	13.1
W	.6	3.0	4.6	4.4	2.5	1.2	.1					16.5	11.8
WNW	.6	1.9	2.3	.9	.3	.1	.1					6.2	8.3
NW	.3	1.4	1.3	.4	.6	.2						4.3	9.8
NNW	.4	1.2	1.5	1.8								4.9	8.7
VARBL													
CALM												7.5	
	8.1	24.4	25.3	23.2	8.4	2.8	.3					100.0	9.0

TOTAL NUMBER OF OBSERVATIONS      930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

MAY  
MONTH

ALL WEATHER  
CLASS

1500-1700  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.1	1.2	2.7	1.3								6.2	7.7
NNE	.3	1.6	2.0	1.2	.2							5.4	8.4
NE	.6	1.7	2.7	1.4								6.5	7.9
ENE	.1	1.3	1.4	1.0	.3							4.1	8.9
E	.3	2.0	1.1	.5	.2	.1						4.3	8.0
ESE	.5	1.2	1.1	1.0	.6							4.4	9.2
SE	.5	.6	.3	.3		.1						1.9	7.5
SSE	.1	.3	.2	.1								.8	6.7
S	.6	1.0	.9	.4	.2							3.1	7.6
SSW	.6	.8	1.8	.5	.3	.1						4.2	8.8
SW	.8	2.0	1.8	2.7	.6							8.0	9.5
WSW	.4	1.9	2.7	3.8	2.3	.8						11.8	12.4
W	.6	2.0	4.3	5.1	3.3	2.0						17.4	13.2
WNW	.5	1.5	2.0	1.7	1.0	.1						6.9	10.2
NW	.4	1.2	1.0	1.2	.3							4.1	9.3
NNW	.3	1.2	.9	1.4								3.8	8.7
VARBL													
CALM												7.2	
	0.1	21.6	26.9	23.5	9.5	3.2						100.0	9.3

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      MAY

STATION      STATION NAME      YEARS      MONTH

ALL WEATHER      1800-2000

CLASS      HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	1.5	2.3	1.3	.1							6.0	8.1
NNE	.8	1.2	1.5	.4								3.9	6.5
NE	1.3	3.0	2.7	.9	.1							8.0	6.9
ENE	.3	2.9	1.6	.9	.1							5.8	7.1
E	1.2	2.4	1.3	.8	.3							5.9	6.9
ESE	.4	.5	.9	1.1	.2							3.1	9.7
SE	.8	1.0	1.0	.8	.1	.1						3.7	8.0
SSE	.8	1.2	.4									2.4	4.9
S	.8	1.6	.4	.8	.2							3.8	7.3
SSW	1.4	2.3	1.0	.6	.1							5.4	6.5
SW	.4	2.0	2.4	.9	.2							5.9	7.6
WSW	.1	.8	1.1	2.6	.8	.3						5.6	12.3
W	.4	1.2	4.2	5.9	2.3	.6						14.6	12.0
WNW	.9	.9	2.2	2.5	1.0	.2						7.5	11.0
NW	.9	1.3	1.2	.3			.1					3.8	6.6
NNW	.2	.9	1.2	1.1								3.3	8.6
VARBL													
CALM												11.4	
	11.3	24.6	25.2	20.6	5.5	1.3	.1					100.0	7.7

TOTAL NUMBER OF OBSERVATIONS      930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112 STATION NAME: MALMSTROM AFB MT/GREAT FALLS YEARS: 68-77 MONTH: MAY  
 CLASS: ALL WEATHER HOURS (L.S.T.): 2100-2300  
 CONDITION: \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.9	.9	.9	.4								3.0	6.3
NNE	1.0	1.5	.9	.4		.1						3.9	6.8
NE	.4	1.4	.5	.9	.1							3.3	7.7
ENE	1.0	1.1	1.2									3.2	5.3
E	1.0	.6	.1	.3								2.0	5.3
ESE	.8	.9	.5	.4								2.6	6.3
SE	.9	.9	.9	.9								3.4	7.3
SSE	1.7	1.5	1.5	.3								5.1	5.5
S	1.9	5.9	1.7	.2								9.8	5.1
SSW	1.3	5.5	1.1	.2								8.1	5.3
SW	1.0	4.6	3.4	1.1		.1						10.2	7.0
WSW	.5	2.8	3.2	2.6	.1							9.2	8.7
W	1.4	2.6	4.4	3.1	.6							12.2	8.8
WNW	.3	1.9	.6	.8	.1							3.8	7.6
NW	.4	1.1	1.4	.1	.2							3.2	7.4
NNW	.1	.4	.6	.3		.1						1.6	8.7
VARBL													
CALM												15.4	
	14.5	33.5	23.0	12.0	1.2	.3						100.0	5.5

TOTAL NUMBER OF OBSERVATIONS 930



DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 24112 STATION NAME MALMSTROM AFB IT/GREAT FALLS YEARS 68-77 MONTH MAY  
 CLASS ALL WEATHER MONTH ALL  
 CONDITION \_\_\_\_\_ HOURS (L.S.T.) \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	1.2	1.8	1.0	.0	.0						4.9	7.6
NNE	.7	1.4	1.2	.8	.2	.0						4.2	7.6
NE	.7	1.4	1.5	.8	.1							4.5	7.5
ENE	.5	1.0	.7	.5	.1	.0						2.8	7.2
E	.7	1.3	.5	.3	.1	.0						2.8	6.1
ESE	.4	.6	.4	.4	.1							2.0	7.5
SE	.5	.6	.5	.3	.0	.0						1.9	6.9
SSE	.8	.8	.4	.1								2.1	4.9
S	1.4	2.5	.7	.3	.1							4.8	5.2
SSW	1.3	2.9	1.4	.5	.1	.0						6.1	6.1
SV	1.4	.7	4.1	2.4	.8	.2						12.5	8.4
WSW	.8	2.9	3.8	4.1	1.2	.5	.1					13.4	10.5
W	1.1	2.7	3.7	3.2	1.3	.6	.0					12.6	10.3
WNW	.6	1.4	1.4	1.0	.4	.1	.0					4.9	8.9
NW	.5	1.1	1.1	.5	.2	.1	.0					3.3	8.1
NNW	.3	.9	1.0	.9	.0	.0						3.1	8.5
VARBL													
CALM												14.1	
	12.3	26.6	24.0	16.8	4.6	1.5	.1					100.0	7.1

TOTAL NUMBER OF OBSERVATIONS 7440

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MÅLMSTROM AFB MT/GREAT FALLS 68-77 JUN  
STATION STATION NAME YEARS MONTH

ALL WEATHER 0000-0200  
CLASS HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.7	1.0	.1	.2								2.0	5.3
NNE	1.1	.9	.6	.6								3.1	6.1
NE	.3	.4	.7	.1								1.6	6.6
ENE	.7	.3	.1									1.1	3.4
E	.2	.7										.9	3.9
ESE	.4	.3	.1									.9	4.1
SE	.4	.4	.4	.3								1.7	7.1
SSE	1.7	1.6	.6									3.8	4.2
S	4.0	5.7	1.3	.1								11.1	4.5
SSW	3.2	4.6	1.7	.2	.1							9.8	4.9
SW	2.3	4.9	6.3	1.8								15.3	7.0
WSW	1.1	4.1	5.3	2.7	.2							13.4	7.9
W	1.1	3.1	3.9	1.3	.2							9.7	7.2
WNW	1.0	1.0	.7	.1								2.8	5.5
NW	.3	.7	.4	.1								1.6	5.8
NNW	.6	.4	.4	.3								1.8	6.6
VARBL													
CALM												19.6	
	19.2	30.1	22.7	7.9	.6							100.0	4.9

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      JUN

STATION      STATION NAME      YEARS      MONTH

ALL WEATHER      0300-0500

CLASS      HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.7	1.0	.3	.2								2.2	5.8
NNE	.4	.8	.3	.3								1.9	7.1
NE	.6	.8	.6	.2								2.1	6.2
ENE	.3	.3										.7	3.3
E	.3	.2										.6	3.2
ESE	.4		.1									.6	3.8
SE	.7	.2	.1									1.0	3.3
SSE	.8	.8	.2									1.0	3.9
S	3.4	3.9	.4	.1								7.9	3.9
SSW	3.8	5.3	1.2									10.3	4.2
SW	3.3	7.0	5.2	2.1								17.7	6.3
WSW	1.9	4.7	5.4	4.0								16.0	7.9
W	2.0	3.2	3.2	1.4								9.9	6.8
WNW	.4	1.6	.3	.2								2.6	5.7
NW	.6	1.2	.4	.2								2.4	5.6
NNW	.9	.7	.3	.1	.1							2.1	5.5
VARBL													
CALM												20.3	
	20.6	31.7	18.3	9.0	.1							100.0	4.8

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTRQM AFB MT/GREAT FALLS      68-77      JUN

STATION      STATION NAME      YEARS      MONTH

ALL WEATHER      0600-0800

CLASS      HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	1.0	1.2	.4								3.2	7.3
NNE	1.1	1.7	.6	.7								4.0	5.7
NE	.3	.4	.4	.3	.1							1.7	8.0
ENE	.7	.2	.3									1.2	4.6
E	.4	.1	.1									.7	3.7
ESE	.1											.1	3.0
SE	.6	.3										.9	3.3
SSE	.7		.2									.9	3.5
S	1.4	1.3	.7									3.4	4.2
SSW	1.1	2.1	.8	.6	.1							4.7	6.2
SW	2.3	4.9	4.6	4.0	.8	.2						16.8	8.6
WSW	2.2	4.1	4.3	7.3	1.2	.1						19.3	9.6
W	2.2	3.9	4.7	2.2	.6	.1						13.7	7.7
WNW	.7	1.2	.9	.6								3.3	6.7
NW	.9	.8	1.6	.3								3.6	6.6
NNW	.6	1.0	.6	.2								2.3	5.7
VARBL													
CALM												20.2	
	15.9	23.1	20.9	16.7	2.8	.4						100.0	6.1

TOTAL NUMBER OF OBSERVATIONS      900

DATA PROCESSING BRANCH  
ETAC/LSAF

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 24112 STATION NAME MALMSTRUM AFB MT/GREAT FALLS YEARS 68-77 MONTH JUN  
 CLASS ALL WEATHER HOURS (L.S.T.) 0900-1100  
 CONDITION \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.4	1.6	1.2	.7								4.9	5.9
NNE	1.3	1.8	1.2	.9	.2							5.4	6.9
NE	1.3	1.9	.7	1.0								4.9	6.2
ENE	.4	1.3	.4	.2								2.4	5.6
E	.3	1.3	.3	.2								2.2	5.8
ESE	.3	.1										.4	3.0
SE	.4	.2										.7	3.0
SSE	.1	.2										.3	4.3
S	.6	.6	.6	.2								1.9	5.8
SSW	.9	1.2	.9	.1								3.1	5.4
SW	1.3	1.6	2.9	4.6	1.1	.3	.1					11.9	11.1
WSW	1.1	2.4	5.2	7.6	2.9	.9						20.1	12.0
W	1.4	5.6	4.9	4.3	1.6	.4						18.2	9.3
WNW	1.4	1.6	2.1	1.0	.7							6.8	8.0
NW	.4	1.6	.9	.6	.2							3.7	7.5
NNW	.7	1.4	.7	.4								3.2	6.7
VARBL													
CALM												9.8	
	13.7	24.3	22.0	21.8	6.7	1.7	.1					100.0	8.0

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      Malmstrom AFB MT/Great Falls      68-77      JUN  
STATION      STATION NAME      YEARS      MONTH

ALL WEATHER  
CLASS

1200-1400  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.2	1.9	1.9	.6	.1	.1						5.8	7.0
NNE	.9	1.9	.8	.9	.2							4.7	7.4
NE	1.0	1.9	2.0	.3	.2							5.4	6.9
ENE	.6	1.8	.7	.8	.1							3.9	7.0
E	.4	1.6	2.0	.1								4.1	6.3
ESE	.4	.3	.1	.1								1.0	5.0
SE	.8	.7	.2									1.7	3.9
SSE	.6	.4	.1	.1								1.2	4.5
S	.8	.6	.3	.2								1.9	5.2
SSW	.8	1.1	1.3	.4	.2							3.9	7.3
SW	.7	2.0	2.4	2.8	1.2	.2						9.3	10.6
WSW	.8	1.2	3.9	7.9	3.8	1.3						18.9	13.3
W	.9	2.6	5.3	5.7	2.0	.6						17.0	11.0
WNW	.9	1.8	1.9	.6	.2							5.3	7.4
NW	.9	.8	1.9	.9	.7							5.1	8.9
NNW	.6	.9	1.0	.7	.1							3.2	7.8
VARBL													
CALM												7.6	
	12.1	21.3	25.9	22.0	8.9	2.2						100.0	8.7

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 JUN  
STATION STATION NAME YEARS MONTH

ALL WEATHER 1500-1700  
CLASS HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.0	2.2	.6	1.4	.4	.1						5.8	8.4
NNE	1.8	2.0	1.9	1.1	.1	.2						7.1	7.6
NE	1.2	2.1	1.1	1.3								5.8	7.0
ENE		1.3	1.9	.6								3.8	7.9
E	.7	1.9	2.1	.6	.1							5.3	7.3
ESE	.6	1.3	1.0	.3								3.2	6.4
SE		1.0	.9	.4		.1						2.4	8.8
SSE	.2	.3	.2									.8	5.6
S	.4	.8	.4	.6								2.2	7.0
SSW	.3	.4	1.0	.2	.2	.1						2.3	9.1
SW	.7	.6	1.9	1.9	.8	.1						5.9	10.9
WSW	.4	1.0	4.1	5.3	2.6	.3						13.8	12.2
W	1.3	2.1	4.4	7.9	2.8	1.2	.1					19.9	12.4
WNW	1.1	1.3	2.4	2.2	.3							7.4	9.0
NW	.4	1.3	1.2	1.7	.1	.1						4.9	9.2
NNW	.4	1.1	.3	1.2	.2							3.3	8.9
VARBL													
CALM												6.0	
	10.7	20.9	25.6	26.8	.7	2.3	.1					100.0	9.2

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

**SURFACE WINDS**

**PERCENTAGE FREQUENCY OF WIND  
 DIRECTION AND SPEED  
 (FROM HOURLY OBSERVATIONS)**

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      JUN  
STATION      STATION NAME      YEARS      MONTH

ALL WEATHER  
CLASS

1800-2000  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	1.0	1.6	.7	.1							4.1	7.7
NNE	1.3	2.1	1.3	.7	.3	.1						5.9	7.3
NE	.4	1.3	2.6	1.2								5.6	8.0
ENE	.6	3.0	3.1	.8								7.4	6.9
E	1.0	3.3	2.0	.3								6.7	6.0
ESE	.6	1.8	1.2	.2								3.8	6.2
SE	.6	.6	.9	.1								2.1	5.9
SSE	.2	.7	.6									1.4	5.9
S	.8	1.6	1.1	.2								3.7	5.8
SSW	.6	.9	.8	.4								2.7	6.7
SW	.3	1.7	1.9	1.1	.4							5.4	9.1
WSW	.3	1.0	2.4	3.2	1.0	.2	.2					8.4	11.9
W	1.4	3.1	6.4	5.6	1.8	.4						18.8	10.3
WNW	.3	1.7	3.9	2.6	.4							8.9	9.5
NW	.4	1.0	1.7	1.6	.1							4.8	9.0
NNW	.2	1.1	1.0	.4	.2							3.0	8.3
VARBL													
CALM												7.3	
	9.9	25.8	32.4	19.1	4.4	.6	.2					100.0	7.9

TOTAL NUMBER OF OBSERVATIONS 900



DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALHSTROM AFB MT/GREAT FALLS 58-77 JUN  
STATION STATION NAME YEARS MONTH

ALL WEATHER CLASS 2100-2300 HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	1.1	1.1	.3								3.3	6.2
NNE	1.1	1.1	1.1	.6	.1							4.0	6.9
NE	.7	1.3	.8	.3	.1							3.2	6.7
ENE	1.4	.9	.1									2.4	3.5
E	2.1	1.1	.7									3.9	3.9
ESE	.9	1.1	.3	.2	.1							2.7	5.6
SE	1.8	1.1	.8	.2	.1							4.0	5.3
SSE	.6	2.6	.6	.1								3.8	5.3
S	2.2	4.3	.6	.1								7.2	4.5
SSW	1.3	4.9	1.2	.1								7.6	5.1
SW	1.8	4.4	4.8	1.2								12.2	6.7
WSW	.8	3.6	2.9	3.0	.7	.1						11.0	9.0
W	.7	3.3	3.8	1.8	.2							9.8	7.9
WNW	.2	2.1	1.6	1.1								5.0	7.7
NW	.7	1.1	.6	.4								2.8	6.3
NNW		.3	.3	.1								.8	8.0
VARBL													
CALM												16.3	
	17.0	34.4	21.1	9.7	1.3	.1						100.0	5.4

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

JUN  
MONTH

ALL WEATHER  
CLASS

ALL  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.9	1.3	1.0	.6	.1	.0						3.9	6.9
NNE	1.1	1.5	1.0	.7	.1	.0						4.5	7.0
NE	.7	1.3	1.1	.6	.1							3.8	7.0
ENE	.6	1.2	.8	.3	.0							2.9	6.2
E	.7	1.3	.9	.2	.0							3.0	5.8
ESE	.5	.6	.4	.1	.0							1.6	5.6
SE	.7	.6	.4	.1	.0	.0						1.8	5.7
SSE	.6	.8	.3	.0								1.7	4.7
S	1.7	2.3	.7	.2								4.9	4.7
SSW	1.5	2.6	1.1	.3	.1	.0						5.5	5.5
SW	1.6	3.4	3.7	2.4	.5	.1	.0					11.8	8.4
WSW	1.1	2.8	4.2	5.1	1.5	.4	.0					15.1	10.6
W	1.4	3.4	4.6	3.8	1.1	.3	.0					14.6	9.6
WNW	.8	1.5	1.7	1.0	.2							5.3	8.0
NW	.6	1.1	1.1	.7	.1	.0						3.6	7.8
NNW	.5	.9	.6	.4	.1							2.5	7.3
VARBL													
CALM												13.4	
	14.9	26.5	23.6	16.6	4.1	.9	.1					100.0	6.9

TOTAL NUMBER OF OBSERVATIONS 7200

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24117 STATION MALMSTROM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS JUL MONTH  
 ALL WEATHER CLASS 0000-0200 HOURS (L.S.T.)  
 CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	1.0	.4	.1	.1							2.4	5.7
NNE	.4	1.9	1.0	.2	.1							3.7	6.5
NE	.5	1.1	.2	.1								1.9	5.1
ENE	1.3	.3		.1								1.7	3.3
E	.3	.9		.1								1.3	4.7
ESE	.6	.6	.1									1.4	3.7
SE	.9	1.7	.4	.2								3.2	5.2
SSE	1.5	2.2	1.0	.2								4.8	5.0
S	3.0	6.0	1.8	.1								11.0	4.7
SSW	2.2	8.3	.8									11.2	4.6
SW	2.5	5.5	3.7	.2								11.8	5.5
WSW	.6	3.7	1.8	1.1								7.2	6.8
W	1.1	2.5	1.6	.5	.1	.2						6.0	7.1
WNW	1.0	.2	.8	.1								2.0	5.1
NW	.5	.4	.2	.1	.1							1.4	5.9
NNW	.3	.1		.1		.1						.6	7.7
VARBL													
CALM												28.3	
	17.5	36.3	13.8	3.3	.4	.3						100.0	3.9

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112

MALMSTROM AFB MT/GREAT FALLS

68-77

JUL

STATION

STATION NAME

YEARS

MONTH

ALL WEATHER

0300-0500

CLASS

HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.8	1.0	.4	.1								2.3	5.0
NNE	.5	1.4	.5	1.1								3.5	7.7
NE	.3	.5	.1									1.0	4.6
ENE	.2	.3										.5	4.0
E	.3	.4										.8	3.7
ESE	.4	.5	.1									1.1	4.4
SE	.1	.6	.3									1.1	5.3
SSE	1.0	1.2	.2									2.4	4.1
S	3.9	3.4	.8	.1								8.2	4.0
SSW	4.1	5.8	1.8	.1								11.8	4.5
SW	3.8	7.6	3.5	.3								15.3	5.2
WSW	2.4	5.2	2.5	1.4		.1						11.5	6.2
W	1.3	4.2	1.4	.6								7.5	5.8
WNW	.1	.9	.6	.3	.1							2.0	7.8
NW	.5	.6	.2	.2								1.6	5.7
NNW	.5	.4	.1	.2								1.3	5.8
VARBL													
CALM												28.2	
	20.2	34.2	12.7	4.5	.1	.1						100.0	3.8

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALMSTRÖM AFB MT/GREAT FALLS 68-77 JUL  
STATION STATION NAME YEARS MONTH

ALL WEATHER  
CLASS

0600-0800  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	1.4	1.1	.3	.1								2.9	4.2
NNE	1.0	.5	1.3									2.8	5.9
NE	.4	.8	.6									1.8	5.4
ENE	.2	.4	.1									.8	4.6
E	.5	.6	.1									1.3	4.0
ESE	.1	.2										.4	5.3
SE	.3	.1	.4	.1								1.0	6.0
SSE	.4	.8	.1									1.3	4.0
S	1.4	1.4										2.8	3.4
SSW	1.6	1.8	.8	.8	.1							5.1	6.1
SW	3.7	4.2	4.0	1.4	.2							13.4	6.4
WSW	2.6	5.1	4.1	2.8	.6							15.2	7.7
W	3.3	4.5	3.4	.4	.1							11.8	5.5
WNW	1.6	1.8	.8			.1						4.3	4.7
NW	.4	1.3	1.0	.1								2.8	6.1
NNW	.4	.9	.8									2.0	5.8
VARBL													
CALM												30.3	
	19.5	25.5	17.8	5.7	1.1	.1						100.0	4.2

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MÅLMSTRÖM AFB MT/GREAT FALLS 68-77 JUL  
STATION STATION NAME YEARS MONTH

ALL WEATHER  
CLASS

0900-1100  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	1.3	1.9	.6	.1								4.0	4.9
NNE	1.9	1.7	1.1	.1								4.8	4.8
NE	.9	1.6	.6	.1		.1						3.3	5.8
ENE	1.1	1.8	.4	.1								3.4	4.6
E	1.3	1.3		.1								2.7	3.9
ESE	.4	.5	.4									1.4	5.1
SE	.4	.6	.1	.1								1.3	4.8
SSE	.1	.3										.4	4.0
S	1.1	.2		.1								1.4	3.5
SSW	1.1	.6	.5	.2	.1							2.6	5.8
SW	1.3	1.4	3.3	2.8	1.0	.3						10.1	10.1
WSW	1.9	2.7	6.0	4.2	1.6	.1						16.6	9.5
W	1.8	7.0	6.9	1.8	.5	.1						18.2	7.4
WNW	.9	3.1	1.7	.4								6.1	6.1
NW	1.3	2.2	1.6	.3								5.4	5.8
NNW	1.0	.8	.6									2.4	4.9
VARBL													
CALM												15.9	
	17.7	27.8	24.1	10.5	3.2	.6						100.0	6.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112 STATION NAME: MALMSTROM AFB MT/GREAT FALLS YEARS: 68-77 MONTH: JUL  
 CLASS: ALL WEATHER HOURS (L.S.T.): 1200-1400  
 CONDITION: \_\_\_\_\_

SPFD (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.4	2.0	2.5	.4								6.3	6.2
NNE	1.4	1.7	1.4	.3								4.8	5.8
NE	.8	2.7	1.6	.4								5.5	5.3
ENE	.5	1.7	1.9	.1	.1							4.4	6.4
E	1.3	2.0	.8	.2								4.3	5.1
ESE	.4	.6	.2	.4								1.7	6.8
SE	.1	.3	.4	.1								1.0	6.9
SSE	.5	.2	.3									1.1	4.3
S	.5	1.1	.4									2.0	4.9
SSW	.4	.9	.6	.5								2.5	7.2
SW	1.2	1.7	1.9	2.2	.1	.8						7.8	9.7
WSW	.9	1.8	4.6	3.3	2.0	.2						12.9	10.9
W	2.3	5.8	6.2	5.2	2.0	.1	.1					21.7	9.3
WNW	.6	1.3	2.5	1.1								5.5	7.7
NW	1.4	1.1	.8	.6								3.9	6.1
NNW	.8	1.2	1.0	.8		.1						3.8	7.3
VARBL													
CALM												10.8	
	14.5	26.2	27.2	15.7	4.3	1.2	.1					100.0	7.1

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

JUL  
MONTH

ALL WEATHER  
CLASS

1500-1700  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.5	1.5	1.6	.6								4.3	7.0
NNE	1.3	2.7	2.3	1.3	.3	.1						8.0	7.5
NE	1.0	3.4	2.3	1.0	.1							7.7	7.0
ENE	.9	1.7	1.5	1.1	.1							5.3	7.3
E	1.4	2.0	1.5	.3								5.3	5.9
ESE	.5	.8	.4	.1								1.8	5.4
SE	.4	.1	.5	.2								1.3	6.6
SSE	.4	.5	.3	.2								1.5	6.4
S	1.0	1.1	.4	.1	.1							2.7	5.4
SSW	.8	1.3	1.0	.2	.1							3.3	6.4
SW	.6	1.1	2.3	1.2	.1							5.3	8.3
WSW	.3	1.9	3.1	2.2	.8	.5						8.8	10.5
W	1.0	2.4	3.8	6.1	3.4	.4						17.1	12.0
WNW	.5	1.9	2.7	2.6	.5	.2	.1					8.6	10.0
NW	1.3	.9	2.5	1.5								6.1	7.8
NNW	.4	.9	.8	1.0								3.0	7.8
VARBL													
CALM												9.9	
	12.4	24.2	26.9	19.7	5.6	1.3	.1					100.0	7.8

TOTAL NUMBER OF OBSERVATIONS

930



DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALMSTRUM AFB MT/GREAT FALLS  
STATION NAME

69-77  
YEARS

JUL  
MONTH

ALL WEATHER  
CLASS

1800-2000  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.9	2.2	1.8	.9	.1	.1						5.9	7.6
NNE	.5	2.2	2.0	1.8	.2							6.8	8.5
NE	1.3	3.2	2.4	1.3	.1							8.3	6.9
ENE	1.5	3.8	3.9	.4	.1							9.7	6.4
E	2.0	2.8	2.4	.5								7.7	5.9
ESE	.6	.9	.9	.2								2.6	5.7
SE	.6	.9	.4	.4	.1							2.5	7.0
SSE	.4	.3	.5	.1								1.4	5.9
S	.8	1.0	1.0	.3								3.0	6.0
SSW	.6	.3	.8	.2	.1							2.0	6.8
SW	.9	1.2	1.0	1.2				.1				4.3	8.1
WSW	.2	.6	1.3	1.7			.1					4.0	10.4
W	.9	3.1	4.1	3.2	1.3	.2						12.8	9.9
WNW	.6	1.2	3.1	2.3	.6	.3						8.2	10.3
NW	.9	1.4	1.6	1.5	.3							5.7	8.7
NNW	.6	.8	1.6	1.0			.1					4.1	8.4
VARBL													
CALM												11.1	
	13.4	25.7	28.7	17.1	3.0	.6	.2	.1				100.0	7.1

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24117 MARMSTROM AFB MT/GREAT FALLS 68-77 JUL  
STATION STATION NAME YEARS MONTH

ALL WEATHER 2100-2300  
CLASS HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.2	1.8	.8	.2								4.0	5.4
NNE	1.1	2.2	2.3	.2	.4	.1						6.2	7.1
NE	1.1	2.2	1.5	.4								5.2	5.8
ENE	1.7	1.6	.8									4.1	4.6
E	2.0	1.2	.6									3.9	4.0
ESE	1.0	1.7	.2	.1								3.0	4.5
SE	1.3	2.6	.6	.4								4.9	5.3
SSE	1.4	3.9	.9									6.1	4.8
S	1.6	4.9	1.4		.1							8.1	5.1
SSW	.8	3.1	.6	.1								4.6	5.1
SW	1.0	4.0	2.2	.8								7.8	6.3
WSW	.6	2.4	1.8	.8								5.6	6.8
W	1.1	2.2	1.1	1.0	.3							5.6	7.3
WNW	.4	1.2	.6	.5								2.8	6.8
NW	.9	1.1	.5									2.5	5.1
NNW	.3	.8	.2	.1								1.4	5.5
VARIAL													
CALM												24.2	
	17.4	36.7	16.1	4.6	.9	.1						100.0	4.3

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24117 MALMSTROM AFB MT/GREAT FALLS 68-77 JUL  
STATION STATION NAME YEARS MONTH

ALL WEATHER  
CLASS

ALL  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.0	1.6	1.1	.3	.0	.0						4.0	6.0
NNE	1.0	1.8	1.5	.6	.1	.0						5.1	6.9
NE	.8	1.9	1.2	.4	.0	.0						4.3	6.3
ENE	.9	1.5	1.1	.2	.0							3.7	5.9
E	1.2	1.4	.7	.2								3.4	5.1
ESE	.5	.7	.3	.1								1.7	5.1
SE	.9	.9	.4	.2	.0							2.0	5.7
SSE	.7	1.2	.4	.1								2.4	4.9
S	1.7	2.4	.7	.1	.0							4.9	4.7
SSW	1.4	2.8	.9	.3	.1							5.4	5.3
SW	1.9	3.3	2.7	1.2	.2	.1		.0				9.5	7.1
WSW	1.2	2.9	3.2	2.2	.6	.1	.0					10.2	8.6
W	1.6	4.0	3.6	2.4	1.0	.1	.0					12.6	8.5
WNW	.7	1.5	1.6	.9	.2	.1	.0					4.9	8.0
NW	.9	1.1	1.0	.6	.1							3.7	6.8
NNW	.6	.7	.6	.4		.0	.0					2.3	6.9
VARBL													
CALM												19.8	
	16.6	29.6	20.9	10.1	2.3	.6	.1	.0				100.0	5.5

TOTAL NUMBER OF OBSERVATIONS 7440

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 24112 STATION NAME MALMSTROM AFB MT/GREAT FALLS YEARS 68-77 MONTH AUG  
 CLASS ALL WEATHER HOURS (L.S.T.) 0000-0200  
 CONDITION \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	1.1	.8	.1								2.7	5.3
NNE	1.0	1.6	.9	.5	.1							4.1	6.5
NE	.9	.3	.6	1.1								2.9	8.0
ENE	.4	.2	.1									.8	4.0
E	.2	.2										.4	3.3
ESE	.6	.5	.3	.1								1.6	4.9
SE	.4	.3	.6	.1								1.5	6.1
SSE	1.2	1.2	.5									2.9	4.1
S	3.4	5.2	1.5	.3								10.4	4.7
SSW	2.7	6.0	2.0									10.8	5.0
SW	3.4	6.7	4.1	1.3		.1						15.6	5.9
WSW	1.4	4.5	2.3	.5		.1						8.8	6.0
W	1.9	3.0	1.3	.3								6.6	5.2
WNW	.8	.9	.1	.2								1.9	4.9
NW	1.1	.9	.3	.1								2.4	4.4
NNW	1.1	.5	.1									1.7	3.4
VARBL													
CALM												24.9	
	21.3	33.1	15.6	4.7	.1	.2						100.0	4.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      AUG

STATION      STATION NAME      YEARS      MONTH

ALL WEATHER      0300-0500

CLASS      HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.2	1.2	.2	.2								2.8	4.9
NNE	.6	.8	.6	.1								2.2	5.2
NE	.2	1.0	.5									1.7	5.7
ENE	.4	.5	.1									1.1	3.7
E	.2	.2	.1									.5	4.4
ESE	.1	.3										.4	4.0
SE	.6	.6	.1	.1								1.5	4.6
SSE	1.9	.5	.5	.1								3.1	4.0
S	4.5	3.3	.3									8.2	3.4
SSW	4.6	5.5	.6	.2								11.0	4.1
SW	4.2	9.7	5.5	1.0	.1							20.4	5.7
WSW	3.0	4.4	3.0	.5	.1							11.1	5.7
W	1.7	3.0	1.1	.3								6.1	5.1
WNW	.3	1.5	.9	.1								2.8	6.0
NW	.8	1.1	.3	.1								2.3	5.0
NNW	.9	.8	.5	.2								2.4	5.5
VARBL													
CALM												22.5	
	25.4	34.4	14.5	3.0	.2							100.0	3.9

TOTAL NUMBER OF OBSERVATIONS      930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 24112 STATION NAME MALMSTROM AFB MT/GREAT FALLS YEARS 68-77 MONTH AUG  
 CLASS ALL WEATHER HOURS (L.S.T.) 0600-0800  
 CONDITION \_\_\_\_\_

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	1.0	.8	.3	.1	.1							2.3	5.0
NNE	.8	1.5	.3	.1								2.7	4.8
NE	1.1	.6	.8	.1								2.6	5.1
ENE	.1	.3	.1									.5	5.6
E	.8	.1										.9	2.6
ESE	.6			.1								.9	3.6
SE	.3	.3	.1									.8	4.4
SSE	.5	.3	.1									1.0	4.0
S	2.5	1.7	1.1									5.3	4.3
SSW	2.9	3.0	1.1	.6		.1						7.8	5.5
SW	4.0	5.3	3.4	1.7	.4							14.8	6.5
WSW	2.7	4.6	2.6	2.0	.6	.1						12.7	7.1
W	1.8	4.2	2.4	.9								9.2	6.0
WNW	1.5	1.9	.2	.2								3.9	4.6
NW	1.0	1.1	.1		.1							2.3	4.6
NNW	1.1	.3	.6	.1								2.2	4.8
VARBL													
CALM												30.4	
	22.6	26.1	13.2	6.1	1.3	.2						100.0	4.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      AUG  
STATION      STATION NAME      YEARS      MONTH

ALL WEATHER      0900-1100  
CLASS      HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	1.9	1.8	.8	.9	.1							5.5	5.8
NNE	.9	1.8	1.4	.5								4.6	6.3
NE	1.0	1.6	1.2	.6	.1							4.5	6.5
ENE	.5	1.3	.4									2.3	4.4
E	.9	1.0	.4	.2								2.5	5.1
ESE	.4	.4	.1	.3								1.3	6.2
SE	.1	.6	.2									1.0	5.2
SSE	.2	.1	.1									.4	4.3
S	.8	.4	.3	.2	.1							1.8	6.5
SSW	1.2	.8	.8	1.0								3.7	7.1
SW	2.2	1.7	1.8	2.2	.5	.3						8.7	8.7
WSW	1.7	3.5	5.4	3.8	2.5	.9						17.7	10.5
W	3.9	5.2	4.7	3.8	.9	.1						18.5	7.6
WNW	1.4	2.6	1.8	.5	.1							6.5	5.2
NW	1.1	1.3	.9	.1								3.3	5.2
NNW	.9	.8	.9									2.5	5.2
VARBL													
CALM												15.3	
	18.9	24.9	21.2	14.1	4.3	1.3						100.0	6.4

TOTAL NUMBER OF OBSERVATIONS      930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 AUG  
STATION STATION NAME YEARS MONTH

ALL WEATHER 1200-1400  
CLASS HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	1.4	2.4	2.0	.4								6.2	6.0
NNE	1.8	3.1	2.0	1.4								8.4	6.5
NE	.5	2.8	1.5	.4								5.3	6.6
ENE	.5	1.7	1.3	.3								3.9	6.4
E	1.2	1.0	.6	.1								2.9	4.8
ESE	.3	1.4	.3									2.0	5.4
SE	.2	.2	.2	.2								.9	6.9
SSE	.5	.3	.4									1.3	5.3
S	.3	1.2	.9	.3	.1							2.8	7.0
SSW	.3	.5	.6	.5								2.0	7.8
SW	.4	2.5	2.2	2.4	1.1							8.5	9.9
WSW	.9	2.2	3.2	4.0	2.2	.8	.1					13.2	11.6
W	1.8	6.8	5.5	3.4	1.1	.5	.2					19.4	8.8
WNW	1.1	3.0	1.9	1.6								7.6	7.3
NW	1.3	.6	1.0	.6								3.5	6.1
NNW	1.0	1.2	.9	.2								3.2	5.8
VARBL													
CALM												8.8	
	13.7	30.9	24.6	16.0	4.4	1.3	.3					100.0	7.3

TOTAL NUMBER OF OBSERVATIONS 930



DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112      STATION NAME: MALMSTROM AFB MT/GREAT FALLS      YEARS: 68-77      MONTH: AUG  
STATION      STATION NAME      YEARS      MONTH  
 CLASS: ALL WEATHER      HOURS (L.S.T.): 1500-1700  
CLASS      HOURS (L.S.T.)  
 CONDITION: \_\_\_\_\_  
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.4	2.2	2.6	1.4	.1							7.6	7.1
NNE	1.2	1.7	3.1	1.3	.5							7.8	8.4
NE	1.2	2.2	4.0	1.5	.1							8.9	7.7
ENE	.2	1.4	1.9	.6								4.2	7.6
E	1.1	1.8	1.6	.1								4.6	5.6
ESE	.3	.3	.6	.2								1.5	7.0
SE	.2	.3	.4	.4								1.4	8.3
SSE		.2	.2	.2								.6	9.5
S	.4	.4	.9	.3								2.0	7.6
SSW	.4	1.2	1.2	.2	.2							3.2	7.4
SW	.9	1.8	2.9	1.2	.4	.1						7.3	8.3
WSW	1.1	1.5	3.7	2.2	1.0	.3						9.7	9.9
W	.9	3.5	5.8	7.0	1.8	.8		.1				19.9	11.1
WNW	.9	1.9	2.3	1.2	.4							6.7	8.2
NW	1.1	1.7	.8	.6	.1	.1						4.4	6.6
NNW	.6	.4	.6	.3	.1							2.2	6.8
VARBL													
CALM												7.8	
	11.8	22.7	32.6	18.8	4.8	1.3		.1				100.0	7.9

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      AUG  
STATION      STATION NAME      YEARS      MONTH  


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ALL WEATHER      1800-2000  
CLASS      HOURS (L.S.T.)  


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CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	1.6	1.4	.9	.1							4.6	7.4
NNE	1.2	3.5	3.0	1.0	.4							9.1	7.3
NE	.6	3.0	3.8	1.9	.3							9.7	8.3
ENE	1.2	3.0	2.2	.9								7.2	6.6
E	1.3	2.6	2.0	.2								6.3	5.6
ESE	.4	.3	.9	.5								2.2	7.9
SE	.8	.9	.9	.4								2.9	6.2
SSE	.4	.5	1.0									1.9	5.9
S	1.0	1.8	1.0	.6	.1							4.5	6.2
SSW	1.1	.6	.8	.2								2.7	5.3
SW	1.0	2.3	2.2	1.3		.1						6.8	7.7
WSW	.6	1.3	1.5	1.0	.3							4.7	8.5
W	.9	3.3	4.0	2.9	.8							11.8	9.0
WNW	.6	1.4	2.4	1.6	.1							6.1	8.2
NW	.6	1.6	1.8	.3	.1							4.5	6.8
NNW	.8	1.4	.6	.5		.1						3.4	6.8
VARBL													
CALM												11.4	
	13.3	29.2	29.2	14.3	2.3	.2						100.0	6.6

TOTAL NUMBER OF OBSERVATIONS      930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112 STATION NAME: MALMSTROM AFB MT/GREAT FALLS YEARS: 66-77 MONTH: AUG  
 CLASS: ALL WEATHER HOURS (L.S.T.): 2100-2300  
 CONDITION: \_\_\_\_\_

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.8	1.4	.3	.3	.1	.1						3.0	6.9
NNE	.9	1.4	1.4	1.0	.2							4.8	7.7
NE	1.1	2.6	1.1	.9	.4							6.0	7.1
ENE	1.1	1.4	.5									3.0	4.3
E	1.4	.9	.3									2.6	3.8
ESE	.6	.9	.5	.3								2.4	6.2
SE	1.4	2.0	1.2	.2								4.8	5.4
SSE	1.2	3.3	1.8	.5								6.9	6.1
S	1.9	5.6	1.5	.3								9.4	5.1
SSW	1.4	4.1	1.0	.1								6.6	5.0
SW	1.4	4.0	2.3	.5	.1							8.3	6.4
WSW	.5	3.8	1.6	.6	.2							6.8	6.9
W	1.0	3.9	2.3	.4								7.5	6.2
WNW	.5	1.2	1.0	.2		.1						3.0	6.5
NW	.5	.8	.5	.1	.1	.1						2.2	7.1
NNW	.3	.3	.3	.1	.1							1.2	7.4
VARBL													
CALM												21.6	
	16.0	37.4	17.6	5.7	1.3	.3						100.0	4.8

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALMSTRUM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

AUG  
MONTH

ALL WEATHER  
CLASS

ALL  
MOSES (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	1.1	1.5	1.0	.5	.1	.0						4.3	6.3
NNE	1.0	1.9	1.6	.7	.2							5.5	7.0
NE	.8	1.8	1.7	.8	.1							5.2	7.2
ENE	.6	1.2	.8	.2								2.9	6.0
E	.9	1.0	.6	.1								2.6	5.0
ESE	.4	.5	.3	.2								1.5	6.0
SE	.5	.7	.5	.2								1.8	5.8
SSE	.8	.8	.6	.1								2.3	5.3
S	1.9	2.5	.9	.3	.0							5.6	5.0
SSW	1.8	2.7	1.0	.4	.0	.0						6.0	5.3
SW	2.2	4.2	3.0	1.4	.3	.1						11.3	7.0
WSW	1.5	3.2	2.9	1.8	.9	.3	.0					10.6	8.6
W	1.7	4.1	3.4	2.4	.6	.2	.0	.0				12.4	8.1
WNW	.9	1.8	1.3	.7	.1	.0						4.8	6.9
NW	.9	1.1	.7	.3	.1	.0						3.1	5.9
NNW	.8	.7	.6	.2	.0	.0						2.3	5.7
VARBL													
CALIA												17.8	
	17.9	29.9	21.1	10.3	2.3	.6	.0	.0				100.0	5.6

TOTAL NUMBER OF OBSERVATIONS 7440

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      SEP  
STATION      STATION NAME      YEARS      MONTH

ALL WEATHER  
CLASS

0000-0200  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.3	1.4	1.6	.1	.2	.1						3.8	7.9
NNE	.6	1.4	.8	.3		.1	.1					3.3	7.7
NE	.2	.9	.9	.6								2.6	7.9
ENE	.6	.2	.1									.9	3.5
E	.2	.1	.1									.4	4.5
ESE		.1										.1	5.0
SE	.4	.7										1.1	3.9
SSE	1.4	1.1	.3									2.9	3.8
S	3.2	4.2	1.1									8.6	4.2
SSW	4.0	7.3	1.9	.3								13.6	4.8
SW	2.1	9.4	6.9	2.0	.6							21.0	7.0
WSW	1.3	5.4	4.8	1.9								13.4	7.1
W	.7	2.2	1.4	.2								4.6	6.1
WNW	.6	1.1	1.2									2.9	5.6
NW	.4	1.0	.9	.2								2.6	6.1
NNW	.1	.2	.2	.7								1.2	9.9
VARBL													
CALM												17.1	
	16.2	37.0	22.2	6.3	.8	.2	.1					100.0	5.1

TOTAL NUMBER OF OBSERVATIONS      900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24117  
STATION

MALMSTRUM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

SEP  
MONTH

ALL WEATHER  
CLASS

0300-0500  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	.7	.6	.7								2.4	7.8
NNE	.6	1.2	1.0	.8		.2						3.8	8.3
NE	.4	.8	.1	.3								1.7	6.1
ENE	.4	.2										.7	3.0
E	.2	.1										.3	2.7
ESE	.1	.1										.2	3.5
SE	.3	.1										.4	2.3
SSE	1.0	.1	.1									1.2	2.8
S	2.6	2.9	.4									5.9	4.0
SSW	3.0	4.6	1.6	.1								9.2	4.8
SW	4.4	9.9	6.6	2.7								23.6	6.3
WSW	3.8	6.3	3.9	2.6	.7	.2						17.4	7.1
W	2.0	2.9	1.2	.2								6.3	4.9
WNW	.3	1.3	.8	.1								2.6	5.9
NW	.4	1.0	1.0	.4								2.9	6.7
NNW	.7	.4	.4	.4								2.0	6.9
VARBL													
CALM												19.3	
	20.9	32.7	17.7	8.3	.7	.4						100.0	4.9

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALNSTRÖM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

SEP  
MONTH

ALL WEATHER  
CLASS

0600-0800  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	1.0	1.1	.8	.1								3.0	5.1
NNE	.4	.9	.8	.7	.3							3.1	9.0
NE	.4	.8	.3	.3								1.9	6.3
ENE	.2	.1										.3	3.0
E	.4											.4	2.5
ESE	.3											.3	2.3
SE	.4	.2										.7	3.2
SSE	.6	.1										.7	2.3
S	1.3	1.8	.3									3.4	3.8
SSW	1.8	3.3	1.7	.6								7.3	5.6
SW	3.1	9.6	7.4	3.3	.6							24.0	7.2
WSW	1.8	5.1	3.4	3.1	.7	.1						14.2	8.0
W	2.3	3.7	1.6	.2								7.8	5.1
WNW	1.3	1.2	1.4	.1	.1							4.2	5.8
NW	.4	1.0	.3	.2								2.0	5.7
NNW	.9	.6	1.0	.3								2.8	6.4
VARBL													
CALM												23.8	
	16.9	29.4	19.1	9.0	1.7	.1						100.0	5.0

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 24112 STATION NAME MALNSTRUM AFB MT/GREAT FALLS YEARS 68-77 MONTH SEP  
 CLASS ALL WEATHER HOURS (L.B.T.) 0900-1100  
 CONDITION \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.6	1.1	1.3	1.3	.4							5.8	7.8
NNE	1.1	1.7	.7	.1	.3							3.9	6.0
NE	1.0	.9	.3	.6								2.8	5.9
ENE	.4	.4	.7	.2								1.8	6.0
E	.3	.4										.8	4.1
ESE	.2	.6										.8	4.0
SE	.4	.1										.6	2.8
SSE	.1	.1										.2	3.5
S	.4	.2		.2	.1							1.0	7.0
SSW	.4	1.3	.9	1.1	.2							4.0	8.7
SW	1.2	1.7	4.7	7.4	1.7	.1						16.8	11.1
WSW	.9	3.8	5.3	7.1	3.7	1.1	.2					22.1	12.1
W	3.7	4.2	3.9	3.2	.4	.1						15.6	7.5
WNW	1.9	1.7	.7	.1								4.3	4.7
NW	1.0	1.1	.9	.3								3.3	6.3
NNW	.7	.4	1.0	.9		.1						3.1	8.6
VARBL													
CALM												13.2	
	15.4	19.8	20.3	22.7	6.9	1.4	.2					100.0	7.8

TOTAL NUMBER OF OBSERVATIONS 900



DATA PROCESSING PRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      SEP

STATION      STATION NAME      YEARS      MONTH

ALL WEATHER

CLASS

1200-1400

HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥56	%	MEAN WIND SPEED
N	1.7	1.7	3.4	1.3	.1							8.2	7.4
NNE	.9	2.3	1.7	1.0	.1							6.0	7.0
NE	1.1	1.8	1.3	.2								4.4	5.5
ENE	.3	1.1	.7									2.1	5.5
E	.3	.8	.6									1.7	5.4
ESE	.2	.3	.1									.7	4.7
SE	.1											.1	2.0
SSE		.1										.1	4.0
S	.3	1.1	.7	.3								2.4	6.7
SSW	.2	.3	1.2	.8	.1							2.7	9.5
SW	.9	2.0	2.9	3.7	1.2	.3	.2					11.2	11.0
WSW	.8	3.0	4.4	8.6	2.6	.9		.1				20.3	12.1
W	2.1	3.6	6.9	5.8	1.1	.7	.1					20.2	9.9
WNW	1.1	1.1	1.6	.6	.2							4.6	7.5
NW	1.0	.8	.9	.6	.2							3.4	7.3
NNW	1.1	.8	1.1	.8	.3	.1						4.2	8.0
VARBL													
CALM												7.6	
	12.2	20.8	27.4	23.6	6.0	2.0	.3	.1				100.0	8.6

TOTAL NUMBER OF OBSERVATIONS      900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112 STATION NAME: MALMSTRUM AFB MT/GREAT FALLS YEARS: 68-77 MONTH: SEP  
 CLASS: ALL WEATHER HOURS (L.S.T.): 1500-1700  
 CONDITION: \_\_\_\_\_

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	1.1	2.0	2.2	1.3	.2							6.9	7.9
NNE	.8	2.2	3.0	1.7	.2							7.9	8.0
NE	.3	2.2	2.9	.9								6.3	7.7
ENE	.6	1.6	1.1	.4								3.7	6.5
E		.4	.2	.1								.8	7.3
ESE	.2	.3	.2									.8	4.4
SE	.1	.1	.2	.1								.6	6.4
SSE	.2	.3	.2	.1								.9	6.0
S	.4	1.1	1.4	.1								3.1	6.8
SSW	.8	1.0	1.4	.3								3.6	6.8
SW	1.0	1.7	4.4	2.2	.9	.1						10.3	9.3
WSW	1.0	1.8	3.8	6.1	2.4	.4						15.6	11.5
W	1.1	2.2	4.8	6.1	2.6	.3						17.1	11.4
WNW	.3	1.6	2.1	1.4	.3							5.8	8.8
NW	.8	1.8	1.2	.4	.2							4.4	6.9
NNW	.3	1.2	1.4	.7	.3	.1						4.1	9.0
VARBL													
CALM												8.2	
	9.1	21.6	30.8	22.1	7.2	1.0						100.0	8.4

TOTAL NUMBER OF OBSERVATIONS: 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MÅLMSTRÖM AFB MT/GREAT FALLS 68-77 SEP  
STATION STATION NAME YEARS MONTH

ALL WEATHER  
CLASS

1800-2000  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	1.9	.8	1.1	.2							4.8	7.6
NNE	1.3	2.9	2.2	1.7	.3	.1						8.6	7.7
NE	1.6	4.0	1.3	1.3	.2							8.4	6.5
ENE	1.3	2.1	1.3	.1								4.9	5.5
E	.6	1.0	.3	.1								2.0	5.4
ESE	.3	.3										.7	3.8
SE	.8	1.1	.2									2.1	4.4
SSE	.9	1.0	.4	.2								2.6	5.3
S	1.7	3.8	1.6	.1								7.1	5.2
SSW	.6	3.1	1.0	.2	.1	.1						5.1	6.5
SW	1.2	3.9	3.2	.9	.4							9.7	7.3
WSW	.3	1.7	2.9	3.1	.6							8.6	10.3
W	.8	2.6	4.8	2.7	.6	.1						11.4	9.2
WNW	.9	.9	1.4	1.6								4.8	8.3
NW	.3	1.1	1.2	.6								3.2	7.2
NNW	.6	1.4	.7	.7								3.3	6.9
VARBL													
CALM												12.8	
	13.9	32.8	23.4	14.3	2.4	.3						100.0	6.4

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

SEP  
MONTH

ALL WEATHER  
CLASS

2100-2300  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	1.0	.8	.9	.8	.1							3.6	7.7
NNE	1.1	1.1	1.0	.7		.1						4.3	6.8
NE	.8	1.3	1.2	.6								3.9	6.8
ENE	.7	.3		.3								1.3	4.9
E	.8	.6										1.3	3.5
ESE	.3	.6	.2									1.1	4.6
SE	1.0	1.4	.4									2.9	4.5
SSE	.8	1.7	1.0									3.4	5.2
S	2.7	6.0	2.7	.3								11.7	5.2
SSW	2.1	6.1	2.8	.3								11.3	5.5
SW	2.1	6.4	3.8	1.7	.4	.1						14.6	7.0
WSW	.6	3.9	3.9	1.8	.1							10.2	7.9
W	.6	2.8	3.1	.7								7.1	7.0
WNW	.1	.8	.8	.3								2.0	7.4
NW	.7	1.0	1.3	.4	.1							3.6	7.1
NNW	.2	1.3	.6	.2	.2							2.6	7.3
VARBL													
CALM												15.4	
	15.4	36.1	23.7	8.1	1.0	.2						100.0	5.4

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 SEP

ALL WEATHER  
 CLASS  
 \_\_\_\_\_  
 CONDITION  
 \_\_\_\_\_

ALL  
 HOURS (L.S.T.)

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.0	1.3	1.4	.8	.2	.0						4.8	7.5
NNE	.8	1.7	1.4	.9	.2	.1	.0					5.1	7.6
NE	.7	1.6	1.1	.6	.0							4.0	6.7
ENE	.6	.8	.5	.1								2.0	5.5
E	.4	.4	.2	.0								1.0	4.8
ESE	.2	.3	.1									.6	4.2
SE	.5	.5	.1	.0								1.1	4.2
SSE	.6	.6	.3	.0								1.5	4.5
S	1.6	2.6	1.0	.1	.0							5.4	5.0
SSW	1.6	3.4	1.6	.5	.1	.0						7.1	5.8
SW	2.0	5.6	5.0	3.0	.7	.1	.0					16.4	8.0
WSW	1.3	3.9	4.1	4.3	1.3	.3	.0	.0				15.2	9.8
W	1.7	3.0	3.5	2.4	.6	.2	.0					11.3	8.5
WNW	.8	1.2	1.2	.5	.1							3.9	6.9
NW	.6	1.1	1.0	.4	.1							3.2	6.7
NNW	.6	.8	.8	.6	.1	.0						2.9	7.8
VARBL													
CALM												14.7	
	15.0	28.8	23.1	14.3	3.3	.7	.1	.0				100.0	6.5

TOTAL NUMBER OF OBSERVATIONS 7200

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112      STATION NAME: MALMSTROM AFB MT/GREAT FALLS      YEARS: 68-77      MONTH: UCT  
 CLASS: ALL WEATHER      HOURS (L.S.T.): 0000-0200  
 CONDITION: \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.1	1.4	.5	.5	.1							3.7	6.4
NNE	.6	1.3	1.4	.6		.1						4.1	7.6
NE	.4	1.0	.9	.1								2.4	6.1
ENE	.2	.8	.3									1.3	5.3
E	.2											.2	1.5
ESE	.1	.1										.2	4.5
SE	.3	.1										.4	3.3
SSE	.8	.2										1.0	2.6
S	2.3	2.7	1.4	.2								6.6	4.8
SSW	2.4	5.6	2.6	.6								11.2	5.9
SW	2.2	7.1	10.5	4.1	.9							24.7	8.1
WSW	1.3	4.0	5.7	3.9	1.0	.4						16.2	9.4
W	1.7	2.3	2.4	1.2	.1	.1						7.7	7.2
WNW	.2	.5	.8	.1								1.6	6.5
NW	.6	.8	.8	.3								2.5	6.5
NNW	.2	.9	.6	.4								2.2	7.3
VARBL													
CALM												14.1	
	14.6	28.6	27.8	12.2	2.0	.6						100.0	6.2

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 66-77 DCT  
STATION STATION NAME YEARS MONTH

ALL WEATHFR 0300-0500  
CLASS HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.0	1.0	.3	.5	.1							2.9	6.4
NNE	.8	1.1	1.2	.1								3.1	6.0
NE	.3	.5	.6	.4	.1							2.0	7.9
ENE	.3	.5										.9	4.0
E	.2	.3										.5	3.4
ESE	.1											.1	2.0
SE	.1											.1	2.0
SSE	.9	.2										1.1	2.6
S	1.6	1.3	.4	.2								3.5	4.6
SSW	2.6	3.4	2.7	1.0								9.7	5.9
SW	2.7	8.5	12.0	5.1	.5							28.8	7.9
WSW	2.0	3.4	4.9	4.2	1.2	.3						16.1	9.2
W	1.9	2.9	1.9	.8	.3	.1						8.0	6.6
WNW	.6	1.2	.6	.1								2.6	5.7
NW	.4	1.0	.4	.5								2.4	6.7
NNW	.2	.9	.5	1.0								2.6	8.1
VARBL													
CALM												15.6	
	15.8	26.2	25.8	13.9	2.3	.4						100.0	6.1

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112 STATION NAME: MALMSTRUM AFB MT/GREAT FALLS YEARS: 68-77 MONTH: DCT  
 CLASS: ALL WEATHER HOURS (L.S.T.): 0600-0800  
 CONDITION: \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.9	.9	1.1	.4	.1							3.3	6.8
NNE	.6	1.2	.6	.2								2.7	5.5
NE	.6	1.1	.9									2.6	5.1
ENE	.5	.6	.1									1.3	3.4
E	.2											.2	2.5
ESE	.1	.1										.2	3.0
SE	.6											.6	2.7
SSE	.8	.2										1.0	2.6
S	1.3	.6	.8	.3								3.0	5.4
SSW	.9	3.4	3.0	2.0	.1							9.5	7.7
SW	3.7	7.3	9.9	7.4	1.0							29.2	8.3
WSW	1.8	3.9	4.7	4.5	1.4	.3						16.7	9.4
W	1.8	2.9	1.6	1.1								7.4	6.3
WNW	.9	.9	.5	.3								2.6	6.0
NW	.1	.5	.9	.4								1.9	7.9
NNW	.2	.3	.6	.4								1.6	8.3
VARBL													
CALM												16.1	
	15.1	24.0	24.7	17.2	2.6	.3						100.0	6.4

TOTAL NUMBER OF OBSERVATIONS 930



DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 24112 STATION NAME MALMSTROM AFB MT/GREAT FALLS YEARS 68-77 MONTH OCT  
 CLASS ALL WEATHER HOURS (L.G.T.) 0900-1100  
 CONDITION \_\_\_\_\_

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.8	1.7	1.1	.9	.2							4.6	7.8
NNE	.9	1.3	.8	.3	.3							3.5	6.9
NE	.8	.8	.8	.4								2.7	6.7
ENE	1.0	.5										1.5	3.3
E	1.0	.2										1.2	2.5
ESE	.4	.1	.1									.6	3.7
SE	.4	.2		.1								.8	4.1
SSE	.1	.1	.1									.3	5.7
S	.5	.5	.4		.1							1.6	6.0
SSW	.3	.6	.8	2.4	.4	.2						4.7	11.6
SW	.6	1.6	4.4	10.2	4.1	.9	.1					21.9	13.3
WSW	1.4	2.0	5.2	10.4	4.4	1.7	.2					25.4	13.1
W	1.7	3.3	3.7	3.1	1.1	.2	.2					13.3	9.4
WNW	.9	.5	.2	.3								1.9	5.6
NW	.3	.5	.4	.4								1.7	7.0
NNW	.3	.8	.4	1.0								2.5	8.3
VARBL													
CALM												11.6	
	11.4	14.9	18.3	29.6	10.6	3.0	.5					100.0	9.5

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAG/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

UCT  
NORTH

ALL WEATHER  
CLASS

1200-1400  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.9	1.1	1.4	.9	.1							4.3	7.8
NNE	1.6	1.7	1.1	.4	.1							4.9	6.0
NE	1.1	1.5	1.3	.5								4.4	6.2
ENE	.8	1.2	.4									2.4	4.9
E	.8	1.2	.3									2.3	4.4
ESE	.5	.3										.9	3.4
SE	.6	.3										1.0	3.1
SSE	.2	.2										.4	4.0
S	.4	.3	.3	.1								1.2	5.6
SSW	.3	.3	.8	1.9	.4							3.8	12.0
SW	.4	.8	2.8	7.5	2.4	1.4	.3					15.6	14.1
WSW	.4	1.9	4.5		6.9	2.8	.2					26.1	14.5
W	1.5	2.2	3.2	4.9	2.9	.6	.6	.1				16.1	12.4
WNW	.8	.4	.9	1.0	.2	.3						3.5	9.8
NW	.3	.6	.9	.3	.2							2.8	9.2
NNW	.9	1.2	.8	1.2	.3							4.3	8.3
VARBL													
CALM												6.0	
	11.5	13.3	18.6	28.6	13.5	5.2	1.2	.1				100.0	10.7

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      OCT

STATION      STATION NAME      YEARS      MONTH

ALL WEATHER      1500-1700

CLASS      HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	1.0	1.3	1.5	1.6								5.4	8.1
NNE	1.3	3.1	1.8	.9								7.1	6.2
NE	.6	3.2	1.4	.9	.1							6.2	6.9
ENE	.8	.9	.8	.3								2.7	6.0
E	.9	.2	.3									1.4	4.0
ESE	.2	.1	.1									.4	4.3
SE	.2	.4	.3									1.0	4.9
SSE		.2	.2									.4	7.0
S	.6	.4	.8	.4								2.3	6.8
SSW	.5	.5	1.4	1.3								3.8	8.9
SW	.9	1.8	6.1	5.9	2.0	.4						17.2	11.3
WSW	1.2	2.9	4.7	8.1	3.1	1.0	.1					21.1	12.2
W	.8	1.9	3.2	6.0	2.2	1.4	.3					15.8	12.9
WNW	.3	.6	1.0	.8	.2	.1						3.0	9.5
NW	.2	.5	.5	1.1	.1							2.5	9.3
NNW	.6	.6	1.3	.5								3.1	7.4
VARBL													
CALM												6.7	
	10.1	18.9	25.5	27.7	7.7	2.9	.4					100.0	9.4

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24117 MALMSTRÖM AFB MT/GREAT FALLS 68-77 OCT  
STATION STATION NAME YEARS MONTH

ALL WEATHER 1800-2000  
CLASS HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.6	.6	1.1	.8	.1							3.2	7.7
NNE	1.0	1.8	2.3	.5								5.6	6.6
NE	.6	1.4	1.1	.4								3.5	6.4
ENE	1.2	.8	.1									2.0	3.7
E	1.0	.6	.1									1.7	3.3
ESE	.1	.4	.1									.6	5.0
SE	.9	.5										1.4	3.3
SSE	.8	1.5	.2									2.5	4.4
S	1.5	2.8	.6	.1								5.1	4.7
SSW	1.5	5.1	2.3	.8	.1							9.7	6.1
SW	1.0	5.7	8.2	4.3	.6	.2						20.0	8.7
WSW	.9	3.1	4.0	5.1	1.0	.5						14.5	10.3
W	.6	1.9	4.0	4.1	1.0	.3						11.9	10.5
WNW	.6	.5	.5	.5								2.3	7.3
NW	.2	.2	.6	.3								1.4	7.9
NNW	.5	1.4	1.1									3.0	5.6
VARBL													
CALM												11.5	
	13.0	28.5	26.2	16.9	2.8	1.1						100.0	6.9

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 24112 STATION NAME MALMSTROM AFB MT/GREAT FALLS YEARS 68-77 MONTH OCT  
 CLASS ALL WEATHER HOURS (L.S.T.) 2100-2300  
 CONDITION \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	.8	1.0	.8								3.1	7.5
NNE	.6	1.0	1.1	.3								3.0	6.6
NE	.9	.8	.5	.4	.1							2.7	6.9
ENE	.3	1.0	.2	.1								1.6	5.1
E	.1	.3										.4	4.0
ESE		.2										.2	5.0
SE	.5	1.2	.2									1.7	4.5
SSE	.6	.6										1.3	3.3
S	2.3	5.7	.6	.6								9.2	5.0
SSW	2.3	6.1	3.8	.8								12.9	5.9
SW	2.0	7.3	8.7	3.9	.6	.1	.1					22.8	8.0
WSW	.9	5.2	5.2	3.9	1.4	.2						16.7	9.3
W	.5	2.7	1.8	1.3	.3	.1						6.8	8.1
WNW	.5	.5	.2	.3	.1							1.7	7.0
NW	.6	1.1	1.1	.2								3.0	6.4
NNW	.9	.8	.5	.3	.1							2.6	6.1
VARBL													
CALM	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	10.0	
	13.8	35.2	24.9	12.9	2.7	.4	.1					100.0	6.5

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      OCT

STATION      STATION NAME      YEARS      MONTH

ALL WEATHER

CLASS

CONDITION

ALL

HOURS (L.S.T.)

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.8	1.1	1.0	.8	.1							3.8	7.4
NNE	.9	1.6	1.3	.4	.1	.0						4.3	6.4
NE	.7	1.3	.9	.4	.0							3.3	6.5
ENE	.6	.8	.2	.1								1.7	4.6
E	.5	.4	.1									1.0	3.6
ESE	.2	.2	.0									.4	4.0
SE	.5	.3	.1	.0								.9	3.8
SSE	.5	.4	.1									1.0	3.7
S	1.3	1.8	.7	.3	.0							4.1	5.1
SSW	1.3	3.1	2.2	1.3	.1	.0						8.1	7.1
SW	1.7	5.0	7.8	6.0	1.5	.4	.1					22.5	9.6
WSW	1.2	3.3	4.9	6.2	2.5	.9	.1					19.1	11.3
W	1.3	2.5	2.7	2.8	1.0	.4	.1	.0				10.9	9.9
WNW	.6	.7	.6	.4	.1	.1						2.4	7.5
NW	.4	.7	.7	.5	.0							2.3	7.6
NNW	.5	.8	.7	.6	.1							2.7	7.4
VARBL													
CALM												11.5	
	13.2	24.0	24.0	19.9	5.5	1.7	.3	.0				100.0	7.7

TOTAL NUMBER OF OBSERVATIONS 7440

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

**SURFACE WINDS**

PERCENTAGE FREQUENCY OF WIND  
 DIRECTION AND SPEED  
 (FROM HOURLY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 NOV  
STATION STATION NAME YEARS MONTH  
 ALL WEATHER 0000-0200  
CLASS HOURS (L.S.T.)  
 \_\_\_\_\_  
CONDITION  
 \_\_\_\_\_

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.3	.6	.4	.6		.1						2.0	9.3
NNE	.3	1.9	1.1	.1								3.4	5.9
NE	1.1	.7	.2									2.0	3.9
ENE	.8	.3	.1									1.2	3.3
E	.1	.1	.2									.4	7.3
ESE	.1	.4										.6	3.8
SE	.2	.2	.1									.6	4.0
SSE	.6	.3	.1									1.0	4.0
S	1.0	2.0	.3	.4								3.8	5.5
SSW	.9	2.2	2.3	2.7	.6							8.7	8.9
SW	2.1	4.6	9.4	7.8	2.2	1.3	.1					27.6	10.3
WSW	1.2	4.1	4.1	6.3	2.1	.4	.2	.1				18.7	10.9
W	1.0	2.2	3.0	1.2	.7	.6						8.7	9.3
WNW	.9	.8	.8	.2								2.7	5.9
NW	.1	.9	.3	.4								1.8	7.8
NNW	.4	.3	.4	.1								1.3	5.8
VARBL													
CALM												15.7	
	11.2	21.7	23.1	19.9	5.6	2.4	.3	.1				100.0	7.6

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112      MALMSTROM AFB MT/GREAT FALLS      68-77      NOV

STATION      STATION NAME      YEARS      MONTH

ALL WEATHER      0300-0500

CLASS      HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	.7	.4	.6								2.2	7.1
NNE	.8	1.4	.3									2.6	4.4
NE	.6	.8	.4	.1								1.9	5.4
ENE	.6	.3										.9	2.9
E	.3		.3	.1								.8	6.1
ESE			.1									.1	7.0
SE	.4	.3										.8	3.3
SSE	.4	.1										.6	2.4
S	1.3	2.0	.2	.3	.1							4.0	5.4
SSW	.9	3.3	2.8	1.3	.4	.1						8.9	8.0
SW	1.6	6.1	9.8	7.4	1.8	.3	.2	.1				27.3	9.8
WSW	1.1	3.9	4.6	6.9	1.7	1.1	.3					19.6	11.2
W	.6	2.1	2.9	1.6	.7	.3						8.1	10.0
WNW	.4	1.3	.7									2.4	5.4
NW	.2	1.0	.6									1.8	5.8
NNW	.3	.4	.8	.2								1.8	6.6
VARBL													
CALM												16.3	
	10.1	23.9	23.9	18.6	4.7	1.9	.6	.1				100.0	7.5

TOTAL NUMBER OF OBSERVATIONS      900



DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 24112 STATION NAME MALMSTROM AFB MT/GREAT FALLS YEARS 58-77 MONTH NOV  
 CLASS ALL WEATHER HOURS (L.S.T.) 0600-0800  
 CONDITION \_\_\_\_\_

SPEED (KNTS) DIP.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.9	.8	.3	.3								2.3	5.7
NNE	.6	.6	.7	.2								2.0	6.2
NE	.8	.4	.1	.1								1.4	4.3
ENE	1.0											1.0	1.9
E	.3	.4	.2	.1								1.1	5.5
ESE	.2	.1	.2									.6	5.4
SE	.2	.1										.3	2.3
SSE	.3	.2										.6	3.2
S	.9	1.2	.4	.2								2.8	5.4
SSW	1.1	3.3	2.3	2.2	.8	.1						9.9	8.5
SW	1.8	6.2	5.3	7.3	2.2	.2	.2					26.3	9.9
WSW	1.3	3.4	4.6	6.7	1.6	1.8	.1					19.4	11.5
W	1.1	3.8	2.6	1.6	.7	.3	.1					10.1	8.4
WNW	.7	.6	.7									1.9	5.4
NW	.4	.9	.6	.1								2.0	5.9
NNW	.4	1.2	.2	.4								2.3	6.1
VARBL													
CALM												15.9	
	12.1	23.3	21.2	19.3	5.2	2.4	.4					100.0	7.5

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 24112 STATION NAME MALINSTROM AFB MT/GREAT FALLS YEARS 68-77 MONTH NOV  
 CLASS ALL WEATHER HOURS (L.S.T.) 0900-1100  
 CONDITION \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.7	.7	.7	.4								2.4	6.9
NNE	1.0	1.1	.9	.2	.2							3.4	6.4
NE	.9	1.1										2.0	3.4
ENE	.3	.4	.2									1.0	4.7
E	.	.2										.7	3.2
ESE	.7	.3	.2									1.2	4.0
SE	.4	.1										.6	2.6
SSE	.3											.3	3.0
S	.4	.7	.1	.1	.1							1.4	5.5
SSW	.8	.8	.9	1.9	1.7	.3						6.3	12.1
SW	.7	3.0	6.1	9.4	4.7	1.3	.1					25.3	12.7
WSW	.9	2.3	4.8	7.4	4.8	2.2	.4					22.9	13.7
W	1.4	2.8	2.7	3.0	.7	1.1	.4	.2				12.3	11.5
WNW	.2	.7	.4	.4	.1			.1				2.0	9.4
NW	1.1	.4	.2	.6	.1							2.4	6.5
NNW	.8	.7		.1								1.6	3.9
VARBL													
CALM												14.0	
	11.1	15.3	17.2	23.7	12.3	5.0	1.0	.3				100.0	9.6

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

**SURFACE WINDS**

**PERCENTAGE FREQUENCY OF WIND  
 DIRECTION AND SPEED  
 (FROM HOURLY OBSERVATIONS)**

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

NOV  
MONTH

ALL WEATHER  
CLASS

1200-1400  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	1.6	1.3	1.0	.6		.2						4.7	6.7
NNE	2.2	1.1	.9	.3	.2							4.8	5.5
NE	1.1	1.6	.1	.1								2.9	4.0
ENE	1.2	1.4	.3	.1								3.1	4.3
E	.7	.4	.3									1.4	4.4
ESE	.4	.4										.9	3.1
SE	.2	.2										.4	3.8
SSE	.2											.2	2.0
S	.2	.4	.1	.1								.9	5.9
SSW	.4	.6	.8	2.6	1.3	.3						6.0	13.2
SW	.4	.8	2.6	6.9	4.9	2.4	.6					18.6	15.8
WSW	.2	1.3	2.8	9.6	5.8	4.4	.8	.1				25.0	16.3
W	1.2	1.2	2.3	3.6	2.6	2.1						13.0	13.7
WNW	1.0	1.0	1.3	1.1	.8	.1						5.3	9.6
NW	1.1	.9	.9	.4								3.3	6.0
NNW	.7	.8	.4	.1	.2							2.2	6.5
VARBL													
CALM												7.2	
	13.0	13.6	13.9	25.4	15.8	9.7	1.3	.1				100.0	11.4

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 68-77  
STATION STATION NAME YEARS

ALL WEATHER  
CLASS

NOV  
 NORTH  
 1500-1700  
HOURS (L.S.T.)

COMPOSITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.7	1.2	1.2	.4	.2							3.8	7.3
NNE	1.2	1.1	1.2	.3	.3							4.2	6.9
NE	2.4	3.8	1.7	.1								8.0	4.8
ENE	1.1	1.4	.4									3.0	4.4
E	.4	.6	.1	.2								1.3	5.7
ESE	.2											.2	2.0
SE	.2	.2	.1									.6	4.8
SSE		.3										.3	4.3
S	.7	1.0	.6	.9								3.1	7.3
SSW	.2	.8	2.9	2.1	.4	.1	.1					6.7	10.9
SW	.8	2.7	4.6	7.2	2.7	.8	.1					18.8	11.9
WSW	.8	1.7	3.2	6.7	4.8	2.0	.6	.1				19.8	14.6
W	.4	2.1	2.1	4.0	2.8	1.8		.1				13.3	13.8
V.NW	.6	.9	1.3	.4	.2	.1						3.6	8.2
NW	.6	.7	.4	.3		.1						2.1	7.3
NNW	1.0	.8	.6		.1							2.4	5.2
VARBL													
CALM												8.7	
	11.3	19.2	20.5	22.8	11.6	4.9	.8	.2				100.0	9.7

TOTAL NUMBER OF OBSERVATIONS 899

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/M4C

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 24112 STATION NAME MALMSTROM AFB MT/GREAT FALLS YEAR 68-77 MONTH NOV  
 CLASS ALL WEATHER HOURS (L.S.T.) 1800-2000  
 CONDITION \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.2	.9	.4	1.0								2.6	6.7
NNE	1.2	1.1	.4	.2	.1							3.1	5.5
NE	2.1	1.3	.8									4.2	4.3
ENE	.8	.7	.4									1.9	4.4
E	.9	.6	.2									1.7	3.7
ESE		.1										.1	5.0
SE	.2	.3	.2									.8	5.4
SSE	.8	.4	.2									1.4	3.7
S	1.0	3.2	.7	.3								5.2	5.3
SSW	1.0	2.7	3.0	2.5	.2							9.4	8.4
SW	1.1	4.2	7.8	6.8	1.8	.4						22.2	10.2
WSW	1.2	2.3	4.6	6.9	2.1	1.3	.1					18.6	12.0
W	1.2	1.9	3.1	3.8	.8	.4						11.3	10.5
WNW	.6	.9	.8	.1								2.3	6.2
NW	.2	.4	.3	.1								1.1	5.9
NNW	.6	.8	.4	.3								2.1	6.4
VARBL													
CALM												10.9	
	14.2	22.0	23.5	22.1	5.0	2.2	.1					100.0	7.9

TOTAL NUMBER OF OBSERVATIONS 897

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

NDV  
MOYR

ALL WEATHER  
CLASS

2100-2300  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.7	.6	1.0	.8								3.0	7.7
NNE	1.0	1.1	.8	.1	.2							3.2	6.0
NE	1.8	1.3	.7									3.8	4.3
ENE	.7	.4										1.1	2.9
E		.2	.1									.3	5.7
ESE	.4	.1										.6	2.8
SE		.4	.2									.7	6.2
SSE	.3	.4	.2									1.0	4.6
S	1.7	2.6	.3	.4								5.0	5.0
SSW	1.6	4.6	3.8	2.0	.3	.1						12.4	7.6
SW	1.4	4.9	9.5	6.7	2.8	.6						25.9	10.3
WSW	1.2	2.6	5.7	5.8	2.2	1.1						18.6	11.3
W	.9	2.0	2.2	1.6	.8	.1	.1					7.7	9.4
WNW	.4	.3	.8	.2	.1							1.9	7.3
NW	.8	.7	.6									2.0	4.9
NNW	.4	.3	.1									.9	3.9
VARBL													
CALM												11.9	
	13.4	22.6	26.0	17.6	6.5	1.9	.1					100.0	7.7

TOTAL NUMBER OF OBSERVATIONS 897

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 24112 STATION NAME MALMSTROM AFB MT/GREAT FALLS YEARS 68-77 NOV  
NORTH  
CLASS ALL WEATHER ALL  
HOURS (L.S.T.)  
CONDITION \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	.8	.7	.6	.0	.0						3.0	7.1
NNE	1.0	1.2	.8	.2	.1							3.4	5.9
NE	1.3	1.4	.5	.1								3.3	4.4
ENE	.8	.6	.2	.0								1.7	3.9
E	.4	.3	.2	.1								1.0	4.9
ESE	.3	.2	.1									.5	3.8
SE	.3	.3	.1									.6	4.2
SSE	.4	.2	.1									.7	3.7
S	.9	1.6	.3	.4	.0							3.3	5.6
SSW	.9	2.3	2.3	2.2	.7	.1	.0					8.5	9.3
SW	1.2	4.1	7.3	7.5	2.9	.9	.2	.0				24.0	11.2
WSW	1.0	2.7	4.3	7.0	3.1	1.8	.3	.0				20.3	12.9
W	1.0	2.3	2.6	2.5	1.2	.8	.1	.0				10.6	11.1
WNW	.6	.8	.8	.3	.2	.0		.0				2.8	7.9
NW	.6	.7	.5	.3	.0	.0						2.1	6.3
NNW	.6	.7	.4	.2	.0							1.8	5.7
VARBL													
CALM												12.6	
	12.1	20.2	21.2	21.2	8.3	3.8	.6	.1				100.0	8.6

TOTAL NUMBER OF OBSERVATIONS 7193

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112 STATION NAME: NALMSTRDM AFB MT/GREAT FALLS YEARS: 67-76 MONTH: DEC  
 CLASS: ALL WEATHER HOURS (L.S.T.): 0000-0200  
 CONDITION: \_\_\_\_\_

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.4	1.7	1.6	.4								4.2	6.7
NNE	1.2	1.6	.4	.1	.1							3.4	5.2
NE	.5	.9	.6									2.0	5.3
ENE	.3	.4										.8	3.7
E	.2											.2	2.5
ESE	.3											.3	2.0
SE													
SSE	.3		.2									.5	4.8
S	1.3	1.0	.2									2.5	3.9
SSW	1.3	2.3	2.0	2.3	.6	.3						8.8	9.4
SW	1.1	5.7	9.1	8.2	4.6	.9	.4					30.0	11.5
WSW	1.1	3.7	5.2	5.5	3.4	1.1	.4					20.3	11.9
W	.8	2.6	2.3	1.6	.4	.1						7.7	8.5
WNW	.6	.8	1.1	.1								2.6	6.0
NW	.3	.6	.6	.6	.1							2.4	8.4
NNW	.3	1.2	1.1	.2	.1							2.9	7.4
VARBL													
CALM												11.3	
	10.1	22.4	24.5	19.0	9.5	2.4	.9					100.0	8.6

TOTAL NUMBER OF OBSERVATIONS 930



DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 67-76 DEC  
STATION STATION NAME YEARS MONTH

ALL WEATHER C300-0500  
CLASS HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥56	%	MEAN WIND SPEED
N	.8	1.1	.6	.2								2.7	5.4
NNE	.5	.9	.5	.5								2.5	7.0
NE	.2	1.7	.5									2.5	5.3
ENE	.5	.3										.9	3.1
E	.6	.2										.9	3.0
ESE	.1	.1										.2	3.5
SE	.1	.1										.2	3.5
SSE	.4											.4	2.0
S	.5	1.5	.4									2.5	5.0
SSW	1.1	2.5	2.2	1.8	.8	.1						8.4	8.6
SW	1.5	5.4	6.9	10.0	4.2	1.7	.4	.1				30.2	11.9
WSW	1.6	4.1	4.7	6.3	1.9	1.5						20.2	11.0
W	.9	2.5	2.6	1.2	.5	.1						7.7	8.4
WNW	.6	1.8	.8									3.2	5.3
NW	.5	1.0	.6	.6	.2							3.0	8.3
NNW	.4	1.1	.8	.3								2.6	6.5
VARBL													
CALM												11.9	
	10.5	24.2	20.6	21.1	7.6	3.4	.4	.1				100.0	8.4

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MARMSTROM AFB MT/GREAT FALLS 67-76 DEC  
STATION STATION NAME YEARS MONTH

ALL WEATHER 0600-0800  
CLASS HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.4	.6	1.0	.8								2.8	7.8
NNE	1.1	1.1	.3	.9	.1							3.4	7.0
NE	.9	1.0	.2									2.0	4.2
ENE	.9	.5	.1									1.5	3.5
E	.3	.2										.5	2.8
ESE	.4											.4	2.3
SE													
SSE		.1		.1								.2	8.0
S	.5	.3	.3	.1								1.3	5.1
SSW	1.0	2.3	1.3	1.9	.6	.2						7.3	9.5
SW	1.5	5.1	6.9	9.1	4.2	1.8	.3					28.9	11.8
WSW	1.0	4.0	4.9	8.1	3.5	1.6	.2					23.3	12.2
W	1.4	2.2	2.3	1.0	.2							7.0	7.1
WNW	.5	1.1	.6	.4	.2							2.9	7.0
NW	1.0	.6	.3	.5	.1							2.6	6.5
NNW	.3	.3	.8	.8								2.2	8.4
VARBL													
CALM												13.5	
	11.2	19.4	19.0	23.7	9.0	3.7	.5					100.0	8.7

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112  
STATION

MALNSTROM AFB MT/GREAT FALLS  
STATION NAME

67-76  
YEARS

DEC  
MONTH

ALL WEATHER  
CLASS

0900-1100  
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.3	.6	1.2	.4	.1							2.7	8.7
NNE	.9	1.3	.3	.4								2.9	5.8
NE	.6	1.2	.8	.2								2.8	6.0
ENE	.6	.9	.1									1.6	4.2
E	.1	.3	.1									.5	4.8
ESE		.1										.1	4.0
SE	.3	.1										.4	3.5
SSE	.3	.2										.5	2.8
S	.9	.5	.2									1.6	4.1
SSW	.6	1.0	1.0	2.3	1.3	.3	.1					6.6	12.2
SW	1.3	4.1	7.5	9.0	5.5	1.8	.2	.1				29.6	12.4
WSW	.3	3.0	3.3	9.4	5.3	2.8						24.1	14.0
W	1.3	1.1	2.3	1.7	.4	.3						7.1	9.3
WNW	.2	.9	.8	.5								2.4	7.4
NW	.1	1.1	1.1	.8	.2							3.2	8.6
NNW	.1	.4	.9	.4								1.8	8.8
VARBL													
CALM												12.0	
	8.1	16.8	19.5	25.2	12.8	5.3	.3	.1				100.0	9.9

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
ETAC/USAF  
AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALMSTROM AFB MT/GREAT FALLS 67-76 DEC  
STATION STATION NAME YEARS MONTH  
ALL WEATHER CLASS 1200-1400 HOURS (L.S.T.)  
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.0	.8	1.2	.4								3.3	6.4
NNE	1.3	1.2	1.6	.6								4.7	6.3
NE	.9	1.4	1.0									3.2	5.3
ENE	.2	.3										.5	3.6
E	.2	.1	.1									.4	3.8
ESE	.1	.1	.1									.3	4.7
SE	.1	.3										.4	4.3
SSE		.3										.3	4.7
S	.6	.6										1.3	3.3
SSW	.5	.6	1.1	.8	1.0	.4						4.4	11.9
SW	1.1	1.6	4.6	8.6	6.3	2.4	.8	.1				25.5	14.6
WSW	.3	1.5	6.1	10.1	6.7	3.7	.6	.3				29.4	15.2
W	.4	.8	2.2	3.0	2.5	.8						9.6	13.5
WNW	.2	1.2	.9	1.0	.1							3.3	8.6
NW	.5	1.3	1.0	.5								3.3	6.6
NNW	.1	.1	1.6	.5	.3							2.7	10.8
VARBL													
CALM												7.2	
	7.6	12.3	21.4	25.6	16.9	7.2	1.4	.4				100.0	11.6

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALMSTRON AFB MT/GREAT FALLS 67-76 DEC  
STATION STATION NAME YEAR MONTH

ALL WEATHER 1500-1700  
CLASS HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.1	2.5	1.3	.2	.3							5.4	6.4
NNE	1.3	1.1	2.2	.4								4.9	6.2
NE	.6	1.6	.9	.1								3.2	5.6
ENE	.2	.8	.1									1.1	4.6
E	.6	.1	.1									.9	3.3
ESE	.2											.2	2.0
SE	.1	.1										.2	3.5
SSE	.5											.5	2.2
S	.5	1.0	.2									1.7	4.3
SSW	.5	1.5	1.8	1.3	.4	.3						5.9	9.7
SW	.8	3.8	4.5	8.9	4.0	1.7	.3	.1				24.1	13.0
WSW	.4	2.8	5.6	8.8	5.5	2.9	.2					26.2	13.8
W	.5	1.7	1.9	2.8	1.9	.2	.1	.1				9.4	12.2
WNW		.9	.5	.2								1.6	7.2
NW	.5	.8	1.1	.2	.1							2.7	7.1
NNW	.6	1.2	.8	.3	.5							3.4	8.3
VARBL													
CALM												8.5	
	8.7	19.7	21.0	23.3	12.8	5.2	.6	.2				100.0	10.1

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MALNSTRÖM AFB MT/GREAT FALLS 67-76 DEC  
STATION STATION NAME YEAR MONTH

ALL WEATHER 1800-2000  
CLASS HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.3	2.2	.5	.6								4.6	5.8
NNE	.8	1.3	1.1	.1								3.2	5.7
NE	.6	1.2	.4	.2								2.5	5.3
ENE	.1	.4	.1									.6	5.2
E	.3	.2										.5	2.8
ESE													
SE	.1											.1	2.0
SSE	.8	.3										1.1	3.3
S	.5	2.5	.8	.1								3.9	5.3
SSW	1.3	2.0	2.7	.9	.8	.1						7.7	8.3
SW	1.4	4.5	8.3	7.5	3.2	.5	.3					25.8	10.8
WSW	.9	2.5	6.1	8.2	2.8	1.9	.4	.2				23.0	13.0
W	.5	1.7	1.4	1.7	1.0	.1						6.5	10.2
WNW	.2	.9	.8	.6								2.5	8.0
NW	.5	.4	1.1	.6								2.7	7.6
NNW	.4	.3	1.2	1.0	.1							3.0	9.1
VARBL													
CALM												12.3	
	9.8	20.4	24.4	21.6	7.8	2.7	.8	.2				100.0	8.6

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 4412 STATION NAME MALMSTROM AFB MT/GREAT FALLS YEARS 67-76 MONTH DEC  
 CLASS ALL WEATHER HOURS (L.S.T.) 2100-2300  
 CONDITION \_\_\_\_\_

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	1.0	.9	1.4	.3								3.5	6.3
NNE	1.0	1.0	.9	.3	.1							3.2	6.2
NE	.2	.8	.9									1.8	6.2
ENE	.4	.2		.1								.8	4.1
E		.1										.1	4.0
ESE	.2											.2	1.5
SE	.1	.1										.2	3.0
SSE	.4	.3										.8	3.1
S	.8	1.1	.3	.1	.1							2.4	5.7
SSW	.9	2.9	1.9	2.0	.6	.2						8.6	9.1
SW	1.7	5.7	8.2	8.8	3.7	1.6	.2					29.9	11.1
WSW	1.5	3.1	5.3	4.9	2.8	1.5	.5	.1				19.8	12.2
W	.5	2.3	2.3	2.4	1.0	.2						8.6	9.8
WNW	.2	1.0	1.3	.3								2.8	7.3
NW	.4	.9	.8	.2	.1							2.4	7.5
NNW	.3	.6	1.4	.8	.1							3.3	9.1
VARBL													
CALM												11.6	
	9.7	20.9	24.5	20.3	8.5	3.7	.5	.1				100.0	8.8

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION: 24112 STATION NAME: MALMSTROM AFB MT/GREAT FALLS YEARS: 67-76 MONTH: DEC  
 CLASS: ALL WEATHER MONTH: ALL  
 CONDITION: \_\_\_\_\_  
NOV88 (L.S.T.)

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.8	1.3	1.1	.4	.1							3.7	6.6
NNE	1.0	1.2	.9	.4	.0							3.5	6.2
NE	.6	1.2	.7	.1								2.5	5.4
ENE	.4	.5	.1	.0								1.0	3.0
E	.3	.2	.0									.5	3.3
ESE	.2	.0	.0									.2	2.8
SE	.1	.1										.2	3.5
SSE	.3	.2	.0	.0								.6	3.5
S	.7	1.1	.3	.0	.0							2.1	4.7
SSW	.9	1.9	1.7	1.7	.8	.3	.0					7.2	9.6
SW	1.3	4.5	7.0	8.8	4.5	1.0	.4	.1				28.0	12.1
WSW	.9	3.1	5.2	7.7	4.0	2.1	.3	.1				23.3	13.1
W	.8	1.8	2.1	1.9	1.0	.2	.0	.0				7.6	10.1
WNW	.3	1.0	.8	.4	.0							2.7	7.1
NW	.5	.8	.8	.5	.1							2.8	7.6
NNW	.3	.7	1.0	.5	.1	.0						2.7	8.6
VARBL													
CALM												11.0	
	9.5	19.5	21.9	22.5	10.6	4.2	.7	.1				100.0	9.3

TOTAL NUMBER OF OBSERVATIONS 7440



DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## SURFACE WINDS

### PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 Malmstrom AFB MT/Great Falls 67-77 ALL  
STATION STATION NAME YEARS MONTH

ALL WEATHER ALL  
CLASS HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥56	%	MEAN WIND SPEED
N	.9	1.3	1.2	.8	.1	.0	.0					4.2	7.4
NNE	1.0	1.6	1.2	.7	.1	.0	.0					4.6	7.0
NE	.9	1.5	1.1	.5	.1	.0						4.0	6.6
ENE	.6	.9	.5	.2	.0	.0						2.2	5.7
E	.6	.6	.3	.1	.0	.0						1.6	5.1
ESE	.3	.3	.2	.1	.0							.9	5.6
SE	.4	.4	.2	.1	.0	.0						1.1	5.5
SSE	.5	.5	.2	.0	.0							1.4	4.7
S	1.2	1.8	.6	.2	.0							4.0	5.2
SSW	1.2	2.5	1.5	1.0	.3	.1	.0					6.7	7.4
SW	1.5	4.0	5.3	4.5	1.5	.5	.1	.0				17.6	9.9
WSW	1.0	3.0	4.3	5.5	2.3	1.0	.2	.0				17.3	11.7
W	1.1	2.7	3.1	2.8	1.1	.4	.1	.0				11.3	10.0
WNW	.6	1.1	1.1	.6	.1	.0	.0	.0				3.6	7.8
NW	.6	.9	.8	.4	.1	.0	.0					2.8	7.2
NNW	.5	.8	.8	.5	.1	.0	.0					2.8	7.5
VARBL													
CALM												14.0	
	12.0	23.9	22.6	17.9	6.0	2.2	.3	.0				100.0	7.6

TOTAL NUMBER OF OBSERVATIONS 87665

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# SURFACE WINDS

## PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

24112 MARMSTROM AFB MT/GREAT FALLS 67-77 ALL  
STATION STATION NAME YEARS MONTH

INSTRUMENT  
CLASS  
 CIG 200 TO 1400 FT W/ VSBY 1/2 MI OR MORE,  
CONDITION  
 AND/OR VSBY 1/2 TO 2-1/2 MI W/CIG 200 FT OR MORE

ALL  
HOURS (L.S.T.)

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.7	4.1	5.5	4.3	.9	.3						16.7	9.2
NNE	2.1	5.5	5.3	4.2	1.1	.1	.0					18.3	8.5
NE	1.4	3.6	3.2	2.3	.4	.0						10.8	7.9
ENE	.7	1.3	.8	.3	.1	.1						3.3	6.5
E	.5	.7	.1	.0								1.3	4.3
ESE	.2	.4	.1									.8	4.5
SE	.2	.1	.1									.4	4.3
SSE	.2	.1	.0									.3	3.8
S	.2	.1	.0									.4	3.3
SSW	.5	.2	.0	.1	.0							.8	4.3
SW	.9	.7	.5	.2	.1	.1						2.4	6.7
WSW	.5	.9	.8	.8	.2	.0	.0					3.2	8.8
W	.8	1.5	1.6	1.0	.0	.0						4.9	7.5
WNW	.6	1.9	1.8	.7	.2	.0						5.2	7.8
NW	.9	2.2	2.4	1.4	.2	.0						7.2	8.0
NNW	1.3	2.7	3.5	2.7	.4	.1						10.7	8.6
VARBL													
CALM												13.4	
	12.8	25.8	25.7	17.9	3.7	.8	.0					100.0	7.0

TOTAL NUMBER OF OBSERVATIONS 5286

U S AIR FORCE  
ENVIRONMENTAL TECHNICAL  
APPLICATIONS CENTER

## PART D CEILING VERSUS VISIBILITY

This summary is a bivariate percentage frequency distribution by classes of ceiling from zero to equal to or greater than 20,000 feet and as a separate class "no ceiling", versus visibility in 16 classes from zero to equal to or greater than 10 miles. Data are derived from hourly observations, and three sets of tables are presented as follows:

1. Annual - all years and all hours combined
2. By month - all years and all hours combined
3. By month - by standard 3-hour groups

Due to the cumulative nature of this presentation, it is possible to determine the percentage frequency of occurrence for any given limit of ceiling or visibility separately, or in combination of ceiling and visibility. The totals progress to the right and downward. Ceiling may be determined independently by referring to totals in the extreme right hand column. Also, visibility may be determined independently by reference to the horizontal row of totals at the bottom of the page. The percentage frequency for which the station was meeting or exceeding any given set of minima may be determined from the figure at the intersection of the appropriate ceiling column and visibility row. Several examples in the use of these tables are shown on pages 2 and 3 below.

U. S. Weather Bureau and Navy stations did not report ceilings within the range 10,000 feet and higher prior to January 1949. Summaries prepared from data for these stations using the earlier period and data subsequent to January 1949 will be modified to limit ceilings to 10,000 feet. Short periods of record prior to 1949 for these stations will be eliminated from the summary. For Air Force stations, the "no ceiling" category includes clear and scattered conditions, and ceilings above 20,000 feet for period through June 1948. Beginning in July 1948 for Air Force stations and January 1949 for USWB and U. S. Navy stations the "no ceiling" category consists of observations with less than 6/10 total sky cover and those cases where total sky cover is 6/10 or more, but not more than 1/2 of the sky cover is opaque.

Beginning in January 1968, METAR stations report visibilities to 6 miles and then greater than 6 miles. Thus, for METAR stations, the category equal to or greater than 10 miles is not printed in the tables, unless the summary was for a period ending before January 1968.

Continued on Reverse Side

EXAMPLES FOR USE OF CEILING VERSUS VISIBILITY TABLES IN THIS TABULATION

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	$\geq 10$	$\geq 6$	$\geq 5$	$\geq 4$	$\geq 3$	$\geq 2\frac{1}{2}$	$\geq 2$	$\geq 1\frac{1}{2}$	$\geq 1\frac{1}{4}$	$\geq 1$	$\geq \frac{3}{4}$	$\geq \frac{1}{2}$	$\geq \frac{1}{2}$	$\geq \frac{5}{16}$	$\geq \frac{1}{4}$	$\geq 0$
NO CEILING																
$\geq 1800$																
$\geq 1500$					91.0											92.6
$\geq 1200$																
$\geq 1000$																
$\geq 900$																
$\geq 800$																
$\geq 700$																
$\geq 600$																
$\geq 500$										97.4						98.1
$\geq 400$																
$\geq 300$																
$\geq 200$																
$\geq 100$																
$\geq 0$					95.4		96.9			98.3						100.0

EXAMPLE # 1 Read ceiling values independently of visibility under column at right headed  $\geq 0$ .  
 For instance, from the table: Ceiling  $\geq 1500$  feet = 92.6%.  
 Ceiling  $\geq 500$  feet = 98.1%.

EXAMPLE # 2 Read visibilities independently of ceilings on bottom line opposite  $\geq 0$ . From the table:  
 Visibility  $\geq 3$  miles = 95.4%.  
 Visibility  $\geq 2$  miles = 96.9%.  
 Visibility  $\geq 1$  mile = 98.3%.

EXAMPLE # 3 To obtain combinations of ceiling with visibility, read figure at intersection of the two categories; i.e.: Ceiling  $\geq 1500$  feet with visibility  $\geq 3$  miles = 91.0%.

#### ADDITIONAL EXAMPLES

##### EXAMPLE # 4

Values below minimums stated in the table may be obtained by subtracting the value given in the table from 100%. Thus, to obtain the percentage of observations with ceiling < 1500 feet and/or visibility < 3 miles, subtract the value read from the table at the intersection, which is 91.0, from 100.0. The answer 9.0 is the percentage of observations with ceiling < 1500 feet and/or visibility < 3 miles.

Likewise, the percentage of observations with ceiling < 500 feet and/or visibility < 1 mile is 2.6, obtained by subtracting 97.4 from 100.0.

##### EXAMPLE # 5

To find the percentage of observations falling within the two categories given in example above, subtract the value read from the table for the first set of limits from the value in the table for the second set of limits. The difference will be the percentage of observations meeting the lower set of limits, but not meeting the higher set of limits.

The value 91.0 read from the table at the intersection of  $\geq 1500$  feet with  $\geq 3$  miles, subtracted from 97.4 read from the table at the intersection of  $\geq 500$  feet with  $\geq 1$  mile is equal to 6.4%. Thus; 6.4 percent of the observations meet the criteria: "ceiling  $\geq 500$  feet with visibility  $> 1$  mile, but  $< 3$  miles; or ceiling  $\geq 500$  feet, but  $< 1500$  feet with visibility  $\geq 1$  mile."

Since these tabulations are prepared in several ways including by month, by 3-hour groups it is possible to determine diurnal variations of ceiling and visibility limits as well as probabilities of various ceiling-visibility combinations.

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 STATION MARMSTRON AFB MT/GREAT FALLS STATION NAME 68-77 YEARS JAN MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0000-0200  
 HOURS (LST)

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥¾	≥½	≥5/16	≥¼	≥0
NO CEILING	29.5	42.5	42.8	42.9	43.4	43.8	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.1
≥ 20000	34.5	52.7	53.1	53.2	53.9	54.2	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.6
≥ 18000	34.5	52.7	53.1	53.2	53.9	54.2	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.6
IV 16000	34.5	52.7	53.1	53.2	53.9	54.2	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.6
≥ 14000	35.2	53.5	54.0	54.1	54.7	55.1	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.5
IV 12000	38.4	58.2	58.7	58.8	59.5	59.8	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.2
≥ 10000	46.5	67.5	68.2	68.3	69.0	69.4	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.9
IV 9000	46.9	68.4	69.0	69.1	69.9	70.2	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.6	70.8
≥ 8000	48.9	71.2	71.9	72.0	72.8	73.1	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.7
IV 7000	49.7	72.8	73.7	73.8	74.5	74.8	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.4
≥ 6000	50.3	73.9	74.7	74.8	75.6	75.9	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.5
IV 5000	51.8	75.6	77.0	77.1	77.8	78.2	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.7
≥ 4500	52.0	76.2	77.8	78.0	78.7	79.0	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.6
IV 4000	53.4	79.2	81.0	81.1	81.9	82.3	83.0	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.3
≥ 3500	53.8	80.0	81.7	81.8	83.1	83.4	84.2	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.5
IV 3000	54.4	81.4	83.7	83.9	85.5	85.9	86.9	87.1	87.1	87.4	87.4	87.4	87.4	87.4	87.4	87.5
≥ 2500	54.5	82.3	84.7	85.1	87.0	87.4	88.5	88.7	88.7	89.0	89.0	89.0	89.0	89.0	89.0	89.1
IV 2000	54.7	83.2	86.0	86.5	88.6	89.0	90.1	90.8	90.8	91.1	91.1	91.1	91.1	91.1	91.1	91.2
≥ 1800	54.7	83.2	86.2	86.7	88.8	89.2	90.3	91.0	91.0	91.4	91.4	91.4	91.4	91.4	91.4	91.5
IV 1500	55.2	83.9	87.0	87.4	89.6	90.0	91.2	92.3	92.3	92.7	92.7	92.7	92.7	92.7	92.7	92.8
≥ 1200	55.5	84.7	88.0	88.4	90.6	91.1	92.3	93.8	93.9	94.4	94.4	94.4	94.4	94.4	94.4	94.5
IV 1000	55.6	84.8	88.2	88.6	91.0	91.4	92.6	94.3	94.7	95.5	95.5	95.5	95.5	95.5	95.5	95.6
≥ 900	55.6	84.8	88.2	88.6	91.2	91.6	92.9	94.9	95.5	96.2	96.3	96.3	96.3	96.3	96.3	96.5
IV 800	55.7	84.9	88.3	88.7	91.5	91.9	93.3	95.4	95.9	96.9	97.1	97.1	97.1	97.1	97.1	97.2
≥ 700	55.8	85.2	88.5	88.9	91.7	92.2	93.7	95.9	96.5	97.5	97.8	97.8	97.8	97.8	97.8	98.0
IV 600	55.8	85.2	88.5	88.9	91.9	92.4	93.9	96.1	96.7	98.2	98.5	98.5	98.5	98.5	98.5	98.6
≥ 500	55.8	85.3	88.6	89.0	92.0	92.5	94.0	96.3	97.1	98.7	99.0	99.0	99.0	99.0	99.0	99.1
IV 400	55.8	85.3	88.6	89.0	92.0	92.5	94.0	96.3	97.2	98.9	99.2	99.5	99.5	99.5	99.5	99.6
≥ 300	55.8	85.3	88.6	89.0	92.0	92.5	94.0	96.3	97.2	98.9	99.2	99.5	99.5	99.5	99.5	99.6
IV 200	55.8	85.3	88.6	89.0	92.0	92.5	94.1	96.5	97.3	99.0	99.4	99.7	99.8	99.8	99.8	99.9
≥ 100	55.8	85.3	88.6	89.0	92.0	92.5	94.1	96.5	97.3	99.0	99.4	99.7	99.8	99.8	99.8	99.9
IV 0	55.8	85.3	88.6	89.0	92.0	92.5	94.1	96.5	97.3	99.0	99.4	99.7	99.8	99.8	99.8	100.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

JAN  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0300-0500  
HOURS (LST)

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥¾	≥½	≥5/16	≥¼	≥0
NO CEILING	28.6	41.8	42.3	42.4	42.8	43.2	43.3	43.3	43.3	43.3	43.4	43.4	43.4	43.4	43.4	43.4
≥ 20000	35.8	54.3	54.7	54.8	55.4	55.8	56.0	56.0	56.0	56.0	56.1	56.1	56.1	56.1	56.1	56.1
≥ 18000	35.8	54.3	54.7	54.8	55.4	55.8	56.0	56.0	56.0	56.0	56.1	56.1	56.1	56.1	56.1	56.1
≥ 16000	35.8	54.3	54.7	54.8	55.4	55.8	56.0	56.0	56.0	56.0	56.1	56.1	56.1	56.1	56.1	56.1
≥ 14000	36.2	54.7	55.2	55.3	55.8	56.2	56.5	56.5	56.5	56.5	56.6	56.6	56.6	56.6	56.6	56.6
≥ 12000	38.7	57.7	58.2	58.3	58.9	59.5	59.7	59.7	59.7	59.7	59.8	59.8	59.8	59.8	59.8	59.8
≥ 10000	45.8	65.9	66.7	66.8	67.4	68.0	68.5	68.5	68.5	68.5	68.6	68.6	68.6	68.6	68.6	68.6
≥ 9000	46.2	67.1	67.8	68.0	68.6	69.1	69.7	69.7	69.7	69.7	69.8	69.8	69.8	69.8	69.8	69.8
≥ 8000	47.8	69.5	70.2	70.3	71.0	71.5	72.0	72.0	72.0	72.0	72.2	72.2	72.2	72.2	72.2	72.2
≥ 7000	48.8	70.5	71.3	71.4	72.0	72.6	73.1	73.1	73.1	73.1	73.2	73.2	73.2	73.2	73.2	73.2
≥ 6000	49.2	71.7	72.5	72.6	73.2	73.8	74.3	74.3	74.3	74.3	74.4	74.4	74.4	74.4	74.4	74.4
≥ 5000	51.1	74.2	74.9	75.2	75.9	76.5	77.0	77.0	77.0	77.0	77.1	77.1	77.1	77.1	77.1	77.1
≥ 4500	51.6	75.3	76.1	76.3	77.1	77.6	78.2	78.2	78.2	78.2	78.3	78.3	78.3	78.3	78.3	78.3
≥ 4000	52.5	77.3	78.1	78.6	79.7	80.2	81.1	81.2	81.2	81.2	81.5	81.5	81.5	81.5	81.5	81.5
≥ 3500	53.0	79.1	80.1	80.5	81.6	82.2	83.0	83.1	83.1	83.1	83.4	83.4	83.4	83.4	83.4	83.4
≥ 3000	53.5	80.5	81.8	82.4	83.4	84.1	85.1	85.4	85.4	85.4	85.8	85.8	85.8	85.8	85.8	85.8
≥ 2500	53.5	80.8	82.0	82.6	83.9	84.6	85.7	86.0	86.0	86.0	86.5	86.5	86.5	86.5	86.5	86.5
≥ 2000	54.5	82.0	83.9	84.4	86.2	87.1	88.5	88.9	88.9	88.9	89.4	89.4	89.4	89.4	89.5	89.5
≥ 1800	54.5	82.3	84.3	84.8	86.7	87.7	89.1	89.6	89.6	89.6	90.0	90.0	90.0	90.0	90.1	90.1
≥ 1500	55.1	82.9	85.4	85.9	88.0	89.0	90.6	91.4	91.4	91.4	91.8	91.8	91.8	91.8	91.9	91.9
≥ 1200	55.4	83.4	85.9	86.6	88.8	89.9	91.5	93.1	93.1	93.1	93.5	93.5	93.5	93.5	93.7	93.7
≥ 1000	55.5	84.0	86.7	87.3	89.7	90.8	92.5	94.3	94.3	94.3	94.8	94.8	94.8	94.9	95.1	95.1
≥ 900	55.7	84.2	86.9	87.5	89.9	91.0	92.7	94.6	94.6	94.6	95.2	95.2	95.3	95.3	95.4	95.4
≥ 800	55.7	84.2	86.9	87.5	89.9	91.0	92.7	95.1	95.2	95.5	96.0	96.0	96.1	96.1	96.3	96.3
≥ 700	55.9	84.4	87.1	87.7	90.2	91.3	93.0	95.5	95.7	95.9	96.5	96.5	96.7	96.7	97.0	97.0
≥ 600	56.1	84.8	87.5	88.2	90.6	91.7	93.4	96.1	96.3	97.1	97.7	97.7	98.0	98.0	98.3	98.3
≥ 500	56.3	85.2	87.8	88.5	91.0	92.0	93.8	96.6	96.9	97.7	98.4	98.4	98.6	98.6	98.9	98.9
≥ 400	56.3	85.2	87.8	88.5	91.0	92.0	93.8	96.7	97.0	97.8	98.5	98.5	98.7	98.7	99.1	99.1
≥ 300	56.3	85.2	87.8	88.5	91.1	92.2	93.9	96.8	97.2	98.1	98.9	98.9	99.1	99.1	99.6	99.8
≥ 200	56.3	85.2	87.8	88.5	91.1	92.2	93.9	96.8	97.2	98.1	98.9	98.9	99.1	99.1	99.6	99.8
≥ 100	56.3	85.2	87.8	88.5	91.2	92.3	94.0	96.9	97.3	98.2	99.0	99.0	99.2	99.2	99.7	99.9
≥ 0	56.3	85.2	87.8	88.5	91.2	92.3	94.0	96.9	97.3	98.2	99.0	99.0	99.2	99.2	99.7	100.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 MALMSTRUM AFB MT/GREAT FALLS 68-77 JAN

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0600-0800  
HOURS LTST

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ ¼	≥ 5/16	≥ ¼	≥ 0
NO CEILING	32.4	40.0	40.3	40.3	40.5	40.8	40.9	41.0	41.1	41.4	41.5	41.5	41.6	41.6	41.9	41.9
≥ 20000	40.9	53.1	53.7	53.8	54.0	54.3	54.4	54.5	54.6	54.9	55.1	55.1	55.2	55.2	55.5	55.5
IV 18000	40.9	53.1	53.7	53.8	54.0	54.3	54.4	54.5	54.6	54.9	55.1	55.1	55.2	55.2	55.5	55.5
IV 16000	40.9	53.1	53.7	53.8	54.0	54.3	54.4	54.5	54.6	54.9	55.1	55.1	55.2	55.2	55.5	55.5
IV 14000	41.0	53.2	53.8	53.9	54.1	54.4	54.5	54.6	54.7	55.1	55.2	55.2	55.3	55.3	55.6	55.6
IV 12000	43.8	56.3	56.9	57.0	57.2	57.5	57.6	57.7	57.8	58.2	58.3	58.3	58.4	58.4	58.7	58.7
IV 10000	48.5	61.8	62.4	62.5	62.9	63.2	63.4	63.5	63.7	64.0	64.1	64.1	64.2	64.2	64.5	64.5
IV 9000	49.2	63.3	63.9	64.0	64.5	64.8	65.2	65.3	65.4	65.7	65.8	65.8	65.9	65.9	66.2	66.2
IV 8000	51.5	65.9	66.5	66.6	67.2	67.5	67.8	68.0	68.1	68.4	68.5	68.5	68.6	68.6	68.9	68.9
IV 7000	52.9	67.6	68.2	68.3	68.9	69.2	69.6	69.7	69.8	70.1	70.2	70.2	70.3	70.3	70.6	70.6
IV 6000	54.5	70.2	70.8	70.9	71.5	71.8	72.2	72.3	72.4	72.7	72.8	72.8	72.9	72.9	73.2	73.2
IV 5000	57.2	73.1	73.7	73.8	74.4	74.7	75.1	75.2	75.3	75.6	75.7	75.7	75.8	75.8	76.1	76.1
IV 4500	58.3	74.8	75.4	75.6	76.2	76.6	76.9	77.0	77.1	77.4	77.5	77.5	77.6	77.6	78.0	78.0
IV 4000	60.2	78.0	78.8	79.1	79.8	80.1	80.6	81.0	81.1	81.5	81.7	81.7	81.8	81.8	82.2	82.2
IV 3500	60.8	79.2	80.3	80.6	81.6	81.9	82.7	83.0	83.1	83.5	83.8	83.8	83.9	83.9	84.2	84.2
IV 3000	61.0	80.4	81.7	82.2	83.5	84.0	84.7	85.1	85.2	85.6	85.8	85.8	85.9	85.9	86.2	86.2
IV 2500	61.4	81.0	82.5	82.9	84.5	84.9	85.8	86.1	86.2	86.7	86.9	86.9	87.0	87.0	87.3	87.3
IV 2000	61.8	81.8	83.3	83.9	85.8	86.3	87.7	88.3	88.5	88.9	89.1	89.1	89.2	89.2	89.6	89.6
IV 1800	62.0	82.2	83.8	84.3	86.2	86.8	88.2	88.7	88.9	89.4	89.6	89.6	89.7	89.7	90.0	90.0
IV 1500	62.2	82.6	84.3	84.8	87.3	87.8	89.5	90.1	90.3	90.8	91.0	91.0	91.1	91.1	91.4	91.4
IV 1200	62.2	82.6	84.4	84.9	87.5	88.3	89.9	90.6	90.9	91.4	91.6	91.6	91.7	91.7	92.2	92.2
IV 1000	62.3	82.9	84.8	85.5	88.5	89.4	91.1	91.9	92.2	92.9	93.1	93.1	93.2	93.2	93.7	93.7
IV 900	62.3	83.0	84.9	85.6	88.6	89.5	91.2	92.0	92.3	93.1	93.3	93.3	93.4	93.4	93.9	93.9
IV 800	62.4	83.2	85.2	85.8	88.8	89.7	91.4	92.5	92.8	93.7	94.0	94.2	94.3	94.3	94.7	94.7
IV 700	62.8	83.8	85.7	86.5	89.5	90.3	92.2	93.3	93.7	94.5	94.9	95.2	95.3	95.3	95.7	95.7
IV 600	62.8	83.8	85.7	86.5	89.5	90.3	92.2	93.9	94.2	95.4	95.9	96.1	96.3	96.3	96.8	96.8
IV 500	62.9	83.9	85.8	86.6	89.6	90.5	92.4	94.1	94.4	95.6	96.3	96.6	96.9	97.0	97.5	97.5
IV 400	63.2	84.2	86.1	86.9	90.0	91.1	92.9	94.7	95.2	96.5	97.3	97.5	98.0	98.1	98.6	98.6
IV 300	63.2	84.4	86.3	87.1	90.2	91.4	93.2	95.1	95.5	96.9	97.7	98.0	98.5	98.6	99.1	99.1
IV 200	63.2	84.4	86.3	87.1	90.2	91.5	93.3	95.2	95.6	97.1	98.0	98.2	98.9	99.0	99.6	99.6
IV 100	63.2	84.4	86.3	87.1	90.2	91.5	93.3	95.2	95.6	97.2	98.2	98.4	99.2	99.4	100.0	100.0
IV 0	63.2	84.4	86.3	87.1	90.2	91.5	93.3	95.2	95.6	97.2	98.2	98.4	99.2	99.4	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 930



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

JAN  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0900-1100  
HOURS-UT

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	34.4	35.2	35.8	35.8	36.2	36.5	36.6	37.1	37.1	37.3	37.4	37.4	37.5	37.5	37.7	37.7
≥ 20000	43.3	44.3	45.2	45.2	45.7	45.9	46.0	46.6	46.6	46.8	46.9	46.9	47.0	47.0	47.2	47.2
IV 18000	43.7	44.6	45.5	45.5	46.0	46.2	46.3	46.9	46.9	47.1	47.2	47.2	47.3	47.3	47.5	47.5
IV 16000	43.8	44.7	45.6	45.6	46.1	46.3	46.5	47.0	47.0	47.2	47.3	47.3	47.4	47.4	47.6	47.6
IV 14000	44.8	45.8	46.7	46.7	47.2	47.4	47.5	48.1	48.1	48.3	48.4	48.4	48.5	48.5	48.7	48.7
IV 12000	50.8	51.7	52.6	52.6	53.1	53.3	53.4	54.0	54.0	54.2	54.3	54.3	54.4	54.4	54.6	54.6
IV 10000	60.3	61.9	62.8	62.8	63.3	63.5	63.7	64.2	64.2	64.4	64.5	64.5	64.6	64.6	64.8	64.8
IV 9000	61.8	62.5	64.4	64.4	64.9	65.2	65.3	65.8	65.8	66.0	66.1	66.1	66.2	66.2	66.5	66.5
IV 8000	64.5	66.3	67.4	67.4	68.1	68.3	68.5	69.0	69.0	69.2	69.4	69.4	69.5	69.5	69.7	69.7
IV 7000	67.8	69.8	70.9	70.9	71.5	71.7	71.9	72.5	72.5	72.7	72.8	72.8	72.9	72.9	73.1	73.1
IV 6000	71.1	73.2	74.3	74.3	75.1	75.3	75.5	76.0	76.0	76.2	76.3	76.3	76.5	76.5	76.7	76.7
IV 5000	72.5	75.6	76.7	76.7	77.6	77.8	78.1	78.6	78.6	78.8	78.9	78.9	79.0	79.0	79.2	79.2
IV 4500	72.6	76.2	77.4	77.4	78.5	78.7	78.9	79.5	79.5	79.7	79.8	79.8	79.9	79.9	80.1	80.1
IV 4000	74.5	78.8	80.1	80.1	81.4	81.7	82.4	82.9	83.0	83.2	83.7	83.7	83.8	83.8	84.0	84.0
IV 3500	74.8	79.5	80.9	81.0	82.3	82.6	83.3	83.9	84.0	84.2	84.6	84.6	84.7	84.7	84.9	84.9
IV 3000	75.2	80.1	81.6	81.8	83.9	84.2	85.1	85.6	85.8	86.1	86.6	86.6	86.7	86.7	87.0	87.0
IV 2500	75.5	80.5	82.0	82.3	84.6	84.9	86.1	86.8	87.0	87.3	87.7	87.7	87.8	87.8	88.2	88.2
IV 2000	75.8	81.2	82.7	82.9	85.4	85.7	87.0	87.6	88.0	88.3	88.8	88.8	88.9	88.9	89.4	89.4
IV 1800	75.8	81.2	82.7	82.9	85.4	85.7	87.0	87.6	88.1	88.7	89.2	89.2	89.4	89.4	89.8	89.9
IV 1500	75.9	81.5	83.0	83.2	85.8	86.1	87.7	88.5	88.9	89.7	90.2	90.3	90.4	90.4	90.9	91.0
IV 1200	75.9	81.6	83.2	83.5	86.3	86.7	88.4	89.1	89.8	90.8	91.3	91.4	91.5	91.5	91.9	92.0
IV 1000	75.9	81.6	83.2	83.5	86.6	87.0	89.1	90.0	91.1	92.5	93.2	93.3	93.4	93.4	93.9	94.0
IV 900	76.1	81.8	83.4	83.8	86.9	87.3	89.5	90.4	91.5	93.0	93.8	93.9	94.0	94.0	94.4	94.5
IV 800	76.2	81.9	83.5	83.9	87.0	87.4	89.7	90.9	91.9	93.9	94.9	95.1	95.5	95.5	95.9	96.0
IV 700	76.2	82.0	83.7	84.0	87.1	87.5	89.8	91.2	92.3	94.3	95.8	95.9	96.3	96.3	96.8	96.9
IV 600	76.2	82.2	83.8	84.1	87.2	87.6	89.9	91.3	92.4	94.4	95.9	96.1	96.7	96.7	97.1	97.2
IV 500	76.2	82.2	83.8	84.1	87.2	87.6	90.0	91.6	92.7	94.8	96.5	96.8	97.6	97.6	98.2	98.3
IV 400	76.5	82.4	84.0	84.3	87.5	88.0	90.5	92.2	93.4	95.7	97.4	97.7	98.7	98.8	99.4	99.6
IV 300	76.6	82.5	84.1	84.4	87.6	88.1	90.6	92.3	93.5	95.8	97.6	98.0	98.9	99.0	99.6	99.8
IV 200	76.6	82.5	84.1	84.4	87.6	88.1	90.6	92.3	93.5	95.8	97.6	98.0	98.9	99.2	99.8	100.0
IV 100	76.6	82.5	84.1	84.4	87.6	88.1	90.6	92.3	93.5	95.8	97.6	98.0	98.9	99.2	99.8	100.0
IV 0	76.6	82.5	84.1	84.4	87.6	88.1	90.6	92.3	93.5	95.8	97.6	98.0	98.9	99.2	99.8	100.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

08-77  
YEARS

JAN  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

1200-1400  
HOURS U.S.T.

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	35.2	36.8	36.9	37.0	37.4	37.4	37.4	37.5	37.5	37.7	37.7	37.7	37.7	37.7	37.7	37.7
≥ 20000	46.2	48.8	49.1	49.2	49.9	49.9	50.0	50.1	50.1	50.4	50.4	50.4	50.4	50.4	50.4	50.4
IV 18000	46.7	49.2	49.6	49.7	50.3	50.3	50.4	50.5	50.5	50.9	50.9	50.9	50.9	50.9	50.9	50.9
IV 16000	46.8	49.4	49.7	49.8	50.4	50.4	50.5	50.6	50.6	51.0	51.0	51.0	51.0	51.0	51.0	51.0
IV 14000	48.1	50.6	51.0	51.1	51.7	51.7	51.8	51.9	51.9	52.3	52.3	52.3	52.3	52.3	52.3	52.3
IV 12000	54.9	57.7	58.1	58.2	58.8	58.8	58.9	59.0	59.0	59.4	59.4	59.4	59.4	59.4	59.4	59.4
IV 10000	65.8	68.7	69.1	69.2	70.0	70.0	70.1	70.2	70.2	70.5	70.5	70.5	70.5	70.5	70.5	70.5
IV 9000	66.8	69.8	70.2	70.3	71.1	71.1	71.2	71.3	71.3	71.6	71.6	71.6	71.6	71.6	71.6	71.6
IV 8000	71.1	74.4	74.8	74.9	75.8	75.8	75.9	76.0	76.0	76.5	76.5	76.5	76.5	76.5	76.5	76.5
IV 7000	73.0	76.5	76.9	77.0	77.8	77.8	78.0	78.2	78.2	78.6	78.6	78.6	78.6	78.6	78.6	78.6
IV 6000	74.4	78.1	78.6	78.7	79.6	79.6	79.7	79.9	79.9	80.3	80.3	80.3	80.3	80.3	80.3	80.3
IV 5000	75.3	79.7	80.3	80.4	81.5	81.5	81.6	81.8	81.8	82.3	82.3	82.3	82.3	82.3	82.3	82.3
IV 4500	75.7	80.3	81.3	81.4	82.6	82.7	82.8	83.0	83.0	83.4	83.4	83.4	83.4	83.4	83.4	83.4
IV 4000	76.9	82.0	83.3	83.5	85.2	85.3	85.6	86.0	86.0	86.5	86.5	86.5	86.5	86.5	86.5	86.5
IV 3500	77.4	82.6	84.0	84.3	86.1	86.6	87.0	87.4	87.4	87.8	87.8	87.8	87.8	87.8	87.8	87.8
IV 3000	78.1	83.3	84.7	85.2	87.5	88.0	88.5	89.1	89.1	89.6	89.6	89.6	89.6	89.6	89.6	89.6
IV 2500	78.1	83.7	85.3	85.7	88.2	88.9	89.5	90.1	90.1	90.6	90.6	90.6	90.6	90.6	90.6	90.6
IV 2000	78.4	84.4	86.0	86.5	89.1	90.0	90.8	91.6	91.8	92.4	92.5	92.5	92.5	92.5	92.5	92.5
IV 1800	78.4	84.4	86.0	86.5	89.1	90.0	90.8	91.6	91.8	92.4	92.5	92.5	92.5	92.5	92.5	92.5
IV 1500	78.4	84.6	86.2	86.8	89.6	90.8	91.6	92.8	93.2	93.9	94.0	94.2	94.2	94.2	94.2	94.2
IV 1200	78.5	84.9	86.6	87.1	90.0	91.3	92.4	93.9	94.3	94.9	95.2	95.4	95.4	95.4	95.4	95.4
IV 1000	78.5	84.9	86.6	87.1	90.0	91.3	92.7	94.4	95.2	96.3	96.7	96.9	96.9	96.9	96.9	96.9
IV 900	78.5	84.9	86.6	87.2	90.1	91.4	92.8	94.6	95.4	96.7	97.0	97.3	97.3	97.4	97.4	97.4
IV 800	78.5	84.9	86.6	87.2	90.1	91.4	92.9	94.7	95.5	97.1	97.4	97.7	97.7	97.8	97.8	97.8
IV 700	78.5	84.9	86.7	87.3	90.3	91.6	93.1	94.9	95.7	97.4	97.8	98.3	98.3	98.4	98.4	98.4
IV 600	78.5	84.9	86.7	87.3	90.3	91.6	93.1	95.1	95.8	97.5	98.0	98.6	98.7	98.8	98.8	98.8
IV 500	78.5	84.9	86.7	87.3	90.3	91.6	93.1	95.1	95.8	97.6	98.1	98.9	99.0	99.1	99.4	99.4
IV 400	78.5	84.9	86.7	87.3	90.3	91.6	93.1	95.1	95.8	97.6	98.2	99.0	99.1	99.2	99.7	99.8
IV 300	78.5	84.9	86.7	87.3	90.3	91.6	93.1	95.1	95.9	97.7	98.3	99.2	99.4	99.5	99.9	100.0
IV 200	78.5	84.9	86.7	87.3	90.3	91.6	93.1	95.1	95.9	97.7	98.3	99.2	99.4	99.5	99.9	100.0
IV 100	78.5	84.9	86.7	87.3	90.3	91.6	93.1	95.1	95.9	97.7	98.3	99.2	99.4	99.5	99.9	100.0
IV 0	78.5	84.9	86.7	87.3	90.3	91.6	93.1	95.1	95.9	97.7	98.3	99.2	99.4	99.5	99.9	100.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 STATION MALMSTROM AFB MT/GREAT FALLS 68-77 YEARS JAN MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1500-1700  
HOURS U.S.T.

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	36.2	37.8	38.3	38.3	38.6	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7
≥ 20000	46.7	49.2	49.9	49.9	50.2	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3
IV 18000	46.9	49.6	50.2	50.2	50.5	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6
IV 16000	47.0	49.7	50.3	50.3	50.6	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
IV 14000	49.9	52.6	53.2	53.2	53.5	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7
IV 12000	57.5	60.3	61.0	61.0	61.3	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4
IV 10000	67.6	70.8	71.6	71.6	71.9	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0
IV 9000	69.1	72.7	73.7	73.7	74.0	74.1	74.1	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2	74.2
IV 8000	71.5	75.4	76.6	76.6	76.9	77.0	77.0	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1
IV 7000	73.5	77.6	78.8	78.8	79.1	79.2	79.2	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4
IV 6000	75.7	79.8	81.0	81.0	81.3	81.5	81.6	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7
IV 5000	77.5	81.8	83.1	83.1	83.8	84.1	84.2	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3
IV 4500	77.7	82.3	83.7	83.7	84.3	84.6	84.9	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1
IV 4000	78.6	84.2	85.6	85.6	86.2	86.9	87.3	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5
IV 3500	79.1	85.3	86.7	86.7	87.4	88.3	88.7	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9
IV 3000	79.1	85.8	87.3	87.3	88.4	89.6	90.0	90.4	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
IV 2500	79.4	86.1	87.6	87.6	88.7	89.9	90.4	90.9	91.0	91.0	91.0	91.1	91.1	91.1	91.1	91.1
IV 2000	79.8	86.8	88.3	88.4	90.1	91.4	92.0	92.6	92.8	92.8	92.8	92.9	92.9	92.9	92.9	92.9
IV 1800	79.8	86.6	88.3	88.4	90.1	91.4	92.0	92.6	92.8	92.8	92.8	92.9	92.9	92.9	92.9	92.9
IV 1500	80.1	87.8	89.4	89.6	91.4	92.8	93.4	94.3	95.1	95.2	95.2	95.3	95.3	95.3	95.3	95.3
IV 1200	80.3	88.5	90.1	90.4	92.4	93.8	94.4	95.5	96.2	96.3	96.5	96.7	96.7	96.7	96.7	96.7
IV 1000	80.3	88.5	90.1	90.5	92.5	93.9	94.6	95.7	96.5	97.1	97.2	97.4	97.4	97.4	97.4	97.4
IV 900	80.4	88.6	90.2	90.6	92.6	94.0	94.7	95.8	96.6	97.2	97.3	97.5	97.5	97.5	97.5	97.5
IV 800	80.4	88.6	90.2	90.6	92.6	94.0	94.7	95.8	96.7	97.4	97.6	97.8	97.8	97.8	97.8	97.8
IV 700	80.5	88.7	90.3	90.8	92.7	94.2	95.1	96.2	97.1	97.8	98.1	98.3	98.3	98.3	98.3	98.3
IV 600	80.5	88.8	90.4	90.9	92.8	94.3	95.3	96.5	97.3	98.1	98.4	98.9	98.9	99.0	99.0	99.0
IV 500	80.5	88.8	90.4	90.9	92.8	94.3	95.3	96.8	97.6	98.6	98.9	99.5	99.5	99.6	99.6	99.6
IV 400	80.5	88.8	90.4	90.9	92.8	94.3	95.3	96.8	97.6	98.6	98.9	99.5	99.5	99.6	99.6	99.6
IV 300	80.5	88.8	90.4	90.9	92.8	94.3	95.3	96.8	97.6	98.6	98.9	99.5	99.7	99.8	99.8	99.8
IV 200	80.5	88.8	90.4	90.9	92.8	94.3	95.3	96.8	97.6	98.6	98.9	99.5	99.7	99.8	100.0	100.0
IV 100	80.5	88.8	90.4	90.9	92.8	94.3	95.3	96.8	97.6	98.6	98.9	99.5	99.7	99.8	100.0	100.0
IV 0	80.5	88.8	90.4	90.9	92.8	94.3	95.3	96.8	97.6	98.6	98.9	99.5	99.7	99.8	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 STATION MALMSTROM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS JAN MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

1800-2000  
HOURS LST

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥¾	≥½	≥5/16	≥¼	≥0
NO CEILING ≥ 20000	29.1 35.5	40.5 52.0	41.1 52.7	41.1 52.8	41.1 52.8	41.2 52.9	41.2 52.9	41.2 52.9	41.3 53.0	41.3 53.0	41.3 53.0	41.3 53.0	41.3 53.0	41.3 53.0	41.4 53.1	41.4 53.1
IV 18000 IV 16000	35.5 35.5	52.0 52.0	52.7 52.7	52.8 52.8	52.8 52.8	52.9 52.9	52.9 52.9	52.9 52.9	53.0 53.0	53.0 53.0	53.0 53.0	53.0 53.0	53.0 53.0	53.0 53.0	53.1 53.1	53.1 53.1
IV 14000 IV 12000	36.2 41.1	52.9 59.0	53.5 59.7	53.7 59.8	53.7 59.8	53.8 59.9	53.8 59.9	53.8 59.9	53.9 60.0	53.9 60.0	53.9 60.0	53.9 60.0	53.9 60.0	53.9 60.0	54.0 60.1	54.0 60.1
IV 10000 IV 9000	48.6 49.4	69.9 71.0	70.6 71.7	70.8 71.8	70.8 71.8	70.9 71.9	70.9 72.0	70.9 72.0	71.0 72.2	71.0 72.2	71.0 72.2	71.0 72.2	71.0 72.2	71.0 72.2	71.1 72.3	71.1 72.3
IV 8000 IV 7000	51.1 52.9	73.4 75.7	74.2 76.5	74.3 76.6	74.3 76.6	74.4 76.8	74.5 76.9	74.5 77.0	74.6 77.1	74.6 77.1	74.6 77.1	74.6 77.1	74.6 77.1	74.6 77.1	74.7 77.2	74.7 77.2
IV 6000 IV 5000	54.2 55.7	77.0 79.4	77.7 80.2	77.8 80.3	77.8 80.3	78.3 80.8	78.3 80.9	78.4 81.1	78.5 81.2	78.6 81.2	78.6 81.2	78.6 81.2	78.6 81.2	78.6 81.2	78.7 81.3	78.7 81.3
IV 4500 IV 4000	55.7 57.2	79.6 82.2	80.4 83.2	80.5 83.4	80.6 83.5	81.1 84.1	81.2 84.2	81.4 84.5	81.5 84.6	81.5 84.6	81.5 84.6	81.5 84.6	81.5 84.6	81.5 84.6	81.6 84.7	81.6 84.7
IV 3500 IV 3000	58.1 58.8	84.2 85.4	85.4 87.0	85.7 87.3	85.9 87.6	86.5 88.4	86.6 88.8	86.9 89.4	87.0 89.5	87.0 89.6	87.0 89.6	87.0 89.6	87.0 89.6	87.0 89.6	87.1 89.7	87.1 89.7
IV 2500 IV 2000	59.0 59.6	85.8 86.8	87.4 88.7	87.7 89.0	88.2 89.6	88.9 90.4	89.4 91.0	90.0 91.7	90.2 91.9	90.3 92.0	90.3 92.0	90.3 92.0	90.3 92.0	90.3 92.0	90.4 92.2	90.4 92.2
IV 1800 IV 1500	59.6 59.7	86.9 87.5	88.8 89.6	89.1 90.0	89.7 90.6	90.5 91.5	91.2 92.3	91.9 93.2	92.2 93.5	92.3 93.7	92.3 93.7	92.3 93.7	92.3 93.8	92.3 93.8	92.4 93.9	92.4 93.9
IV 1200 IV 1000	59.7 59.7	88.8 88.9	91.0 91.1	91.4 91.5	92.2 92.3	93.1 93.8	93.9 94.8	95.1 96.2	95.4 97.0	95.5 97.2	95.5 97.2	95.5 97.2	95.6 97.3	95.6 97.3	95.7 97.4	95.7 97.4
IV 900 IV 800	59.9 60.1	89.1 89.4	91.3 91.5	91.7 91.9	93.0 93.2	94.0 94.2	95.1 95.3	96.5 97.0	97.2 97.8	97.4 98.3	97.4 98.3	97.4 98.3	97.5 98.4	97.5 98.4	97.6 98.5	97.6 98.5
IV 700 IV 600	60.1 60.1	89.5 89.5	91.6 91.6	92.0 92.0	93.4 93.4	94.4 94.4	95.5 95.7	97.2 97.4	98.1 98.3	98.5 99.0	98.5 99.0	98.5 99.0	98.6 99.1	98.6 99.1	98.7 99.2	98.7 99.2
IV 500 IV 400	60.1 60.1	89.5 89.5	91.7 91.7	92.2 92.2	93.5 93.5	94.5 94.5	95.8 95.8	97.5 97.5	98.5 98.5	99.2 99.2	99.5 99.5	99.5 99.5	99.7 99.7	99.7 99.7	99.9 99.9	99.9 99.9
IV 300 IV 200	60.1 60.1	89.5 89.5	91.7 91.7	92.2 92.2	93.5 93.5	94.5 94.5	95.8 95.8	97.5 97.5	98.5 98.5	99.2 99.2	99.5 99.5	99.5 99.5	99.7 99.7	99.7 99.7	99.9 99.9	100.0 100.0
IV 100 IV 0	60.1 60.1	89.5 89.5	91.7 91.7	92.2 92.2	93.5 93.5	94.5 94.5	95.8 95.8	97.5 97.5	98.5 98.5	99.2 99.2	99.5 99.5	99.5 99.5	99.7 99.7	99.7 99.7	99.9 99.9	100.0 100.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 STATION MALMSTROM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS JAN MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

2100-2300  
 HOURS (LST)

CEILING (FEET)	VISIBILITY (STATUTE MILES)																
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	≥¼	≥0	
NO CEILING	27.4	40.4	40.8	40.8	40.8	40.9	41.2	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.4	41.4	41.4
IV 20000	33.4	51.8	52.7	52.7	52.9	53.0	53.3	53.4	53.4	53.4	53.4	53.4	53.4	53.4	53.5	53.5	53.7
IV 18000	33.5	51.9	52.8	52.8	53.0	53.1	53.4	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.7	53.7	53.8
IV 16000	33.5	51.9	52.8	52.8	53.0	53.1	53.4	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.7	53.7	53.8
IV 14000	33.7	52.0	52.9	52.9	53.1	53.2	53.5	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.8	53.8	53.9
IV 12000	38.0	57.4	58.5	58.6	58.8	58.9	59.2	59.4	59.4	59.4	59.4	59.4	59.4	59.6	59.6	59.7	59.7
IV 10000	45.8	67.7	68.9	69.0	69.2	69.4	69.7	69.8	69.8	69.8	69.8	69.8	69.8	70.0	70.0	70.2	70.2
IV 9000	46.3	68.6	69.8	69.9	70.1	70.2	70.5	70.6	70.6	70.6	70.6	70.6	70.6	70.9	70.9	71.1	71.1
IV 8000	49.0	71.8	73.0	73.1	73.4	73.5	73.9	74.0	74.0	74.0	74.0	74.0	74.0	74.2	74.2	74.4	74.4
IV 7000	50.6	73.9	75.1	75.2	75.5	75.6	75.9	76.0	76.0	76.0	76.0	76.0	76.0	76.2	76.2	76.5	76.5
IV 6000	52.2	75.5	76.7	76.8	77.1	77.2	77.5	77.7	77.7	77.7	77.7	77.7	77.7	78.0	78.0	78.2	78.2
IV 5000	53.5	77.5	78.8	78.9	79.4	79.5	79.9	80.1	80.1	80.1	80.1	80.1	80.1	80.3	80.3	80.5	80.5
IV 4500	53.8	78.0	79.2	79.4	79.8	79.9	80.3	80.5	80.5	80.5	80.5	80.5	80.5	80.8	80.8	81.0	81.0
IV 4000	55.6	81.5	82.9	83.1	83.8	84.0	84.5	84.8	84.8	84.8	84.8	84.8	84.8	85.1	85.1	85.3	85.3
IV 3500	55.0	82.2	83.5	83.8	84.6	84.8	85.4	85.7	85.7	85.7	85.7	85.7	85.7	85.9	85.9	86.1	86.1
IV 3000	56.7	83.2	84.9	85.2	86.1	86.3	87.0	87.4	87.4	87.4	87.4	87.4	87.5	87.7	87.7	88.0	88.0
IV 2500	57.1	84.1	86.0	86.2	87.4	87.8	88.5	89.0	89.0	89.0	89.0	89.1	89.1	89.4	89.4	89.6	89.6
IV 2000	57.6	85.4	87.5	87.7	89.1	89.7	90.4	91.1	91.1	91.2	91.2	91.3	91.3	91.5	91.5	91.7	91.7
IV 1800	58.1	85.8	88.0	88.2	89.6	90.1	90.9	91.5	91.6	91.7	91.8	91.8	91.8	92.0	92.0	92.3	92.3
IV 1500	58.1	86.2	88.4	88.7	90.4	91.1	91.8	92.8	93.0	93.2	93.3	93.3	93.3	93.5	93.5	93.8	93.8
IV 1200	58.5	87.5	89.7	90.0	91.8	92.6	93.3	94.3	94.7	95.1	95.2	95.2	95.2	95.4	95.4	95.6	95.6
IV 1000	58.5	87.5	89.7	90.0	92.2	92.9	93.7	94.7	95.3	95.6	95.7	95.7	95.7	95.9	95.9	96.1	96.1
IV 900	58.6	87.7	89.9	90.2	92.4	93.2	94.0	95.2	95.7	96.1	96.2	96.2	96.2	96.5	96.5	96.7	96.7
IV 800	58.7	88.0	90.1	90.4	92.6	93.4	94.2	95.6	96.2	97.0	97.1	97.2	97.2	97.4	97.4	97.6	97.6
IV 700	58.7	88.0	90.1	90.4	92.6	93.4	94.3	95.7	96.3	97.2	97.4	97.5	97.6	97.8	97.8	98.1	98.1
IV 600	58.7	88.0	90.1	90.4	92.6	93.5	94.5	96.0	96.3	98.0	98.4	98.5	98.6	98.8	98.8	99.0	99.0
IV 500	58.7	88.0	90.1	90.4	92.6	93.5	94.5	96.1	97.0	98.3	98.7	98.8	98.9	99.1	99.1	99.4	99.4
IV 400	58.7	88.0	90.1	90.4	92.6	93.5	94.5	96.1	97.0	98.3	98.7	98.8	98.9	99.1	99.1	99.5	99.5
IV 300	58.7	88.0	90.2	90.8	92.9	93.9	94.8	96.5	97.3	98.7	99.1	99.2	99.4	99.6	99.6	99.9	99.9
IV 200	58.7	88.0	90.2	90.8	92.9	93.9	94.8	96.5	97.3	98.7	99.1	99.2	99.4	99.6	99.7	100.0	100.0
IV 100	58.7	88.0	90.2	90.8	92.9	93.9	94.8	96.5	97.3	98.7	99.1	99.2	99.4	99.6	99.7	100.0	100.0
IV 0	58.7	88.0	90.2	90.8	92.9	93.9	94.8	96.5	97.3	98.7	99.1	99.2	99.4	99.6	99.7	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE MAC

# CEILING VERSUS VISIBILITY

STATION 24112 HALLSTROM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS JAN MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

ALL  
HOURS (LST)

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥0	≥0	≥0
NO CEILING ≥ 20000	31.6 39.5	39.4 50.8	39.8 51.4	39.8 51.5	40.1 51.8	40.3 52.0	40.4 52.2	40.5 52.3	40.5 52.3	40.6 52.4	40.7 52.5	40.7 52.5	40.7 52.5	40.7 52.5	40.8 52.6	40.8 52.6
IV 18000 IV 16000	39.7 39.7	50.9 51.0	51.5 51.6	51.6 51.6	52.0 52.0	52.2 52.2	52.3 52.4	52.4 52.5	52.5 52.5	52.6 52.6	52.6 52.7	52.6 52.7	52.6 52.7	52.7 52.7	52.7 52.8	52.8 52.8
IV 11000 IV 12000	40.6 45.4	51.9 57.3	52.5 57.9	52.6 58.0	53.0 58.4	53.2 58.6	53.3 58.8	53.4 58.9	53.5 58.9	53.6 59.0	53.6 59.1	53.6 59.1	53.6 59.1	53.6 59.1	53.7 59.2	53.7 59.2
IV 10000 IV 9000	53.6 54.5	66.8 68.1	67.5 68.8	67.6 68.9	68.1 69.4	68.3 69.6	68.5 69.8	68.6 69.9	68.6 70.0	68.8 70.1	68.8 70.1	68.8 70.1	68.8 70.1	68.8 70.2	68.9 70.3	69.0 70.3
IV 8000 IV 7000	56.9 58.7	71.0 73.1	71.8 73.9	71.9 74.0	72.4 74.5	72.6 74.7	72.9 75.0	73.0 75.1	73.1 75.2	73.2 75.3	73.2 75.3	73.2 75.3	73.2 75.3	73.3 75.4	73.3 75.5	73.4 75.5
IV 6000 IV 5000	60.2 61.8	74.9 77.1	75.8 78.1	75.9 78.2	76.4 78.8	76.7 79.1	76.9 79.4	77.1 79.6	77.1 79.6	77.2 79.7	77.3 79.8	77.3 79.8	77.3 79.8	77.3 79.8	77.4 79.9	77.5 79.9
IV 4500 IV 4000	62.2 63.6	77.8 80.4	78.9 81.6	79.0 81.8	79.7 82.7	80.0 83.1	80.3 83.6	80.5 83.9	80.5 83.9	80.7 84.1	80.7 84.2	80.7 84.2	80.7 84.2	80.8 84.2	80.8 84.3	80.9 84.4
IV 3500 IV 3000	64.1 64.6	81.5 82.5	82.8 84.1	83.1 84.4	84.1 85.8	84.5 86.3	85.1 87.0	85.4 87.4	85.5 87.5	85.6 87.7	85.7 87.8	85.7 87.8	85.7 87.9	85.8 87.9	85.8 88.0	85.9 88.0
IV 2500 IV 2000	64.8 65.3	83.0 84.0	84.7 85.8	85.0 86.2	86.6 88.0	87.2 88.7	88.0 89.7	88.5 90.3	88.5 90.5	88.8 90.7	88.9 90.9	88.9 90.9	88.9 90.9	89.0 90.9	89.1 91.1	89.1 91.1
IV 1800 IV 1500	65.4 65.6	84.1 84.6	86.0 86.7	86.4 87.1	88.2 89.1	88.9 89.9	89.9 91.0	90.6 91.9	90.7 92.2	91.0 92.6	91.2 92.7	91.2 92.8	91.2 92.8	91.3 92.8	91.4 93.0	91.4 93.0
IV 1200 IV 1000	65.7 65.8	85.3 85.4	87.4 87.5	87.8 88.0	90.0 90.4	90.8 91.3	92.0 92.6	93.2 94.0	93.5 94.5	93.9 95.2	94.1 95.4	94.2 95.5	94.2 95.6	94.3 95.6	94.4 95.7	94.5 95.8
IV 900 IV 800	65.9 66.0	85.5 85.6	87.7 87.8	88.2 88.3	90.6 90.7	91.5 91.6	92.8 93.0	94.3 94.6	94.8 95.3	95.6 96.2	95.8 96.6	95.9 96.7	96.0 96.8	96.0 96.8	96.1 97.0	96.2 97.0
IV 700 IV 600	66.1 66.1	85.8 85.9	88.0 88.0	88.5 88.5	90.9 91.0	91.9 92.0	93.3 93.5	95.0 95.3	95.7 96.0	96.7 97.2	97.1 97.7	97.2 97.9	97.4 98.1	97.4 98.2	97.6 98.3	97.6 98.4
IV 500 IV 400	66.1 66.2	86.0 86.0	88.1 88.2	88.6 88.7	91.1 91.2	92.1 92.2	93.6 93.7	95.5 95.7	96.3 96.5	97.6 97.8	98.2 98.5	98.4 98.8	98.7 99.0	98.7 99.1	99.0 99.4	99.0 99.4
IV 300 IV 200	66.2 66.2	86.1 86.1	88.2 88.2	88.8 88.8	91.3 91.3	92.3 92.3	93.8 93.9	95.8 95.8	96.6 96.6	98.0 98.0	98.7 98.7	99.0 99.0	99.3 99.4	99.4 99.5	99.6 99.8	99.8 99.9
IV 100 IV 0	66.2 66.2	86.1 86.1	88.2 88.2	88.8 88.8	91.3 91.3	92.3 92.3	93.9 93.9	95.8 95.8	96.6 96.6	98.1 98.1	98.8 98.8	99.1 99.1	99.4 99.4	99.5 99.5	99.8 99.8	100.0 100.0

TOTAL NUMBER OF OBSERVATIONS 7440

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 STATION MALMSTROM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS FEB MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0000-0200 HOURS (LST)

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥5/16	≥¼	≥0	
NO CEILING	36.9	52.9	53.2	53.2	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	
≥ 20000	44.1	63.7	64.1	64.1	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	
≥ 18000	44.1	63.7	64.1	64.1	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	
≥ 16000	44.1	63.7	64.1	64.1	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	
≥ 14000	44.5	64.2	64.5	64.5	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1	
≥ 12000	47.1	67.6	68.0	68.0	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	68.6	
≥ 10000	52.3	74.6	75.0	75.0	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	
≥ 9000	52.8	75.1	75.6	75.6	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	
≥ 8000	54.9	77.4	77.9	77.9	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	
≥ 7000	55.8	79.2	79.6	79.6	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	
≥ 6000	56.3	79.9	80.4	80.4	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	
≥ 5000	56.8	81.2	81.7	81.7	82.6	82.6	82.6	82.6	82.6	82.7	82.7	82.7	82.7	82.7	82.7	
≥ 4500	57.0	81.5	82.1	82.1	82.9	82.9	82.9	82.9	82.9	83.0	83.0	83.0	83.0	83.0	83.0	
≥ 4000	58.0	83.0	83.6	83.6	84.5	84.5	84.5	84.5	84.5	84.7	84.7	84.7	84.7	84.7	84.7	
≥ 3500	58.5	84.2	84.9	84.9	85.7	85.7	85.7	85.7	85.7	86.0	86.0	86.0	86.0	86.0	86.0	
≥ 3000	59.0	84.9	85.9	85.9	87.0	87.0	87.0	87.0	87.0	87.2	87.3	87.3	87.3	87.3	87.3	
≥ 2500	59.0	85.3	86.6	86.6	87.8	87.8	87.9	87.9	88.0	88.1	88.1	88.1	88.1	88.1	88.1	
≥ 2000	59.6	86.2	87.8	87.9	90.1	90.1	90.3	90.3	90.5	90.6	90.6	90.6	90.6	90.6	90.6	
≥ 1800	59.7	86.3	88.0	88.1	90.5	90.6	90.8	90.8	90.9	91.0	91.0	91.0	91.0	91.0	91.0	
≥ 1500	60.2	87.4	89.2	89.5	92.0	92.2	92.6	92.6	92.7	92.8	92.8	92.8	92.8	92.8	92.8	
≥ 1200	60.5	88.6	90.3	90.7	93.2	93.6	94.0	94.1	94.2	94.3	94.3	94.3	94.3	94.3	94.3	
≥ 1000	60.7	88.8	90.7	91.0	93.8	94.3	94.8	95.1	95.2	95.3	95.3	95.3	95.3	95.3	95.3	
≥ 900	60.7	88.8	90.8	91.2	93.9	94.5	94.9	95.3	95.5	95.6	95.6	95.6	95.6	95.6	95.6	
≥ 800	60.7	88.8	90.8	91.2	93.9	94.5	94.9	95.3	95.5	95.6	95.6	95.6	95.6	95.6	95.6	
≥ 700	60.7	88.8	90.8	91.3	94.0	94.6	95.2	95.6	95.9	96.0	96.0	96.0	96.0	96.0	96.0	
≥ 600	60.7	88.9	90.9	91.4	94.1	94.8	95.4	96.2	96.7	97.1	97.1	97.1	97.1	97.1	97.1	
≥ 500	60.7	89.0	91.0	91.5	94.2	95.1	95.6	96.6	97.1	97.4	97.5	97.5	97.5	97.5	97.5	
≥ 400	60.7	89.2	91.2	91.6	94.3	95.2	95.8	96.8	97.6	98.1	98.2	98.2	98.4	98.5	98.7	
≥ 300	60.7	89.4	91.4	91.9	94.6	95.4	96.0	97.2	98.0	98.6	98.7	98.7	98.8	98.9	99.2	
≥ 200	60.7	89.4	91.4	91.9	94.6	95.4	96.0	97.2	98.0	98.7	98.8	98.8	98.9	99.1	99.6	
≥ 100	60.7	89.4	91.4	91.9	94.6	95.4	96.0	97.2	98.0	98.7	98.8	98.8	98.9	99.1	100.0	
≥ 0	60.7	89.4	91.4	91.9	94.6	95.4	96.0	97.2	98.0	98.7	98.8	98.8	98.9	99.1	100.0	

TOTAL NUMBER OF OBSERVATIONS 849

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 FEB

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

0300-0500  
HOURS U.S.T.

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	36.7	52.1	52.4	52.7	53.0	53.0	53.0	53.0	53.1	53.2	53.2	53.2	53.2	53.2	53.4	53.4
≥ 20000	42.8	61.1	61.5	61.7	62.2	62.2	62.2	62.2	62.3	62.4	62.4	62.4	62.4	62.4	62.5	62.5
IV 18000	43.0	61.4	61.7	62.0	62.4	62.4	62.4	62.4	62.5	62.7	62.7	62.7	62.7	62.7	62.8	62.8
IV 16000	43.0	61.4	61.7	62.0	62.4	62.4	62.4	62.4	62.5	62.7	62.7	62.7	62.7	62.7	62.8	62.8
IV 14000	44.2	62.5	62.9	63.1	63.6	63.6	63.6	63.6	63.7	63.8	63.8	63.8	63.8	63.8	64.0	64.0
IV 12000	48.2	66.8	67.1	67.4	67.8	67.8	67.8	67.8	67.8	68.0	68.1	68.1	68.1	68.1	68.2	68.2
IV 10000	52.4	72.8	73.1	73.4	73.9	73.9	73.9	73.9	74.0	74.1	74.1	74.1	74.1	74.1	74.2	74.2
IV 9000	52.8	73.9	74.2	74.4	74.9	74.9	74.9	74.9	75.0	75.1	75.1	75.1	75.1	75.1	75.3	75.3
IV 8000	54.2	75.7	76.1	76.3	76.8	76.8	76.8	76.8	76.9	77.0	77.0	77.0	77.0	77.0	77.1	77.1
IV 7000	55.2	77.3	77.6	77.9	78.3	78.3	78.3	78.3	78.4	78.6	78.6	78.6	78.6	78.6	78.7	78.7
IV 6000	55.7	78.4	78.8	79.0	79.5	79.5	79.5	79.5	79.6	79.7	79.7	79.7	79.7	79.7	79.9	79.9
IV 5000	56.9	80.2	80.6	80.8	81.3	81.3	81.3	81.3	81.4	81.5	81.5	81.5	81.5	81.5	81.6	81.6
IV 4500	57.2	80.6	80.9	81.2	81.6	81.6	81.6	81.6	81.7	81.9	81.9	81.9	81.9	81.9	82.0	82.0
IV 4000	58.4	82.2	82.7	82.9	83.5	83.5	83.5	83.9	84.0	84.1	84.1	84.1	84.1	84.1	84.2	84.2
IV 3500	59.2	83.5	84.0	84.2	84.3	84.8	84.8	85.2	85.3	85.4	85.4	85.4	85.4	85.4	85.5	85.5
IV 3000	59.8	84.3	84.9	85.2	85.7	85.7	85.7	86.1	86.2	86.3	86.3	86.3	86.3	86.3	86.5	86.5
IV 2500	60.4	84.9	86.0	86.2	86.9	87.0	87.2	87.6	87.8	87.9	87.9	87.9	87.9	87.9	88.0	88.0
IV 2000	61.2	86.2	87.4	87.6	88.8	89.0	89.4	90.0	90.1	90.2	90.2	90.2	90.2	90.2	90.3	90.3
IV 1800	61.4	86.5	87.9	88.1	89.4	89.8	90.1	90.7	90.8	90.9	90.9	90.9	90.9	90.9	91.0	91.0
IV 1500	62.2	88.2	89.8	90.0	91.4	92.0	92.5	93.1	93.2	93.4	93.4	93.4	93.4	93.4	93.5	93.5
IV 1200	62.4	88.9	90.7	90.9	92.3	92.9	93.5	94.1	94.2	94.5	94.5	94.5	94.5	94.5	94.6	94.6
IV 1000	62.7	89.6	91.6	91.9	93.3	93.9	94.7	95.3	95.4	95.8	95.8	95.8	95.8	95.8	95.9	95.9
IV 900	62.7	89.6	91.6	91.9	93.3	93.9	94.7	95.3	95.4	95.8	95.8	95.8	95.8	95.8	95.9	95.9
IV 800	62.7	89.6	91.6	91.9	93.3	93.9	94.7	95.3	95.4	95.8	95.8	95.8	95.8	95.8	95.9	95.9
IV 700	62.7	89.6	91.6	91.9	93.3	93.9	94.8	95.8	95.9	96.2	96.2	96.2	96.2	96.2	96.3	96.3
IV 600	62.7	89.6	91.8	92.0	93.6	94.2	95.2	96.1	96.2	96.6	96.6	96.6	96.6	96.6	96.7	96.7
IV 500	62.7	89.8	91.9	92.1	93.8	94.5	95.4	96.5	96.8	97.3	97.3	97.3	97.4	97.4	97.5	97.6
IV 400	62.7	89.8	91.9	92.1	93.8	94.5	95.4	96.5	96.8	97.3	97.3	97.3	97.4	97.4	97.8	97.9
IV 300	62.8	90.0	92.1	92.3	94.0	94.7	95.6	96.7	97.2	97.6	97.8	97.8	98.0	98.0	98.4	98.7
IV 200	62.9	90.1	92.2	92.5	94.1	94.8	95.8	96.8	97.3	98.0	98.2	98.2	98.5	98.5	99.1	99.6
IV 100	62.9	90.1	92.2	92.5	94.1	94.8	95.8	96.8	97.3	98.0	98.2	98.2	98.5	98.5	99.1	99.6
IV 0	62.9	90.1	92.2	92.5	94.1	94.8	95.8	96.8	97.3	98.0	98.2	98.2	98.5	98.5	99.1	100.0

TOTAL NUMBER OF OBSERVATIONS 842



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 STATION MALMSTROM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS FEB MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0600-0800  
 HOURS (LST)

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥5/16	≥¼	≥0
NO CEILING	38.0	45.5	46.1	46.1	46.3	46.4	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.6	46.6	46.9
≥ 20000	45.5	55.9	56.2	56.2	56.7	56.8	56.9	57.0	57.0	57.0	57.0	57.0	57.0	57.1	57.2	57.5
IV 18000	45.5	55.9	56.2	56.2	56.7	56.8	56.9	57.0	57.0	57.0	57.0	57.0	57.0	57.1	57.2	57.5
IV 16000	45.5	55.9	56.2	56.2	56.7	56.8	56.9	57.0	57.0	57.0	57.0	57.0	57.0	57.1	57.2	57.5
IV 14000	45.8	56.3	56.5	56.5	57.0	57.1	57.2	57.4	57.4	57.4	57.4	57.4	57.4	57.5	57.6	57.8
IV 12000	51.2	61.8	62.1	62.1	62.5	62.7	62.8	62.9	62.9	62.9	62.9	62.9	62.9	63.0	63.1	63.4
IV 10000	59.6	71.6	71.8	71.8	72.4	72.6	72.7	72.8	72.8	72.8	72.8	72.8	72.8	72.9	73.0	73.3
IV 9000	60.5	72.7	73.0	73.0	73.6	73.7	73.9	74.0	74.0	74.0	74.0	74.0	74.0	74.1	74.2	74.4
IV 8000	63.0	75.1	75.6	75.6	76.2	76.3	76.4	76.6	76.6	76.6	76.6	76.6	76.6	76.7	76.8	77.0
IV 7000	64.3	76.6	77.0	77.0	77.6	77.7	77.9	78.0	78.0	78.0	78.0	78.0	78.0	78.1	78.2	78.4
IV 6000	65.1	77.6	78.1	78.1	78.7	78.8	78.9	79.0	79.0	79.0	79.0	79.0	79.0	79.2	79.3	79.5
IV 5000	66.5	79.2	79.6	79.6	80.2	80.3	80.4	80.6	80.6	80.6	80.6	80.6	80.6	80.7	80.8	81.0
IV 4500	67.0	79.6	80.1	80.1	80.7	80.8	80.9	81.0	81.0	81.0	81.0	81.0	81.0	81.2	81.3	81.5
IV 4000	68.3	81.5	82.6	82.6	83.3	83.4	83.5	83.6	83.6	83.6	83.6	83.6	83.6	83.7	83.9	84.1
IV 3500	68.9	83.3	84.3	84.3	85.0	85.2	85.3	85.4	85.4	85.4	85.4	85.4	85.4	85.5	85.6	85.9
IV 3000	69.3	84.0	85.3	85.3	86.1	86.2	86.5	86.6	86.6	86.6	86.6	86.6	86.6	86.7	86.8	87.0
IV 2500	69.6	84.5	86.1	86.2	87.4	87.6	87.9	88.0	88.0	88.0	88.0	88.0	88.0	88.1	88.2	88.5
IV 2000	70.2	85.5	87.6	87.9	89.3	89.5	90.1	90.3	90.5	90.5	90.5	90.5	90.5	90.7	90.8	91.0
IV 1800	70.2	85.7	88.0	88.2	89.8	90.1	90.8	91.0	91.3	91.3	91.3	91.3	91.3	91.5	91.6	91.9
IV 1500	70.8	86.9	89.3	89.6	91.5	92.1	92.9	93.2	93.4	93.4	93.4	93.4	93.4	93.6	93.8	94.0
IV 1200	71.1	87.9	90.2	90.6	92.6	93.2	94.1	94.3	94.7	94.7	94.7	94.7	94.7	94.9	95.1	95.3
IV 1000	71.5	88.7	91.2	91.5	93.5	94.2	95.2	95.5	95.9	96.0	96.1	96.2	96.2	96.5	96.6	96.8
IV 900	71.5	88.8	91.3	91.5	93.8	94.5	95.4	95.8	96.1	96.2	96.3	96.3	96.5	96.7	96.8	97.1
IV 800	71.7	89.0	91.5	91.9	94.0	94.7	95.9	96.2	96.6	96.7	96.8	96.9	97.2	97.3	97.3	97.5
IV 700	71.7	89.0	91.5	91.9	94.0	94.7	96.0	96.3	96.7	96.8	96.9	97.1	97.3	97.4	97.4	97.6
IV 600	71.7	89.0	91.5	91.9	94.0	94.7	96.0	96.3	96.8	96.9	97.1	97.2	97.4	97.5	97.5	97.8
IV 500	71.7	89.0	91.5	91.9	94.0	94.7	96.0	96.3	96.8	96.9	97.1	97.2	97.4	97.5	97.6	98.0
IV 400	71.7	89.2	91.6	92.0	94.2	94.9	96.5	96.8	97.3	97.4	97.5	97.6	97.9	98.1	98.2	98.7
IV 300	71.7	89.2	91.6	92.0	94.5	95.2	96.7	97.2	97.6	97.9	98.0	98.1	98.4	98.6	98.7	99.3
IV 200	71.7	89.2	91.6	92.0	94.5	95.2	96.7	97.2	97.6	97.9	98.0	98.1	98.5	98.7	98.8	99.5
IV 100	71.7	89.2	91.6	92.0	94.5	95.2	96.7	97.2	97.6	97.9	98.0	98.1	98.5	98.7	98.8	99.6
IV 0	71.7	89.2	91.6	92.0	94.5	95.2	96.7	97.2	97.6	97.9	98.0	98.1	98.5	98.7	98.8	100.0

TOTAL NUMBER OF OBSERVATIONS 849

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

6#-77  
YEARS

FEB  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0900-1100  
HOURS (LST)

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	44.4	45.6	45.9	45.9	46.2	46.4	46.4	46.8	46.8	46.9	46.9	46.9	47.0	47.1	47.1	47.2
≥ 20000	52.9	54.4	54.8	54.9	55.4	55.6	55.6	56.2	56.2	56.3	56.3	56.3	56.4	56.5	56.5	56.7
≥ 18000	53.1	54.7	55.0	55.1	55.6	55.8	55.8	56.4	56.4	56.5	56.5	56.5	56.7	56.8	56.8	56.9
≥ 16000	53.1	54.7	55.0	55.1	55.6	55.8	55.8	56.4	56.4	56.5	56.5	56.5	56.7	56.8	56.8	56.9
≥ 14000	55.6	57.1	57.5	57.6	58.2	58.4	58.5	59.1	59.1	59.2	59.2	59.2	59.4	59.5	59.5	59.6
≥ 12000	60.7	62.3	62.8	62.9	63.5	63.7	63.8	64.4	64.4	64.5	64.5	64.5	64.7	64.8	64.8	64.9
≥ 10000	69.1	71.1	71.8	72.0	72.7	72.9	73.0	73.6	73.6	73.7	73.7	73.7	73.9	74.0	74.0	74.1
≥ 9000	70.2	72.2	73.0	73.1	73.9	74.1	74.2	74.8	74.8	74.9	74.9	74.9	75.0	75.1	75.1	75.3
≥ 8000	72.7	74.8	75.6	75.7	76.4	76.7	76.8	77.4	77.4	77.5	77.5	77.5	77.6	77.7	77.7	77.9
≥ 7000	73.9	76.2	77.0	77.4	78.1	78.3	78.4	79.0	79.0	79.2	79.2	79.2	79.3	79.4	79.4	79.5
≥ 6000	75.4	77.9	78.8	79.2	79.9	80.1	80.2	80.8	80.8	80.9	80.9	80.9	81.0	81.2	81.2	81.3
≥ 5000	77.6	80.2	81.2	81.5	82.2	82.4	82.6	83.2	83.2	83.4	83.4	83.4	83.5	83.6	83.6	83.7
≥ 4500	78.1	80.7	81.6	82.0	82.7	82.9	83.0	83.6	83.6	83.9	83.9	83.9	84.0	84.1	84.1	84.2
≥ 4000	79.5	82.9	84.0	84.3	85.4	85.6	85.7	86.3	86.3	86.6	86.6	86.6	86.7	86.8	86.8	86.9
≥ 3500	80.4	84.1	85.2	85.5	86.8	87.0	87.2	87.8	87.8	88.0	88.0	88.0	88.1	88.2	88.2	88.3
≥ 3000	80.4	84.7	85.7	86.1	87.5	88.2	88.3	88.9	88.9	89.2	89.2	89.2	89.4	89.5	89.5	89.6
≥ 2500	80.9	85.4	86.6	87.0	88.7	89.4	89.6	90.2	90.2	90.5	90.5	90.6	90.8	90.9	90.9	91.0
≥ 2000	81.5	86.1	87.4	87.9	89.6	90.3	90.8	91.5	91.8	92.0	92.0	92.1	92.2	92.5	92.6	92.7
≥ 1800	81.6	86.3	87.6	88.1	89.9	90.6	91.0	91.8	92.0	92.2	92.3	92.5	92.7	92.8	92.8	92.9
≥ 1500	81.6	86.3	87.9	88.3	90.5	91.5	92.0	93.1	93.3	93.5	93.6	93.8	94.0	94.1	94.1	94.2
≥ 1200	82.0	87.0	88.7	89.2	91.5	92.6	93.2	94.2	94.6	95.1	95.2	95.3	95.5	95.6	95.6	95.8
≥ 1000	82.1	87.2	88.8	89.3	91.6	92.7	93.3	94.5	94.8	95.4	95.6	95.8	96.0	96.1	96.1	96.2
≥ 900	82.1	87.2	88.8	89.3	91.6	92.7	93.3	94.5	94.8	95.4	95.8	95.9	96.1	96.2	96.2	96.3
≥ 800	82.1	87.2	88.8	89.3	91.6	92.7	93.3	94.5	94.8	95.4	95.8	95.9	96.1	96.2	96.2	96.3
≥ 700	82.1	87.2	88.8	89.3	91.8	92.8	93.5	94.7	95.1	95.8	96.3	96.6	96.9	97.2	97.2	97.3
≥ 600	82.2	87.3	88.9	89.4	91.9	92.9	93.8	94.9	95.3	96.1	96.7	97.1	97.6	97.9	97.9	98.0
≥ 500	82.3	87.5	89.3	89.8	92.3	93.4	94.3	95.5	95.9	96.8	97.4	97.8	98.4	98.6	98.6	98.7
≥ 400	82.4	87.8	89.5	90.0	92.7	93.8	94.7	95.9	96.2	97.2	97.8	98.1	98.7	98.9	98.9	99.1
≥ 300	82.4	87.9	89.6	90.1	92.8	93.9	94.8	96.0	96.3	97.4	98.0	98.4	98.9	99.2	99.3	99.5
≥ 200	82.4	87.9	89.6	90.1	92.8	93.9	94.8	96.0	96.3	97.4	98.0	98.4	98.9	99.2	99.3	99.9
≥ 100	82.4	87.9	89.6	90.1	92.8	93.9	94.8	96.0	96.3	97.4	98.0	98.4	98.9	99.2	99.3	100.0
≥ 0	82.4	87.9	89.6	90.1	92.8	93.9	94.8	96.0	96.3	97.4	98.0	98.4	98.9	99.2	99.3	100.0

TOTAL NUMBER OF OBSERVATIONS 849

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 STATION MALMSTROM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS FEB MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1200-1400  
 HOURS U.S.T.

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	45.8	47.6	48.5	48.5	48.9	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1	49.1
≥ 20000	57.1	59.4	60.3	60.3	61.0	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2
≥ 18000	57.5	59.7	60.7	60.7	61.4	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6
≥ 16000	57.6	59.8	60.8	60.8	61.5	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7
≥ 14000	59.2	61.7	62.7	62.7	63.4	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6
≥ 12000	64.4	67.1	68.1	68.1	68.6	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
≥ 10000	72.7	75.5	76.4	76.4	77.3	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5
≥ 9000	73.6	76.6	77.6	77.6	78.4	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7
≥ 8000	76.4	79.6	80.7	80.7	81.5	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7
≥ 7000	77.6	80.9	82.1	82.2	83.0	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4
≥ 6000	78.6	82.0	83.2	83.3	84.1	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5
≥ 5000	80.4	84.0	85.3	85.4	86.2	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6
≥ 4500	80.9	84.5	85.7	85.9	86.7	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0
≥ 4000	81.6	85.4	86.9	87.0	88.3	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
≥ 3500	81.9	85.7	87.4	87.5	88.8	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2
≥ 3000	82.6	86.5	88.3	88.6	90.0	90.3	90.6	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7
≥ 2500	82.9	86.8	88.9	89.2	90.7	91.2	91.4	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6
≥ 2000	83.2	87.4	89.8	90.0	92.1	92.7	92.9	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5
≥ 1800	83.2	87.4	89.9	90.1	92.2	92.8	93.1	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6
≥ 1500	83.3	87.6	90.1	90.6	92.8	93.4	93.8	94.5	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
≥ 1200	83.5	88.1	90.6	91.0	93.4	94.0	94.3	95.1	95.3	95.4	95.5	95.5	95.5	95.5	95.5	95.5
≥ 1000	83.9	88.6	91.2	91.6	94.0	94.6	94.9	95.8	96.1	96.2	96.3	96.5	96.6	96.6	96.6	96.6
≥ 900	83.9	88.6	91.2	91.6	94.0	94.7	95.3	96.1	96.6	96.9	97.1	97.2	97.3	97.3	97.3	97.3
≥ 800	84.0	88.7	91.3	91.8	94.1	94.8	95.4	96.2	96.7	97.1	97.2	97.3	97.4	97.4	97.4	97.4
≥ 700	84.3	89.0	91.8	92.2	94.7	95.4	96.0	96.9	97.4	98.0	98.1	98.2	98.4	98.4	98.4	98.4
≥ 600	84.3	89.2	92.0	92.5	94.9	95.6	96.2	97.2	97.8	98.4	98.5	98.6	98.7	98.7	98.7	98.7
≥ 500	84.3	89.2	92.1	92.7	95.3	96.0	96.6	97.6	98.4	99.1	99.2	99.3	99.4	99.4	99.4	99.4
≥ 400	84.3	89.3	92.2	92.8	95.4	96.1	96.7	97.8	98.5	99.2	99.3	99.4	99.5	99.5	99.5	99.5
≥ 300	84.3	89.3	92.2	92.8	95.5	96.2	96.8	98.0	98.7	99.4	99.5	99.6	99.8	99.8	99.8	99.8
≥ 200	84.3	89.3	92.2	92.8	95.5	96.2	96.8	98.0	98.7	99.4	99.5	99.6	99.8	99.9	100.0	100.0
≥ 100	84.3	89.3	92.2	92.8	95.5	96.2	96.8	98.0	98.7	99.4	99.5	99.6	99.8	99.9	100.0	100.0
≥ 0	84.3	89.3	92.2	92.8	95.5	96.2	96.8	98.0	98.7	99.4	99.5	99.6	99.8	99.9	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 849

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

FEB  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1500-1700  
HOURS U.S.T.

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥5/16	≥¼	≥0
NO CEILING	45.0	47.0	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2
≥ 20000	56.3	58.8	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4
IV 18000	56.5	59.0	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6
IV 16000	56.9	59.4	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
IV 14000	58.4	60.9	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
IV 12000	63.3	65.7	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3
IV 10000	72.6	75.6	76.4	76.4	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6
IV 9000	73.6	76.9	77.9	77.9	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
IV 8000	76.3	79.7	80.7	80.7	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8
IV 7000	77.9	81.3	82.2	82.3	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4
IV 6000	79.6	83.3	84.2	84.3	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6
IV 5000	82.3	86.0	87.0	87.2	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4
IV 4500	82.4	86.3	87.4	87.5	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8
IV 4000	83.6	88.3	89.5	89.6	89.9	89.9	89.9	89.9	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2
IV 3500	84.3	89.2	90.3	90.5	90.7	90.7	90.7	91.0	91.0	91.0	91.2	91.2	91.2	91.2	91.2	91.2
IV 3000	84.9	89.9	91.0	91.2	91.5	91.6	91.6	92.0	92.0	92.0	92.1	92.1	92.1	92.1	92.1	92.1
IV 2500	85.5	91.2	92.6	92.7	93.2	93.4	93.4	93.8	93.8	93.8	93.9	93.9	93.9	93.9	93.9	93.9
IV 2000	85.6	91.4	92.8	93.1	93.6	93.9	94.0	94.6	94.6	94.6	94.7	94.7	94.7	94.7	94.7	94.7
IV 1800	85.6	91.4	92.8	93.1	93.6	93.9	94.0	94.6	94.6	94.6	94.7	94.7	94.7	94.7	94.7	94.7
IV 1500	85.9	92.1	93.5	93.8	94.3	94.8	95.2	95.8	95.9	95.9	96.0	96.0	96.0	96.0	96.0	96.0
IV 1200	86.2	92.7	94.1	94.3	94.9	95.4	95.8	96.5	96.6	96.6	96.7	96.7	96.7	96.7	96.7	96.7
IV 1000	86.5	93.2	94.7	94.9	95.5	96.1	96.5	97.2	97.3	97.3	97.4	97.4	97.4	97.4	97.4	97.4
IV 900	86.6	93.3	95.1	95.3	96.0	96.6	97.1	97.8	97.9	97.9	98.0	98.0	98.0	98.0	98.0	98.0
IV 800	86.6	93.3	95.1	95.3	96.0	96.6	97.1	97.8	97.9	97.9	98.0	98.0	98.0	98.0	98.0	98.0
IV 700	86.6	93.3	95.2	95.4	96.2	96.8	97.3	98.0	98.1	98.2	98.4	98.4	98.4	98.4	98.4	98.4
IV 600	86.6	93.3	95.2	95.4	96.3	96.9	97.4	98.4	98.5	98.7	98.8	98.8	98.8	98.8	98.8	98.8
IV 500	86.6	93.3	95.2	95.4	96.3	97.1	97.5	98.5	98.7	99.1	99.2	99.2	99.3	99.3	99.3	99.3
IV 400	86.6	93.3	95.2	95.4	96.3	97.1	97.5	98.5	98.7	99.2	99.3	99.4	99.5	99.5	99.5	99.5
IV 300	86.6	93.4	95.3	95.5	96.6	97.3	97.8	98.7	98.9	99.4	99.5	99.8	99.9	99.9	99.9	99.9
IV 200	86.6	93.4	95.3	95.5	96.6	97.3	97.8	98.7	98.9	99.4	99.5	99.9	100.0	100.0	100.0	100.0
IV 100	86.6	93.4	95.3	95.5	96.6	97.3	97.8	98.7	98.9	99.4	99.5	99.9	100.0	100.0	100.0	100.0
IV 0	86.6	93.4	95.3	95.5	96.6	97.3	97.8	98.7	98.9	99.4	99.5	99.9	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 849

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 STATION MALMSTRUM AFB MT/GREAT FALLS 68-77 YEARS FEB MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1800-2000 HOURS (L.S.T.)

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	41.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
IV 20000	48.4	62.8	62.8	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9
IV 18000	48.5	62.9	62.9	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0
IV 16000	48.5	63.0	63.0	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1
IV 14000	49.2	63.7	63.7	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8
IV 12000	53.1	68.2	68.2	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3
IV 10000	61.0	77.7	78.0	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1
IV 9000	61.4	78.2	78.4	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6
IV 8000	62.9	80.2	80.4	80.6	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7
IV 7000	65.0	82.4	82.7	82.8	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9
IV 6000	65.5	83.0	83.3	83.4	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5
IV 5000	67.1	85.2	85.5	85.6	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9
IV 4500	67.6	85.9	86.2	86.3	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6
IV 4000	68.8	87.6	88.7	88.8	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2
IV 3500	69.8	88.9	90.0	90.2	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6
IV 3000	70.0	89.5	90.7	90.9	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5
IV 2500	70.2	90.2	91.4	91.6	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5
IV 2000	70.8	91.0	92.3	92.7	93.9	94.0	94.0	94.1	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2
IV 1800	70.8	91.3	92.6	92.9	94.1	94.2	94.2	94.3	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5
IV 1500	70.8	92.0	93.6	94.0	95.3	95.5	95.5	95.9	96.0	96.1	96.1	96.1	96.1	96.1	96.1	96.1
IV 1200	70.9	92.5	94.1	94.5	95.8	96.0	96.0	96.5	96.7	96.8	96.9	96.9	96.9	96.9	96.9	96.9
IV 1000	71.0	93.1	94.7	95.1	96.5	96.7	96.8	97.4	97.6	97.8	98.0	98.0	98.0	98.0	98.0	98.0
IV 900	71.3	93.3	94.9	95.3	96.7	97.1	97.2	97.8	98.0	98.1	98.4	98.4	98.4	98.4	98.4	98.4
IV 800	71.3	93.3	94.9	95.3	96.7	97.1	97.2	97.9	98.2	98.4	98.6	98.6	98.6	98.6	98.6	98.6
IV 700	71.5	93.5	95.2	95.5	97.1	97.4	97.5	98.4	98.7	98.8	99.1	99.1	99.1	99.1	99.1	99.1
IV 600	71.5	93.5	95.2	95.5	97.1	97.5	97.6	98.5	98.8	98.9	99.3	99.3	99.3	99.3	99.3	99.3
IV 500	71.5	93.8	95.4	95.8	97.4	97.9	98.0	98.8	99.2	99.3	99.8	99.8	99.8	99.8	99.8	99.8
IV 400	71.5	93.9	95.5	95.9	97.6	98.1	98.2	99.1	99.4	99.5	100.0	100.0	100.0	100.0	100.0	100.0
IV 300	71.5	93.9	95.5	95.9	97.6	98.1	98.2	99.1	99.4	99.5	100.0	100.0	100.0	100.0	100.0	100.0
IV 200	71.5	93.9	95.5	95.9	97.6	98.1	98.2	99.1	99.4	99.5	100.0	100.0	100.0	100.0	100.0	100.0
IV 100	71.5	93.9	95.5	95.9	97.6	98.1	98.2	99.1	99.4	99.5	100.0	100.0	100.0	100.0	100.0	100.0
IV 0	71.5	93.9	95.5	95.9	97.6	98.1	98.2	99.1	99.4	99.5	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 849

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 STATION Malmstrom AFB MT/Great Falls 68-77 YEARS FEB MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

2100-2300 HOURS '51

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	37.1	52.3	52.8	52.8	52.9	52.9	52.9	52.9	52.9	53.0	53.0	53.0	53.0	53.0	53.1	53.1
≥ 20000	45.5	64.9	65.4	65.4	65.7	65.7	65.7	65.7	65.7	65.8	65.8	65.8	65.8	65.8	66.0	66.0
IV 18000	45.5	64.9	65.4	65.4	65.7	65.7	65.7	65.7	65.7	65.8	65.8	65.8	65.8	65.8	66.0	66.0
16000	45.5	64.9	65.4	65.4	65.7	65.7	65.7	65.7	65.7	65.8	65.8	65.8	65.8	65.8	66.0	66.0
IV 14000	45.7	65.5	66.0	66.0	66.3	66.3	66.3	66.3	66.3	66.4	66.4	66.4	66.4	66.4	66.5	66.5
12000	48.6	69.1	69.6	69.6	70.0	70.0	70.0	70.0	70.0	70.1	70.1	70.1	70.1	70.1	70.2	70.2
IV 10000	53.8	75.9	76.3	76.3	76.7	76.7	76.7	76.7	76.7	76.8	76.8	76.8	76.8	76.8	76.9	76.9
9000	54.3	76.8	77.3	77.3	77.6	77.6	77.6	77.6	77.6	77.7	77.7	77.7	77.7	77.7	77.9	77.9
IV 8000	55.1	77.7	78.2	78.2	78.6	78.6	78.6	78.6	78.6	78.7	78.7	78.7	78.7	78.7	78.8	78.8
7000	56.4	79.4	79.9	79.9	80.2	80.2	80.2	80.2	80.2	80.3	80.3	80.3	80.3	80.3	80.4	80.4
IV 6000	56.4	80.0	80.4	80.4	80.9	80.9	80.9	80.9	80.9	81.0	81.0	81.0	81.0	81.0	81.2	81.2
5000	57.1	81.3	81.9	81.9	82.3	82.3	82.3	82.3	82.3	82.4	82.4	82.4	82.4	82.4	82.6	82.6
IV 4500	58.0	82.4	83.0	83.0	83.5	83.6	83.6	83.6	83.6	83.7	83.7	83.7	83.7	83.7	83.9	83.9
4000	59.0	84.3	85.2	85.2	85.6	85.7	85.7	85.7	85.7	85.9	85.9	85.9	85.9	85.9	86.0	86.0
IV 3500	59.4	85.0	86.0	86.0	86.5	86.6	86.6	86.6	86.6	86.7	86.7	86.7	86.7	86.7	86.8	86.8
3000	60.0	86.3	87.3	87.3	88.0	88.2	88.2	88.2	88.2	88.3	88.3	88.3	88.3	88.3	88.5	88.5
IV 2500	60.2	86.7	87.8	87.8	88.5	88.7	88.7	88.7	88.7	88.8	88.8	88.8	88.8	88.8	88.9	88.9
2000	60.5	87.5	88.8	88.8	89.5	90.1	90.2	90.5	90.5	90.6	90.6	90.6	90.6	90.6	90.7	90.7
IV 1800	60.7	87.6	89.0	89.0	89.8	90.3	90.5	90.7	90.7	90.8	90.8	90.8	90.8	90.8	90.9	90.9
1500	61.1	88.6	90.5	90.5	91.3	92.1	92.2	92.6	92.6	92.8	92.8	92.8	92.8	92.8	92.9	92.9
IV 1200	61.2	89.0	91.0	91.0	92.2	93.2	93.8	94.1	94.1	94.5	94.5	94.5	94.5	94.5	94.6	94.6
1000	61.5	89.6	91.6	91.8	92.9	94.1	95.1	95.5	95.5	95.9	96.1	96.1	96.1	96.1	96.2	96.2
IV 900	61.6	90.0	92.1	92.2	93.4	94.6	95.5	96.0	96.0	96.3	96.6	96.6	96.6	96.6	96.7	96.7
800	61.7	90.5	92.6	92.8	94.2	95.4	96.5	97.1	97.1	97.4	97.6	97.6	97.6	97.6	97.8	97.8
IV 700	61.8	90.7	92.8	93.1	94.5	96.0	97.1	97.6	97.6	98.0	98.2	98.2	98.4	98.4	98.5	98.5
600	61.8	90.7	92.8	93.1	94.6	96.1	97.2	98.0	98.0	98.4	98.6	98.6	98.7	98.7	98.8	98.8
IV 500	61.8	90.9	93.2	93.4	94.9	96.5	97.5	98.4	98.4	98.7	98.9	98.9	99.1	99.1	99.2	99.2
400	61.8	90.9	93.2	93.4	94.9	96.5	97.5	98.4	98.5	98.8	99.1	99.1	99.1	99.2	99.2	99.3
IV 300	61.8	91.0	93.3	93.5	95.2	96.7	97.8	98.6	98.7	99.1	99.4	99.4	99.5	99.5	99.6	99.6
200	61.8	91.0	93.3	93.5	95.2	96.7	97.8	98.6	98.7	99.1	99.4	99.4	99.5	99.5	99.6	99.6
IV 100	61.8	91.0	93.3	93.5	95.2	96.7	97.8	98.7	98.8	99.2	99.5	99.5	99.6	99.6	99.8	100.0
0	61.8	91.0	93.3	93.5	95.2	96.7	97.8	98.7	98.8	99.2	99.5	99.5	99.6	99.6	99.8	100.0

TOTAL NUMBER OF OBSERVATIONS 849

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112

MALMSTRUM AFB MT/GREAT FALLS

68-77

FEB

STATION

STATION NAME

YEARS

MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

ALL  
HOURS EST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥0	≥0	≥0
NO CEILING	40.7	49.5	49.9	49.9	50.1	50.2	50.2	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3
≥ 20000	49.1	60.1	60.5	60.6	61.0	61.1	61.1	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2
≥ 18000	49.2	60.3	60.7	60.7	61.1	61.2	61.2	61.3	61.3	61.3	61.4	61.4	61.4	61.4	61.4	61.5
≥ 16000	49.3	60.4	60.8	60.8	61.2	61.3	61.3	61.3	61.4	61.4	61.4	61.4	61.4	61.4	61.5	61.5
≥ 14000	50.3	61.5	61.9	62.0	62.4	62.4	62.5	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.7	62.7
≥ 12000	54.6	66.1	66.5	66.6	67.0	67.0	67.1	67.2	67.2	67.2	67.2	67.2	67.2	67.3	67.3	67.3
≥ 10000	61.7	74.4	74.7	74.9	75.4	75.5	75.5	75.6	75.6	75.7	75.7	75.7	75.7	75.7	75.7	75.8
≥ 9000	62.4	75.3	75.9	75.9	76.4	76.5	76.5	76.6	76.6	76.7	76.7	76.7	76.7	76.7	76.8	76.8
≥ 8000	64.4	77.5	78.2	78.2	78.7	78.8	78.8	78.9	78.9	79.0	79.0	79.0	79.0	79.0	79.0	79.1
≥ 7000	65.8	79.2	79.8	79.9	80.4	80.5	80.5	80.6	80.6	80.7	80.7	80.7	80.7	80.7	80.7	80.8
≥ 6000	66.6	80.3	80.9	81.0	81.6	81.6	81.7	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.9	81.9
≥ 5000	68.1	82.1	82.8	83.0	83.5	83.6	83.6	83.7	83.7	83.8	83.8	83.8	83.8	83.8	83.9	83.9
≥ 4500	68.5	82.7	83.4	83.5	84.1	84.2	84.2	84.3	84.3	84.4	84.4	84.4	84.4	84.4	84.5	84.5
≥ 4000	69.7	84.4	85.4	85.5	86.2	86.3	86.3	86.5	86.5	86.6	86.6	86.6	86.6	86.6	86.7	86.7
≥ 3500	70.3	85.5	86.5	86.6	87.4	87.5	87.5	87.7	87.7	87.8	87.8	87.8	87.8	87.8	87.9	87.9
≥ 3000	70.7	86.3	87.4	87.5	88.4	88.6	88.7	88.9	88.9	89.0	89.0	89.0	89.0	89.0	89.1	89.1
≥ 2500	71.1	86.9	88.2	88.4	89.4	89.7	89.8	90.0	90.1	90.1	90.2	90.2	90.2	90.2	90.3	90.3
≥ 2000	71.6	87.7	89.2	89.5	90.9	91.2	91.5	91.9	91.9	92.0	92.0	92.1	92.1	92.2	92.2	92.2
≥ 1800	71.6	87.8	89.5	89.7	91.2	91.5	91.8	92.2	92.3	92.4	92.4	92.4	92.5	92.5	92.5	92.6
≥ 1500	72.0	88.6	90.5	90.8	92.4	93.0	93.3	93.8	93.9	94.1	94.1	94.1	94.2	94.2	94.2	94.3
≥ 1200	72.2	89.3	91.2	91.5	93.2	93.9	94.3	94.9	95.1	95.2	95.3	95.3	95.4	95.4	95.4	95.5
≥ 1000	72.5	89.8	91.8	92.1	93.9	94.6	95.2	95.8	96.0	96.2	96.3	96.4	96.5	96.5	96.5	96.6
≥ 900	72.5	89.9	92.0	92.3	94.1	94.8	95.4	96.1	96.3	96.5	96.7	96.7	96.8	96.8	96.9	96.9
≥ 800	72.6	90.0	92.1	92.4	94.2	94.9	95.6	96.3	96.5	96.8	96.9	97.0	97.0	97.1	97.1	97.1
≥ 700	72.7	90.2	92.2	92.6	94.4	95.2	95.9	96.7	96.9	97.2	97.4	97.5	97.6	97.6	97.6	97.7
≥ 600	72.7	90.2	92.3	92.6	94.6	95.4	96.1	97.0	97.3	97.6	97.8	97.9	98.0	98.1	98.1	98.1
≥ 500	72.7	90.3	92.4	92.8	94.8	95.6	96.4	97.3	97.6	98.1	98.3	98.4	98.5	98.6	98.6	98.7
≥ 400	72.7	90.4	92.5	92.9	94.9	95.8	96.5	97.5	97.9	98.3	98.6	98.6	98.8	98.9	99.0	99.1
≥ 300	72.7	90.5	92.6	93.0	95.1	95.9	96.7	97.7	98.1	98.6	98.9	99.0	99.2	99.2	99.3	99.5
≥ 200	72.7	90.5	92.7	93.0	95.1	96.0	96.7	97.7	98.1	98.7	98.9	99.1	99.3	99.4	99.5	99.8
≥ 100	72.7	90.5	92.7	93.0	95.1	96.0	96.7	97.7	98.1	98.7	99.0	99.1	99.3	99.4	99.5	99.9
≥ 0	72.7	90.5	92.7	93.0	95.1	96.0	96.7	97.7	98.1	98.7	99.0	99.1	99.3	99.4	99.5	100.0

TOTAL NUMBER OF OBSERVATIONS

6792

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTPQM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

MAR  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

0000-0200  
HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	≥¾	≥½	≥5/16	≥¼	≥0
NO CEILING	34.2	49.9	49.9	49.9	50.0	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.2	50.2	50.2
≥ 20000	41.3	60.5	60.5	60.5	60.6	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.9	60.9	60.9
≥ 18000	41.3	60.5	60.5	60.5	60.6	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.9	60.9	60.9
≥ 16000	41.3	60.5	60.5	60.5	60.6	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.9	60.9	60.9
≥ 14000	42.3	61.5	61.5	61.5	61.6	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.8	61.8	61.8
≥ 12000	45.1	64.9	65.1	65.1	65.2	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.4	65.4	65.4
≥ 10000	50.0	71.1	71.2	71.2	71.3	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.5	71.5	71.5
≥ 9000	50.6	71.8	71.9	71.9	72.0	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.3	72.3	72.3
≥ 8000	52.5	74.1	74.2	74.2	74.3	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.5	74.5	74.5
≥ 7000	53.2	74.9	75.1	75.1	75.2	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.4	75.4	75.4
≥ 6000	54.1	76.1	76.2	76.2	76.3	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.6	76.6	76.6
≥ 5000	55.3	78.0	78.1	78.1	78.2	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.4	78.4	78.4
≥ 4500	55.8	79.1	79.2	79.2	79.4	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.6	79.6	79.6
≥ 4000	58.4	82.4	82.6	82.6	82.7	82.9	82.9	82.9	83.0	83.0	83.0	83.0	83.1	83.1	83.1	83.1
≥ 3500	59.5	84.5	84.8	84.8	85.1	85.3	85.3	85.3	85.4	85.4	85.4	85.4	85.5	85.5	85.5	85.5
≥ 3000	60.2	85.9	86.5	86.5	86.9	87.2	87.2	87.2	87.3	87.3	87.3	87.3	87.3	87.4	87.4	87.4
≥ 2500	60.4	86.8	87.5	87.7	88.3	88.6	88.8	88.8	88.9	88.9	88.9	88.9	88.9	89.0	89.0	89.0
≥ 2000	60.4	87.3	88.3	88.7	89.6	90.1	90.5	90.5	90.6	90.6	90.9	91.0	91.0	91.1	91.1	91.1
≥ 1800	60.5	87.6	88.6	89.0	90.1	90.8	91.2	91.2	91.3	91.5	91.6	91.6	91.7	91.7	91.7	91.7
≥ 1500	60.8	88.4	89.5	89.9	91.1	91.8	92.4	92.4	92.5	92.7	92.8	92.8	92.9	92.9	92.9	92.9
≥ 1200	60.8	88.4	89.6	90.1	91.3	92.0	92.8	92.9	93.2	93.5	93.7	93.7	93.8	93.8	93.8	93.8
≥ 1000	60.8	88.5	89.8	90.3	91.6	92.6	94.0	94.3	94.7	95.1	95.2	95.2	95.3	95.3	95.3	95.3
≥ 900	60.8	88.5	89.8	90.3	91.6	92.6	94.2	94.5	94.9	95.4	95.5	95.5	95.6	95.6	95.6	95.6
≥ 800	60.8	88.9	90.2	90.9	92.2	93.1	94.7	95.2	95.8	96.2	96.3	96.3	96.5	96.6	96.6	96.6
≥ 700	60.8	88.9	90.2	90.9	92.3	93.2	94.8	95.3	95.9	96.3	96.6	96.6	96.7	96.8	96.8	96.8
≥ 600	60.9	89.2	90.5	91.2	92.7	93.7	95.4	96.1	96.8	97.4	97.6	97.6	97.7	97.8	97.8	97.8
≥ 500	60.9	89.4	90.6	91.3	92.8	93.9	95.6	96.5	97.1	97.7	98.0	98.0	98.1	98.2	98.2	98.2
≥ 400	60.9	89.4	90.6	91.3	92.8	93.9	95.7	96.6	97.2	97.8	98.1	98.1	98.2	98.3	98.3	98.3
≥ 300	60.9	89.4	90.6	91.4	92.9	94.0	95.8	96.7	97.3	98.0	98.2	98.2	98.3	98.4	98.4	98.5
≥ 200	60.9	89.4	90.6	91.5	93.2	94.5	96.3	97.2	97.8	98.5	98.7	98.7	98.8	99.0	99.2	99.6
≥ 100	60.9	89.4	90.6	91.5	93.2	94.5	96.6	97.4	98.2	98.8	99.1	99.1	99.2	99.5	99.7	100.0
≥ 0	60.9	89.4	90.6	91.5	93.2	94.5	96.6	97.4	98.2	98.8	99.1	99.1	99.2	99.5	99.7	100.0

TOTAL NUMBER OF OBSERVATIONS 930



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112

MALMSTROM AFB MT/GREAT FALLS

68-77

MAR

STATION

STATION NAME

YEARS

MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0300-0500  
 HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)																
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥5/16	≥. .	≥0	
NO CEILING	35.6	49.2	49.4	49.4	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7
≥ 20000	42.4	59.1	59.2	59.2	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6
IV 18000	42.4	59.2	59.4	59.4	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7
IV 15000	42.4	59.6	59.7	59.7	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
IV 14000	43.0	60.2	60.3	60.3	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6
IV 12000	45.8	63.2	63.3	63.3	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7
IV 10000	51.1	69.8	69.9	70.0	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3
IV 9000	51.5	70.5	70.6	70.8	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1
IV 8000	52.6	72.3	72.6	72.7	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
IV 7000	53.1	73.4	73.5	73.7	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
IV 6000	54.7	75.4	75.5	75.6	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9
IV 5000	56.0	77.0	77.2	77.3	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6
IV 4500	56.5	78.2	78.5	78.6	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9
IV 4000	58.5	81.5	81.9	82.0	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5
IV 3500	59.4	82.9	83.3	83.5	84.1	84.4	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5
IV 3000	60.2	84.5	85.1	85.3	85.8	86.2	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3
IV 2500	60.4	85.1	85.7	86.0	86.6	87.0	87.1	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2
IV 2000	60.8	86.9	87.8	88.2	88.7	89.1	89.2	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7
IV 1800	61.0	87.3	88.4	88.7	89.4	89.8	89.9	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3
IV 1500	61.1	88.0	89.0	89.5	90.6	91.1	91.2	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7
IV 1200	61.1	88.1	89.1	89.7	91.2	91.6	91.8	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7
IV 1000	61.5	88.7	89.8	90.3	92.0	92.5	92.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8
IV 900	61.5	88.7	89.8	90.3	92.2	92.7	93.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1
IV 800	61.5	88.7	89.8	90.3	92.3	92.8	93.2	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5
IV 700	61.5	88.9	90.0	90.8	92.7	93.3	93.8	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1
IV 600	61.5	89.4	90.5	91.4	93.3	94.0	94.4	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8
IV 500	61.6	89.7	90.9	91.7	93.7	94.3	94.8	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
IV 400	61.6	89.7	90.9	91.8	93.9	94.6	95.2	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6
IV 300	61.6	89.8	91.0	91.9	94.0	94.8	95.4	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
IV 200	61.6	89.8	91.0	91.9	94.1	94.9	95.5	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
IV 100	61.6	89.8	91.0	91.9	94.1	94.9	95.5	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
IV 0	61.6	89.8	91.0	91.9	94.1	94.9	95.5	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3

TOTAL NUMBER OF OBSERVATIONS

930

USAF ETAC

FORM 7-64

0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

MAR  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0600-0800  
HOURS T-5

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ ¼	≥ 1/16	≥ 1/8	≥ 0
NO CEILING	46.3	49.0	49.4	49.4	49.5	49.6	49.7	49.7	49.7	49.7	49.7	49.8	49.8	49.9	50.0	50.0
≥ 20000	54.6	58.1	58.4	58.4	58.7	58.8	58.9	58.9	58.9	58.9	58.9	59.0	59.0	59.1	59.2	59.2
≥ 18000	54.9	58.4	58.7	58.7	59.0	59.1	59.2	59.2	59.2	59.2	59.2	59.4	59.4	59.5	59.6	59.6
≥ 16000	55.7	59.2	59.6	59.6	59.9	60.0	60.1	60.1	60.1	60.1	60.1	60.2	60.2	60.3	60.4	60.4
≥ 14000	56.5	60.0	60.3	60.3	60.6	60.8	60.9	60.9	60.9	60.9	60.9	61.0	61.0	61.1	61.2	61.2
≥ 12000	59.0	62.7	63.0	63.0	63.3	63.4	63.5	63.5	63.5	63.5	63.5	63.7	63.7	63.8	63.9	63.9
≥ 10000	66.1	69.9	70.2	70.2	70.5	70.6	70.9	70.9	70.9	70.9	70.9	71.0	71.0	71.1	71.2	71.3
≥ 9000	67.4	71.3	71.6	71.6	71.9	72.0	72.3	72.3	72.3	72.3	72.3	72.4	72.4	72.5	72.6	72.7
≥ 8000	70.6	74.5	74.8	74.8	75.2	75.3	75.5	75.5	75.5	75.5	75.5	75.6	75.6	75.7	75.8	75.9
≥ 7000	72.2	76.1	76.5	76.5	76.8	76.9	77.1	77.1	77.1	77.1	77.1	77.2	77.2	77.3	77.4	77.5
≥ 6000	73.3	77.5	77.8	77.8	78.2	78.3	78.5	78.5	78.5	78.5	78.5	78.6	78.6	78.7	78.8	78.9
≥ 5000	74.7	79.1	79.5	79.5	79.8	79.9	80.1	80.1	80.1	80.2	80.2	80.3	80.3	80.4	80.5	80.6
≥ 4500	75.4	80.3	80.9	80.9	81.2	81.3	81.5	81.5	81.5	81.6	81.7	81.7	81.7	81.8	81.9	82.0
≥ 4000	76.9	82.2	82.7	82.7	83.0	83.1	83.9	83.9	83.9	84.0	84.1	84.1	84.2	84.3	84.4	84.4
≥ 3500	77.6	82.9	83.7	83.8	84.3	84.5	85.3	85.3	85.3	85.4	85.5	85.5	85.5	85.6	85.7	85.8
≥ 3000	78.0	83.4	84.3	84.5	85.1	85.3	86.0	86.0	86.0	86.1	86.2	86.2	86.3	86.5	86.6	86.6
≥ 2500	78.3	84.5	85.4	85.6	86.1	86.5	87.2	87.2	87.2	87.3	87.4	87.4	87.5	87.6	87.7	87.7
≥ 2000	78.6	85.7	86.7	87.0	87.6	88.1	88.9	89.0	89.0	89.1	89.2	89.2	89.4	89.5	89.6	89.6
≥ 1800	78.8	86.3	87.3	87.6	88.3	88.7	89.6	89.7	89.7	89.8	89.9	89.9	90.0	90.1	90.2	90.2
≥ 1500	78.8	86.3	87.3	87.6	88.4	88.8	89.8	89.9	89.9	90.2	90.3	90.3	90.4	90.5	90.6	90.6
≥ 1200	79.1	86.8	87.8	88.2	88.9	89.4	90.4	90.8	91.0	91.3	91.4	91.4	91.5	91.6	91.7	91.7
≥ 1000	79.2	87.2	88.3	88.7	89.6	90.1	91.4	91.7	91.9	92.4	92.5	92.5	92.9	93.0	93.1	93.1
≥ 900	79.4	87.3	88.4	88.8	89.7	90.2	91.6	92.0	92.4	92.8	93.0	93.0	93.5	93.7	93.9	93.9
≥ 800	79.4	87.4	88.5	88.9	89.8	90.3	91.8	92.3	92.7	93.3	93.7	93.7	94.3	94.4	94.7	94.7
≥ 700	79.5	87.5	88.6	89.4	90.3	90.9	92.4	92.9	93.3	94.0	94.4	94.4	95.1	95.2	95.5	95.5
≥ 600	79.6	87.7	88.9	89.8	90.9	91.6	93.1	93.7	94.1	94.7	95.2	95.2	96.0	96.1	96.5	96.7
≥ 500	79.6	87.8	89.0	89.9	91.1	91.8	93.4	94.0	94.4	95.1	95.5	95.5	96.6	96.7	97.1	97.3
≥ 400	79.7	88.0	89.1	90.0	91.2	91.9	93.8	94.3	94.7	95.6	96.0	96.1	97.3	97.4	97.8	98.2
≥ 300	79.8	88.1	89.2	90.1	91.5	92.3	94.1	94.7	95.2	96.0	96.5	96.7	97.8	98.0	98.4	98.8
≥ 200	79.8	88.2	89.4	90.2	91.6	92.4	94.2	94.8	95.3	96.3	96.8	97.0	98.3	98.4	98.9	99.5
≥ 100	79.8	88.2	89.4	90.2	91.6	92.4	94.2	95.1	95.6	96.8	97.2	97.4	98.7	98.8	99.4	99.9
≥ 0	79.8	88.2	89.4	90.2	91.6	92.4	94.2	95.1	95.7	96.9	97.3	97.5	98.8	98.9	99.5	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

MAR  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0900-1100  
HOUR EST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ ¼	≥ 5/16	≥ ¼	≥ 0
NO CEILING ≥ 20000	50.6 61.1	51.8 62.5	52.0 62.7	52.3 62.9	52.4 63.3	52.7 63.7	52.7 63.7	52.7 63.7	52.7 63.7	52.7 63.7	52.7 63.7	52.7 63.7	52.7 63.7	52.7 63.7	52.7 63.7	52.7 63.7
IV 18000 IV 16000	61.5 61.6	62.9 63.0	63.1 63.2	63.3 63.4	63.8 63.9	64.1 64.2	64.1 64.2	64.1 64.2	64.1 64.2	64.1 64.2	64.1 64.2	64.1 64.2	64.1 64.2	64.1 64.2	64.1 64.2	64.1 64.2
IV 14000 IV 12000	63.0 66.1	64.4 67.5	64.6 67.7	64.8 68.0	65.3 68.4	65.6 69.7	65.6 68.7	65.6 68.7	65.6 68.7	65.6 68.7	65.6 68.7	65.6 68.7	65.6 68.7	65.6 68.7	65.6 68.7	65.6 68.7
IV 10000 IV 9000	72.6 73.3	74.2 74.9	74.4 75.2	74.6 75.4	75.1 75.8	75.4 76.1	75.4 76.1	75.4 76.1	75.4 76.1	75.4 76.1	75.4 76.1	75.4 76.1	75.4 76.1	75.4 76.1	75.4 76.1	75.4 76.1
IV 8000 IV 7000	75.3 76.0	76.9 77.6	77.1 77.8	77.3 78.1	77.8 78.6	78.2 78.9	78.2 78.9	78.2 78.9	78.2 78.9	78.2 78.9	78.2 78.9	78.2 78.9	78.2 78.9	78.2 78.9	78.2 78.9	78.2 78.9
IV 6000 IV 5000	77.2 78.7	78.8 80.4	79.0 80.6	79.2 80.9	79.8 81.4	80.1 81.7	80.1 81.8	80.1 81.8	80.1 81.8	80.1 81.8	80.1 81.8	80.1 81.8	80.1 81.8	80.1 81.8	80.1 81.8	80.1 81.8
IV 4500 IV 4000	79.0 80.6	81.0 83.0	81.2 83.3	81.4 83.7	82.0 84.3	82.4 84.6	82.5 84.7	82.5 84.7	82.5 84.7	82.5 84.7	82.5 84.8	82.5 84.8	82.5 84.8	82.5 84.8	82.5 84.8	82.5 84.8
IV 3500 IV 3000	80.8 81.6	83.1 84.1	83.4 84.5	83.9 84.9	84.6 85.7	84.9 86.0	85.1 86.1	85.2 86.5	85.2 86.5	85.2 86.5	85.3 86.6	85.3 86.6	85.3 86.6	85.4 86.8	85.4 86.8	85.4 86.8
IV 2500 IV 2000	82.4 82.9	85.5 86.7	85.9 87.1	86.6 87.7	87.3 88.6	87.6 88.9	88.0 89.2	88.3 89.7	88.3 89.7	88.3 89.7	88.3 89.8	88.4 89.8	88.4 89.8	88.6 90.0	88.6 90.0	88.6 90.0
IV 1800 IV 1500	82.9 83.2	87.0 87.4	87.4 88.1	88.1 88.8	88.9 89.7	89.2 90.0	89.6 90.5	90.0 91.1	90.2 91.4	90.3 91.5	90.4 91.6	90.4 91.6	90.6 91.8	90.6 91.8	90.6 91.8	90.6 91.8
IV 1200 IV 1000	82.8 84.0	88.5 88.8	89.2 89.6	90.0 90.4	90.9 91.5	91.3 92.0	91.9 92.8	92.7 93.5	93.3 94.3	93.5 94.6	93.7 94.8	93.7 94.9	93.9 95.3	94.0 95.4	94.0 95.4	94.0 95.4
IV 900 IV 800	84.0 84.1	88.8 89.0	89.8 90.0	90.6 90.9	91.8 92.0	92.4 92.7	93.1 93.4	93.9 94.2	94.6 94.9	95.1 95.6	95.5 96.1	95.6 96.2	95.9 96.6	96.0 96.7	96.0 96.7	96.0 96.7
IV 700 IV 600	84.1 84.1	89.0 89.0	90.0 90.0	91.0 91.0	92.3 92.3	92.9 92.9	93.9 94.0	94.7 94.9	95.7 95.9	96.3 96.6	96.9 97.2	97.0 97.4	97.3 97.7	97.4 97.8	97.4 98.0	97.4 98.2
IV 500 IV 400	84.1 84.1	89.0 89.0	90.0 90.0	91.0 91.0	92.4 92.4	93.0 93.0	94.1 94.1	95.3 95.4	96.2 96.5	97.0 97.2	97.7 98.1	98.0 98.3	98.3 98.6	98.4 98.7	98.5 98.8	98.7 99.0
IV 300 IV 200	84.1 84.1	89.1 89.1	90.1 90.1	91.1 91.1	92.6 92.6	93.2 93.2	94.3 94.4	95.6 95.7	96.7 96.8	97.5 97.6	98.4 98.5	98.6 98.7	99.0 99.1	99.2 99.4	99.4 99.7	99.6 99.9
IV 100 IV 0	84.1 84.1	89.1 89.1	90.1 90.1	91.1 91.1	92.6 92.6	93.2 93.2	94.4 94.4	95.8 95.8	96.9 96.9	97.7 97.7	98.6 98.6	98.8 98.8	99.2 99.2	99.5 99.5	99.8 99.8	100.0 100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 W. A. ETAC  
 WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

112 STATION MALMSTRUM AFB MT/GREAT FALLS 68-77 YEARS MAR MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1200-1400 HOURS CST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ ¼	≥ 1/16	≥ 1	≥ 0
NO CEILING	46.0	47.5	47.6	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1	48.1
≥ 20000	57.1	59.0	59.4	59.8	59.8	59.8	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9
≥ 18000	58.0	59.9	60.2	60.6	60.6	60.6	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8
≥ 16000	58.4	60.3	60.6	61.1	61.1	61.1	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2
≥ 14000	59.6	61.5	61.8	62.3	62.3	62.3	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4
≥ 12000	64.3	66.2	66.6	67.0	67.0	67.0	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
≥ 10000	70.0	72.0	72.4	72.8	72.8	72.8	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9
≥ 9000	71.1	73.1	73.4	73.9	73.9	73.9	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
≥ 8000	72.7	74.8	75.2	75.6	75.6	75.6	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7
≥ 7000	73.1	75.3	75.6	76.0	76.0	76.0	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1
≥ 6000	74.4	76.6	76.9	77.3	77.3	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
≥ 5000	78.4	80.6	81.0	81.4	81.4	81.5	81.6	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7
≥ 4500	79.6	81.8	82.2	82.6	82.6	82.7	82.8	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9
≥ 4000	81.3	84.0	84.6	85.2	85.4	85.6	85.7	85.8	85.8	85.9	85.9	85.9	85.9	85.9	85.9	85.9
≥ 3500	81.5	84.3	84.9	85.5	85.7	85.9	86.1	86.2	86.2	86.3	86.3	86.3	86.3	86.5	86.5	86.5
≥ 3000	81.9	85.2	85.9	86.5	86.7	87.0	87.2	87.3	87.3	87.4	87.4	87.4	87.5	87.5	87.5	87.5
≥ 2500	82.8	86.2	87.2	87.7	88.0	88.3	88.5	88.6	88.6	88.7	88.7	88.7	88.8	88.8	88.8	88.8
≥ 2000	83.5	87.6	88.8	89.4	89.6	89.9	90.1	90.2	90.2	90.3	90.3	90.3	90.4	90.4	90.4	90.4
≥ 1800	84.1	88.3	89.7	90.2	90.4	90.8	91.0	91.1	91.1	91.2	91.2	91.2	91.3	91.3	91.3	91.3
≥ 1500	84.8	89.2	90.8	91.3	91.8	92.2	92.6	92.8	92.8	92.9	92.9	92.9	93.0	93.0	93.0	93.0
≥ 1200	85.1	90.0	91.5	92.0	92.8	93.1	93.5	93.8	93.9	94.3	94.3	94.3	94.4	94.4	94.4	94.4
≥ 1000	85.3	91.0	92.6	93.1	94.0	94.3	94.7	94.9	95.2	95.9	96.0	96.1	96.2	96.2	96.2	96.2
≥ 900	85.3	91.0	92.6	93.2	94.1	94.4	94.9	95.4	95.7	96.6	97.0	97.1	97.2	97.2	97.2	97.2
≥ 800	85.5	91.3	92.9	93.5	94.5	94.8	95.4	96.0	96.3	97.2	97.6	97.8	98.2	98.2	98.2	98.2
≥ 700	85.5	91.3	92.9	93.5	94.5	94.8	95.4	96.0	96.3	97.2	97.6	97.8	98.2	98.2	98.2	98.2
≥ 600	85.5	91.3	92.9	93.5	94.5	94.8	95.4	96.0	96.3	97.4	98.0	98.4	98.9	98.9	98.9	98.9
≥ 500	85.5	91.3	92.9	93.5	94.5	94.8	95.5	96.1	96.5	97.5	98.1	98.5	99.1	99.1	99.1	99.1
≥ 400	85.5	91.3	92.9	93.5	94.5	94.8	95.5	96.1	96.5	97.5	98.1	98.5	99.1	99.1	99.1	99.1
≥ 300	85.5	91.3	92.9	93.5	94.5	94.8	95.5	96.1	96.5	97.6	98.2	98.6	99.2	99.2	99.4	99.4
≥ 200	85.6	91.4	93.0	93.7	94.6	94.9	95.6	96.2	96.6	97.7	98.4	98.8	99.5	99.5	99.8	99.8
≥ 100	85.6	91.4	93.0	93.7	94.6	94.9	95.6	96.2	96.6	97.7	98.5	98.9	99.6	99.7	100.0	100.0
≥ 0	85.6	91.4	93.0	93.7	94.6	94.9	95.6	96.2	96.6	97.7	98.5	98.9	99.6	99.7	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

MAR  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

1500-1700  
HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)														
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ 5/16	≥ ¼	≥ 0
NO CEILING	41.0	41.6	41.8	41.8	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2
≥ 20000	53.5	54.6	55.1	55.2	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5
IV 18000	53.8	54.8	55.3	55.4	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7
IV 16000	53.8	54.8	55.3	55.4	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7
IV 14000	55.1	56.1	56.6	56.7	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
IV 12000	61.0	62.0	62.5	62.6	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9
IV 10000	68.3	69.7	70.1	70.2	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5
IV 9000	68.6	70.1	70.5	70.6	71.0	71.0	71.0	71.0	71.0	71.1	71.1	71.1	71.1	71.1	71.1
IV 8000	70.9	72.6	73.0	73.1	73.4	73.4	73.4	73.4	73.4	73.5	73.5	73.5	73.5	73.5	73.5
IV 7000	71.2	72.9	73.3	73.4	73.8	73.8	73.8	73.8	73.8	73.9	73.9	73.9	73.9	73.9	73.9
IV 6000	73.0	74.7	75.2	75.3	75.6	75.6	75.6	75.6	75.6	75.7	75.7	75.7	75.7	75.7	75.7
IV 5000	77.5	79.2	79.7	79.8	80.1	80.2	80.2	80.2	80.2	80.3	80.3	80.3	80.3	80.3	80.3
IV 4500	79.2	81.0	81.5	81.6	82.0	82.2	82.2	82.2	82.2	82.3	82.3	82.3	82.3	82.3	82.3
IV 4000	82.4	84.3	84.9	85.2	85.8	85.9	85.9	86.0	86.1	86.2	86.2	86.2	86.2	86.2	86.2
IV 3500	83.4	85.5	86.2	86.5	87.1	87.2	87.2	87.3	87.4	87.5	87.5	87.5	87.5	87.5	87.5
IV 3000	83.9	86.2	87.1	87.4	88.1	88.2	88.2	88.3	88.4	88.5	88.5	88.5	88.5	88.5	88.5
IV 2500	84.8	87.7	88.6	88.9	89.6	89.7	89.7	89.8	89.9	90.0	90.0	90.0	90.0	90.0	90.0
IV 2000	85.6	89.0	90.0	90.3	91.0	91.1	91.1	91.2	91.4	91.5	91.5	91.5	91.5	91.5	91.5
IV 1800	85.9	89.5	90.4	90.9	91.5	91.7	91.8	91.9	92.2	92.3	92.3	92.3	92.3	92.3	92.3
IV 1500	86.3	89.9	91.1	91.7	92.4	92.6	92.8	93.0	93.3	93.4	93.4	93.5	93.5	93.5	93.5
IV 1200	86.7	91.1	92.3	92.9	93.9	94.1	94.3	94.5	94.9	95.2	95.2	95.3	95.3	95.3	95.3
IV 1000	86.7	91.4	92.7	93.3	94.4	94.6	94.9	95.5	95.9	97.0	97.0	97.3	97.3	97.3	97.3
IV 900	86.7	91.4	92.7	93.3	94.4	94.6	94.9	95.5	96.1	97.4	97.4	97.7	97.7	97.7	97.7
IV 800	86.7	91.5	92.8	93.4	94.6	94.8	95.4	96.0	96.6	98.0	98.0	98.3	98.3	98.3	98.3
IV 700	86.8	91.6	92.9	93.5	94.7	94.9	95.5	96.1	96.8	98.2	98.3	98.6	98.6	98.6	98.6
IV 600	86.8	91.6	92.9	93.5	94.7	94.9	95.5	96.1	96.9	98.4	98.6	99.0	99.2	99.2	99.2
IV 500	86.8	91.6	92.9	93.5	94.7	94.9	95.5	96.1	96.9	98.4	98.6	99.0	99.2	99.2	99.2
IV 400	86.8	91.6	92.9	93.5	94.7	94.9	95.5	96.1	96.9	98.4	98.6	99.0	99.2	99.2	99.2
IV 300	86.8	91.6	92.9	93.5	94.7	94.9	95.5	96.1	96.9	98.4	98.6	99.0	99.2	99.2	99.2
IV 200	86.8	91.6	92.9	93.5	94.7	94.9	95.5	96.2	97.0	98.7	98.9	99.4	99.6	99.6	99.6
IV 100	86.8	91.6	92.9	93.5	94.7	94.9	95.5	96.2	97.0	98.7	98.9	99.4	99.7	99.7	99.7
IV 0	86.8	91.6	92.9	93.5	94.7	94.9	95.5	96.2	97.0	98.7	98.9	99.4	99.7	99.7	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

MAR  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1800-2000  
HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	35.9	43.7	43.9	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1
≥ 20000	44.3	53.3	53.5	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9
≥ 18000	44.4	53.4	53.7	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
≥ 16000	44.7	53.8	54.0	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3
≥ 14000	46.1	55.3	55.5	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8	55.8
≥ 12000	50.9	60.4	60.6	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0
≥ 10000	58.9	69.4	69.6	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9
≥ 9000	59.9	70.8	71.0	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3
≥ 8000	62.0	73.3	73.5	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9
≥ 7000	63.3	74.7	74.9	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3	75.3
≥ 6000	64.5	76.0	76.2	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6
≥ 5000	67.8	79.9	80.2	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
≥ 4500	69.5	81.7	82.0	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4
≥ 4000	71.8	84.6	85.2	85.5	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6
≥ 3500	72.8	85.7	86.3	86.7	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8
≥ 3000	73.7	86.9	87.8	88.2	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3
≥ 2500	74.2	88.0	89.1	89.5	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6
≥ 2000	75.4	89.8	91.3	91.6	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8
≥ 1800	75.6	90.1	91.8	92.2	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4
≥ 1500	75.7	90.5	92.3	92.7	93.0	93.2	94.0	94.1	94.3	94.4	94.5	94.5	94.5	94.5	94.5	94.5
≥ 1200	75.9	90.9	92.6	93.0	93.3	93.5	94.3	94.6	94.9	95.1	95.2	95.2	95.2	95.2	95.2	95.2
≥ 1000	76.0	91.6	93.4	93.9	94.3	94.6	95.6	95.9	96.2	97.0	97.1	97.1	97.2	97.2	97.2	97.2
≥ 900	76.0	91.8	93.7	94.1	94.5	94.8	95.9	96.2	96.6	97.3	97.4	97.4	97.5	97.5	97.5	97.5
≥ 800	76.0	92.2	94.1	94.5	94.9	95.3	96.3	96.7	97.0	97.7	97.8	97.8	98.0	98.0	98.0	98.0
≥ 700	76.0	92.2	94.2	94.6	95.2	95.5	96.7	97.0	97.3	98.1	98.2	98.4	98.9	98.9	98.9	98.9
≥ 600	76.0	92.2	94.2	94.6	95.2	95.5	96.7	97.0	97.3	98.1	98.4	98.6	99.2	99.2	99.2	99.2
≥ 500	76.0	92.2	94.2	94.6	95.2	95.5	96.7	97.0	97.3	98.1	98.4	98.6	99.4	99.4	99.4	99.4
≥ 400	76.0	92.2	94.2	94.6	95.2	95.5	96.7	97.0	97.3	98.1	98.4	98.6	99.4	99.4	99.4	99.4
≥ 300	76.0	92.2	94.2	94.6	95.2	95.5	96.7	97.0	97.3	98.1	98.5	98.7	99.5	99.5	99.5	99.7
≥ 200	76.0	92.2	94.2	94.6	95.2	95.5	96.9	97.2	97.5	98.3	98.7	98.9	99.7	99.7	99.7	100.0
≥ 100	76.0	92.2	94.2	94.6	95.2	95.5	96.9	97.2	97.5	98.3	98.7	98.9	99.7	99.7	99.7	100.0
≥ 0	76.0	92.2	94.2	94.6	95.2	95.5	96.9	97.2	97.5	98.3	98.7	98.9	99.7	99.7	99.7	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

MAR  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

2100-2300  
HOURS EST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ ¼	≥ 1/16	≥ .	≥ 0
NO CEILING	35.1	51.0	51.4	51.5	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7
≥ 20000	42.5	61.4	61.8	61.9	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
≥ 18000	42.6	61.5	61.9	62.0	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3
IV 16000	42.6	61.5	61.9	62.0	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3
IV 14000	43.4	62.4	62.8	62.9	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1
IV 12000	47.3	67.2	67.6	67.7	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0
IV 10000	51.2	71.9	72.4	72.5	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7
IV 9000	52.0	73.1	73.5	73.7	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9
IV 8000	54.2	76.1	76.6	76.8	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0
IV 7000	55.1	77.3	77.7	78.0	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2
IV 6000	55.8	78.5	78.9	79.1	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4
IV 5000	57.2	81.5	82.0	82.3	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5
IV 4500	57.8	82.4	82.9	83.1	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3
IV 4000	59.4	84.6	85.5	85.7	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0
IV 3500	59.8	85.5	86.6	86.8	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2
IV 3000	60.5	86.9	88.0	88.2	88.6	88.7	88.7	88.7	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9
IV 2500	61.1	87.5	89.5	89.7	90.3	90.4	90.4	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8
IV 2000	61.4	88.4	90.6	90.9	91.7	92.0	92.0	92.6	92.6	92.7	92.7	92.7	92.7	92.7	92.7	92.7
IV 1800	61.5	88.7	91.0	91.2	92.0	92.4	92.4	92.9	92.9	93.0	93.0	93.0	93.0	93.0	93.0	93.0
IV 1500	61.5	89.4	91.8	92.0	93.0	93.4	93.4	94.0	94.0	94.1	94.1	94.1	94.1	94.1	94.1	94.1
IV 1200	61.7	90.4	92.9	93.2	94.3	94.7	94.7	95.4	95.4	95.5	95.5	95.5	95.5	95.5	95.5	95.5
IV 1000	61.7	90.8	93.5	93.9	95.2	95.6	95.8	96.7	96.7	97.0	97.0	97.0	97.0	97.0	97.0	97.0
IV 900	61.7	90.8	93.5	93.9	95.2	95.6	95.8	96.7	96.7	97.1	97.1	97.1	97.3	97.3	97.3	97.3
IV 800	61.7	90.8	93.5	93.9	95.2	95.7	96.0	97.0	97.0	97.6	97.6	97.6	97.8	97.8	97.8	97.8
IV 700	61.7	91.0	93.8	94.1	95.4	95.9	96.2	97.4	97.4	98.1	98.1	98.1	98.3	98.3	98.3	98.3
IV 600	61.7	91.0	93.8	94.1	95.5	96.0	96.5	97.6	97.7	98.5	98.5	98.5	99.0	99.0	99.0	99.0
IV 500	61.7	91.0	93.8	94.1	95.5	96.3	96.8	98.1	98.2	98.9	98.9	98.9	99.5	99.5	99.5	99.5
IV 400	61.7	91.0	93.8	94.1	95.6	96.5	96.9	98.2	98.3	99.1	99.1	99.1	99.7	99.7	99.8	99.8
IV 300	61.7	91.0	93.8	94.1	95.6	96.5	96.9	98.2	98.3	99.1	99.1	99.1	99.7	99.7	99.8	99.9
IV 200	61.7	91.0	93.8	94.1	95.6	96.5	96.9	98.2	98.3	99.1	99.1	99.1	99.7	99.7	99.8	99.9
IV 100	61.7	91.0	93.8	94.1	95.6	96.5	97.0	98.3	98.4	99.2	99.2	99.2	99.8	99.8	99.9	100.0
IV 0	61.7	91.0	93.8	94.1	95.6	96.5	97.0	98.3	98.4	99.2	99.2	99.2	99.8	99.8	99.9	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRUM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

MAR  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

ALL  
HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥¾	≥½	≥5/16	≥¼	≥0
NO CEILING	40.6	48.0	48.2	48.3	48.4	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.5	48.6	48.6	48.6
≥ 20000	49.6	58.6	58.8	59.0	59.2	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.4	59.4	59.4
IV 18000	49.9	58.8	59.1	59.2	59.5	59.5	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.7	59.7
IV 16000	50.1	59.1	59.4	59.5	59.7	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.9	59.9	59.9	59.9
IV 14000	51.1	60.2	60.4	60.6	60.8	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	61.0	61.0	61.0
IV 12000	54.9	64.3	64.6	64.7	64.9	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.1	65.1	65.1	65.1
IV 10000	61.0	71.0	71.3	71.4	71.6	71.7	71.7	71.7	71.7	71.7	71.8	71.8	71.8	71.8	71.9	71.9
IV 9000	61.8	72.0	72.2	72.4	72.6	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.8	72.8	72.8	72.8
IV 8000	63.8	74.4	74.6	74.8	75.0	75.1	75.1	75.1	75.1	75.1	75.2	75.2	75.2	75.2	75.3	75.3
IV 7000	64.7	75.3	75.6	75.7	76.0	76.0	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.2	76.2	76.2
IV 6000	65.9	76.7	77.0	77.2	77.4	77.4	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.6	77.6	77.6
IV 5000	68.2	79.5	79.8	80.0	80.2	80.3	80.3	80.3	80.3	80.4	80.4	80.4	80.4	80.4	80.5	80.5
IV 4500	69.1	80.7	81.0	81.2	81.5	81.6	81.6	81.6	81.6	81.7	81.7	81.7	81.7	81.7	81.8	81.8
IV 4000	71.2	83.3	83.8	84.1	84.4	84.6	84.7	84.7	84.7	84.8	84.8	84.8	84.8	84.9	84.9	84.9
IV 3500	71.8	84.3	84.9	85.2	85.6	85.8	85.9	86.0	86.0	86.0	86.1	86.1	86.1	86.2	86.2	86.2
IV 3000	72.5	85.4	86.1	86.4	86.9	87.1	87.3	87.4	87.4	87.5	87.5	87.5	87.6	87.6	87.6	87.6
IV 2500	73.1	86.4	87.4	87.7	88.2	88.5	88.7	88.8	88.8	88.9	88.9	88.9	89.0	89.0	89.1	89.1
IV 2000	73.6	87.7	88.8	89.2	89.8	90.1	90.4	90.7	90.7	90.8	90.8	90.8	90.9	91.0	91.0	91.0
IV 1800	73.8	88.1	89.3	89.7	90.4	90.7	91.0	91.3	91.3	91.5	91.5	91.5	91.6	91.6	91.7	91.7
IV 1500	74.0	88.6	90.0	90.4	91.3	91.6	92.1	92.4	92.5	92.6	92.7	92.7	92.8	92.8	92.8	92.8
IV 1200	74.3	89.3	90.6	91.1	92.1	92.5	93.0	93.4	93.7	93.9	94.0	94.0	94.1	94.1	94.2	94.2
IV 1000	74.4	89.7	91.2	91.7	92.8	93.3	94.0	94.5	94.9	95.4	95.5	95.6	95.7	95.7	95.8	95.8
IV 900	74.4	89.8	91.3	91.8	92.9	93.4	94.2	94.8	95.2	95.8	96.0	96.0	96.2	96.3	96.3	96.3
IV 800	74.4	90.0	91.5	92.0	93.2	93.7	94.5	95.2	95.6	96.3	96.6	96.7	96.9	96.9	97.0	97.0
IV 700	74.5	90.1	91.6	92.2	93.4	93.9	94.8	95.6	96.0	96.7	97.0	97.1	97.4	97.4	97.5	97.5
IV 600	74.5	90.2	91.7	92.4	93.6	94.2	95.1	95.9	96.4	97.2	97.6	97.7	98.1	98.2	98.3	98.3
IV 500	74.5	90.2	91.8	92.5	93.7	94.3	95.3	96.2	96.6	97.5	97.8	98.0	98.5	98.5	98.6	98.7
IV 400	74.5	90.3	91.8	92.5	93.8	94.4	95.4	96.3	96.8	97.6	98.0	98.2	98.7	98.8	98.9	99.0
IV 300	74.5	90.3	91.8	92.5	93.9	94.5	95.5	96.4	96.9	97.8	98.2	98.4	98.9	99.0	99.2	99.3
IV 200	74.6	90.3	91.9	92.6	94.0	94.6	95.7	96.6	97.1	98.0	98.5	98.7	99.2	99.2	99.5	99.7
IV 100	74.6	90.3	91.9	92.6	94.0	94.6	95.7	96.6	97.2	98.2	98.7	98.9	99.4	99.5	99.8	100.0
IV 0	74.6	90.3	91.9	92.6	94.0	94.6	95.7	96.7	97.2	98.2	98.7	98.9	99.4	99.5	99.8	100.0

TOTAL NUMBER OF OBSERVATIONS

7440



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

APR  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0000-0200  
HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥1/16	≥0	≥0
NO CEILING	44.2	57.1	57.1	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2
≥ 20000	48.7	64.3	64.3	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4
IV 18000	48.8	64.4	64.4	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
IV 16000	48.8	64.4	64.4	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
IV 14000	48.9	64.6	64.6	64.7	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8
IV 12000	50.7	66.4	66.4	66.6	66.7	66.7	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8
IV 10000	56.3	73.0	73.0	73.1	73.2	73.2	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3
IV 9000	57.2	74.0	74.0	74.1	74.2	74.2	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3
IV 8000	57.7	74.6	74.6	74.7	74.9	74.8	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9
IV 7000	58.6	75.4	75.4	75.6	75.7	75.7	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8
IV 6000	59.1	76.3	76.3	76.4	76.6	76.6	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7
IV 5000	61.8	79.3	79.3	79.4	79.6	79.6	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
IV 4500	62.1	79.7	79.7	79.8	79.9	79.9	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
IV 4000	63.9	81.8	81.8	81.9	82.0	82.0	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1
IV 3500	65.0	83.1	83.1	83.2	83.3	83.3	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4
IV 3000	66.0	84.2	84.2	84.3	84.6	84.6	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7
IV 2500	66.4	85.4	85.8	86.0	86.4	86.4	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6
IV 2000	67.0	86.6	87.0	87.2	87.7	87.7	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9
IV 1800	67.0	87.3	87.8	88.0	88.4	88.6	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9
IV 1500	67.0	88.2	88.7	89.0	89.4	89.8	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1
IV 1200	67.7	89.3	89.8	90.2	90.9	91.2	91.6	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8
IV 1000	67.9	90.0	90.7	91.1	91.8	92.1	92.6	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2
IV 900	68.1	90.2	90.9	91.3	92.0	92.3	92.9	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6
IV 800	68.2	90.3	91.0	91.4	92.1	92.4	93.0	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8
IV 700	68.2	90.4	91.1	91.6	92.2	92.6	93.1	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9
IV 600	68.7	90.9	91.6	92.0	92.7	93.0	93.7	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4
IV 500	68.8	91.1	91.9	92.3	93.1	93.4	94.1	95.2	95.3	95.9	96.0	96.2	96.3	96.3	96.3	96.3
IV 400	68.8	91.2	92.2	92.7	93.4	93.9	94.6	95.7	96.0	96.6	96.9	97.2	97.3	97.3	97.3	97.3
IV 300	68.9	91.3	92.4	93.0	93.8	94.2	94.9	96.3	96.7	97.6	97.9	98.2	98.4	98.4	98.4	98.4
IV 200	68.9	91.3	92.4	93.0	93.9	94.3	95.0	96.7	97.0	97.9	98.3	98.9	99.2	99.2	99.3	99.3
IV 100	68.9	91.3	92.4	93.0	93.9	94.3	95.0	96.8	97.2	98.2	98.7	99.3	99.7	99.7	99.8	99.8
IV 0	68.9	91.3	92.4	93.0	93.9	94.3	95.0	96.8	97.2	98.2	98.7	99.3	99.7	99.7	99.8	100.0

TOTAL NUMBER OF OBSERVATIONS

900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRUM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

APR  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0300-0500  
HOURS LS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¼	≥0
NO CEILING	44.6	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.1
≥ 20000	50.8	64.1	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.3
IV 18000	51.1	64.4	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.7	64.7
IV 16000	51.1	64.4	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.7	64.7
IV 14000	51.1	64.4	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.7	64.7
IV 12000	52.2	65.8	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	66.0	66.0
IV 10000	57.6	71.7	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.2	72.2	72.2	72.2	72.3	72.3
IV 9000	57.8	72.2	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.8	72.8	72.8	72.8	72.9	72.9
IV 8000	58.8	73.3	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.9	73.9	73.9	73.9	74.0	74.0
IV 7000	59.0	73.7	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.2	74.2	74.2	74.2	74.3	74.3
IV 6000	60.1	75.1	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.7	75.7	75.7	75.7	75.8	75.8
IV 5000	62.0	77.6	78.0	78.0	78.0	78.0	78.0	78.0	78.1	78.1	78.2	78.2	78.2	78.2	78.3	78.3
IV 4500	63.1	78.7	79.1	79.1	79.1	79.1	79.1	79.2	79.2	79.2	79.3	79.3	79.3	79.3	79.4	79.4
IV 4000	64.9	81.0	81.4	81.4	81.6	81.6	81.6	81.7	81.7	81.8	81.8	81.8	81.8	81.8	81.9	81.9
IV 3500	65.7	81.9	82.4	82.4	82.6	82.6	82.6	82.7	82.7	82.8	82.8	82.8	82.8	82.8	82.9	82.9
IV 3000	66.8	83.3	84.1	84.1	84.3	84.3	84.3	84.4	84.4	84.6	84.6	84.6	84.6	84.7	84.7	84.7
IV 2500	67.2	84.0	84.8	84.8	85.1	85.1	85.1	85.2	85.2	85.3	85.3	85.3	85.3	85.4	85.4	85.4
IV 2000	67.3	85.1	85.9	86.0	86.3	86.4	86.6	86.7	86.7	86.8	86.8	86.8	86.8	86.9	86.9	86.9
IV 1800	67.8	86.0	86.8	86.9	87.3	87.4	87.6	87.7	87.7	87.8	87.8	87.8	87.8	87.9	87.9	87.9
IV 1500	68.0	87.1	87.9	88.0	88.4	88.8	89.0	89.1	89.1	89.2	89.2	89.2	89.2	89.3	89.3	89.3
IV 1200	68.7	88.2	89.0	89.2	89.9	90.3	90.6	90.7	90.7	90.8	90.8	90.8	90.8	90.9	90.9	90.9
IV 1000	69.1	89.0	89.8	90.0	90.7	91.1	91.8	92.0	92.0	92.1	92.1	92.1	92.1	92.2	92.2	92.2
IV 900	69.4	89.4	90.2	90.4	91.1	91.6	92.3	92.6	92.6	92.7	92.7	92.7	92.7	92.8	92.8	92.8
IV 800	69.4	89.4	90.3	90.6	91.2	91.7	92.6	92.8	92.8	92.9	92.9	92.9	92.9	93.0	93.0	93.0
IV 700	69.6	89.6	90.4	90.7	91.4	91.9	92.8	93.3	93.3	93.4	93.4	93.4	93.4	93.6	93.6	93.6
IV 600	69.8	89.9	90.9	91.1	91.9	92.3	93.2	93.8	93.8	94.0	94.0	94.1	94.1	94.2	94.2	94.2
IV 500	69.9	90.2	91.4	91.7	92.7	93.1	94.1	94.8	94.8	95.3	95.6	95.7	95.7	95.8	95.8	95.8
IV 400	69.9	90.3	91.6	91.8	93.0	93.4	94.9	95.7	95.7	96.4	96.9	97.0	97.1	97.3	97.3	97.4
IV 300	70.0	90.4	91.7	91.9	93.1	93.6	95.0	96.0	96.0	96.9	97.6	97.7	97.8	98.2	98.2	98.3
IV 200	70.0	90.4	91.8	92.0	93.2	93.9	95.4	96.3	96.3	97.3	98.0	98.1	98.2	98.8	98.9	99.0
IV 100	70.0	90.4	91.8	92.0	93.2	93.9	95.4	96.4	96.4	97.6	98.3	98.4	98.6	99.1	99.2	99.4
IV 0	70.0	90.4	91.8	92.0	93.2	93.9	95.4	96.4	96.4	97.6	98.3	98.4	98.7	99.2	99.3	100.0

TOTAL NUMBER OF OBSERVATIONS

900

USAF ETAC

FORM 10-64

0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

APR  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0600-0800  
HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ ¼	≥ 1/16	≥ 1/8	≥ 0
NO CEILING ≥ 20000	46.4 56.0	46.8 56.3	46.8 56.4	47.1 56.9	47.2 57.0	47.2 57.0	47.2 57.0	47.2 57.1	47.2 57.1	47.2 57.1	47.2 57.1	47.2 57.1	47.2 57.1	47.2 57.2	47.2 57.2	47.2 57.2
IV 18000 IV 16000	56.4 56.4	56.8 56.8	56.9 56.9	57.3 57.3	57.4 57.4	57.4 57.4	57.4 57.4	57.6 57.6	57.6 57.6	57.6 57.6	57.6 57.6	57.6 57.6	57.6 57.6	57.6 57.7	57.7 57.7	57.7 57.7
IV 14000 IV 12000	57.6 60.9	57.9 61.2	58.0 61.3	58.4 61.8	58.6 61.9	58.6 61.9	58.6 61.9	58.7 62.0	58.7 62.0	58.7 62.0	58.7 62.0	58.7 62.0	58.7 62.0	58.7 62.1	58.8 62.1	58.8 62.1
IV 10000 IV 9000	67.9 69.0	68.4 69.6	68.6 69.7	69.0 70.1	69.1 70.2	69.1 70.2	69.1 70.2	69.2 70.3	69.2 70.3	69.2 70.3	69.2 70.3	69.2 70.3	69.2 70.3	69.2 70.3	69.4 70.6	69.4 70.6
IV 8000 IV 7000	70.7 71.8	71.3 72.4	71.4 72.6	71.9 73.0	72.0 73.1	72.0 73.1	72.0 73.1	72.1 73.2	72.1 73.2	72.1 73.2	72.1 73.2	72.1 73.2	72.1 73.2	72.1 73.2	72.3 73.4	72.3 73.4
IV 6000 IV 5000	72.6 75.1	73.2 75.9	73.3 76.0	73.9 76.6	74.0 76.7	74.0 76.7	74.0 76.7	74.1 76.8	74.1 76.8	74.1 76.8	74.1 76.8	74.1 76.8	74.1 76.8	74.1 76.8	74.3 77.0	74.3 77.0
IV 4500 IV 4000	76.0 77.6	77.2 79.0	77.3 79.1	77.9 79.7	78.0 79.9	78.0 79.9	78.0 79.9	78.1 80.0	78.1 80.0	78.1 80.0	78.1 80.0	78.1 80.0	78.1 80.0	78.1 80.0	78.3 80.2	78.3 80.2
IV 3500 IV 3000	79.2 80.0	80.7 81.7	80.8 81.9	81.3 82.7	81.7 83.0	81.8 83.1	81.8 83.1	81.9 83.2	81.9 83.2	81.9 83.2	81.9 83.2	81.9 83.2	81.9 83.2	81.9 83.2	82.1 83.4	82.1 83.4
IV 2500 IV 2000	80.8 81.7	83.1 84.0	83.4 84.3	84.3 85.3	84.8 85.8	84.9 85.9	84.9 86.1	85.0 86.6	85.0 86.6	85.0 86.6	85.0 86.6	85.0 86.7	85.0 86.7	85.0 86.7	85.2 86.9	85.2 86.9
IV 1800 IV 1500	82.0 83.0	84.4 86.2	84.8 86.6	85.8 87.6	86.3 88.4	86.4 88.6	86.7 88.8	87.1 89.2	87.1 89.2	87.1 89.2	87.2 89.3	87.2 89.3	87.2 89.3	87.2 89.3	87.4 89.6	87.4 89.6
IV 1200 IV 1000	83.2 83.6	86.9 87.7	87.7 88.4	88.8 89.7	89.8 90.7	89.9 90.8	90.2 91.3	90.7 91.8	90.9 92.0	90.9 92.0	91.0 92.0	91.0 92.2	91.0 92.2	91.0 92.2	91.2 92.4	91.2 92.4
IV 900 IV 800	83.7 83.7	87.8 87.8	88.6 88.6	89.8 89.8	90.8 90.9	90.9 91.0	91.4 91.6	91.9 92.0	92.1 92.2	92.1 92.2	92.3 92.4	92.3 92.4	92.3 92.4	92.3 92.4	92.6 92.7	92.6 92.7
IV 700 IV 600	83.7 83.8	87.8 88.1	88.8 89.2	90.2 90.8	91.3 92.2	91.4 92.6	92.0 93.1	92.4 93.7	92.7 93.9	92.8 94.0	93.0 94.2	93.0 94.3	93.0 94.3	93.2 94.6	93.2 94.6	
IV 500 IV 400	83.8 83.9	88.4 88.7	89.6 89.9	91.2 91.6	92.7 93.0	93.0 93.3	93.7 94.1	94.3 94.9	94.7 95.2	94.9 95.7	95.2 96.2	95.3 96.4	95.3 96.7	95.6 96.9	95.6 96.9	
IV 300 IV 200	83.9 83.9	88.8 88.8	90.1 90.1	91.8 91.8	93.3 93.7	93.7 94.0	94.6 94.9	95.4 95.8	95.8 96.2	96.3 96.9	96.9 97.4	97.2 97.8	97.4 98.0	97.9 98.6	98.0 98.8	
IV 100 IV 0	83.9 83.9	88.8 88.8	90.1 90.1	91.8 91.8	93.7 94.0	94.0 95.0	95.0 95.9	95.9 96.3	97.2 97.2	97.8 97.8	98.1 98.1	98.4 98.4	99.0 99.0	99.2 99.2	100.0 100.0	

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

APR  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0900-1100  
HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	47.8	48.0	48.1	48.3	48.3	48.3	48.3	48.3	48.3	48.3	48.3	48.3	48.3	48.3	48.3	48.3
≥ 20000	55.7	55.9	56.0	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2
IV ≥ 18000	56.2	56.4	56.6	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8
IV ≥ 16000	56.2	56.4	56.6	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8
IV ≥ 14000	56.7	56.9	57.0	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2
IV ≥ 12000	61.2	61.6	61.7	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9
IV ≥ 10000	67.1	67.4	67.6	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8	67.8
IV ≥ 9000	67.8	68.1	68.2	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4
IV ≥ 8000	71.0	71.6	71.7	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9
IV ≥ 7000	71.8	72.4	72.6	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8
IV ≥ 6000	73.2	74.1	74.2	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4
IV ≥ 5000	76.0	77.0	77.1	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3
IV ≥ 4500	77.4	78.4	78.6	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
IV ≥ 4000	78.9	80.3	80.4	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7
IV ≥ 3500	79.9	81.3	81.4	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7
IV ≥ 3000	81.6	83.1	83.2	83.6	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7
IV ≥ 2500	82.6	84.6	84.7	85.1	85.2	85.4	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6
IV ≥ 2000	84.0	86.7	86.8	87.2	87.3	87.6	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7
IV ≥ 1800	84.1	86.8	86.9	87.3	87.4	87.7	87.8	87.8	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9
IV ≥ 1500	84.4	87.9	88.0	88.6	88.7	89.0	89.1	89.1	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2
IV ≥ 1200	84.7	88.6	88.8	89.6	90.1	90.4	90.8	90.9	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0
IV ≥ 1000	85.0	89.1	89.8	90.9	91.4	91.8	92.3	92.6	92.7	92.7	92.8	92.8	92.8	92.8	92.8	92.8
IV ≥ 900	85.2	89.6	90.2	91.6	92.1	92.4	93.0	93.2	93.3	93.4	93.6	93.6	93.6	93.6	93.6	93.6
IV ≥ 800	85.2	89.8	90.6	92.1	92.9	93.2	93.8	94.1	94.2	94.3	94.6	94.6	94.6	94.6	94.6	94.6
IV ≥ 700	85.6	90.3	91.1	92.7	93.6	93.9	94.4	95.0	95.1	95.2	95.4	95.4	95.4	95.4	95.4	95.4
IV ≥ 600	85.7	90.9	91.8	93.3	94.2	94.6	95.1	95.7	95.8	96.1	96.4	96.4	96.6	96.8	96.8	96.8
IV ≥ 500	85.7	91.0	91.9	93.4	94.8	95.1	95.7	96.2	96.3	96.8	97.1	97.1	97.4	97.7	97.7	97.7
IV ≥ 400	85.7	91.0	92.1	93.7	95.0	95.3	95.9	96.6	96.7	97.1	97.7	97.7	98.1	98.4	98.6	98.6
IV ≥ 300	85.7	91.0	92.1	93.9	95.3	95.7	96.3	97.0	97.1	97.7	98.2	98.2	98.7	99.0	99.1	99.2
IV ≥ 200	85.7	91.0	92.1	93.9	95.3	95.7	96.3	97.0	97.1	97.8	98.3	98.3	98.8	99.1	99.2	99.3
IV ≥ 100	85.7	91.0	92.1	93.9	95.3	95.7	96.3	97.0	97.1	97.8	98.4	98.6	99.2	99.6	99.7	99.8
IV ≥ 0	85.7	91.0	92.1	93.9	95.3	95.7	96.3	97.0	97.1	97.8	98.6	98.7	99.4	99.8	99.9	100.0

TOTAL NUMBER OF OBSERVATIONS

900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

APR  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1200-1400  
HOURS EST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥5/16	≥¼	≥0
NO CEILING	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8
≥ 20000	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8	51.8
≥ 18000	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1
≥ 16000	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1
≥ 14000	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2
≥ 12000	54.9	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0
≥ 10000	58.7	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8
≥ 9000	59.3	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4
≥ 8000	63.1	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2
≥ 7000	65.1	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
≥ 6000	69.8	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9
≥ 5000	75.3	75.6	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.7
≥ 4500	77.0	77.2	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3
≥ 4000	80.8	81.2	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3
≥ 3500	82.0	82.4	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6
≥ 3000	84.1	84.9	85.0	85.0	85.0	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1
≥ 2500	85.6	86.6	86.7	86.8	86.8	87.0	87.0	87.1	87.1	87.2	87.2	87.2	87.2	87.2	87.2	87.2
≥ 2000	86.9	88.4	88.6	88.7	88.7	88.9	88.9	89.0	89.0	89.2	89.2	89.2	89.2	89.2	89.2	89.2
≥ 1800	87.1	88.8	88.9	89.0	89.0	89.2	89.2	89.3	89.3	89.6	89.6	89.6	89.6	89.6	89.6	89.6
≥ 1500	87.4	89.7	89.9	90.0	90.0	90.3	90.3	90.4	90.4	90.7	90.8	90.8	90.8	90.8	90.8	90.8
≥ 1200	88.1	91.0	91.2	91.6	91.7	92.0	92.2	92.3	92.3	92.6	92.7	92.7	92.7	92.7	92.7	92.7
≥ 1000	88.6	91.8	92.1	92.7	93.0	93.4	93.8	94.1	94.2	94.3	94.8	94.9	94.9	95.0	95.0	95.0
≥ 900	88.6	91.9	92.3	93.0	93.3	93.8	94.1	94.2	94.3	94.8	94.9	94.9	95.0	95.0	95.0	95.0
≥ 800	88.7	92.0	92.4	93.1	93.7	94.1	94.7	94.9	95.0	95.4	95.6	95.7	95.8	95.8	95.8	95.8
≥ 700	88.7	92.1	92.8	93.6	94.2	94.7	95.2	95.6	95.7	96.3	96.4	96.7	96.8	96.8	96.8	96.8
≥ 600	88.7	92.2	92.9	93.7	94.3	94.8	95.3	95.7	95.8	96.7	96.8	97.1	97.2	97.3	97.3	97.3
≥ 500	88.8	92.3	93.3	94.3	95.0	95.6	96.2	96.6	96.7	97.6	97.7	98.0	98.1	98.2	98.2	98.2
≥ 400	88.8	92.6	93.6	94.6	95.2	95.8	96.4	96.8	96.9	97.8	98.3	98.7	98.8	98.9	99.0	99.0
≥ 300	88.8	92.6	93.6	94.5	95.2	95.8	96.4	96.8	96.9	97.8	98.3	98.7	98.9	99.0	99.0	99.0
≥ 200	88.8	92.6	93.6	94.7	95.3	95.9	96.6	96.9	97.2	98.1	98.7	99.0	99.2	99.3	99.3	99.4
≥ 100	88.8	92.6	93.6	94.7	95.3	95.9	96.6	96.9	97.2	98.1	98.7	99.0	99.3	99.6	99.9	100.0
≥ 0	88.8	92.6	93.6	94.7	95.3	95.9	96.6	96.9	97.2	98.1	98.7	99.0	99.3	99.6	99.9	100.0

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

APR  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

1500-1700  
MOBIS (LST)

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¼	≥0
NO CEILING	38.0	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1
IV 20000	49.2	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3	49.3
IV 18000	49.7	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8
IV 16000	49.7	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8
IV 14000	50.4	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6
IV 12000	54.0	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1
IV 10000	59.2	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3
IV 9000	59.7	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8
IV 8000	61.8	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9
IV 7000	64.4	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7
IV 6000	70.8	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0
IV 5000	77.2	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
IV 4500	78.2	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4
IV 4000	81.4	81.8	81.9	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0
IV 3500	83.7	84.0	84.1	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2
IV 3000	85.4	86.0	86.1	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3
IV 2500	86.9	87.6	87.9	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1
IV 2000	88.2	89.4	89.8	90.0	90.0	90.1	90.1	90.1	90.1	90.2	90.2	90.2	90.2	90.2	90.2	90.2
IV 1800	88.4	89.7	90.0	90.2	90.2	90.3	90.3	90.3	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
IV 1500	89.8	91.8	92.2	92.4	92.8	93.0	93.0	93.0	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
IV 1200	90.8	93.1	93.6	93.8	94.1	94.3	94.3	94.3	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4
IV 1000	91.2	93.8	94.3	94.7	95.1	95.3	95.4	95.4	95.6	95.6	95.6	95.7	95.7	95.7	95.7	95.7
IV 900	91.2	93.8	94.3	94.7	95.2	95.6	95.7	95.7	95.8	95.8	95.8	95.9	95.9	95.9	95.9	95.9
IV 800	91.3	93.9	94.4	94.8	95.3	95.7	95.8	95.8	96.0	96.1	96.1	96.2	96.2	96.2	96.2	96.2
IV 700	91.4	94.0	94.8	95.1	95.7	96.0	96.2	96.3	96.7	97.1	97.1	97.3	97.3	97.3	97.3	97.3
IV 600	91.7	94.3	95.1	95.4	95.0	96.3	96.6	96.7	97.0	97.4	97.4	97.8	97.8	97.8	97.8	97.8
IV 500	91.8	94.6	95.3	95.8	96.3	96.7	96.9	97.1	97.4	98.0	98.2	98.7	98.8	98.8	98.8	98.8
IV 400	91.8	94.6	95.3	95.8	96.3	96.7	96.9	97.1	97.4	98.1	98.3	98.9	99.2	99.2	99.4	99.4
IV 300	91.8	94.6	95.3	95.8	96.3	96.7	96.9	97.1	97.4	98.1	98.3	98.9	99.3	99.3	99.7	99.7
IV 200	91.8	94.6	95.3	95.8	96.3	96.7	96.9	97.1	97.6	98.3	98.6	99.2	99.7	99.7	100.0	100.0
IV 100	91.8	94.6	95.3	95.8	96.3	96.7	96.9	97.1	97.6	98.3	98.6	99.2	99.7	99.7	100.0	100.0
IV 0	91.8	94.6	95.3	95.8	96.3	96.7	96.9	97.1	97.6	98.3	98.6	99.2	99.7	99.7	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

APR  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1800-2000  
HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ ¼	≥ 1/16	≥ 0	≥ 0
NO CEILING	41.9	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8
≥ 20000	52.1	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4
≥ 18000	52.8	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1
≥ 16000	52.8	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1
≥ 14000	53.0	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3
≥ 12000	57.6	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3
≥ 10000	64.8	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7
≥ 9000	65.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
≥ 8000	67.7	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8
≥ 7000	69.1	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4
≥ 6000	72.3	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8
≥ 5000	75.9	80.7	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8
≥ 4500	77.8	82.7	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
≥ 4000	80.3	85.8	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9
≥ 3500	81.9	87.4	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6
≥ 3000	83.9	89.6	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
≥ 2500	84.3	90.9	91.2	91.2	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6
≥ 2000	84.9	92.1	92.6	92.7	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.1	93.1	93.1	93.1	93.1
≥ 1800	85.2	92.8	93.2	93.3	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.8	93.8	93.8	93.8	93.8
≥ 1500	85.7	93.2	94.0	94.1	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.6	94.6	94.6	94.6	94.6
≥ 1200	86.0	93.6	94.3	94.6	94.9	94.9	95.1	95.2	95.2	95.2	95.3	95.3	95.3	95.3	95.3	95.3
≥ 1000	86.1	94.0	95.0	95.4	95.8	95.8	96.0	96.1	96.1	96.1	96.2	96.2	96.2	96.2	96.2	96.2
≥ 900	86.2	94.1	95.1	95.6	95.9	95.9	96.1	96.3	96.3	96.3	96.4	96.4	96.4	96.4	96.4	96.4
≥ 800	86.6	94.4	95.4	96.0	96.3	96.3	96.6	96.8	97.1	97.1	97.2	97.2	97.2	97.2	97.2	97.2
≥ 700	86.9	94.9	95.9	96.4	96.8	96.8	97.0	97.2	97.7	97.7	97.8	97.9	97.9	97.9	97.9	97.9
≥ 600	86.9	94.9	96.0	96.6	96.9	96.9	97.1	97.4	98.0	98.1	98.2	98.3	98.3	98.3	98.3	98.3
≥ 500	87.0	95.0	96.1	96.8	97.1	97.1	97.3	97.7	98.2	98.4	98.7	98.9	99.0	99.0	99.0	99.0
≥ 400	87.0	95.1	96.2	96.9	97.2	97.2	97.4	97.9	98.4	98.7	99.0	99.2	99.3	99.3	99.3	99.3
≥ 300	87.0	95.1	96.2	96.9	97.2	97.2	97.6	98.0	98.6	98.8	99.1	99.3	99.6	99.7	99.8	99.9
≥ 200	87.0	95.1	96.2	96.9	97.2	97.2	97.6	98.0	98.6	98.8	99.2	99.4	99.7	99.8	99.9	100.0
≥ 100	87.0	95.1	96.2	96.9	97.2	97.2	97.6	98.0	98.6	98.8	99.2	99.4	99.7	99.8	99.9	100.0
≥ 0	87.0	95.1	96.2	96.9	97.2	97.2	97.6	98.0	98.6	98.8	99.2	99.4	99.7	99.8	99.9	100.0

TOTAL NUMBER OF OBSERVATIONS

900

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

APR  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

2100-2300  
HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥5/16	≥4/16	≥0
NO CEILING	39.9	52.0	52.2	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
≥ 20000	45.3	60.6	60.8	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9
IV 18000	45.6	60.8	61.0	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1
IV 16000	45.6	60.8	61.0	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1
IV 14000	46.1	61.3	61.6	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7
IV 12000	49.4	65.2	65.4	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6
IV 10000	54.8	71.2	71.4	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6
IV 9000	55.8	72.2	72.4	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6
IV 8000	57.0	73.6	73.8	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9
IV 7000	58.3	75.2	75.4	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6
IV 6000	59.7	76.6	76.8	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9
IV 5000	63.0	80.6	80.8	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9
IV 4500	63.6	81.1	81.3	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4
IV 4000	65.6	83.7	83.9	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
IV 3500	66.4	85.1	85.3	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4
IV 3000	67.2	86.2	86.6	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8
IV 2500	67.7	87.1	87.4	87.8	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9
IV 2000	67.9	87.6	88.0	88.7	89.0	89.0	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1
IV 1800	67.9	87.9	88.4	89.2	89.6	89.6	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7
IV 1500	68.4	89.1	89.8	90.6	90.9	91.0	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1
IV 1200	69.1	89.8	90.6	91.3	92.0	92.3	92.4	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
IV 1000	69.1	90.1	90.9	91.7	92.4	92.9	93.0	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2
IV 900	69.1	90.1	90.9	91.7	92.4	92.9	93.0	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2
IV 800	69.3	90.6	91.4	92.3	93.1	93.6	93.7	94.1	94.1	94.2	94.2	94.2	94.2	94.2	94.2	94.2
IV 700	69.3	90.7	91.6	92.4	93.2	93.7	93.8	94.2	94.2	94.4	94.4	94.6	94.6	94.6	94.6	94.6
IV 600	70.1	91.4	92.4	93.4	94.2	94.7	94.9	95.6	95.8	96.0	96.0	96.2	96.2	96.2	96.2	96.2
IV 500	70.3	92.0	93.0	94.0	94.9	95.3	95.9	96.7	96.9	97.1	97.1	97.7	97.7	97.7	97.8	97.8
IV 400	70.3	92.2	93.2	94.2	95.3	95.9	96.4	97.2	97.4	97.9	97.9	98.4	98.4	98.4	98.6	98.6
IV 300	70.3	92.3	93.3	94.3	95.7	96.2	97.0	98.0	98.2	98.8	98.8	99.3	99.4	99.4	99.6	99.6
IV 200	70.3	92.3	93.3	94.3	95.7	96.4	97.2	98.2	98.4	99.0	99.0	99.6	99.7	99.7	99.8	99.8
IV 100	70.3	92.3	93.3	94.3	95.7	96.4	97.2	98.2	98.4	99.0	99.1	99.7	99.8	99.8	99.9	99.9
IV 0	70.3	92.3	93.3	94.3	95.7	96.4	97.2	98.2	98.4	99.1	99.2	99.8	99.9	99.9	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 900



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

APR  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

ALL  
HOURS 1-24

CEILING FEET	VISIBILITY (STATUTE MILES)																	
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1½	≥1	≥¾	≥¾	≥½	≥½	≥¼	≥0		
NO CEILING	42.9	47.7	47.7	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.9	47.9	47.9
≥ 20000	51.2	57.2	57.3	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.5	57.5	57.5
IV ≥ 18000	51.6	57.6	57.7	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8
IV 16000	51.6	57.6	57.7	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8	57.8
IV 14000	52.0	58.0	58.1	58.2	58.2	58.2	58.2	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3
IV 12000	55.1	61.3	61.4	61.5	61.5	61.5	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6
IV 10000	60.8	67.3	67.4	67.5	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.7	67.7	67.7
IV 9000	61.5	68.1	68.2	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.4	68.4	68.4	68.4	68.4	68.4	68.4
IV 8000	63.5	70.2	70.3	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.5	70.5	70.5
IV 7000	64.8	71.6	71.7	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.9	71.9	71.9	71.9	71.9	71.9	71.9
IV 6000	67.2	74.1	74.2	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.5	74.5	74.5
IV 5000	70.8	78.0	78.1	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.4	78.4	78.4
IV 4500	71.9	79.2	79.3	79.4	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.6	79.6	79.6
IV 4000	74.2	81.8	82.0	82.1	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.3	82.3	82.3
IV 3500	75.5	83.3	83.4	83.6	83.6	83.6	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7
IV 3000	76.9	84.9	85.1	85.3	85.4	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.6	85.6	85.6
IV 2500	77.7	86.2	86.5	86.8	87.0	87.1	87.1	87.1	87.1	87.1	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2
IV 2000	78.5	87.5	87.9	88.2	88.5	88.6	88.7	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.9	88.9	88.9
IV 1800	78.7	88.0	88.3	88.7	89.0	89.1	89.2	89.3	89.3	89.3	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.5
IV 1500	79.2	89.2	89.6	90.0	90.4	90.6	90.7	90.8	90.8	90.8	90.9	90.9	90.9	90.9	90.9	91.0	91.0	91.0
IV 1200	79.8	90.1	90.6	91.1	91.7	91.9	92.2	92.3	92.3	92.4	92.4	92.4	92.4	92.4	92.4	92.5	92.5	92.5
IV 1000	80.1	90.7	91.4	92.0	92.6	92.9	93.3	93.5	93.6	93.6	93.6	93.7	93.7	93.7	93.7	93.8	93.8	93.8
IV 900	80.2	90.9	91.6	92.3	92.9	93.2	93.6	93.8	93.9	94.0	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.2
IV 800	80.3	91.0	91.8	92.5	93.2	93.5	93.9	94.3	94.4	94.4	94.4	94.5	94.6	94.6	94.6	94.7	94.7	94.7
IV 700	80.4	91.2	92.1	92.8	93.6	93.9	94.3	94.8	94.9	94.9	95.1	95.2	95.3	95.3	95.3	95.3	95.3	95.4
IV 600	80.7	91.6	92.5	93.3	94.1	94.4	94.9	95.4	95.6	95.9	96.0	96.1	96.2	96.3	96.3	96.3	96.3	96.3
IV 500	80.8	91.8	92.8	93.7	94.6	94.9	95.3	96.1	96.3	96.8	96.9	97.2	97.3	97.4	97.4	97.4	97.4	97.4
IV 400	80.8	92.0	93.0	93.9	94.8	95.2	95.8	96.5	96.7	97.3	97.7	97.9	98.1	98.2	98.3	98.4	98.4	98.4
IV 300	80.8	92.0	93.1	94.0	95.0	95.4	96.1	96.8	97.1	97.7	98.0	98.4	98.8	99.1	99.3	99.4	99.4	99.4
IV 200	80.8	92.0	93.1	94.0	95.1	95.5	96.2	97.0	97.3	97.9	98.0	98.4	98.8	99.1	99.3	99.4	99.4	99.4
IV 100	80.8	92.0	93.1	94.0	95.1	95.5	96.3	97.0	97.4	98.1	98.6	99.0	99.3	99.5	99.7	99.7	99.7	99.7
IV 0	80.8	92.0	93.1	94.0	95.1	95.5	96.3	97.0	97.4	98.1	98.6	99.0	99.3	99.6	99.8	99.8	99.8	99.8

TOTAL NUMBER OF OBSERVATIONS

7200

USAF ETAC

FORM  
 JUL 64

0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

MAY  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0000-0200  
HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	≥1/2	≥0
NO CEILING	47.3	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7
IV 20000	53.7	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6
IV 18000	53.9	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8
IV 16000	54.1	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
IV 14000	54.4	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5
IV 12000	57.7	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0
IV 10000	61.5	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9
IV 9000	62.2	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1
IV 8000	62.9	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3
IV 7000	64.4	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
IV 6000	64.8	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9
IV 5000	67.0	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4
IV 4500	67.4	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7
IV 4000	68.5	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1
IV 3500	69.8	88.6	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8
IV 3000	70.5	89.7	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
IV 2500	71.2	90.4	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0
IV 2000	71.7	91.2	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8
IV 1800	71.8	91.9	92.7	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8
IV 1500	72.5	92.9	93.9	94.0	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1
IV 1200	73.1	94.1	95.2	95.4	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
IV 1000	73.4	94.7	96.2	96.5	96.8	96.9	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
IV 900	73.4	94.7	96.2	96.5	96.9	97.0	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
IV 800	73.5	94.9	96.5	96.7	97.1	97.2	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
IV 700	73.9	95.6	97.3	97.5	98.0	98.2	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3
IV 600	74.1	95.8	97.7	98.0	98.4	98.6	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
IV 500	74.1	95.8	98.0	98.2	98.6	98.8	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
IV 400	74.1	95.8	98.0	98.2	98.6	98.8	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
IV 300	74.1	95.8	98.1	98.3	98.8	99.1	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
IV 200	74.1	95.9	98.2	98.4	99.0	99.4	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
IV 100	74.1	95.9	98.2	98.4	99.0	99.5	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 0	74.1	95.9	98.2	98.4	99.0	99.5	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRUM AFB MT/ GREAT FALLS  
STATION NAME

68-77  
YEARS

MAY  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0300-0500  
TIME PERIOD

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	>6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1.4	≥1	≥.4	≥.3	≥.25	≥.16	≥.1	≥.0
NO CEILING	47.8	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7
≥ 20000	53.9	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1
≥ 18000	53.9	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1
≥ 15000	54.1	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3
≥ 14000	54.5	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7
≥ 12000	57.3	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5
≥ 10000	63.5	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1	71.1
≥ 9000	64.3	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
≥ 8000	68.0	76.8	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9
≥ 7000	68.8	78.0	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1
≥ 6000	70.4	80.2	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3
≥ 5000	73.4	83.9	84.0	84.0	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1
≥ 4500	74.1	84.7	84.8	84.8	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9
≥ 4000	75.3	86.1	86.2	86.2	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3
≥ 3500	75.8	86.9	87.4	87.4	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5
≥ 3000	76.7	88.0	88.5	88.5	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6
≥ 2500	77.4	88.7	89.2	89.2	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4
≥ 2000	78.4	90.0	90.6	90.6	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9
≥ 1800	78.4	90.4	91.3	91.3	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5
≥ 1500	78.8	91.4	92.4	92.4	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
≥ 1200	79.6	92.7	94.2	94.2	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5
≥ 1000	79.9	93.2	94.8	94.8	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2
≥ 900	80.2	93.5	95.2	95.2	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5
≥ 800	80.4	94.0	95.7	95.7	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1
≥ 700	80.8	94.4	96.1	96.1	96.6	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
≥ 600	81.2	94.9	97.0	97.0	97.4	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7
≥ 500	81.5	95.3	97.6	97.6	98.1	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
≥ 400	81.5	95.3	97.7	97.7	98.2	98.6	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
≥ 300	81.6	95.6	98.2	98.2	98.7	99.1	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 200	81.9	95.9	98.6	98.6	99.2	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	81.9	95.9	98.6	98.6	99.2	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	81.9	95.9	98.6	98.6	99.2	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRUM AFB MT/GREAT FALLS

68-77

YEARS

MAY

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0600-0800

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1	≥¾	≥½	≥¼	≥	≥16	≥	≥0
NO CEILING	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
≥ 20000	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5	57.5
≥ 18000	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6
≥ 16000	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6
≥ 14000	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2
≥ 12000	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
≥ 10000	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8
≥ 9000	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2
≥ 8000	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7
≥ 7000	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2
≥ 6000	81.0	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1	81.1
≥ 5000	82.8	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
≥ 4500	82.9	83.4	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5
≥ 4000	84.1	84.7	84.9	84.9	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1
≥ 3500	85.2	86.0	86.2	86.2	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3
≥ 3000	86.6	88.0	88.2	88.3	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5	88.5
≥ 2500	87.2	88.7	88.9	89.0	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4
≥ 2000	88.1	89.9	90.3	90.4	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9
≥ 1800	88.2	90.1	90.6	90.8	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
≥ 1500	88.3	90.5	91.3	91.5	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
≥ 1200	89.1	92.2	92.9	93.1	93.9	93.9	93.9	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0
≥ 1000	90.0	93.0	93.8	94.2	95.2	95.2	95.2	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3
≥ 900	90.0	93.3	94.1	94.5	95.5	95.5	95.5	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
≥ 850	90.4	93.8	94.5	94.9	95.9	95.9	95.9	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0
≥ 700	90.6	94.1	94.8	95.3	96.5	96.5	96.5	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
≥ 600	91.5	95.1	95.8	96.2	97.5	97.6	97.6	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
≥ 500	91.5	95.1	95.8	96.2	97.5	97.8	97.8	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1
≥ 400	91.5	95.1	95.8	96.2	97.6	98.1	98.1	98.3	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
≥ 300	91.7	95.4	96.6	97.0	98.5	98.9	98.9	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
≥ 200	91.7	95.6	96.8	97.3	98.8	99.2	99.5	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 100	91.7	95.6	96.8	97.3	98.8	99.2	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	91.7	95.6	96.8	97.3	98.8	99.2	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
(STATION)

MALMSTRUM AFB MT/GREAT FALLS

STATION NAME

08-77

YEARS

MAY

MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0900-1100

TIME PERIOD

CEILING FEET	VISIBILITY (STATUTE MILES)																
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ ¼	≥ 1/16	≥ 0	≥ 0	
NO CEILING ≥ 20000	50.4 58.7	50.5 58.8	50.5 58.8	50.5 58.8	50.5 58.8	50.5 58.8	50.5 58.8	50.5 58.8	50.5 58.8	50.5 58.8	50.5 58.8	50.5 58.8	50.5 58.8	50.5 58.8	50.5 58.8	50.5 58.8	50.5 58.8
≥ 18000 ≥ 16000	58.8 59.1	58.9 59.2	58.9 59.2	58.9 59.2	58.9 59.2	58.9 59.2	58.9 59.2	58.9 59.2	58.9 59.2	58.9 59.2	58.9 59.2	58.9 59.2	58.9 59.2	58.9 59.2	58.9 59.2	58.9 59.2	58.9 59.2
≥ 14000 ≥ 12000	59.5 63.0	59.6 63.2	59.6 63.2	59.6 63.2	59.6 63.2	59.6 63.2	59.6 63.2	59.6 63.2	59.6 63.2	59.6 63.2	59.6 63.2	59.6 63.2	59.6 63.2	59.6 63.2	59.6 63.2	59.6 63.2	59.6 63.2
≥ 10000 ≥ 9000	70.0 71.7	70.2 71.9	70.2 71.9	70.2 71.9	70.2 71.9	70.2 71.9	70.2 71.9	70.2 71.9	70.2 71.9	70.2 71.9	70.2 71.9	70.2 71.9	70.2 71.9	70.2 71.9	70.2 71.9	70.2 71.9	70.2 71.9
≥ 8000 ≥ 7000	74.7 76.0	74.9 76.2	74.9 76.2	74.9 76.2	74.9 76.2	74.9 76.2	74.9 76.2	74.9 76.2	74.9 76.2	74.9 76.2	74.9 76.2	74.9 76.2	74.9 76.2	74.9 76.2	74.9 76.2	74.9 76.2	74.9 76.2
≥ 6000 ≥ 5000	78.1 80.8	78.4 81.3	78.4 81.3	78.4 81.3	78.4 81.3	78.4 81.3	78.4 81.3	78.4 81.3	78.4 81.3	78.4 81.3	78.4 81.3	78.4 81.3	78.4 81.3	78.4 81.3	78.4 81.3	78.4 81.3	78.4 81.3
≥ 4500 ≥ 4000	81.5 83.3	82.4 84.3	82.4 84.3	82.4 84.3	82.4 84.3	82.4 84.3	82.4 84.3	82.4 84.3	82.4 84.3	82.4 84.3	82.4 84.3	82.4 84.3	82.4 84.3	82.4 84.3	82.4 84.3	82.4 84.3	82.4 84.3
≥ 3500 ≥ 3000	84.5 85.7	85.5 87.2	85.5 87.2	85.5 87.2	85.5 87.2	85.5 87.2	85.5 87.2	85.5 87.2	85.5 87.2	85.5 87.2	85.5 87.2	85.5 87.2	85.5 87.2	85.5 87.2	85.5 87.2	85.5 87.2	85.5 87.2
≥ 2500 ≥ 2000	86.9 89.0	88.4 90.8	88.5 91.1	88.5 91.2	88.5 91.3	88.5 91.3	88.5 91.3	88.5 91.3	88.5 91.3	88.5 91.3	88.5 91.3	88.5 91.3	88.5 91.3	88.5 91.3	88.5 91.3	88.5 91.3	88.5 91.3
≥ 1800 ≥ 1500	89.5 90.6	91.2 92.4	91.5 92.8	91.6 92.9	91.8 93.1	91.8 93.1	91.8 93.1	91.8 93.1	91.8 93.1	91.8 93.1	91.8 93.1	91.8 93.1	91.8 93.1	91.8 93.1	91.8 93.1	91.8 93.1	91.8 93.1
≥ 1200 ≥ 1000	91.9 92.7	94.3 95.7	94.9 96.5	95.1 96.6	95.4 97.0	95.4 97.0	95.4 97.1	95.4 97.1	95.4 97.1	95.4 97.1	95.4 97.1	95.4 97.1	95.4 97.1	95.4 97.1	95.4 97.1	95.4 97.1	95.4 97.1
≥ 900 ≥ 800	92.8 92.9	96.0 96.2	96.8 97.0	96.9 97.1	97.3 97.5	97.3 97.5	97.4 97.6	97.4 97.6	97.4 97.6	97.4 97.6	97.4 97.6	97.4 97.6	97.4 97.6	97.4 97.6	97.4 97.6	97.4 97.6	97.4 97.6
≥ 700 ≥ 600	93.1 93.4	96.7 97.1	97.4 98.0	97.5 98.1	98.0 98.6	98.0 98.6	98.1 98.7	98.1 98.8	98.1 98.8	98.1 98.8	98.1 98.8	98.1 98.8	98.1 98.8	98.1 98.8	98.1 98.8	98.1 98.8	98.1 98.8
≥ 500 ≥ 400	93.5 93.7	97.4 97.5	98.4 98.5	98.5 98.6	99.0 99.1	99.1 99.2	99.2 99.4	99.4 99.5	99.4 99.5	99.4 99.5	99.4 99.5	99.4 99.5	99.4 99.5	99.4 99.5	99.4 99.6	99.4 99.6	99.4 99.6
≥ 300 ≥ 200	93.7 93.7	97.5 97.5	98.5 98.5	98.6 98.6	99.1 99.1	99.2 99.2	99.4 99.4	99.6 99.6	99.7 99.7	99.7 99.8	99.7 99.8	99.7 99.8	99.7 99.8	99.7 99.8	99.8 99.9	99.8 99.9	99.8 99.9
≥ 100 ≥ 0	93.7 93.7	97.5 97.5	98.5 98.5	98.6 98.6	99.1 99.1	99.2 99.2	99.4 99.4	99.6 99.6	99.7 99.7	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.9	100.0 100.0	100.0 100.0	100.0 100.0

TOTAL NUMBER OF OBSERVATIONS

930

USAF ETAC

FORM 54

0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112

MALMSTRUM AFB MT/GREAT FALLS

68-77

MAY

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1200-1400

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	¾	¾	≥0
NO CEILING	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9	43.9
≥ 20000	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2
≥ 18000	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5
≥ 16000	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5
≥ 14000	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1
≥ 12000	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
≥ 10000	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
≥ 9000	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8
≥ 8000	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
≥ 7000	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1
≥ 6000	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8
≥ 5000	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
≥ 4500	79.6	79.7	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8
≥ 4000	83.4	83.7	83.8	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
≥ 3½	85.6	85.8	85.9	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1
≥ 3000	87.6	88.3	88.4	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6
≥ 2500	89.5	90.3	90.4	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6
≥ 2000	91.7	92.9	93.1	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3
≥ 1800	91.9	93.2	93.7	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9
≥ 1500	92.7	94.5	95.2	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4
≥ 1200	93.8	95.8	96.7	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9
≥ 1000	93.8	96.5	97.4	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
≥ 900	93.8	96.5	97.4	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
≥ 800	93.8	96.5	97.4	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
≥ 700	93.9	96.7	98.0	98.2	98.2	98.3	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
≥ 600	94.0	96.9	98.3	98.6	98.6	98.8	98.9	98.9	98.9	98.9	99.0	99.0	99.0	99.0	99.0	99.0
≥ 500	94.0	97.0	98.4	98.7	99.0	99.4	99.5	99.5	99.5	99.5	99.6	99.6	99.6	99.6	99.6	99.6
≥ 400	94.0	97.0	98.6	98.9	99.2	99.7	99.8	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9
≥ 300	94.0	97.0	98.6	98.9	99.2	99.8	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0
≥ 200	94.0	97.0	98.6	98.9	99.2	99.8	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	94.0	97.0	98.6	98.9	99.2	99.8	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	94.0	97.0	98.6	98.9	99.2	99.8	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRÖM AFB MT/GREAT FALLS

68-77

MAY

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1500-1700

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2.5	≥ 2	≥ 1.5	≥ 1.2	≥ 1	≥ .8	≥ .6	≥ .5	≥ .4	≥ .3	≥ .2
NO CEILING	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2
≥ 20000	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7
≥ 18000	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
≥ 16000	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
≥ 14000	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
≥ 12000	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9
≥ 10000	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3
≥ 9000	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1
≥ 8000	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2
≥ 7000	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7
≥ 6000	73.9	73.9	73.9	73.9	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
≥ 5000	80.6	81.4	81.4	81.4	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5
≥ 4500	82.3	83.0	83.0	83.0	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.1
≥ 4000	85.7	86.6	86.9	87.0	87.1	87.1	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2
≥ 3500	87.2	88.3	88.6	88.7	88.9	88.9	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0
≥ 3000	89.0	90.2	90.5	90.6	90.9	90.9	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0
≥ 2500	90.1	91.5	91.8	91.9	92.2	92.2	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3
≥ 2000	91.4	93.2	93.5	93.8	94.1	94.1	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2
≥ 1800	91.6	93.5	93.9	94.1	94.5	94.5	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
≥ 1500	93.0	95.5	95.9	96.2	96.7	96.7	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
≥ 1200	93.5	96.1	96.6	97.1	97.6	97.6	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7
≥ 1000	93.7	96.2	96.7	97.2	97.7	97.7	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
≥ 900	93.7	96.2	96.8	97.3	97.8	97.8	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
≥ 800	94.2	96.9	97.4	98.0	98.5	98.5	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
≥ 700	94.2	97.1	97.8	98.4	98.9	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
≥ 600	94.2	97.2	98.2	98.7	99.2	99.2	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
≥ 500	94.2	97.4	98.6	99.1	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 400	94.2	97.4	98.6	99.1	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 300	94.2	97.4	98.6	99.1	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 200	94.2	97.4	98.6	99.1	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	94.2	97.4	98.6	99.1	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ U	94.2	97.4	98.6	99.1	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112

MALMSTROM AFB MT/GREAT FALLS

68-77

MAY

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

1800-2000

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ ¼	≥ 0.16	≥ 0	≥ 0
NO CEILING ≥ 20000	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6
≥ 18000	59.8	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9
≥ 16000	59.8	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9	59.9
≥ 14000	60.3	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4
≥ 12000	63.9	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0
≥ 10000	71.1	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
≥ 9000	72.8	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
≥ 8000	75.2	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4
≥ 7000	76.7	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9
≥ 6000	81.5	81.8	81.8	81.8	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9
≥ 5000	85.2	85.5	85.5	85.5	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6
≥ 4500	86.5	86.9	86.9	86.9	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0
≥ 4000	88.9	89.8	89.9	89.9	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
≥ 3500	90.3	91.4	91.5	91.5	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6
≥ 3000	91.1	92.2	92.3	92.3	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4
≥ 2500	92.5	94.0	94.1	94.1	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2
≥ 2000	93.1	94.8	94.9	95.1	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2
≥ 1800	93.3	95.3	95.6	95.7	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8
≥ 1500	93.9	96.2	96.6	96.8	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
≥ 1200	94.1	96.8	97.1	97.4	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
≥ 1000	94.4	97.4	97.8	98.3	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
≥ 900	94.5	97.7	98.2	98.7	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
≥ 800	94.5	97.7	98.2	98.7	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
≥ 700	94.5	98.0	98.4	98.9	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
≥ 600	94.5	98.2	98.7	99.2	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 500	94.7	98.5	99.0	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 400	94.7	98.5	99.0	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 300	94.7	98.5	99.0	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 200	94.7	98.5	99.0	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	94.7	98.5	99.0	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	94.7	98.5	99.0	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

MAY  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

2100-2300  
GROUPS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ ¼	≥ 1/16	≥ 0	≤ 0
NO CEILING ≥ 20000	44.0 49.0	55.8 61.5	55.8 61.5	55.8 61.5	55.8 61.5	55.8 61.5	55.8 61.5	55.8 61.5	55.8 61.5	55.8 61.5	55.8 61.5	55.8 61.5	55.8 61.5	55.8 61.5	55.8 61.5	55.8 61.5
≥ 18000 ≥ 16000	49.4 49.6	61.8 62.0	61.8 62.0	61.8 62.0	61.8 62.0	61.8 62.0	61.8 62.0	61.8 62.0	61.8 62.0	61.8 62.0	61.8 62.0	61.8 62.0	61.8 62.0	61.8 62.0	61.8 62.0	61.8 62.0
≥ 14000 ≥ 12000	50.0 54.5	62.5 67.2	62.5 67.2	62.5 67.2	62.5 67.2	62.5 67.2	62.5 67.2	62.5 67.2	62.5 67.2	62.5 67.2	62.5 67.2	62.5 67.2	62.5 67.2	62.5 67.2	62.5 67.2	62.5 67.2
≥ 10000 ≥ 9000	59.9 61.1	74.2 75.9	74.2 75.9	74.2 75.9	74.2 75.9	74.2 75.9	74.2 75.9	74.2 75.9	74.2 75.9	74.2 75.9	74.2 75.9	74.2 75.9	74.2 75.9	74.2 75.9	74.2 75.9	74.2 75.9
≥ 8000 ≥ 7000	63.2 64.5	78.4 79.9	78.4 79.9	78.4 79.9	78.5 80.0	78.5 80.0	78.5 80.0	78.5 80.0	78.5 80.0	78.5 80.0	78.5 80.0	78.5 80.0	78.5 80.0	78.5 80.0	78.5 80.0	78.5 80.0
≥ 6000 ≥ 5000	66.6 69.0	82.9 86.0	82.9 86.0	82.9 86.0	83.0 86.1	83.0 86.1	83.0 86.1	83.0 86.1	83.0 86.1	83.0 86.1	83.0 86.1	83.0 86.1	83.0 86.1	83.0 86.1	83.0 86.1	83.0 86.1
≥ 4500 ≥ 4000	69.4 70.4	86.9 88.6	86.9 88.7	86.9 88.7	87.0 88.8	87.0 88.8	87.0 88.8	87.0 88.8	87.0 88.8	87.0 88.8	87.0 88.8	87.0 88.8	87.0 88.8	87.0 88.8	87.0 88.8	87.0 88.8
≥ 3500 ≥ 3000	70.6 71.3	89.2 90.9	89.5 91.2	89.5 91.2	89.6 91.3	89.6 91.3	89.6 91.3	89.6 91.3	89.6 91.3	89.6 91.3	89.6 91.3	89.6 91.3	89.6 91.3	89.6 91.3	89.6 91.3	89.6 91.3
≥ 2500 ≥ 2000	72.0 72.5	92.0 92.6	92.5 93.1	92.5 93.1	92.6 93.3	92.6 93.3	92.6 93.3	92.6 93.3	92.6 93.3	92.6 93.3	92.6 93.3	92.6 93.3	92.6 93.3	92.6 93.3	92.6 93.3	92.6 93.3
≥ 1800 ≥ 1500	73.0 73.8	93.5 94.8	94.2 95.5	94.2 95.7	94.4 96.0	94.4 96.0	94.4 96.0	94.4 96.0	94.4 96.0	94.4 96.0	94.4 96.0	94.4 96.0	94.4 96.0	94.4 96.0	94.4 96.0	94.4 96.0
≥ 1200 ≥ 1000	74.2 74.3	95.8 96.0	96.8 97.3	97.2 97.7	97.6 98.2	97.6 98.2	97.6 98.2	97.6 98.2	97.6 98.2	97.6 98.2	97.6 98.2	97.6 98.2	97.6 98.2	97.6 98.2	97.6 98.2	97.6 98.2
≥ 900 ≥ 800	74.4 74.4	96.3 96.5	97.6 97.7	98.1 98.2	98.5 98.6	98.5 98.6	98.5 98.6	98.5 98.6	98.5 98.6	98.5 98.6	98.5 98.6	98.5 98.6	98.5 98.6	98.5 98.6	98.5 98.6	98.5 98.6
≥ 700 ≥ 600	74.4 74.5	96.5 96.6	97.7 98.2	98.2 98.6	98.6 99.0	98.6 99.0	98.6 99.0	98.7 99.1	98.7 99.1	98.7 99.1	98.7 99.1	98.7 99.1	98.7 99.1	98.7 99.1	98.7 99.1	98.7 99.1
≥ 500 ≥ 400	74.5 74.5	96.9 96.9	98.8 98.9	99.2 99.4	99.7 99.8	99.7 99.8	99.7 99.8	99.8 99.9	99.8 99.9	99.8 99.9	99.8 99.9	99.8 99.9	99.8 99.9	99.8 99.9	99.8 99.9	99.8 99.9
≥ 300 ≥ 200	74.5 74.5	96.9 96.9	99.0 99.0	99.5 99.5	99.9 99.9	99.9 99.9	99.9 99.9	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0
≥ 100 ≥ 0	74.5 74.5	96.9 96.9	99.0 99.0	99.5 99.5	99.9 99.9	99.9 99.9	99.9 99.9	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 STATION: MALMSTROM AFB MT/GREAT FALLS YEARS: 68-77 MONTH: MAY

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

ALL HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)														
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	¾	≥0
NO CEILING	46.8	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7
≥ 20000	55.1	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2
≥ 18000	55.3	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4	59.4
≥ 16000	55.5	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6
≥ 14000	55.9	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
≥ 12000	59.4	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6
≥ 10000	65.8	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3
≥ 9000	67.0	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8
≥ 8000	69.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6
≥ 7000	70.8	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9
≥ 6000	73.4	78.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
≥ 5000	77.0	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9
≥ 4500	77.9	84.1	84.1	84.1	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2
≥ 4000	80.0	86.4	86.5	86.5	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6
≥ 3500	81.1	87.7	87.9	88.0	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1
≥ 3000	82.3	89.3	89.5	89.6	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7
≥ 2500	83.3	90.5	90.8	90.9	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0
≥ 2000	84.5	91.9	92.3	92.4	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
≥ 1800	84.7	92.4	92.9	93.0	93.2	93.2	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3
≥ 1500	85.4	93.5	94.2	94.4	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
≥ 1200	86.2	94.7	95.5	95.8	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
≥ 1000	86.5	95.3	96.3	96.6	97.0	97.0	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
≥ 900	86.6	95.6	96.5	96.8	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
≥ 800	86.8	95.8	96.8	97.1	97.5	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
≥ 700	86.9	96.1	97.2	97.5	98.0	98.0	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1
≥ 600	87.2	96.5	97.7	98.1	98.5	98.6	98.7	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
≥ 500	87.3	96.7	98.1	98.4	98.9	99.1	99.2	99.2	99.2	99.3	99.3	99.3	99.3	99.3	99.3
≥ 400	87.3	96.7	98.1	98.5	99.0	99.2	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
≥ 300	87.3	96.8	98.3	98.6	99.2	99.5	99.6	99.7	99.7	99.7	99.7	99.7	99.8	99.8	99.8
≥ 200	87.4	96.8	98.4	98.8	99.4	99.6	99.8	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0
≥ 100	87.4	96.8	98.4	98.8	99.4	99.7	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	87.4	96.8	98.4	98.8	99.4	99.7	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 7440

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

CR-77  
YEAR

JUN  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0600-0200  
TIME PERIOD

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2.5	≥ 2	≥ 1.5	≥ 1	≥ .75	≥ .5	≥ .25	≥ .1	≥ .05	≥ 0	≥ 0
NO CEILING	49.9	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6
≥ 20000	55.7	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3
≥ 18000	55.7	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3
≥ 16000	55.7	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3
≥ 14000	56.2	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1
≥ 12000	60.0	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2
≥ 10000	66.0	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8
≥ 9000	66.7	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
≥ 8000	67.8	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3
≥ 7000	69.3	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8
≥ 6000	70.7	87.1	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2
≥ 5000	72.3	89.2	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3
≥ 4500	73.1	90.4	90.7	90.7	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8
≥ 4000	74.7	92.1	92.3	92.3	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4
≥ 3500	75.3	92.9	93.1	93.1	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2
≥ 3000	75.6	93.3	93.6	93.6	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7
≥ 2500	75.6	93.7	93.9	93.9	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0
≥ 2000	75.7	94.2	94.4	94.4	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
≥ 1800	76.4	95.0	95.2	95.2	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3
≥ 1500	76.6	95.1	95.3	95.3	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4
≥ 1200	76.8	95.4	95.7	95.7	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8
≥ 1000	77.2	95.9	96.2	96.2	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3
≥ 900	77.3	96.4	96.9	96.9	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
≥ 800	77.3	96.4	96.9	96.9	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
≥ 700	77.3	96.4	97.0	97.0	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
≥ 600	77.3	96.9	97.4	97.4	97.6	97.6	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
≥ 500	77.3	97.4	98.2	98.2	98.4	98.4	98.7	98.7	98.7	98.8	98.8	98.8	98.8	98.8	98.8	98.8
≥ 400	77.3	97.7	98.4	98.4	98.7	98.7	99.0	99.0	99.0	99.1	99.1	99.1	99.1	99.1	99.1	99.1
≥ 300	77.6	98.4	99.2	99.2	99.4	99.4	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 200	77.6	98.4	99.2	99.2	99.4	99.4	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 100	77.6	98.4	99.2	99.2	99.4	99.4	99.8	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	77.6	98.4	99.2	99.2	99.4	99.4	99.8	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112

MALMSTROM AFB MT/GREAT FALLS

68-77

1111

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0300-0500

CEILING, FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥16	≥1	≥0
NO CEILING, ≥ 20000	50.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.9
≥ 18000	56.8	61.9	61.9	61.9	61.9	61.9	61.9	61.9	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.1
≥ 16000	56.8	61.9	61.9	61.9	61.9	61.9	61.9	61.9	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.1
≥ 14000	57.3	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.7
≥ 12000	61.9	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.2	67.2	67.2	67.2	67.2	67.2	67.2	67.3
≥ 10000	69.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.7	75.7	75.7	75.7	75.7	75.7	75.7	75.8
≥ 9000	70.4	76.4	76.4	76.4	76.4	76.4	76.4	76.4	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.7
≥ 8000	74.0	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.7
≥ 7000	75.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.4
≥ 6000	77.2	84.9	84.9	84.9	84.9	84.9	84.9	84.9	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.1
≥ 5000	79.0	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.9
≥ 4500	80.4	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.8
≥ 4000	82.0	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.4
≥ 3500	82.9	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.3
≥ 3000	83.7	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.2
≥ 2500	84.2	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.9
≥ 2000	84.4	93.1	93.2	93.2	93.2	93.2	93.2	93.2	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.4
≥ 1800	84.6	93.3	93.4	93.4	93.4	93.4	93.4	93.4	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.7
≥ 1500	85.0	94.1	94.2	94.2	94.2	94.2	94.2	94.2	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.4
≥ 1200	85.0	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.9
≥ 1000	85.1	94.9	95.0	95.0	95.0	95.0	95.0	95.0	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.2
≥ 900	85.2	95.1	95.2	95.2	95.2	95.2	95.2	95.2	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.4
≥ 800	85.3	95.7	95.8	95.8	95.8	95.8	95.8	95.8	95.9	95.9	95.9	95.9	95.9	95.9	95.9	96.0
≥ 700	85.6	96.1	96.3	96.3	96.3	96.3	96.3	96.4	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.7
≥ 600	85.8	96.8	97.0	97.0	97.0	97.0	97.0	97.1	97.3	97.3	97.3	97.3	97.4	97.4	97.4	97.6
≥ 500	85.8	97.1	97.3	97.3	97.3	97.3	97.3	97.7	97.9	97.9	97.9	97.9	98.0	98.0	98.0	98.1
≥ 400	85.9	97.2	97.4	97.4	97.6	97.6	97.6	98.0	98.2	98.2	98.2	98.2	98.3	98.3	98.3	98.4
≥ 300	86.2	98.1	98.3	98.3	98.4	98.4	98.4	98.9	99.1	99.1	99.1	99.2	99.2	99.2	99.3	99.4
≥ 200	86.2	98.1	98.3	98.3	98.6	98.6	98.6	99.1	99.3	99.3	99.3	99.3	99.4	99.4	99.4	99.9
≥ 100	86.2	98.1	98.3	98.3	98.6	98.6	98.6	99.1	99.3	99.3	99.3	99.3	99.4	99.4	99.4	100.0
≥ 0	86.2	98.1	98.3	98.3	98.6	98.6	98.6	99.1	99.3	99.3	99.3	99.3	99.4	99.4	99.4	100.0

TOTAL NUMBER OF OBSERVATIONS

900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 MARMSTRON AFB MT/GREAT FALLS 68-77 JUN

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0600-0800  
HOURS EST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ ¼	≥ 16	≥ 4	≥ 0
NO CEILING ≥ 20000	50.9 60.4	51.1 60.8	51.2 60.9	51.2 60.9	51.2 60.9	51.2 60.9	51.2 60.9	51.2 60.9	51.2 60.9	51.2 60.9	51.2 60.9	51.2 60.9	51.2 60.9	51.2 60.9	51.2 60.9	51.2 61.0
≥ 18000 ≥ 16000	60.6 60.6	60.9 60.9	61.0 61.0	61.0 61.0	61.0 61.0	61.0 61.0	61.0 61.0	61.0 61.0	61.0 61.0	61.0 61.0	61.0 61.0	61.0 61.0	61.0 61.0	61.0 61.0	61.0 61.0	61.1 61.1
≥ 14000 ≥ 12000	61.0 65.4	61.3 65.8	61.4 65.9	61.4 65.9	61.4 65.9	61.4 65.9	61.4 65.9	61.4 65.9	61.4 65.9	61.4 65.9	61.4 65.9	61.4 65.9	61.4 65.9	61.4 65.9	61.4 65.9	61.6 66.0
≥ 10000 ≥ 9000	71.7 74.2	72.2 74.9	72.3 75.0	72.3 75.0	72.3 75.0	72.3 75.0	72.3 75.0	72.3 75.0	72.3 75.0	72.3 75.0	72.3 75.0	72.3 75.0	72.3 75.0	72.3 75.0	72.3 75.0	72.4 75.1
≥ 8000 ≥ 7000	77.8 79.0	78.6 79.8	78.7 79.9	78.7 79.9	78.7 79.9	78.7 79.9	78.7 79.9	78.7 79.9	78.7 79.9	78.7 79.9	78.7 79.9	78.7 79.9	78.7 79.9	78.7 79.9	78.7 79.9	78.8 80.0
≥ 6000 ≥ 5000	81.6 84.1	82.6 85.3	82.7 85.4	82.7 85.4	82.7 85.4	82.7 85.4	82.7 85.4	82.7 85.4	82.7 85.4	82.7 85.4	82.7 85.4	82.7 85.4	82.7 85.4	82.7 85.4	82.7 85.4	82.8 85.6
≥ 4500 ≥ 4000	85.1 87.6	86.4 89.4	86.6 89.7	86.6 89.7	86.6 89.8	86.6 89.8	86.6 89.8	86.6 89.8	86.6 89.8	86.6 89.8	86.6 89.8	86.6 89.8	86.6 89.8	86.6 89.8	86.6 89.8	86.7 89.9
≥ 3500 ≥ 3000	88.9 88.9	90.8 90.9	91.0 91.2	91.0 91.2	91.1 91.3	91.1 91.3	91.1 91.3	91.1 91.3	91.1 91.3	91.1 91.3	91.1 91.3	91.1 91.3	91.1 91.3	91.1 91.3	91.1 91.3	91.2 91.4
≥ 2500 ≥ 2000	89.7 90.1	91.7 92.2	92.1 92.7	92.1 92.7	92.3 92.9	92.3 92.9	92.3 92.9	92.3 92.9	92.3 92.9	92.3 92.9	92.3 92.9	92.3 92.9	92.3 92.9	92.3 92.9	92.3 92.9	92.4 93.0
≥ 1800 ≥ 1500	90.2 90.4	92.3 92.8	92.8 93.4	92.8 93.4	93.0 93.7	93.0 93.7	93.0 93.7	93.0 93.7	93.0 93.7	93.0 93.7	93.0 93.7	93.0 93.7	93.0 93.7	93.0 93.7	93.0 93.7	93.1 93.8
≥ 1000 ≥ 800	90.8 90.9	93.7 94.0	94.6 95.1	94.6 95.1	94.8 95.4	94.8 95.4	94.8 95.4	94.8 95.4	94.8 95.4	94.8 95.4	94.8 95.4	94.8 95.4	94.8 95.4	94.8 95.4	94.8 95.4	94.9 95.6
≥ 700 ≥ 600	90.9 91.3	94.1 95.2	95.2 96.7	95.2 97.1	95.6 97.4	95.6 97.4	95.6 97.4	95.6 97.4	95.6 97.4	95.6 97.4	95.6 97.4	95.6 97.4	95.6 97.4	95.6 97.4	95.6 97.4	95.7 97.6
≥ 500 ≥ 400	91.4 91.7	95.3 95.6	96.8 97.0	97.2 97.6	97.7 98.0	97.7 98.0	97.8 98.1	97.8 98.1	97.8 98.1	98.0 98.3	98.1 98.4	98.1 98.4	98.1 98.4	98.1 98.4	98.1 98.4	98.2 98.6
≥ 300 ≥ 200	91.9 91.9	95.9 96.0	97.4 97.6	98.1 98.2	98.7 98.8	98.7 98.8	98.9 99.1	98.9 99.1	99.0 99.2	99.2 99.4	99.3 99.6	99.3 99.6	99.3 99.6	99.3 99.6	99.3 99.6	99.4 100.0
≥ 100 0	91.9 91.9	96.0 96.0	97.6 97.6	98.2 98.2	98.8 98.8	98.8 98.8	99.1 99.1	99.1 99.1	99.2 99.2	99.4 99.4	99.6 99.6	99.6 99.6	99.6 99.6	99.6 99.6	99.6 99.6	99.7 100.0

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 STATION MÅLMSTRÖM AFB MT/GREAT FALLS 68-77 YEARS JUN MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0900-1100 HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥5/16	≥¼	≥0
NO CEILING	54.7	54.8	54.8	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9	54.9
IV 20000	63.6	63.9	63.9	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0
IV 18000	63.8	64.1	64.1	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2
IV 16000	64.0	64.3	64.3	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4
IV 14000	65.1	65.4	65.4	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6	65.6
IV 12000	68.7	69.0	69.0	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1
IV 10000	74.3	74.8	74.8	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9
IV 9000	75.0	75.4	75.4	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6
IV 8000	77.2	77.7	77.7	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8
IV 7000	77.8	78.2	78.2	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3
IV 6000	79.9	80.4	80.4	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
IV 5000	83.0	83.7	83.7	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8
IV 4500	84.3	85.1	85.1	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2
IV 4000	87.6	88.8	88.9	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0
IV 3500	89.6	91.1	91.2	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
IV 3000	90.2	91.8	91.9	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
IV 2500	91.1	92.9	93.0	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
IV 2000	91.2	93.0	93.1	93.2	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3
IV 1800	91.3	93.2	93.3	93.4	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6
IV 1600	92.0	94.6	94.7	94.8	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9
IV 1200	92.4	95.4	95.9	96.0	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
IV 1000	93.0	96.0	96.6	96.7	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9
IV 900	93.0	96.1	96.8	97.0	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
IV 800	93.3	96.7	97.3	97.7	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9
IV 700	93.6	97.1	97.8	98.1	98.3	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
IV 600	93.7	97.6	98.2	98.6	98.8	98.9	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
IV 500	93.7	97.6	98.2	98.6	98.9	99.0	99.0	99.1	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2
IV 400	93.7	97.6	98.2	98.6	98.9	99.0	99.0	99.2	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4
IV 300	93.7	97.7	98.3	98.9	99.2	99.3	99.3	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 200	93.7	97.7	98.3	98.9	99.2	99.3	99.3	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 100	93.7	97.7	98.3	98.9	99.2	99.3	99.3	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 0	93.7	97.7	98.3	98.9	99.2	99.3	99.3	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 STATION MARMSTROM AFB MT/GREAT FALLS 68-77 YEARS JUN MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1200-1400 HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES):															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	≥¾	≥½	≥5/16	≥¼	≥0
NO CEILING	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4
≥ 20000	60.7	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0
IV 18000	61.2	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6
IV 16000	61.4	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8
IV 14000	62.8	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1
IV 12000	66.0	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3
IV 10000	70.1	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4	70.4
IV 9000	71.1	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4
IV 8000	74.1	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4
IV 7000	75.3	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8	75.8
IV 6000	79.6	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
IV 5000	83.8	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3
IV 4500	85.4	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0
IV 4000	89.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6	90.6
IV 3500	91.4	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8
IV 3000	92.2	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9
IV 2500	93.3	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2
IV 2000	94.6	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
IV 1800	94.9	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
IV 1500	95.4	98.0	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1
IV 1200	95.9	99.2	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
IV 1000	96.0	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
IV 900	96.0	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
IV 800	96.0	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
IV 700	96.0	99.7	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
IV 600	96.0	99.7	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
IV 500	96.1	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 400	96.1	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 300	96.1	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 200	96.1	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 100	96.1	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 0	96.1	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRUM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

JUN  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1500-1700  
HOURS LST

CEILING FEET.	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥5/16	≥¼	≥0
NO CEILING	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6
≥ 20000	55.3	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7
IV 18000	55.8	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1
IV 16000	56.2	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6
IV 14000	58.2	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6
IV 12000	63.1	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4
IV 10000	67.6	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9
IV 9000	68.3	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7
IV 8000	72.1	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
IV 7000	74.6	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2
IV 6000	79.3	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
IV 5000	86.6	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4
IV 4500	87.3	88.2	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4
IV 4000	91.7	92.8	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0
IV 3500	92.6	93.7	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9
IV 3000	93.6	94.7	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9
IV 2500	95.3	96.6	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
IV 2000	96.0	97.6	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
IV 1800	96.1	97.7	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
IV 1500	96.4	98.2	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
IV 1200	97.0	99.2	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
IV 1000	97.0	99.2	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
IV 900	97.0	99.2	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
IV 800	97.0	99.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 700	97.0	99.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 600	97.0	99.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 500	97.0	99.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 400	97.0	99.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 300	97.0	99.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 200	97.0	99.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 100	97.0	99.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 0	97.0	99.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

900



DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 MARMSTROM AFB MT/GREAT FALLS 68-77 JUN  
STATION STATION NAME YEARS MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

1800-2000  
HOURS FT

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥ 5/16	≥ 1	≥0
NO CEILING	42.8	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1
≥ 20000	56.4	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8
IV 18000	56.8	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1
IV 16000	56.9	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2
IV 14000	58.1	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4
IV 12000	62.4	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8
IV 10000	69.2	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6
IV 9000	70.9	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
IV 8000	74.8	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1
IV 7000	78.3	78.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
IV 6000	83.7	84.0	84.1	84.1	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2
IV 5000	88.2	88.8	88.9	89.0	89.3	89.3	89.3	89.4	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6
IV 4500	90.3	91.1	91.3	91.4	91.8	91.8	91.8	91.9	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
IV 4000	91.4	92.7	92.9	93.0	93.3	93.3	93.3	93.4	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6
IV 3500	92.4	93.8	94.2	94.3	94.7	94.7	94.7	94.8	94.9	94.9	94.9	94.9	94.9	94.9	94.9	94.9
IV 3000	93.1	94.6	95.0	95.1	95.4	95.4	95.4	95.6	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
IV 2500	94.0	95.6	96.0	96.1	96.6	96.6	96.6	96.7	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
IV 2000	94.6	96.3	96.8	96.9	97.3	97.3	97.3	97.4	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
IV 1800	94.7	96.4	96.9	97.0	97.4	97.4	97.4	97.6	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7
IV 1500	94.7	96.4	96.9	97.0	97.6	97.6	97.6	97.7	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
IV 1200	94.9	97.0	97.4	97.8	98.4	98.4	98.4	98.6	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
IV 1000	94.9	97.0	97.9	98.2	98.9	98.9	98.9	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
IV 900	94.9	97.0	97.9	98.3	99.0	99.0	99.0	99.2	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
IV 800	94.9	97.0	97.9	98.3	99.0	99.0	99.0	99.2	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
IV 700	94.9	97.1	98.0	98.4	99.1	99.1	99.1	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
IV 600	94.9	97.1	98.0	98.4	99.1	99.1	99.1	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
IV 500	94.9	97.1	98.2	98.7	99.3	99.4	99.4	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
IV 400	94.9	97.1	98.2	98.7	99.3	99.4	99.4	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
IV 300	94.9	97.1	98.2	98.7	99.3	99.4	99.4	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
IV 200	94.9	97.1	98.2	98.7	99.3	99.4	99.4	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
IV 100	94.9	97.1	98.2	98.7	99.3	99.4	99.4	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
IV 0	94.9	97.1	98.2	98.7	99.3	99.4	99.4	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 - MALMSTRUM AFB MT/GREAT FALLS 68-77 JUN 2100-2300  
STATION NAME YEARS MONTHS

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	¾	≥1/8	≥0
NO CEILING ≥ 20000	46.2 54.3	52.3 61.9	52.3 61.9	52.3 61.9	52.3 61.9	52.3 61.9	52.3 61.9	52.3 61.9	52.3 61.9	52.3 61.9	52.3 61.9	52.3 61.9	52.3 61.9	52.3 61.9	52.3 61.9	52.3 61.9
≥ 18000 ≥ 16000	54.3 54.4	61.9 62.0	61.9 62.0	61.9 62.0	61.9 62.0	61.9 62.0	61.9 62.0	61.9 62.0	61.9 62.0	61.9 62.0	61.9 62.0	61.9 62.0	61.9 62.0	61.9 62.0	61.9 62.0	61.9 62.0
≥ 14000 ≥ 12000	54.9 59.6	62.6 67.7	62.6 67.7	62.6 67.7	62.6 67.7	62.6 67.7	62.6 67.7	62.6 67.7	62.6 67.7	62.6 67.7	62.6 67.7	62.6 67.7	62.6 67.7	62.6 67.7	62.6 67.7	62.6 67.7
≥ 10000 ≥ 9000	65.3 66.4	75.1 76.9	75.1 76.9	75.1 76.9	75.1 76.9	75.1 76.9	75.1 76.9	75.1 76.9	75.1 76.9	75.1 76.9	75.1 76.9	75.1 76.9	75.1 76.9	75.1 76.9	75.1 76.9	75.1 76.9
≥ 8000 ≥ 7000	69.1 70.3	79.8 82.0	79.8 82.0	79.8 82.0	79.8 82.0	79.8 82.0	79.8 82.0	79.8 82.0	79.8 82.0	79.8 82.0	79.8 82.0	79.8 82.0	79.8 82.0	79.8 82.0	79.8 82.0	79.8 82.0
≥ 6000 ≥ 5000	73.2 75.2	85.9 89.1	85.9 89.2	85.9 89.2	85.9 89.2	85.9 89.2	85.9 89.2	85.9 89.2	85.9 89.2	85.9 89.2	85.9 89.2	85.9 89.2	85.9 89.2	85.9 89.2	85.9 89.2	85.9 89.2
≥ 4500 ≥ 4000	76.6 77.9	91.1 93.2	91.2 93.4	91.2 93.4	91.2 93.6	91.2 93.6	91.2 93.6	91.2 93.6	91.2 93.6	91.2 93.6	91.2 93.6	91.2 93.6	91.2 93.6	91.2 93.6	91.2 93.6	91.2 93.6
≥ 3500 ≥ 3000	78.6 78.8	94.0 94.8	94.2 95.1	94.2 95.1	94.3 95.2	94.3 95.2	94.3 95.2	94.3 95.2	94.3 95.2	94.3 95.2	94.3 95.2	94.3 95.2	94.3 95.2	94.3 95.2	94.3 95.2	94.3 95.2
≥ 2500 ≥ 2000	79.2 79.6	95.4 96.0	95.8 96.3	95.8 96.3	95.9 96.6	95.9 96.6	95.9 96.6	95.9 96.6	95.9 96.6	95.9 96.6	95.9 96.6	95.9 96.6	95.9 96.6	95.9 96.6	95.9 96.6	95.9 96.6
≥ 1800 ≥ 1500	79.6 79.7	96.0 96.1	96.3 96.6	96.3 96.6	96.6 96.9	96.6 96.9	96.6 96.9	96.6 96.9	96.6 96.9	96.6 96.9	96.6 96.9	96.6 96.9	96.6 96.9	96.6 96.9	96.6 96.9	96.6 96.9
≥ 1200 ≥ 1000	79.9 80.0	96.8 97.1	97.2 97.7	97.2 97.7	97.6 98.0	97.6 98.0	97.6 98.1	97.6 98.1	97.6 98.1	97.6 98.1	97.6 98.1	97.6 98.1	97.6 98.1	97.6 98.1	97.6 98.1	97.6 98.1
≥ 900 ≥ 800	80.1 80.1	97.2 97.2	97.8 97.8	97.8 97.8	98.1 98.1	98.1 98.1	98.2 98.2	98.2 98.2	98.2 98.2	98.2 98.2	98.2 98.2	98.2 98.2	98.2 98.2	98.2 98.2	98.2 98.2	98.2 98.2
≥ 700 ≥ 600	80.3 80.3	97.7 97.7	98.4 98.4	98.4 98.4	98.8 98.8	98.8 98.8	98.9 98.9	98.9 98.9	98.9 98.9	98.9 98.9	98.9 98.9	98.9 98.9	98.9 98.9	98.9 98.9	98.9 98.9	98.9 98.9
≥ 500 ≥ 400	80.3 80.3	97.9 98.0	98.8 98.9	98.8 98.9	99.1 99.3	99.2 99.4	99.4 99.7	99.4 99.7	99.4 99.7	99.4 99.7	99.4 99.7	99.4 99.7	99.4 99.7	99.4 99.7	99.4 99.7	99.4 99.7
≥ 300 ≥ 200	80.3 80.3	98.2 98.2	99.1 99.1	99.1 99.1	99.6 99.6	99.7 99.7	99.9 99.9	99.9 99.9	99.9 99.9	99.9 99.9	99.9 99.9	99.9 99.9	99.9 99.9	99.9 99.9	99.9 99.9	99.9 99.9
≥ 100 ≥ 0	80.3 80.3	98.2 98.2	99.1 99.1	99.1 99.1	99.6 99.6	99.7 99.7	99.9 99.9	99.9 99.9	99.9 99.9	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

JULY  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

ALL  
HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ ¼	≥ 16	≥ 1	≥ 0
NO CEILING	48.4	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0
≤ 20000	57.9	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2
≥ 18000	58.1	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4
≥ 16000	58.3	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
≥ 14000	59.2	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5
≥ 12000	63.4	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8
≥ 10000	69.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2	73.2
≥ 9000	70.4	74.4	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
≥ 8000	73.4	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6
≥ 7000	75.0	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6
≥ 6000	78.1	83.1	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
≥ 5000	81.5	86.8	86.9	86.9	86.9	86.9	86.9	86.9	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0
≥ 4500	82.8	88.4	88.5	88.5	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6
≥ 4000	85.3	91.2	91.4	91.4	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5
≥ 3500	86.5	92.5	92.7	92.7	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8
≥ 3000	87.0	93.2	93.4	93.5	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6
≥ 2500	87.8	94.2	94.4	94.5	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
≥ 2000	88.3	94.9	95.1	95.2	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3
≥ 1800	88.5	95.2	95.4	95.4	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
≥ 1500	88.8	95.7	96.0	96.0	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
≥ 1200	89.1	96.4	96.8	96.9	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
≥ 1000	89.3	96.7	97.2	97.3	97.5	97.5	97.5	97.5	97.5	97.6	97.6	97.6	97.6	97.6	97.6	97.6
≥ 900	89.3	96.8	97.3	97.4	97.6	97.6	97.6	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7
≥ 800	89.4	97.0	97.6	97.7	97.9	97.9	97.9	97.9	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
≥ 700	89.5	97.3	97.9	98.1	98.3	98.3	98.3	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
≥ 600	89.5	97.5	98.2	98.3	98.6	98.6	98.6	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.8
≥ 500	89.6	97.7	98.4	98.6	98.8	98.9	99.0	99.1	99.1	99.1	99.2	99.2	99.2	99.2	99.2	99.2
≥ 400	89.6	97.8	98.5	98.7	99.0	99.0	99.2	99.2	99.3	99.3	99.4	99.4	99.4	99.4	99.4	99.4
≥ 300	89.7	98.1	98.8	99.0	99.3	99.4	99.5	99.6	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8
≥ 200	89.7	98.1	98.8	99.0	99.4	99.4	99.6	99.7	99.7	99.8	99.8	99.8	99.9	99.9	99.9	100.0
≥ 100	89.7	98.1	98.8	99.0	99.4	99.4	99.6	99.7	99.7	99.8	99.9	99.9	99.9	99.9	99.9	100.0
≥ 0	89.7	98.1	98.8	99.0	99.4	99.4	99.6	99.7	99.7	99.8	99.9	99.9	99.9	99.9	99.9	100.0

TOTAL NUMBER OF OBSERVATIONS

7200

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112

MALMSTRUM AFB MT/GREAT FALLS

68-77

JUL

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0000-0200

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≤0
NO CEILING, ≥ 20000	61.4	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5
≥ 18000	66.0	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5
≥ 16000	66.0	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5
≥ 14000	66.1	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
≥ 12000	69.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2
≥ 10000	74.0	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5
≥ 9000	74.4	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0
≥ 8000	75.4	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3
≥ 7000	75.9	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1
≥ 6000	76.6	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8
≥ 5000	77.1	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6
≥ 4500	77.3	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
≥ 4000	78.0	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7
≥ 3500	78.2	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
≥ 3000	78.6	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
≥ 2500	78.8	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
≥ 2000	78.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
≥ 1800	78.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
≥ 1500	78.8	98.9	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
≥ 1200	78.8	98.9	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
≥ 1000	78.8	99.0	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 900	78.8	99.0	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 800	78.9	99.4	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 700	78.9	99.4	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 600	79.0	99.5	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 500	79.0	99.5	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 400	79.0	99.5	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 300	79.1	99.6	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 200	79.1	99.6	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	79.1	99.6	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	79.1	99.6	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

USAF ETAC

FORM  
JUL 64

0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

JUL  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0300-0500  
HOURS T. D.

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥0.10	≥0	≥0
NO CEILING	62.9	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8
≥ 20000	70.5	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8
≥ 18000	70.8	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
≥ 16000	70.8	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
≥ 14000	71.2	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
≥ 12000	75.3	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	85.1	85.1	85.1	85.1
≥ 10000	80.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.5	90.5	90.5	90.5
≥ 9000	80.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.6	90.6	90.6	90.6
≥ 8000	81.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	92.0	92.0	92.0	92.0
≥ 7000	82.7	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.9	92.9	92.9	92.9
≥ 6000	83.5	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	94.0	94.0	94.0	94.0
≥ 5000	84.7	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.6	95.6	95.6	95.6
≥ 4500	85.1	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.1	96.1	96.1	96.1
≥ 4000	85.9	97.1	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.3	97.3	97.3	97.3
≥ 3500	86.1	97.3	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.5	97.5	97.5	97.5
≥ 3000	86.2	97.4	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.6	97.6	97.6	97.6
≥ 2500	86.2	97.4	97.5	97.5	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.7	97.7	97.7	97.7
≥ 2000	86.5	98.1	98.2	98.2	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.4	98.4	98.4	98.4
≥ 1800	86.6	98.2	98.3	98.3	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.5	98.5	98.5	98.5
≥ 1500	87.1	98.7	98.8	98.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	99.0	99.0	99.0	99.0
≥ 1200	87.2	98.8	98.9	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.1	99.1	99.1	99.1
≥ 1000	87.2	98.8	98.9	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.1	99.1	99.1	99.1
≥ 900	87.2	98.8	98.9	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.1	99.1	99.1	99.1
≥ 800	87.4	99.0	99.2	99.2	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.5	99.5	99.5	99.5
≥ 700	87.4	99.0	99.2	99.2	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.5	99.5	99.5	99.5
≥ 600	87.4	99.2	99.5	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.7	99.7	99.7	99.7
≥ 500	87.4	99.2	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.8	99.8	99.8	99.8
≥ 400	87.4	99.2	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.8	99.8	99.8	99.8
≥ 300	87.4	99.5	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0
≥ 200	87.4	99.5	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0
≥ 100	87.4	99.5	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0
≥ 0	87.4	99.5	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRUM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

JUL  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0600-0800  
HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2	≥1.75	≥1.5	≥1.25	≥1	≥0.75	≥0.5	≥0.25	≥0.16	≥0.1	≥0
NO CEILING	69.2	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4
≥ 20000	75.8	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9
≥ 18000	75.9	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
≥ 16000	75.9	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
≥ 14000	77.0	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1
≥ 12000	82.4	82.5	82.6	82.6	82.6	82.6	82.6	82.6	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7
≥ 10000	87.0	87.1	87.2	87.2	87.2	87.2	87.2	87.2	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3
≥ 9000	88.1	88.2	88.3	88.3	88.3	88.3	88.3	88.3	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4
≥ 8000	89.7	89.9	90.0	90.0	90.0	90.0	90.0	90.0	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1
≥ 7000	90.6	90.9	91.0	91.0	91.0	91.0	91.0	91.0	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1
≥ 6000	92.2	92.6	92.7	92.7	92.7	92.7	92.7	92.7	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.8
≥ 5000	93.3	93.8	93.9	93.9	93.9	93.9	93.9	93.9	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0
≥ 4500	93.5	94.1	94.2	94.2	94.2	94.2	94.2	94.2	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3
≥ 4000	94.5	95.2	95.3	95.3	95.3	95.3	95.3	95.3	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4
≥ 3500	94.8	95.5	95.6	95.6	95.6	95.6	95.6	95.6	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
≥ 3000	94.9	95.6	95.7	95.7	95.7	95.7	95.7	95.7	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8
≥ 2500	95.1	95.7	95.8	95.8	95.8	95.8	95.8	95.8	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9
≥ 2000	95.6	96.5	96.6	96.6	96.6	96.6	96.6	96.6	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
≥ 1800	95.7	96.6	96.7	96.8	97.0	97.0	97.0	97.0	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
≥ 1500	96.8	97.8	98.0	98.1	98.3	98.3	98.3	98.3	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
≥ 1200	97.0	98.4	98.5	98.7	98.9	98.9	98.9	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
≥ 1000	97.3	98.7	98.8	99.0	99.2	99.2	99.2	99.2	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
≥ 900	97.3	98.8	98.9	99.1	99.4	99.4	99.4	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 800	97.3	98.8	98.9	99.1	99.4	99.4	99.4	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 700	97.3	98.8	98.9	99.1	99.4	99.4	99.4	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 600	97.3	98.8	98.9	99.1	99.4	99.4	99.4	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 500	97.3	98.8	98.9	99.2	99.6	99.6	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
≥ 400	97.3	98.8	98.9	99.2	99.6	99.6	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
≥ 300	97.3	98.8	98.9	99.4	99.7	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 200	97.3	98.8	98.9	99.4	99.7	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 100	97.3	98.8	98.9	99.4	99.7	99.8	99.8	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0
U	97.3	98.8	98.9	99.4	99.7	99.8	99.8	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

JUL  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0900-1100  
HOURS T.S.T.

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.15	≥0.1	≥0.05	>0	>0
NO CEILING	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9
≥ 20000	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7
≥ 18000	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9
≥ 16000	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9
≥ 14000	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6
≥ 12000	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5
≥ 10000	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5
≥ 9000	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5
≥ 8000	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8
≥ 7000	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3
≥ 6000	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
≥ 5000	92.7	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0
≥ 4500	93.4	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8
≥ 4000	94.9	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4
≥ 3500	95.4	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8
≥ 3000	95.7	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1
≥ 2500	96.3	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
≥ 2000	97.2	97.8	97.8	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
≥ 1800	97.3	98.0	98.0	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1
≥ 1500	98.3	99.0	99.0	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
≥ 1200	98.5	99.2	99.2	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 1000	98.7	99.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 900	98.7	99.6	99.6	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 800	98.8	99.7	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 700	98.8	99.7	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 600	98.8	99.7	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 500	98.8	99.7	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 400	98.8	99.7	99.7	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0
≥ 300	98.8	99.7	99.7	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0
≥ 200	98.8	99.7	99.7	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0
≥ 100	98.8	99.7	99.7	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0
≥ 0	98.8	99.7	99.7	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0

TOTAL NUMBER OF OBSERVATIONS

930

USAF ETAC

FORM  
 JUL 64

0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

JUL  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1200-1400  
HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥9	≥8	≥7	≥6	≥5	≥4	≥3	≥2	≥1	>1	>1/2	>1/4	≥5-16	≥1/2	≥0
NO CEILING	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5	70.5
≥ 20000	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4
≥ 18000	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8
≥ 16000	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8
≥ 14000	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
≥ 12000	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3
≥ 10000	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7
≥ 9000	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6
≥ 8000	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5
≥ 7000	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
≥ 6000	91.8	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9
≥ 5000	93.8	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1
≥ 4500	94.5	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8
≥ 4000	96.8	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
≥ 3500	97.8	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
≥ 3000	98.1	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
≥ 2500	98.6	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
≥ 2000	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
≥ 1800	99.4	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
≥ 1500	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 1200	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 1000	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 900	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 800	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 700	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 600	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 500	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 400	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 300	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 200	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	99.6	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 930



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

JUL  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1500-1700  
HOURS EST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	> 3	≥ 2½	≥ 2	≥ 1½	≥ 1	≥ ¾	≥ ½	≥ ¼	≥ 1/10	≥ 1/20	≥ 0	
NO CEILING	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	65.7	66.7	66.7	66.7	66.7	66.7
≥ 20000	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
≥ 18000	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6
≥ 16000	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6
≥ 14000	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4
≥ 12000	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9	81.9
≥ 10000	87.2	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3
≥ 9000	88.0	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1
≥ 8000	89.8	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9
≥ 7000	90.5	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9
≥ 6000	92.6	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
≥ 5000	95.4	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2
≥ 4500	95.8	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
≥ 4000	97.7	98.7	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
≥ 3500	98.1	99.0	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
≥ 3000	98.2	99.2	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
≥ 2500	98.2	99.2	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
≥ 2000	98.5	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
≥ 1800	98.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 1500	98.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 1200	98.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 1000	98.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 900	98.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 800	98.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 700	98.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 600	98.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 500	98.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 400	98.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 300	98.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 200	98.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 100	98.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 0	98.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

JUL  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1800-2000  
HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5-16	¾	≥0
NO CEILING	64.2	64.2	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3
≥ 20000	72.9	72.9	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1
≥ 18000	73.4	73.4	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7
≥ 16000	73.5	73.5	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8
≥ 14000	74.3	74.3	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
≥ 12000	79.9	79.9	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1
≥ 10000	86.9	87.2	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4
≥ 9000	88.2	88.5	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
≥ 8000	91.2	91.5	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7
≥ 7000	92.0	92.4	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
≥ 6000	93.7	94.0	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2
≥ 5500	96.2	96.6	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
≥ 4500	96.5	96.8	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
≥ 4000	98.0	98.4	98.6	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
≥ 3500	98.1	98.5	98.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
≥ 3000	98.1	98.5	98.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
≥ 2500	98.2	98.6	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
≥ 2000	98.3	98.7	99.0	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
≥ 1800	98.3	98.8	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
≥ 1500	98.3	98.9	99.2	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
≥ 1200	98.3	98.9	99.2	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 1000	98.3	98.9	99.2	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 900	98.3	98.9	99.2	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 800	98.3	98.9	99.2	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 700	98.3	98.9	99.2	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 600	98.3	98.9	99.2	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 500	98.5	99.1	99.5	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 400	98.5	99.1	99.5	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 300	98.5	99.1	99.5	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 200	98.5	99.1	99.5	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	98.5	99.1	99.5	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	98.5	99.1	99.5	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

JUL  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

2100-2300  
HOURS T.S.T.

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥5 16	≥.	≥0
NO CEILING	58.2	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4
≥ 20000	64.3	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1
IV 18000	64.4	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2
IV 16000	64.5	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3
IV 14000	65.3	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1
IV 12000	67.8	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9
IV 10000	73.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4
IV 9000	74.1	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3
IV 8000	76.7	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
IV 7000	77.8	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
IV 6000	79.6	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8
IV 5000	80.8	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1
IV 4500	80.8	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1
IV 4000	81.9	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
IV 3500	82.2	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
IV 3000	82.4	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3
IV 2500	82.5	98.4	98.4	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
IV 2000	82.8	98.7	98.7	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
IV 1800	82.8	98.7	98.7	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
IV 1500	82.8	98.7	98.8	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
IV 1200	82.8	98.7	98.9	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
IV 1000	82.9	98.9	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
IV 900	82.9	98.9	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
IV 800	82.9	99.1	99.4	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
IV 700	82.9	99.1	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
IV 600	83.0	99.4	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
IV 500	83.0	99.4	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
IV 400	83.0	99.4	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
IV 300	83.0	99.4	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
IV 200	83.0	99.4	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 100	83.0	99.4	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 0	83.0	99.4	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112

MALMSTROM AFB MT/GREAT FALLS

68-77

JUL

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

ALL  
 HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	½	≥5/16	¼	≥0
NO CEILING	65.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.6	69.6	69.6	69.6	69.6	69.6
≥ 20000	72.9	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7
IV 18000	73.1	77.9	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
IV 16000	73.1	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
IV 14000	73.7	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.7	78.7	78.7	78.7	78.7
IV 12000	77.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
IV 10000	82.8	88.1	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2
IV 9000	83.5	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0
IV 8000	85.5	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.1	91.1	91.1	91.1	91.1
IV 7000	86.3	91.9	91.9	91.9	91.9	91.9	91.9	91.9	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
IV 6000	87.7	93.5	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6
IV 5000	89.2	95.2	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3
IV 4500	89.6	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
IV 4000	91.0	97.1	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
IV 3500	91.3	97.5	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
IV 3000	91.5	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9
IV 2500	91.7	98.0	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.2	98.2	98.2	98.2	98.2
IV 2000	92.1	98.5	98.6	98.6	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
IV 1800	92.2	98.6	98.6	98.7	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
IV 1500	92.5	99.0	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.3	99.3	99.3	99.3	99.3
IV 1200	92.6	99.1	99.2	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
IV 1000	92.7	99.2	99.3	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.6	99.6	99.6	99.6	99.6
IV 900	92.7	99.2	99.4	99.5	99.5	99.5	99.5	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
IV 800	92.7	99.3	99.5	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
IV 700	92.7	99.3	99.5	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.8	99.8	99.8	99.8	99.8
IV 600	92.8	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
IV 500	92.8	99.4	99.6	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
IV 400	92.8	99.4	99.6	99.7	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
IV 300	92.8	99.4	99.6	99.8	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 200	92.8	99.4	99.6	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 100	92.8	99.4	99.6	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 0	92.8	99.4	99.6	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

7440

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

HALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

AUG  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

0000-0200  
HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥5/16	≥¼	≥0	
NO CEILING	59.5	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0
≥ 20000	59.6	76.8	74.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	74.8	76.8	76.8	76.8	76.8	76.9
IV 18000	59.6	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.9
IV 16000	59.8	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.1
IV 14000	60.8	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.1
IV 12000	63.5	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.4	81.5
IV 10000	66.8	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.4	85.5
IV 9000	67.0	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.8
IV 8000	68.7	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.1
IV 7000	70.1	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.6
IV 6000	70.6	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.6
IV 5000	72.9	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.2
IV 4500	73.4	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.8
IV 4000	74.8	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.2
IV 3500	75.8	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.3
IV 3000	76.0	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.7
IV 2500	76.1	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.9
IV 2000	76.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.4
IV 1800	76.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.6
IV 1500	76.6	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.1
IV 1200	76.8	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.3
IV 1000	77.0	98.5	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.7
IV 900	77.0	98.5	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.7
IV 800	77.0	98.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	99.0
IV 700	77.0	98.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	99.0
IV 600	77.1	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.1
IV 500	77.1	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.1
IV 400	77.5	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.7
IV 300	77.5	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.9
IV 200	77.5	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.9
IV 100	77.5	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.9
IV 0	77.5	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRUM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

AUG  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0300-0500  
HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	61.0	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.5	72.5	72.5	72.5	72.5	72.5
≥ 20000	65.3	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	78.0	78.0	78.0	78.0	78.0	78.0
≥ 18000	65.3	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	77.7	78.0	78.0	78.0	78.0	78.0	78.0
≥ 16000	65.6	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.1	78.3	78.3	78.3	78.3	78.3	78.3
≥ 14000	66.0	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.7	78.7	78.7	78.7	78.7	78.7
≥ 12000	68.9	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.4	82.4	82.4	82.4	82.4	82.4
≥ 10000	72.0	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.7	85.7	85.7	85.7	85.7	85.7
≥ 9000	72.5	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.3	86.3	86.3	86.3	86.3	86.3
≥ 8000	73.4	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.4	87.4	87.4	87.4	87.4	87.4
≥ 7000	74.4	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.5	88.5	88.5	88.5	88.5	88.5
≥ 6000	75.9	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.2	90.2	90.2	90.2	90.2	90.2
≥ 5000	78.0	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.6	92.6	92.6	92.6	92.6	92.6
≥ 4500	78.2	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.9	92.9	92.9	92.9	92.9	92.9
≥ 4000	79.2	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	94.0	94.0	94.0	94.0	94.0	94.0
≥ 3500	79.9	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.8	94.8	94.8	94.8	94.8	94.8
≥ 3000	80.4	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.5	95.5	95.5	95.5	95.5	95.5
≥ 2500	80.8	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.8	95.8	95.8	95.8	95.8	95.8
≥ 2000	81.7	96.9	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.2	97.2	97.2	97.2	97.2	97.2
≥ 1800	81.8	97.0	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.3	97.3	97.3	97.3	97.3	97.3
≥ 1500	81.8	97.2	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.5	97.5	97.5	97.5	97.5	97.5
≥ 1200	82.0	97.6	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	98.0	98.0	98.0	98.0	98.0	98.0
≥ 1000	82.0	97.6	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	98.0	98.0	98.0	98.0	98.0	98.0
≥ 900	82.0	97.8	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.3	98.3	98.3	98.3	98.3	98.3
≥ 800	82.0	98.0	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.5	98.5	98.5	98.5	98.5	98.5
≥ 700	82.0	98.0	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.6	98.6	98.6	98.6	98.6	98.6
≥ 600	82.4	98.3	98.7	98.8	98.9	98.9	98.9	98.9	98.9	98.9	99.1	99.1	99.1	99.1	99.1	99.1
≥ 500	82.4	98.5	98.9	99.0	99.2	99.2	99.2	99.2	99.2	99.2	99.5	99.5	99.5	99.5	99.5	99.5
≥ 400	82.4	98.6	99.0	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.6	99.6	99.6	99.6	99.6	99.6
≥ 300	82.4	98.6	99.0	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.7	99.7	99.7	99.7	99.7	99.7
≥ 200	82.4	98.6	99.0	99.2	99.5	99.5	99.5	99.5	99.5	99.5	99.8	99.8	99.8	99.8	99.8	99.8
≥ 100	82.4	98.6	99.0	99.2	99.5	99.5	99.5	99.5	99.5	99.5	99.8	99.8	99.8	99.8	99.8	99.8
≥ 0	82.4	98.6	99.0	99.2	99.5	99.5	99.5	99.5	99.5	99.5	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRUM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

AUG  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0600-0800  
HOURS UST

CEILING FEET.	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥ 1/2	≥ .	≥0
NO CEILING	67.1	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5
≥ 20000	73.1	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.8
IV 18000	73.2	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.9
IV 16000	73.9	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.5
IV 14000	74.9	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.6
IV 12000	79.0	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.7
IV 10000	83.0	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.7
IV 9000	83.9	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.5
IV 8000	85.5	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	86.1
IV 7000	87.0	87.4	87.4	87.4	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.7
IV 6000	88.3	88.9	88.9	88.9	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.4
IV 5000	90.3	91.1	91.1	91.1	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.5
IV 4500	91.1	91.8	91.8	91.8	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.3
IV 4000	92.0	92.8	92.8	92.8	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.2
IV 3500	92.7	93.4	93.4	93.5	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	94.0
IV 3000	93.1	94.1	94.2	94.3	94.5	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.8
IV 2500	93.7	94.6	94.7	94.8	95.1	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.4
IV 2000	94.3	95.5	95.6	95.7	95.9	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.2
IV 1800	94.3	95.5	95.8	95.9	96.1	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.5
IV 1500	94.7	96.1	96.6	96.7	96.9	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.2
IV 1200	95.5	96.9	97.3	97.4	97.6	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	98.0
IV 1000	95.6	97.0	97.5	97.6	97.8	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.2
IV 900	95.6	97.2	97.7	97.8	98.1	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.4
IV 800	95.6	97.2	97.8	98.0	98.2	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.5
IV 700	95.8	97.5	98.3	98.4	98.6	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.9
IV 600	95.9	97.6	98.5	98.6	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.2
IV 500	95.9	97.8	98.8	98.9	99.2	99.4	99.4	99.4	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.7
IV 400	95.9	97.8	98.8	98.9	99.2	99.4	99.4	99.4	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.7
IV 300	95.9	97.8	98.8	98.9	99.4	99.6	99.6	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	100.0
IV 200	95.9	97.8	98.8	98.9	99.4	99.6	99.6	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	100.0
IV 100	95.9	97.8	98.8	98.9	99.4	99.6	99.6	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	100.0
IV 0	95.9	97.8	98.8	98.9	99.4	99.6	99.6	99.6	99.7	99.8	99.8	99.8	99.8	99.8	99.8	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 AUG 1968

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1900-1100 HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥5-16	≥4	≥0	
NO CEILING	66.6	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8
≥ 20000	73.1	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3	73.3
≥ 18000	73.4	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7
≥ 16000	73.7	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9	73.9
≥ 14000	75.2	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4
≥ 12000	79.0	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2
≥ 10000	83.4	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7
≥ 9000	84.4	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6	84.6
≥ 8000	86.9	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1
≥ 7000	88.5	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
≥ 6000	89.2	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5
≥ 5000	90.6	90.9	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0
≥ 4500	91.5	91.7	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8
≥ 4000	91.9	92.2	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3
≥ 3500	92.0	92.3	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4
≥ 3000	92.6	92.9	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0
≥ 2500	92.9	93.5	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8
≥ 2000	94.0	94.6	94.9	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1
≥ 1800	94.5	95.2	95.5	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
≥ 1500	95.4	96.0	96.5	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6
≥ 1200	95.9	96.9	97.3	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
≥ 1000	95.9	97.1	97.6	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
≥ 900	95.9	97.2	97.8	98.1	98.1	98.1	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2	98.2
≥ 800	96.2	97.5	98.2	98.4	98.4	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
≥ 700	96.6	98.0	98.7	98.9	98.9	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
≥ 600	96.7	98.2	99.0	99.2	99.2	99.2	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
≥ 500	96.7	98.3	99.1	99.5	99.5	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
≥ 400	96.7	98.4	99.2	99.6	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
≥ 300	96.7	98.4	99.2	99.6	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
≥ 200	96.7	98.4	99.2	99.6	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
≥ 100	96.7	98.4	99.2	99.6	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
≥ 0	96.7	98.4	99.2	99.6	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7

TOTAL NUMBER OF OBSERVATIONS 930



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

AUG  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1200-1400  
HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	64.4	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.7
≥ 20000	72.2	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
≥ 18000	72.4	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7
≥ 16000	72.8	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1
IV 14000	74.3	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6
IV 12000	78.7	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0
IV 10000	83.5	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9
IV 9000	84.1	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4
IV 8000	86.5	86.8	86.8	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9
IV 7000	86.9	87.2	87.2	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3
IV 6000	88.4	88.7	88.7	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8	88.8
IV 5000	89.9	90.3	90.3	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
IV 4500	91.3	91.7	91.7	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8
IV 4000	92.7	93.1	93.1	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3
IV 3500	93.1	93.5	93.5	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8
IV 3000	93.9	94.3	94.3	94.5	94.5	94.5	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
IV 2500	94.7	95.2	95.2	95.4	95.4	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5
IV 2000	95.2	95.9	96.0	96.2	96.2	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3
IV 1800	95.2	95.9	96.0	96.2	96.2	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3
IV 1500	95.5	96.3	96.5	96.8	96.8	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9
IV 1200	95.7	97.0	97.2	97.5	97.6	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7
IV 1000	96.0	97.7	98.0	98.3	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
IV 900	96.0	97.7	98.0	98.3	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
IV 800	96.2	98.1	98.5	98.8	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
IV 700	96.6	98.5	98.9	99.2	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
IV 600	96.6	98.5	98.9	99.2	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
IV 500	96.6	98.6	99.0	99.4	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
IV 400	96.6	98.6	99.0	99.4	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
IV 300	96.6	98.7	99.1	99.5	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
IV 200	96.6	98.7	99.1	99.5	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 100	96.6	98.7	99.1	99.5	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 0	96.6	98.7	99.1	99.5	99.8	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

AUG  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1500-1700  
HOURS LT

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥5/16	≥¼	≥0	
NO CEILING ≥ 20000	59.6 69.0	59.6 69.0	59.6 69.0	59.6 69.0	59.6 69.0	59.6 69.0	59.6 69.0	59.6 69.0	59.6 69.0	59.6 69.0	59.6 69.0	59.6 69.0	59.6 69.0	59.6 69.0	59.6 69.0	59.6 69.0
IV 18000 16000	69.4 69.9	69.4 69.9	69.4 69.9	69.4 69.9	69.4 69.9	69.4 69.9	69.4 69.9	69.4 69.9	69.4 69.9	69.4 69.9	69.4 69.9	69.4 69.9	69.4 69.9	69.4 69.9	69.4 69.9	69.4 69.9
IV 14000 12000	71.0 76.6	71.0 76.6	71.0 76.6	71.0 76.6	71.0 76.6	71.0 76.6	71.0 76.6	71.0 76.6	71.0 76.6	71.0 76.6	71.0 76.6	71.0 76.6	71.0 76.6	71.0 76.6	71.0 76.6	71.0 76.6
IV 10000 9000	81.8 82.8	81.8 82.8	81.8 82.8	81.8 82.8	81.8 82.8	81.8 82.8	81.8 82.8	81.8 82.8	81.8 82.8	81.8 82.8	81.8 82.8	81.8 82.8	81.8 82.8	81.8 82.8	81.8 82.8	81.8 82.8
IV 8000 7000	84.6 85.9	84.6 85.9	84.6 85.9	84.6 85.9	84.6 85.9	84.6 85.9	84.6 85.9	84.6 85.9	84.6 85.9	84.6 85.9	84.6 85.9	84.6 85.9	84.6 85.9	84.6 85.9	84.6 85.9	84.6 85.9
IV 6000 5000	89.1 91.9	89.4 92.3	89.4 92.3	89.4 92.3	89.4 92.3	89.4 92.3	89.4 92.3	89.4 92.3	89.4 92.3	89.4 92.3	89.4 92.3	89.4 92.3	89.4 92.3	89.4 92.3	89.4 92.3	89.4 92.3
IV 4500 4000	93.3 94.6	93.7 94.9	93.7 95.1	93.7 95.1	93.7 95.3	93.7 95.3	93.7 95.3	93.7 95.3	93.7 95.3	93.7 95.3	93.7 95.3	93.7 95.3	93.7 95.3	93.7 95.3	93.7 95.3	93.7 95.3
IV 3500 3000	95.4 95.6	95.7 96.0	95.8 96.2	95.8 96.3	96.0 96.6	96.0 96.6	96.0 96.6	96.0 96.6	96.0 96.6	96.0 96.6	96.0 96.6	96.0 96.6	96.0 96.6	96.0 96.6	96.0 96.6	96.0 96.6
IV 2500 2000	96.2 96.5	96.9 97.3	97.1 97.5	97.2 97.6	97.4 97.8	97.4 97.8	97.4 97.8	97.4 97.8	97.4 97.8	97.4 97.8	97.4 97.8	97.4 97.8	97.4 97.8	97.4 97.8	97.4 97.8	97.4 97.8
IV 1800 1500	96.6 96.8	97.4 97.7	97.6 98.0	97.7 98.1	98.0 98.3	98.0 98.3	98.0 98.3	98.0 98.3	98.0 98.3	98.0 98.3	98.0 98.3	98.0 98.3	98.0 98.3	98.0 98.3	98.0 98.3	98.0 98.3
IV 1200 1000	96.9 97.0	98.0 98.2	98.3 98.6	98.4 98.7	98.6 98.9	98.6 98.9	98.6 98.9	98.6 98.9	98.6 98.9	98.6 98.9	98.6 98.9	98.6 98.9	98.6 98.9	98.6 98.9	98.6 98.9	98.6 98.9
IV 900 800	97.2 97.2	98.4 98.5	98.8 98.9	98.9 99.0	99.1 99.2	99.1 99.2	99.1 99.2	99.1 99.2	99.1 99.2	99.1 99.2	99.1 99.2	99.1 99.2	99.1 99.2	99.1 99.2	99.1 99.2	99.1 99.2
IV 700 600	97.2 97.2	98.5 98.5	98.9 98.9	99.2 99.2	99.5 99.5	99.5 99.5	99.5 99.5	99.5 99.5	99.5 99.5	99.5 99.5	99.5 99.5	99.5 99.5	99.5 99.5	99.5 99.5	99.5 99.5	99.5 99.5
IV 500 400	97.3 97.3	98.7 98.7	99.1 99.1	99.5 99.5	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8
IV 300 200	97.3 97.3	98.7 98.7	99.1 99.1	99.5 99.5	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8
IV 100 0	97.3 97.3	98.7 98.7	99.1 99.1	99.5 99.5	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8	99.8 99.8

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

AUG  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1800-2000  
HOURS EST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥1/16	≥0	≥0
NO CEILING	61.0	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7
≥ 20000	68.7	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6	69.6
≥ 18000	69.0	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9	69.9
≥ 16000	70.0	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9	70.9
≥ 14000	71.0	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9
≥ 12000	75.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7	76.7
≥ 10000	81.0	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2
≥ 9000	81.6	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
≥ 8000	83.3	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5
≥ 7000	84.9	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1
≥ 6000	89.7	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
≥ 5000	91.9	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5
≥ 4500	92.2	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8
≥ 4000	94.0	95.7	95.8	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9
≥ 3500	94.7	96.5	96.6	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
≥ 3000	95.2	96.9	97.0	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
≥ 2500	95.6	97.3	97.4	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
≥ 2000	95.6	97.7	98.0	98.2	98.2	98.2	98.2	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
≥ 1800	95.8	98.0	98.2	98.4	98.4	98.4	98.4	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
≥ 1500	96.2	98.5	98.7	98.9	98.9	98.9	98.9	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
≥ 1200	96.3	98.6	98.8	99.0	99.0	99.0	99.0	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
≥ 1000	96.5	98.7	98.9	99.1	99.1	99.2	99.2	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
≥ 900	96.5	98.7	98.9	99.1	99.1	99.2	99.2	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
≥ 800	96.5	98.7	98.9	99.1	99.1	99.2	99.2	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
≥ 700	96.5	98.7	98.9	99.4	99.5	99.6	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 600	96.5	98.7	98.9	99.4	99.5	99.6	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 500	96.5	98.7	98.9	99.4	99.5	99.6	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 400	96.5	98.7	98.9	99.4	99.5	99.6	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 300	96.5	98.7	98.9	99.4	99.5	99.6	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 200	96.5	98.7	98.9	99.4	99.5	99.6	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	96.5	98.7	98.9	99.4	99.5	99.6	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	96.5	98.7	98.9	99.4	99.5	99.6	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

AUG  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

2100-2300  
HOURS LT

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	½	≥5/16	¼	≥0
NO CEILING	51.3	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
IV 20000	54.7	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0
IV 18000	55.1	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3
IV 16000	55.2	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4
IV 14000	56.0	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
IV 12000	59.9	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8
IV 10000	64.8	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2
IV 9000	65.6	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4	83.4
IV 8000	66.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9
IV 7000	68.8	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1
IV 6000	71.1	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
IV 5000	73.9	94.0	94.0	94.0	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1
IV 4500	74.4	94.6	94.6	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7
IV 4000	75.8	96.3	96.3	96.3	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5
IV 3500	76.2	96.8	96.8	96.8	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9
IV 3000	76.3	96.9	97.1	97.1	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2
IV 2500	76.6	97.2	97.4	97.4	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
IV 2000	76.8	98.0	98.2	98.2	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3
IV 1800	76.9	98.1	98.3	98.3	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
IV 1500	77.0	98.7	98.9	99.0	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
IV 1200	77.2	99.0	99.2	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
IV 1000	77.2	99.1	99.4	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
IV 900	77.2	99.1	99.4	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
IV 800	77.2	99.1	99.4	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
IV 700	77.2	99.1	99.7	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
IV 600	77.2	99.1	99.7	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
IV 500	77.3	99.2	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 400	77.3	99.2	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 300	77.3	99.2	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 200	77.3	99.2	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 100	77.3	99.2	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV 0	77.3	99.2	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

AUG  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

ALL  
HOURS (Z)

CEILING FEET.	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ ¼	≥ 1/16	≥ 1/8	≥ 0
NO CEILING	60.9	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3
≥ 20000	67.0	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	73.0	73.0	73.0	73.0	73.0	73.0
IV 18000	67.2	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.2	73.2	73.2	73.2	73.2	73.2
IV 16000	67.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6
IV 14000	68.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.7	74.7	74.7	74.7	74.7	74.7
IV 12000	72.7	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	79.0
IV 10000	77.1	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.6
IV 9000	77.7	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3
IV 8000	79.5	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.1	86.2	86.2	86.2	86.2	86.2	86.2
IV 7000	80.8	87.5	87.5	87.5	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6
IV 6000	82.8	89.8	89.8	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9
IV 5000	84.9	92.2	92.2	92.2	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3
IV 4500	85.7	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.1	93.1	93.1	93.1	93.1	93.1
IV 4000	86.9	94.2	94.3	94.3	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4
IV 3500	87.5	94.9	94.9	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.1	95.1	95.1	95.1	95.1	95.1
IV 3000	87.9	95.4	95.5	95.5	95.6	95.6	95.6	95.6	95.6	95.6	95.7	95.7	95.7	95.7	95.7	95.7
IV 2500	88.3	95.9	96.0	96.1	96.1	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.3
IV 2000	88.8	96.8	96.8	96.9	97.0	97.0	97.0	97.0	97.0	97.0	97.1	97.1	97.1	97.1	97.1	97.1
IV 1800	88.9	96.8	97.0	97.1	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.3
IV 1500	89.2	97.3	97.5	97.7	97.7	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
IV 1200	89.5	97.8	98.0	98.1	98.2	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3
IV 1000	89.7	98.0	98.3	98.4	98.5	98.5	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.7
IV 900	89.7	98.1	98.4	98.5	98.6	98.7	98.7	98.7	98.7	98.8	98.8	98.8	98.8	98.8	98.8	98.8
IV 800	89.7	98.2	98.6	98.8	98.8	98.9	98.9	98.9	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0
IV 700	89.9	98.4	98.8	99.0	99.1	99.2	99.2	99.2	99.2	99.3	99.3	99.3	99.3	99.3	99.3	99.3
IV 600	89.9	98.5	99.0	99.2	99.3	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.5
IV 500	90.0	98.6	99.1	99.3	99.5	99.5	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.7
IV 400	90.0	98.7	99.2	99.4	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.8
IV 300	90.0	98.7	99.2	99.4	99.6	99.7	99.8	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9
IV 200	90.0	98.7	99.2	99.4	99.7	99.7	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0
IV 100	90.0	98.7	99.2	99.4	99.7	99.7	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0
IV 0	90.0	98.7	99.2	99.4	99.7	99.7	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0

TOTAL NUMBER OF OBSERVATIONS

7440

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

SEP  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0000-0200  
HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¼	≥0
NO CEILING	52.9	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2
≥ 20000	56.7	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
IV 18000	56.8	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3
IV 16000	56.9	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4
IV 14000	57.6	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3
IV 12000	60.7	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1
IV 10000	64.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.6
IV 9000	66.0	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8
IV 8000	68.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2
IV 7000	69.1	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2
IV 6000	70.8	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9
IV 5000	72.2	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3
IV 4500	73.3	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7
IV 4000	73.9	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
IV 3500	74.4	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
IV 3000	74.8	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4
IV 2500	75.4	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2
IV 2000	76.0	95.0	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1
IV 1800	76.4	95.4	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6
IV 1500	76.7	95.7	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9
IV 1200	77.0	96.4	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
IV 1000	77.8	97.2	97.4	97.4	97.6	97.6	97.7	97.7	97.7	97.8	97.8	97.8	97.8	97.8	97.8	97.8
IV 900	77.8	97.2	97.4	97.4	97.6	97.6	97.8	97.8	97.8	97.8	98.1	98.1	98.1	98.1	98.1	98.1
IV 800	77.8	97.2	97.4	97.4	97.6	97.6	97.8	97.8	97.8	97.8	98.1	98.1	98.1	98.1	98.1	98.1
IV 700	77.8	97.2	97.6	97.6	97.7	97.7	97.9	97.9	97.9	98.2	98.2	98.2	98.2	98.2	98.2	98.2
IV 600	77.8	97.2	97.7	97.7	97.8	97.8	98.1	98.4	98.4	98.8	98.8	98.8	98.8	98.8	98.8	98.8
IV 500	77.8	97.2	97.7	97.7	97.9	98.1	98.4	98.8	98.8	99.1	99.1	99.1	99.1	99.1	99.1	99.1
IV 400	77.8	97.3	97.8	97.8	98.0	98.2	98.8	99.1	99.1	99.4	99.4	99.4	99.4	99.4	99.4	99.4
IV 300	77.8	97.4	98.0	98.0	98.3	98.6	99.1	99.4	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8
IV 200	77.8	97.4	98.0	98.0	98.3	98.6	99.2	99.7	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0
IV 100	77.8	97.4	98.0	98.0	98.3	98.6	99.2	99.7	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0
IV 0	77.8	97.4	98.0	98.0	98.3	98.6	99.2	99.7	99.7	99.7	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

900

USAF ETAC

FORM 701 64

0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRUM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

SEP  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0300-0500  
HOURS TST

CEILING FEET.	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥1/16	≥0	≥0
NO CEILING	53.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
≥ 20000	57.4	72.1	72.1	72.2	72.3	72.3	72.3	72.3	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
IV 18000	57.4	72.1	72.1	72.2	72.3	72.3	72.3	72.3	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
IV 16000	57.6	72.2	72.2	72.3	72.4	72.4	72.4	72.4	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6
IV 14000	58.0	72.8	72.8	72.9	73.0	73.0	73.0	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1
IV 12000	61.6	76.9	76.9	77.0	77.1	77.1	77.1	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.3	77.3
IV 10000	64.7	81.2	81.2	81.3	81.4	81.4	81.4	81.6	81.6	81.6	81.6	81.6	81.6	81.6	81.7	81.7
IV 9000	65.2	82.1	82.1	82.2	82.3	82.3	82.3	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.6	82.6
IV 8000	67.8	84.8	84.8	84.9	85.0	85.0	85.0	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.2	85.2
IV 7000	68.7	85.9	85.9	86.0	86.1	86.1	86.1	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.3	86.3
IV 6000	70.3	87.7	87.7	87.8	87.9	87.9	87.9	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.1	88.1
IV 5000	72.2	89.9	89.9	90.0	90.2	90.2	90.2	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.4	90.4
IV 4500	73.0	91.2	91.2	91.3	91.6	91.6	91.6	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.8	91.8
IV 4000	75.1	92.8	92.8	92.9	93.1	93.1	93.1	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.3	93.3
IV 3500	75.6	93.2	93.2	93.3	93.6	93.6	93.6	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.8	93.8
IV 3000	75.6	93.6	93.6	93.7	93.9	93.9	93.9	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.1	94.1
IV 2500	76.1	94.1	94.1	94.2	94.4	94.4	94.4	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.7	94.7
IV 2000	77.2	95.3	95.3	95.4	95.8	95.8	95.8	95.9	95.9	95.9	95.9	95.9	95.9	95.9	96.0	96.0
IV 1800	77.2	95.3	95.3	95.4	95.8	95.8	95.8	95.9	95.9	95.9	95.9	95.9	95.9	95.9	96.0	96.0
IV 1500	77.4	95.7	95.7	95.8	96.1	96.1	96.1	96.2	96.3	96.3	96.3	96.3	96.3	96.3	96.4	96.4
IV 1200	77.4	95.9	95.9	96.0	96.3	96.3	96.3	96.4	96.6	96.6	96.6	96.6	96.6	96.6	96.7	96.7
IV 1000	77.7	96.3	96.4	96.6	96.9	96.9	96.9	97.0	97.1	97.1	97.1	97.1	97.1	97.1	97.2	97.2
IV 900	77.9	96.6	96.7	96.8	97.2	97.2	97.2	97.3	97.4	97.4	97.4	97.4	97.4	97.4	97.6	97.6
IV 800	77.9	96.6	96.7	96.8	97.2	97.2	97.2	97.3	97.4	97.4	97.4	97.4	97.4	97.4	97.6	97.6
IV 700	77.9	96.6	97.1	97.2	97.7	97.7	97.7	97.8	98.0	98.1	98.2	98.2	98.2	98.2	98.3	98.3
IV 600	77.9	96.7	97.2	97.3	97.8	97.8	97.8	97.9	98.1	98.2	98.3	98.3	98.3	98.3	98.4	98.4
IV 500	77.9	96.7	97.4	97.6	98.0	98.1	98.2	98.6	98.8	99.0	99.0	99.0	99.0	99.0	99.1	99.1
IV 400	77.9	96.7	97.6	97.8	98.2	98.3	98.4	98.8	99.1	99.2	99.2	99.2	99.2	99.2	99.3	99.3
IV 300	77.9	96.7	97.6	97.8	98.6	98.7	98.8	99.1	99.4	99.7	99.7	99.7	99.7	99.7	99.9	99.9
IV 200	77.9	96.7	97.6	97.8	98.6	98.7	98.8	99.1	99.4	99.7	99.7	99.7	99.7	99.7	99.9	99.9
IV 100	77.9	96.7	97.6	97.8	98.6	98.7	98.8	99.1	99.4	99.7	99.7	99.7	99.7	99.7	99.9	99.9
IV 0	77.9	96.7	97.6	97.8	98.6	98.7	98.8	99.1	99.4	99.7	99.7	99.7	99.7	99.7	99.9	99.9

TOTAL NUMBER OF OBSERVATIONS

900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

SEP  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0600-0800  
MOON

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1½	≥1	≥¾	≥¾	≥½	≥5/16	≥¼	≥0
NO CEILING	58.2	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4
≥ 20000	66.2	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4
IV 18000	66.3	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6
IV 16000	66.6	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8
IV 14000	67.9	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1
IV 12000	72.3	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6
IV 10000	77.7	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9
IV 9000	78.8	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.1	79.1	79.1	79.1	79.1	79.2	79.2	79.2
IV 8000	81.0	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.3	81.3	81.3	81.3	81.3	81.4	81.4	81.4
IV 7000	82.9	83.1	83.1	83.1	83.1	83.1	83.1	83.1	83.2	83.2	83.2	83.2	83.2	83.3	83.3	83.3
IV 6000	85.0	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.3	85.3	85.3	85.3	85.3	85.4	85.4	85.4
IV 5000	86.7	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.2	87.2	87.2	87.2	87.2	87.3	87.3	87.3
IV 4500	87.8	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.3	88.3	88.3	88.3	88.3	88.4	88.4	88.4
IV 4000	89.1	89.9	90.0	90.0	90.0	90.0	90.1	90.1	90.2	90.2	90.2	90.2	90.2	90.3	90.3	90.3
IV 3500	90.0	90.9	91.0	91.0	91.0	91.1	91.1	91.2	91.2	91.2	91.2	91.2	91.2	91.3	91.3	91.3
IV 3000	90.4	91.6	91.7	91.7	91.7	91.8	91.8	91.8	91.9	91.9	91.9	91.9	91.9	92.0	92.0	92.0
IV 2500	91.1	92.3	92.4	92.4	92.6	92.8	92.8	92.9	92.9	92.9	92.9	92.9	92.9	93.0	93.0	93.0
IV 2000	92.1	94.0	94.1	94.1	94.3	94.6	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.8	94.8	94.8
IV 1800	92.3	94.2	94.4	94.4	94.7	94.9	94.9	95.0	95.0	95.0	95.0	95.0	95.0	95.1	95.1	95.1
IV 1500	92.4	94.3	94.6	94.6	94.8	95.0	95.0	95.1	95.1	95.1	95.1	95.1	95.1	95.2	95.2	95.2
IV 1200	92.9	95.0	95.2	95.2	95.4	95.7	95.7	95.8	95.9	95.9	95.9	95.9	95.9	96.0	96.0	96.0
IV 1000	93.1	95.2	95.4	95.6	95.8	96.0	96.0	96.1	96.3	96.3	96.3	96.3	96.4	96.4	96.4	96.4
IV 900	93.3	95.4	95.7	95.8	96.1	96.3	96.3	96.4	96.7	96.7	96.7	96.7	96.8	96.8	96.8	96.8
IV 800	93.6	95.8	96.0	96.1	96.4	96.7	96.8	97.0	97.2	97.2	97.2	97.2	97.3	97.3	97.3	97.3
IV 700	93.6	96.2	96.4	96.6	97.0	97.2	97.3	97.6	97.8	97.8	97.9	98.0	98.1	98.1	98.1	98.1
IV 600	93.7	96.3	96.6	96.7	97.1	97.3	97.6	97.9	98.1	98.1	98.2	98.3	98.4	98.4	98.4	98.4
IV 500	93.8	96.7	96.9	97.0	97.4	97.7	97.9	98.3	98.6	98.6	98.7	98.8	98.9	98.9	98.9	98.9
IV 400	93.8	96.7	96.9	97.0	97.6	97.8	98.0	98.4	98.7	98.7	98.8	98.9	99.0	99.0	99.0	99.0
IV 300	93.8	96.7	96.9	97.1	97.8	98.0	98.2	98.9	99.1	99.3	99.4	99.6	99.8	99.8	99.8	99.9
IV 200	93.8	96.7	96.9	97.1	97.8	98.0	98.2	98.9	99.1	99.3	99.4	99.6	99.9	99.9	99.9	100.0
IV 100	93.8	96.7	96.9	97.1	97.8	98.0	98.2	98.9	99.1	99.3	99.4	99.6	99.9	99.9	99.9	100.0
IV 0	93.8	96.7	96.9	97.1	97.8	98.0	98.2	98.9	99.1	99.3	99.4	99.6	99.9	99.9	99.9	100.0

TOTAL NUMBER OF OBSERVATIONS

900

USAF ETAC

FORM 111 64

0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRON AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

SEP  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0900-1100  
HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥5/16	≥¼	≥0
NO CEILING	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3
≥ 7000	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1	68.1
≥ 18000	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8
≥ 16000	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8
≥ 14000	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
≥ 12000	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7	73.7
≥ 10000	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6	79.6
≥ 9000	80.6	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7
≥ 8000	83.1	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
≥ 7000	84.7	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8
≥ 6000	86.2	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3
≥ 5000	87.7	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8
≥ 4500	88.2	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3
≥ 4000	89.3	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4	89.4
≥ 3500	89.9	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2
≥ 3000	90.3	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7	90.7
≥ 2500	91.1	91.4	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6
≥ 2000	91.9	92.8	93.1	93.1	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.2
≥ 1800	92.3	93.2	93.6	93.6	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7	93.7
≥ 1500	93.6	94.9	95.3	95.3	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
≥ 1200	94.2	95.8	96.2	96.2	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
≥ 1000	94.8	96.7	97.1	97.1	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
≥ 900	94.8	96.7	97.1	97.1	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
≥ 800	95.0	97.0	97.4	97.4	97.9	97.9	97.9	97.9	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
≥ 700	95.0	97.1	97.6	97.6	98.1	98.1	98.1	98.1	98.2	98.3	98.3	98.3	98.3	98.3	98.3	98.3
≥ 600	95.0	97.2	97.7	97.7	98.3	98.3	98.3	98.3	98.6	98.9	98.9	98.9	98.9	98.9	98.9	98.9
≥ 500	95.0	97.4	97.9	97.9	98.6	98.6	98.7	98.8	99.0	99.4	99.4	99.4	99.4	99.4	99.4	99.4
≥ 400	95.0	97.4	98.0	98.0	98.7	98.7	98.9	99.0	99.2	99.7	99.7	99.7	99.7	99.7	99.7	99.7
≥ 300	95.0	97.6	98.1	98.1	98.8	98.8	99.1	99.2	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 200	95.0	97.6	98.1	98.1	98.8	98.8	99.1	99.2	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	95.0	97.6	98.1	98.1	98.8	98.8	99.1	99.2	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0
0	95.0	97.6	98.1	98.1	98.8	98.8	99.1	99.2	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 YEARS SEP MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1200-1400

CEILING FEET.	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	≥½	≥5/16	≥¼	≥0	
NO CEILING ≥ 20000	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
IV ≥ 18000	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
IV ≥ 16000	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
IV ≥ 14000	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3
IV ≥ 12000	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0	71.0
IV ≥ 10000	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
IV ≥ 9000	78.3	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4
IV ≥ 8000	79.7	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8
IV ≥ 7000	81.9	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0
IV ≥ 6000	84.4	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7
IV ≥ 5000	86.3	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6
IV ≥ 4500	87.7	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9
IV ≥ 4000	88.7	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1
IV ≥ 3500	90.0	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
IV ≥ 3000	91.9	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4
IV ≥ 2500	92.8	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4
IV ≥ 2000	93.9	94.6	94.7	94.9	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0
IV ≥ 1800	94.0	94.7	94.8	95.0	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1
IV ≥ 1500	95.3	96.0	96.1	96.3	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4
IV ≥ 1200	96.0	96.8	97.0	97.2	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4
IV ≥ 1000	96.7	97.6	97.9	98.1	98.3	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
IV ≥ 900	96.8	97.7	98.0	98.2	98.4	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
IV ≥ 800	97.1	98.3	98.7	98.9	99.1	99.3	99.3	99.3	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4
IV ≥ 700	97.1	98.3	98.8	99.0	99.3	99.6	99.6	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7
IV ≥ 600	97.1	98.3	98.8	99.0	99.3	99.6	99.6	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7
IV ≥ 500	97.1	98.3	98.8	99.0	99.4	99.7	99.7	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8	99.8
IV ≥ 400	97.1	98.3	98.8	99.0	99.4	99.7	99.7	99.7	99.7	99.8	99.8	99.9	99.9	99.9	99.9	99.9
IV ≥ 300	97.1	98.3	98.8	99.0	99.4	99.7	99.7	99.7	99.7	99.8	99.8	99.9	99.9	99.9	99.9	99.9
IV ≥ 200	97.1	98.3	98.8	99.0	99.4	99.7	99.7	99.7	99.7	99.8	99.8	99.9	99.9	99.9	99.9	99.9
IV ≥ 100	97.1	98.3	98.8	99.0	99.4	99.7	99.7	99.7	99.7	99.8	99.8	99.9	99.9	99.9	99.9	99.9
IV ≥ 0	97.1	98.3	98.8	99.0	99.4	99.7	99.7	99.7	99.7	99.8	99.8	99.9	99.9	99.9	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

SEP  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

1500-1700  
HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	½	≥5/16	¼	≥0
NO CEILING	53.2	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3
≥ 20000	64.8	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9
IV 18000	65.1	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2
IV 16000	65.2	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3	65.3
IV 14000	66.3	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4
IV 12000	72.2	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3
IV 10000	76.7	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8
IV 9000	77.1	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2
IV 8000	79.2	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3
IV 7000	80.7	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9	80.9
IV 6000	84.3	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7	84.7
IV 5000	88.3	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
IV 4500	89.8	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1
IV 4000	90.9	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
IV 3500	91.9	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3
IV 3000	93.4	94.1	94.1	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2
IV 2500	95.3	96.0	96.0	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1
IV 2000	96.1	96.9	96.9	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
IV 1800	96.4	97.3	97.3	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4
IV 1500	97.0	97.9	97.9	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
IV 1200	97.4	98.3	98.3	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
IV 1000	97.4	98.3	98.3	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
IV 900	97.9	98.8	98.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
IV 800	98.0	98.9	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
IV 700	98.0	99.0	99.0	99.2	99.3	99.3	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
IV 600	98.0	99.0	99.0	99.2	99.3	99.3	99.3	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
IV 500	98.0	99.0	99.0	99.2	99.4	99.4	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
IV 400	98.0	99.0	99.0	99.2	99.4	99.6	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
IV 300	98.0	99.0	99.0	99.2	99.4	99.6	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
IV 200	98.0	99.0	99.0	99.2	99.4	99.6	99.6	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0
IV 100	98.0	99.0	99.0	99.2	99.4	99.6	99.6	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0
IV 0	98.0	99.0	99.0	99.2	99.4	99.6	99.6	99.9	99.9	99.9	99.9	99.9	99.9	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112

MALMSTROM AFB MT/GREAT FALLS

68-77

SEP

PERCENTAGE FREQUENCY OF OCCURENCE  
 (FROM HOURLY OBSERVATIONS)

1800-2000

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¼	≥0
NO CEILING	56.1	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0
IV 20000	62.1	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4
IV 18000	62.1	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4
IV 16000	62.4	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8
IV 14000	62.9	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2	69.2
IV 12000	67.0	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6
IV 10000	70.7	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4
IV 9000	72.1	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9
IV 8000	74.4	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6	82.6
IV 7000	75.6	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8
IV 6000	78.4	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7
IV 5000	81.8	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3
IV 4500	83.4	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
IV 4000	84.3	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9
IV 3500	85.3	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9
IV 3000	85.9	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4	94.4
IV 2500	87.1	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
IV 2000	88.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
IV 1800	88.3	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4
IV 1500	89.1	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3
IV 1200	89.3	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
IV 1000	89.3	98.7	98.8	98.8	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
IV 900	89.4	98.8	98.9	98.9	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
IV 800	89.4	98.8	99.0	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
IV 700	89.4	98.8	99.0	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
IV 600	89.4	98.8	99.0	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
IV 500	89.4	98.8	99.1	99.2	99.4	99.4	99.4	99.4	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
IV 400	89.4	98.8	99.1	99.2	99.4	99.4	99.4	99.4	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
IV 300	89.4	98.8	99.1	99.2	99.4	99.4	99.4	99.6	99.7	99.7	99.7	99.7	99.8	99.8	99.8	99.8
IV 200	89.4	98.8	99.1	99.2	99.4	99.4	99.6	99.6	99.8	99.8	99.8	99.8	100.0	100.0	100.0	100.0
IV 100	89.4	98.8	99.1	99.2	99.4	99.4	99.6	99.6	99.8	99.8	99.8	99.8	100.0	100.0	100.0	100.0
IV 0	89.4	98.8	99.1	99.2	99.4	99.4	99.6	99.6	99.8	99.8	99.8	99.8	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

900

USAF ETAC

FORM 7-64

0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRUM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

SEP  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

2100-2300  
HOURS TST

CEILING FEET:	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	52.6	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4
≥ 20000	56.8	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6
≥ 18000	57.0	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8
≥ 16000	57.2	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0
≥ 14000	57.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6	72.6
≥ 12000	60.1	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
≥ 10000	64.0	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2
≥ 9000	65.2	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
≥ 8000	66.7	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
≥ 7000	67.2	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7
≥ 6000	69.2	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8
≥ 5000	71.8	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
≥ 4500	73.0	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9
≥ 4000	73.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7
≥ 3500	74.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8
≥ 3000	75.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1
≥ 2500	75.8	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1
≥ 2000	77.2	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8	96.8
≥ 1800	77.4	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
≥ 1500	77.7	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
≥ 1200	77.8	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9
≥ 1000	78.2	98.4	98.6	98.6	98.6	98.6	98.6	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
≥ 900	78.2	98.4	98.6	98.6	98.6	98.6	98.6	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
≥ 800	78.2	98.4	98.8	98.8	98.8	98.8	98.8	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
≥ 700	78.2	98.4	98.8	98.8	98.8	98.8	98.8	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
≥ 600	78.2	98.4	98.8	98.8	98.8	98.8	98.8	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
≥ 500	78.2	98.7	99.1	99.1	99.1	99.1	99.1	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
≥ 400	78.2	98.7	99.1	99.1	99.1	99.1	99.1	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
≥ 300	78.2	98.7	99.1	99.1	99.1	99.1	99.1	99.4	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 200	78.2	98.7	99.1	99.2	99.3	99.3	99.3	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	78.2	98.7	99.1	99.2	99.3	99.3	99.3	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	78.2	98.7	99.1	99.2	99.3	99.3	99.3	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 MALMSTRON AFB MT/GREAT FALLS 68-77 YEARS SEP MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

ALL HOURS 24

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	55.5	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.9
≥20000	62.2	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
≥18000	62.4	68.7	68.7	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8
≥16000	62.5	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9
≥14000	63.3	69.7	69.7	69.7	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8
≥12000	67.3	74.0	74.0	74.0	74.0	74.0	74.0	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1	74.1
≥10000	71.9	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3
≥9000	72.9	80.5	80.5	80.5	80.5	80.5	80.5	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6	80.6
≥8000	75.0	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
≥7000	76.3	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2	84.2
≥6000	78.6	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.6	86.6	86.6
≥5000	80.9	88.9	88.9	88.9	88.9	88.9	88.9	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0
≥4500	82.1	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.2	90.3	90.3	90.3
≥4000	83.1	91.3	91.3	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.5	91.5	91.5
≥3500	84.0	92.2	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.4	92.4	92.4
≥3000	84.6	92.9	92.9	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.1	93.1	93.1
≥2500	85.6	94.0	94.1	94.1	94.1	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2
≥2000	86.6	95.3	95.4	95.5	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.6	95.7	95.7	95.7
≥1800	86.8	95.6	95.7	95.8	95.8	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9
≥1500	87.4	96.3	96.4	96.5	96.6	96.6	96.6	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
≥1200	87.8	96.8	97.0	97.0	97.2	97.2	97.2	97.2	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
≥1000	88.1	97.3	97.5	97.6	97.8	97.8	97.8	97.9	97.9	98.0	98.0	98.0	98.0	98.0	98.0	98.0
≥900	88.3	97.4	97.6	97.7	97.9	98.0	98.0	98.1	98.1	98.1	98.1	98.1	98.1	98.2	98.2	98.2
≥800	88.4	97.6	97.9	97.9	98.2	98.2	98.3	98.3	98.4	98.4	98.4	98.4	98.4	98.5	98.5	98.5
≥700	88.4	97.7	98.0	98.1	98.4	98.4	98.5	98.6	98.7	98.7	98.8	98.8	98.8	98.8	98.8	98.8
≥600	88.4	97.8	98.1	98.2	98.5	98.5	98.6	98.8	98.8	98.9	99.0	99.0	99.0	99.0	99.0	99.0
≥500	88.4	97.8	98.2	98.3	98.7	98.8	98.9	99.1	99.2	99.3	99.3	99.3	99.3	99.4	99.4	99.4
≥400	88.4	97.9	98.3	98.4	98.7	98.8	99.0	99.2	99.3	99.6	99.7	99.8	99.8	99.8	99.8	99.8
≥300	88.4	97.9	98.3	98.4	98.9	99.0	99.2	99.3	99.6	99.7	99.8	99.8	99.8	99.9	99.9	99.9
≥200	88.4	97.9	98.3	98.5	98.9	99.0	99.2	99.5	99.6	99.8	99.8	99.8	99.9	100.0	100.0	100.0
≥100	88.4	97.9	98.3	98.5	98.9	99.0	99.2	99.5	99.6	99.8	99.8	99.8	99.9	100.0	100.0	100.0
≥0	88.4	97.9	98.3	98.5	98.9	99.0	99.2	99.5	99.6	99.8	99.8	99.8	99.9	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 7200

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

UCT  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0000-0200  
HOURS T S

CEILING FEET.	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥5/16	≥¼	≥0	
NO CEILING	51.3	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.2	63.2	63.2	63.2	63.2	63.3
≥ 20000	58.0	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	72.0	72.0	72.0	72.0	72.0	72.2
IV 18000	58.0	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	72.0	72.0	72.0	72.0	72.0	72.2
IV 16000	58.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.2	72.3	72.3	72.3	72.3	72.3	72.4
IV 14000	58.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.6	72.6	72.6	72.6	72.6	72.7
IV 12000	62.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.3	76.3	76.3	76.3	76.3	76.5
IV 10000	66.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.3	81.3	81.3	81.3	81.3	81.4
IV 9000	66.5	81.4	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.5	81.6	81.6	81.6	81.6	81.6	81.7
IV 8000	67.0	82.2	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.4	82.4	82.4	82.4	82.4	82.5
IV 7000	67.5	83.2	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.4	83.4	83.4	83.4	83.4	83.5
IV 6000	69.4	85.5	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.6	85.7	85.7	85.7	85.7	85.7	85.8
IV 5000	69.9	86.3	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.6	86.6	86.6	86.6	86.6	86.7
IV 4500	70.5	87.4	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.6	87.6	87.6	87.6	87.6	87.7
IV 4000	71.0	88.2	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.4	88.4	88.4	88.4	88.4	88.5
IV 3500	71.1	88.5	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.7	88.7	88.7	88.7	88.7	88.8
IV 3000	71.4	89.1	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.4	89.4	89.4	89.4	89.4	89.5
IV 2500	71.8	90.2	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.4	90.4	90.4	90.4	90.4	90.5
IV 2000	72.5	91.3	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.8	91.8	91.8	91.8	91.8	91.9
IV 1800	72.5	91.3	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.8	91.8	91.8	91.8	91.8	91.9
IV 1500	72.7	91.9	92.7	92.7	92.7	92.7	92.8	92.9	92.9	92.9	93.0	93.0	93.0	93.0	93.0	93.1
IV 1200	72.7	92.8	93.5	93.7	93.8	93.9	94.0	94.0	94.0	94.0	94.1	94.1	94.1	94.1	94.1	94.2
IV 1000	72.7	93.2	94.0	94.2	94.3	94.4	94.5	94.5	94.5	94.5	94.6	94.6	94.6	94.6	94.6	94.7
IV 900	72.9	93.4	94.2	94.4	94.5	94.6	94.7	94.7	94.7	94.7	94.8	94.8	94.8	94.8	94.8	94.9
IV 800	72.9	93.4	94.3	94.5	94.6	94.7	94.8	94.8	94.8	94.8	94.9	94.9	94.9	94.9	94.9	95.0
IV 700	72.9	93.7	94.5	94.7	94.8	94.9	95.1	95.4	95.4	95.5	95.5	95.5	95.5	95.5	95.5	95.6
IV 600	72.9	94.0	94.8	95.2	95.4	95.6	95.7	96.1	96.1	96.2	96.2	96.2	96.2	96.2	96.2	96.3
IV 500	72.9	94.2	95.1	95.4	95.7	95.9	96.0	96.6	96.6	96.6	97.0	97.1	97.1	97.1	97.1	97.2
IV 400	72.9	94.3	95.2	95.5	95.9	96.1	96.5	97.1	97.1	97.2	97.7	97.8	97.8	97.8	97.8	98.0
IV 300	72.9	94.5	95.4	95.7	96.6	96.8	97.2	98.0	98.2	98.2	98.7	98.8	98.9	98.9	98.9	99.0
IV 200	72.9	94.5	95.6	95.9	96.9	97.1	97.5	98.3	98.5	98.5	99.0	99.1	99.2	99.2	99.2	99.4
IV 100	72.9	94.5	95.7	96.0	97.0	97.5	98.1	98.8	99.0	99.0	99.6	99.7	99.8	99.8	99.8	100.0
IV 0	72.9	94.5	95.7	96.0	97.0	97.5	98.1	98.8	99.0	99.0	99.6	99.7	99.8	99.8	99.8	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

OCT  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

0300-0500  
MOBIS (3)

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¼	≥0
NO CEILING ≥ 20000	51.6	61.2	61.2	61.2	61.2	61.2	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3
IV 18000	57.7	71.6	71.6	71.6	71.6	71.6	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7
IV 16000	57.7	71.6	71.6	71.6	71.6	71.6	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7
IV 14000	58.1	71.9	71.9	71.9	71.9	71.9	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0
IV 12000	61.0	74.9	74.9	74.9	74.9	74.9	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.1
IV 10000	64.6	78.9	78.9	78.9	78.9	78.9	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0	79.0
IV 9000	65.1	79.4	79.4	79.4	79.4	79.4	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5	79.5
IV 8000	65.6	80.4	80.4	80.4	80.4	80.4	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.6	80.6
IV 7000	66.3	81.2	81.2	81.2	81.2	81.2	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.4	81.5	81.5
IV 6000	68.3	83.5	83.5	83.5	83.5	83.5	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.8	83.9	83.9
IV 5000	69.7	85.1	85.1	85.1	85.1	85.1	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.3	85.4	85.4
IV 4500	70.2	86.2	86.2	86.2	86.2	86.2	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.4	86.5	86.5
IV 4000	71.2	88.2	88.2	88.2	88.2	88.2	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.4	88.5	88.5
IV 3500	71.2	88.2	88.2	88.2	88.2	88.2	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.4	88.5	88.5
IV 3000	71.5	88.9	88.9	88.9	88.9	88.9	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.1	89.2	89.2
IV 2500	71.7	89.4	89.4	89.4	89.4	89.4	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.6	89.7	89.7
IV 2000	71.8	89.5	89.5	89.5	89.5	89.5	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.7	89.8	89.8
IV 1800	71.9	89.7	89.7	89.7	89.7	89.7	89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.9	90.0	90.0
IV 1500	72.5	90.8	90.8	90.8	90.8	90.8	90.9	90.9	90.9	90.9	90.9	90.9	90.9	91.0	91.1	91.1
IV 1200	73.0	91.7	91.7	91.7	91.7	91.7	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.9	92.0	92.0
IV 1000	73.0	92.3	92.3	92.3	92.3	92.3	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.5	92.6	92.6
IV 900	73.2	92.7	92.7	92.7	92.7	92.7	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.9	93.0	93.0
IV 800	73.2	92.7	92.7	92.7	92.7	92.7	92.8	92.8	92.8	92.8	92.8	92.8	92.8	92.9	93.0	93.0
IV 700	73.3	92.8	92.8	92.8	92.8	92.8	92.9	92.9	92.9	92.9	92.9	92.9	92.9	93.0	93.1	93.1
IV 600	73.3	93.1	93.1	93.1	93.1	93.1	93.2	93.2	93.2	93.2	93.2	93.2	93.2	93.3	93.4	93.4
IV 500	73.5	93.7	93.7	93.7	93.7	93.7	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.9	94.0	94.0
IV 400	73.5	93.7	93.7	93.7	93.7	93.7	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.9	94.0	94.0
IV 300	73.5	93.9	93.9	93.9	93.9	93.9	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.1	94.2	94.2
IV 200	73.5	93.9	93.9	93.9	93.9	93.9	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.1	94.2	94.2
IV 100	73.5	93.9	93.9	93.9	93.9	93.9	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.1	94.2	94.2
IV 0	73.5	93.9	93.9	93.9	93.9	93.9	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.1	94.2	94.2

TOTAL NUMBER OF OBSERVATIONS

930



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

OCT  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0600-0800  
HOURS (LST)

CEILING FEET	VISIBILITY (STATUTE MILES)																
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥16	≥1	≥0	
NO CEILING	57.0	58.9	58.9	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.1	59.1	59.2
IV 20000	62.8	66.0	66.0	66.1	66.2	66.2	66.2	66.2	66.2	66.3	66.3	66.3	66.3	66.5	66.5	66.5	66.6
IV 18000	62.8	66.0	66.0	66.1	66.2	66.2	66.2	66.2	66.2	66.3	66.3	66.3	66.3	66.5	66.5	66.5	66.6
IV 16000	62.9	66.1	66.1	66.2	66.3	66.3	66.3	66.3	66.3	66.5	66.5	66.5	66.5	66.6	66.6	66.6	66.7
IV 14000	63.5	66.9	66.9	67.0	67.1	67.1	67.1	67.1	67.1	67.2	67.2	67.2	67.2	67.3	67.3	67.3	67.4
IV 12000	67.7	71.3	71.3	71.4	71.5	71.5	71.5	71.5	71.5	71.7	71.7	71.7	71.7	71.8	71.8	71.8	71.9
IV 10000	72.4	76.1	76.1	76.2	76.3	76.3	76.3	76.3	76.3	76.6	76.6	76.6	76.6	76.7	76.7	76.7	76.8
IV 9000	73.0	76.8	76.8	76.9	77.0	77.0	77.0	77.0	77.0	77.2	77.2	77.2	77.2	77.3	77.3	77.3	77.4
IV 8000	75.1	78.9	78.9	79.0	79.1	79.1	79.1	79.1	79.1	79.4	79.4	79.4	79.4	79.5	79.5	79.5	79.6
IV 7000	76.7	80.5	80.5	80.6	80.8	80.8	80.8	80.8	80.8	81.0	81.0	81.0	81.0	81.1	81.1	81.1	81.2
IV 6000	77.8	81.7	81.8	81.9	82.0	82.0	82.0	82.0	82.0	82.3	82.3	82.3	82.3	82.4	82.4	82.4	82.5
IV 5000	79.0	83.0	83.2	83.3	83.4	83.4	83.4	83.4	83.4	83.7	83.7	83.7	83.7	83.8	83.8	83.8	83.9
IV 4500	80.0	84.6	84.8	84.9	85.1	85.1	85.1	85.1	85.1	85.3	85.3	85.3	85.3	85.4	85.4	85.4	85.5
IV 4000	80.9	85.9	86.1	86.5	86.6	86.6	86.6	86.6	86.6	86.8	86.8	86.8	86.8	86.9	86.9	86.9	87.0
IV 3500	81.5	86.7	86.9	87.2	87.3	87.3	87.3	87.3	87.3	87.5	87.5	87.5	87.5	87.6	87.6	87.6	87.7
IV 3000	82.2	87.5	87.7	88.1	88.2	88.2	88.2	88.2	88.2	88.4	88.4	88.4	88.4	88.5	88.5	88.5	88.6
IV 2500	82.8	88.5	88.7	89.0	89.1	89.1	89.1	89.1	89.1	89.4	89.4	89.4	89.4	89.5	89.5	89.5	89.6
IV 2000	83.3	89.1	89.4	89.7	89.8	89.8	89.8	89.8	89.8	89.9	89.9	89.9	89.9	90.1	90.1	90.1	90.2
IV 1800	83.3	89.1	89.4	89.7	89.8	89.8	89.8	89.8	89.8	89.9	89.9	89.9	89.9	90.1	90.1	90.1	90.2
IV 1500	84.0	89.9	90.1	90.5	90.6	90.6	90.6	90.6	90.6	90.8	90.8	90.8	90.8	91.1	91.1	91.1	91.2
IV 1200	84.8	91.2	91.4	91.8	92.0	92.0	92.0	92.0	92.0	92.4	92.4	92.4	92.4	92.6	92.6	92.6	92.7
IV 1000	85.2	91.6	91.8	92.3	92.5	92.5	92.5	92.5	92.5	92.9	92.9	92.9	92.9	93.2	93.2	93.2	93.3
IV 900	85.4	91.9	92.2	92.6	92.8	92.8	92.8	92.8	92.8	93.2	93.2	93.2	93.2	93.5	93.5	93.5	93.6
IV 800	85.5	92.3	92.5	92.9	93.1	93.1	93.1	93.1	93.1	93.5	93.5	93.5	93.5	93.9	93.9	93.9	94.0
IV 700	85.8	93.0	93.4	93.9	94.1	94.1	94.1	94.1	94.1	94.5	94.5	94.5	94.5	94.9	94.9	94.9	95.0
IV 600	85.9	93.2	93.7	94.1	94.4	94.4	94.4	94.4	94.4	94.8	94.8	94.8	94.8	95.3	95.3	95.3	95.4
IV 500	85.9	93.3	94.0	94.4	94.7	94.7	94.7	94.7	94.7	95.1	95.1	95.1	95.1	95.6	95.6	95.6	95.7
IV 400	85.9	93.3	94.1	94.5	94.8	94.8	94.8	94.8	94.8	95.4	95.4	95.4	95.4	95.9	95.9	95.9	96.0
IV 300	85.9	93.3	94.1	94.5	94.9	94.9	94.9	94.9	94.9	95.6	95.6	95.6	95.6	96.2	96.2	96.2	96.3
IV 200	85.9	93.3	94.1	94.5	95.1	95.1	95.1	95.1	95.1	96.0	96.0	96.0	96.0	96.8	96.8	96.8	96.9
IV 100	85.9	93.3	94.1	94.5	95.1	95.1	95.1	95.1	95.1	96.3	96.3	96.3	96.3	97.1	97.1	97.1	97.2
IV 0	85.9	93.3	94.1	94.5	95.1	95.1	95.1	95.1	95.1	96.3	96.3	96.3	96.3	97.3	97.3	97.3	97.4

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

OCT  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0900-1100  
HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥5/16	≥¼	≥0
NO CEILING	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.5	54.5	54.5	54.5	54.5	54.5
IV 20000	63.7	63.8	63.8	63.8	63.8	63.9	63.9	63.9	63.9	64.0	64.0	64.0	64.0	64.0	64.0	64.0
IV 18000	63.8	63.9	63.9	63.9	63.9	64.0	64.0	64.0	64.0	64.1	64.1	64.1	64.1	64.1	64.1	64.1
IV 16000	64.2	64.3	64.3	64.3	64.3	64.4	64.4	64.4	64.4	64.5	64.5	64.5	64.5	64.5	64.5	64.5
IV 14000	67.0	67.1	67.1	67.1	67.1	67.2	67.2	67.2	67.2	67.3	67.3	67.3	67.3	67.3	67.3	67.3
IV 12000	72.8	72.9	73.0	73.0	73.1	73.2	73.2	73.2	73.2	73.3	73.3	73.3	73.3	73.3	73.3	73.3
IV 10000	78.2	78.3	78.4	78.4	78.5	78.6	78.6	78.6	78.6	78.7	78.7	78.7	78.7	78.7	78.7	78.7
IV 9000	79.2	79.4	79.5	79.5	79.6	79.7	79.7	79.7	79.7	79.8	79.8	79.8	79.8	79.8	79.8	79.8
IV 8000	81.4	81.5	81.6	81.6	81.7	81.8	81.8	81.8	81.8	81.9	81.9	81.9	81.9	81.9	81.9	81.9
IV 7000	82.8	82.9	83.0	83.0	83.1	83.2	83.2	83.2	83.2	83.3	83.3	83.3	83.3	83.3	83.3	83.3
IV 6000	84.0	84.1	84.2	84.2	84.3	84.4	84.4	84.4	84.4	84.5	84.5	84.5	84.5	84.5	84.5	84.5
IV 5000	84.6	84.7	84.8	84.8	84.9	85.1	85.1	85.1	85.1	85.2	85.2	85.2	85.2	85.2	85.2	85.2
IV 4500	85.3	85.5	85.6	85.6	85.7	85.8	85.8	85.8	85.8	85.9	85.9	85.9	85.9	85.9	85.9	85.9
IV 4000	86.2	86.7	86.9	86.9	87.0	87.1	87.1	87.1	87.1	87.2	87.2	87.2	87.2	87.2	87.2	87.2
IV 3500	87.0	87.5	87.7	87.7	87.8	88.0	88.0	88.0	88.0	88.1	88.1	88.1	88.1	88.1	88.1	88.1
IV 3000	87.3	88.0	88.2	88.2	88.3	88.4	88.4	88.4	88.4	88.5	88.5	88.5	88.5	88.5	88.5	88.5
IV 2500	87.4	88.2	88.4	88.4	88.5	88.6	88.6	88.6	88.6	88.7	88.7	88.7	88.7	88.7	88.7	88.7
IV 2000	88.6	89.8	90.0	90.0	90.2	90.3	90.3	90.3	90.3	90.4	90.4	90.4	90.4	90.4	90.4	90.4
IV 1800	88.7	89.9	90.1	90.1	90.3	90.4	90.4	90.4	90.4	90.5	90.5	90.5	90.5	90.5	90.5	90.5
IV 1500	89.5	91.4	91.7	91.7	91.9	92.2	92.2	92.4	92.4	92.5	92.5	92.5	92.5	92.5	92.5	92.5
IV 1200	90.0	92.5	92.8	92.8	93.0	93.2	93.2	93.4	93.7	93.8	93.8	93.8	93.8	93.8	93.8	93.8
IV 1000	90.3	93.1	93.5	93.5	93.8	94.0	94.0	94.4	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7
IV 900	90.3	93.2	93.7	93.7	94.0	94.3	94.3	94.7	94.9	95.1	95.1	95.1	95.1	95.1	95.1	95.1
IV 800	90.6	93.7	94.1	94.1	94.4	94.7	94.7	95.3	95.6	95.8	95.8	95.8	95.8	95.8	95.8	95.8
IV 700	90.8	94.1	94.6	94.6	94.9	95.3	95.3	95.8	96.1	96.3	96.3	96.3	96.3	96.3	96.3	96.3
IV 600	91.0	94.3	94.8	94.8	95.2	95.5	95.5	96.1	96.6	96.8	96.8	96.9	96.9	96.9	96.9	96.9
IV 500	91.0	94.6	95.2	95.2	95.5	95.8	95.8	96.6	97.0	97.3	97.3	97.4	97.4	97.4	97.4	97.4
IV 400	91.0	94.6	95.4	95.4	95.8	96.1	96.3	97.2	97.7	98.2	98.2	98.3	98.4	98.4	98.4	98.4
IV 300	91.0	94.6	95.4	95.4	96.1	96.6	96.9	97.7	98.3	98.8	98.8	98.9	99.0	99.1	99.2	99.2
IV 200	91.0	94.6	95.4	95.4	96.1	96.6	96.9	97.7	98.3	98.8	98.8	98.9	99.1	99.2	99.4	99.5
IV 100	91.0	94.6	95.4	95.4	96.1	96.6	96.9	97.7	98.3	98.9	98.9	99.1	99.5	99.6	99.9	100.0
IV 0	91.0	94.6	95.4	95.4	96.1	96.6	96.9	97.7	98.3	98.9	98.9	99.1	99.5	99.6	99.9	100.0

TOTAL NUMBER OF OBSERVATIONS 930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

UCT  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1200-1400  
HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	¾	¾	≥0
NO CEILING	51.4	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5
≥ 20000	63.4	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5
≥ 18000	63.8	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9
≥ 16000	64.2	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3
≥ 14000	67.2	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3
≥ 12000	70.6	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8	70.8
≥ 10000	75.9	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
≥ 9000	77.2	77.3	77.3	77.3	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
≥ 8000	79.9	80.0	80.0	80.0	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1
≥ 7000	80.8	80.9	80.9	80.9	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0
≥ 6000	82.2	82.3	82.3	82.3	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4
≥ 5000	83.8	83.9	83.9	83.9	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1
≥ 4500	84.7	84.8	84.8	84.8	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1
≥ 4000	87.4	87.5	87.5	87.5	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7
≥ 3500	87.8	88.2	88.2	88.2	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4	88.4
≥ 3000	88.7	89.2	89.2	89.4	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6	89.6
≥ 2500	89.8	90.3	90.3	90.4	90.8	90.8	90.8	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9	90.9
≥ 2000	90.8	91.6	91.6	91.7	92.0	92.0	92.0	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2
≥ 1800	91.0	91.9	91.9	92.0	92.4	92.4	92.4	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5
≥ 1500	92.2	93.8	93.9	94.1	94.4	94.4	94.4	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.5
≥ 1200	92.4	94.0	94.3	94.5	95.1	95.2	95.2	95.3	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4
≥ 1000	92.7	94.4	94.7	94.9	95.7	95.8	95.8	96.0	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1
≥ 900	92.8	94.5	94.9	95.2	96.0	96.1	96.1	96.3	96.5	96.5	96.5	96.5	96.5	96.5	96.5	96.5
≥ 800	92.9	94.7	95.2	95.4	96.2	96.3	96.3	96.6	96.7	96.7	96.7	96.7	96.7	96.7	96.7	96.7
≥ 700	92.9	95.2	95.7	95.9	96.8	97.0	97.1	97.3	97.5	97.6	97.6	97.6	97.7	97.7	97.7	97.7
≥ 600	92.9	95.2	95.7	96.0	97.0	97.2	97.4	97.6	97.8	98.0	98.1	98.2	98.2	98.2	98.2	98.2
≥ 500	92.9	95.4	95.9	96.5	97.5	97.7	98.1	98.3	98.5	98.6	98.7	98.8	98.8	98.8	98.8	98.8
≥ 400	92.9	95.4	95.9	96.5	97.6	98.0	98.3	98.5	98.7	98.8	98.9	99.0	99.0	99.0	99.0	99.0
≥ 300	92.9	95.5	96.0	96.6	97.7	98.2	98.7	98.9	99.2	99.4	99.5	99.6	99.6	99.6	99.6	99.6
≥ 200	92.9	95.5	96.0	96.6	97.8	98.3	98.9	99.1	99.5	99.7	99.8	99.9	99.9	99.9	100.0	100.0
≥ 100	92.9	95.5	96.0	96.6	97.8	98.3	98.9	99.1	99.5	99.7	99.8	99.9	99.9	99.9	100.0	100.0
≥ 0	92.9	95.5	96.0	96.6	97.8	98.3	98.9	99.1	99.5	99.7	99.8	99.9	99.9	99.9	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

OCT  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1500-1700  
HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ 5/16	≥ ¼	≥ 0	
NO CEILING ≥ 20000	49.6	49.6	49.6	49.6	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7	49.7
IV 18000 IV 16000	61.3	61.3	61.3	61.3	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4
IV 14000 IV 12000	62.0	62.0	62.0	62.0	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
IV 10000 IV 9000	62.5	62.5	62.5	62.5	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6	62.6
IV 8000 IV 7000	64.2	64.3	64.3	64.3	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4	64.4
IV 6000 IV 5000	68.5	68.7	68.7	68.7	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8	68.8
IV 4500 IV 4000	74.2	74.4	74.4	74.4	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
IV 3500 IV 3000	75.1	75.3	75.3	75.3	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4
IV 2500 IV 2000	78.6	78.8	78.8	78.8	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9
IV 1800 IV 1500	80.1	80.3	80.3	80.3	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4
IV 1200 IV 1000	83.2	83.4	83.4	83.4	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5
IV 900 IV 800	85.1	85.4	85.4	85.4	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5
IV 700 IV 600	85.8	86.5	86.5	86.5	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6
IV 500 IV 400	88.2	89.0	89.0	89.0	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1	89.1
IV 300 IV 200	89.0	90.2	90.2	90.2	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3
IV 100 IV 0	90.3	91.8	91.8	91.9	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0	92.0
	91.2	92.8	92.8	92.9	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0
	91.7	93.5	93.5	93.7	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8	93.8
	91.9	93.9	93.9	94.0	94.1	94.1	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2
	92.5	94.9	95.2	95.3	95.4	95.4	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5
	92.7	95.4	95.6	95.7	95.9	95.9	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0
	92.9	95.8	96.0	96.1	96.6	96.6	96.7	96.7	96.7	96.7	96.8	96.8	96.9	97.0	97.0	97.0
	92.9	95.8	96.0	96.1	96.6	96.6	96.7	96.7	96.7	96.7	96.8	96.8	96.9	97.0	97.0	97.0
	92.9	96.1	96.3	96.5	97.0	97.1	97.2	97.3	97.3	97.4	97.4	97.5	97.6	97.6	97.6	97.6
	92.9	96.2	96.6	96.7	97.2	97.3	97.5	97.6	97.7	98.1	98.1	98.2	98.3	98.3	98.3	98.3
	93.1	96.8	97.1	97.2	97.8	98.0	98.2	98.3	98.4	98.8	98.8	99.0	99.1	99.1	99.1	99.1
	93.1	96.8	97.1	97.4	98.1	98.2	98.4	98.6	98.7	99.1	99.1	99.4	99.5	99.5	99.5	99.5
	93.1	96.8	97.2	97.5	98.2	98.3	98.5	98.7	98.9	99.4	99.4	99.6	99.7	99.8	99.8	99.8
	93.1	96.8	97.2	97.5	98.2	98.3	98.5	98.7	99.1	99.6	99.6	99.8	99.9	100.0	100.0	100.0
	93.1	96.8	97.2	97.5	98.2	98.3	98.5	98.7	99.1	99.6	99.6	99.8	99.9	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

OCT  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1800-2000  
HOURS EST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1	≥¾	≥½	≥¼	≥⅓	≥⅕	≥⅒	≥0
NO CEILING	48.0	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5
≥ 20000	55.1	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5
IV 18000	55.5	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0
IV 16000	55.7	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2
IV 14000	57.0	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5
IV 12000	61.4	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1
IV 10000	67.3	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6
IV 9000	68.0	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3
IV 8000	70.1	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5	80.5
IV 7000	71.8	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
IV 6000	73.3	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8
IV 5000	74.3	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0	87.0
IV 4500	75.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1	88.1
IV 4000	75.5	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7	88.7
IV 3500	75.9	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
IV 3000	76.6	90.6	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8
IV 2500	77.1	91.5	91.6	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7
IV 2000	78.4	93.7	93.8	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9
IV 1800	78.5	93.8	93.9	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0
IV 1500	78.7	94.5	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7
IV 1200	78.8	94.9	95.1	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2
IV 1000	78.9	95.7	95.8	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	96.0	96.0	96.0	96.0	96.0
IV 900	78.9	95.7	95.8	96.0	96.2	96.3	96.3	96.3	96.3	96.3	96.3	96.5	96.5	96.5	96.5	96.5
IV 800	78.9	95.7	95.9	96.1	96.3	96.5	96.5	96.5	96.5	96.5	96.5	96.6	96.6	96.6	96.6	96.6
IV 700	79.0	96.2	96.5	96.7	96.9	97.0	97.0	97.1	97.1	97.1	97.1	97.2	97.2	97.2	97.2	97.2
IV 600	79.1	96.7	96.9	97.1	97.3	97.4	97.4	97.5	97.5	97.5	97.5	97.6	97.6	97.6	97.6	97.6
IV 500	79.1	96.8	97.0	97.3	97.5	97.6	97.7	98.0	98.0	98.2	98.5	98.5	98.5	98.5	98.5	98.5
IV 400	79.1	96.9	97.1	97.5	98.0	98.1	98.2	98.4	98.4	98.6	98.9	98.9	98.9	98.9	98.9	98.9
IV 300	79.1	96.9	97.1	97.6	98.3	98.4	98.7	99.0	99.0	99.2	99.6	99.6	99.6	99.7	99.7	99.7
IV 200	79.1	96.9	97.1	97.6	98.4	98.5	98.9	99.2	99.2	99.5	99.9	99.9	99.9	100.0	100.0	100.0
IV 100	79.1	96.9	97.1	97.6	98.4	98.5	98.9	99.2	99.2	99.5	99.9	99.9	99.9	100.0	100.0	100.0
IV 0	79.1	96.9	97.1	97.6	98.4	98.5	98.9	99.2	99.2	99.5	99.9	99.9	99.9	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

UCT  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

2100-2300  
HOURS UTC

CEILING FEET.	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	48.6	58.5	58.5	58.5	58.6	58.6	58.6	58.6	58.6	58.6	58.7	58.7	58.7	58.7	58.7	58.7
≥ 20000	55.7	68.4	68.4	68.4	68.5	68.5	68.5	68.5	68.5	68.5	68.6	68.6	68.6	68.6	68.6	68.6
IV 18000	55.9	68.6	68.6	68.6	68.7	68.7	68.7	68.7	68.7	68.7	68.8	68.8	68.8	68.8	68.8	68.8
IV 16000	55.9	68.6	68.6	68.6	68.7	68.7	68.7	68.7	68.7	68.7	68.8	68.8	68.8	68.8	68.8	68.8
IV 14000	56.5	69.1	69.1	69.1	69.2	69.2	69.2	69.2	69.2	69.2	69.4	69.4	69.4	69.4	69.4	69.4
IV 12000	59.9	72.9	72.9	72.9	73.0	73.0	73.0	73.0	73.0	73.0	73.1	73.1	73.1	73.1	73.1	73.1
IV 10000	64.6	79.0	79.0	79.0	79.1	79.1	79.1	79.1	79.1	79.1	79.2	79.2	79.2	79.2	79.2	79.2
IV 9000	65.4	79.8	79.8	79.8	79.9	79.9	79.9	79.9	79.9	79.9	80.0	80.0	80.0	80.0	80.0	80.0
IV 8000	66.9	81.3	81.3	81.3	81.4	81.4	81.4	81.4	81.4	81.4	81.5	81.5	81.5	81.5	81.5	81.5
IV 7000	67.7	82.6	82.6	82.6	82.7	82.7	82.7	82.7	82.7	82.7	82.8	82.8	82.8	82.8	82.8	82.8
IV 6000	69.2	84.8	84.8	84.8	84.9	84.9	84.9	84.9	84.9	84.9	85.1	85.1	85.1	85.1	85.1	85.1
IV 5000	69.6	85.9	85.9	85.9	86.0	86.0	86.0	86.0	86.0	86.0	86.1	86.1	86.1	86.1	86.1	86.1
IV 4500	70.1	86.9	86.9	86.9	87.0	87.0	87.0	87.0	87.0	87.0	87.1	87.1	87.1	87.1	87.1	87.1
IV 4000	71.0	88.0	88.0	88.0	88.1	88.1	88.1	88.1	88.1	88.1	88.2	88.2	88.2	88.2	88.2	88.2
IV 3500	71.2	88.6	88.6	88.6	88.7	88.7	88.7	88.7	88.7	88.7	88.8	88.8	88.8	88.8	88.8	88.8
IV 3000	71.9	89.6	89.6	89.6	89.7	89.7	89.7	89.7	89.7	89.7	89.8	89.8	89.8	89.8	89.8	89.8
IV 2500	72.0	89.9	89.9	89.9	90.0	90.0	90.0	90.1	90.1	90.1	90.2	90.2	90.2	90.2	90.2	90.2
IV 2000	72.4	91.1	91.1	91.2	91.5	91.6	91.7	91.7	91.7	91.7	91.8	91.8	91.8	91.8	91.8	91.8
IV 1800	72.6	91.3	91.3	91.4	91.7	91.8	91.9	91.9	91.9	91.9	92.0	92.0	92.0	92.0	92.0	92.0
IV 1500	72.6	91.6	91.6	91.7	92.2	92.3	92.4	92.5	92.5	92.5	92.6	92.7	92.7	92.7	92.7	92.7
IV 1200	72.8	92.5	92.5	92.6	93.0	93.1	93.2	93.3	93.4	93.5	93.5	93.5	93.5	93.5	93.5	93.5
IV 1000	72.8	92.9	93.0	93.1	93.8	93.9	94.1	94.2	94.3	94.4	94.4	94.4	94.4	94.4	94.4	94.4
IV 900	72.8	93.0	93.1	93.2	93.9	94.0	94.2	94.3	94.4	94.5	94.5	94.5	94.5	94.5	94.5	94.5
IV 800	72.8	93.2	93.3	93.4	94.1	94.2	94.4	94.5	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7
IV 700	72.8	93.8	93.9	94.0	94.7	94.8	95.1	95.4	95.5	95.6	95.6	95.6	95.6	95.6	95.6	95.6
IV 600	72.8	94.1	94.2	94.4	95.2	95.3	95.5	96.0	96.1	96.2	96.2	96.2	96.2	96.2	96.2	96.2
IV 500	72.8	94.3	94.4	94.6	95.4	95.5	95.9	96.6	96.7	97.2	97.3	97.3	97.3	97.3	97.3	97.3
IV 400	72.8	94.3	94.4	94.6	95.4	95.5	96.0	96.8	96.9	97.5	97.6	97.6	97.6	97.6	97.6	97.6
IV 300	72.8	94.7	94.8	95.1	96.1	96.2	96.8	97.5	97.8	98.6	98.7	98.8	99.0	99.1	99.1	99.1
IV 200	72.8	94.7	94.8	95.1	96.1	96.2	96.8	97.6	98.1	98.8	98.9	99.0	99.2	99.4	99.4	99.5
IV 100	72.8	94.7	94.8	95.1	96.1	96.2	96.8	97.7	98.2	99.0	99.1	99.2	99.5	99.6	99.6	99.8
IV 0	72.8	94.7	94.8	95.1	96.1	96.2	96.8	97.7	98.2	99.0	99.1	99.2	99.5	99.6	99.6	100.0

TOTAL NUMBER OF OBSERVATIONS

930

USAF ETAC

FORM  
 JUL 64

0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

OCT  
MONTH

PERCENTAGE FREQUENCY OF OCCURENCE  
 (FROM HOURLY OBSERVATIONS)

ALL  
HOURS 151

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	51.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.6	56.6	56.6	56.6	56.6	56.6	56.6
≥ 20000	59.7	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.3	66.4	66.4	66.4	66.4	66.4	66.4	66.4
IV 18000	59.9	66.5	66.5	66.5	66.5	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.7
IV 16000	60.2	66.7	66.7	66.7	66.8	66.8	66.8	66.8	66.8	66.9	66.9	66.9	66.9	66.9	66.9	66.9
IV 14000	61.5	68.1	68.1	68.1	68.1	68.1	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.2	68.3
IV 12000	65.5	72.2	72.2	72.3	72.3	72.3	72.3	72.3	72.3	72.4	72.4	72.4	72.4	72.4	72.4	72.4
IV 10000	70.4	77.7	77.7	77.7	77.8	77.8	77.8	77.8	77.8	77.9	77.9	77.9	77.9	77.9	77.9	77.9
IV 9000	71.2	78.4	78.5	78.5	78.5	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	78.7
IV 8000	73.1	80.5	80.5	80.5	80.6	80.6	80.6	80.6	80.6	80.7	80.7	80.7	80.7	80.7	80.7	80.7
IV 7000	74.2	81.8	81.9	81.9	81.9	81.9	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.1	82.1
IV 6000	75.9	83.8	83.8	83.8	83.9	83.9	83.9	83.9	83.9	84.0	84.0	84.0	84.0	84.0	84.0	84.1
IV 5000	77.0	85.2	85.2	85.2	85.3	85.3	85.3	85.3	85.3	85.4	85.4	85.4	85.4	85.4	85.4	85.5
IV 4500	77.7	86.3	86.3	86.3	86.4	86.4	86.4	86.4	86.4	86.5	86.5	86.5	86.5	86.5	86.5	86.6
IV 4000	78.9	87.8	87.8	87.9	88.0	88.0	88.0	88.0	88.0	88.1	88.1	88.1	88.1	88.1	88.1	88.1
IV 3500	79.3	88.5	88.6	88.6	88.7	88.7	88.7	88.7	88.7	88.8	88.8	88.8	88.8	88.8	88.8	88.9
IV 3000	80.0	89.4	89.4	89.5	89.6	89.6	89.6	89.6	89.6	89.7	89.7	89.7	89.7	89.7	89.7	89.8
IV 2500	80.5	90.1	90.2	90.3	90.4	90.4	90.4	90.4	90.4	90.5	90.5	90.5	90.5	90.5	90.5	90.6
IV 2000	81.2	91.2	91.3	91.5	91.6	91.6	91.7	91.7	91.7	91.7	91.7	91.7	91.8	91.8	91.8	91.8
IV 1800	81.3	91.4	91.5	91.6	91.7	91.8	91.8	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9	92.0
IV 1500	81.8	92.4	92.6	92.7	92.9	92.9	93.0	93.1	93.1	93.2	93.2	93.2	93.2	93.2	93.2	93.2
IV 1200	82.2	93.1	93.4	93.6	93.8	93.9	94.0	94.1	94.1	94.2	94.2	94.2	94.2	94.2	94.2	94.2
IV 1000	82.3	93.6	94.0	94.1	94.5	94.6	94.7	94.9	94.9	95.0	95.0	95.0	95.1	95.1	95.1	95.1
IV 900	82.4	93.8	94.1	94.3	94.8	94.9	95.0	95.1	95.2	95.3	95.3	95.3	95.3	95.4	95.4	95.4
IV 800	82.5	94.0	94.3	94.5	94.9	95.1	95.2	95.4	95.5	95.6	95.6	95.6	95.6	95.6	95.7	95.7
IV 700	82.6	94.4	94.9	95.1	95.5	95.7	95.8	96.1	96.2	96.3	96.4	96.4	96.4	96.4	96.4	96.5
IV 600	82.6	94.7	95.1	95.4	95.9	96.1	96.3	96.6	96.7	96.9	96.9	97.0	97.0	97.0	97.0	97.1
IV 500	82.7	94.9	95.4	95.7	96.2	96.5	96.7	97.1	97.2	97.5	97.6	97.7	97.7	97.7	97.8	97.8
IV 400	82.7	94.9	95.5	95.8	96.5	96.8	97.1	97.6	97.8	98.2	98.3	98.3	98.4	98.4	98.4	98.5
IV 300	82.7	95.0	95.6	96.0	96.8	97.2	97.6	98.1	98.4	98.8	98.9	99.0	99.1	99.2	99.2	99.3
IV 200	82.7	95.0	95.7	96.0	96.9	97.2	97.7	98.3	98.6	99.0	99.2	99.3	99.4	99.5	99.5	99.6
IV 100	82.7	95.0	95.7	96.0	96.9	97.3	97.8	98.4	98.7	99.2	99.3	99.4	99.6	99.7	99.8	100.0
IV 0	82.7	95.0	95.7	96.0	96.9	97.3	97.8	98.4	98.7	99.2	99.3	99.4	99.6	99.7	99.8	100.0

TOTAL NUMBER OF OBSERVATIONS

7440

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24117  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

NOV  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0000-0200  
HOURS (LST)

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥1/16	≥0	≥0
NO CEILING	41.6	52.8	53.0	53.1	53.1	53.1	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
≥ 20000	47.9	61.1	61.3	61.6	61.6	61.6	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7
≥ 18000	48.0	61.4	61.7	61.9	61.9	61.9	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0
≥ 16000	48.4	61.9	62.1	62.2	62.2	62.2	62.3	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4
≥ 14000	49.6	63.0	63.2	63.4	63.4	63.4	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6
≥ 12000	52.8	67.8	68.0	68.2	68.2	68.2	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3
≥ 10000	58.6	75.0	75.2	75.4	75.4	75.4	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6
≥ 9000	58.7	75.7	75.9	76.1	76.1	76.1	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2
≥ 8000	60.2	77.4	77.7	77.9	77.9	77.9	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
≥ 7000	61.2	78.6	78.8	79.0	79.0	79.0	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1
≥ 6000	62.1	79.6	79.8	80.0	80.0	80.0	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1	80.1
≥ 5000	63.8	81.9	82.1	82.3	82.3	82.3	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4
≥ 4500	64.4	83.1	83.3	83.7	83.7	83.7	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8
≥ 4000	66.2	85.9	86.2	86.6	86.6	86.6	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7
≥ 3500	67.3	87.3	87.8	88.1	88.1	88.1	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2	88.2
≥ 3000	68.2	88.7	89.1	89.4	89.4	89.4	89.6	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7	89.7
≥ 2500	68.4	89.2	89.7	90.0	90.0	90.0	90.1	90.2	90.2	90.2	90.2	90.2	90.2	90.3	90.3	90.3
≥ 2000	68.8	89.8	90.2	90.6	90.6	90.6	90.7	90.8	90.8	90.8	90.8	90.8	90.9	90.9	91.0	91.0
≥ 1800	69.0	90.2	90.7	91.0	91.0	91.0	91.1	91.2	91.2	91.2	91.2	91.2	91.3	91.3	91.4	91.4
≥ 1500	69.0	90.9	91.3	91.9	91.9	91.9	92.1	92.8	92.8	92.8	92.8	92.8	92.9	92.9	93.0	93.0
≥ 1200	69.1	91.4	91.9	92.4	92.4	92.4	92.8	93.7	93.9	93.9	93.9	93.9	94.0	94.0	94.1	94.1
≥ 1000	69.1	91.6	92.0	92.6	92.6	92.6	93.1	94.2	94.6	94.7	94.8	94.8	94.9	94.9	95.0	95.0
≥ 900	69.3	92.0	92.6	93.1	93.1	93.1	93.7	94.8	95.1	95.2	95.3	95.4	95.4	95.6	95.6	95.6
≥ 800	69.3	92.1	92.7	93.2	93.2	93.2	93.9	95.0	95.4	95.6	95.7	95.8	95.8	95.9	95.9	95.9
≥ 700	69.3	92.2	92.8	93.3	93.3	93.3	94.0	95.1	95.6	95.8	95.9	96.0	96.0	96.1	96.1	96.1
≥ 600	69.3	92.3	92.9	93.4	93.4	93.4	94.3	95.4	95.9	96.1	96.3	96.4	96.4	96.6	96.6	96.6
≥ 500	69.3	92.6	93.2	93.8	93.9	93.9	94.8	95.9	96.3	96.6	96.8	96.9	96.9	97.0	97.0	97.0
≥ 400	69.3	92.8	93.4	94.0	94.1	94.1	95.0	96.2	96.7	96.9	97.1	97.1	97.2	97.3	97.3	97.3
≥ 300	69.3	92.9	93.6	94.1	94.2	94.2	95.3	96.6	97.0	97.2	97.6	97.8	97.8	98.0	98.0	98.0
≥ 200	69.3	92.9	93.6	94.1	94.3	94.3	95.4	96.7	97.1	97.3	97.8	98.0	98.0	98.2	98.2	98.2
≥ 100	69.3	92.9	93.6	94.1	94.3	94.3	95.4	96.7	97.1	97.3	97.8	98.0	98.0	98.2	98.2	98.2
≥ 0	69.3	92.9	93.6	94.1	94.3	94.3	95.4	96.7	97.1	97.3	97.8	98.0	98.0	98.2	98.2	98.2

TOTAL NUMBER OF OBSERVATIONS

900



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

08-77  
YEARS

NOV  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0300-0500  
HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	≥½	≥0
NO CEILING	39.3	50.3	50.4	50.4	50.8	50.8	50.8	50.8	50.9	50.9	50.9	50.9	51.0	51.1	51.1	51.2
≥ 20000	47.6	61.9	62.0	62.0	62.3	62.3	62.3	62.3	62.4	62.4	62.4	62.4	62.6	62.7	62.7	62.8
IV 18000	47.6	61.9	62.0	62.0	62.3	62.3	62.3	62.3	62.4	62.4	62.4	62.4	62.6	62.7	62.7	62.8
IV 16000	47.6	61.9	62.0	62.0	62.3	62.3	62.3	62.3	62.4	62.4	62.4	62.4	62.6	62.7	62.7	62.8
IV 14000	48.1	62.4	62.6	62.6	62.9	62.9	62.9	62.9	63.0	63.0	63.0	63.0	63.1	63.2	63.2	63.3
IV 12000	51.4	67.1	67.2	67.2	67.7	67.7	67.7	67.7	67.8	67.8	67.8	67.8	67.9	68.0	68.0	68.1
IV 10000	57.2	74.2	74.3	74.3	74.8	74.8	74.8	74.8	74.9	75.0	75.0	75.0	75.2	75.2	75.2	75.3
IV 9000	57.3	74.9	75.0	75.0	75.4	75.4	75.4	75.4	75.6	75.7	75.7	75.7	75.8	75.9	75.9	76.0
IV 8000	59.4	77.0	77.1	77.1	77.6	77.6	77.6	77.6	77.7	77.8	77.8	77.8	77.9	78.0	78.0	78.1
IV 7000	60.1	77.8	77.9	77.9	78.3	78.3	78.3	78.3	78.4	78.6	78.6	78.6	78.7	78.8	78.8	78.9
IV 6000	60.4	78.1	78.2	78.2	78.7	78.7	78.7	78.7	78.8	78.9	78.9	78.9	79.0	79.1	79.1	79.2
IV 5000	61.8	80.2	80.3	80.3	80.8	80.8	80.8	80.8	80.9	81.0	81.0	81.0	81.1	81.2	81.2	81.3
IV 4500	62.6	81.4	81.6	81.6	82.0	82.0	82.0	82.0	82.1	82.2	82.2	82.2	82.3	82.4	82.4	82.6
IV 4000	64.1	83.6	83.7	83.7	84.1	84.1	84.1	84.1	84.2	84.3	84.3	84.3	84.4	84.6	84.6	84.7
IV 3500	65.6	85.0	85.1	85.1	85.6	85.6	85.6	85.6	85.7	85.8	85.8	85.8	85.9	86.0	86.0	86.1
IV 3000	65.9	86.2	86.3	86.3	86.8	86.8	86.9	86.9	87.0	87.1	87.1	87.1	87.2	87.3	87.3	87.4
IV 2500	66.6	87.4	87.6	87.6	88.0	88.0	88.1	88.3	88.4	88.6	88.6	88.6	88.7	88.8	88.8	88.9
IV 2000	67.0	88.3	88.6	88.6	89.0	89.1	89.3	89.6	89.7	89.8	89.8	89.8	89.9	90.1	90.1	90.2
IV 1800	67.0	88.4	88.6	88.8	89.3	89.4	89.7	89.9	90.0	90.1	90.1	90.1	90.2	90.4	90.4	90.6
IV 1500	67.2	88.9	89.4	89.4	90.0	90.1	90.3	90.6	90.9	91.0	91.0	91.0	91.1	91.3	91.3	91.4
IV 1200	67.4	89.9	90.4	90.4	91.1	91.2	91.8	92.6	92.9	93.0	93.0	93.0	93.1	93.3	93.3	93.4
IV 1000	67.7	90.6	91.1	91.1	91.9	92.1	92.7	93.4	93.9	94.0	94.0	94.0	94.1	94.3	94.3	94.4
IV 900	67.9	90.9	91.6	91.6	92.6	92.8	93.3	94.3	94.8	94.9	94.9	94.9	95.0	95.2	95.2	95.3
IV 800	67.9	90.9	91.6	91.6	92.6	92.8	93.3	94.3	94.8	94.9	94.9	94.9	95.0	95.2	95.2	95.3
IV 700	67.9	90.9	91.6	91.6	92.6	92.8	93.3	94.4	94.9	95.0	95.0	95.0	95.1	95.3	95.3	95.4
IV 600	67.9	91.1	91.8	91.8	92.8	93.1	93.7	94.8	95.3	95.6	95.6	95.6	95.7	95.9	96.0	96.1
IV 500	67.9	91.1	91.9	91.9	92.9	93.2	93.9	95.1	95.7	95.9	95.9	95.9	96.1	96.3	96.6	96.7
IV 400	67.9	91.1	91.9	91.9	92.9	93.2	93.9	95.2	95.8	96.1	96.1	96.1	96.3	96.7	96.9	97.0
IV 300	67.9	91.1	91.9	91.9	92.9	93.6	94.2	95.6	96.1	96.4	96.4	96.4	96.7	97.1	97.4	97.6
IV 200	67.9	91.1	91.9	91.9	92.9	93.6	94.2	95.7	96.2	96.6	96.6	96.6	96.8	97.3	97.9	98.0
IV 100	67.9	91.1	91.9	91.9	92.9	93.6	94.2	95.7	96.2	96.6	96.7	96.7	97.0	97.6	98.1	98.7
IV 0	67.9	91.1	91.9	91.9	92.9	93.6	94.2	95.7	96.2	96.6	96.7	96.7	97.0	97.6	98.1	100.0

TOTAL NUMBER OF OBSERVATIONS

000

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 STATION MALMSTROM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS NOV MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0600-0800

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ 5/16	≥ ¼	≥ 0	
NO CEILING	39.4	44.7	44.8	44.8	44.9	44.9	44.9	44.9	44.9	45.0	45.0	45.0	45.0	45.0	45.0	45.0
≥ 20000	49.7	57.6	57.7	57.7	57.8	57.8	57.8	57.8	57.8	57.9	57.9	57.9	58.0	58.0	58.0	58.0
IV 18000	49.7	57.6	57.7	57.7	57.8	57.8	57.8	57.8	57.8	57.9	57.9	57.9	58.0	58.0	58.0	58.0
IV 16000	49.7	57.6	57.7	57.7	57.8	57.8	57.8	57.8	57.8	57.9	57.9	57.9	58.0	58.0	58.0	58.0
IV 14000	50.9	58.8	58.9	58.9	59.0	59.0	59.0	59.0	59.0	59.1	59.1	59.1	59.2	59.2	59.2	59.2
IV 12000	55.7	63.6	63.7	63.7	63.8	63.8	63.8	63.8	63.8	63.9	63.9	63.9	64.0	64.0	64.0	64.0
IV 10000	63.7	72.3	72.4	72.6	72.7	72.7	72.7	72.7	72.7	72.8	72.8	72.8	72.9	73.0	73.0	73.0
IV 9000	64.3	73.3	73.4	73.6	73.7	73.7	73.7	73.7	73.7	73.8	73.8	73.8	73.9	74.0	74.0	74.0
IV 8000	66.3	75.4	75.6	75.7	75.8	75.8	75.8	75.8	75.8	75.9	75.9	75.9	76.0	76.1	76.1	76.1
IV 7000	68.3	77.4	77.6	77.7	77.8	77.8	77.8	77.8	77.8	77.9	77.9	77.9	78.0	78.1	78.1	78.1
IV 6000	69.1	78.2	78.3	78.4	78.6	78.6	78.6	78.6	78.6	78.7	78.7	78.7	78.8	78.9	78.9	78.9
IV 5000	71.2	80.9	81.0	81.1	81.4	81.4	81.4	81.6	81.6	81.6	81.6	81.7	81.7	81.8	81.9	81.9
IV 4500	71.8	81.4	81.6	81.7	82.0	82.0	82.1	82.1	82.1	82.2	82.2	82.2	82.3	82.4	82.4	82.4
IV 4000	72.8	82.7	82.8	82.9	83.6	83.6	83.7	83.7	83.8	83.9	83.9	83.9	84.0	84.1	84.1	84.1
IV 3500	73.6	83.7	83.8	83.9	84.6	84.6	84.7	84.7	84.8	84.9	84.9	84.9	85.0	85.1	85.1	85.1
IV 3000	74.7	85.3	85.4	85.6	86.2	86.2	86.3	86.3	86.4	86.6	86.6	86.6	86.7	86.8	86.8	86.8
IV 2500	75.4	86.3	86.6	86.7	87.6	87.6	87.7	87.7	87.8	87.9	87.9	87.9	88.0	88.1	88.1	88.1
IV 2000	75.7	86.7	86.9	87.0	87.9	87.9	88.2	88.3	88.4	88.6	88.6	88.6	88.7	88.8	88.8	88.8
IV 1800	75.7	86.7	87.0	87.1	88.0	88.0	88.3	88.4	88.6	88.7	88.7	88.7	88.8	88.9	88.9	88.9
IV 1500	75.8	87.3	87.7	87.9	88.9	88.9	89.3	89.6	89.7	89.9	89.9	89.9	90.0	90.1	90.1	90.1
IV 1200	76.1	88.1	88.6	88.8	89.8	89.9	90.8	91.0	91.1	91.3	91.3	91.3	91.4	91.6	91.6	91.6
IV 1000	76.1	88.4	88.9	89.1	90.2	90.4	91.3	91.6	91.8	92.0	92.0	92.0	92.1	92.2	92.2	92.2
IV 900	76.1	88.6	89.1	89.3	90.4	90.8	91.9	92.1	92.4	92.8	92.8	92.8	92.9	93.0	93.0	93.0
IV 800	76.2	88.7	89.2	89.4	90.6	90.9	92.0	92.2	92.6	93.0	93.0	93.0	93.1	93.2	93.2	93.2
IV 700	76.3	89.2	89.8	90.0	91.1	91.4	92.6	92.8	93.1	93.6	93.6	93.6	93.7	93.8	93.8	93.8
IV 600	76.4	90.1	90.7	90.9	92.0	92.4	93.6	93.8	94.1	94.6	94.6	94.6	94.7	94.8	94.8	94.8
IV 500	76.4	90.2	90.8	91.0	92.2	92.7	93.9	94.2	94.6	95.1	95.1	95.1	95.2	95.4	95.4	95.4
IV 400	76.4	90.4	91.1	91.3	92.6	93.0	94.2	94.8	95.1	95.7	95.9	95.9	96.1	96.2	96.2	96.2
IV 300	76.4	90.4	91.1	91.3	92.6	93.2	94.6	95.1	95.4	96.0	96.2	96.2	96.4	96.6	96.7	96.7
IV 200	76.4	90.4	91.1	91.3	92.6	93.3	94.8	95.4	95.9	96.4	96.7	96.7	97.2	97.4	97.7	97.7
IV 100	76.4	90.4	91.1	91.3	92.6	93.3	94.8	95.4	95.9	96.4	96.7	96.7	97.3	97.6	97.9	98.2
IV 0	76.4	90.4	91.1	91.3	92.6	93.3	94.8	95.4	95.9	96.4	96.7	96.7	97.3	97.6	98.1	100.0

TOTAL NUMBER OF OBSERVATIONS

900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FAL'S  
STATION NAME

68-77  
YEARS

NOV  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0900-1100  
HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥5/16	≥¼	≥0
NO CEILING	42.2	42.3	42.3	42.3	42.3	42.6	42.7	42.7	42.8	42.8	42.9	42.9	42.9	42.9	42.9	43.0
IV ≥ 20000	53.8	53.9	53.9	53.9	53.9	54.1	54.2	54.2	54.3	54.3	54.4	54.4	54.4	54.6	54.6	54.7
IV ≥ 18000	53.8	53.9	53.9	53.9	53.9	54.1	54.2	54.2	54.3	54.3	54.4	54.4	54.4	54.6	54.6	54.7
IV 16000	53.9	54.0	54.0	54.0	54.0	54.2	54.3	54.3	54.4	54.4	54.6	54.6	54.6	54.7	54.7	54.8
IV 14000	55.0	55.1	55.1	55.1	55.1	55.3	55.4	55.4	55.6	55.6	55.7	55.7	55.8	55.8	55.8	55.9
IV 12000	61.0	61.1	61.1	61.1	61.1	61.3	61.4	61.4	61.6	61.7	61.8	61.8	61.9	61.9	61.9	62.0
IV 10000	69.3	69.6	69.6	69.6	69.6	69.8	70.0	70.0	70.1	70.2	70.3	70.3	70.4	70.4	70.4	70.7
IV 9000	70.7	70.9	70.9	70.9	70.9	71.1	71.3	71.3	71.4	71.6	71.7	71.7	71.8	71.8	71.8	72.0
IV 8000	72.6	73.1	73.2	73.2	73.3	73.6	73.8	73.8	73.9	74.0	74.1	74.1	74.2	74.2	74.2	74.4
IV 7000	74.4	75.1	75.3	75.3	75.4	75.8	76.0	76.0	76.1	76.2	76.3	76.3	76.6	76.6	76.6	76.8
IV 6000	75.8	76.4	76.7	76.8	76.9	77.2	77.4	77.4	77.6	77.7	77.8	77.8	78.0	78.0	78.0	78.2
IV 5000	78.9	79.7	80.1	80.2	80.4	80.9	81.1	81.1	81.2	81.3	81.4	81.4	81.7	81.7	81.7	81.9
IV 4500	79.9	80.7	81.1	81.2	81.4	82.0	82.2	82.2	82.4	82.6	82.7	82.7	82.9	82.9	82.9	83.1
IV 4000	81.8	82.8	83.2	83.3	83.7	84.2	84.4	84.4	84.7	84.8	85.0	85.0	85.2	85.2	85.2	85.4
IV 3500	81.8	82.8	83.2	83.3	83.8	84.3	84.6	84.6	85.0	85.1	85.3	85.3	85.6	85.6	85.6	85.8
IV 3000	82.2	83.3	83.9	84.0	84.6	85.1	85.4	85.4	85.9	86.1	86.3	86.3	86.6	86.6	86.6	86.8
IV 2500	82.3	83.7	84.3	84.4	85.0	85.6	85.9	85.9	86.3	86.7	86.9	86.9	87.1	87.1	87.1	87.3
IV 2000	82.4	84.4	85.4	85.6	86.4	87.2	87.6	87.8	88.2	88.6	88.9	88.9	89.1	89.1	89.1	89.3
IV 1800	82.6	84.6	85.6	85.7	86.6	87.3	87.7	88.1	88.6	88.9	89.2	89.2	89.4	89.4	89.4	89.7
IV 1500	82.9	85.1	86.1	86.3	87.2	88.0	88.3	88.9	89.4	90.0	90.3	90.3	90.6	90.6	90.6	90.8
IV 1200	83.0	85.3	86.4	86.7	87.7	88.4	88.9	89.4	90.3	91.0	91.3	91.3	91.6	91.6	91.6	91.8
IV 1000	83.1	85.9	87.1	87.4	88.6	89.3	89.9	90.6	91.4	92.3	92.7	92.9	93.1	93.1	93.2	93.4
IV 900	83.2	86.2	87.4	87.8	88.9	89.7	90.3	91.0	92.0	93.1	93.4	93.7	93.9	93.9	94.0	94.2
IV 800	83.2	86.2	87.4	87.8	88.9	89.8	90.4	91.1	92.2	93.4	93.8	94.0	94.2	94.2	94.3	94.6
IV 700	83.3	86.4	87.7	88.0	89.2	90.1	91.0	91.7	92.8	94.2	94.7	94.9	95.1	95.1	95.2	95.4
IV 600	83.3	86.8	88.2	88.6	89.8	90.7	91.6	92.2	93.4	95.0	95.4	95.7	95.9	95.9	96.0	96.2
IV 500	83.4	86.9	88.3	88.7	90.3	91.2	92.2	93.0	94.2	96.0	96.6	96.9	97.1	97.1	97.2	97.4
IV 400	83.4	86.9	88.4	88.8	90.4	91.3	92.3	93.1	94.3	96.1	96.7	97.0	97.2	97.2	97.4	97.7
IV 300	83.4	86.9	88.4	88.8	90.6	91.6	92.6	93.3	94.6	96.4	97.0	97.3	97.6	97.6	97.8	98.0
IV 200	83.4	87.0	88.6	89.0	90.9	92.0	93.0	93.8	95.0	96.9	97.7	98.0	98.2	98.2	98.4	98.8
IV 100	83.4	87.0	88.6	89.0	90.9	92.0	93.0	93.8	95.0	96.9	97.7	98.0	98.2	98.2	98.8	99.6
IV 0	83.4	87.0	88.6	89.0	90.9	92.0	93.0	93.8	95.0	96.9	97.7	98.0	98.2	98.2	98.9	100.0

TOTAL NUMBER OF OBSERVATIONS

900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

NUV  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1200-1400  
HOURS LS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ 5/16	≥ ¼	≥ 0	
NO CEILING	45.9	46.2	46.6	46.7	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9
≥ 20000	58.0	58.3	58.7	58.8	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0	59.0
IV ≥ 18000	58.3	58.7	59.0	59.1	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3
IV 16000	58.7	59.0	59.3	59.4	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7
IV 14000	60.0	60.3	60.7	60.8	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0
IV 12000	66.3	66.7	67.0	67.1	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3
IV 10000	73.9	74.8	75.1	75.2	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6
IV 9000	75.2	76.1	76.4	76.6	76.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	77.0	77.1	77.1	77.1
IV 8000	76.6	77.7	78.0	78.1	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.6	78.7	78.7	78.7
IV 7000	78.9	80.0	80.3	80.4	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.9	81.0	81.0	81.0
IV 6000	79.8	80.9	81.2	81.3	81.7	81.7	81.7	81.7	81.7	81.8	81.8	81.8	81.9	82.0	82.0	82.0
IV 5000	82.8	84.0	84.3	84.4	84.8	84.8	84.8	85.0	85.1	85.1	85.1	85.1	85.2	85.3	85.3	85.3
IV 4500	83.3	84.6	85.0	85.1	85.4	85.4	85.4	85.7	85.8	85.8	85.8	85.8	85.9	86.0	86.0	86.0
IV 4000	84.9	86.3	87.1	87.3	87.7	87.7	87.7	87.9	88.0	88.0	88.0	88.0	88.1	88.2	88.2	88.2
IV 3500	84.9	86.3	87.2	87.4	87.9	87.9	87.9	88.1	88.2	88.2	88.2	88.2	88.3	88.4	88.4	88.4
IV 3000	85.2	86.9	87.8	88.0	88.7	88.7	88.7	89.0	89.1	89.1	89.1	89.1	89.2	89.3	89.3	89.3
IV 2500	85.3	87.0	87.9	88.2	88.9	88.9	88.9	89.2	89.3	89.3	89.3	89.3	89.4	89.6	89.6	89.6
IV 2000	85.6	87.3	88.2	88.6	89.4	89.7	89.7	90.0	90.1	90.1	90.1	90.1	90.2	90.3	90.3	90.3
IV 1800	85.8	87.7	88.6	88.9	89.9	90.1	90.1	90.4	90.6	90.6	90.6	90.6	90.7	90.8	90.8	90.8
IV 1500	86.1	88.3	89.2	89.6	90.9	91.1	91.1	91.4	91.6	92.0	92.0	92.0	92.2	92.3	92.3	92.3
IV 1200	86.4	89.0	90.0	90.6	91.9	92.1	92.1	92.6	92.7	93.3	93.6	93.8	93.9	93.9	93.9	93.9
IV 1000	86.7	89.7	90.8	91.4	93.1	93.3	93.3	93.8	94.2	95.3	95.7	95.9	96.0	96.0	96.0	96.0
IV 900	86.8	89.9	91.1	91.8	93.4	93.7	93.7	94.2	94.7	95.9	96.3	96.6	96.7	96.7	96.7	96.7
IV 800	86.8	90.0	91.2	91.9	93.6	93.8	93.8	94.3	94.8	96.0	96.4	96.7	96.8	96.8	96.8	96.8
IV 700	86.8	90.0	91.2	91.9	93.6	93.8	93.8	94.4	94.9	96.2	96.8	97.0	97.1	97.1	97.3	97.3
IV 600	86.8	90.1	91.3	92.2	94.0	94.2	94.2	94.9	95.3	96.8	97.7	97.9	98.0	98.0	98.2	98.2
IV 500	86.8	90.1	91.4	92.3	94.2	94.4	94.4	95.1	95.6	97.1	98.0	98.2	98.3	98.3	98.6	98.6
IV 400	86.8	90.2	91.6	92.4	94.3	94.6	94.6	95.3	95.8	97.4	98.3	98.6	98.8	98.9	99.2	99.3
IV 300	86.8	90.3	91.7	92.6	94.4	94.7	94.7	95.4	95.9	97.6	98.4	98.7	98.9	99.0	99.3	99.4
IV 200	86.8	90.3	91.7	92.6	94.4	94.7	94.7	95.6	96.1	97.8	98.8	99.0	99.2	99.3	99.7	99.8
IV 100	86.8	90.3	91.7	92.6	94.4	94.7	94.7	95.6	96.1	97.8	98.8	99.0	99.3	99.4	99.9	100.0
IV 0	86.8	90.3	91.7	92.6	94.4	94.7	94.7	95.6	96.1	97.8	98.8	99.0	99.3	99.4	99.9	100.0

TOTAL NUMBER OF OBSERVATIONS 900

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

NOV  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1500-1700  
HOURS EST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	¾	¾	≥0
NO CEILING	48.3	48.4	48.6	48.8	48.8	48.8	48.8	48.8	48.8	48.8	48.8	48.8	48.8	48.8	48.8	48.8
≥ 20000	59.0	59.1	59.3	59.5	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6
IV 18000	59.3	59.6	59.8	60.1	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2
IV 16000	59.6	59.7	60.0	60.2	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3
IV 14000	61.1	61.2	61.4	61.6	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7
IV 12000	67.3	67.4	67.6	67.9	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0
IV 10000	73.7	74.1	74.3	74.5	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6	74.6
IV 9000	76.3	76.8	77.0	77.2	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3	77.3
IV 8000	78.8	79.4	79.6	79.9	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
IV 7000	81.0	81.9	82.1	82.3	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4	82.4
IV 6000	82.4	83.4	83.6	83.9	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
IV 5000	83.8	85.3	85.5	85.8	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0
IV 4500	85.1	86.7	86.9	87.1	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3	87.3
IV 4000	86.5	88.1	88.4	88.7	89.1	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2	89.2
IV 3500	87.1	89.0	89.3	89.5	90.0	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1	90.1
IV 3000	87.5	89.7	90.0	90.2	90.9	91.0	91.0	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
IV 2500	88.2	90.7	91.0	91.2	91.9	92.0	92.0	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2	92.2
IV 2000	88.4	91.3	91.7	92.0	92.8	92.9	92.9	93.1	93.1	93.3	93.3	93.3	93.3	93.3	93.3	93.3
IV 1800	88.8	91.7	92.0	92.3	93.1	93.2	93.2	93.4	93.4	93.7	93.7	93.7	93.7	93.7	93.7	93.7
IV 1500	89.3	92.4	92.8	93.1	93.9	94.0	94.0	94.2	94.2	94.7	94.8	94.8	94.8	94.8	94.8	94.8
IV 1200	89.7	92.8	93.1	93.4	94.3	94.5	94.5	94.8	95.0	95.6	95.7	95.7	95.8	95.8	95.8	95.8
IV 1000	89.8	93.1	93.4	93.9	95.1	95.3	95.4	95.8	96.1	97.1	97.2	97.3	97.4	97.4	97.4	97.4
IV 900	89.8	93.3	93.7	94.2	95.4	95.7	95.8	96.1	96.4	97.4	97.6	97.7	97.8	97.8	97.8	97.8
IV 800	89.9	93.4	93.8	94.3	95.6	95.8	95.9	96.2	96.6	97.6	97.7	97.8	97.9	97.9	97.9	97.9
IV 700	89.9	93.5	94.0	94.5	95.8	96.0	96.1	96.4	96.8	97.9	98.0	98.1	98.2	98.2	98.3	98.3
IV 600	90.0	93.8	94.2	94.8	96.0	96.2	96.3	96.7	97.0	98.3	98.4	98.6	98.8	98.8	98.9	98.9
IV 500	90.1	94.0	94.5	95.1	96.3	96.6	96.7	97.0	97.4	98.9	99.0	99.1	99.3	99.3	99.6	99.6
IV 400	90.1	94.0	94.5	95.1	96.3	96.6	96.7	97.0	97.4	98.9	99.0	99.1	99.3	99.3	99.6	99.6
IV 300	90.1	94.1	94.7	95.2	96.4	96.7	96.8	97.1	97.7	99.1	99.3	99.4	99.7	99.7	99.9	99.9
IV 200	90.1	94.1	94.7	95.2	96.4	96.7	96.8	97.1	97.7	99.1	99.3	99.4	99.8	99.8	100.0	100.0
IV 100	90.1	94.1	94.7	95.2	96.4	96.7	96.8	97.1	97.7	99.1	99.3	99.4	99.8	99.8	100.0	100.0
IV 0	90.1	94.1	94.7	95.2	96.4	96.7	96.8	97.1	97.7	99.1	99.3	99.4	99.8	99.8	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

899

USAF ETAC

FORM  
 JUL 64

0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRUM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

NOV  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1800-2000  
HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ½	≥ 5/16	≥ ¼	≥ 0	
NO CEILING	39.5	50.5	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	
≥ 20000	45.7	59.2	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	
IV 18000	45.8	59.6	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	
IV 16000	45.8	59.6	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	59.8	
IV 14000	47.2	61.0	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	61.1	
IV 12000	54.1	69.3	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	69.5	
IV 10000	59.0	75.4	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	75.5	
IV 9000	60.4	77.0	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	77.1	
IV 8000	63.2	79.9	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	
IV 7000	64.8	81.6	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	
IV 6000	65.9	83.6	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	83.9	
IV 5000	66.7	84.7	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	85.1	
IV 4500	67.2	85.8	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	86.2	
IV 4000	68.2	87.2	87.5	87.6	87.6	87.6	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	87.7	
IV 3500	69.1	88.5	88.9	89.0	89.0	89.0	89.1	89.1	89.1	89.2	89.2	89.2	89.2	89.2	89.2	
IV 3000	69.8	89.6	90.1	90.2	90.2	90.2	90.3	90.3	90.3	90.4	90.4	90.4	90.4	90.4	90.4	
IV 2500	70.0	90.0	90.5	90.6	90.7	90.7	90.9	90.9	90.9	91.0	91.0	91.0	91.0	91.0	91.0	
IV 2000	70.3	90.7	91.5	91.6	91.8	91.8	92.0	92.0	92.0	92.2	92.2	92.2	92.2	92.2	92.2	
IV 1800	70.3	90.7	91.5	91.6	91.8	91.8	92.0	92.1	92.1	92.3	92.3	92.3	92.3	92.3	92.3	
IV 1500	70.6	91.9	92.8	92.9	93.0	93.0	93.3	93.4	93.5	93.9	93.9	93.9	93.9	93.9	93.9	
IV 1200	70.8	92.3	93.3	93.4	93.8	94.0	94.4	94.6	94.9	95.3	95.3	95.3	95.3	95.3	95.3	
IV 1000	71.1	93.3	94.3	94.4	95.2	95.4	96.0	96.2	96.4	96.9	96.9	96.9	96.9	96.9	96.9	
IV 500	71.3	93.5	94.5	94.6	95.4	95.8	96.3	96.5	96.8	97.2	97.2	97.2	97.2	97.2	97.2	
IV 800	71.5	93.6	94.8	95.0	95.8	96.1	96.7	96.9	97.1	97.5	97.5	97.5	97.5	97.5	97.5	
IV 700	71.5	93.6	94.8	95.0	95.8	96.1	96.7	96.9	97.1	97.8	97.8	97.8	97.9	97.9	97.9	
IV 600	71.7	94.0	95.1	95.3	96.1	96.4	97.2	97.4	97.7	98.3	98.3	98.3	98.4	98.4	98.4	
IV 500	71.9	94.2	95.3	95.5	96.3	96.8	97.5	97.8	98.0	98.7	98.7	98.7	98.8	98.8	98.8	
IV 400	71.9	94.2	95.4	95.7	96.4	96.9	97.7	97.9	98.1	98.8	98.8	98.8	98.9	98.9	98.9	
IV 300	71.9	94.2	95.4	95.7	96.4	96.9	97.8	98.0	98.2	99.0	99.2	99.2	99.3	99.3	99.3	
IV 200	71.9	94.2	95.4	95.7	96.4	96.9	97.8	98.0	98.2	99.0	99.3	99.3	99.4	99.4	99.4	
IV 100	71.9	94.2	95.4	95.7	96.4	96.9	97.8	98.0	98.2	99.0	99.4	99.4	99.6	99.6	99.6	
IV 0	71.9	94.2	95.4	95.7	96.4	96.9	97.8	98.0	98.2	99.0	99.4	99.4	99.6	99.6	100.0	

TOTAL NUMBER OF OBSERVATIONS

897

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

NDV  
MURPH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

2100-2300  
HOURS U.S.T.

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5'16	¾	≥0
NO CEILING	40.2	52.3	52.3	52.3	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
≥ 20000	47.8	62.0	62.0	62.1	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3
IV 18000	47.9	62.3	62.3	62.4	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
IV 16000	47.9	62.3	62.3	62.4	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
IV 14000	49.6	64.0	64.0	64.1	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3
IV 12000	54.0	69.5	69.5	69.6	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8	69.8
IV 10000	59.8	76.1	76.1	76.3	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5	76.5
IV 9000	60.6	77.9	77.9	78.0	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3	78.3
IV 8000	62.8	80.0	80.0	80.2	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4
IV 7000	64.3	81.7	81.7	81.8	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1	82.1
IV 6000	65.7	83.6	83.7	83.8	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1
IV 5000	66.8	85.1	85.3	85.5	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7
IV 4500	67.1	86.1	86.3	86.5	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7	86.7
IV 4000	68.3	88.1	88.3	88.5	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9
IV 3500	69.6	89.7	90.0	90.2	90.5	90.5	90.5	90.5	90.5	90.5	90.7	90.7	90.7	90.7	90.7	90.9
IV 3000	70.1	90.3	90.6	90.9	91.2	91.2	91.2	91.2	91.2	91.2	91.4	91.4	91.4	91.4	91.4	91.5
IV 2500	71.0	91.3	91.6	91.9	92.2	92.2	92.2	92.2	92.2	92.2	92.4	92.4	92.4	92.4	92.4	92.5
IV 2000	71.3	91.9	92.3	92.5	92.9	93.0	93.0	93.0	93.0	93.0	93.3	93.3	93.3	93.3	93.3	93.4
IV 1800	71.3	92.0	92.4	92.6	93.0	93.2	93.2	93.2	93.2	93.2	93.5	93.5	93.5	93.5	93.5	93.6
IV 1500	71.5	92.4	92.9	93.1	93.8	94.0	94.1	94.1	94.1	94.1	94.4	94.4	94.4	94.4	94.4	94.5
IV 1200	71.5	92.6	93.1	93.3	94.1	94.3	94.4	94.4	94.4	94.5	94.9	94.9	94.9	94.9	94.9	95.0
IV 1000	71.7	93.0	93.4	93.6	94.4	94.6	94.8	94.8	94.8	95.0	95.7	95.7	95.7	95.7	95.7	95.8
IV 900	72.2	93.8	94.2	94.4	95.3	95.5	95.7	95.7	95.7	95.9	96.5	96.5	96.5	96.5	96.5	96.7
IV 800	72.4	94.0	94.4	94.6	95.5	95.8	95.9	95.9	95.9	96.1	96.8	96.8	96.8	96.8	96.8	96.9
IV 700	72.4	94.1	94.5	94.8	95.7	96.0	96.1	96.1	96.3	96.3	97.1	97.1	97.1	97.1	97.1	97.2
IV 600	72.4	94.1	94.5	94.8	95.7	96.0	96.2	96.2	96.5	96.5	97.4	97.4	97.4	97.4	97.4	97.5
IV 500	72.4	94.1	94.6	94.9	95.8	96.1	96.3	96.3	96.7	96.7	97.5	97.5	97.5	97.5	97.5	97.7
IV 400	72.5	94.4	95.0	95.2	96.1	96.4	96.7	96.7	97.0	97.0	97.9	97.9	97.9	97.9	97.9	98.0
IV 300	72.5	94.5	95.1	95.3	96.2	96.5	96.8	96.8	97.1	97.1	98.0	98.2	98.2	98.3	98.3	98.4
IV 200	72.5	94.5	95.1	95.3	96.3	96.7	97.0	97.0	97.3	97.3	98.2	98.4	98.4	98.6	98.6	98.7
IV 100	72.5	94.5	95.1	95.3	96.3	96.7	97.0	97.0	97.3	97.3	98.2	98.4	98.4	98.6	98.6	98.7
IV 0	72.5	94.5	95.1	95.3	96.3	96.7	97.0	97.0	97.3	97.3	98.2	98.4	98.4	98.6	98.6	100.0

TOTAL NUMBER OF OBSERVATIONS

897

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

NIIV  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

ALL  
HOURLY

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2½	≥ 2	≥ 1½	≥ 1¼	≥ 1	≥ ¾	≥ ¾	≥ ½	≥ 5-16	≥ ¼	≥ 0
NO CEILING ≥ 20000	42.1	48.4	48.6	48.6	48.7	48.8	48.8	48.8	48.8	48.8	48.8	48.9	48.9	48.9	48.9	48.9
IV 18000 IV 16000	51.2	59.1	59.2	59.3	59.3	59.5	59.5	59.5	59.5	59.6	59.6	59.6	59.6	59.6	59.6	59.7
IV 14000 IV 12000	51.5	59.5	59.6	59.7	59.8	59.9	59.9	59.9	59.9	59.9	59.9	60.0	60.0	60.0	60.0	60.0
IV 10000 IV 9000	52.7	60.7	60.9	60.9	61.1	61.1	61.1	61.1	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.3
IV 8000 IV 7000	57.8	66.6	66.7	66.8	66.9	66.9	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.1	67.1	67.1
IV 6000 IV 5000	64.4	73.9	74.1	74.2	74.3	74.4	74.4	74.4	74.4	74.4	74.5	74.5	74.5	74.5	74.6	74.6
IV 4500 IV 4000	65.5	75.3	75.5	75.6	75.7	75.7	75.8	75.8	75.8	75.8	75.9	75.9	75.9	75.9	76.0	76.0
IV 3500 IV 3000	67.5	77.5	77.7	77.8	77.9	78.0	78.0	78.0	78.0	78.1	78.1	78.1	78.1	78.2	78.2	78.2
IV 2500 IV 2000	69.1	79.3	79.4	79.5	79.7	79.7	79.8	79.8	79.8	79.8	79.9	79.9	79.9	80.0	80.0	80.1
IV 1800 IV 1500	70.2	80.5	80.7	80.8	81.0	81.0	81.1	81.1	81.1	81.1	81.1	81.2	81.2	81.3	81.3	81.3
IV 1200 IV 1000	72.0	82.7	83.0	83.1	83.2	83.4	83.4	83.5	83.5	83.5	83.6	83.6	83.6	83.7	83.7	83.7
IV 900 IV 800	72.7	83.7	84.0	84.1	84.3	84.4	84.5	84.5	84.6	84.6	84.6	84.6	84.7	84.7	84.7	84.8
IV 700 IV 600	74.1	85.6	85.9	86.1	86.4	86.5	86.5	86.6	86.6	86.7	86.7	86.7	86.8	86.8	86.8	86.9
IV 500 IV 400	74.9	86.5	86.9	87.1	87.4	87.5	87.6	87.6	87.7	87.8	87.8	87.8	87.9	87.9	87.9	88.0
IV 300 IV 200	75.5	87.5	87.9	88.1	88.5	88.6	88.7	88.8	88.9	88.9	89.0	89.0	89.1	89.1	89.1	89.2
IV 100 IV 0	75.9	88.2	88.6	88.8	89.3	89.4	89.5	89.6	89.7	89.8	89.8	89.8	89.9	89.9	89.9	90.0
	76.2	88.8	89.4	89.5	90.1	90.3	90.4	90.6	90.7	90.8	90.9	90.9	91.0	91.0	91.0	91.1
	76.3	89.0	89.6	89.8	90.3	90.5	90.7	90.9	90.9	91.1	91.2	91.2	91.3	91.3	91.3	91.4
	76.5	89.7	90.3	90.5	91.2	91.4	91.7	91.9	92.0	92.3	92.4	92.4	92.5	92.5	92.6	92.6
	76.8	90.2	90.9	91.1	91.9	92.2	92.6	92.9	93.2	93.5	93.6	93.7	93.8	93.8	93.8	93.9
	76.9	90.7	91.4	91.7	92.6	93.0	93.5	93.8	94.2	94.8	94.9	94.9	95.0	95.1	95.1	95.2
	77.1	91.0	91.8	92.1	93.1	93.4	94.0	94.4	94.8	95.4	95.5	95.6	95.7	95.7	95.8	95.8
	77.1	91.1	91.9	92.2	93.2	93.6	94.1	94.6	95.0	95.6	95.7	95.8	95.9	95.9	96.0	96.0
	77.2	91.3	92.0	92.4	93.4	93.8	94.3	94.8	95.2	96.0	96.1	96.2	96.3	96.3	96.4	96.5
	77.2	91.5	92.3	92.7	93.7	94.2	94.8	95.2	95.7	96.5	96.7	96.8	96.9	97.0	97.1	97.1
	77.3	91.6	92.5	92.9	94.0	94.5	95.1	95.6	96.1	97.0	97.2	97.3	97.4	97.5	97.6	97.7
	77.3	91.8	92.7	93.0	94.1	94.6	95.3	95.8	96.3	97.2	97.5	97.6	97.7	97.8	97.9	98.0
	77.3	91.8	92.7	93.1	94.2	94.8	95.5	96.0	96.5	97.5	97.8	97.9	98.1	98.2	98.4	98.4
	77.3	91.8	92.7	93.1	94.3	94.9	95.6	96.2	96.7	97.7	98.1	98.2	98.4	98.5	98.8	98.9
	77.3	91.8	92.7	93.1	94.3	94.9	95.6	96.2	96.7	97.7	98.1	98.2	98.5	98.6	98.9	99.3
	77.3	91.8	92.7	93.1	94.3	94.9	95.6	96.2	96.7	97.7	98.1	98.2	98.5	98.6	99.0	100.0

TOTAL NUMBER OF OBSERVATIONS

7193



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

67-76  
YEARS

DEC  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0000-0200  
HOURS EST

CEILING FEET	VISIBILITY (STATUTE MILES)																
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	½	¼	1/16	0	0	
NO CEILING	28.6	43.7	44.0	44.0	44.3	44.3	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.8	44.9	45.1	45.3
≥ 20000	36.6	56.1	56.5	56.5	56.9	56.9	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.6	57.7	57.8	58.1
≥ 18000	36.9	56.5	56.8	56.8	57.2	57.2	57.6	57.6	57.6	57.6	57.6	57.6	57.6	58.0	58.1	58.2	58.4
≥ 16000	36.9	56.5	56.8	56.8	57.2	57.2	57.6	57.6	57.6	57.6	57.6	57.6	57.6	58.0	58.1	58.2	58.4
≥ 14000	37.3	56.9	57.2	57.2	57.6	57.6	58.1	58.1	58.1	58.1	58.1	58.1	58.1	58.4	58.5	58.6	58.8
≥ 12000	39.9	60.0	60.3	60.3	60.8	60.8	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.5	61.6	61.7	61.9
≥ 10000	48.0	69.1	69.5	69.5	69.9	69.9	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.6	70.8	70.9	71.1
≥ 9000	48.6	70.0	70.3	70.3	70.8	70.8	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.5	71.6	71.7	71.9
≥ 8000	50.5	72.3	72.6	72.6	73.0	73.0	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.8	73.9	74.0	74.2
≥ 7000	51.5	73.5	73.9	73.9	74.5	74.6	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.4	75.5	75.6	75.8
≥ 6000	52.3	74.8	75.2	75.2	75.8	75.9	76.3	76.3	76.3	76.3	76.3	76.3	76.3	76.7	76.8	76.9	77.1
≥ 5000	54.1	78.3	78.6	78.6	79.2	79.5	79.9	79.9	79.9	79.9	79.9	79.9	79.9	80.2	80.3	80.4	80.6
≥ 4500	54.7	79.6	79.9	79.9	80.5	80.8	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.5	81.6	81.7	81.9
≥ 4000	55.9	81.7	82.2	82.2	82.8	83.0	83.4	83.4	83.8	83.8	83.8	83.8	83.8	84.1	84.2	84.3	84.5
≥ 3500	56.3	82.5	83.0	83.0	83.7	83.9	84.5	84.5	84.8	84.8	84.8	84.8	84.8	85.2	85.3	85.4	85.6
≥ 3000	57.1	83.4	84.0	84.0	84.6	84.8	85.5	85.6	86.1	86.1	86.1	86.1	86.5	86.6	86.7	86.9	87.1
≥ 2500	57.7	84.5	85.1	85.1	85.8	86.0	86.7	86.8	87.3	87.3	87.3	87.3	87.6	87.7	87.8	87.8	88.1
≥ 2000	57.8	85.2	86.1	86.1	87.3	87.5	88.3	88.5	89.0	89.0	89.0	89.0	89.4	89.5	89.6	89.8	89.8
≥ 1800	57.8	85.3	86.3	86.3	87.7	88.0	88.8	89.0	89.6	89.6	89.6	89.6	89.9	90.0	90.1	90.3	90.3
≥ 1500	58.2	85.8	87.3	87.3	88.8	89.1	90.0	90.2	90.8	90.9	90.9	90.9	91.2	91.3	91.5	91.7	91.7
≥ 1200	58.4	86.6	88.4	88.6	90.3	90.8	91.6	92.3	92.8	92.9	92.9	92.9	93.2	93.3	93.5	93.8	93.8
≥ 1000	58.5	86.8	89.0	89.2	91.1	91.5	92.4	93.0	93.5	93.9	94.1	94.1	94.4	94.5	94.7	94.9	94.9
≥ 900	58.5	86.8	89.0	89.2	91.1	91.5	92.4	93.1	93.7	94.0	94.2	94.3	94.6	94.7	94.9	95.2	95.2
≥ 800	58.5	86.9	89.1	89.4	91.3	91.7	92.6	93.3	93.9	94.2	94.4	94.7	95.3	95.4	95.6	95.8	95.8
≥ 700	58.5	87.2	89.6	90.0	91.9	92.4	93.2	94.2	94.7	95.1	95.4	95.7	96.2	96.3	96.6	96.8	96.8
≥ 600	58.5	87.3	89.7	90.1	92.0	92.5	93.3	94.5	95.2	95.5	95.8	96.1	96.8	96.9	97.1	97.5	97.5
≥ 500	59.0	88.0	90.3	90.8	92.7	93.1	94.0	95.3	95.9	96.2	96.7	97.0	97.6	97.7	98.0	98.4	98.4
≥ 400	59.0	88.0	90.3	90.8	92.7	93.1	94.1	95.5	96.1	96.5	96.9	97.2	97.8	98.0	98.2	98.6	98.6
≥ 300	59.0	88.0	90.3	90.8	92.7	93.1	94.1	95.5	96.1	96.5	96.9	97.2	97.8	98.0	98.1	98.3	98.8
≥ 200	59.0	88.1	90.4	90.9	92.8	93.2	94.2	95.6	96.5	97.0	97.4	97.7	98.7	98.8	99.0	99.6	99.6
≥ 100	59.0	88.1	90.4	90.9	92.8	93.2	94.2	95.6	96.5	97.1	97.5	97.8	98.8	98.9	99.1	99.7	99.7
≥ 0	59.0	88.1	90.4	90.9	92.8	93.2	94.2	95.6	96.5	97.1	97.5	97.8	98.8	98.9	99.1	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 MALMSTROM AFB MT/GREAT FALLS 67-76 YEARS DEC

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0300-0500

CEILING FEET	VISIBILITY (STATUTE MILES)																
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0	
NO CEILING	32.2	47.2	47.5	47.5	47.6	47.6	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.1	48.1	48.1
≥ 20000	39.2	59.7	60.1	60.1	60.2	60.2	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.6	60.6	60.6
IV 18000	39.2	59.7	60.1	60.1	60.2	60.2	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.5	60.6	60.6	60.6
IV 16000	39.4	59.8	60.2	60.2	60.3	60.3	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.8	60.8	60.8
IV 14000	39.7	60.1	60.5	60.5	60.6	60.6	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.0	61.1	61.1	61.1
IV 12000	42.0	62.6	63.0	63.0	63.1	63.1	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.5	63.5	63.5
IV 10000	50.0	71.0	71.4	71.4	71.5	71.5	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.9	71.9	71.9
IV 9000	50.3	71.6	72.0	72.0	72.2	72.2	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.6	72.6	72.6
IV 8000	52.2	73.5	74.0	74.0	74.1	74.1	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.5	74.5	74.5
IV 7000	52.5	74.8	75.5	75.5	75.7	75.8	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.2	76.2	76.2
IV 6000	53.5	76.1	76.9	76.9	77.1	77.2	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.6	77.6	77.6
IV 5000	54.9	78.5	79.4	79.4	80.0	80.1	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.4	80.5	80.5	80.5
IV 4500	55.5	79.0	79.9	79.9	80.5	80.6	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.1	81.1	81.1
IV 4000	56.8	81.0	81.8	81.8	82.5	82.6	82.9	82.9	83.0	83.0	83.0	83.0	83.0	83.0	83.1	83.1	83.1
IV 3500	57.4	82.0	82.9	82.9	83.5	83.7	84.0	84.2	84.5	84.5	84.5	84.5	84.5	84.5	84.6	84.6	84.6
IV 3000	57.6	82.7	83.7	83.7	84.3	84.5	84.9	85.2	85.5	85.5	85.5	85.5	85.5	85.5	85.6	85.6	85.6
IV 2500	57.7	83.5	84.3	84.3	85.2	85.4	85.8	86.0	86.3	86.3	86.3	86.3	86.3	86.3	86.5	86.5	86.5
IV 2000	58.1	84.4	85.5	85.5	86.7	86.9	87.6	87.8	88.2	88.2	88.2	88.2	88.2	88.2	88.3	88.3	88.3
IV 1800	58.2	84.6	85.8	85.8	87.0	87.2	88.1	88.3	88.6	88.6	88.6	88.6	88.6	88.6	88.7	88.7	88.7
IV 1500	58.4	85.5	86.7	86.8	88.2	88.5	89.6	89.8	90.1	90.3	90.4	90.4	90.4	90.4	90.5	90.5	90.5
IV 1200	58.6	85.7	87.2	87.3	88.8	89.1	90.4	90.6	91.0	91.3	91.4	91.4	91.4	91.4	91.5	91.5	91.5
IV 1000	58.8	86.1	87.7	87.8	89.5	89.8	91.3	91.5	91.9	92.6	92.9	92.9	92.9	92.9	93.0	93.0	93.0
IV 900	58.9	86.2	87.8	88.0	89.7	90.0	91.5	91.8	92.3	92.9	93.3	93.3	93.3	93.4	93.5	93.5	93.5
IV 800	58.9	86.2	88.2	88.7	90.4	90.8	92.3	92.6	93.0	93.7	94.2	94.3	94.4	94.5	94.5	94.5	94.5
IV 700	59.1	86.5	88.4	89.0	90.8	91.1	92.8	93.2	93.9	94.5	95.1	95.2	95.3	95.4	95.4	95.4	95.4
IV 600	59.2	86.7	88.6	89.2	91.0	91.3	93.0	93.7	94.4	95.2	95.7	95.8	96.1	96.2	96.2	96.2	96.2
IV 500	59.3	86.9	88.9	89.6	91.3	91.6	93.5	94.3	95.1	96.1	96.7	96.8	97.1	97.2	97.2	97.2	97.2
IV 400	59.5	86.9	88.9	89.6	91.3	91.6	93.5	94.3	95.1	96.1	96.9	97.0	97.3	97.4	97.4	97.4	97.4
IV 300	59.5	86.9	88.9	89.6	91.6	91.9	94.0	94.7	95.5	96.6	97.4	97.5	97.8	98.0	98.0	98.0	98.0
IV 200	59.5	86.9	88.9	89.8	91.8	92.2	94.2	94.9	95.8	96.9	97.7	97.8	98.4	98.5	98.5	98.5	98.5
IV 100	59.5	86.9	88.9	89.8	91.8	92.2	94.2	94.9	95.9	97.1	98.0	98.1	98.6	98.7	98.7	98.7	98.7
IV 0	59.5	86.9	88.9	89.8	91.8	92.2	94.2	94.9	95.9	97.1	98.1	98.2	98.7	98.8	98.8	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRGM AFB MT/GREAT FALLS  
STATION NAME

67-76  
YEARS

DEC  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0600-0800  
HOURS LST

CEILING FEET	VISIBILITY (STATUTE MILES)																
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	≥¼	≥0	
NO CEILING	35.3	43.3	43.4	43.4	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	44.1	44.1	44.2	44.2
≥ 20000	44.1	55.5	55.8	55.8	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.7	56.7	56.8	56.8
IV 18000	44.2	55.6	55.9	55.9	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.8	56.8	56.9	56.9
IV 16000	44.2	55.6	55.9	55.9	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.8	56.8	56.9	56.9
IV 14000	44.4	56.0	56.3	56.3	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	57.2	57.2	57.3	57.3
IV 12000	47.7	59.6	59.9	59.9	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.4	60.8	60.8	60.9	60.9
IV 10000	56.3	69.1	69.5	69.5	70.0	70.0	70.0	70.1	70.1	70.1	70.1	70.1	70.1	70.4	70.4	70.5	70.5
IV 9000	56.6	69.6	69.9	69.9	70.4	70.4	70.4	70.5	70.5	70.5	70.5	70.5	70.5	70.9	70.9	71.0	71.0
IV 8000	58.1	71.3	71.6	71.6	72.2	72.2	72.2	72.3	72.3	72.3	72.3	72.3	72.3	72.6	72.6	72.7	72.7
IV 7000	58.6	72.6	73.2	73.2	73.8	73.8	73.8	73.9	73.9	73.9	73.9	73.9	73.9	74.2	74.2	74.3	74.3
IV 6000	59.2	73.7	74.4	74.4	74.9	74.9	74.9	75.1	75.1	75.1	75.1	75.1	75.1	75.4	75.4	75.5	75.5
IV 5000	61.2	76.3	77.2	77.3	78.0	78.0	78.0	78.1	78.1	78.1	78.1	78.1	78.1	78.4	78.4	78.5	78.5
IV 4500	62.2	77.3	78.2	78.3	78.9	78.9	78.9	79.0	79.0	79.0	79.0	79.0	79.0	79.4	79.4	79.5	79.5
IV 4000	63.4	79.2	80.1	80.2	81.0	81.1	81.1	81.2	81.2	81.2	81.2	81.2	81.2	81.5	81.5	81.6	81.6
IV 3500	63.8	80.1	81.0	81.1	82.0	82.4	82.5	82.6	82.6	82.6	82.6	82.6	82.6	82.9	82.9	83.0	83.0
IV 3000	64.2	81.4	82.3	82.4	83.4	83.9	84.0	84.1	84.1	84.1	84.1	84.1	84.1	84.4	84.4	84.5	84.5
IV 2500	64.3	82.7	83.7	83.8	84.8	85.3	85.5	85.6	85.6	85.6	85.6	85.6	85.6	85.9	85.9	86.0	86.0
IV 2000	64.7	83.5	84.5	84.6	85.9	86.3	86.6	86.7	86.7	86.7	86.7	86.7	86.7	87.0	87.0	87.1	87.1
IV 1800	64.9	83.9	84.8	84.9	86.2	86.7	87.1	87.3	87.3	87.3	87.3	87.3	87.3	87.6	87.6	87.7	87.7
IV 1500	65.7	84.8	85.8	85.9	87.5	88.0	88.5	88.9	88.9	88.9	88.9	88.9	88.9	89.2	89.2	89.4	89.4
IV 1200	66.0	85.9	87.1	87.2	89.0	89.5	90.1	90.6	90.8	90.9	91.0	91.0	91.3	91.3	91.4	91.4	91.4
IV 1000	66.2	86.2	87.4	87.5	89.7	90.1	90.8	91.4	91.5	92.2	92.5	92.5	92.8	92.9	93.0	93.0	93.0
IV 900	66.2	86.2	87.4	87.5	89.7	90.1	90.8	91.4	91.5	92.4	92.7	92.7	93.0	93.1	93.2	93.2	93.2
IV 800	66.5	86.6	87.8	88.0	90.1	90.5	91.2	91.8	91.9	92.8	93.2	93.2	93.5	93.7	93.8	93.8	93.8
IV 700	66.6	86.9	88.4	88.7	90.9	91.3	92.2	92.8	92.9	94.4	94.9	95.3	95.6	95.7	95.8	95.8	95.8
IV 600	66.7	87.1	88.7	89.0	91.2	91.7	92.6	93.2	93.3	94.9	95.6	96.0	96.5	96.6	96.8	96.8	96.8
IV 500	66.7	87.3	88.9	89.2	91.4	91.9	92.8	93.5	93.8	95.8	96.6	97.0	97.4	97.5	97.7	97.7	97.7
IV 400	66.7	87.4	89.0	89.4	91.5	92.0	92.9	93.7	93.9	95.9	96.8	97.2	97.7	97.8	98.1	98.1	98.1
IV 300	66.7	87.4	89.0	89.4	91.6	92.2	93.0	93.8	94.0	96.0	97.0	97.4	98.0	98.1	98.4	98.5	98.5
IV 200	66.8	87.5	89.1	89.5	91.7	92.3	93.1	93.9	94.1	96.2	97.2	97.7	98.5	98.7	99.0	99.1	99.1
IV 100	66.8	87.5	89.2	89.6	91.8	92.4	93.2	94.1	94.3	96.5	97.5	98.1	98.8	99.1	99.6	99.7	99.7
IV 0	66.8	87.5	89.2	89.6	91.8	92.4	93.2	94.1	94.3	96.5	97.5	98.1	98.8	99.1	99.6	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRUM AFB MT/GREAT FALLS  
STATION NAME

67-76  
YEARS

DEC  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

0900-11  
HOURS, L.S.T.

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥5/16	≥¼	≥0	
NO CEILING ≥ 20000	36.8	37.7	37.8	37.8	30.2	38.3	38.3	38.3	38.4	38.6	38.6	38.6	38.8	38.8	38.8	38.8
IV 18000 IV 16000	49.2	50.3	50.5	50.5	50.9	51.0	51.1	51.1	51.2	51.4	51.4	51.4	51.6	51.6	51.6	51.6
IV 14000 IV 12000	50.4	51.5	51.7	51.7	52.0	52.2	52.3	52.3	52.4	52.6	52.6	52.6	52.8	52.8	52.8	52.8
IV 10000 IV 9000	68.0	69.2	69.5	69.5	69.8	69.9	70.0	70.0	70.1	70.3	70.3	70.3	70.5	70.5	70.5	70.5
IV 8000 IV 7000	73.3	74.7	74.9	75.1	75.5	75.6	75.7	75.7	75.8	76.0	76.0	76.0	76.2	76.2	76.2	76.2
IV 6000 IV 5000	75.7	78.0	78.2	78.3	78.9	79.0	79.4	79.4	79.5	79.7	79.7	79.7	79.9	79.9	79.9	79.9
IV 4500 IV 4000	77.6	80.8	81.1	81.2	82.0	82.2	82.7	82.7	82.8	83.0	83.0	83.0	83.2	83.3	83.3	83.3
IV 3500 IV 3000	79.1	82.9	83.3	83.5	84.5	84.6	85.4	85.4	85.6	85.8	85.8	85.9	86.1	86.2	86.2	86.2
IV 2500 IV 2000	79.7	84.5	85.3	85.5	87.0	87.2	88.1	88.5	88.8	89.0	89.0	89.1	89.4	89.5	89.5	89.5
IV 1800 IV 1500	79.9	85.1	86.0	86.2	87.8	88.1	89.1	89.7	90.1	90.4	90.4	90.5	90.8	90.9	90.9	90.9
IV 1200 IV 1000	80.1	85.7	86.8	87.1	88.7	88.9	90.4	91.6	92.0	92.5	92.5	92.8	93.0	93.1	93.1	93.1
IV 900 IV 800	80.1	86.3	87.4	87.7	89.4	89.8	91.3	92.6	93.2	93.8	94.0	94.3	94.5	94.6	94.6	94.6
IV 700 IV 600	80.2	86.8	87.8	88.4	90.4	90.9	92.4	93.7	94.4	95.5	95.9	96.2	96.5	96.6	96.6	96.6
IV 500 IV 400	80.2	87.0	88.1	88.6	90.6	91.4	93.0	94.4	95.6	97.1	97.8	98.3	98.5	98.6	98.6	98.6
IV 300 IV 200	80.2	87.0	88.2	88.7	90.8	91.5	93.2	94.7	95.9	97.4	98.2	98.7	99.1	99.4	99.4	99.4
IV 100 IV 0	80.2	87.0	88.2	88.7	90.8	91.5	93.2	94.7	95.9	97.4	98.2	98.8	99.2	99.7	99.7	99.7

TOTAL NUMBER OF OBSERVATIONS

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTRUM AFB MT/GREAT FALLS  
STATION NAME

67-76  
YEARS

DEC  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

0900-1100  
TIME

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5-16	¾	≥0
NO CEILING	36.8	37.7	37.8	37.8	38.2	38.3	38.3	38.3	38.4	38.6	38.6	38.6	38.8	38.8	38.8	38.8
≥ 20000	48.9	50.0	50.2	50.2	50.5	50.6	50.8	50.8	50.9	51.1	51.1	51.1	51.3	51.3	51.3	51.3
IV 18000	49.2	50.3	50.5	50.5	50.9	51.0	51.1	51.1	51.2	51.4	51.4	51.4	51.6	51.6	51.6	51.6
IV 16000	49.4	50.4	50.6	50.6	51.0	51.1	51.2	51.2	51.3	51.5	51.5	51.5	51.7	51.7	51.7	51.7
IV 14000	50.4	51.5	51.7	51.7	52.0	52.2	52.3	52.3	52.4	52.6	52.6	52.6	52.8	52.8	52.8	52.8
IV 12000	56.6	57.6	57.8	57.8	58.2	58.3	58.4	58.4	58.5	58.7	58.7	58.7	58.9	58.9	58.9	58.9
IV 10000	68.0	69.2	69.5	69.5	69.8	69.9	70.0	70.0	70.1	70.3	70.3	70.3	70.5	70.5	70.5	70.5
IV 9000	69.4	70.6	70.9	70.9	71.2	71.3	71.4	71.4	71.5	71.7	71.7	71.7	71.9	71.9	71.9	71.9
IV 8000	73.3	74.7	74.9	75.1	75.5	75.6	75.7	75.7	75.8	76.0	76.0	76.0	76.2	76.2	76.2	76.2
IV 7000	74.3	76.5	76.7	76.8	77.4	77.5	77.7	77.7	77.8	78.1	78.1	78.1	78.3	78.3	78.3	78.3
IV 6000	75.7	78.0	78.2	78.3	78.9	79.0	79.4	79.4	79.5	79.7	79.7	79.7	79.9	79.9	79.9	79.9
IV 5000	77.4	80.3	80.5	80.6	81.5	81.6	82.0	82.0	82.2	82.4	82.4	82.4	82.6	82.7	82.7	82.7
IV 4500	77.6	80.8	81.1	81.2	82.0	82.2	82.7	82.7	82.8	83.0	83.0	83.0	83.2	83.3	83.3	83.3
IV 4000	78.9	82.7	83.1	83.3	84.2	84.3	84.9	84.9	85.1	85.3	85.3	85.4	85.6	85.7	85.7	85.7
IV 3500	79.1	82.9	83.3	83.5	84.5	84.6	85.4	85.4	85.6	85.8	85.8	85.9	86.1	86.2	86.2	86.2
IV 3000	79.2	83.8	84.4	84.6	85.8	86.0	86.8	86.8	87.0	87.2	87.2	87.3	87.5	87.6	87.6	87.6
IV 2500	79.7	84.5	85.3	85.5	87.0	87.2	88.1	88.5	88.8	89.0	89.0	89.1	89.4	89.5	89.5	89.5
IV 2000	79.7	84.6	85.5	85.7	87.3	87.5	88.5	89.0	89.5	89.8	89.8	89.9	90.1	90.2	90.2	90.2
IV 1800	79.9	85.1	86.0	86.2	87.8	88.1	89.1	89.7	90.1	90.4	90.4	90.5	90.8	90.9	90.9	90.9
IV 1500	80.1	85.5	86.6	86.9	88.5	88.7	90.2	91.1	91.5	91.8	91.8	92.2	92.4	92.5	92.5	92.5
IV 1200	80.1	85.7	86.8	87.1	88.7	88.9	90.4	91.6	92.0	92.5	92.5	92.8	93.0	93.1	93.1	93.1
IV 1000	80.1	86.2	87.3	87.6	89.2	89.7	91.2	92.6	93.0	93.5	93.8	94.1	94.3	94.4	94.4	94.4
IV 900	80.1	86.3	87.4	87.7	89.4	89.8	91.3	92.6	93.2	93.8	94.0	94.3	94.5	94.6	94.6	94.6
IV 800	80.2	86.7	87.7	88.1	89.8	90.2	91.7	93.0	93.8	94.3	94.6	94.9	95.2	95.3	95.3	95.3
IV 700	80.2	86.8	87.8	88.4	90.4	90.9	92.4	93.7	94.4	95.5	95.9	96.2	96.5	96.6	96.6	96.6
IV 600	80.2	86.9	88.0	88.5	90.5	91.0	92.6	94.0	95.1	96.5	97.0	97.3	97.5	97.6	97.6	97.6
IV 500	80.2	87.0	88.1	88.6	90.6	91.4	93.0	94.4	95.6	97.1	97.8	98.3	98.5	98.6	98.6	98.6
IV 400	80.2	87.0	88.1	88.6	90.6	91.4	93.0	94.4	95.6	97.1	97.8	98.3	98.5	98.6	98.6	98.6
IV 300	80.2	87.0	88.2	88.7	90.8	91.5	93.2	94.7	95.9	97.4	98.2	98.7	99.1	99.4	99.4	99.4
IV 200	80.2	87.0	88.2	88.7	90.8	91.5	93.2	94.7	95.9	97.4	98.2	98.8	99.2	99.7	99.7	99.7
IV 100	80.2	87.0	88.2	88.7	90.8	91.5	93.2	94.7	95.9	97.4	98.2	98.8	99.2	99.7	99.7	99.7
IV 0	80.2	87.0	88.2	88.7	90.8	91.5	93.2	94.7	95.9	97.4	98.2	98.8	99.2	99.7	99.7	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
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MALMSTROM AFB MT/GREAT FALLS  
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YEARS

DEC  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1200-1400  
HOURS EST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¼	≥0
NO CEILING	41.9	42.3	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.8	42.8	42.8	42.8	42.8	42.8	42.8
≥ 20000	51.8	52.5	53.0	53.1	53.1	53.1	53.1	53.1	53.2	53.2	53.3	53.3	53.3	53.3	53.3	53.3
≥ 18000	51.8	52.5	53.0	53.1	53.1	53.1	53.1	53.1	53.2	53.2	53.3	53.3	53.3	53.3	53.3	53.3
≥ 16000	51.8	52.5	53.0	53.1	53.1	53.1	53.1	53.1	53.2	53.2	53.3	53.3	53.3	53.3	53.3	53.3
≥ 14000	52.0	52.7	53.2	53.3	53.3	53.3	53.3	53.4	53.4	53.5	53.5	53.5	53.5	53.5	53.5	53.5
≥ 12000	57.4	58.1	58.6	58.7	58.7	58.7	58.7	58.8	58.8	58.9	58.9	58.9	58.9	58.9	58.9	58.9
≥ 10000	69.2	70.4	71.1	71.2	71.2	71.2	71.2	71.3	71.3	71.4	71.4	71.4	71.4	71.4	71.4	71.4
≥ 9000	70.9	72.0	72.7	72.8	72.8	72.8	72.8	72.8	72.9	72.9	73.0	73.0	73.0	73.0	73.0	73.0
≥ 8000	74.6	75.8	76.5	76.6	76.6	76.6	76.6	76.6	76.7	76.7	76.8	76.8	76.8	76.8	76.8	76.8
≥ 7000	75.9	77.4	78.1	78.2	78.4	78.5	78.6	78.7	78.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8
≥ 6000	77.8	79.6	80.2	80.3	80.5	80.6	80.8	80.9	80.9	81.0	81.0	81.0	81.0	81.0	81.0	81.0
≥ 5000	79.2	81.3	81.9	82.0	82.3	82.4	82.7	83.0	83.0	83.1	83.1	83.1	83.1	83.1	83.1	83.1
≥ 4500	79.9	82.3	82.9	83.0	83.2	83.3	83.7	84.0	84.0	84.1	84.1	84.1	84.1	84.1	84.1	84.1
≥ 4000	81.2	84.2	85.1	85.3	86.0	86.2	86.8	87.2	87.4	87.5	87.5	87.7	87.7	87.7	87.7	87.7
≥ 3500	81.4	84.5	85.4	85.6	86.3	86.6	87.1	87.5	87.8	88.0	88.0	88.2	88.2	88.2	88.2	88.2
≥ 3000	81.8	85.1	85.9	86.1	87.1	87.3	87.8	88.3	88.6	88.7	88.7	88.9	88.9	88.9	88.9	88.9
≥ 2500	81.9	85.4	86.3	86.7	87.6	87.8	88.4	88.9	89.4	89.6	89.6	89.8	89.8	89.8	89.8	89.8
≥ 2000	82.3	85.9	87.1	87.5	88.6	88.8	89.4	89.9	90.3	90.5	90.5	90.8	90.8	90.8	90.8	90.8
≥ 1800	82.3	86.1	87.3	87.7	88.8	89.0	89.6	90.1	90.6	90.9	90.9	91.1	91.1	91.1	91.1	91.1
≥ 1500	82.3	86.3	87.7	88.2	89.8	90.0	90.5	91.3	91.8	92.2	92.2	92.4	92.4	92.4	92.4	92.4
≥ 1200	82.3	86.5	87.8	88.3	90.0	90.2	90.9	91.8	92.6	92.9	92.9	93.1	93.1	93.1	93.1	93.1
≥ 1000	82.4	86.7	88.2	88.6	90.5	90.8	91.6	92.8	93.8	94.4	94.5	94.7	94.9	94.9	94.9	94.9
≥ 900	82.4	86.8	88.3	88.7	90.6	90.9	91.8	93.0	94.1	94.7	94.8	95.1	95.3	95.3	95.3	95.3
≥ 800	82.5	87.1	88.6	89.0	91.0	91.2	92.3	93.8	94.9	95.6	95.7	95.9	96.1	96.1	96.1	96.1
≥ 700	82.5	87.3	88.9	89.4	91.4	91.6	92.7	94.3	95.5	96.1	96.3	96.6	96.8	96.8	96.8	96.8
≥ 600	82.6	87.4	89.0	89.5	91.5	91.7	93.0	94.7	96.2	97.0	97.4	97.6	98.0	98.0	98.0	98.0
≥ 500	82.7	87.5	89.1	89.6	91.6	91.8	93.1	94.8	96.3	97.2	97.7	98.0	98.5	98.6	98.6	98.6
≥ 400	82.7	87.5	89.1	89.6	91.6	91.8	93.1	94.9	96.5	97.3	97.8	98.1	98.7	98.8	98.8	98.8
≥ 300	82.7	87.5	89.1	89.6	91.6	91.8	93.1	94.9	96.5	97.3	98.0	98.2	98.8	98.9	98.9	98.9
≥ 200	82.7	87.5	89.1	89.6	91.6	91.8	93.1	94.9	96.5	97.5	98.2	98.4	99.0	99.1	99.1	99.1
≥ 100	82.7	87.5	89.1	89.6	91.6	91.8	93.2	95.1	96.6	97.6	98.2	98.5	99.1	99.6	99.7	99.7
≥ 0	82.7	87.5	89.1	89.6	91.6	91.8	93.2	95.1	96.6	97.6	98.3	98.5	99.1	99.6	99.7	100.0

TOTAL NUMBER OF OBSERVATIONS

930

USAF ETAC

FORM  
 JUL 64

0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112

MALMSTROM AFB MT/GREAT FALLS

67-76

DEC

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1500-1700  
HOURS CST

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	≥½	≥5/16	¼	≥0
NO CEILING	39.9	41.0	41.3	41.3	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6
≥2000	51.8	53.1	53.5	53.5	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8
≥1800	52.0	53.3	53.7	53.7	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0
≥1600	52.1	53.4	53.8	53.8	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1
≥1400	52.4	53.7	54.1	54.1	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5
≥1200	59.2	60.6	61.0	61.0	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4
≥1000	68.8	70.7	71.3	71.3	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6	71.6
≥900	69.8	72.0	72.6	72.6	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9
≥800	74.7	77.2	77.7	77.7	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
≥700	75.8	78.5	79.0	79.0	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4	79.4
≥600	77.6	80.3	80.8	80.8	81.3	81.3	81.4	81.4	81.4	81.4	81.5	81.5	81.5	81.5	81.5	81.5
≥500	79.8	82.6	83.2	83.2	84.1	84.2	84.2	84.2	84.2	84.2	84.4	84.4	84.4	84.4	84.4	84.4
≥450	80.1	83.0	83.7	83.7	84.5	84.6	84.7	84.7	84.7	84.7	84.8	84.8	84.8	84.8	84.8	84.8
≥400	81.6	85.3	86.1	86.2	87.0	87.1	87.2	87.2	87.2	87.2	87.3	87.3	87.3	87.3	87.3	87.3
≥350	81.8	85.5	86.3	86.4	87.2	87.3	87.4	87.4	87.4	87.4	87.5	87.5	87.5	87.5	87.5	87.5
≥300	82.1	86.4	87.3	87.4	88.2	88.3	88.4	88.6	88.6	88.6	88.7	88.7	88.7	88.7	88.7	88.7
≥250	82.6	87.0	87.9	88.1	89.0	89.1	89.3	89.3	89.3	89.3	89.5	89.5	89.5	89.5	89.5	89.5
≥200	83.1	87.8	88.9	89.1	90.2	90.3	90.7	90.7	90.7	90.9	91.1	91.2	91.2	91.2	91.2	91.2
≥180	83.1	87.8	88.9	89.1	90.2	90.3	90.7	90.7	90.9	91.1	91.2	91.2	91.2	91.2	91.2	91.2
≥150	83.1	88.2	89.6	89.8	91.0	91.1	91.5	91.7	91.9	92.1	92.2	92.2	92.2	92.2	92.2	92.2
≥120	83.3	88.5	90.1	90.3	91.5	91.7	92.1	92.4	92.7	93.0	93.1	93.1	93.1	93.1	93.1	93.1
≥100	83.5	88.7	90.4	90.7	91.9	92.1	92.9	93.4	94.0	95.0	95.3	95.3	95.5	95.5	95.5	95.5
≥90	83.6	88.8	90.5	90.9	92.1	92.4	93.1	93.9	94.5	95.6	96.0	96.0	96.2	96.2	96.2	96.2
≥80	83.7	88.9	90.6	91.0	92.2	92.5	93.2	94.2	94.9	96.0	96.6	96.6	96.8	96.8	96.8	96.8
≥70	83.7	88.9	90.7	91.1	92.4	92.6	93.3	94.5	95.3	96.6	97.2	97.2	97.4	97.4	97.4	97.4
≥60	83.7	89.0	90.9	91.2	92.5	92.8	93.5	94.9	95.7	97.1	97.7	97.7	98.2	98.2	98.2	98.2
≥50	83.7	89.0	90.9	91.2	92.6	92.9	93.6	95.0	95.8	97.4	98.1	98.2	98.5	98.5	98.5	98.5
≥40	83.7	89.0	90.9	91.2	92.6	92.9	93.6	95.0	95.9	97.6	98.3	98.4	98.7	98.8	98.8	98.8
≥30	83.7	89.1	91.0	91.3	92.7	93.0	93.8	95.2	96.0	97.7	98.5	98.6	98.9	99.0	99.0	99.0
≥20	83.7	89.1	91.0	91.3	92.7	93.0	93.8	95.2	96.0	97.8	98.7	98.8	99.2	99.4	99.4	99.4
≥10	83.7	89.1	91.0	91.3	92.7	93.0	93.8	95.2	96.0	98.0	98.8	98.9	99.4	99.6	99.7	99.7
≥0	83.7	89.1	91.0	91.3	92.7	93.0	93.8	95.2	96.0	98.0	98.8	98.9	99.4	99.6	99.7	100.0

TOTAL NUMBER OF OBSERVATIONS

929

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

67-76  
YEARS

DEC  
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

1200-2000  
HOURS 15'

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5 16	¾	≥0
NO CEILING	30.9	43.4	43.9	43.9	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2
≥ 20000	36.8	54.8	55.3	55.3	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6
≥ 18000	36.9	54.9	55.4	55.4	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7
≥ 16000	37.1	55.2	55.6	55.6	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9
≥ 14000	37.7	55.8	56.2	56.2	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6
≥ 12000	40.2	58.9	59.4	59.4	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7
≥ 10000	48.2	69.4	69.8	69.8	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1
≥ 9000	49.0	70.9	71.3	71.3	71.6	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7	71.7
≥ 8000	52.3	75.1	75.5	75.5	75.9	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0
≥ 7000	52.8	75.9	76.3	76.3	76.9	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0
≥ 6000	54.5	77.7	78.2	78.2	78.7	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9
≥ 5000	56.6	80.8	81.3	81.3	82.0	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3
≥ 4500	56.9	81.3	81.8	81.8	82.7	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9	82.9
≥ 4000	57.6	82.5	83.0	83.0	84.0	84.2	84.2	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4	84.4
≥ 3500	58.4	83.3	83.9	83.9	84.9	85.2	85.2	85.4	85.4	85.7	85.7	85.7	85.7	85.7	85.7	85.7
≥ 3000	58.8	84.4	84.9	84.9	86.2	86.8	86.9	87.1	87.1	87.4	87.4	87.4	87.4	87.4	87.4	87.4
≥ 2500	59.1	85.1	85.6	85.7	87.1	87.7	88.0	88.2	88.3	88.6	88.6	88.6	88.6	88.6	88.6	88.6
≥ 2000	59.9	86.5	87.0	87.2	89.2	90.1	90.6	90.9	91.0	91.5	91.5	91.5	91.5	91.5	91.5	91.5
≥ 1800	59.9	86.9	87.7	88.1	90.3	91.3	91.8	92.0	92.2	92.7	92.7	92.7	92.7	92.7	92.7	92.7
≥ 1500	60.5	87.8	88.8	89.2	91.5	92.6	93.4	93.7	93.8	94.5	94.5	94.5	94.5	94.5	94.5	94.5
≥ 1200	60.6	88.3	89.5	89.9	92.3	93.3	94.2	94.5	94.6	95.4	95.5	95.5	95.5	95.5	95.5	95.5
≥ 1000	60.6	88.5	89.7	90.1	92.8	94.0	94.8	95.3	95.4	96.3	96.5	96.5	96.5	96.5	96.5	96.5
≥ 900	60.6	88.5	89.7	90.1	93.0	94.3	95.2	95.7	95.8	96.8	96.9	96.9	96.9	96.9	96.9	96.9
≥ 800	60.6	88.5	89.7	90.1	93.0	94.3	95.2	95.7	95.8	97.0	97.1	97.1	97.1	97.1	97.1	97.1
≥ 700	60.6	88.5	89.8	90.2	93.1	94.4	95.3	95.8	95.9	97.1	97.2	97.3	97.3	97.3	97.3	97.3
≥ 600	60.6	88.5	89.8	90.2	93.2	94.5	95.4	96.0	96.1	97.4	97.6	97.7	97.7	97.7	97.7	97.7
≥ 500	60.6	88.5	89.9	90.3	93.4	94.8	95.7	96.3	96.5	97.7	98.0	98.1	98.1	98.1	98.1	98.1
≥ 400	60.6	88.5	89.9	90.3	93.4	94.8	95.7	96.5	96.6	98.2	98.4	98.5	98.5	98.5	98.5	98.5
≥ 300	60.6	88.5	89.9	90.3	93.4	94.8	95.7	96.6	96.9	98.5	98.7	98.8	98.8	98.8	98.8	98.8
≥ 200	60.6	88.5	89.9	90.3	93.4	94.8	95.7	96.6	96.9	99.1	99.2	99.5	99.5	99.5	99.5	99.5
≥ 100	60.6	88.5	89.9	90.3	93.4	94.8	95.7	96.6	97.0	99.0	99.5	99.6	99.8	99.8	99.8	99.8
≥ 0	60.6	88.5	89.9	90.3	93.4	94.8	95.7	96.6	97.0	99.0	99.5	99.6	99.8	99.8	99.9	100.0

TOTAL NUMBER OF OBSERVATIONS

930

USAF ETAC

FORM  
 JUL 64

0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

67-76  
YEARS

DEC  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

2100-2300  
HOURS

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥5/16	≥¼	≥0
NO CEILING	28.9	42.5	42.5	42.9	43.2	43.3	43.5	43.5	43.5	43.8	43.8	43.8	43.9	43.9	44.0	44.0
IV 20000	37.2	55.4	55.8	55.9	56.2	56.3	56.7	56.7	56.7	56.9	56.9	56.9	57.0	57.0	57.1	57.1
IV 18000	37.6	55.8	56.2	56.3	56.7	56.8	57.1	57.1	57.1	57.3	57.3	57.3	57.4	57.4	57.5	57.5
IV 16000	37.7	55.9	56.3	56.5	56.8	56.9	57.2	57.2	57.2	57.4	57.4	57.4	57.5	57.5	57.6	57.6
IV 14000	38.1	56.2	56.7	56.8	57.1	57.2	57.5	57.5	57.5	57.7	57.7	57.7	57.8	57.8	58.0	58.0
IV 12000	40.8	59.5	59.9	60.0	60.3	60.4	60.8	60.8	60.8	61.0	61.0	61.0	61.1	61.1	61.2	61.2
IV 10000	48.0	68.7	69.1	69.2	69.6	69.7	70.0	70.0	70.0	70.2	70.2	70.2	70.3	70.3	70.4	70.4
IV 9000	48.8	70.0	70.4	70.5	70.9	71.0	71.3	71.3	71.3	71.5	71.5	71.5	71.6	71.6	71.7	71.7
IV 8000	50.9	72.4	72.8	72.9	73.2	73.3	73.7	73.7	73.7	73.9	73.9	73.9	74.0	74.0	74.1	74.1
IV 7000	51.6	73.7	74.1	74.2	74.5	74.6	74.9	74.9	74.9	75.2	75.2	75.2	75.3	75.3	75.4	75.4
IV 6000	52.4	75.6	76.1	76.2	76.6	76.7	77.0	77.0	77.0	77.2	77.2	77.2	77.3	77.3	77.4	77.4
IV 5000	53.5	77.7	78.3	78.4	78.9	79.0	79.4	79.4	79.4	79.6	79.6	79.6	79.7	79.7	79.8	79.8
IV 4500	54.4	79.0	79.6	79.7	80.8	80.9	81.2	81.2	81.2	81.4	81.4	81.4	81.5	81.5	81.6	81.6
IV 4000	56.0	81.8	82.4	82.5	83.5	83.7	84.2	84.2	84.2	84.4	84.4	84.4	84.5	84.5	84.6	84.6
IV 3500	56.8	83.2	83.8	83.9	84.9	85.1	85.8	85.8	85.8	86.0	86.0	86.0	86.1	86.1	86.2	86.2
IV 3000	57.4	84.3	84.9	85.2	86.3	86.5	87.2	87.2	87.2	87.4	87.4	87.4	87.7	87.7	87.8	87.8
IV 2500	57.8	85.3	85.9	86.2	87.4	87.5	88.3	88.3	88.3	88.5	88.5	88.5	88.8	88.8	88.9	88.9
IV 2000	58.2	86.2	87.1	87.4	88.8	89.0	89.8	89.8	89.8	90.0	90.0	90.0	90.3	90.3	90.4	90.4
IV 1800	58.3	87.0	87.8	88.2	89.6	90.0	90.8	90.8	90.8	91.0	91.0	91.0	91.3	91.3	91.4	91.4
IV 1500	58.5	87.7	88.7	89.0	90.5	91.0	92.0	92.0	92.0	92.3	92.3	92.3	92.6	92.6	92.7	92.7
IV 1200	58.6	88.2	89.1	89.5	91.0	91.4	92.6	92.8	92.9	93.2	93.2	93.2	93.5	93.5	93.7	93.7
IV 1000	58.6	88.5	89.5	89.8	91.4	91.8	93.2	93.5	93.8	94.2	94.5	94.5	94.8	94.8	94.9	94.9
IV 900	58.6	88.5	89.5	89.8	91.4	91.8	93.3	93.7	94.0	94.5	94.8	94.8	95.2	95.2	95.3	95.3
IV 800	58.6	88.5	89.5	89.8	91.4	91.8	93.3	93.7	94.0	94.6	94.9	95.3	95.6	95.6	95.7	95.7
IV 700	58.6	88.6	89.7	90.0	91.7	92.3	93.9	94.2	94.5	95.2	95.5	95.8	96.1	96.1	96.2	96.2
IV 600	58.6	88.8	89.9	90.2	92.0	92.6	94.2	94.6	94.9	95.7	96.2	96.6	97.0	97.0	97.1	97.1
IV 500	58.7	89.0	90.1	90.4	92.3	92.8	94.4	94.8	95.2	96.1	96.7	97.0	97.4	97.4	97.5	97.5
IV 400	58.7	89.1	90.2	90.5	92.4	92.9	94.5	95.2	95.8	96.9	97.7	98.1	98.5	98.5	98.6	98.6
IV 300	58.7	89.1	90.2	90.5	92.4	92.9	94.5	95.2	95.9	97.0	98.0	98.3	98.7	98.7	98.8	98.8
IV 200	58.7	89.1	90.2	90.5	92.5	93.0	94.7	95.4	96.1	97.5	98.6	98.9	99.5	99.5	99.7	99.7
IV 100	58.7	89.1	90.2	90.5	92.5	93.1	94.8	95.5	96.2	97.6	98.8	99.1	99.7	99.7	99.9	100.0
IV 0	58.7	89.1	90.2	90.5	92.5	93.1	94.8	95.5	96.2	97.6	98.8	99.1	99.7	99.7	99.9	100.0

TOTAL NUMBER OF OBSERVATIONS

930

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

2-112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

67-76  
YEARS

DEC  
MONTH

## PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

ALL  
HOURS U.S.T.

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	¾	¾	¾	≥5/16	¾	≥0
NO CEILING	34.3	42.6	42.9	42.9	43.2	43.2	43.3	43.3	43.3	43.4	43.4	43.4	43.5	43.5	43.6	43.6
≥ 20000	43.3	54.6	55.0	55.0	55.3	55.4	55.5	55.5	55.5	55.6	55.6	55.6	55.7	55.8	55.8	55.8
≥ 18000	43.5	54.8	55.2	55.2	55.5	55.6	55.7	55.7	55.7	55.8	55.8	55.8	55.9	55.9	56.0	56.0
IV 16000	43.6	54.9	55.3	55.3	55.6	55.6	55.8	55.8	55.8	55.9	55.9	55.9	56.0	56.0	56.1	56.1
≥ 14000	44.0	55.4	55.8	55.8	56.1	56.1	56.3	56.3	56.3	56.4	56.4	56.4	56.5	56.5	56.5	56.6
IV 12000	48.0	59.6	60.0	60.0	60.3	60.3	60.5	60.5	60.5	60.6	60.6	60.6	60.7	60.7	60.8	60.8
≥ 10000	57.1	69.7	70.1	70.2	70.5	70.5	70.6	70.7	70.7	70.7	70.7	70.7	70.9	70.9	70.9	71.0
IV 9000	57.9	70.8	71.3	71.3	71.6	71.6	71.8	71.8	71.8	71.9	71.9	71.9	72.0	72.0	72.1	72.1
≥ 8000	60.8	74.0	74.4	74.5	74.8	74.8	75.0	75.0	75.0	75.1	75.1	75.1	75.2	75.3	75.3	75.3
IV 7000	61.6	75.4	75.8	75.9	76.3	76.4	76.6	76.6	76.6	76.7	76.7	76.7	76.8	76.9	76.9	76.9
≥ 6000	62.9	77.0	77.5	77.5	78.0	78.1	78.3	78.3	78.3	78.4	78.4	78.4	78.5	78.5	78.6	78.6
IV 5000	64.6	79.5	80.1	80.1	80.8	80.9	81.1	81.2	81.2	81.3	81.3	81.3	81.4	81.4	81.5	81.5
≥ 4500	65.2	80.3	80.9	80.9	81.7	81.8	82.0	82.1	82.1	82.2	82.2	82.2	82.3	82.3	82.4	82.4
IV 4000	66.4	82.3	83.0	83.1	83.9	84.0	84.3	84.4	84.5	84.6	84.6	84.6	84.8	84.8	84.9	84.9
≥ 3500	66.9	83.0	83.7	83.8	84.6	84.8	85.2	85.3	85.5	85.6	85.6	85.7	85.8	85.8	85.9	85.9
IV 3000	67.3	83.9	84.7	84.8	85.8	86.0	86.5	86.6	86.8	86.9	86.9	86.9	87.1	87.1	87.2	87.2
≥ 2500	67.6	84.7	85.5	85.7	86.7	87.0	87.5	87.7	87.9	88.0	88.0	88.1	88.2	88.3	88.3	88.3
IV 2000	68.0	85.5	86.5	86.7	88.0	88.3	88.9	89.2	89.4	89.6	89.6	89.6	89.8	89.8	89.9	89.9
≥ 1800	68.0	85.8	86.9	87.1	88.5	88.8	89.5	89.7	90.0	90.2	90.2	90.2	90.4	90.4	90.5	90.5
IV 1500	68.3	86.5	87.6	87.9	89.5	89.9	90.7	91.1	91.4	91.6	91.7	91.7	91.9	91.9	92.0	92.0
≥ 1200	68.5	86.9	88.3	88.5	90.2	90.6	91.5	92.1	92.4	92.8	92.8	92.9	93.0	93.1	93.1	93.1
IV 1000	68.6	87.2	88.7	88.9	90.8	91.2	92.3	92.9	93.4	94.0	94.2	94.3	94.5	94.6	94.6	94.6
≥ 900	68.6	87.3	88.7	89.0	90.9	91.3	92.4	93.1	93.6	94.3	94.6	94.7	94.9	94.9	95.0	95.0
IV 800	68.7	87.4	88.9	89.2	91.2	91.6	92.7	93.5	94.0	94.8	95.1	95.3	95.5	95.6	95.6	95.6
≥ 700	68.7	87.6	89.2	89.6	91.6	92.1	93.2	94.1	94.6	95.6	95.9	96.2	96.4	96.5	96.5	96.5
IV 600	68.8	87.7	89.3	89.7	91.7	92.3	93.5	94.5	95.1	96.2	96.6	96.9	97.2	97.3	97.3	97.4
≥ 500	68.9	87.9	89.5	90.0	92.0	92.6	93.8	94.8	95.5	96.7	97.3	97.5	97.9	98.0	98.0	98.1
IV 400	68.9	87.9	89.6	90.0	92.0	92.6	93.8	94.9	95.7	96.9	97.6	97.8	98.3	98.3	98.4	98.5
≥ 300	68.9	87.9	89.6	90.0	92.1	92.7	93.9	95.1	95.8	97.1	97.8	98.1	98.5	98.6	98.7	98.8
IV 200	68.9	88.0	89.6	90.1	92.2	92.7	94.0	95.1	96.0	97.4	98.1	98.4	99.0	99.1	99.2	99.3
≥ 100	68.9	88.0	89.6	90.1	92.2	92.8	94.0	95.2	96.0	97.5	98.3	98.6	99.2	99.4	99.5	99.7
IV 0	68.9	88.0	89.6	90.1	92.2	92.8	94.0	95.2	96.0	97.5	98.3	98.6	99.2	99.4	99.5	100.0

TOTAL NUMBER OF OBSERVATIONS

7439

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# CEILING VERSUS VISIBILITY

24112 MALMSTRUM AFB MT/GREAT FALLS 67-77 YEARS ALL MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

HOURS ALL

CEILING FEET	VISIBILITY (STATUTE MILES)															
	≥10	≥6	≥5	≥4	≥3	≥2½	≥2	≥1½	≥1¼	≥1	≥¾	≥½	≥¼	≥5/16	≥¼	≥0
NO CEILING	46.8	52.6	52.7	52.7	52.8	52.8	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9	53.0	53.0
≥ 20000	54.9	62.2	62.4	62.4	62.5	62.6	62.6	62.6	62.6	62.7	62.7	62.7	62.7	62.7	62.7	62.7
≥ 18000	55.1	62.4	62.6	62.6	62.8	62.8	62.8	62.8	62.9	62.9	62.9	62.9	62.9	62.9	62.9	63.0
IV 16000	55.3	62.6	62.7	62.8	62.9	62.9	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.1	63.1
IV 14000	56.1	63.5	63.6	63.7	63.8	63.8	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	64.0	64.0
IV 12000	60.2	67.8	68.0	68.0	68.2	68.2	68.2	68.2	68.2	68.2	68.3	68.3	68.3	68.3	68.3	68.4
IV 10000	66.3	74.6	74.8	74.9	75.0	75.0	75.1	75.1	75.1	75.1	75.1	75.1	75.1	75.2	75.2	75.2
IV 9000	67.2	75.7	75.9	75.9	76.1	76.1	76.1	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.3	76.3
IV 8000	69.4	78.1	78.3	78.4	78.5	78.6	78.6	78.6	78.6	78.7	78.7	78.7	78.7	78.7	78.7	78.8
IV 7000	70.7	79.6	79.8	79.8	80.0	80.0	80.1	80.1	80.1	80.2	80.2	80.2	80.2	80.2	80.2	80.2
IV 6000	72.5	81.6	81.8	81.9	82.1	82.1	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.3	82.3	82.3
IV 5000	74.7	84.2	84.4	84.5	84.7	84.8	84.8	84.9	84.9	84.9	84.9	84.9	84.9	85.0	85.0	85.0
IV 4500	75.5	85.2	85.5	85.5	85.8	85.8	85.9	85.9	85.9	86.0	86.0	86.0	86.0	86.0	86.0	86.0
IV 4000	77.1	87.2	87.5	87.6	87.9	88.0	88.1	88.1	88.2	88.2	88.2	88.2	88.2	88.3	88.3	88.3
IV 3500	77.8	88.1	88.5	88.6	88.9	89.0	89.1	89.2	89.2	89.3	89.3	89.3	89.3	89.4	89.4	89.4
IV 3000	78.4	89.0	89.5	89.6	90.0	90.1	90.2	90.3	90.4	90.4	90.5	90.5	90.5	90.5	90.5	90.6
IV 2500	79.0	89.9	90.4	90.5	91.0	91.1	91.3	91.4	91.4	91.5	91.5	91.5	91.5	91.5	91.6	91.6
IV 2000	79.6	90.8	91.4	91.6	92.2	92.3	92.5	92.7	92.8	92.8	92.9	92.9	92.9	92.9	92.9	93.0
IV 1800	79.7	91.1	91.7	91.9	92.5	92.7	92.9	93.1	93.1	93.2	93.2	93.2	93.2	93.3	93.3	93.3
IV 1500	80.1	91.8	92.5	92.8	93.4	93.6	93.9	94.1	94.2	94.3	94.4	94.4	94.4	94.4	94.5	94.5
IV 1200	80.4	92.4	93.2	93.5	94.2	94.5	94.8	95.1	95.2	95.4	95.4	95.4	95.4	95.5	95.5	95.5
IV 1000	80.6	92.8	93.7	94.0	94.8	95.1	95.5	95.8	96.0	96.3	96.3	96.4	96.4	96.4	96.5	96.5
IV 900	80.7	93.0	93.9	94.2	95.0	95.3	95.7	96.1	96.3	96.5	96.6	96.7	96.7	96.7	96.8	96.8
IV 800	80.7	93.1	94.1	94.4	95.2	95.5	96.0	96.4	96.6	96.9	97.0	97.0	97.1	97.1	97.2	97.2
IV 700	80.8	93.3	94.3	94.6	95.5	95.8	96.3	96.8	97.0	97.3	97.5	97.5	97.6	97.6	97.6	97.7
IV 600	80.9	93.5	94.5	94.9	95.8	96.1	96.6	97.1	97.4	97.8	97.9	98.0	98.1	98.1	98.2	98.2
IV 500	80.9	93.6	94.7	95.0	96.0	96.4	96.9	97.5	97.7	98.2	98.4	98.5	98.6	98.6	98.7	98.7
IV 400	81.0	93.6	94.8	95.1	96.1	96.5	97.1	97.6	97.9	98.4	98.7	98.8	98.9	99.0	99.0	99.1
IV 300	81.0	93.7	94.8	95.2	96.3	96.7	97.3	97.9	98.2	98.7	99.0	99.1	99.3	99.3	99.4	99.5
IV 200	81.0	93.7	94.9	95.3	96.3	96.7	97.3	98.0	98.3	98.9	99.1	99.3	99.5	99.5	99.6	99.7
IV 100	81.0	93.7	94.9	95.3	96.3	96.8	97.4	98.0	98.3	98.9	99.2	99.3	99.5	99.6	99.7	99.9
IV 0	81.0	93.7	94.9	95.3	96.3	96.8	97.4	98.0	98.3	98.9	99.2	99.3	99.5	99.6	99.8	100.0

TOTAL NUMBER OF OBSERVATIONS 87664

U S AIR FORCE  
ENVIRONMENTAL TECHNICAL  
APPLICATIONS CENTER

## PART E PSYCHROMETRIC SUMMARIES

In this section are presented various summaries of dry- and wet-bulb temperatures, dew points, and relative humidity. The order and manner of presentations follows:

- \* 1. Cumulative percentage frequency of occurrence - derived from daily observations and presented by month and annual for all years combined. These tabulations provide the cumulative percentage frequency to tenths of temperature by 5-degree Fahrenheit increments, plus mean temperature, standard deviations, and total number of observations in three separate tables as follows:
- a. Daily maximum temperatures
  - b. Daily minimum temperatures
  - c. Daily mean temperatures

NOTE: Beginning in January 1964, daily maximum and minimum temperatures are routinely selected from hourly observations recorded on surface observing forms or from automated data collections for all Air Force operated stations. For those stations observing less than 24 hours per day, and where maximum and minimum temperatures are required but not recorded, these are also selected from hourly data from as early as January 1949 and later. Please refer to notations on summary pages and Station History for further information on reporting practices of individual stations.

- \* 2. Extreme values - derived from daily observations with the extreme value selected for each year and month of record available. An annual (ALL MONTHS) value is selected when all months for a year have valid extremes. Means and standard deviations are computed for months and annual when four or more values are present for any column. Two tables of daily extremes are prepared:
- a. Extreme maximum temperature
  - b. Extreme minimum temperature

NOTE: The following symbols are used in the extreme data blocks:

- (1) \* indicates the extreme was selected from a month with one or more days missing.
- (2) # indicates the extreme was selected from a month in which hourly temperatures were available for less than 24 hours for at least one day in the month.

\* Values for means and standard deviations do not include measurements for incomplete months.

Continued on Reverse

3. Bivariate percentage frequency distribution and computations of dry-bulb versus wet-bulb temperature. This tabulation is derived from hourly observations and is presented by month and annual, all hours and years combined. The following information is provided:

- a. The main body of the summary consists of a bivariate percentage frequency distribution of wet-bulb depression in 17 classes spread horizontally; by 2-degree intervals of dry-bulb temperature spread vertically. Also provided for each of the dry-bulb intervals is the percentage of observations with dry-bulb and wet-bulb temperature combined; and again for dry-bulb, wet-bulb, and dew-point temperatures separately. Total observations for these four items is also provided in two lines at end of each tabulation table, which may be continued on several pages.

NOTE: A percentage frequency in this table of ".0" represents one or more occurrences amounting to less than .05 percent.

- b. Statistical data for the individual elements of relative humidity, dry-bulb, wet-bulb, and dew-point temperatures are shown in the section at the bottom left of the forms. These consist of the sum of squares ( $\Sigma X^2$ ), sums of values ( $\Sigma X$ ), means ( $\bar{X}$ ), and standard deviations ( $\sigma_x$ ). The number of observations used in the computation for each element is also shown.
- c. At the lower right of the form are given the mean number of hours of occurrence for six ranges of dry-bulb, wet-bulb, and dew-point temperatures, and total number of hours possible in the period represented. Mean number of hours is shown to tenths and indicates mean number of hours per year in the annual summary, or mean number of hours per month in the tabulation by month.

NOTE: Wet-bulb temperature usually was not reported prior to 1946. Relative humidity usually was not reported prior to 1949, nor subsequent to June 1958; and was computed by machine methods for observations recorded during these periods. All values of dew-point temperature and relative humidity are with respect to water, unless otherwise indicated.

4. Means and standard deviations - These tabulations are derived from hourly observations and present the mean, standard deviation, and total number of observations for the eight standard 3-hour groups, by month and annual and again at the bottom for all hours combined. Records for all years combined are presented in the following three tables; DRY-BULB TEMPERATURE, WET-BULB TEMPERATURE, and DEW-POINT TEMPERATURE.
5. Cumulative percentage frequency of occurrence of relative humidity - This summary is derived from hourly observations and presents the cumulative percentage frequency of occurrence of relative humidity by increments of 10% classes, plus the mean relative humidity and total number of observations in two tables.
  - a. Table 1 is prepared by month and annual, all years combined, with month being the vertical argument.
  - b. Table 2 is prepared by month by standard 3-hour groups, with the hour groups being the vertical argument and a separate page for each month. All years are also combined for this summary.

DATA PROCESSING BRANCH

USAF ETAC

AIR WEATHER SERVICE/MAC

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS

45-77

STATION NAME

YEARS

DAILY TEMPERATURES

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM DAILY OBSERVATIONS)

MAXIMUM

TEMP (°F)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
105								.2					.0
100							.8	.7					.1
95						.1	5.1	5.1	.4				.9
90					.2	3.1	21.1	20.7	3.4				4.1
85				.1	2.4	10.7	44.1	39.3	10.9	.4			9.1
80				1.9	8.8	24.6	67.1	58.4	23.5	3.1			15.8
75			.1	4.6	18.3	40.7	82.7	74.8	38.9	11.3	.1		22.8
70			1.1	11.6	32.6	60.0	92.1	88.1	54.2	23.1	1.2		30.5
65		.6	3.7	19.9	49.9	76.4	96.8	94.3	66.8	35.7	4.0		37.0
60	.9	2.5	9.1	32.3	65.8	88.1	98.9	97.8	78.4	49.5	11.2	1.1	44.9
55	3.7	8.6	18.9	47.6	81.5	95.9	99.9	99.4	87.5	64.7	23.2	5.5	53.3
50	10.0	20.4	30.8	63.9	90.4	99.4	100.0	100.0	92.8	77.6	38.1	16.8	61.9
45	22.5	34.5	47.5	76.6	96.2	99.9			96.1	87.0	53.9	31.7	70.6
40	38.5	53.7	62.1	86.7	98.6	100.0			98.3	91.9	68.5	50.2	79.1
35	52.3	65.0	72.3	92.2	99.5				99.8	95.5	81.2	63.5	85.2
30	60.9	73.3	80.3	97.1	99.9				100.0	98.4	87.5	72.2	89.2
25	67.5	80.5	85.9	99.0	100.0					99.2	90.8	78.5	91.8
20	74.3	84.8	90.2	99.5						99.9	92.9	84.6	93.9
15	78.8	89.5	93.0	99.7						100.0	94.9	88.0	95.3
10	82.0	92.7	95.9	100.0							96.9	90.9	96.5
5	85.2	95.9	97.1								97.9	94.3	97.5
0	88.6	98.7	98.2								99.3	96.8	98.4
-5	92.4	99.7	99.5								99.7	98.4	99.1
-10	95.8	99.9	99.7								100.0	99.4	99.6
-15	98.3	100.0	100.0									99.7	99.8
-20	94.8											99.9	100.0
-25	100.0											100.0	100.0
MEAN	29.5	37.0	41.1	53.6	64.2	71.9	82.4	80.9	69.5	58.8	44.0	35.5	55.7
S D	19.157	15.139	13.567	12.696	11.025	9.906	8.459	7.230	12.595	12.847	14.225	15.645	22.069
TOTAL OBS	992	904	992	960	992	960	992	992	960	992	960	992	11688

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# DAILY TEMPERATURES

STATION 24112 STATION NAME MALMSTROM AFB MT/GREAT FALLS YEARS 45-77

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM DAILY OBSERVATIONS)

MINIMUM

TEMP (°F)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG.	SEP.	OCT.	NOV.	DEC.	ANNUAL
70							.6	.3					.1
65						.3	4.4	2.7	.2				.7
60					.4	2.9	20.8	14.9	1.8	.2			3.5
55				.1	3.1	18.3	49.5	41.3	10.8	1.0			10.5
50		.1	.1	1.1	13.4	47.8	83.4	75.9	27.3	6.6	1.1		21.6
45	.3	.4	.7	6.6	33.4	78.4	95.5	94.7	52.0	19.7	4.3	1.1	32.5
40	3.7	3.4	3.8	16.5	61.1	93.3	99.5	99.4	75.6	39.1	11.9	6.5	43.0
35	10.2	9.4	12.7	37.3	84.0	98.7	100.0	100.0	88.7	58.9	25.4	14.1	53.5
33	13.4	14.5	18.2	47.8	90.9	99.3			92.5	66.6	32.4	18.1	58.0
30	20.0	23.3	30.3	64.0	95.1	99.9			96.1	77.5	41.6	25.6	64.7
25	30.7	38.2	50.5	82.1	99.1	100.0			99.8	89.9	58.4	38.8	74.1
20	40.7	52.8	66.2	92.6	99.6				100.0	96.3	72.0	51.7	81.1
15	48.8	61.6	75.6	96.8	99.9					98.8	80.5	62.8	85.5
10	55.8	70.0	80.7	98.6	100.0					99.6	87.1	70.5	88.6
5	61.5	76.5	85.9	99.3							90.3	76.7	90.9
0	69.0	83.8	90.2	99.6						99.9	93.7	83.1	93.3
-5	75.6	89.6	93.2	99.8						100.0	96.0	88.6	95.2
-10	82.3	95.4	96.2	100.0							97.6	93.4	97.1
-15	88.3	98.8	97.7								99.2	96.1	98.3
-20	92.9	99.6	99.2								99.8	98.2	99.1
-25	96.4	100.0	99.7								100.0	99.4	99.6
-30	98.7		99.9									99.5	99.8
-35	99.9		100.0									99.7	100.0
-40	100.0											99.9	100.0
-45												100.0	100.0
MEAN	10.6	11.1	21.0	31.7	41.4	49.0	54.6	53.4	44.6	36.3	24.9	17.2	33.5
S. D.	19.580	15.128	14.112	8.638	7.097	6.073	5.797	5.718	7.761	9.219	13.807	16.573	18.752
TOTAL OBS	992	904	992	960	992	960	992	992	960	992	960	992	11688

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# DAILY TEMPERATURES

24112  
 STATION

MALMSTROM AFB MT/GREAT FALLS  
 STATION NAME

45-77

YEARS

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM DAILY OBSERVATIONS)

MEAN

TEMP (°F)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG.	SEP	OCT.	NOV.	DEC.	ANNUAL
85							.4	.2					.1
80						.2	2.9	2.1					.4
75					.1	1.9	17.8	15.9	1.5				3.1
70					1.7	13.1	47.1	38.6	9.6	.3			9.3
65				.5	9.1	30.9	74.7	66.1	23.4	3.3			17.5
60			.2	4.1	22.3	53.7	92.3	87.8	43.9	12.0	.8		26.6
55		.3	1.1	11.9	42.7	80.4	98.1	96.8	63.5	28.3	3.5	.1	35.8
50	1.3	2.2	5.8	25.5	65.6	94.4	100.0	99.6	79.7	46.2	10.9	2.4	44.7
45	5.1	8.0	14.4	43.7	85.6	99.4		100.0	90.4	62.9	22.2	9.0	53.6
40	13.9	19.9	29.8	64.7	95.3	99.8			95.1	79.7	40.2	21.3	63.5
35	26.4	37.7	50.4	81.7	98.6	100.0			98.5	89.1	56.4	35.9	73.0
30	38.7	53.2	64.5	91.2	99.6				100.0	95.0	71.0	50.0	80.4
25	49.5	62.9	74.1	96.4	99.9					98.3	82.3	62.3	85.5
20	58.7	72.0	81.5	98.7	100.0					99.2	87.9	71.7	89.2
15	65.1	79.8	86.5	99.4						99.7	91.4	79.1	91.8
10	72.9	85.7	90.9	99.6						99.9	93.7	84.3	93.9
5	77.8	90.6	94.0	99.7						100.0	96.1	89.0	95.6
0	82.6	94.1	95.9	100.0							97.5	92.9	96.9
-5	87.2	97.8	97.6								99.0	95.9	98.1
-10	90.9	99.3	98.8								99.7	98.1	98.9
-15	94.9	99.9	99.7								100.0	99.1	99.5
-20	97.8	100.0	99.9									99.6	99.8
-25	99.6		100.0									99.7	99.9
-30	100.0											99.9	100.0
-35												100.0	100.0
MEAN	20.1	27.2	31.3	42.8	53.0	60.6	68.7	67.3	57.2	47.7	34.6	26.5	44.8
S D	18.84	14.59	14.36	9.87	8.21	7.13	6.30	6.72	9.40	10.33	13.46	15.52	20.06
TOTAL OBS	992	904	992	960	992	960	992	992	960	992	960	992	11688



DATA PROCESSING BRANCH  
 USAF/ETAC/OL A  
 AIR WEATHER SERVICE/MAC

**EXTREME VALUES**  
 MAXIMUM TEMPERATURE

(FROM DAILY OBSERVATIONS)

24112 Malmstrom AFB MT/Great Falls 45-77  
STATION STATION NAME YEARS

WHOLE DEGREES FAHRENHEIT

MONTH YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
45												53	
46	54	60	74	84	79	88	97	96	92	65	65	57	97
47	49	59	61	78	83	79	100	96	94	77	73	58	100
48	59	55	57	76	83	89	93	95	92	79	60	49	95
49	51	57	57	79	87	92	92	102	88	73	72	52	102
50	48	68	61	72	81	89	95	89	98	78	69	59	98
51	48	63	59	72	85	82	96	96	86	80	61	58	96
52	47	58	61	83	79	87	97	95	89	82	62	60	97
53	63	56	65	70	86	87	102	96	90	83	70	54	102
54	55	66	61	68	87	91	97	94	86	78	69	58	97
55	53	54	61	68	78	88	98	96	92	81	61	53	98
56	57	54	70	74	86	94	95	94	89	76	66	62	95
57	51	55	62	80	84	88	95	96	90	84	57	62	96
58	60	61	58	71	90	91	88	94	91	81	61	60	94
59	63	47	64	73	80	90	97	92	90	74	65	59	97
60	52	52	70	74	88	87	102	93	89	84	59	56	102
61	55	64	66	64	83	96	94	106	83	80	72	50	106
62	63	64	64	86	74	93	90	98	87	86	75	63	98
63	57	65	76	81	85	89	100	97	92	87	64	60	100
64	58	57	68	76	87	88	95	100	86	86	67	43	100
65	56	59	56	73	77	85	90	95	82	79	67	61	95
66	46	53	73	72	87	93	96	97	92	77	64	56	97
67	51	60	63	64	83	83	93	96	97	74	60	51	97
68	63	65	68	82	71	86	94	90	89	78	61	54	94
69	47	42	63	81	84	91	92	105	96	72	63	64	105
70	45	62	56	72	79	92	96	101	83	82	59	54	101
71	53	53	59	71	81	89	96	98	86	84	68	46	98
72	46	61	70	80	92	90	95	96	82	78	57	56	96
73	61	63	63	66	86	91	104	97	87	77	64	58	104
74	58	58	64	83	76	92	92	94	86	79	63	57	95
MEAN													
S. D.													
TOTAL OBS.													

NOTES \* (BASED ON LESS THAN FULL MONTHS)

USAF ETAC FORM 0-88-5 (OLA)

# (AT LEAST ONE DAY LESS THAN 24 OBS)

DATA PROCESSING BRANCH  
 USAF/ETAC/OL A  
 AIR WEATHER SERVICE/MAC

## EXTREME VALUES

MAXIMUM TEMPERATURE

(FROM DAILY OBSERVATIONS)

24112 MALMSTRØM AFB MT/GREAT FALLS 45-77  
STATION STATION NAME YEARS

### WHOLE DEGREES FAHRENHEIT

MONTH YEAR	JAN	FEB.	MAR	APR.	MAY	JUN.	JUL	AUG	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
75	52	43	53	61	82	83	99	92	84	82	74	61	99
76	57	59	70	74	85	93	96	95	92	81	70	59	96
77	55	67	67	78	78	92	94	92	86	77	67		
MEAN	54.2	58.1	63.8	74.6	82.7	89.0	95.7	96.0	88.9	79.2	65.2	56.3	98.3
S D	5.507	6.359	5.674	6.355	4.673	3.759	3.531	3.729	4.165	4.589	5.017	4.916	3.196
TOTAL OBS.	992	904	992	960	992	960	992	992	960	992	960	992	11688

NOTES \* (BASED ON LESS THAN FULL MONTHS)  
 # (AT LEAST ONE DAY LESS THAN 24 OBS)

USAF ETAC FORM 0-88-5 (OLA)

DATA PROCESSING BRANCH  
 USAF/ETAC/OL A  
 AIR WEATHER SERVICE/MAC

**EXTREME VALUES**  
 MINIMUM TEMPERATURE

(FROM DAILY OBSERVATIONS)

24112 MALMSTRÖM AFB MT/GREAT FALLS 45-77  
STATION STATION NAME YEARS

WHOLE DEGREES FAHRENHEIT

MONTH YEAR	JAN	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG	SEP.	OCT.	NOV	DEC	ALL MONTHS
45												-5	
46	-8	4	14	22	20	39	48	45	35	14	-11	-12	-12
47	-24	-16	-26	26	26	42	50	45	27	31	-1	-3	-26
48	-7	-14	-19	15	32	46	47	50	34	25	15	-14	-19
49	-29	-14	-3	29	27	34	49	44	31	11	21	-19	-29
50	-36	2	-13	17	30	32	44	40	26	21	-11	-12	-36
51	-23	-5	-31	6	32	32	43	44	28	12	5	-23	-31
52	-24	-13	1	23	38	40	44	41	40	26	0	10	-24
53	-26	13	3	13	25	41	45	49	37	25	16	10	-26
54	-35	10	-6	-4	14	37	50	45	28	24	12	-3	-35
55	-5	-10	-17	18	30	40	41	48	30	17	-19	-22	-22
56	-20	-24	-13	21	26	45	49	41	34	15	10	-17	-24
57	-32	-15	0	18	38	43	50	44	29	12	17	17	-32
58	15	-2	-2	22	38	44	43	49	36	26	-6	-6	-6
59	-21	-15	20	17	33	43	48	47	28	18	-17	11	-21
60	-4	-15	-19	21	29	43	50	45	36	23	-3	1	-12
61	2	2	8	17	33	45	52	48	28	18	1	-22	-22
62	-30	-18	-14	22	34	33	41	45	34	27	14	-10	-30
63	-27	-14	17	21	31	37	40	44	38	20	-7	-14	-27
64	-15	4	-24	5	35	38	47	41	30	24	-14	-32	-32
65	-19	-12	-20	23	26	31	40	38	23	26	-6	-17	-20
66	-23	-9	-10	13	23	36	45	38	32	20	-7	-15	-23
67	-12	5	-14	4	18	35	40	43	39	26	3	-25	-25
68	-20	-6	16	10	23	38	35	44	33	22	-1	-44	-44
69	-34	-7	-14	20	26	29	46	40	36	18	10	-1	-34
70	-20	1	-16	13	28	32	43	41	20	16	-14	-13	-20
71	-35	-7	-7	17	26	35	39	46	25	0	-15	-23	-35
72	-33	-15	-5	14	27	35	39	47	27	-5	8	-36	-36
73	-19	-6	13	19	29	37	37	42	30	25	-14	-19	-19
74	-30	-2	1	24	31	32	47	40	26	19	11	-2	-30
MEAN													
S. D.													
TOTAL OBS.													

NOTES \* (BASED ON LESS THAN FULL MONTHS)

USAF ETAC FORM 0-00-5 (OLA) # (AT LEAST ONE DAY LESS THAN 24 OBS)

DATA PROCESSING BRANCH  
 USAF/ETAC/OLA  
 AIR WEATHER SERVICE/MAC

**EXTREME VALUES**

MINIMUM TEMPERATURE

(FROM DAILY OBSERVATIONS)

24112 MALMSTRÖM AFB MT/GREAT FALLS 45-77  
STATION STATION NAME YEARS

WHOLE DEGREES FAHRENHEIT

MONTH YEAR	JAN.	FEB	MAR	APR.	MAY	JUN	JUL	AUG.	SEP	OCT.	NOV	DEC.	ALL MONTHS
75	-15	-23	0	-9	31	42	50	41	30	22	-12	-12	-2
76	-15	-13	-23	23	32	33	44	44	32	13	-1	-2	-23
77	-21	10	5	11	24	40	42	38	34	18	-22		
MEAN	-20.1	-6.8	-5.2	16.0	28.6	37.9	44.6	43.7	31.1	19.0	-1.2	-11.7	-26.0
S. D.	11.807	10.213	13.611	8.392	5.581	4.669	4.398	3.347	4.784	7.609	11.969	13.74	7.739
TOTAL OBS.	992	904	992	960	992	960	992	992	960	992	960	992	11688

USAF ETAC FORM 0-5 (OLA) # (AT LEAST ONE DAY LESS THAN 24 OBS)  
 NOTES \* (BASED ON LESS THAN FULL MONTHS)



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 Malmstrom AFB MT/Great Falls 68-77 JAN  
STATION STATION NAME YEARS MONTH

PAGE 2 0000-0200  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-14/-15	3.1																	29	29	29	24
-16/-17	1.3																	12	12	12	28
-18/-19	.5																	5	5	5	17
-20/-21	1.3																	12	12	12	21
-22/-23	1.6																	15	15	15	20
-24/-25	.5																	5	5	5	22
-26/-27	.4																	4	4	4	23
-28/-29	.5																	5	5	5	6
-30/-31	.3																	3	3	3	14
-32/-33	.2																	2	2	2	6
-34/-35	.1																	1	1	1	6
-36/-37																					4
-38/-39																					2
-40/-41																					3
TOTAL	29.2	27.6	18.0	13.8	7.4	3.3	.6											930	930	930	930
Element (X)	$\sum X^2$	$\sum X$	$\bar{X}$	$e_x$	No. Obs.	Mean No. of Hour. with Temperature										Total					
Rel. Hum.	4053601	60181	64.7	13.092	930	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F				93						
Dry Bulb	666684	15600	16.8	20.880	930	24.8	65.9								93						
Wet Bulb	508731	13101	14.1	18.680	930	25.8	75.3								93						
Dew Point	368902	5896	6.3	18.891	930	31.6	90.7								93						

USAF ETAC FORM 0 26-5 (OL A) JUL 64  
 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

JAN

STATION

STATION NAME

YEARS

MONTH

PAGE 1

0300-0500

(HOURS (L. S. T.))

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL					
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point
54/ 53					.2	.1												3	3		
52/ 51				.1														1	1		
50/ 49				.2	.1	.1	.1											5	5		
48/ 47				.1	.2	.3	.2											8	8		
46/ 45			.3	.9	.6	.8	.2											26	26	3	
44/ 43				1.7	.8	.8	.2											32	32	3	
42/ 41			1.3	1.9	1.0	.1	.1											41	41	7	
40/ 39			.8	2.5	1.1	.1												41	41	15	1
38/ 37		.1	1.5	1.6	.6													36	36	43	4
36/ 35	.1	.2	.6	1.3	.9													29	29	43	4
34/ 33	.1	.4	.8	1.7	.6													34	34	52	19
32/ 31	.3		2.4	1.4	.3													41	41	45	28
30/ 29	.3	.5	2.3	.6														35	35	36	31
28/ 27	.3	.8	2.2	.3														33	33	52	38
26/ 25	.1	.2	2.5															26	26	42	44
24/ 23	.1	2.2	1.4	.1														35	35	35	28
22/ 21	.5	2.2	1.2															36	36	53	0
20/ 19	.8	1.1	.4		.1													27	22	34	63
18/ 17	.3	2.2	.2															25	25	25	56
16/ 15	.3	2.6	.3															30	30	35	21
14/ 13	.4	1.0	.2															15	16	24	47
12/ 11	.3	1.6	.1															19	19	13	56
10/ 9	1.4	1.2	.1															25	26	28	51
8/ 7	.6	1.4																19	19	20	29
6/ 5	.3	1.5																17	19	17	21
4/ 3	.4	.8																11	11	14	16
2/ 1	.4	2.3																25	25	18	8
0/ -1	1.1	.3																13	13	24	17
-2/ -3	.8	.4																11	11	11	19
-4/ -5	2.9	.6																33	33	30	18
-6/ -7	2.6	.4																28	28	32	14
-8/ -9	2.7	.1																26	26	27	20
-10/-11	2.3	.1																22	23	21	16
-12/-13	2.7																	25	25	26	30
Element (X)	Z <sub>x</sub> <sup>1</sup>	Z <sub>x</sub>	X	σ <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 64 JUL 64 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 JAN  
STATION STATION NAME YEARS MONTH

PAGE 2 0300-0500  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DIFFERENCE (F)																	TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-14/-15	2.8																	26	26	26	19
-16/-17	1.1																	10	10	10	28
-18/-19	1.0																	9	9	9	22
-20/-21	1.5																	14	14	14	23
-22/-23	1.1																	10	10	10	21
-24/-25	.8																	7	7	7	17
-26/-27	.8																	7	7	7	21
-28/-29	.9																	8	8	8	10
-30/-31	.4																	4	4	4	9
-32/-33	.1																	1	1	1	6
-34/-35	.1																	1	1	1	10
-36/-37																					6
-38/-39																					3
-40/-41																					1
TOTAL	32.9	24.2	18.6	14.6	6.6	2.3	.9											925	930	925	925
Element (X)	$\sum x^2$	$\sum x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature						Total									
Rel. Hum.	4092318	60320	65.2	13.110	925	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb	652165	14951	16.1	21.054	930	25.6	67.4					93									
Wet Bulb	500458	12528	13.5	18.921	925	26.9	76.3					93									
Dew Point	365935	5447	5.9	19.008	925	33.2	90.2					93									



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 JAN  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 0600-0800  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
54/ 53					.1	.2												3	3		
52/ 51						.1												1	1		
50/ 49				.1	.2	.3	.1											7	7		
48/ 47			.1	.1	.4	.3	.3											12	12		
46/ 45			.3	.6	.6	.3	.1											19	19	3	
44/ 43			.5	1.5	.5	.4	.2	.1										31	31	2	
42/ 41			.9	1.4	.9	.8												36	36	12	
40/ 39			1.7	1.3	1.0	.2												39	39	22	
38/ 37			1.1	1.8	.5													32	32	31	7
36/ 35	.1	.2	1.1	2.4	.2	.1												38	38	40	10
34/ 33		.9	1.1	2.9	.4	.1												50	50	41	14
32/ 31		.8	1.0	1.7	.1													33	33	56	22
30/ 29	.2	.3	1.5	.6	.1													26	26	47	34
28/ 27	.1	.8	2.4	.1														31	31	46	40
26/ 25	.2	.8	2.6															33	33	40	27
24/ 23	.4	2.4	1.8															43	43	40	25
22/ 21	.1	1.9	.9															27	27	49	49
20/ 19	.4	1.4	.9															25	25	33	53
18/ 17	.5	1.2	.1															17	17	26	54
16/ 15		2.2	.3															23	23	21	52
14/ 13	.3	1.6	.1															19	19	23	40
12/ 11	.4	1.6	.1															20	20	23	28
10/ 9	1.4	1.4																26	26	27	49
8/ 7	1.0	1.2																20	20	22	36
6/ 5	.5	1.6																20	21	19	21
4/ 3	.2	1.5																17	17	16	22
2/ 1	.9	1.8																25	25	22	19
0/ -1	1.5	.2																16	16	27	14
-2/ -3	.5	.2																7	7	7	16
-4/ -5	2.2	.3																24	24	23	25
-6/ -7	2.4	.6																28	28	25	16
-8/ -9	3.4	.2																34	34	39	17
-10/ -11	2.8	.2																28	28	26	12
-12/ -13	2.7	.1																26	26	28	23
Element (X)	Σ X'	Σ X	X	σ <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

FORM 0-26-5 (OL A) JUL 64 USAFETAC  
 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 JAN  
 STATION STATION NAME YEARS MONTH  
 PAGE 2 0600-0800  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																												TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point												
-14/-15	2.5																		23	23	23	21											
-16/-17	.6																		6	6	6	28											
-18/-19	1.3																		12	12	12	19											
-20/-21	1.6																		15	15	15	20											
-22/-23	.8																		7	7	7	26											
-24/-25	1.1																		10	10	10	19											
-26/-27	.3																		3	3	3	13											
-28/-29	.8																		7	7	7	13											
-30/-31	.2																		2	2	2	9											
-32/-33	.8																		7	7	7	9											
-34/-35	.1																		1	1	1	4											
-36/-37																						4											
-38/-39																						7											
-40/-41																						3											
-42/-43																						1											
TOTAL	32.6	25.4	18.4	14.6	5.2	2.9	.8	.1											929	930	929	929											
Element (X)	Σ x²	Σ x	Σ	Σ	No. Obs.	Mean No. of Hours with Temperature																											
Rel. Hum.	4093559	60471	65.1	13.021	929	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total																					
Dry Bulb	649101	14755	15.9	21.136	930	25.6	66.2					93																					
Wet Bulb	499153	12363	13.3	18.989	929	26.8	77.9					93																					
Dew Point	371487	5203	5.6	19.207	929	32.7	89.9					93																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 JAN  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 0900-1100  
 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	≥ 31	Dry Bulb	Wet Bulb
60/ 59								.1										1	1	
58/ 57							.1											1	1	
56/ 55						.1		.1	.1									3	3	
54/ 53				.1	.1	.1	.2	.1										6	6	
52/ 51			.1	.1	.4	.3		.1	.1									11	11	
50/ 49			.1	.2	.3	.3	.1	.2	.1									13	13	
48/ 47			.1	.6	.5	.1	.4	.1										18	18	2
46/ 45			.3	.4	1.0	.5	.4	.2										27	27	8
44/ 43			.3	1.0	.9	1.0	.2	.1										32	32	13
42/ 41			.8	1.2	1.1	.4												32	32	16
40/ 39		.3	.5	1.9	1.5	.4												44	44	17
38/ 37		.1	.5	1.9	1.9	.2												44	44	33
36/ 35		.1	1.6	2.3	.4	.3												44	44	41
34/ 33	.2	.9	1.7	2.0	.5													50	50	52
32/ 31	.1	.2	1.0	1.1	.8													29	29	69
30/ 29	.2	.4	1.4	1.4														32	32	63
28/ 27		.6	1.7	.9														30	30	30
26/ 25		.6	1.8	.2														25	25	42
24/ 23	.5	1.5	1.0															28	28	45
22/ 21	.1	1.2	.9															20	20	39
20/ 19		1.3	.2															14	14	14
18/ 17	.8	1.6	.5															27	27	30
16/ 15	.1	1.6	.2															18	18	20
14/ 13	.2	1.3	.2															16	16	25
12/ 11	.5	1.4																18	18	14
10/ 9	1.2	1.0																20	20	22
8/ 7	.2	1.3	.1															15	15	13
6/ 5	.3	2.2																23	23	19
4/ 3	.1	1.6																16	16	18
2/ 1	.6	1.4																19	19	22
0/ -1	2.3	.4																25	25	30
-2/ -3	1.7	1.8																33	33	31
-4/ -5	1.4	.4																17	17	20
-6/ -7	2.4	.4																26	26	29
Element (X)	$\Sigma x'$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OLA) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 JAN  
 STATION STATION NAME YEARS MONTH  
 PAGE 2 0900-1100  
 JURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL						
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-8/-9	3.0																	28	28	28	27
-10/-11	2.9																	27	27	27	24
-12/-13	2.7																	25	25	25	26
-14/-15	1.7																	16	16	16	33
-16/-17	.3																	3	3	3	15
-18/-19	1.3																	12	12	12	19
-20/-21	1.6																	15	15	15	19
-22/-23	.5																	5	5	5	25
-24/-25	.6																	6	6	6	14
-26/-27	.9																	8	8	8	10
-28/-29	.3																	3	3	3	14
-30/-31	.2																	2	2	2	6
-32/-33	.1																	1	1	1	9
-34/-35	.2																	2	2	2	3
-36/-37																					4
-38/-39																					1
-40/-41																					2
-42/-43																					2
TOTAL	29.5	23.8	15.2	15.4	9.5	3.9	1.5	1.1	.3								930	930	930	930	
Element (X)	Σx'	Σx	X	σ <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature					Total										
Rel. Hum.	38402	5814	62.7	14.067	930	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	93									
Dry Bulb	739822	16922	18.2	21.562	930	25.4	60.4					93									
Wet Bulb	545669	14009	15.1	18.979	930	26.3	74.8					93									
Dew Point	369120	6304	6.8	18.744	930	32.4	88.1					93									

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

JAN

PAGE 1 1200-1400  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
64/ 63							.1											1	1		
62/ 61								.1										1	1		
60/ 59							.1	.1	.2									4	4		
58/ 57						.3	.5	.3	.1									12	12		
56/ 55					.4	.4	.1	.1	.3									13	13		
54/ 53					.1	.3	.2	.4	.3									13	13		
52/ 51				.1	.4	.6	.5											16	16		
50/ 49				.2	.1	.1	.1	.4	.2									11	11	2	
48/ 47			.3	.4	.6	.4	1.3	.3										32	32	8	
46/ 45			.1	.4	.8	1.7	1.1	.1										39	39	12	
44/ 43			.2	1.0	1.7	.6	.4											37	37	24	
42/ 41		.1		1.1	1.3	.8	.5											39	39	10	3
40/ 39			1.0	1.7	2.5	1.3												60	60	23	9
38/ 37		.1	1.4	.6	1.4	.8												40	40	39	4
36/ 35	.3	.1	.6	2.2	1.0	.3												42	42	72	17
34/ 33		.5	1.4	2.2	.9	.1												47	47	70	13
32/ 31		.1	.6	1.1	.2													19	19	48	21
30/ 29		.2	1.1	.9	.3													23	23	66	26
28/ 27		.9	.6	.8	.1													22	22	40	45
26/ 25		1.1	.8	.2														19	19	41	31
24/ 23		1.2	.5															16	16	23	38
22/ 21		.9	.4															12	12	22	52
20/ 19		1.8	1.0															26	26	15	63
18/ 17	.1	.8	.6															14	14	24	50
16/ 15		1.6	.4															19	19	19	50
14/ 13	.1	1.4	.3															17	17	18	38
12/ 11	.8	2.4	.2															31	31	25	34
10/ 9	.1	1.5	.1															16	16	25	50
8/ 7		1.8	.2															19	19	15	30
6/ 5	.3	1.6																18	18	23	17
4/ 3	.1	2.2																21	21	19	20
2/ 1	.4	2.3																25	25	27	13
0/ -1	1.2	1.2																22	22	28	18
-2/ -3	1.0	1.1																19	19	21	18
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

JAN  
MONTH

PAGE 2

1200-1400  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-4/-5	1.9	1.3																30	30	28	30
-6/-7	1.7	.4																20	20	22	19
-8/-9	2.5	.1																24	24	26	26
-10/-11	2.0	.4																23	23	20	25
-12/-13	2.0	.1																20	20	24	31
-14/-15	.8																	7	7	7	17
-16/-17	.5																	5	5	5	18
-18/-19	.9																	8	8	8	16
-20/-21	2.3																	21	21	21	21
-22/-23	.2																	2	2	2	22
-24/-25	.3																	3	3	3	5
-26/-27	.2																	2	2	2	13
-28/-29																					18
-30/-31																					6
-32/-33																					3
TOTAL	19.8	27.1	12.0	13.2	11.8	7.8	4.3	2.4	.9	.6								930	930	930	930
Element (X)	Z <sub>X</sub> <sup>2</sup>	Z <sub>X</sub>	X̄	s <sub>X</sub>	No. Obs.	Mean No. of Hours with Temperature					Total										
Rel. Hum.	3324920	53712	57.8	15.486	930	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	93									
Dry Bulb	892949	20501	22.0	21.788	930	20.6	52.3					93									
Wet Bulb	613096	16586	17.8	18.481	930	21.7	67.0					93									
Dew Point	354348	7602	8.2	17.735	930	30.6	88.4					93									

USAFETAC FORM 7 JUL 64 0-26-5 (O: 4) REVISOR PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 JAN  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 1500-1700  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																			TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb		Dew Point		
62/ 61									.1									1	1				
60/ 59								.1	.1									2	2				
58/ 57						.1		.1	.1									3	3				
56/ 55					.2	.3	.3	.1	.1									10	10				
54/ 53					.1	1.0	.5	.1	.2	.1								19	19				
52/ 51					.2	.4	.4	.2	.2									12	12				
50/ 49			.1	.3	.8	.2	.1	.6	.2									22	22				
48/ 47				.2	.2	.4	.8	.1										16	16	4			
46/ 45			.2	.3	1.0	1.0	1.0											38	38	11			
44/ 43			.2	1.5	1.5	1.8	.5	.1										53	53	24			
42/ 41			.4	1.1	1.5	.9	.3											39	39	12			
40/ 39			1.3	1.9	1.2	.9	.5											54	54	22			
38/ 37		.2	.9	1.8	1.2	1.1												48	48	36			
36/ 35		.1	.5	1.4	1.0	.2												30	30	78			
34/ 33		.3	1.0	1.7	.4													32	32	63			
32/ 31		.5	.6	1.6	.4													30	30	49			
30/ 29		.3	1.2	1.3	.4													30	30	58			
28/ 27		1.1	1.9	.1														29	29	47			
26/ 25		.4	.5	.5														14	14	39			
24/ 23		1.1	.3															13	13	34			
22/ 21		.9	1.0															17	17	11			
20/ 19		1.7	1.0															25	25	18			
18/ 17	.1	.4	1.0															14	14	29			
16/ 15	.3	1.7	.3															22	22	27			
14/ 13	.5	1.3	.5															22	22	20			
12/ 11	.4	1.9	.1															23	23	20			
10/ 9	.1	1.8	.1															19	19	22			
8/ 7	.2	2.0	.1															22	22	17			
6/ 5	.1	1.8	.2															20	20	23			
4/ 3	.5	1.1																15	15	24			
2/ 1	.2	2.6																26	26	18			
0/ -1	1.6	1.6																30	30	34			
-2/ -3	1.1	.4																14	14	24			
-4/ -5	2.4	.9																30	30	29			
Element (X)	Z <sub>X</sub> <sup>2</sup>	Z <sub>X</sub>	X̄	s <sub>X</sub>	No. Obs.	Mean No. of Hours with Temperature																	
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total											
Dry Bulb																							
Wet Bulb																							
Dew Point																							

FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE





DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 JAN  
 STATION STATION NAME YEARS MONTH

PAGE 1 1800-2000  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31		Dry Bulb	Wet Bulb	Dew Point
54/ 53						.2												2	2		
52/ 51					.1	.3	.2											6	6		
50/ 49				.3	.6	.5												14	14		
48/ 47				.3	.4	.2	.1	.1										11	11		
46/ 45			.2	.6	.4	.8	.6	.1										26	26	1	
44/ 43		.1	.3	.9	.1	1.1	.2											25	25	9	
42/ 41		.2	.8	2.5	1.8	.6												55	55	15	
40/ 39		.1	.3	1.9	1.5	.2	.2											40	40	24	
38/ 37			1.7	1.7	.4	.3												39	39	22	
36/ 35		.2	1.8	1.8	1.3													48	48	47	
34/ 33		.5	.9	2.0	.4													36	36	68	
32/ 31		.3	.9	1.9	.3													32	32	49	
30/ 29		.9	1.7	1.5														38	38	46	
28/ 27		1.2	1.8	1.3														40	40	50	
26/ 25	.1	1.3	1.5	.3														30	30	56	
24/ 23		1.9	1.3	.1														31	31	30	
22/ 21		1.3	1.2															23	23	40	
20/ 19	.1	1.7	.2															19	19	24	
18/ 17	.2	1.3	.9															22	22	29	
16/ 15	.3	1.5	.6															23	23	24	
14/ 13		1.7	.1															17	18	20	
12/ 11	.2	2.3	.1															24	24	22	
10/ 9	.1	2.2	.1															22	22	24	
8/ 7	.3	1.4	.1															17	17	20	
6/ 5	.2	1.4																15	15	20	
4/ 3	.6	1.8																23	24	19	
2/ 1	.4	1.5																18	18	21	
0/ -1	1.6	.2																17	17	22	
-2/ -3	.8	1.2																18	18	17	
-4/ -5	2.7	.5																30	30	31	
-6/ -7	2.2	.1																24	24	25	
-8/ -9	2.2	.1																21	21	22	
-10/-11	3.0																	28	28	28	
-12/-13	2.0																	19	19	19	
Element (X)	Z <sub>X</sub> <sup>1</sup>	Z <sub>X</sub>	X̄	σ <sub>X</sub>	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	> 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC JUL 64 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 JAN  
STATION STATION NAME YEARS MONTH  
PAGE 2 1800-2000  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		>31	Dry Bulb	Wet Bulb	Dew Point
-14/-15	2.3																	21	21	21	24
-16/-17	.9																	8	8	8	16
-18/-19	.3																	3	3	3	25
-20/-21	1.4																	13	13	13	17
-22/-23	.6																	6	6	6	19
-24/-25	1.2																	11	11	11	13
-26/-27	.5																	5	5	5	10
-28/-29	.3																	3	3	3	14
-30/-31	.3																	3	3	3	6
-32/-33	.1																	1	1	1	11
-34/-35	.1																	1	1	1	4
-36/-37																					1
-38/-39																					2
-40/-41																					2
-42/-43																					2
TOTAL	25.2	27.4	16.6	17.3	7.5	4.3	1.4	.2										928		928	928
																		928		928	

Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						
						$\leq 0 F$	$\leq 32 F$	$\geq 67 F$	$\geq 73 F$	$\geq 80 F$	$\geq 93 F$	Total
Rel. Hum.	3797563	58127	62.6	13.000	928							
Dry Bulb	709957	16957	18.2	20.770	930	23.2	62.8					93
Wet Bulb	528365	14105	15.2	18.404	928	24.0	74.4					93
Dew Point	355942	6436	6.9	18.325	928	30.7	89.7					93

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRUM AFB MT/GREAT FALLS 68-77 JAN  
STATION STATION NAME YEARS MONTH

PAGE 1 2100-2300  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL	TOTAL							
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point																			
54/ 53					.2	.4																										6	6							
52/ 51					.1		.2																										3	3						
50/ 49					.3	.9	.1																										12	12						
48/ 47				.2	.1	.2	.1																										6	6						
46/ 45				1.1	.6	.4	.4																										24	24	2					
44/ 43			.5	1.0	.5	1.0	.4																											38	38	7				
42/ 41		.1	.2	1.7	1.4	.6	.3																												41	41	6			
40/ 39		.2	1.2	1.5	1.4	.1																														41	41	30	1	
38/ 37		.2	1.5	1.7	.6	.2																														40	40	27	3	
36/ 35		.8	1.1	1.1	.3																															30	30	44	14	
34/ 33		.4	1.3	1.8	.6																																39	39	68	8
32/ 31		.5	1.1	2.3	.4																																40	40	44	25
30/ 29		.6	1.7	1.8	.1																																40	40	36	37
28/ 27	.1	1.1	2.2	.6																																	37	37	46	39
26/ 25	.1	1.2	1.1	.1																																	23	23	65	35
24/ 23	.2	1.2	1.4																																		27	27	35	44
22/ 21	.6	1.8	1.1																																		33	33	37	50
20/ 19	.2	1.8	1.0																																		28	28	31	39
18/ 17	.3	2.7	.4																																		32	32	34	40
16/ 15	.3	1.9	.5																																		26	26	37	57
14/ 13	.3	1.2	.1																																		15	15	29	53
12/ 11	.5	1.0																																			14	14	16	43
10/ 9	.3	2.9																																			30	30	15	49
8/ 7		1.8																																			17	17	24	17
6/ 5	.2	1.1	.1																																		13	13	22	24
4/ 3	.4	1.5																																			18	18	15	23
2/ 1	.4	1.1																																			14	14	15	20
0/ -1	1.8	.8																																		24	24	25	15	
-2/ -3	.9	.1																																		9	9	15	15	
-4/ -5	2.3	.4																																		27	27	26	19	
-6/ -7	1.8	.9																																		25	25	23	18	
-8/ -9	2.5	.1																																		24	24	27	19	
-10/ -11	3.1																																			29	29	30	25	
-12/ -13	2.2																																			20	20	20	19	
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature																																		
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total																												
Dry Bulb																																								
Wet Bulb																																								
Dew Point																																								

FORM 0-26-5 (OL A) JUL 64 USAF ETAC REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRON AFB MT/GREAT FALLS  
STATION STATION NAME

68-77  
YEARS

JAN  
MONTH

PAGE 2 2100-2300  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL	TOTAL					
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-14/-15	2.0																	19	19	19	21
-16/-17	1.7																	16	16	16	16
-18/-19	.5																	5	5	5	24
-20/-21	1.4																	13	13	13	15
-22/-23	1.0																	9	9	9	22
-24/-25	.9																	8	8	8	17
-26/-27	.6																	6	6	6	25
-28/-29	.2																	2	3	2	11
-30/-31	.2																	2	2	2	8
-32/-33	.3																	3	4	3	6
-34/-35																					4
-36/-37																					4
-38/-39																					2
-40/-41																					1
-42/-43																					1
TOTAL	27.9	27.6	16.5	15.6	6.9	3.9	1.6											928	930	928	928
Element (X)	Z <sub>x</sub> <sup>2</sup>	Z <sub>x</sub>	X	σ <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature					Total										
Rel. Hum.	3903924	58984	63.6	12.926	928	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb	693060	16324	17.6	20.919	930	24.3	65.0					93									
Wet Bulb	520050	13704	14.8	18.512	928	25.0	74.6					93									
Dew Point	361398	6262	6.7	18.555	928	30.8	90.4					93									

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FA:LS

68-77

JAN

STATION

STATION NAME

YEARS

MONTH

PAGE 1

ALL

HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																				TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point			
64/ 63								.0										1	1					
62/ 61								.0	.0									2	2					
60/ 59								.0	.0									7	7					
58/ 57							.1	.1	.1									16	16					
56/ 55					.1	.1	.1	.0	.0	.1								26	26					
54/ 53				.0	.1	.3	.1	.1	.1	.0								57	57					
52/ 51			.0	.0	.2	.2	.1	.1	.0									51	51					
50/ 49			.0	.2	.3	.3	.1	.2	.1									87	87		2			
48/ 47			.1	.3	.4	.3	.4	.1										119	119	14				
46/ 45			.2	.6	.7	.9	.5	.1										221	221	45				
44/ 43		.0	.3	1.4	.8	1.0	.3	.0										283	283	86	2			
42/ 41		.1	.6	1.7	1.3	.6	.2											323	323	82	5			
40/ 39		.1	1.0	1.8	1.4	.4	.1											356	356	173	24			
38/ 37		.1	1.3	1.6	.9	.3												315	315	261	40			
36/ 35	.1	.3	1.1	1.7	.7	.4												297	297	408	93			
34/ 33	.0	.6	1.1	2.1	.6	.0												328	328	485	118			
32/ 31	.1	.3	1.1	1.4	.4													251	251	403	176			
30/ 29	.1	.5	1.7	1.2	.1													274	274	395	254			
28/ 27	.1	.9	1.9	.6	.0													252	252	355	337			
26/ 25	.1	.9	1.6	.2														206	206	370	272			
24/ 23	.2	1.6	1.1	.0														214	214	298	257			
22/ 21	.2	1.5	.9															196	196	295	391			
20/ 19	.2	1.6	.7		.0													185	185	189	438			
18/ 17	.4	1.6	.5															183	183	232	387			
16/ 15	.3	2.0	.4															191	191	222	369			
14/ 13	.3	1.4	.2															140	142	183	351			
12/ 11	.5	1.7	.1															172	172	149	330			
10/ 9	.6	1.7	.1															177	178	184	398			
8/ 7	.3	1.5	.1															148	148	149	214			
6/ 5	.3	1.5	.0															136	139	117	160			
4/ 3	.3	1.5																134	135	135	161			
2/ 1	.5	1.9																180	180	172	130			
0/ -1	1.5	.7																164	164	211	120			
-2/ -3	1.0	.8																133	133	149	150			
Element (X)	Z <sub>x</sub> <sup>2</sup>	Z <sub>x</sub>	X	* <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature																		
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total												
Dry Bulb																								
Wet Bulb																								
Dew Point																								

0-26-5 (OL A)  
 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 JAN  
 STATION STATION NAME YEARS MONTH

PAGE 2 ALL  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb	Dew Point
-4/-5	2.2	.6																208	208	206	154
-6/-7	2.0	.5																192	192	198	152
-8/-9	2.7	.2																213	213	227	178
-10/-11	2.7	.1																206	207	202	177
-12/-13	2.3	.0																173	173	180	192
-14/-15	2.0																	150	150	150	183
-16/-17	.9																	64	64	64	162
-18/-19	.8																	61	61	61	159
-20/-21	1.6																	120	120	120	166
-22/-23	.8																	62	62	62	173
-24/-25	.7																	54	54	54	118
-26/-27	.5																	37	37	37	124
-28/-29	.4																	28	29	28	100
-30/-31	.2																	16	16	16	66
-32/-33	.2																	15	16	15	58
-34/-35	.1																	6	6	6	33
-36/-37																					23
-38/-39																					17
-40/-41																					12
-42/-43																					6
TOTAL	27.3	26.1	16.1	14.8	8.1	4.7	2.0	.6	.3	.1								7430		7430	7430
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature					Total										
Rel. Hum.	30436252	464020	62.5	14.005	7430	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	744									
Dry Bulb	5863939	136027	18.3	21.306	7430	190.5	495.1					744									
Wet Bulb	4311881	112659	15.2	18.721	7430	198.9	588.2					744									
Dew Point	2899495	50483	6.8	18.551	7430	252.6	715.8					744									

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRUM AFB MT/GREAT FALLS

68-77

FEB

PAGE 1 0000-0200  
 HOURS (L. S. T.)

T <sub>mp</sub> (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	≥ 31	Dry Bulb	Wet Bulb
52/ 51							.1	.1										2	2	
48/ 47				.1	.4		.1											5	5	
46/ 45				.2	.6	.4		.5										14	14	
44/ 43				.5	1.6	.7	.2											25	25	
42/ 41				.6	.7	1.2												21	21	2
40/ 39			.8	2.7	1.3													41	41	6
38/ 37			2.0	3.0	1.0	.5												54	54	10
36/ 35		.1	3.1	2.6	.6	.1												55	55	35
34/ 33		.2	1.4	3.3	.8													49	49	63
32/ 31		.7	2.4	2.1	.4													47	47	75
30/ 29	.1	.7	5.7	1.2	.2													67	67	51
28/ 27	.7	3.2	3.1	.7														65	65	91
26/ 25	1.3	2.9	1.3	.2														48	48	93
24/ 23	.5	2.6	.8															33	33	60
22/ 21	.7	2.3	.7															31	31	51
20/ 19	1.0	2.3	.4															30	30	32
18/ 17	1.0	2.4	.5															32	32	29
16/ 15	1.2	1.6	.4															26	27	34
14/ 13	.8	1.0																15	16	22
12/ 11	1.3	1.3	.4															25	25	21
10/ 9	.6	1.0																13	14	15
8/ 7	1.0	1.6																21	23	20
6/ 5	1.6	.7																19	19	26
4/ 3	.6	1.1																14	15	12
2/ 1	.5	1.8																19	20	17
0/ -1	1.3	.5																15	17	18
-2/ -3	1.3	.2																13	14	15
-4/ -5	.7	.6																11	12	11
-6/ -7	.6																	5	5	6
-8/ -9	1.6	.1																14	14	14
-10/ -11	.2																	2	2	2
-12/ -13	.4																	3	3	3
-14/ -15																				
-16/ -17	.1																	1	1	1
Element (X)	Z <sub>X</sub>	Z <sub>X</sub>	X	σ <sub>X</sub>	No. Obs.	Mean No. of Hours with Temperature														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 STATION Malmstrom AFB MT/GREAT FALLS STATION NAME 68-77 YEARS FEB MONTH  
 PAGE 2 0000-0200 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-18/-19	.2																	2	2	2	9
-20/-21	.1																	1	1	1	2
-22/-23																					2
-26/-27																					3
-28/-29																					1
TOTAL	19.3	28.8	23.0	17.4	7.5	2.9	.5	.6									838	849		838	

Element (X)	$\sum X^2$	$\sum X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature					Total	
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	3898693	55703	66.5	15.304	838							84
Dry Bulb	652112	20280	23.9	14.062	849	7.0	57.7					84
Wet Bulb	490238	17630	21.0	11.940	838	7.3	72.4					84
Dew Point	276515	11557	13.8	11.530	838	12.1	83.7					84

USAFETAC FORM 0-26-5 (OL A) 0-26-5 (OL A) REVISION PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 STATION MALMSTROM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS FEB MONTH

PAGE 1 0300-0500 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31		Dry Bulb	Wet Bulb	Dew Point
50/ 49						.2	.1											3	3		
48/ 47					.2													2	2		
46/ 45				.2	.8	.1		.2										12	12		
44/ 43				.8	.7	.1	.2	.1										17	17		
42/ 41			.2	1.6	1.6	1.0	.1											37	37	2	
40/ 39			.6	2.3	1.1	.7	.2											41	41	6	
38/ 37			1.8	2.8	1.4	.1												51	51	16	
36/ 35			2.4	3.6	.5													54	54	33	
34/ 33		.1	2.0	2.2	.6													41	41	54	
32/ 31	.1	.2	3.6	1.7	.4													50	50	70	10
30/ 29		1.1	4.3	1.2														55	55	68	16
28/ 27	.2	2.0	3.4	.7														53	53	77	45
26/ 25	.7	3.0	1.9															47	47	68	66
24/ 23	.7	3.6	1.9															52	52	66	47
22/ 21	.4	3.0	.5															32	32	54	65
20/ 19	.7	1.2	.6															21	21	41	87
18/ 17	1.7	2.4																34	36	31	63
16/ 15	1.2	1.8	1.0															33	33	33	86
14/ 13	1.2	1.2	.1															21	23	25	48
12/ 11	.8	.8	.1															15	15	24	51
10/ 9	.6	.8																12	14	9	38
8/ 7	.8	.8																14	15	14	27
6/ 5	.6	1.1																14	14	12	17
4/ 3	1.4	1.7																26	27	25	10
2/ 1	2.2	1.6																31	33	31	18
0/ -1	1.1	.4																12	15	19	14
-2/ -3	.6	.4																8	9	8	26
-4/ -5	.5	.4																7	7	7	23
-6/ -7	1.9	.2																18	18	20	9
-8/ -9	1.3																	11	11	11	16
-10/-11	.2																	2	2	2	10
-12/-13	.7																	6	6	6	5
-14/-15																					11
-16/-17	.1																	1	1	1	8
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 FEB  
STATION STATION NAME YEARS MONTH  
 PAGE 2 0300-0500  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-18/-19																					8
-20/-21																					4
-22/-23	.2																	2	2	2	4
-26/-27																					1
-32/-33																					2
TOTAL	20.1	27.8	24.4	17.0	7.3	2.3	.7	.4									835	849		835	

Element (X)	$\sum x^2$	$\sum x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature					Total	
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	3883223	55565	66.5	14.920	835							
Dry Bulb	633623	19711	23.2	14.406	849	7.0	58.5					84
Wet Bulb	476157	17083	20.5	12.324	835	7.6	72.8					84
Dew Point	268198	11042	13.2	12.104	835	14.2	64.0					84

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

FEB  
 MONTH

PAGE 1 0600-0800  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point															
46/45					1.0		.2	.4										13	13																	
44/43				1.4	.8	.1	.2											22	22																	
42/41				1.1	1.4	.4	.4											27	27																	
40/39			.6	2.8	1.3	.2	.5											45	45																	
38/37			1.7	3.1	1.0	.2												50	50	22																
36/35		.4	2.9	1.9	.6	.1												49	49	26																
34/33		.5	2.2	3.1	.8	.1												56	56	69																
32/31	.1	1.0	3.7	1.7	.4													57	57	63	3															
30/29		1.3	2.4	1.6														44	44	66	34															
28/27	.1	1.9	3.5	.7														52	52	82	36															
26/25	.7	2.9	1.7															44	44	60	71															
24/23	.4	3.4	1.3															42	42	63	50															
22/21	.2	3.1	1.4															40	40	52	55															
20/19	.7	2.0	.7															29	29	43	69															
18/17	.5	1.9	.5															24	24	33	76															
16/15	1.9	1.2																26	26	37	67															
14/13	1.0	1.6	.5															25	27	20	53															
12/11	.6	2.4																25	26	22	55															
10/9	1.2	.7																16	17	24	41															
8/7	.6	1.0																13	14	10	28															
6/5	.1	.5																5	6	10	24															
4/3	1.3	1.3																22	27	19	17															
2/1	2.5	1.4																33	37	30	8															
0/-1	1.6	.1																14	15	22	14															
-2/-3	1.0	.4																11	11	10	21															
-4/-5	1.0	.2																10	10	9	21															
-6/-7	1.0	.1																9	10	11	11															
-8/-9	1.8																	15	15	15	18															
-10/-11	.6																	5	5	5	14															
-12/-13	.6																	5	5	5	8															
-14/-15																					9															
-16/-17																					9															
-18/-19	.1																	1	1	1	5															
-20/-21																					6															
Element (X)	ΣX'	ΣX	X	X'	No. Obs.	Mean No. of Hours with Temperature						Total																								
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F																									
Dry Bulb																																				
Wet Bulb																																				
Dew Point																																				

USAFETAC FORM 0-26-5 (OLA) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

FEB

YEARS

MONTH

PAGE 1

0900-1100

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL		TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point		
58/ 57							.1	.1	.1	.1								3	3				
56/ 55							.1											1	1				
54/ 53							.8	.2	.2	.1								12	12				
52/ 51						.1	.6	.1	.1									8	8				
50/ 49						.6	.6	1.0										18	18				
48/ 47				.4	.2	1.9	.7	.4	.1									31	31				
46/ 45				.5	2.7	1.4	.7	.1										46	46				
44/ 43			.1	.7	1.7	1.7	.4											38	38	6			
42/ 41		.1	.2	1.3	1.7	1.7	.4											45	45	11			
40/ 39			.7	1.9	2.5	1.1	.4											55	55	26			
38/ 37			1.7	2.9	1.8	.4												56	56	57	1		
36/ 35		.4	1.5	2.3	2.0	.2												54	54	61	1		
34/ 33		.7	1.0	2.6	.6	.1												42	42	79	7		
32/ 31	.1	1.4	1.7	.8	.1													35	35	81	11		
30/ 29		1.3	2.3	1.0	.1													39	39	70	33		
28/ 27	.2	1.9	1.5	.5														35	35	63	64		
26/ 25	.1	1.1	.8	.4														20	20	49	71		
24/ 23	.7	1.1	.7	.2														23	23	32	47		
22/ 21	.6	1.7	.6	.1														25	25	21	73		
20/ 19	.7	2.4	.4															29	29	34	74		
18/ 17	.7	1.1	.6															20	20	28	69		
16/ 15	1.7	1.1	.1															24	24	28	52		
14/ 13	.7	.8	.2															15	15	20	61		
12/ 11	.7	1.0																14	14	17	29		
10/ 9	.8	1.7	.1															22	25	16	44		
8/ 7	1.1	.8																16	18	23	23		
6/ 5	.5	1.7																18	19	12	26		
4/ 3	1.1	1.3																20	21	23	17		
2/ 1	.8	1.3																18	18	15	19		
0/ -1	2.3	.4																22	23	30	16		
-2/ -3	.8	.1																8	8	10	15		
-4/ -5	1.0																	8	8	8	12		
-6/ -7	.4																	3	3	3	14		
-8/ -9	1.0	.1																9	9	9	28		
Element (X)	ΣX <sup>2</sup>		ΣX		X̄		σ <sub>x</sub>		No. Obs.		Mean No. of Hours with Temperature												
Rel. Hum.											≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total						
Dry Bulb																							
Wet Bulb																							
Dew Point																							

USAFETAC FORM 0-75-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77

FEB  
 MONTH

PAGE 2 0900-1100  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																			TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	> 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point		
-10/-11	.5																	4	4	4	9		
-12/-13																		2	2	2	5		
-14/-15	.2																	1	1	1	3		
-16/-17	.1																	1	1	1	1		
-18/-19	.1																	1	1	1	7		
-20/-21																					4		
-22/-23																					2		
-26/-27																					1		
-28/-29																					1		
TOTAL	16.9	23.3	14.3	15.5	13.6	9.0	4.6	1.9	.5	.2	.1						840	849		840			

Element (X)	$\sum X^2$	$\sum X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature					Total	
						$\leq 0 F$	$\leq 32 F$	$\geq 67 F$	$\geq 73 F$	$\geq 80 F$	$\geq 93 F$	
Rel. Hum.	3356645	50865	60.6	18.157	840							84
Dry Bulb	872910	23626	27.8	15.939	849	5.8	43.5					84
Wet Bulb	604900	19800	23.6	12.834	840	6.8	60.0					84
Dew Point	300393	12381	14.7	11.855	840	11.8	83.1					84

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 FEB  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 1200-1400  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																			TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb		Dew Point		
68/ 67														.1						1	1		
66/ 65															.1					1	1		
64/ 63															.1	.1				2	2		
62/ 61														.2	.4	.1				6	6		
60/ 59										.1	.1	.1	.2	.1					6	6			
58/ 57										.2	.7	.2	.4						13	13			
56/ 55									.4	1.3	.6	.6	.1						25	25			
54/ 53								.6	.6	1.1	.5								23	23			
52/ 51					.4	.8	2.1	1.5	.5										45	45			
50/ 49				.1	.6	1.1	1.2	1.3	.4										39	39			
48/ 47				.6	.6	1.3	1.5	.4	.1										38	38			
46/ 45			.1		1.2	1.2	2.0	.6											43	43	5		
44/ 43				.4	1.4	4.1	.7	.1											57	57	25		
42/ 41				1.1	2.0	1.4	.5												42	42	48		
40/ 39			.5	3.1	2.8	1.7	.5												72	72	56		
38/ 37			.8	1.5	1.1	.9													37	37	56		
36/ 35			.6	1.8	.4	.6													28	28	71		
34/ 33		.8	1.2	1.7															31	31	101		
32/ 31		.2	.8	.7	.1														16	16	81		
30/ 29		.8	1.7	.7	.4														30	30	47		
28/ 27		.9	1.5	.6	.1														27	27	47		
26/ 25		.9	1.4	.2															22	22	27		
24/ 23	.1	1.1	1.1																19	19	27		
22/ 21	.7	1.8		.1															22	22	35		
20/ 19	.6	2.5	.2																28	28	31		
18/ 17	.4	1.1	.1																13	14	22		
16/ 15	.5	.8	.2																13	13	12		
14/ 13	.5	.6	.1																10	10	12		
12/ 11	1.3	1.1	.1																21	21	23		
10/ 9	.4	2.6	.1																26	26	14		
8/ 7	1.2	1.7	.1																25	25	32		
6/ 5	.2	1.4																	14	14	14		
4/ 3		1.5																	13	13	12		
2/ 1	.5	1.8																	19	19	15		
Element (X)	Σ X <sup>2</sup>			Σ X			Σ X	Σ X <sup>2</sup>	No. Obs.	Mean No. of Hours with Temperature							Total						
Rel. Hum.										≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F								
Dry Bulb																							
Wet Bulb																							
Dew Point																							

USAFETAC FORM 64 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

24112 STATION MALMSTRUM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS FEB MONTH

PAGE 2 1200-1400 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
0/-1	.4	.4																6	6	19	14
-2/-3		.2																2	2	2	20
-4/-5	.1																	1	1	2	10
-6/-7		.8																7	7	3	12
-8/-9	.4																	3	3	7	12
-10/-11	.2																	2	2	2	3
-12/-13																					4
-14/-15																					2
-16/-17																					1
-18/-19																					8
-20/-21																					2
-22/-23																					1
TOTAL	7.3	23.0	10.7	12.5	11.0	13.7	9.4	6.6	3.1	1.4	.9	.2	.1				848	849	848	848	

Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature						
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total
Rel. Hum.	2714173	44873	52.92	20.025	848							
Dry Bulb	1175408	28294	33.31	16.557	849	2.1	33.6	.1				84
Wet Bulb	744989	22817	26.91	12.439	848	3.3	48.1					84
Dew Point	308935	13393	15.81	10.724	848	5.8	82.2					84

USAFETAC FORM 0-26-5 (OLA) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 STATION MALMSTROM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS FEB MONTH  
PAGE 1 1500-1700 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point															
66/ 65													.1			.2															3	3			
64/ 63													.1																		1	1			
62/ 61													.5	.4	.2	.1														10	10				
60/ 59													.4	.1																4	4				
58/ 57													.2	.7	.6	.2														15	15				
56/ 55												.1	.6	.1	.2	.4														12	12				
54/ 53									.1	1.2	.8	.9	.1																27	27					
52/ 51					.4	.6	1.4	1.2	.4																				33	33					
50/ 49				.1	.5	1.3	2.1	.7	.4																				43	43					
48/ 47				.4	.8	1.3	1.1	.6																					35	35		1			
46/ 45			.1	.6	1.7	2.7	1.7	.1																					58	58		6			
44/ 43			.4	1.8	3.0	1.5	.1																						57	57		14			
42/ 41			.1	1.3	1.9	2.0	.4																						47	47		51			
40/ 39			.1	2.5	2.6	1.4	.6																						61	61		54			
38/ 37			.9	2.4	1.7	.9	.2																						52	52		68			
36/ 35		.1	.7	2.4	.2	.2																							31	31		75			
34/ 33		.1	2.1	.9	.6																								32	32		94			
32/ 31		.2	.5	1.5																									19	19		77			
30/ 29		.4	.9	.9	.1																								20	20		56			
28/ 27		1.4	1.3	.9	.1																								32	32		43			
26/ 25		2.4	.8	.5																									31	31		35			
24/ 23	.2	1.3	.4																										16	16		40			
22/ 21	.1	2.1		.2																									21	21		23			
20/ 19	.5	1.4		.1																									17	17		30			
18/ 17	.5	1.3	.2																										17	17		17			
16/ 15	.4	1.8	.1																										19	20		16			
14/ 13	.9	1.2																											18	19		25			
12/ 11	.5	1.1	.2																										15	16		17			
10/ 9	.8	1.8	.1																										23	23		17			
8/ 7	.4	1.8																											18	18		16			
6/ 5		1.8																											15	15		16			
4/ 3		2.0																											17	17		15			
2/ 1		.8																											7	7		15			
0/ -1	.5	.2																											6	6		9			
Element (X)	Σ X'		Σ X		X̄		s <sub>x</sub>		No. Obs.		Mean No. of Hours with Temperature						Total																		
Rel. Hum.											≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F																			
Dry Bulb																																			
Wet Bulb																																			
Dew Point																																			

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 64

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77  
 STATION STATION NAME YEARS  
 FEB  
 MONTH  
 PAGE 2 1500-1700  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point	
-2/-3																				2	22	
-4/-5	.1	.7																7	7	1	11	
-6/-7		.4																3	3	6	5	
-8/-9	.1	.1																2	2	5	7	
-10/-11	.2																	2	2	2	6	
-12/-13																					1	
-14/-15																					2	
-16/-17																					2	
-18/-19																					7	
-20/-21																					4	
<b>TOTAL</b>	5.2	24.3	8.6	15.1	12.3	13.6	10.3	4.4	3.0	1.9	.9	.1	.2					846	849	846	846	

Element (X)	$\sum x^2$	$\sum x$	$\bar{x}$	$s_x^2$	No. Obs.	Mean No. of Hours with Temperature					Total	
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	2655051	44477	52.6	19.361	846							
Dry Bulb	1182669	28657	33.8	15.937	849	2.0	32.5					84
Wet Bulb	752541	23133	27.3	11.917	846	2.3	48.0					84
Dew Point	313062	13704	16.2	10.382	846	8.2	82.4					84

USAFETAC FORM 0-26-5 (OLA) 0-26-5 (OLA) REVISIONS PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 64

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77

68-77

FEB

STATION

STATION NAME

YEARS

MONTH

PAGE 1

1800-2000

HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
56/ 55									.1									2	2		
54/ 53									.1									1	1		
52/ 51									.2	.4								5	5		
50/ 49								.2	.4	.4	.1							9	9		
48/ 47				.2	.1	.6	.6	.1										14	14		
46/ 45				.5	1.5	1.9	.5	.4										40	40		
44/ 43			.1	.5	2.4	.6	.4	.1										34	34		
42/ 41			.2	1.8	1.4	1.1	.4											41	41	11	
40/ 39			.8	2.7	2.4	.7												56	56	8	
38/ 37		.1	1.1	3.6	2.4	.2												62	62	41	
36/ 35		.5	1.4	4.1	1.3													61	61	62	1
34/ 33		.1	3.8	3.8	.7	.2												73	73	62	8
32/ 31		.8	2.6	1.7	.5													47	47	95	6
30/ 29	.4	1.5	2.6	1.2	.1													49	49	105	22
28/ 27	.5	1.7	1.8	.7														39	39	77	55
26/ 25	.6	1.9	.8															28	28	54	82
24/ 23	.1	2.3	.8															27	27	43	84
22/ 21	.4	.9	1.0															27	27	34	69
20/ 19	.5	2.4	.2															26	26	29	66
18/ 17	1.2	1.3																21	21	32	83
16/ 15	.5	1.0																12	12	17	77
14/ 13	.8	.5	.1															12	12	12	39
12/ 11	1.1	1.4																21	21	15	26
10/ 9	.7	1.1																15	18	22	44
8/ 7	1.0	1.3																19	23	14	28
6/ 5	.8	2.5																28	29	19	18
4/ 3	.5	2.3																23	25	21	18
2/ 1	.1	1.8																16	16	25	11
0/ -1	.6	.6																10	10	16	17
-2/ -3	.1	.5																5	5	9	18
-4/ -5																					12
-6/ -7		.2																2	2	1	15
-8/ -9	.4																	3	3	4	9
-10/-11	.7																	6	6	6	8
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (C. A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 64



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTROM AFB MT/GREAT FALLS 68-77 FEB  
STATION STATION NAME YEARS MONTH

PAGE 1 2100-2300  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
54/ 53							.2										2	2		
52/ 51							.1										1	1		
50/ 49					.1	.1											2	2		
48/ 47				.1	.2	.1											4	4		
46/ 45					.2	.7	.1	.1									10	10		
44/ 43				1.1	1.3	1.0		.2									30	30		
42/ 41				1.7	.8	.7	.4										30	30	7	
40/ 39		.1	.7	2.8	1.2	.6											45	45	2	
38/ 37			2.0	3.8	1.2	.1											60	60	14	
36/ 35		.1	1.6	3.1	.7												46	46	48	1
34/ 33	.1	.8	2.6	3.3	.7												64	64	57	3
32/ 31		1.2	5.4	1.3	.1												67	67	84	7
30/ 29	.1	1.4	3.7	.7	.2												52	52	76	20
28/ 27	1.0	3.3	3.7	.6													72	72	105	62
26/ 25	.8	2.0	1.0	.1													33	33	72	66
24/ 23	.6	2.8	.5														32	32	59	66
22/ 21	.5	1.9	.7														26	26	30	91
20/ 19	1.2	2.4	.5														34	34	35	80
18/ 17	.6	2.4	.2														27	27	30	69
16/ 15	.7	.7															12	12	25	69
14/ 13	1.0	1.4															20	20	17	44
12/ 11	1.3	.4															14	14	20	30
10/ 9	.1	1.4															13	13	4	41
8/ 7	1.4	1.3	.4														26	29	24	19
6/ 5	1.7	1.9															30	31	34	13
4/ 3	.1	1.7															15	16	15	20
2/ 1	.7	1.6															19	25	18	19
0/ 0	1.8																15	16	25	18
-2/ -3	1.0	.7															14	15	11	15
-4/ -5	.1																1	1	4	10
-6/ -7	.4																3	3	3	21
-8/ -9	.5																4	4	4	16
-10/ -11	.6																5	5	5	10
-12/ -13	.2																2	2	2	6
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 FEB  
 STATION STATION NAME YEARS MONTH  
 PAGE 2 2100-2300  
 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL		TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-14/-15	.2																	2	2	2	5
-16/-17																					2
-18/-19	.1																	1	1	1	3
-20/-21	.4																	3	3	3	3
-22/-23																					1
-24/-25																					2
-26/-27																					1
-28/-29																					2
-32/-33																					1
TOTAL	17.2	29.7	23.0	18.7	6.9	3.3	.8	.4										836	849	836	836
Element (X)	$\sum X^2$		$\sum X$		$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total							
Rel. Hum.	3873014		55474		66.4	15.162	836	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	84							
Dry Bulb	691125		21117		24.9	13.986	849	5.1	54.9					84							
Wet Bulb	521926		18408		22.0	11.817	836	6.0	71.1					84							
Dew Point	296164		12364		14.8	11.649	836	11.7	83.6					84							

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTROM AFB MT/GREAT FALLS 68-77 FEB

PAGE 2 ALL  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL D.B./W.B.	TOTAL					
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31		Dry Bulb	Wet Bulb	Dew Point			
0/-1	1.2	.3																100	108	158	124			
-2/-3	.6	.3																61	64	67	146			
-4/-5	.4	.2																45	46	42	111			
-6/-7	.5	.2																50	51	53	108			
-8/-9	.9	.0																61	61	69	119			
-10/-11	.4																	28	28	28	74			
-12/-13	.3																	20	20	20	42			
-14/-15	.1																	5	5	5	38			
-16/-17	.0																	3	3	3	33			
-18/-19	.1																	5	5	5	50			
-20/-21	.1																	4	4	4	31			
-22/-23	.1																	5	5	5	14			
-24/-25																					6			
-26/-27																					7			
-28/-29																					5			
-30/-31																					2			
-32/-33																					3			
TOTAL	14.7	26.7	18.1	16.8	9.9	6.5	3.8	2.0	.8	.5	.3	.0	.0	.0				6714	6792		6714			
Element (X)	Σ X²		Σ X		X̄		s <sub>x</sub>		No. Obs.		Mean No. of Hours with Temperature					Total								
Rel. Hum.	27683774		414252		61.7		17.790		6714		≤ 0 F		≤ 32 F		≥ 67 F		≥ 73 F		≥ 80 F		≥ 93 F		Total	
Dry Bulb	6654279		184639		27.2		15.516		6792		39.6		383.4		.1								672	
Wet Bulb	4650208		155714		23.2		12.440		6714		45.9		509.8										672	
Dew Point	2334785		98267		14.6		11.556		6714		91.4		666.1										672	



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 MAR  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 0000-0200  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
58/ 57																	1	1		
54/ 53										.1	.1						2	2		
52/ 51								.1	.2								3	3		
50/ 49					.4			.4									8	8		
48/ 47					.4	.6	1.5										24	24		
46/ 45					.4	1.3	.9	.2									26	26		
44/ 43					.6	1.4	.6	.2									27	27	6	
42/ 41			.2	1.3	1.5	.2	.1										31	31	11	
40/ 39		.1	1.3	4.1	2.3	.6											78	78	19	
38/ 37			1.3	2.2	1.0												41	41	33	5
36/ 35	.1	.3	1.5	2.8	.4												48	48	53	3
34/ 33		.5	3.3	3.0	.6												70	70	78	9
32/ 31	.3	1.9	1.8	2.2													58	58	72	15
30/ 29		1.9	3.3	1.3	.1												62	62	89	42
28/ 27	.5	2.3	4.1	.9													72	72	83	48
26/ 25	1.0	3.3	2.4	.1													63	63	79	96
24/ 23	1.5	3.0	1.0														51	51	104	95
22/ 21	1.0	4.1	.6														53	53	53	85
20/ 19	1.3	3.1	.1														42	42	62	93
18/ 17	.4	2.2															24	24	32	76
16/ 15	.3	1.2															14	14	17	82
14/ 13	.6	1.1															16	16	19	68
12/ 11	.6	2.3															27	27	18	47
10/ 9	.4	1.3															16	16	21	43
8/ 7	1.0	.5															14	14	19	22
6/ 5	.5	.1															6	6	9	20
4/ 3	.8	.4															11	11	8	16
2/ 1	.5	.8															12	12	13	13
0/ -1	1.3	.1															13	13	14	7
-2/ -3	.2																2	2	3	8
-4/ -5	.1																1	1	1	6
-6/ -7	.1	.2															3	3	2	4
-8/ -9	.2																2	2	3	9
-10/-11	.1																1	1	1	4
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAF-ETAC FORM 0-26-5 (OL A) REVERSE PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 64

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTROM AFB MT/GREAT FALLS 68-77 MAR  
 STATION STATION NAME YEARS MONTH  
 PAGE 2 0000-0200  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-12/-13	.2																	2	2	2	3
-14/-15	.2																	2	2	2	1
-16/-17	.4																	1	1	1	1
-18/-19	.1																	1	1	1	2
-20/-21	.1																	1	1	1	1
-22/-23	.1																	1	1	1	1
-24/-25																					1
-28/-29																					2
-32/-33																					2
TOTAL	13.9	30.8	21.0	19.7	9.2	4.4	.9	.2									930	930	930	930	

Element (X)	Z <sub>x</sub> '	Z <sub>x</sub>	X	e <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature						
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 95 F	Total
Rel. Hum.	4423341	62571	67.1	16.086	930							
Dry Bulb	865684	25898	27.8	12.471	930	3.0	57.1					93
Wet Bulb	653361	22689	24.4	10.376	930	3.2	73.0					93
Dew Point	372627	16259	17.5	9.761	930	5.2	91.3					93

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

MAR

PAGE 1 0300-0500  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL			
	0	1-2	3-4	5-6	7	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb	Dew Point
54/53							.2											2	2		
52/51							.1											1	1		
50/49						.1	.1											2	2		
48/47				.2	.8	.3												12	12		
46/45			.3	.4	1.0	.5	.2											23	23		
44/43				1.0	1.1	.8	.2											28	28		
42/41			.4	1.1	1.2	.4	.1											30	30	9	
40/39		.1	1.1	2.3	1.6	.8												54	54	18	
38/37		.1	1.3	2.2	1.1	.3												46	46	29	1
36/35		.2	1.3	3.5	.8	.4												58	58	35	5
34/33		1.3	2.6	2.9	.5													68	68	67	6
32/31	.4	2.3	2.7	1.8	.1													68	68	69	22
30/29	.1	2.2	2.6	1.4														58	58	104	41
28/27	.5	2.3	3.7	.6														66	66	87	42
26/25	1.1	4.0	2.2															67	67	77	91
24/23	1.7	4.0	.9															61	61	105	61
22/21	1.5	3.8	.8															56	56	62	92
20/19	1.6	3.0	.2															45	45	57	107
18/17	1.0	2.6	.1															34	34	40	100
16/15	.2	1.1	.1															13	13	25	85
14/13	.6	1.1																16	16	19	38
12/11	.9	1.0	.1															18	18	15	50
10/9	.8	1.1	.2															19	19	20	59
8/7	1.1	.6																16	16	19	21
6/5	.8	.4																11	11	15	14
4/3	.5	.1																6	6	5	21
2/1	.9	.5																13	13	11	14
0/-1	1.3	.2																15	15	15	7
-2/-3	.3	.3																6	6	9	7
-4/-5	.1																	1	1	1	6
-6/-7	.2	.1																3	3	3	6
-8/-9																					12
-10/-11	.2																	2	2	2	3
-12/-13	.4																	4	4	4	3
Element (X)	Z <sub>X</sub> <sup>1</sup>	Z <sub>X</sub>	X	σ <sub>X</sub>	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRUM AFB MT/GREAT FALLS

68-77

MAR

PAGE 1

0600-0800

HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31		Dry Bulb	Wet Bulb	Dew Point
54/ 53						.1	.1											2	2		
52/ 51							.3											3	3		
50/ 49					.3	.1	.1											5	5		
48/ 47				.1	.2	.5	.1											9	9		
46/ 45				.9	2.2	.9	.2											38	38		
44/ 43				1.0	1.5	.2												26	26	2	
42/ 41			.3	2.6	1.3	.3	.1											43	43	5	
40/ 39			.5	2.3	.8	.5	.1											39	39	25	
38/ 37			1.5	2.3	.6	.3												44	44	38	
36/ 35		.6	1.5	2.2	.8													47	47	51	
34/ 33	.1	1.0	2.9	2.8	1.0													72	72	59	
32/ 31	.6	2.0	4.1	1.9	.4													85	85	66	
30/ 29	.1	2.2	3.4	1.1	.1													64	64	87	
28/ 27	.6	2.7	3.6	.5														71	71	105	
26/ 25	.9	4.1	1.2															57	57	88	
24/ 23	.8	3.3	1.0															47	47	81	
22/ 21	1.3	2.5	.5															40	40	58	
20/ 19	2.4	2.9	.1															50	50	57	
18/ 17	.9	2.3																29	29	31	
16/ 15	.5	.9	.1															14	14	27	
14/ 13	.4	1.3	.4															20	20	15	
12/ 11	1.2	1.1																21	21	24	
10/ 9	1.0	1.4																22	22	20	
8/ 7	1.0	.3																12	12	18	
6/ 5	.4	.3																7	7	9	
4/ 3	.9	.2																10	10	10	
2/ 1	.6	.4																10	10	7	
0/ -1	.9																	8	8	12	
-2/ -3	.6	.4																10	10	7	
-4/ -5	.3																	3	3	6	
-6/ -7	.6	.1																7	7	7	
-8/ -9	.1																	1	1	1	
-10/ -11	.4																	4	4	4	
-12/ -13	.2																	2	2	2	
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total									
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F										
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRUM AFB MT/GREAT FALLS

68-77

MAR

STATION

STATION NAME

YEARS

MONTH

PAGE 2

0600-0800

HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-14/-15	.4																4	4	4	5	
-16/-17	.2																2	2	2	2	
-18/-19	.2																2	2	2	1	
-20/-21																				3	
-24/-25																				3	
-26/-27																				3	
-28/-29																				3	
TOTAL	17.7	30.0	21.5	17.5	9.1	3.0	1.1									930	930	930	930		

Element (X)	$\sum x^2$	$\sum x$	$\bar{x}$	$s_x^2$	No. Obs.	Mean No. of Hours with Temperature						
Rel. Hum.	4561698	63394	68.2	16.087	930	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total
Dry Bulb	830728	25108	27.0	12.828	930	4.3	60.2					93
Wet Bulb	634624	22106	23.8	10.840	930	4.7	75.0					93
Dew Point	373926	15868	17.1	10.539	930	6.7	91.8					93

USAFETAC FORM 0-26-5 (OL A) 0-26-5 (OL A) REVISD PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRQM AFB MT/GREAT FALLS 68-77 MAR  
 STATION STATION NAME YEARS MONTH

PAGE 1 0900-1100  
 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb	Dew Point
66/ 65												.1						1	1		
64/ 63								.1	.4	.1								6	6		
62/ 61								.2										4	4		
60/ 59								.1	.1	.3	.1							6	6		
58/ 57							.2	.4	1.0	.6	.2							23	23		
56/ 55							.2	.6	1.1									18	18		
54/ 53					.1	.6	1.6	.4	.1	.2								29	29		
52/ 51					.2		1.5	.5										21	21		
50/ 49				.1	.2	1.2	.8	.2	.1									24	24	1	
48/ 47				.2	.8	3.0	1.1	.3										50	50	11	
46/ 45		.1	.2		2.0	1.8	1.6	.1										55	55	10	
44/ 43				1.0	1.6	1.9	.8											49	49	35	
42/ 41		.1	.4	1.3	1.9	2.4	.3											62	62	43	1
40/ 39			.2	2.2	2.3	2.6	.2											69	69	40	2
38/ 37	.1		.7	1.6	2.4	2.4												53	53	72	3
36/ 35	.1	.2	1.3	2.2	2.0	.2												56	56	61	10
34/ 33	.1	1.3	2.0	1.7	.9	.2												58	58	70	13
32/ 31	.1	1.2	1.4	1.1	.2													38	38	105	29
30/ 29	.2	1.5	1.7	.2														36	36	98	48
28/ 27	.1	1.7	1.2	.5														33	33	71	92
26/ 25		2.0	.8	.1														27	27	43	74
24/ 23	1.0	1.9	.3															30	30	44	80
22/ 21	.4	1.4	.9															25	25	32	98
20/ 19	.5	1.7	.8															28	28	19	92
18/ 17	.2	1.0	.3															14	14	27	66
16/ 15		.6	.2															8	8	13	61
14/ 13	.5	.8																12	12	16	49
12/ 11	.9	1.8																25	25	24	47
10/ 9	1.2	1.2																22	22	21	38
8/ 7	.5	.2																7	7	11	38
6/ 5	.6																	6	6	5	25
4/ 3	.4	.4																8	8	5	18
2/ 1	.3	.3																6	6	6	9
0/ -1	.4																	4	4	7	5
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 MAR  
STATION STATION NAME YEARS MONTH

PAGE 2 0900-1100  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL	TOTAL					
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-2/-3	.1	.4																5	5	2	4
-4/-5		.1																1	1	4	1
-6/-7	.4																	4	4	4	5
-8/-9		.1																1	1	1	3
-10/-11	.3																	3	3	3	2
-12/-13	.2																	2	2	2	3
-14/-15	.1																	1	1	1	5
-16/-17																					2
-18/-19																					1
-22/-23																					3
-24/-25																					3
TOTAL	9.0	20.3	12.6	12.4	14.8	15.2	9.0	4.1	1.6	.6	.2	.1					930	930		930	
																		930		930	

Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature					Total	
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	3296156	52180	56.1	19.915	930							
Dry Bulb	1302434	32074	34.5	14.535	930	2.1	34.6					93
Wet Bulb	870100	26546	28.5	10.998	930	2.4	56.7					93
Dew Point	411757	17219	18.6	9.801	930	3.7	90.1					93

USAFETAC 178M 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 YEARS MAR MONTH  
STATION STATION NAME PAGE 1 1200-1400 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL		TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
70/ 69														.1				1	1		
68/ 67										.3	.1	.2						6	6		
66/ 65								.1	.4	.1	.1							7	7		
64/ 63								.8	.9	.1								16	16		
62/ 61							.5	1.1	.2	.4								21	21		
60/ 59						.1	.1	1.7	.5	.2								25	25		
58/ 57						.2	.6	1.4	.5	.2								28	28		
56/ 55						.1	.3	2.2	1.1	.4								38	38		
54/ 53						.1	1.6	2.3	.4	.1								44	44		
52/ 51		.1				.4	1.1	1.4	.4	.1								33	33		
50/ 49				.1	.2	.4	1.8	1.3	.1									37	37	7	
48/ 47			.1	.1	.9	1.5	2.8	1.0										59	59	28	
46/ 45				.1	1.7	2.6	3.4	1.3										85	85	17	
44/ 43		.1	.1	.9	.5	1.6	3.0	.2										60	60	48	1
42/ 41			.1	.4	1.0	2.2	1.2	.2										47	47	56	2
40/ 39		.1		1.1	.6	1.5	.2											33	33	72	
38/ 37		.2	.9	1.4	.4	.9												35	35	79	5
36/ 35		.4	1.1	1.6	1.2	.3												43	43	88	4
34/ 33		.9	1.3	.3	1.2	.3												37	37	84	17
32/ 31	.2	1.3	1.5	.3	.4													35	35	90	27
30/ 29	.1	.6	1.3	.9	.3													30	30	80	47
28/ 27		1.7	1.4	.8														36	36	38	67
26/ 25	.2	1.7	1.0	.1														28	28	47	83
24/ 23	.2	1.7	.4															22	22	41	89
22/ 21		.5	.8															12	12	27	75
20/ 19	.5	1.4	.2															20	20	20	81
18/ 17	.3	.9	.1															12	12	21	86
16/ 15	.3	.9	.2															13	13	11	68
14/ 13	.4	1.9																22	22	19	66
12/ 11	.2	1.2																13	13	18	67
10/ 9	.3	1.1																13	13	15	41
8/ 7	.1	.2																3	3	7	27
6/ 5	.2	.1																3	3	3	30
4/ 3	.2																	2	2	1	19
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 MAR  
STATION STATION NAME YEARS MONTH  
PAGE 2 1200-1400  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																			TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point			
2/ 1																					2	8		
0/ -1	.4	.1																			3	3		
-2/ -3		.1																			1	2		
-4/ -5		.3																			3	3		
-6/ -7		.1																			1	1		
-8/ -9																					1	2		
-10/-11																						1		
-12/-13																						2		
-16/-17																						1		
-18/-19																						2		
-20/-21																						1		
-22/-23																						1		
TOTAL	3.7	17.9	10.5	8.1	8.5	12.2	15.6	11.1	7.1	3.3	1.5	.2	.2	.1							929	930	529	929
Element (X)	Z <sub>X</sub>	Z <sub>X</sub>	X	e <sub>X</sub>	No. Obs.	Mean No. of Hours with Temperature											Total							
Rel. Hum.	2532689	44293	47.72	1.296	929	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F						93							
Dry Bulb	1654497	36803	39.61	4.602	930	1.1	27.5	.7						93										
Wet Bulb	1008651	29159	31.41	0.033	929	1.0	45.0						93											
Dew Point	396156	17390	18.7	8.724	929	1.9	90.1						93											

USAFETAC FORM 0-26-5 (OLA) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTROM AFB MT/GREAT FALLS 68-77 MAR  
STATION STATION NAME YEARS MONTH

PAGE 1 1500-1700  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)															TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28		29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point
70/ 69																		6	6		
68/ 67																	.4	5	5		
66/ 65																	.1	5	5		
64/ 63																	.2	27	27		
62/ 61																	.4	16	16		
60/ 59																	.9	21	21		
58/ 57																	1.4	34	34		
56/ 55																	.5	36	36		
54/ 53																	1.2	26	26		
52/ 51																	.2	47	47		
50/ 49																	.8	54	54	8	
48/ 47																	1.5	64	64	19	
46/ 45																	.2	80	80	30	
44/ 43																	.9	51	51	47	
42/ 41																	1.0	55	55	52	2
40/ 39																	.8	34	34	82	1
38/ 37																	1.4	38	38	77	1
36/ 35																	.9	33	33	105	5
34/ 33																	.2	42	42	70	15
32/ 31																	.1	28	28	86	20
30/ 29																	.2	32	32	68	51
28/ 27																	.9	31	31	53	66
26/ 25																	.4	37	37	50	72
24/ 23																	.3	14	14	45	89
22/ 21																	.2	25	25	25	78
20/ 19																	.8	9	9	26	92
18/ 17																	.1	10	10	10	76
16/ 15																	.8	18	18	15	77
14/ 13																	.4	17	17	20	81
12/ 11																	.5	9	9	10	57
10/ 9																	.1	9	9	11	58
8/ 7																	.8	4	4	8	25
6/ 5																	.4	1	1	1	19
4/ 3																	.2	2	2	1	17
Element (X)	Z <sub>X</sub> <sup>2</sup>	Z <sub>X</sub>	$\bar{X}$	$\sigma_x$	No. Obs.		Mean No. of Hours with Temperature						Total								
Rel. Hum.							≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 MAR  
STATION STATION NAME YEARS MONTH

PAGE 2 1500-1700  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																				TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point				
2/ 1	.1																				1	1	2	7
0/ -1	.2	.2																			4	5	2	2
-2/ -3		.1																			1	1	3	6
-4/ -5		.2																			2	2	2	3
-6/ -7		.1																			1	1	1	1
-10/-11																								1
-12/-13																								2
-14/-15																								1
-16/-17																								1
-18/-19																								2
-20/-21																								1
TOTAL	2.7	15.7	10.3	9.3	9.0	12.4	14.0	12.2	7.0	5.1	1.4	.6	.1	.2								930		929
																						929		929
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total												
Rel. Hum.	2365185	42659	45.9	20.925	929	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total												
Dry Bulb	1708287	37577	40.4	14.300	930	.9	25.6	1.1				93												
Wet Bulb	1026738	29554	31.8	9.657	929	.8	43.9					93												
Dew Point	384413	17213	18.5	8.400	929	2.0	90.6					93												

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

MAR

STATION

STATION NAME

YEARS

MONTH

PAGE 1

1800-2000

HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point															
66/ 65												.1						1	1																	
64/ 63											.3							3	3																	
62/ 61									.1	.1								2	2																	
60/ 59									.5	.1								6	6																	
58/ 57							.1	.6	.3	.2								12	12																	
56/ 55							.6	.4	.5	.1								16	16																	
54/ 53					.1	.1	.9	.8	.1									18	18																	
52/ 51						.8	1.5	.3										24	24																	
50/ 49					.5	.6	.9	.1	.1									21	21																	
48/ 47				.1	1.4	1.5	1.4	.3										44	44	2																
46/ 45			.1		1.4	2.5	1.3											49	49	7																
44/ 43		.1	.4	.9	2.2	2.2	1.4	.1										67	67	24																
42/ 41		.2	.4	1.0	2.4	1.9	.8											62	62	35																
40/ 39			1.3	2.3	3.2	1.3	.2											77	77	47	2															
38/ 37		.1	1.0	2.0	2.0	.9	.1											57	57	72	2															
36/ 35		.1	1.3	1.8	1.9	.9												56	56	73	6															
34/ 33		.5	1.7	1.3	1.6	.1												49	49	89	13															
32/ 31	.1	.9	1.7	2.0	.6													50	50	98	15															
30/ 29		1.4	2.5	.3	.1													40	40	79	50															
28/ 27		1.8	1.9	.6	.2													43	43	91	73															
26/ 25	.9	2.7	1.9	.2														49	49	66	75															
24/ 23	.4	2.3	.8															30	30	52	82															
22/ 21	.4	2.5	.9															32	32	49	95															
20/ 19	.1	1.8	.1															19	19	27	82															
18/ 17	.1	1.5	.1															16	16	21	95															
16/ 15	.4	1.4																17	17	19	81															
14/ 13	1.0	.6																15	15	23	64															
12/ 11	.5	.1																6	6	7	61															
10/ 9	.3	.9	.1															12	12	5	51															
8/ 7	.4	.4																8	8	12	25															
6/ 5	.4	.1																5	5	7	13															
4/ 3	.2	.3																5	5	4	10															
2/ 1	.1	.2																3	3	3	5															
0/ -1	.1																	1	1	3	6															
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature																														
Ret. dum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total																								
Dry Bulb																																				
Wet Bulb																																				
Dew Point																																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTROM AFB MT/GREAT FALLS 68-77 MAR  
STATION STATION NAME YEARS MONTH

PAGE 2 1800-2000  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-2/-3	.4	.6																10	10	8	3
-4/-5																				2	4
-6/-7																					4
-8/-9	.1																	1	1	1	1
-10/-11	.2																	2	2	2	
-12/-13	.1																	1	1	1	5
-14/-15	.1																	1	1	1	2
-16/-17																					2
-22/-23																					1
-24/-25																					2
TOTAL	6.6	20.4	15.5	12.6	17.7	12.7	9.1	2.7	1.7	.9		.1					930	930	930	930	

Element (X)	$\sum X^2$	$\sum X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature					Total	
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	3232792	51798	55.7	19.349	930							93
Dry Bulb	1262206	32066	34.5	12.983	930	1.6	36.6					93
Wet Bulb	847327	26587	28.6	9.691	930	1.3	58.1					93
Dew Point	389421	17249	18.5	8.649	930	3.0	90.7					93

USAFETAC FORM 0-26-5 (N. 1. A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

MAR  
 MONTH

PAGE 1 2100-2300  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)															TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28		29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point
58/ 57								.1	.1									2	2		
56/ 55							.1	.4										5	5		
54/ 53					.1		.1	.1										3	3		
52/ 51					.1	.3	1.0	.2										15	15		
50/ 49					.4	.3	.5	.1										13	13		
48/ 47					.4	1.1	.2											16	16		
46/ 45				.3	1.4	1.3		.1										29	29	3	
44/ 43			.1	1.0	2.4	.8												39	39	7	
42/ 41			.2	1.2	2.0	.5												37	37	17	
40/ 39			.6	1.8	3.0	.5												56	56	23	
38/ 37		.4	1.1	3.2	1.9	.5												67	67	46	2
36/ 35	.1	.8	1.8	4.2	1.8	.1												82	82	53	8
34/ 33		1.1	2.0	2.6	.8													60	60	68	10
32/ 31	.2	1.3	2.2	2.7	.1													60	60	96	13
30/ 29	.3	2.2	3.1	1.6	.1													68	68	99	36
28/ 27	.8	2.0	3.3	1.3														69	69	99	76
26/ 25	.6	2.3	1.8	.2														46	46	76	86
24/ 23	1.6	3.2	.9															53	53	84	76
22/ 21	.4	3.9	.1															41	41	59	89
20/ 19	.5	3.0																33	33	46	103
18/ 17	.5	1.3																17	17	29	90
16/ 15	.4	1.7	.2															22	22	18	95
14/ 13	.4	2.3	.1															26	26	22	59
12/ 11	.3	.5																8	8	19	39
10/ 9	.9	.3																11	11	12	47
8/ 7	.6	.2																8	8	10	34
6/ 5	.8																	7	7	7	9
4/ 3	.3	.1																4	4	4	11
2/ 1	.1	.4																5	5	1	10
0/ -1	1.0	.2																11	11	13	4
-2/ -3	.3	.1																4	4	5	4
-4/ -5	.1	.2																3	3	3	3
-6/ -7	.1																	1	1	2	4
-8/ -9	.2																	2	2	2	5
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total									
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F										
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS  
STATION STATION NAME

68-77  
YEARS

MAR  
MONTH

PAGE 2 2100-2300  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)															TOTAL	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-10/-11	.1																	1	1	1	
-12/-13	.2																	2	2	2	3
-14/-15	.2																	2	2	2	5
-16/-17	.1																	1	1	1	2
-18/-19	.1																	1	1	1	1
-20/-21																					1
-22/-23																					2
-26/-27																					1
-28/-29																					2
TOTAL	11.5	27.5	17.6	20.1	14.6	5.6	2.3	.6	.1								930	930		930	
																	930		930		

Element (X)	$\sum x^2$	$\sum x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature					Total	
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	4054038	59318	63.8	17.066	930							
Dry Bulb	971226	27844	29.9	12.170	930	2.8	50.6					93
Wet Bulb	711909	24063	25.9	9.804	930	3.2	71.3					93
Dew Point	383054	16852	18.1	9.145	930	3.7	91.0					93

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 MAR  
STATION STATION NAME YEARS MONTH

PAGE 1 ALL  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)															TOTAL D.B./W.B.	TOTAL					
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	22-24	25-26	27-28		29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point	
70/ 69													.1	.0	.0				7	7		
68/ 67													.1	.0	.0				11	11		
66/ 65												.0	.1	.0	.0				14	14		
64/ 63											.0	.3	.3	.1	.0				52	52		
62/ 61											.1	.2	.2	.1					43	43		
60/ 59								.0	.1	.4	.2	.1							58	58		
58/ 57							.1	.1	.4	.5	.3	.0							100	100		
56/ 55							.1	.3	.6	.4	.1								113	113		
54/ 53					.1	.1	.6	.6	.1	.1	.0								126	126		
52/ 51			.0	.0	.1	.3	.9	.6	.1	.0									147	147		
50/ 49				.1	.2	.5	.8	.4	.1										164	164	16	
48/ 47			.0	.2	.7	1.4	.9	.5	.0										278	278	60	
46/ 45		.0	.1	.3	1.5	1.7	1.2	.3											385	385	67	
44/ 43		.0	.1	.9	1.5	1.1	1.0	.1											347	347	169	1
42/ 41		.0	.3	1.2	1.6	1.2	.5	.0											367	367	228	5
40/ 39		.0	.7	2.1	1.8	1.2	.2												440	440	326	5
38/ 37	.0	.1	1.0	2.0	1.4	.6	.0												381	381	446	19
36/ 35	.0	.4	1.4	2.4	1.2	.3	.0												423	423	539	45
34/ 33	.0	.9	2.1	2.0	.9	.1	.0												456	456	585	91
32/ 31	.3	1.4	2.1	1.6	.3														422	422	682	161
30/ 29	.1	1.6	2.4	1.0	.1														390	390	704	363
28/ 27	.3	1.9	2.7	.7	.0														421	421	627	523
26/ 25	.6	2.8	1.5	.1															374	374	526	652
24/ 23	.9	2.5	.7	.0															308	308	556	660
22/ 21	.7	2.3	.6																284	284	365	701
20/ 19	.9	2.2	.2																246	246	314	745
18/ 17	.5	1.5	.1																156	156	211	687
16/ 15	.3	1.2	.1																119	119	145	623
14/ 13	.6	1.2	.1																144	144	153	461
12/ 11	.6	1.1	.0																127	127	135	412
10/ 9	.6	1.0	.0																124	124	125	390
8/ 7	.6	.4																	72	72	104	216
6/ 5	.5	.1																	46	46	59	146
4/ 3	.4	.3																	48	48	38	129
Element (X)	Z <sub>x</sub> <sup>1</sup>	Z <sub>x</sub>	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total										
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F											
Dry Bulb																						
Wet Bulb																						
Dew Point																						

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 MAR  
 STATION STATION NAME YEARS MONTH  
 PAGE 2 ALL  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL					
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point
2/-1	.3	.3																50	50	45	81
0/-1	.7	.3																61	62	70	47
-2/-3	.3	.3																39	39	38	40
-4/-5	.1	.1																14	15	20	35
-6/-7	.2	.1																20	20	22	28
-8/-9	.1	.0																7	7	9	40
-10/-11	.2																	13	13	13	12
-12/-13	.2																	13	13	13	28
-14/-15	.2																	14	14	14	19
-16/-17	.1																	4	4	4	12
-18/-19	.1																	6	6	6	10
-20/-21	.0																	2	2	2	9
-22/-23	.0																	2	2	2	11
-24/-25																					13
-26/-27																					6
-28/-29																					8
-30/-31																					1
-32/-33																					3
TOTAL	10	24.4	16.2	14.6	11.4	8.6	6.6	3.9	2.2	1.2	.4	.1	.0	.0			7438	7440	7438	7438	
Element (X)	$\sum X^2$	$\sum X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature					Total										
Rel. Hum.	29071441	439727	59.1	20.335	7438	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	744									
Dry Bulb	9399715	242163	32.5	14.283	7440	19.7	352.8	1.8				744									
Wet Bulb	6369130	202556	27.2	10.710	7438	21.3	500.3					744									
Dew Point	3073618	133828	18.0	9.461	7438	32.2	727.4					744									

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISIONS PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRCH AFB MT/GREAT FALLS

5-77

APR

STATION

STATION NAME

YEARS

MONTH

PAGE 1

0000-0200

HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL						
	0	1-2	3-4	5-6	7-8	9-10	11	12	13-14	15-16	17-18	19-20	21-22	23-24		25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point
62/ 61								.1											1	1		
60/ 59								.1											1	1		
58/ 57								.1	.1	.3									5	5		
56/ 55							.1	.4	.3	.3									11	11		
54/ 53								.6	.4	.3	.1								13	13		
52/ 51				.1	.3	.6	.8												16	16		
50/ 49				.2	.9	1.4	.4	.1											28	28	2	
48/ 47			.2	.3	1.3	.6	.8												29	29	3	
46/ 45		.1	.1	.4	1.8	1.8	.4												42	42	11	
44/ 43		.2	1.0	2.2	1.6	.4													49	49	19	1
42/ 41		.4	.4	2.7	2.3	.1													54	54	30	6
40/ 39		.7	2.4	3.0	2.8	.1													81	81	53	3
38/ 37	.1	.9	3.7	2.9	1.9	.2													87	87	66	14
36/ 35	.3	2.2	2.7	2.8	.9	.1													81	81	108	29
34/ 33	1.0	3.4	2.8	3.3	.3														98	98	119	25
32/ 31	1.1	4.4	2.2	1.0	.2														81	81	108	69
30/ 29	.7	1.7	1.8	1.0															46	46	117	115
28/ 27	.6	1.4	2.6	1.4															54	54	70	115
26/ 25	.7	2.2	1.8	.1															43	43	47	102
24/ 23	.6	1.2	.1																17	17	47	49
22/ 21	.2	1.0	.1																12	12	39	92
20/ 19	.2	.9	.2																12	12	17	68
18/ 17	.8	.8	.1																15	15	11	69
16/ 15	.4	.3																	7	7	15	44
14/ 13		.2																	2	2	3	27
12/ 11	.3																		3	3	3	19
10/ 9	.3																		3	3	3	30
8/ 7	.2																		2	2	2	8
6/ 5	.2	.1																	3	3	2	6
4/ 3	.1																		1	1	2	4
2/ 1																						1
0/ -1																						1
-6/ -7	.2																		2	2	2	1
-8/ -9	.1																		1	1	1	1
Element (X)	$\sum x^2$	$\sum x$	$\bar{x}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature																
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total										
Dry Bulb																						
Wet Bulb																						
Dew Point																						

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISIONS PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRQM AFB MT/GREAT FALLS

68-77

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PAGE 2 0000-0200

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL					
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point
-10/-11																					1
-14/-15																					1
TOTAL	8.2	22.3	22.2	21.6	14.4	6.6	3.3	1.2	.1									900	900	900	
Element (X)	Σx'	Σx	X̄	s <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature						Total									
Rel. Hum.	4040670	58142	64.6	17.792	900	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	90									
Dry Bulb	1223002	32090	35.7	9.363	900	.3	30.4					90									
Wet Bulb	919195	28013	31.1	7.252	900	.3	48.9					90									
Dew Point	563226	21472	23.9	7.528	900	.4	82.2					90									

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

APR

STATION

STATION NAME

YEARS

MONTH

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HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)															TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28		29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point
60/ 59							.1											1	1		
58/ 57						.1												1	1		
56/ 55						.1	.1											2	2		
54/ 53						.3	.1	.1										5	5		
52/ 51					.2	.4	.4											10	10		
50/ 49				.1	.8	.7	.3											17	17		
48/ 47			.1	.8	.8	.9	.4											27	27	1	
46/ 45			.2	.3	2.0	.9	.3											41	41	3	
44/ 43		.1	.6	1.2	1.3	.7												35	35	10	
42/ 41	.1	.8	.6	2.0	1.8													47	47	27	2
40/ 39		.6	2.1	3.0	1.7	.3												69	69	40	5
38/ 37	.6	1.0	2.1	2.8	1.1													68	68	59	10
36/ 35	.3	2.9	3.2	4.2	.3													99	99	85	22
34/ 33	.1	3.4	5.2	3.3	.6													114	114	104	26
32/ 31	.8	5.7	2.6	1.6														95	95	117	54
30/ 29	1.9	2.2	2.0	.8	.2													64	64	167	96
28/ 27	.7	2.8	3.0	.6														63	63	63	127
26/ 25	.1	2.2	1.1															31	31	51	111
24/ 23	.4	2.4	.3															29	29	60	66
22/ 21	.1	1.0	.2															12	12	31	84
20/ 19	.9	1.2	.1															20	20	22	77
18/ 17	.7	.7	.1															13	13	16	64
16/ 15	.2	.6																7	7	12	45
14/ 13	.3	.9																11	11	10	26
12/ 11	.4	.2																6	6	8	30
10/ 9	.3																	3	3	4	28
8/ 7	.6																	5	5	5	10
6/ 5	.2																	2	2	2	9
4/ 3																					5
0/ -1	.1																	1	1	1	
-2/ -3	.1																	1	1	1	
-4/ -5																					1
-6/ -7																					1
-8/ -9	.1																	1	1	1	
Element (X)	Z <sub>X</sub> '	Z <sub>X</sub>	X	σ <sub>X</sub>	No. Obs.	Mean No. of Hours with Temperature						Total									
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F										
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

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APR

PAGE 1 0600-0800  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
64/ 63							.1	.1										2	2		
62/ 61								.1										1	1		
60/ 59							.1	.1										3	3		
58/ 57						.1	.2	.3										6	6		
56/ 55					.2	.2	.6	.2	.1									12	12		
54/ 53				.1	.7	1.2	.4	.1										17	17		
52/ 51				.2	.7	.7	.3	.1										18	18		
50/ 49			.1	.1	.6	1.4	.4											24	24	2	
48/ 47			.2	.9	1.3	1.2	.3											36	36	5	
46/ 45			.8	.8	2.7	2.0	.8											63	63	12	
44/ 43		.3	1.0	1.2	2.6	.9	.1											55	55	33	
42/ 41		.7	1.8	1.6	1.8	1.0												61	61	40	3
40/ 39		1.1	2.7	2.2	2.9	.4												84	84	61	14
38/ 37	.3	1.7	2.2	1.6	1.3	.3												67	67	80	18
36/ 35	.4	1.7	4.1	2.6	.6													84	84	105	28
34/ 33		4.1	3.1	1.6	.7	.1												36	86	85	45
32/ 31	.4	3.3	2.3	1.2	.2													68	68	135	79
30/ 29	1.3	3.2	1.0	.4	.1													55	55	108	107
28/ 27	.7	1.4	1.4	.2														34	34	67	120
26/ 25	.2	2.6	.8															32	32	35	95
24/ 23	.8	2.0	.2															27	27	47	63
22/ 21	.3	.8	.1															11	11	23	85
20/ 19	.2	1.2	.2															15	15	14	67
18/ 17		.6																5	5	10	47
16/ 15	.4	.3																7	7	8	29
14/ 13	.4	.4																8	8	10	26
12/ 11	.4	.3																7	7	6	34
10/ 9	.2																	2	2	4	18
8/ 7	.4																	4	4	4	10
6/ 5																					4
4/ 3	.2																	2	2	2	2
2/ 1	.1																	1	1	1	1
0/ -1	.3																	3	3	3	1
-2/ -3																					3
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≈ 67 F	≈ 73 F	≈ 80 F	≈ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE





DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24122 MALMSTROM AFB MT/GREAT FALLS 68-77 APR  
 STATION STATION NAME YEARS MONTH

PAGE 1 0900-1100  
 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																				TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point				
80/ 79																.1		1	1					
78/ 77													.1					1	1					
76/ 75													.1					1	1					
74/ 73											.1	.3	.1					5	5					
72/ 71												.1	.2					3	3					
70/ 69											.4	.2	.1					7	7					
68/ 67									.1		.7	.1						8	8					
66/ 65								.1	.1	.4	.2							8	8					
64/ 63								.2	.6	1.0	.2							18	18					
62/ 61						.1	.1	.9	1.4	.7	.3							32	32					
60/ 59					.1	.2	.3	.9	1.0	.6								28	28					
58/ 57					.3	1.4	1.1	1.1	.3									39	39					
56/ 55				.2	.6	1.0	2.0	1.4	.3									48	48					
54/ 53				.2	.6	1.0	2.0	1.4	.3									50	50	3				
52/ 51			.1		.3	1.6	2.0	1.0	.1									46	46	8				
50/ 49			.1	.9	.6	1.7	2.9	.3										58	58	17				
48/ 47			.1	.7	.8	3.1	1.1	.4										56	56	51				
46/ 45		.1	.4	.4	2.2	1.8	2.6	.6										73	73	59				
44/ 43		.2	.4	1.7	1.4	1.7	.9	.1										58	58	69				
42/ 41		.4	.9	1.2	1.2	1.2	.6											50	50	83				
40/ 39		.7	1.9	1.0	2.1	1.4												64	64	80				
38/ 37	.3	.9	1.9	1.7	.8	.1												51	51	108				
36/ 35		1.3	1.9	.4	.8													40	40	85				
34/ 33		1.9	1.3	.7														35	35	88				
32/ 31	.2	2.3	.4	.3														30	30	96				
30/ 29		.4	1.1	.1														15	15	49				
28/ 27	.2	1.9	.6	.1														25	25	28				
26/ 25	.2	.9	.2															12	12	26				
24/ 23	.2	.7																8	8	13				
22/ 21	.3	.4	.2															9	9	12				
20/ 19		.3																3	3	5				
18/ 17		.3																3	3	3				
16/ 15	.1	.1																2	2	4				
14/ 13		.1																1	1	1				
Element (X)	Z <sub>X</sub> <sup>2</sup>	Z <sub>X</sub>	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature																		
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total												
Dry Bulb																								
Wet Bulb																								
Dew Point																								

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 APR  
 STATION STATION NAME YEARS MONTH

PAGE 2 0900-1100  
 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																			TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb		Dew Point		
12/ 11	.3																			3	3	3	17
10/ 9	.1	.2																		3	3	1	25
8/ 7	.4																			4	4	6	2
6/ 5	.2																			2	2	2	5
4/ 3																							4
TOTAL	2.8	13.3	11.7	9.4	11.2	14.7	15.9	8.9	5.3	3.2	1.8	1.0	.7				.1		900	900		900	
																				900		900	

Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	2659434	45156	50.220	930	900							
Dry Bulb	1956274	40574	45.111	891	900		12.0	2.6	.8			90
Wet Bulb	1257674	32930	36.6	7.664	900		24.9					9
Dew Point	624465	22763	25.3	7.363	900		76.3					

USAFETAC FORM 0-26-5 (OLA) REVISOR PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 64

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 APR  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 1200-1400  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31		Dry Bulb	Wet Bulb	Dew Point
82/ 81															.2	.1	.1	4	4		
80/ 79														.2		.2		4	4		
78/ 77												.1		.1				3	3		
76/ 75													.1	.6				6	6		
74/ 73											.1	.4	.6	.2				12	12		
72/ 71									.1	.3	1.1	.4	.1					19	19		
70/ 69								.1	.4	.9	.4	.6	.1					23	23		
68/ 67								.1	.2	.2	1.0	.4	.3					21	21		
66/ 65								.1	.6	1.2	1.0	.9						34	34		
64/ 63							.1	.2	1.0	1.3	1.1	.3	.1					38	38		
62/ 61						.1	.1	.3	.9	.7	.4	.2						25	25		
60/ 59						.6	1.3	1.8	1.3									45	45		
58/ 57						.6	.7	1.9	2.1	.7	.1							54	54		
56/ 55					.1	.4	.8	2.1	1.9	.1								49	49	1	
54/ 53					.1	.4	1.4	2.3	1.1	.1								50	50	10	
52/ 51				.3	.6	.2	2.1	2.4	.6									56	56	23	
50/ 49				.4		1.6	1.8	1.3	.3									49	49	49	
48/ 47			.2	.1	.4	.8	2.2	1.7	.2									51	51	56	
46/ 45			.3	.4	1.0	1.2	1.2	1.7										53	53	71	
44/ 43		.1	.3	.8	1.6	1.6	.1	.1										41	41	80	
42/ 41			1.1	1.0	1.1	1.0	.3											41	41	81	
40/ 39		1.2	1.7	1.0	.9	.6	.1											49	50	95	
38/ 37		.8	2.0	.8	.9													40	40	96	
36/ 35		1.2	1.6	.4	.1													30	30	95	
34/ 33		1.1	.7	.3														19	19	78	
32/ 31	.3	.8	.3	.2														15	15	68	
30/ 29		1.4	1.0	.3														25	25	26	
28/ 27		.7	.3	.1														10	10	17	
26/ 25	.1	1.1	.1															12	12	20	
24/ 23	.2	.3																5	5	14	
22/ 21		.1																1	1	3	
20/ 19																				1	
18/ 17		.3																3	3	2	
16/ 15																				1	
Element (X)	Σ X'	Σ X	X̄	s <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature						Total									
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112  
 STATION

HALMSTROM AFB MT/GREAT FALLS  
 STATION NAME

68-77  
 YEARS

YEARS

APR  
 MONTH

PAGE 2

1200-1400  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																			TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point		
14/ 13	.1	.2																3	3	1	22		
12/ 11	.3	.1																4	4	5	19		
10/ 9	.3	.1																4	4	5	19		
8/ 7	.1																	1	1	1	11		
6/ 5																					9		
4/ 3																					4		
<b>TOTAL</b>	1.6	9.7	9.7	6.3	6.8	8.5	11.6	15.7	10.8	6.2	5.0	4.0	2.1	1.3	.3	.3	.1	899	900	899	899		

Element (X)	$\sum X^2$	$\sum X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total
						≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	
Rel. Hum.	2033573	37953	42.22	1.916	899							
Dry Bulb	2394217	44893	49.91	3.127	900		8.3	9.2	2.9	.6		90
Wet Bulb	1395344	34752	38.7	7.607	899		16.4					90
Dew Point	588444	22026	24.5	7.371	899		78.1					90

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 APR  
STATION STATION NAME YEARS MONTH

PAGE 1 1500-1700  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL		TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
84/ 83																.1	1	1			
82/ 81												.1			.2	.2	.1	6	6		
80/ 79												.1			.2	.4		7	7		
78/ 77											.1	.1	.3		.1			6	6		
76/ 75												.3	.4	.2				9	9		
74/ 73									.1	.1	.4	.3	.6					14	14		
72/ 71								.1	.1	.1	1.7	1.2	.3					32	32		
70/ 69							.1	.1	.6	.2	1.1	.6	.4					28	28		
68/ 67								.1	.4	.9	.3	.7						22	22		
66/ 65						.1		.1	1.4	1.0	.4	.3						31	31		
64/ 63								.8	1.1	1.0		.3						29	29		
62/ 61						.1	.6	1.3	1.2	.7								35	35		
60/ 59						.6	.9	2.8	1.7	.1								54	54		
58/ 57						.1	.3	1.4	1.4	.7								36	36	1	
56/ 55					.2	.3	.7	2.2	2.4	.4								57	57	6	
54/ 53						.2	1.3	2.3	1.9	.4								56	56	9	
52/ 51				.2	.3	1.0	1.7	2.3	.8									57	57	27	
50/ 49				.1	.2	.6	1.6	1.8	.1	.1								40	40	45	
48/ 47			.1	.7	.8	1.3	.9	.8	.8									48	48	69	
46/ 45			.2	.8	.6	1.0	2.0	.6	.1									47	47	63	
44/ 43		.6	.6	1.3	.9	.7	.7	.2										44	44	74	4
42/ 41		.2	.9	1.6	1.2	.8	.4											46	46	101	
40/ 39		.1	1.3	2.2	.7	.7												45	45	97	10
38/ 37		1.1	2.0	.4	.3													35	35	107	12
36/ 35		.8	1.3	.3														22	22	84	36
34/ 33	.3	.8	.3	.4														17	17	75	41
32/ 31	.1	.4	.2	.3														10	10	52	50
30/ 29	.4	.7	.6	.3														18	18	24	104
28/ 27		1.6	1.0															23	23	15	123
26/ 25	.3	.3	.1															7	7	22	95
24/ 23		.1																1	1	12	70
22/ 21		.2																2	2	2	82
20/ 19		.1																1	1		80
18/ 17		.2																2	2	1	55
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC JUL 64 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 APR  
 STATION STATION NAME YEARS MONTH

PAGE 1 1800-2000  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	> 31	Dry Bulb	Wet Bulb
78/ 77														.2	.1			3	3	
76/ 75												.1	.2	.2				5	5	
74/ 73											.1	.1	.1					3	3	
72/ 71									.1	.1		.1	.3					6	6	
70/ 69										.1	.2	.7						9	9	
68/ 67									.3	.2	1.0	.2	.2					18	18	
66/ 65								.1		.8	.2	.2						12	12	
64/ 63							.1	.1	.1	.6	1.0	.6	.4					26	26	
62/ 61								.2	.1	.6	1.0	.3	.1					21	21	
60/ 59							.1	.6	.7	1.0	.6							26	26	
58/ 57					.1	.1	.8	1.7	1.2	.3	.1							39	39	
56/ 55					.7	1.2	1.3	1.4	.1									43	43	3
54/ 53					.8	.4	1.6	1.8	.7	.1								48	48	3
52/ 51			.2	.2	.3	1.6	2.7	1.1	.3									58	58	13
50/ 49			.2	.1	.4	1.3	1.7	1.3		.1								47	47	18
48/ 47			.2	.2	1.1	1.2	2.1	.6	.1									50	50	41
46/ 45			.3	1.8	2.2	2.2	2.6	.3	.2									87	87	52
44/ 43		.1	.6	1.0	.9	2.3	.4	.1										49	49	68
42/ 41		.4	1.2	1.6	1.4	1.0	.6	.1										57	57	83
40/ 39		.7	1.7	1.1	1.7	1.1	.2											58	58	87
38/ 37		1.1	2.8	.8	.8	.7												55	55	109
36/ 35	.1	1.8	2.0	.4	.2	.3												44	44	104
34/ 33	.1	1.4	1.7	.3	.2	.1												35	35	104
32/ 31	.3	.7	.8	.4	.1													21	21	75
30/ 29	.3	.9	.4		.1													16	16	41
28/ 27		1.7	.3	.2														20	20	30
26/ 25	.7	.9	.4															18	18	25
24/ 23		.6	.2															7	7	14
22/ 21		.3																3	3	11
20/ 19		.1																1	1	4
18/ 17		.1																1	1	57
16/ 15	.4	.1																5	5	5
14/ 13		.6																5	5	1
12/ 11		.1																1	1	5
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature														
Rel. Hum.						≤ 0 F	≤ 32 F	≈ 67 F	≈ 73 F	≈ 80 F	≈ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE





DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

APR  
 MONTH

PAGE 1 2100-2300  
 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31		Dry Bulb	Wet Bulb	Dew Point
66/ 65								.1	.1	.1	.1							4	4		
64/ 63										.1								1	1		
62/ 61							.2	.2	.2	.1								7	7		
60/ 59						.1	.3	.2	.3	.1								10	10		
58/ 57						.2	.7	.6	.4	.1								18	18		
56/ 55						.2	.4	.4	.1									11	11		
54/ 53						.9	1.4	.6	.2									28	28	1	
52/ 51				.1	.4	1.7	1.3	.8	.1									40	40	1	
50/ 49			.3	.1	.4	2.0	.9	.1										35	35	7	
48/ 47		.1	.3	.4	.7	2.0	1.2											43	43	9	
46/ 45		.3	.4	.9	3.1	1.6	.3	.1										61	61	18	
44/ 43		.3	.2	1.7	2.3	2.3	.1											63	63	38	4
42/ 41		.7	.8	2.2	2.2	1.1	.1											64	64	60	9
40/ 39		1.0	3.2	2.1	2.9	.9												91	92	65	13
38/ 37	.1	1.3	2.4	1.6	1.7	.3												67	67	94	9
36/ 35	.2	2.8	2.4	1.9	.9	.1												75	75	112	31
34/ 33	.4	3.4	2.0	1.8	.6	.3												77	77	114	35
32/ 31	.4	2.7	1.8	1.2	.1													56	56	113	92
30/ 29	.6	1.3	1.1	.9	.3													38	38	84	106
28/ 27	.1	1.7	.9	1.0														33	33	52	116
26/ 25	1.1	1.3	.1	.2														25	25	51	94
24/ 23		.9	.3	.1														12	12	20	63
22/ 21		1.1	.4															14	14	18	76
20/ 19		.9																8	8	17	65
18/ 17		.3																3	3	9	67
16/ 15	.3																	3	3	4	34
14/ 13		.2																2	2	1	16
12/ 11	.2	.2																4	4	5	17
10/ 9																					32
8/ 7		.1																1	1		8
6/ 5	.1																	1	1	2	3
4/ 3	.1																	1	1	1	4
2/ 1																					2
-4/ -5	.1																	1	1	1	
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature						Total									
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F										
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE  
 JUL 64

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

24112 STATION MALMSTROM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS APR MONTH  
 PAGE 2 2100-2300 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb	Dew Point
-6/-7	.1	.1																2	2	2	
-12/-13																					1
-14/-15																					1
-20/-21																					1
TOTAL	4.0	20.9	16.9	16.2	15.7	13.8	7.1	3.1	1.6	.6	.1						899	900	899	899	
Element (X)	Σx <sup>2</sup>		Σx		x̄		s <sub>x</sub>		No. Obs.		Mean No. of Hours with Temperature										
Rel. Hum.	3499551		53235		59.2		19.653		899		≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total				
Dry Bulb	1467507		35225		39.1		9.941		900		.3	20.4					90				
Wet Bulb	1044285		29945		33.3		7.222		899		.3	38.0					90				
Dew Point	598800		22120		24.6		7.793		899		.3	79.9					90				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 APR  
STATION STATION NAME YEARS MONTH

PAGE 1 ALL  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥31	Dry Bulb	Wet Bulb
84/ 83																.0	1	1		
82/ 81													.0		.1	.0	10	10		
80/ 79												.0	.0	.0	.0	.1	12	12		
78/ 77												.0	.0	.1	.0	.1	13	13		
76/ 75												.0	.1	.2	.0		21	21		
74/ 73									.0	.1	.2	.1	.1				34	34		
72/ 71								.0	.0	.1	.4	.3	.1				60	60		
70/ 69								.0	.1	.2	.3	.2	.1				67	67		
68/ 67							.0	.1	.1	.4	.1	.2					69	69		
66/ 65						.0	.0	.1	.5	.3	.2	.0					89	89		
64/ 63						.0	.1	.4	.6	.3	.1	.1					114	114		
62/ 61						.0	.1	.3	.6	.5	.2	.0					122	122		
60/ 59					.0	.1	.3	.5	.9	.5	.0						168	168		
58/ 57					.0	.2	.5	.9	.8	.3	.0						198	198	1	
56/ 55					.1	.4	.8	1.1	.8	.1							233	233	10	
54/ 53				.0	.2	.6	1.1	1.1	.6	.1							267	267	26	
52/ 51			.0	.2	.4	1.0	1.4	1.0	.2								301	301	72	
50/ 49			.1	.3	.5	1.3	1.3	.6	.1	.0							298	298	140	
48/ 47		.0	.2	.5	.9	1.4	1.1	.4	.1								340	340	235	
46/ 45		.1	.4	.7	2.0	1.6	1.3	.4	.0								467	467	289	
44/ 43		.3	.6	1.4	1.6	1.3	.3	.1									394	394	391	
42/ 41	.0	.5	1.0	1.7	1.6	.8	.3	.0									420	420	505	
40/ 39		.8	2.1	2.0	1.9	.7	.0										541	543	578	
38/ 37	.2	1.1	2.4	1.6	1.1	.2											470	470	719	
36/ 35	.2	1.8	2.4	1.6	.5	.1											475	475	778	
34/ 33	.3	2.5	2.1	1.5	.3	.1											481	481	767	
32/ 31	.5	2.5	1.3	.8	.1												376	376	764	
30/ 29	.7	1.5	1.1	.5	.1												277	277	616	
28/ 27	.3	1.6	1.3	.5													262	262	342	
26/ 25	.4	1.4	.6	.0													180	180	277	
24/ 23	.3	1.0	.2	.0													106	106	227	
22/ 21	.1	.6	.1														64	64	139	
20/ 19	.2	.6	.1														60	60	80	
18/ 17	.2	.4	.0														45	45	52	
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 Malmstrom AFB MT/GREAT FALLS 68-77 APR  
 STATION STATION NAME YEARS MONTH  
 PAGE 2 ALL  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
16/ 15	.3	.2																34	34	53	321
14/ 13	.1	.4																37	37	29	180
12/ 11	.3	.2																31	31	41	186
10/ 9	.2	.1																17	17	21	184
8/ 7	.2	.0																17	17	18	75
6/ 5	.1	.0																8	8	8	57
4/ 3	.1																	4	4	5	36
2/ 1	.0																	2	2	2	9
0/ -1	.1																	5	5	5	3
-2/ -3	.0																	1	1	1	4
-4/ -5	.0																	1	1	1	2
-6/ -7	.0	.0																4	4	4	1
-8/ -9	.0																	2	2	2	1
-10/-11																					1
-12/-13																					1
-14/-15																					3
-20/-21																					1
TOTAL	4.6	17.6	16.0	13.2	11.4	9.7	8.5	6.6	4.7	2.8	1.7	1.4	1.0	.5	.2	.1	.0	7198	7200	7198	7198
Element (X)	Z <sub>x</sub>	Z <sub>x</sub>	X	° <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature											Total				
Rel. Hum.	25049414	392734	54.6	22.431	7198	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F				720						
Dry Bulb	13968136	303382	42.1	12.828	7200	1.3	153.3	28.7	9.1	1.5				720							
Wet Bulb	9126131	249529	34.7	8.131	7198	1.3	268.7							720							
Dew Point	4673076	175146	24.3	7.560	7198	1.7	637.3							720							

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 MAY  
STATION STATION NAME YEARS MONTH

PAGE 1 0000-0200  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL D.B./W.B.	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point																
66/ 65							.1																									1	1			
64/ 63							.1	.4																								5	5			
62/ 61					.1	.5	.1	.1																								9	9			
60/ 59					.3	.5	.3	.9	.1																							20	20			
58/ 57		.1		.5	.1	.6	.3	1.2																								27	27			
56/ 55		.2		.9	1.2	1.1	.6	.4																								41	41	1		
54/ 53		.1	.1	.4	.4	1.3	1.0	.1																								32	32	4	1	
52/ 51		.3	.6	1.6	1.4	1.9	.5																									60	60	17	2	
50/ 49		1.1	2.0	1.6	1.7	1.4	.3																									76	76	30	2	
48/ 47		1.4	3.8	2.6	1.4	1.0																										94	95	43	9	
46/ 45	.1	2.8	2.9	2.3	3.8	.9																										118	118	89	39	
44/ 43	.1	1.6	3.0	2.0	1.6	.6																										84	84	115	39	
42/ 41	.3	2.3	2.7	1.4	1.0	.3																										74	74	118	59	
40/ 39		2.7	2.6	2.3	1.6																											85	85	99	72	
38/ 37	.4	2.5	2.3	1.9	.3																											69	69	114	77	
36/ 35	.9	3.0	1.5	.8	.4																											61	61	100	99	
34/ 33	.5	1.3	1.3	.3																												32	32	77	105	
32/ 31	.1	1.0	.9	.3																												21	21	64	69	
30/ 29	.2	.4	.3	.4																												13	13	28	100	
28/ 27		.2	.3																													5	5	17	91	
26/ 25			.2																													2	2	8	43	
24/ 23																																		3	37	
22/ 21																																	2		2	37
20/ 19																																				22
18/ 17																																				8
16/ 15																																				9
14/ 13																																				3
12/ 11																																				3
10/ 9																																				1
TOTAL	2.7	21.0	24.5	19.4	15.4	10.2	3.4	3.1	.2																								929	930	929	
Element (X)	Σ X <sup>2</sup>		Σ X		X		Σ X		No. Obs.		Mean No. of Hours with Temperature							Total																		
Ref. Hum.	4277884		61006		65.7		17.111		929		≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F																				
Dry Bulb	1904932		41526		44.7		7.390		929			4.1					93																			
Wet Bulb	1474561		36611		39.4		5.850		929			12.2					93																			
Dew Point	1057835		30603		32.9		7.319		929			42.5					93																			

USAFETAC FORM 0-26-5 (OLA) JUL 64 REVISOR PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 MAY  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 0300-0500  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
64/ 63							.1	.2										3	3		
62/ 61							.3											3	3		
60/ 59						.1												2	2		
58/ 57					.5	.4	.4	.6										19	19		
56/ 55		.1	.2	.3	.1	.6	.3	.1										17	17		
54/ 53		.2	.5	.4	1.4	.4	.3											31	31	3	
52/ 51			.8	1.0	.8	1.5	.1											38	38	4	3
50/ 49		.2	1.7	1.3	1.2	1.0	.2											52	52	15	2
48/ 47		1.4	2.8	2.6	1.7	1.1	.1											90	90	29	2
46/ 45	.1	3.3	3.3	2.4	3.8	.3												123	123	73	19
44/ 43	.1	2.7	3.3	2.2	1.5	.1												92	92	92	48
42/ 41	.2	2.4	3.0	2.0	1.1													81	81	113	46
40/ 39	.4	3.3	3.0	3.2	.9													101	101	106	63
38/ 37	.6	2.5	2.3	1.8	.1													68	68	129	74
36/ 35	.4	4.6	2.2	2.8														93	93	98	107
34/ 33	.5	2.8	1.9	.8	.1													57	57	94	96
32/ 31	.1	1.8	1.1	.8														35	35	84	93
30/ 29	.1	.2	.6	.1														10	10	47	92
28/ 27	.2	.1	.5	.3														11	11	25	101
26/ 25		.2	.1															3	3	9	60
24/ 23		.1																1	1	6	44
22/ 21																				3	35
20/ 19																					12
18/ 17																					18
16/ 15																					7
14/ 13																					3
12/ 11																					2
8/ 7																					3
TOTAL	2.9	26.0	27.4	21.9	13.1	5.6	1.5	1.3	.2									930	930	930	930
Element (X)	Zx'	Zx	X	%	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.	4641744	63986	68.8	16.052	930	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb	1722607	39511	42.5	6.881	930		6.0					93									
Wet Bulb	1373025	35339	38.0	5.700	930		17.4					93									
Dew Point	1013982	29988	32.2	7.114	930		47.0					93									

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 64

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

MAY

STATION

STATION NAME

YEARS

MONTH

PAGE 1

0600-0800

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)															TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28		29-30	≥ 31	Dry Bulb
74/ 73								.1									1	1	
70/ 69								.2		.1							3	3	
68/ 67								.1	.1	.2	.2						6	6	
66/ 65						.1	.1	.3	.3	.1							9	9	
64/ 63					.1	.4	.5	.5	.3								18	18	
62/ 61					.4	.2	.4	.6	.1	.1							18	18	
60/ 59					.6	.4	1.0	.6	.1								26	26	
58/ 57			.1	.3	.9	.9	1.0	.8									36	36	1
56/ 55			.2	.6	1.6	1.6	1.4	.2									53	53	6
54/ 53			.5	1.2	1.7	2.0	1.9										69	69	13
52/ 51			1.2	2.2	1.3	2.0	.5										67	67	26
50/ 49		.3	1.7	1.8	2.3	.9	.4										69	69	49
48/ 47		2.0	3.3	2.2	1.6	1.9											103	103	73
46/ 45		2.4	3.0	3.0	2.7	2.0	.1										123	123	119
44/ 43		1.9	2.5	1.8	2.0	.1											78	78	118
42/ 41		2.8	1.4	1.0	.8	.2											57	57	124
40/ 39	.2	2.4	2.2	2.2	.9												72	72	101
38/ 37	.2	2.0	1.0	.9	.2												40	40	93
36/ 35	.2	2.6	1.2	.8	.3												47	47	87
34/ 33		1.5	.6	.3													23	23	54
32/ 31		.3	.1	.1													5	5	41
30/ 29		.2		.1													3	3	16
28/ 27		.1	.1	.1													3	3	3
26/ 25				.1													1	1	3
24/ 23																			1
22/ 21																			2
20/ 19																			
18/ 17																			11
16/ 15																			4
14/ 13																			4
10/ 9																			2
8/ 7																			1
TOTAL	.6	18.6	19.1	18.6	17.4	12.9	7.5	3.2	1.4	.4	.1						930	930	930
Element (X)	Σx <sup>2</sup>		Σx		x̄		s <sub>x</sub>		No. Obs.		Mean No. of Hours with Temperature								
Rel. Hum.	3935507		58333		62.7		17.257		930		≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total		
Dry Bulb	2142623		44033		47.3		7.886		930			1.2	1.0	.1			93		
Wet Bulb	1613981		38371		41.3		5.760		930			6.6					93		
Dew P	1133601		31847		34.2		6.806		930			36.7					93		

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTRUM AFB MT/GREAT FALLS 68-77 MAY  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 0900-1100  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb
82/ 81											.2	.1		.1			4	4		
80/ 79										.1				.1	.1		3	3		
78/ 77												.1	.1	.1			3	3		
76/ 75									.5		.2	.3	.1				11	11		
74/ 73								.2	.2	.3	.5	.3					15	15		
72/ 71							.3	.5	.3	.9	.1	.1					21	21		
70/ 69							.3	.6	1.8	.4	.2						32	32		
68/ 67							1.1	1.5	.9	.1	.1						34	34		
66/ 65						.2	.9	1.9	1.0	.5	.2						44	44		
64/ 63					.1	.8	1.4	1.3	2.5	1.0	.1						66	66		
62/ 61					.2	.8	2.0	1.5	1.1	.5							57	57		
60/ 59					.8	1.2	1.0	2.8	1.8	.2							72	72	4	
58/ 57			.1	.2	.5	1.9	1.9	2.0	.3								66	66	14	
56/ 55			.1	.9	.9	1.5	2.5	1.3	.5								71	71	23	
54/ 53			.3	.6	1.7	1.7	1.5	1.0	.3								67	67	57	
52/ 51		.3	.8	1.1	1.5	1.6	1.5	.6									69	69	93	1
50/ 49		.1	1.7	.8	.6	1.1	1.4	.9									61	61	95	4
48/ 47		1.0	2.0	1.2	.8	1.5	1.0	.1									70	70	93	17
46/ 45	.1	1.1	1.2	1.3	1.3	.9	.3										57	57	133	38
44/ 43		.9	1.3	.9	.6	.3											37	37	116	68
42/ 41	.1	.9	.8	.4													20	20	93	70
40/ 39	.1	1.2	.4	.3													19	19	84	98
38/ 37		1.1	.6														16	16	66	80
36/ 35		.5	.1	.1	.1												8	8	33	112
34/ 33		.4															4	4	19	81
32/ 31	.1	.1	.1														3	3	4	75
30/ 29																			2	83
28/ 27																				62
26/ 25																			1	47
24/ 23																				35
22/ 21																				27
20/ 19																				14
18/ 17																				12
16/ 15																				6
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE





DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

**PSYCHROMETRIC SUMMARY**

24112 MALMSTRUM AFB MT/GREAT FALLS 68-77 MAY  
STATION STATION NAME YEARS MONTH

PAGE 1 1200-1400  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																		TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	>31	Dry Bulb		Wet Bulb	Dew Point	
92/ 91																.2		2	2			
88/ 87															.1			1	1			
86/ 85																	.1	1	1			
84/ 83														.2	.2		.1	5	5			
82/ 81												.4	.5	.3	.1		.1	14	14			
80/ 79										.1	.3	.6	.6	.2	.4			22	22			
78/ 77									.2	.3	.2	1.1	.1		.1			19	19			
76/ 75									.4	.2	1.8	.5	.2					30	30			
74/ 73									.3	.8	1.3	.6						28	28			
72/ 71							.1		.6	2.2	.6	.1						42	42			
70/ 69								.4	1.0	2.5	.8	1.6						58	58			
68/ 67								.9	1.0	1.5	1.5	.5						50	50			
66/ 65						.1	.9	1.0	1.4	1.6	1.2	.1						58	58			
64/ 63					.3	.2	1.6	1.2	2.3	1.5	.4	.1						71	71			
62/ 61					.2	.4	1.3	1.5	2.7	1.3	.3							72	72	6		
60/ 59			.1	.4	.4	1.2	.9	2.3	.6									55	55	8		
58/ 57			.5	1.1	.9	1.0	1.7	1.5	.4									66	66	14		
56/ 55		.1	.3	1.1	.8	1.3	1.2	1.3	.2									58	58	44		
54/ 53		.6	.8	.9	.8	.8	1.1	.6										51	51	89		
52/ 51	.1	1.0	1.3	.8	.5	.6	.4	.3										47	47	113		
50/ 49	.1	.1	.8	1.0	.6	.4	.1	.2	.1									32	32	104		
48/ 47	.3	1.1	1.1	.5	1.2	.1	.1											41	41	145		
46/ 45	.6	.6	1.4	1.1	.2	.2												39	39	96		
44/ 43	.9	1.1	.4	.2	.1													25	25	95		
42/ 41	.9	.1	.5															14	14	75		
40/ 39	1.0	.2	.1															12	12	70		
38/ 37	.1	.5	.1															7	7	38		
36/ 35	.1	.3	.2															6	6	19		
34/ 33	.3																	3	3	9		
32/ 31																				4		
30/ 29																						
28/ 27																						
26/ 25																						
24/ 23																						
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature					Total											
Rel. Hum.						$\leq 0$ F	$\leq 32$ F	$\geq 67$ F	$\geq 73$ F	$\geq 80$ F	$\geq 93$ F											
Dry Bulb																						
Wet Bulb																						
Dew Point																						

FORM 16-64 (7-26-5) (OL A) - (REV. 10-63) - AIR FORCE AIR DISTRICT

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 MAY  
STATION STATION NAME YEARS MONTH

PAGE 2 1200-1400  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	*31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
22/ 21																					33
20/ 19																					18
18/ 17																					13
16/ 15																					9
14/ 13																					4
12/ 11																					1
TOTAL	.4	5.0	5.9	7.4	7.3	6.0	9.1	10.5	15.3	11.3	7.8	7.1	3.6	1.5	.6	.8	.3	929	929	929	929
Element (X)	ΣX <sup>2</sup>		ΣX		Σ	σ <sub>x</sub>	No. Obs.					Mean No. of Hours with Temperature									
Rel. Hum.	1914221		27895		40.8	19.925	929					≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total			
Dry Bulb	3487908		56056		60.3	10.661	929							27.2	12.2	2.8		93			
Wet Bulb	2075885		43601		46.9	5.643	929						.4					93			
Dew Point	1098476		31172		33.6	7.523	929						40.8					93			

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112  
 STATION

MALMSTROM AFB MT/GREAT FALLS  
 STATION NAME

68-77  
 YEARS

MAY  
 MONTH

PAGE 1

1500-1700  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
92/ 91																.3	3	3		
86/ 85																.3	3	3		
84/ 83													.3	.3	.2	.2	.8	17	17	
82/ 81												.2	.8	.5	.1			15	15	
80/ 79											.1	.5	.9	.4	.6			24	24	
78/ 77											.3	.4	1.0	.5	.2			23	23	
76/ 75											.8	1.1	.9	.5				30	30	
74/ 73								.1	.1	1.1	1.2	.9	.3					34	34	
72/ 71								.2	.3	1.7	1.3	.9						41	41	
70/ 69							.4	1.2	1.0	1.2	2.4	.5						62	62	
68/ 67					.2	.9	1.6	1.3	1.3	1.0	.1							59	59	
66/ 65					.5	1.1	1.0	1.5	.4	1.1	.2							54	54	
64/ 63				.1	.2	1.4	1.8	2.4	.9	.6	.3							72	72	
62/ 61					1.0	.8	1.5	1.3	1.2	.5								58	58	
60/ 59				.2	.5	.5	1.1	1.4	2.3	.1	.1							58	58	12
58/ 57			.1	.3	1.7	.6	.8	1.9	1.6	1.2	.1							78	78	23
56/ 55		.1	.3	.9	.8	.6	1.4	.6	1.1	.3								57	57	37
54/ 53		.1	.8	.6	.3	.3	.2	.1	1.0									32	32	93
52/ 51		.1	.8	.9	.5	.5	.5	.3	.3									37	37	119
50/ 49	.1	.2	.4	.9	.9	1.4	.3	.3										42	42	141
48/ 47		.4	1.4	.5	.3	.2	.3	.1										31	31	119
46/ 45		1.1	.6	1.3	.6	.4												38	38	73
44/ 43		1.3	.8	.2	.1													22	22	116
42/ 41		1.1	.1															11	11	78
40/ 39	.3	.4	.8	.1														15	15	61
38/ 37	.2	.6																8	8	29
36/ 35		.6																6	6	23
34/ 33																				6
32/ 31																				
30/ 29																				
28/ 27																				
26/ 25																				
24/ 23																				
22/ 21																				
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total								
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTROM AFB MT/GREAT FALLS 68-77 MAY  
 STATION STATION NAME YEARS MONTH  
 PAGE 2 1500-1700  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point	
20/ 19																					26	
18/ 17																					22	
16/ 15																					9	
14/ 13																					10	
12/ 11																					2	
TOTAL	.6	6.1	5.9	6.0	5.9	5.9	7.5	10.5	14.0	7.8	8.3	9.5	6.3	2.2	1.6	.3	1.4			930	930	
																					930	930
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Tot.										
Rel. Hum.	1900104	36984	39.8	21.498	930	≤ 0 F	≤ 32 F	≥ 47 F	≥ 73 F	≥ 80 F	≥ 93 F	93										
Dry Bulb	3610392	57036	61.3	11.001	930			31.1	14.9	4.4		93										
Wet Bulb	2101168	43910	47.2	5.486	930							93										
Dew Point	1083491	30853	33.2	8.032	930		40.8					93										

USAFETAC FORM 0-26-5 (OL A) 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

MAY

PAGE 1 1800-2000  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL		TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	>31	D.B./W.B.	Dry Bulb	Wet Bulb
84/ 83												.1					1	1		
82/ 81											.1	.4		.1	.1	.2	9	9		
80/ 79										.1				.1	.5		7	7		
78/ 77										.2		.2					4	4		
76/ 75									.2	.5	.4	.5	.6				22	22		
74/ 73								.3	.5	.3	.5	.6	.1				23	23		
72/ 71							.1	.3	.6	.8	.4	.3					24	24		
70/ 69						.1		.6	1.3	1.1	.4	.3	.1				37	37		
68/ 67						.3	.3	1.1	1.1	.9	.3	.1					38	38		
66/ 65					.1	.2	.5	1.2	1.4	1.6	.6	.1					54	54		
64/ 63					.1	.1	1.3	1.0	2.4	1.2	.5	.1	.1				63	63		
62/ 61						1.0	1.5	1.3	1.1	1.0	.5	.1					60	60		
60/ 59				.3	.6	1.5	1.2	2.0	1.4	.2	.3						71	71	7	
58/ 57			.5	.2	1.0	1.6	1.4	1.3	1.4	.3	.1						73	73	14	
56/ 55		.6	1.1	1.3	1.2	1.9	.5	1.1	.2								74	74	22	
54/ 53		.2	1.1	.8	1.0	1.3	.8	1.2	.6	.1							65	65	52	
52/ 51		.2	1.2	1.3	.9	1.1	1.0	1.0	.2	.1							64	64	98	8
50/ 49		.6	1.3	1.3	.3	1.0	.6	.4	.1								53	53	124	10
48/ 47		.5	1.4	1.0	.3	.2	.5	.1									38	38	137	26
46/ 45		1.0	1.0	1.4	.9	.5	.3										47	47	107	33
44/ 43		1.2	1.2	1.1	.1	.1	.3										37	37	98	72
42/ 41		1.3	.8	.1	.2	.1											23	23	86	69
40/ 39		1.8	.3														20	20	72	79
38/ 37	.4	.4	.3	.3													14	14	68	91
36/ 35	.1	.6															7	7	28	78
34/ 33		.2															2	2	9	83
32/ 31																			8	82
30/ 29																				58
28/ 27																				68
26/ 25																				43
24/ 23																				26
22/ 21																				33
20/ 19																				21
18/ 17																				22
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$r_x$	No. Obs.	Mean No. of Hours with Temperature						Total								
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F									
Dry Bulb																				
Wet Bulb																				
Dew Point																				

FORM 0-26-5 (OL A) REVISD PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE  
 USAFETAC JUL 64

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTRUM AFB MT/GREAT FALLS 68-77  
 STATION STATION NAME YEARS  
 MAY  
 MONTH  
 PAGE 2 1800-2000  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
16/ 15																					14
14/ 13																					7
12/ 11																					5
10/ 9																					2
TOTAL	.5	8.2	9.7	8.8	6.8	9.9	11.8	10.4	12.0	8.5	6.0	2.6	2.8	1.1	.6	.2		930	930	930	930

Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x^2$	No. Obs.	Mean No. of Hours with Temperature					Total	
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	2425504	43000	46.22	1.697	930							
Dry Bulb	3133154	53182	57.2	9.948	930			16.5	6.6	1.2		93
Wet Bulb	1976151	42553	45.8	5.597	930		.8					93
Dew Point	1130810	31484	33.9	8.362	930		38.1					93

USAFETAC FORM 0-26-5 (OL A) JUL 68 REVISD PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH.  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

MAY

PAGE 1 2100-2300  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
84/ 83														.1	.1			2	2		
82/ 81														.1				1	1		
72/ 71												.1						1	1		
70/ 69									.2	.2	.1							5	5		
68/ 67									.1	.1	.1	.1						5	5		
66/ 65					.1	.1	.3	.6	.1	.1	.2							15	15		
64/ 63					.1	.5	.4	.1	.3	.8	.1							22	22		
62/ 61					.1	1.2	.5	.5	.6	.1								29	29		
60/ 59				.2	.2	.4	.4	.9	.6									26	26	1	
58/ 57			.1	.2	.5	1.7	.8	1.5	.2									47	47	3	
56/ 55			.5	.6	1.5	1.3	1.0	1.5	.2									62	62	8	
54/ 53		.1	.6	.6	1.2	2.8	1.6	.9	.1									74	74	16	1
52/ 51		.8	1.5	2.2	1.1	1.9	.6	.6										81	81	34	2
50/ 49		.6	2.0	2.4	1.5	1.7	.5	.4	.1									87	87	42	8
48/ 47		1.2	2.6	2.7	1.3	1.0	.8	.1										89	89	79	19
46/ 45		3.2	2.2	2.0	2.8	1.3	.6	.1										114	114	120	34
44/ 43		1.5	2.8	.9	1.2	1.5												73	73	144	55
42/ 41	.1	1.9	2.3	.8	.6													53	53	121	75
40/ 39		2.9	1.9	1.2	.4	.3												63	63	100	101
38/ 37	.2	1.9	.9	1.1	.4													42	42	98	67
36/ 35	.4	1.3	.3	.5	.1													25	25	75	116
34/ 33	.3	.4		.2														9	9	53	79
32/ 31		.2	.1		.1													4	4	22	64
30/ 29	.1																	1	1	10	83
28/ 27																				3	72
26/ 25																					42
24/ 23																				1	32
22/ 21																					24
20/ 19																					24
18/ 17																					16
16/ 15																					9
14/ 13																					2
12/ 11																					3
10/ 9																					2
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE





DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 STATION MARMSTROM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS MAY MONTH

PAGE 1 ALL HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL					
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point
92/ 91																.0	.0	.0	5	5	
88/ 87																			1	1	
86/ 85																	.1	.1	4	4	
84/ 83													.1	.1	.1	.0	.1	25	25		
82/ 81												.1	.2	.1	.1	.0	.0	43	43		
80/ 79										.1	.1	.2	.2	.2	.1	.1	.1	56	56		
78/ 77									.0	.1	.1	.3	.1	.0	.0			49	49		
76/ 75									.1	.2	.4	.3	.2					93	93		
74/ 73								.1	.1	.3	.4	.3	.1					101	101		
72/ 71						.0	.1	.2	.2	.7	.3	.2						129	129		
70/ 69						.0	.1	.5	.8	.5	.6	.1	.0					197	197		
68/ 67						.1	.4	.7	.6	.5	.3	.0						192	192		
66/ 65					.0	.1	.4	.8	.6	.7	.3	.2	.0					235	235		
64/ 63					.1	.3	.8	.8	1.3	.7	.2	.1	.0					320	320		
62/ 61					.1	.6	.8	.9	.9	.5	.2	.0						306	306	6	
60/ 59				.1	.4	.6	.8	1.2	1.1	.1	.1							330	330	32	
58/ 57		.0	.1	.3	.8	1.1	.9	1.4	.6	.2	.0							412	412	6	
56/ 55		.1	.3	.7	1.0	1.1	1.3	.7	.5	.1								433	433	141	
54/ 53		.1	.6	.7	1.1	1.3	1.0	.5	.3	.0								421	421	327	
52/ 51	.0	.2	1.0	1.4	1.0	1.4	.7	.4	.1	.0								463	463	504	
50/ 49	.0	.4	1.5	1.4	1.1	1.1	.5	.3	.0									472	472	600	
48/ 47		1.0	2.3	1.7	1.0	1.0	.3	.1										556	557	718	
46/ 45	.0	1.9	1.9	1.9	2.1	.8	.2	.0										659	659	810	
44/ 43	.0	1.5	2.0	1.2	.9	.4	.0											448	448	894	
42/ 41	.1	1.7	1.4	.8	.5	.1												333	333	808	
40/ 39	.1	2.0	1.4	1.2	.5	.0												387	387	693	
38/ 37	.3	1.5	.9	.8	.1													264	264	635	
36/ 35	.3	1.7	.7	.6	.1													253	253	463	
34/ 33	.2	.9	.5	.2	.0													130	130	321	
32/ 31	.0	.4	.3	.2	.0													68	68	227	
30/ 29	.1	.1	.1	.1														27	27	103	
28/ 27	.0	.1	.1	.1														19	19	48	
26/ 25		.0	.0	.0														6	6	21	
24/ 23		.0																1	1	11	
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 64 JUL 64 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTROM AFB MT/GREAT FALLS 68-77 MAY  
 STATION STATION NAME YEARS MONTH  
 PAGE 2 ALL  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
22/ 21																				7	237
20/ 19																					148
18/ 17																					115
16/ 15																					67
14/ 13																					31
12/ 11																					16
10/ 9																					6
8/ 7																					4
<b>TOTAL</b>	1.2	13.6	15.0	13.2	11.1	10.0	8.0	7.7	7.0	4.4	3.1	2.6	1.7	.7	.4	.2	.2	7438	7439	7438	7438
Element (X)	Σ X <sup>2</sup>		Σ X		X̄		s <sup>2</sup>		No. Obs.		Mean No. of Hours with Temperature						Total				
Rel. Hum.	25233835		401245		53.921		21.967		7438		≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	744				
Dry Bulb	21247707		388575		52.211		3.305		7439			12.1	89.5	37.7	9.1		744				
Wet Bulb	14210703		321439		43.2		6.554		7438			41.7					744				
Dew Point	8783989		249371		33.5		7.545		7438			319.4					744				

0-26.5 (OL A)  
 REVISOR PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE  
 USAF ETAC

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 JUN  
STATION STATION NAME YEARS MONTH

PAGE 1 0000-0200  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
82/ 81														.1				1	1		
76/ 75																		1	1		
74/ 73										.1								1	1		
72/ 71						.1		.2	.1	.1								5	5		
70/ 69							.1	.7								.1		8	8		
68/ 67					.1	.4	.7	.2	.2	.1	.2							18	18		
66/ 65			.3	.3	.3	.7	.6	.7	.6	.2								30	30		
64/ 63			.3	.8	.7	1.1	.8	.8	.2									42	42		
62/ 61		.2	.2	1.2	1.8	1.6	1.1											55	55	1	
60/ 59	.2	.9	.7	1.6	2.3	.9	.1											60	60	10	
58/ 57	.3	.9	1.6	2.1	1.6	.7												64	64	26	4
56/ 55	.3	2.1	1.8	2.7	2.7	.3	.1											90	90	37	14
54/ 53	.9	3.2	1.9	1.7	1.7	.8												91	91	59	11
52/ 51	1.2	2.6	2.7	2.0	1.4	.2												91	91	102	28
50/ 49	1.6	3.8	2.9	1.0	.6	.1												89	89	115	39
48/ 47	2.4	2.4	2.4	.6	.6													76	76	118	66
46/ 45	.2	2.4	1.6	1.7	1.3	.1												66	66	138	101
44/ 43	.1	1.9	1.7	1.3	.8													52	52	93	112
42/ 41	1.0	.7	.4	.2														21	21	80	88
40/ 39	1.4	.8	.7															26	26	41	95
38/ 37	.1	.6																6	6	48	101
36/ 35		.1																1	1	17	89
34/ 33	.4																	4	4	9	45
32/ 31	.1																	1	1	4	32
30/ 29	.1																	1	1	1	34
28/ 27																				1	26
26/ 25																					11
24/ 23																					1
22/ 21																					3
TOTAL	.3	14.6	21.8	19.3	16.2	15.0	6.7	3.9	1.1	.6	.3	.1		.1				900	900	900	900

Element (X)	$\sum x^2$	$\sum x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature					Total	
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	3960386	57948	64.4	15.971	900							
Dry Bulb	2590134	47804	53.1	7.532	900			.2	3.4	.3	.1	90
Wet Bulb	1994699	42067	46.7	5.629	900			.6				90
Dew Point	1519368	36494	40.5	6.635	900		10.7					90

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISION PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 Malmstrom AFB MT/Great Falls 68-77 JUN  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 0300-0500  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																		TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23	24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
76/ 75									.1										1	1		
74/ 73							.1	.1											3	3		
72/ 71								.1		.2									3	3		
70/ 69								.1											1	1		
68/ 67						.2		.3											5	5		
66/ 65				.1	.1	.3	.4	.2	.1										12	12		
64/ 63				.2	.6	.6	.8	.6	.3										27	27		
62/ 61		.3	.3	.1	.9	1.0	1.6	.1											39	39		
60/ 59			.7	.6	1.9	.6	.7												39	39	7	
58/ 57		.1	.2	1.2	1.6	1.8	.2	.1											47	47	11	3
56/ 55		.7	1.1	2.9	2.2	1.8	.1												79	79	18	5
54/ 53		.9	3.0	1.9	3.4	1.3	.1	.2											98	98	44	12
52/ 51		1.9	3.3	2.2	2.1	.8	.1												94	94	77	18
50/ 49		2.0	3.8	2.6	1.8		.1												92	92	111	24
48/ 47		3.7	3.3	2.8	1.3	.7	.1												107	107	118	74
46/ 45	.2	3.3	3.6	2.1	1.2	.1													95	95	146	91
44/ 43		1.1	2.6	1.7	1.0														57	57	104	132
42/ 41		1.8	1.6	.6	.6														40	40	81	71
40/ 39		1.0	1.6	.6															28	28	71	97
38/ 37		.4	1.2	.1															16	16	54	102
36/ 35		.8	.1																8	8	28	87
34/ 33		.4																	4	4	21	66
32/ 31	.1	.2																	3	3	6	33
30/ 29		.2																	2	2	1	33
28/ 27																					2	32
26/ 25																						11
24/ 23																						5
22/ 21																						4
TOTAL		.318	.926	.319	.618	.79	9.1	4.2	1.1	1.2	.2	.3							900	900	900	900
Element (X)	Zx'	Zx		X	σx	No. Obs.	Mean No. of Hours with Temperature					Total										
Rel. Hum.	4333242	60970		67.7	15.022	900	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb	2369706	45732		50.8	7.146	900		.5	1.3	.4			90									
Wet Bulb	1878436	40810		45.3	5.574	900		.9					90									
Dew Point	1466685	35857		39.8	6.510	900		11.8					90									

USAFETAC FORM 0-26-5 (OL A) JUL 68 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77

JUN

PAGE 1 0600-0800  
 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	≥ 31	Dry Bulb	Wet Bulb
82/ 81																	1	1		
80/ 79																	3	3		
76/ 75																	7	7		
74/ 73																	12	12		
72/ 71																	16	16		
70/ 69																	21	21		
68/ 67																	35	35		
66/ 65																	41	41		
64/ 63																	81	81	1	
62/ 61																	62	62	9	
60/ 59																	58	58	26	
58/ 57																	84	84	36	9
56/ 55																	85	85	56	9
54/ 53																	92	92	105	17
52/ 51																	66	66	123	35
50/ 49																	89	89	111	59
48/ 47																	79	79	127	91
46/ 45																	43	43	110	127
44/ 43																	11	11	90	123
42/ 41																	8	8	58	90
40/ 39																	2	2	27	81
38/ 37																		15	85	
36/ 35																		2	50	
34/ 33																	4	4	47	
32/ 31																			4	27
30/ 29																				20
28/ 27																				23
26/ 25																				3
24/ 23																				2
22/ 21																				1
20/ 19																				1
TOTAL	.3	8.7	17.7	16.2	18.1	16.6	11.0	7.1	2.3	.7	.8	.2		.1	.2			900	900	900
																	900		900	
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature					Total									
Rel Hum.	3530607	54497	60.6	6.019	900	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	90								
Dry Bulb	2920807	50799	56.4	7.717	900			9.5	2.3	.1		90								
Wet Bulb	2175774	43986	48.9	5.381	900			.4				90								
Dew Point	1623873	37783	42.0	6.476	900			7.7				90								

FORM 0-26-5 (OL A) REVID PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

USAFETAC  
JUL 64

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 08-77

JUN  
MONTH

PAGE 1 0900-1100  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9	10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
86/ 85													.2		.1			3	3		
84/ 83												.1	.1	.2	.3		.1	8	8		
82/ 81											.3	1.1	.4	.4	.1	.1	.3	26	26		
80/ 79										.8	1.3	1.0	.2	.2	.2	.1	35	35			
78/ 77									.1	.3	.3	1.3	1.7	1.0	.6		27	27			
76/ 75							.3	.8	1.2	1.3	.8	.4	.3				47	47			
74/ 73						.1	.3	.3	1.3	1.7	1.0	.6					48	48			
72/ 71						.6	.7	.8	1.4	1.2	.9	.2	.1				53	53			
70/ 69					.4	.4	1.0	1.6	1.3	1.8	.6	.1					65	65			
68/ 67					.2	.8	2.0	1.7	1.3	1.0	.2						65	65			
66/ 65				.1	.7	.7	1.9	1.7	1.1	.8	.1	.1					64	64	2		
64/ 63				.2	.4	1.7	1.7	2.1	2.1	.8	.3	.1					85	85	25		
62/ 61				.6	.4	.7	1.8	2.1	.9	.2							60	60	48		
60/ 59			.1	1.0	1.1	.8	.9	.9	.3	.1							47	47	52		
58/ 57			.7	1.3	1.2	.8	.8	.8	.2								52	52	73	7	
56/ 55			1.3	1.0	.9	1.1	1.2										50	50	108	16	
54/ 53		.2	1.6	1.1	1.0	1.2	.6	.2	.1								54	54	116	30	
52/ 51		.7	2.1	1.6	1.1	1.1											59	59	113	36	
50/ 49		1.2	.9	.3	.6	.2											29	29	116	71	
48/ 47		.4	.4	.2	.1												11	11	94	91	
46/ 45			.1	.2	.1												4	4	76	112	
44/ 43		.2	.2	.1													5	5	44	86	
42/ 41																			22	87	
40/ 39																			7	73	
38/ 37																			1	70	
36/ 35		.2															2	2		64	
34/ 33		.1															1	1	2	51	
32/ 31																			1	35	
30/ 29																				30	
28/ 27																				24	
26/ 25																				9	
24/ 23																				4	
22/ 21																				2	
20/ 19																				1	
Element (X)	Σx'	Σx	̄x	s <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

JUN

PAGE 2 0900-1100  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
18/ 17																					1
TOTAL		3.1	7.4	7.8	8.3	10.1	13.1	13.0	12.4	11.8	6.7	3.2	1.8	.6	.3	.3		900		900	
																	900		900		
Element (X)	Z <sub>X</sub> <sup>2</sup>	Z <sub>X</sub>	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.	2231410	42032	46.7	17.279	900	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb	3807570	57932	64.4	9.348	900			37.7	19.4	4.4		90									
Wet Bulb	2468463	46861	52.1	5.632	900		.1					90									
Dew Point	1616697	37579	41.8	7.277	900		10.6					90									

USAFETAC FORM 04 JUL 64 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

JUN

STATION

STATION NAME

YEARS

MONTH

PAGE 1

1200-1400

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
92/ 91															.1	.2	.2	5	5		
90/ 89											.1			.3	.3	.3	12	12			
88/ 87										.1	.1	.6	.8	.6	.4	.3	26	26			
86/ 85										.3	.7	1.0	1.1	.1	.2	.2	33	33			
84/ 83											.2	.6	1.1	.8	.1	.3	.2	.2	32	32	
82/ 81									.1	.6	1.1	.9	.9	1.2	.3	.1		47	47		
80/ 79								.2	.4	.8	.8	1.4	1.4	.7	.1	.1		54	54		
78/ 77								.4	.2	.4	1.2	1.7	.8	.7	.2			51	51		
76/ 75							.2	.3	.6	.9	1.2	1.0	.8	.4				49	49		
74/ 73						.1	.3	.2	.7	1.1	1.1	1.4	.4	.1				47	47		
72/ 71						.1	.7	.8	1.2	1.3	1.1	.7	.2					55	55		
70/ 69					.1	.3	.3	1.4	.8	2.1	1.1	.1	.2	.1				60	60	1	
68/ 67					.1	.7	1.8	.6	.8	1.2	1.1	.4						60	60	1	
66/ 65					.3	.4	.9	1.4	1.6	1.2	.2	.3						58	58	19	
64/ 63				.1	.6	.6	1.6	1.8	.8	1.6	.3							65	65	40	
62/ 61				.4	1.4	1.0	1.0	.8	1.3									54	54	52	
60/ 59				.7	1.4	.9	1.1	.4	.2									43	43	67	
58/ 57			.4	.3	.3	.9	1.0	.4	.1									32	32	83	
56/ 55		.1	.8	1.3	.8	.2	.4	.2										35	35	124	
54/ 53		.3	.8	1.0	.4	.3	.3											29	29	108	
52/ 51		.1	1.1	.1	.6	.2												19	19	125	
50/ 49	.1	.2	.3	.4	.2													12	12	104	
48/ 47			.9	.1														9	9	70	
46/ 45		.3	.2	.2														7	7	62	
44/ 43		.3																3	3	29	
42/ 41																				12	
40/ 39																				90	
38/ 37		.1	.1															2	2	79	
36/ 35		.1																1	1	2	
34/ 33																			1	52	
32/ 31																				30	
30/ 29																				40	
28/ 27																				34	
26/ 25																				16	
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total									
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

FORM 0-26-5 (OL A) 0-26-5 (OL A) USAFETAC  
 JUL 64  
 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

JUN

STATION

STATION NAME

YEARS

MONTH

PAGE 1

1500-1700

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																				TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point				
94/ 93													.1	.1							2	2		
92/ 91														.3	.4	.3	.2				12	12		
90/ 89												.1		.4	.8	.1	.8				20	20		
88/ 87													.4	1.0	.6	.3	1.1				31	31		
86/ 85									.1		.1	.8		.4	.7	.1	.2	.3			25	25		
84/ 83									.4	.2	1.0	1.1	.8		.8	.3				42	42			
82/ 81									.2	.3	1.3	.9	1.7	1.7	.6	.1				61	61			
80/ 79									.2	.3	1.6	.6	.6	1.3	.3	.4				48	48			
78/ 77								.3	.6	1.0	.9	1.2	1.2	.6	.2					54	54			
76/ 75						.1	.1	.2	.4	1.1	1.3	1.2	1.0	.4						54	54			
74/ 73						.1	.3	.1	.8	.8	2.2	1.0	.3							51	51			
72/ 71								1.0	.9	1.0	1.4	.7	.1	.1						47	47			
70/ 69				.1	.3	.1	.3	1.7	.4	2.0	.9	1.1	.6							68	68	3		
68/ 67						.2	1.2	.4	.2	.7	1.7	.1	.1							42	42	2		
66/ 65					.2	.6	1.2	.4	1.7	.9	.7	.3								54	54	19		
64/ 63				.1	1.1	.8	.8	1.2	1.4	1.0	.4									62	62	38		
62/ 61			.1	.4	.7	1.0	.9	.7	1.7											49	49	64	2	
60/ 59				.7	1.2	.2	.7	.6	.6											35	35	53	3	
58/ 57			.2	.8	1.3	.8	.2	.2	.1											33	33	80	6	
56/ 55	.1	.6	1.7	.4	.7	.3	.2													36	6	133	13	
54/ 53	.2	1.1	.7	.3	.4	.2														27	27	121	21	
52/ 51	.1	1.3	.4	.2	.1															20	20	116	30	
50/ 49	.1	.7	.6	.1																13	13	106	57	
48/ 47		.9	.2																	10	10	72	74	
46/ 45	.1																			1	1	61	116	
44/ 43				.1																1	1	23	64	
42/ 41		.1	.1																	2	2	6	62	
40/ 39																							75	
38/ 37																						2	85	
36/ 35																					1	1	77	
34/ 33																							55	
32/ 31																							44	
30/ 29																							40	
28/ 27																							37	
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature																		
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total												
Dry Bulb																								
Wet Bulb																								
Dew Point																								

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 Malmstrom AFB MT/Great Falls 68-77 JUN  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 1800-2000  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb
90/ 89										.1		.2	.1		.1	.1	6	6		
88/ 87												.1	.2			.3	6	6		
86/ 85										.1	.2	.2	.1	.1	.1	.2	10	10		
84/ 83								.1		.3	.2	.4	.1		.6		16	16		
82/ 81								.1	.1	1.0	.6	.2	.7	.3			27	27		
80/ 79						.2	.2	.1	.8	.7	.9	.9	.3	.3			40	40		
78/ 77						.2	.2	.9	.9	1.0	.2	.9	.1	.1			41	41		
76/ 75						.2	.4	.9	1.1	.8	1.1	.7	.2				49	49		
74/ 73						.1	.2	.3	.9	.4	1.1	.7	.2				36	36		
72/ 71				.1	.3	.1	.7	1.7	1.3	1.4	.3	.2					56	56		
70/ 69				.6	.2	1.0	1.6	1.3	1.0	.6	.1						57	57	2	
68/ 67			.4	.7	.2	1.3	.2	1.2	1.2	.6	.4						57	57	3	
66/ 65			.1	.2	.8	.9	1.2	.9	1.2	1.1	.4	.1					63	63	11	
64/ 63			.2	.9	1.2	2.0	.7	1.4	1.9	1.1	.4	.1					90	90	21	1
62/ 61			.3	1.6	.7	.3	1.0	1.1	1.3	.7							63	63	48	3
60/ 59			.3	1.3	1.1	1.1	1.2	1.1	.3	.1							60	60	47	8
58/ 57		.2	.3	1.6	.6	1.0	.4	.9	.2								47	47	95	16
56/ 55		.3	1.6	1.0	.8	.8	.9	.4									52	52	112	20
54/ 53			1.9	1.6	.6	.8	.3	.2									48	48	123	32
52/ 51		.6	2.0	.8	.2	.1	.1										34	34	98	40
50/ 49		.8	1.7	.2		.1											25	25	111	70
48/ 47		.3	.3	.2													8	8	106	93
46/ 45		.3	.1	.1	.1												6	6	68	97
44/ 43			.1	.1	.1												2	2	37	80
42/ 41				.1													1	1	12	56
40/ 39																			3	63
38/ 37																			1	69
36/ 35																			2	66
34/ 33																				44
32/ 31																				43
30/ 29																				37
28/ 27																				24
26/ 25																				23
24/ 23																				9
Element (X)	Σ X <sup>2</sup>	Σ X	Σ	Σ X	No. Obs.	Mean No. of Hours with Temperature						Total								
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F									
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 JUN  
 STATION STATION NAME YEARS MONTH

PAGE 1 2100-2300

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
84/ 83													.1				1	1		
82/ 81												.1					1	1		
80/ 79										.1	.1	.1					3			
78/ 77									.1	.1	.1	.1					4			
76/ 75									.3	.1	.1	.2	.1				8			
74/ 73								.2	.2	.2	.2						8			
72/ 71						.4	.8	.3	.4	.3	.6	.1					27			
70/ 69					.1	.4	.6	1.2	.4	.3	.2	.1					31			
68/ 67					.2	.8	.6	1.3	.9	.9	.1						43			
66/ 65			.1	.1	1.0	.7	1.8	1.4	.6	.3							54			
64/ 63			.8	.4	.3	1.9	1.4	1.3	.8	.3							66			
62/ 61			.2	.6	1.9	1.9	1.9	1.0	.1								68			12
60/ 59		.1	.7	1.3	1.9	1.2	1.2	.8	.1								66	66	37	1
58/ 57		.7	1.6	1.1	2.3	1.3	1.6	.8	.1								85	85	32	6
56/ 55		.4	3.1	1.7	1.8	2.7	.6	.4	.1								97	97	70	20
54/ 53		.9	2.0	1.8	.7	2.6	1.4	.1									85	85	101	23
52/ 51		.9	2.0	2.1	1.7	.9	1.0	.1									78	78	126	39
50/ 49		1.6	3.8	1.2	1.2	.3	.2										75	75	121	61
48/ 47		1.1	1.4	.9	.3	.1											35	35	102	85
46/ 45		.8	.9	.6	.9												28	23	117	108
44/ 43		1.3	.4	.8	.1	.2											26	26	79	100
42/ 41		.2	.2														4	4	52	86
40/ 39		.1	.1	.1													3	3	28	64
38/ 37																			14	82
36/ 35		.1	.1														2	2	2	76
34/ 33		.1	.1														2	2	4	34
32/ 31																			3	34
30/ 29																				31
28/ 27																				28
26/ 25																				14
24/ 23																				3
22/ 21																				3
20/ 19																				1
18/ 17																				1
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total								
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F									
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISIONS PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE





DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTRDM AFB MT/GREAT FALLS 68-77 JUN  
STATION STATION NAME YEARS MONTH

PAGE 1 ALL  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																				TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point				
94/ 93												.0	.0					2	2						
92/ 91												.0	.0					17	17						
90/ 89										.0	.0	.0	.1	.1	.1	.2		38	38						
88/ 87										.0	.2	.1	.3	.1	.1	.2		63	63						
86/ 85									.0	.1	.2	.2	.3	.0	.1	.1		71	71						
84/ 83									.0	.1	.2	.3	.1	.2	.1	.0		99	99						
82/ 81									.1	.2	.6	.4	.4	.5	.2	.1		164	164						
80/ 79							.0	.1	.2	.4	.5	.4	.4	.2	.1	.1		183	183						
78/ 77							.0	.1	.2	.3	.4	.5	.4	.2	.1			177	177						
76/ 75						.0	.1	.2	.5	.6	.5	.5	.4	.1				216	216						
74/ 73					.1	.1	.2	.5	.6	.8	.5	.1	.0					206	206						
72/ 71				.0	.2	.3	.6	.8	.7	.7	.3	.1	.0					262	262						
70/ 69			.0	.2	.2	.4	1.2	.6	.9	.5	.2	.1	.0					311	311	6					
68/ 67			.1	.2	.5	1.1	.7	.7	.7	.5	.1	.0						325	325	6					
66/ 65			.0	.1	.5	.7	1.3	.9	.9	.6	.2	.1						376	376	51					
64/ 63		.2	.4	.7	1.4	1.2	1.3	.9	.6	.2	.0							518	518	125	1				
62/ 61	.0	.2	.6	1.1	1.2	1.5	.9	.7	.1									450	450	234	5				
60/ 59	.0	.4	.9	1.6	1.1	.9	.5	.2	.0	.0								408	408	299	14				
58/ 57	.2	.7	1.3	1.5	1.2	.7	.4	.1										444	444	436	61				
56/ 55	.3	1.6	1.7	1.4	1.5	.6	.2	.0										524	524	658	107				
54/ 53	.5	2.0	.6	1.3	1.2	.5	.1	.0										524	524	777	167				
52/ 51	.8	2.0	1.5	1.2	.7	.2	.0											461	461	880	265				
50/ 49	.0	1.2	2.2	1.3	.8	.3	.1											424	424	895	446				
48/ 47	1.3	1.6	1.1	.4	.2	.0												335	335	807	640				
46/ 45	.1	1.1	1.0	.7	.5	.0												250	250	778	856				
44/ 43	.0	.6	.7	.5	.3	.0												157	157	499	765				
42/ 41	.0	.4	.3	.2	.1													76	76	323	626				
40/ 39	.3	.2	.2															59	59	177	638				
38/ 37	.1	.2	.0															24	24	135	673				
36/ 35	.2	.0																14	14	54	580				
34/ 33	.2	.0																15	15	37	394				
32/ 31	.0	.0																4	4	18	278				
30/ 29	.0																	3	3	2	265				
28/ 27																				3	228				
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature																			
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total													
Dry Bulb																									
Wet Bulb																									
Dew Point																									

USAF ETAC FORM 0-26-5 (OL A) JUL 64  
 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS  
STATION STATION NAME

68-77  
YEARS

JUN  
MONTH

PAGE 2

ALL  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL	TOTAL					
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
26/ 25																					112
24/ 23																					32
22/ 21																					32
20/ 19																					8
18/ 17																					7
TOTAL	.1	7.3	13.7	12.0	12.0	10.6	9.1	7.5	6.5	5.8	5.2	3.5	2.6	2.0	.9	.6	.6	7200	7200		7200
																		7200		7200	

Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	22732907	377085	52.4	20.359	7200							
Dry Bulb	27705522	439048	61.0	11.383	7200		.7	213.4	123.6	53.1	.2	720
Wet Bulb	18470218	361826	50.3	6.316	7200		2.3	1.2				720
Dew Point	12515205	295495	41.0	7.340	7200		96.2					720

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALHSTROM AFB MT/GREAT FALLS 68-77 JUL  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 0000-0200  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb	Dew Point
82/ 81														.1				1	1		
80/ 79																		1	1		
78/ 77																		1	1		
76/ 75										.1				.1				4	4		
74/ 73										.1	.4			.1	.2			8	8		
72/ 71							.1	.1	.4	.8	.4	.3						20	20		
70/ 69			.1					.2	.4	.9	.4	.1						20	20		
68/ 67		.2	.2		.6	.8	1.3	1.3	1.0	.4								54	54		
66/ 65		.3	.4	.2	.9	1.0	2.3	.9	.5	.1								61	61	4	2
64/ 63		.3	.3	.3	1.1	3.9	2.2	1.2	.4									87	87	6	4
62/ 61		.3	.3	1.1	1.6	2.7	1.9	1.2	.9	.3								96	96	4	3
60/ 59		.2	1.2	1.3	3.1	3.3	1.0	.6	.3									103	103	21	5
58/ 57		1.4	1.8	1.5	2.6	2.8	.5	.4	.2	.1								106	106	47	6
56/ 55		.5	1.7	3.7	2.3	3.3	.9	.1										116	116	97	21
54/ 53		.9	1.3	3.0	2.5	1.7	.9											95	95	126	33
52/ 51		.6	1.0	1.3	1.1	.9	.1											43	43	154	36
50/ 49		.1	1.3	.6	.8	.4	.1	.1										32	32	126	60
48/ 47		.4	1.2	.8	.4	.6	.1											33	33	113	72
46/ 45		.5	.2	.6	1.1		.2											25	25	92	132
44/ 43		.5	.3	.3	.1	.1												13	13	56	107
42/ 41		.1	.1	.6		.1												9	9	33	106
40/ 39		.1			.1													2	2	23	86
38/ 37																				17	77
36/ 35																				8	45
34/ 33																				2	33
32/ 31																				1	26
30/ 29																					35
28/ 27																					24
26/ 25																					4
24/ 23																					3
22/ 21																					4
20/ 19																					3
18/ 17																					3
Element (X)	Σ X'	Σ X	X̄	% <sub>R</sub>	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISOR PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77

68-77

JUL

STATION

STATION NAME

YEARS

MONTH

PAGE 1 0300-0500  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
82/ 81													.1				1	1		
80/ 79														.1			1	1		
78/ 77																	1	1		
74/ 73									.1	.4	.1						6	6		
72/ 71								.2	.2	.3							7	7		
70/ 69						.3	.2	1.0	.1	.1	.1						17	17		
68/ 67		.1			.1	.2	.4	.5	.1								14	14		
66/ 65		.1	.1		.2	.5	1.7	.5	.2	.1							33	33	2	
64/ 63		.1	.2	.5	.8	1.2	.9	.8	.2								43	43	2	
62/ 61		.6	1.0	1.5	1.7	1.1	.5	.3									63	63	3	
60/ 59		.6	1.0	1.6	3.8	1.8	.6	.3									91	91	13	
58/ 57		1.1	1.0	2.4	3.3	3.1	.5	.2									108	108	29	
56/ 55		1.4	1.4	3.5	4.2	1.8	.3										118	118	72	
54/ 53		1.4	2.4	3.9	4.2	1.3	.4										126	126	91	
52/ 51		1.0	1.9	4.6	1.9	.6	.2										96	96	129	
50/ 49		.4	2.9	1.5	1.0	.6											60	60	131	
48/ 47		.8	1.5	1.2	.5	.4	.1										42	42	146	
46/ 45		.8	1.3	1.0	1.6	.3	.1										47	47	136	
44/ 43		.4	.9	1.0	.3	.4											28	28	49	
42/ 41		.6	.3	.4		.1											14	14	45	
40/ 39		.3	.6	.2													11	11	31	
38/ 37			.2														2	2	29	
36/ 35			.1														1	1	14	
34/ 33																			9	
32/ 31																			1	
30/ 29																			23	
28/ 27																			29	
26/ 25																			4	
24/ 23																			1	
22/ 21																			4	
20/ 19																			6	
TOTAL		9.8	15.8	22.8	23.4	14.6	6.7	4.1	1.3	1.0	.2		.2	.1			930	930	930	
																	930	930		
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature					Total									
Rel. Hum.	3843981	58191	62.6	14.779	930	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	93								
Dry Bulb	2882792	51388	55.3	6.827	930			4.7	.9	.1		93								
Wet Bulb	2205667	45007	48.4	5.448	930			.1				93								
Dew Point	1680937	39003	41.9	6.975	930		9.0					93								

USAFETAC FORM 0-26-5 (OL A) REVID PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 64

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

JUL  
MONTH

PAGE 1 0600-0800  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
80/ 79									.3	.2	.2	.2		.1			7	7		
78/ 77								.5	.1	.1	.1						6	6		
76/ 75					.2			.1	.3	.1	.3		.1				16	16		
74/ 73						.1	.3	.4	.8	1.1	.1						26	26		
72/ 71				.1	.2	.2	.6	1.2	.6	.5	.2						35	35		
70/ 69				.2	.1	.5	1.6	1.4	.8	.3							46	46		
68/ 67	.1	.1	.2	1.0	1.7	1.8	1.5	1.1	.1								71	71	2	
66/ 65	.1	.4	.5	.9	2.4	2.4	1.0	.4	.5	.1							81	81	3	
64/ 63	.1	.2	.4	2.0	2.6	2.7	1.6	.6	.1								97	97	8	
62/ 61	.1	1.2	1.1	3.2	1.9	2.9	.6	.6		.1							110	110	22	
60/ 59	.5	.5	1.9	2.8	3.6	1.4	.4										104	105	52	
58/ 57	.8	.8	2.5	2.6	2.2	1.2	.3	.1									96	96	90	
56/ 55	.5	1.8	2.0	2.5	1.3	.5	.1	.1									83	83	112	
54/ 53	.2	1.7	1.2	1.6	1.1	.1											55	55	148	
52/ 51	.2	1.1	1.1	.8	.6		.2										37	37	138	
50/ 49		1.4	.4	.3	.2												22	22	125	
48/ 47	.3	.6	.3	.3													15	15	94	
46/ 45	.3	.8	.3	.1	.1												15	15	70	
44/ 43	.4	.1															5	5	31	
42/ 41																			22	
40/ 39	.1		.1														2	2	8	
38/ 37																			2	
36/ 35																			1	
34/ 33																			1	
32/ 31																				
30/ 29																				
28/ 27																				
24/ 23																				
22/ 21																				
20/ 19																				
TOTAL		3.9	10.8	12.5	18.6	18.5	15.6	8.9	6.0	3.3	1.0	.6	.1	.1			929	930	929	
Element (X)	$\Sigma X^2$	$\Sigma X$		$\bar{X}$	$\sigma_x$	No. Obs.		Mean No. of Hours with Temperature						Total						
Rel Hum.	3094125	51701		55.7	15.286	929		≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	93						
Dry Bulb	3521460	56854		61.1	7.020	930				20.7	5.5	.3		93						
Wet Bulb	2530506	48256		51.9	5.074	929				.2				93						
Dew Point	1852257	40999		44.1	6.797	929			4.6					93						

FORM 0-26-5 (OL A) REVISION PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE  
JUL 64  
USAF/ETAC

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 STATION MALMSTRGM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS JUL MONTH  
 PAGE 1 0900-1100 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
94/ 93																.1	.1	2	2		
92/ 91														.1				1	1		
90/ 89													.2	.1	.1	.3	7	7			
88/ 87											.1	.3	.3	.4	.2	.1	14	14			
86/ 85								.1		.2	.2	.3	.2	.1			11	11			
84/ 83								.1	.1	.4	.3	.9	.4	.5	.1		27	27			
82/ 81							.1	.1	.5	1.8	1.1	1.4	.5	.3			55	55			
80/ 79						.1	.1	.4	.8	1.4	1.7	1.3	1.2	.5	.1		71	71			
78/ 77						.4	.8	.8	2.2	1.3	1.4	1.1	.1				74	74			
76/ 75				.1		.3	.4	.8	2.5	1.8	1.5	.9	.2				79	79			
74/ 73			.1			.3	.6	1.9	2.2	1.3	.8	.9	.2				77	77			
72/ 71			.2	.1		.2	1.7	1.6	2.0	2.2	1.2	.4	.3	.1			94	94			
70/ 69				.2	.5	1.0	2.2	1.5	1.8	1.2	.2	.2					82	82	5		
68/ 67		.1	.1		.6	1.6	2.2	2.2	1.4	.8	.6	.2					91	91	5	2	
66/ 65			.1	.2	.6	.8	1.4	1.7	1.1	.5	.6						66	66	20	2	
64/ 63			.4	.2		1.2	1.1	1.8	1.0	.6	.2						61	61	47	2	
62/ 61		.1	.4	.1	1.0	1.4	.8	.6	.1	.1							43	43	82	9	
60/ 59			.3	.3	.8	.3	.2		.2								20	20	141	9	
58/ 57			.3	.3	.2	.2											10	10	145	12	
56/ 55		.2	.3	.5	.4	.1											15	15	130	27	
54/ 53		.1	.9	.2		.2											13	13	121	44	
52/ 51			.3	.1	.2	.1											7	7	98	70	
50/ 49			.2		.1												3	3	77	89	
48/ 47			.2	.1													3	3	28	91	
46/ 45		.2	.1														3	3	18	130	
44/ 43		.1															1	1	10	87	
42/ 41																			3	75	
40/ 39																				68	
38/ 37																				65	
36/ 35																				55	
34/ 33																				37	
32/ 31																				13	
30/ 29																				12	
28/ 27																				12	
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Meas. No. of Hours with Temperature						Total									
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTRON AFB MT/GREAT FALLS 68-77 JUL  
 STATION STATION NAME YEARS MONTH  
 PAGE 2 0900-1100  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21	22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
26/ 25																						12
24/ 23																						4
22/ 21																						3
TOTAL		.9	3.9	2.5	4.5	7.4	9.9	14.1	13.8	13.3	11.6	7.0	6.1	2.6	1.6	.5	.5	930	930		930	
																		930		930		

Element (X)	Σ X'	Σ X	X̄	s <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature					Total	
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F		≥ 93 F
Rel. Hum.	170,387	37303	40.1	15.076	930							
Dry Bulb	4794331	66345	71.3	8.127	930			68.5	41.8	14.9	.2	93
Wet Bulb	2925106	51952	55.9	4.970	930			1.0				93
Dew Point	1863903	41041	44.1	7.536	930		5.6	.2				93

USAFETAC FORM 0-26-5 (OLA) JUL 64 REVISD PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

JUL

STATION

STATION NAME

YEARS

MONTH

PAGE 1

1200-1400

HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
100/ 99																	.2	2	2	
98/ 97																	.2	2	2	
96/ 95																	.8	7	7	
94/ 93																.1	.5	.6	12	12
92/ 91														.1	.2	.5	1.9	26	26	
90/ 89										.1	.2	.5	.2	.9	.8	.9	.9	33	33	
88/ 87							.1	.3	.2	.4	.4	1.3	1.0	.8	.9	.9	.9	50	50	
86/ 85							.1	.3	.2	.4	.4	1.3	1.0	.8	.9	.9	.9	50	50	
84/ 83							.1	.3	.2	.4	.4	1.3	1.0	.8	.9	.9	.9	50	50	
82/ 81							.1	.3	.2	.4	.4	1.3	1.0	.8	.9	.9	.9	50	50	
80/ 79						.1	.2	.5	.5	1.0	1.9	1.5	1.2	1.2	.3	.1	.1	80	80	
78/ 77				.1	.1	.1	.2	.4	.9	1.5	1.6	1.4	.5	.3	.6	.5	.5	89	89	
76/ 75				.1	.1		.1	.6	1.4	2.5	1.4	1.4	.6	1.0				86	86	
74/ 73				.1	.2		.1	1.0	1.3	1.4	1.8	1.1	.3	.4				72	72	1
72/ 71				.2	.2	.1	.3	.6	1.7	1.8	1.5	.3	.6					70	70	3
70/ 69				.1	.1	.4	.4	1.1	1.1	1.3	.4	.6	.1					53	53	8
68/ 67				.1	.2	.4	.5	.6	.3	.5	.2	.3						31	31	13
66/ 65				.2	.2	.1	.5	.5	.3	.1								19	19	33
64/ 63				.6	.4	.6	.5	.2		.2								25	25	68
62/ 61			.1	.3	.4		.2											10	10	112
60/ 59			.1	.2	.4		.1											8	8	151
58/ 57			.1	.2	.3		.1											7	7	158
56/ 55			.2	.2	.4	.3	.2											13	13	131
54/ 53			.1	.1		.2												4	4	107
52/ 51				.1	.1													2	2	70
50/ 49			.1															1	1	36
48/ 47				.1														1	1	25
46/ 45																				8
44/ 43																				5
42/ 41																				1
40/ 39																				
38/ 37																				
36/ 35																				
34/ 33																				
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.					Mean No. of Hours with Temperature										
Ref. Hum.										≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total				
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRUM AFB MT/GREAT FALLS 68-77 JUL  
STATION STATION NAME YEARS MONTH

PAGE 1 1500-1700  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)															TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28		29-30	>31	Dry Bulb	Wet Bulb	Dew Point
104/103																	.3	3	3		
100/ 99																	.1	1	1		
98/ 97																	.1	1	1		
96/ 95																	1.2	11	11		
94/ 93																	2.7	25	25		
92/ 91														.5	.5	.9	2.9	45	45		
90/ 89									.2	.1	.1			1.3	1.3	1.4	1.8	58	58		
88/ 87									.1	.4	.5		.5	1.9	1.4	1.2	2.6	77	77		
86/ 85									.1	.4	.4	.8	1.3	1.9	1.3	1.3	1.0	79	79		
84/ 83							.2		.5	.9	1.2	2.0	1.5	1.6	.5	.5		84	84		
82/ 81					.1	.1		.1	.1	.6	1.0	1.8	1.6	1.2	.8	1.0	.3	81	81		
80/ 79				.1	.1		.1	.3	.5	.4	1.8	1.9	1.0	1.6	1.2	.4	.1	90	90		
78/ 77							.1	.1	.6	.9	2.0	2.2	.9	1.0	.3	.2		77	77		
76/ 75							.3	1.0	2.0	1.5	1.5	.6	.8					72	72		
74/ 73				.1	.1		.1	.9	.6	.9	1.1	.6	.2	.3				46	46	4	
72/ 71				.5	.1		.4	.3	.8	.9	.6	.3	.1					38	38	5	
70/ 69				.2	.2	.6	.2	.6	.4	1.2		.4	.2					39	39	5 3	
68/ 67				.2	.3	.6	.3	.2	.2	.5	.1	.1						25	25	7 3	
66/ 65				.2	.1		.3	.3	.1	.2								12	12	32 2	
64/ 63			.1	.2	.3	.5	.8	.3										21	21	66 2	
62/ 61				.1		.3	.1	.2		.1								8	8	120 6	
60/ 59			.2	.3	.2	.2	.1											10	10	159 10	
58/ 57			.3	.3	.2	.1	.1											10	10	161 14	
56/ 55				.2	.4													6	6	134 18	
54/ 53		.1				.2												3	3	108 34	
52/ 51				.1		.1												2	2	64 47	
50/ 49		.1	.3															4	4	26 51	
48/ 47			.1															1	1	24 56	
46/ 45		.1																1	1	12 88	
44/ 43																			3	3	104
42/ 41																					80
40/ 39																					78
38/ 37																					71
36/ 35																					74
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total									
Rel. Hum.						$\leq 0 F$	$\leq 32 F$	$\geq 67 F$	$\geq 73 F$	$\geq 80 F$	$\geq 93 F$										
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112  
 STATION

MALMSTRUM AFB MT/GREAT FALLS  
 STATION NAME

68-77  
 YEARS

YEARS

JUL  
 MONTH

PAGE 1

1800-2000

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)															TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28		29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point
102/101																	.1	1	1		
98/97																	.1	1	1		
96/95																	.3	3	3		
94/93																	.5	5	5		
92/91																	.3	3	3		
90/89														.4	.4	.4	1.4	25	25		
88/87												.1	.4	1.0	.6	.8	1.1	37	37		
86/85								.1			.1	.2	.3	.6	1.3	.8	.6	38	38		
84/83							.1	.3	.2	.3	.8	1.3	1.3	1.4	1.4	.4	.4	61	61		
82/81						.1	.1	.3	.5	1.1	2.4	1.3	1.0	.9	1.0	.1	.1	81	81		
80/79					.1	.2	.1	.3	.8	.6	2.4	1.4	1.2	.9	.3	.3		80	80		
78/77				.2	.1	.2	.1	.4	.8	1.3	1.3	1.6	1.0	1.4	.1			77	77		
76/75			.2		.2	.2	1.0	1.6	2.4	1.0	1.3	.6	.4		.1			84	84		
74/73			.1	.1	.3	.5	1.2	2.0	2.0	1.8	.5	.6	.2	.1				90	90		
72/71			.1	.3	.6	1.5	1.5	1.0	1.4	.6	.8							75	75	6	1
70/69			.3	1.0	.5	1.2	1.2	1.1	.4	.5	.3							61	61	5	2
68/67			.1	.3	.5	.9	.8	.9	.8	.5	.3	.3						50	50	9	3
66/65			.4	.4	.9	.2	.4	.8	.3	.4								36	36	20	2
64/63			.5	.3	.5	1.0	.9	.6	.6	.2	.1							45	45	39	3
62/61		.1	.1	.5	.3	.4	.3	.5	.1									23	23	88	8
60/59			.1	.1	.3	.4	.1											10	10	158	10
58/57			.6	.2	.4	.2	.1											15	15	146	20
56/55			.3	.3	.1	.2		.1										10	10	151	37
54/53		.1	.1	.3	.1	.2			.1									8	8	111	28
52/51			.2	.1	.1			.1										5	5	89	46
50/49		.1																1	1	51	54
48/47		.2																2	2	29	90
46/45																				22	114
44/43		.2																2	2	2	79
42/41		.1																1	1	2	63
40/39																				2	68
38/37																					69
36/35																					51
34/33																					54
Element (X)	Σx <sup>2</sup>	Σx	X̄	s <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature						Total									
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F										
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64  
 REVISION PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

### PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS  
STATION STATION NAME

68-77  
YEARS

JUL  
MONTH

PAGE 2 1800-2000  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL D.B./W.B.	TOTAL																	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	>31		Dry Bulb	Wet Bulb	Dew Point															
32/ 31																																				34
30/ 29																																				28
28/ 27																																				35
26/ 25																																				16
24/ 23																																				4
22/ 21																																				6
20/ 19																																				1
18/ 17																																				3
16/ 15																																				1
TOTAL		.9	2.4	3.0	3.9	6.2	4.7	8.4	10.9	10.2	10.6	9.8	7.8	7.2	5.2	3.8	5.1																		930	
																																			930	

Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature							Total
						$\leq 0$ F	$\geq 32$ F	$\geq 67$ F	$\geq 73$ F	$\geq 80$ F	$\geq 93$ F		
Rel. Hum.	1404327	32549	35.0	16.894	930								
Dry Bulb	5269286	69524	74.8	8.796	930			77.2	58.6	29.5	1.0	93	
Wet Bulb	2977279	52419	56.4	4.944	930			2.0				93	
Dew Point	1753482	39524	42.5	8.910	930			12.8	.6			93	

USAFETAC FORM 0-26-5 (OL A) 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112  
 STATION

MALMSTROM AFB MT/GREAT FALLS  
 STATION NAME

68-77  
 YEARS

JUL  
 MONTH

PAGE 1 2100-2300  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
96/ 95																.1	1	1			
88/ 87																.1	2	2			
86/ 85																.1	1	1			
82/ 81											.3	.1					4	4			
80/ 79							.1	.1	.1	.4	.4	.3	.1				15	15			
78/ 77						.1			.1	.4	.3	.2	.2				13	13			
76/ 75								.3	.8	.4	.5	.2					21	21			
74/ 73				.1	.1	.1	.5	1.6	1.3	.6	.9	.2					51	51			
72/ 71		.1	.1	.1	.4	.9	1.1	1.8	.8	.8	.8			.1			57	57			
70/ 69	.2	.4	.2	.6	.8	2.5	1.6	1.6	.6	.3	.1						84	84			
68/ 67	.1	.1	.3	1.2	.5	4.2	2.5	2.2	.9	.2	.1						114	114	7		
66/ 65		.1	.5	1.4	1.5	3.3	1.4	1.5	.6	.3							100	100	8	5	
64/ 63		.2	1.0	.9	2.4	2.5	2.0	1.0	1.0	.1							102	102	5	6	
62/ 61	.1	1.1	.9	1.3	1.9	1.2	1.1	1.1	.4								84	84	16	2	
60/ 59	.2	.8	1.9	1.4	1.3	1.3	.2	.6									72	72	59	8	
58/ 57	.3	.9	1.4	1.1	1.6	.9	.5	.2									64	64	99	9	
56/ 55	.3	1.4	1.0	1.2	.8	.4	.2	.1									50	50	149	27	
54/ 53	.2	.9	1.0	.8	1.1	.4	.1										41	41	156	34	
52/ 51	.1	1.1	.1	.4	.4												20	20	139	44	
50/ 49	.2	.4	.2	.2	.3		.1										14	14	86	72	
48/ 47	.4	.2	.3		.1												10	10	91	92	
46/ 45	.2	.2	.2	.1													7	7	54	122	
44/ 43																			35	90	
42/ 41	.3																3	3	12	88	
40/ 39																			11	68	
38/ 37																			2	60	
36/ 35																			1	65	
34/ 33																				37	
32/ 31																				21	
30/ 29																				37	
28/ 27																				20	
26/ 25																				13	
24/ 23																				1	
22/ 21																				4	
Element (X)	$\Sigma X^2$		$\Sigma X$		$\bar{X}$	$\sigma_x$	No. Obs.		Mean No. of Hours with Temperature												
Rel. Hum.									≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total						
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) REVERSED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 64

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

**PSYCHROMETRIC SUMMARY**

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 JUL MONTH  
STATION STATION NAME YEARS  
PAGE 2 2100-2300 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
20/ 19 18/ 17																					4 1
TOTAL		2.8	7.6	8.9	10.5	13.1	16.1	12.4	12.2	7.4	4.0	2.9	1.2	.4	.2	.1	.1	930	930	930	930
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.	2484797	45359	48.8	17.127	930	≤ 0 F	≤ 32 F	≥ 47 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb	3865631	59573	64.1	7.304	930			36.3	10.8	1.1	.1	93									
Wet Bulb	2592854	48876	52.6	5.102	930			.7				93									
Dew Point	1761143	39781	42.8	8.003	930		10.1					93									

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 JUL  
STATION STATION NAME YEARS MONTH  
PAGE 1 ALL  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL					
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	≥31	Dry Bulb	Wet Bulb	Dew Point
104/103																	.0	3	3		
102/101																	.0	1	1		
100/99																	.0	3	3		
98/97																	.1	4	4		
96/95																	.3	22	22		
94/93																.0	.1	.5	44	44	
92/91														.1	.1	.2	.6	75	75		
90/89											.0	.0	.1	.3	.3	.6	123	123			
88/87								.0	.1	.1	.0	.1	.2	.6	.4	.6	180	180			
86/85								.1	.1	.3	.4	.6	.5	.5	.5	.2	205	205			
84/83							.0	.1	.1	.3	.4	.8	.6	.6	.2	.2	250	250			
82/81					.0	.0	.0	.1	.1	.3	.6	.9	.8	.5	.4	.3	.1	303	303		
80/79				.0	.0	.1	.1	.2	.3	.5	1.1	1.0	.6	.5	.3	.2	.0	354	354		
78/77				.0	.0	.1	.1	.2	.4	.8	.9	.9	.5	.4	.1	.0		322	322		
76/75			.0	.0	.1	.1	.1	.3	.9	1.2	.8	.7	.3	.3		.0		362	362		
74/73			.0	.1	.1	.1	.2	.8	1.1	1.1	.8	.5	.2	.1	.0			376	376	5	
72/71		.0	.1	.1	.2	.2	.6	.9	1.2	1.0	.8	.2	.3	.0				396	396	14	1
70/69	.0	.1	.1	.1	.5	.6	1.3	.9	1.0	.4	.3	.1						402	402	23	6
68/67	.1	.1	.1	.6	.8	1.4	1.2	.9	.5	.2	.1							450	450	43	13
66/65	.1	.1	.3	.6	.9	1.5	.8	.6	.3	.2								408	408	122	15
64/63	.0	.3	.5	.8	1.7	1.4	1.0	.5	.3	.1								481	481	239	24
62/61	.2	.4	.6	1.2	1.4	1.0	.6	.4	.1	.0								437	437	447	43
60/59	.2	.5	1.0	1.6	1.4	.6	.2	.1										418	419	754	59
58/57	.4	.7	1.1	1.3	1.3	.4	.2	.1	.0									416	416	875	102
56/55	.4	.9	1.4	1.4	1.0	.3	.1	.0										411	411	976	184
54/53	.4	.9	1.2	1.1	.8	.2	.0											345	345	968	285
52/51	.2	.7	.9	.6	.3	.0	.0											212	212	881	369
50/49	.1	.8	.3	.3	.2	.0	.0											137	137	658	525
48/47	.3	.5	.3	.2	.1	.0												107	107	550	673
46/45	.3	.3	.3	.4	.1	.0												98	98	412	929
44/43	.2	.2	.2	.1	.1													49	49	191	802
42/41	.1	.1	.1	.0														27	27	118	715
40/39	.1	.1	.0	.0														15	15	75	629
38/37			.0															2	2	50	549
Element (X)	Σ X <sup>2</sup>	Σ X	X̄	σ <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

JUL  
 MONTH

PAGE 2

ALL  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)															TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28		29-30	≥31	Dry Bulb	Wet Bulb	Dew Point
36/ 35			0.0															1	1	24	438
34/ 33																				12	342
32/ 31																				2	195
30/ 29																					176
28/ 27																					186
26/ 25																					89
24/ 23																					28
22/ 21																					34
20/ 19																					19
18/ 17																					8
16/ 15																					1
TOTAL		3.1	6.7	8.7	10.6	11.0	8.9	8.0	7.9	7.3	6.2	5.5	4.2	3.9	2.8	2.1	3.2		7440		7439
																		7439			

Element (X)	$\sum X^2$	$\sum X$	$\bar{X}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature					Total	
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	17881879	334335	44.9	19.594	7439							
Dry Bulb	35190483	504213	67.8	11.708	7440			387.5	262.7	138.0	7.7	744
Wet Bulb	21756971	399785	53.7	6.045	7439			2	8.5	.5		744
Dew Point	14067618	318138	42.8	7.882	7439			73.6	2.0			744

USAFETAC FORM 0-26-5 (OLA) 10-64 PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SU

24112 MALMSTRUM AFB MT/GREAT FALLS

68-77

PAGE 1 0000-0200  
 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	>31	Dry Bulb	Wet Bulb
78/77																		1	1	
76/75									.2	.1			.2					5	5	
74/73									.1	.1	.4	.3						9	9	
72/71									.2	.5	.5	.3	.2					17	17	
70/69						.2	.3	.8	.4	1.3	.3	.1						32	32	
68/67				.2	.5	.6	.4	1.5	1.0	.5								45	45	
66/65			.1		.9	.6	1.8	1.4	1.5	.2	.1							62	62	
64/63			.2	.5	.8	.6	1.8	2.9	1.2	.5	.1							81	81	
62/61		.5	.1	.9	1.6	1.6	2.3	1.4	.8	.3								88	88	4
60/59		.5	.8	1.0	1.8	2.0	1.9	1.1	.2									87	87	27
58/57		.6	1.7	1.4	1.7	1.5	2.4	.5	.2									94	94	28
56/55		1.2	2.3	2.2	1.6	2.3	1.0	.4										101	101	76
54/53		1.7	3.1	1.5	2.3	1.2	.8	.4										102	102	111
52/51		1.5	2.8	2.0	1.3	1.3	.9	.1										92	92	141
50/49		1.3	1.9	.5	.8	1.1	.1											53	53	162
48/47		.2	1.1	.6	.3	.4	.3											28	28	129
46/45		.4	1.0	.3	.9		.1											25	25	109
44/43		.4	.2															6	6	55
42/41		.1																1	1	46
40/39		.1																1	1	27
38/37																				13
36/35																				2
34/33																				
32/31																				
30/29																				
28/27																				
26/25																				
24/23																				
22/21																				
20/19																				
TOTAL		8.7	15.3	11.2	14.4	13.5	14.1	10.9	6.1	4.0	1.2	.5	.1					930	930	930
Element (X)	Z <sub>X</sub> <sup>2</sup>	Z <sub>X</sub>		X	e <sub>n</sub>	No. Obs.		Mean No. of Hours with Temperature												
Rel. Hum.	3282599	52381		56.3	18.913	930		≤ 0 F	≤ 32 F	> 67 F	> 73 F	> 80 F	> 93 F	Total						
Dry Bulb	3182146	54040		58.1	6.725	930				10.9	1.5			93						
Wet Bulb	2288804	45914		49.4	4.870	930								93						
Dew Point	1630357	38277		41.2	7.691	930				11.9				93						

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

AUG  
 MONTH

PAGE 1 0300-0500  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
74/ 73									.2	.1	.2						5	5		
72/ 71							.1		.4	.2	.1						8	8		
70/ 69							.2	.4	.1	.2							9	9		
68/ 67					.1		.2	.2	.1	.2							8	8		
66/ 65				.6	.9	1.0	.8	.9	.2								40	40		
64/ 63		.2	.5	.4	1.5	.9	1.3	1.0									54	54		
62/ 61		.3	.5	1.1	.6	1.3	1.4	.6									55	55		
60/ 59	1.0	.6	1.5	1.3	2.0	1.7	1.4	.2									91	91	12	3
58/ 57	.4	.8	1.4	1.6	2.4	1.4	.4										78	78	24	5
56/ 55	2.3	1.9	2.6	2.7	2.8	1.4	.6										133	133	54	13
54/ 53	2.0	1.6	1.9	2.8	2.4	.4	.3										107	107	82	25
52/ 51	.1	2.0	3.0	1.9	3.0	1.0	.1	.2									106	106	93	42
50/ 49	.2	1.6	5.3	1.1	1.3	1.5	.3										105	105	141	31
48/ 47	1.2	1.7	1.3	.9	.6												53	53	152	80
46/ 45	1.2	.9	1.0	.9	.5												41	41	145	80
44/ 43	.5	.6	.9	.2													21	21	94	103
42/ 41	.5	.1	.1	.1													8	8	61	87
40/ 39	.8		.1														8	8	42	77
38/ 37																			24	99
36/ 35																			5	78
34/ 33																			1	69
32/ 31																				42
30/ 29																				28
28/ 27																				22
26/ 25																				13
24/ 23																				7
22/ 21																				3
20/ 19																				3
TOTAL	.3	13.5	17.1	14.8	17.0	16.2	9.0	7.1	3.5	1.0	.3						930	930	930	930
Element (X)	Σ x <sup>2</sup>	Σ x	X	σ <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature						Total								
Rel. Hum.	3803745	57079	61.4	17.985	930	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb	2850782	51154	55.0	6.319	930			3.0	.5			93								
Wet Bulb	2148459	44465	47.8	4.922	930							93								
Dew Point	1599720	37968	40.8	7.310	930			11.8				93								

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 68

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

08-77

AUG  
 MONTH

PAGE 1 0600-0800  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
82/ 81											.1			.1			2	2		
80/ 79									.1	.1							3	3		
78/ 77							.1	.2		.3			.3				12	12		
76/ 75						.1		.2	.5	.2			.1				11	11		
74/ 73							.4	.4	.6	.5	.2						21	21		
72/ 71						.1	.1	.1	.3	.5	.4	.1					16	16		
70/ 69						.1	.9	1.1	1.0	.4							32	32		
68/ 67					.4	.5	.3	1.3	1.4	.2	.4						43	43		
66/ 65			.1	.1	.3	1.4	1.0	2.0	.6	.6	.1						59	59		
64/ 63			.1	.6	1.2	1.7	2.2	2.0	1.1	.1							84	84	3	
62/ 61	.4	.6	1.0	1.6	1.4	1.9	1.5	.6									85	85	9	
60/ 59	.5	.6	1.8	2.0	1.8	1.3	.6	.2									84	84	22	
58/ 57	.9	1.0	2.7	1.3	2.0	1.2	.1	.2									87	87	50	
56/ 55	1.4	3.2	1.9	1.5	2.4	.5	.3										105	105	95	
54/ 53	2.3	2.8	1.0	1.5	1.3	.3	.1										86	86	121	
52/ 51	1.2	2.6	1.0	1.5	1.3	.2	.1										73	73	164	
50/ 49	.1	1.3	3.0	1.1	.6	.3	.1										61	61	138	
48/ 47	1.0	1.2	.4	.6	.3												33	33	115	
46/ 45	1.1	.4	.1	.1	.2												18	18	98	
44/ 43	.3	.4	.1	.1													9	9	56	
42/ 41	.2	.1	.2														5	5	32	
40/ 39																			20	
38/ 37	.1																1	1	4	
36/ 35																			3	
34/ 33																			46	
32/ 31																			30	
30/ 29																			14	
28/ 27																			17	
26/ 25																			11	
24/ 23																			3	
22/ 21																			1	
TOTAL	.1	10.6	16.2	12.0	12.9	14.9	10.1	9.9	6.3	3.2	2.2	.9	.4	.1			930	930	930	
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature					Total									
Rel. Hum.	3442096	53792	57.8	18.868	930	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb	3264441	54653	58.8	7.529	930			14.0	4.9	.3		93								
Wet Bulb	2363009	46659	50.2	4.875	930							93								
Dew Point	1721519	39483	42.5	6.981	930		7.6					93								

USAFETAC FORM 0-26-5 (OLA) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

AUG

STATION

STATION NAME

YEARS

MONTH

PAGE 1 0900-1100

HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point															
100/ 99																	.1	1	1																	
96/ 95																		1	1																	
94/ 93																	.1	1	1																	
92/ 91														.1	.1		.1	3	3																	
90/ 89														.5	.8	.4	.4	16	16																	
88/ 87													.6	.9	.1	.2	.17	17	17																	
86/ 85												.5	.4	1.0	.4		.22	22	22																	
84/ 83										.1	.6	.9	.8	1.2	.2		.35	35	35																	
82/ 81									.1	1.1	1.8	1.2	1.0	.3			.51	51	51																	
80/ 79							.2	.1	.1	1.1	1.1	2.2	.1				.45	45	45																	
78/ 77								.3	.8	2.4	1.5	.8					.55	55	55																	
76/ 75							.1	.4	1.3	1.4	1.6	1.2	.3				.59	59	59																	
74/ 73						.1	.4	1.1	2.2	2.0	2.4	.8	.1				.84	84	84																	
72/ 71					.1	.3	.6	2.3	1.2	2.0	.5	.2	.4				.72	72	72																	
70/ 69					.1	.8	2.0	1.9	1.5	1.5	.4	.4					.81	81	81																	
68/ 67			.1		.3	.6	1.2	1.2	1.6	1.3	.1	.1					.52	52	52																	
66/ 65			.1	.5	.8	1.3	1.7	.8	.6	1.3	.1						.67	67	67	6																
64/ 63			.1	.9	1.0	1.4	.9	.8	1.0	.3							.58	58	58	15																
62/ 61		.3	.1	.3	.9	.6	1.1	1.0	.4								.44	44	44	64	1															
60/ 59		.1	.3	1.3	1.2	1.2	.5	.1	.3								.47	47	47	130	6															
58/ 57		.2	1.1	1.0	.5	1.0	.5	.3									.43	43	43	161	7															
56/ 55		.3	.5	1.1	.6	.4											.28	28	28	159	18															
54/ 53		.8	1.1	.4	.2	.1											.24	24	24	142	28															
52/ 51		.6	.6	.3													.15	15	15	89	48															
50/ 49		.1	.3														.4	4	4	82	106															
48/ 47		.1	.3														.4	4	4	53	111															
46/ 45			.1														.1	1	1	20	105															
44/ 43																				9	93															
42/ 41																					90															
40/ 39																					97															
38/ 37																					66															
36/ 35																					56															
34/ 33																					32															
32/ 31																					19															
Elevation (X)	Σ X <sup>2</sup>			Σ X			X	σ <sub>x</sub>	No. Obs.			Mean No. of Hours with Temperature						Total																		
Rel. Hum.												≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F																			
Dry Bulb																																				
Wet Bulb																																				
Dew Point																																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 AUG  
STATION STATION NAME YEARS MONTH  
 PAGE 2 0900-1100  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
30/ 29																					23
28/ 27																					19
26/ 25																					1
24/ 23																					3
22/ 21																					1
TOTAL		2.6	4.8	5.8	5.7	7.0	9.1	10.0	10.5	9.9	9.8	7.7	6.3	3.2	4.0	1.6	1.0	930	930		930
																		930			

Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Dry Bulb	1919925	38597	41.9	18.503	930			59.5	39.0	17.2	.3	93
Wet Bulb	4671315	65311	70.2	9.550	930							93
Dew Point	2830750	51148	55.0	4.367	930							93
	1777359	40169	43.2	6.753	930		6.6					93

USAF ETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRQM AFB MT/GREAT FALLS 68-77

AUG  
 MONTH

PAGE 1 1200-1400  
 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31		Dry Bulb	Wet Bulb	Dew Point
106/105																	.1	1	1		
102/101																	.3	3	3		
100/99																	.1	1	1		
98/97																	.8	7	7		
96/95																	.8	7	7		
94/93																.4	3.2	34	34		
92/91															.3	1.0	3.3	43	43		
90/89													.1	1.3	1.5	2.3	48	48			
88/87												.2	.4	.4	1.0	1.6	.8	41	41		
86/85												.4	.6	1.2	2.0	.9	.3	51	51		
84/83									.1	.2	.3	.8	1.0	2.4	1.7	.1	.1	60	60		
82/81								.5	.5	1.5	1.3	1.8	1.2	1.0	.3			64	64		
80/79							.3	.6	1.6	1.3	1.9	.4	.5	.1				65	65		
78/77							.3	.6	1.6	1.3	1.9	.4	.5	.1				64	64		
76/75						.1	.5	1.1	2.3	1.6	1.0	.5	.3					71	71		
74/73						.2	.1	.4	1.4	1.0	1.3	.4	.5	.1				51	51		
72/71						.1	.5	1.3	1.1	.9	1.3	.5	.2					55	55		
70/69				.1		.3	1.2	1.2	1.2	.9	1.0	.4						58	58		
68/67				.2		1.0	1.1	1.4	.4	.5	.3							46	46		
66/65				.4		.4	1.0	.8	.3	.5	.1							33	33	15	
64/63		.1		.3	.5	.6	.5	.5	.3	.4								32	32	42	
62/61		.2	.3	.2	.1	.5	.6	.4										23	23	87	
60/59		.1	.1	.4	.8	1.1	.2											16	16	168	
58/57			.2	.3	.5	.1	.1											12	12	208	
56/55		.2	1.1	.4	.2	.1												19	19	145	
54/53		.5	.6	.1														12	12	101	
52/51		.1	.6															7	7	86	
50/49		.3																3	3	48	
48/47			.3															3	3	22	
46/45																				6	
44/43																				2	
42/41																					
40/39																					
38/37																					
Element (X)	Σ x²	Σ x	X	Σ x	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OLA) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE





DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

AUG

STATION

STATION NAME

YEARS

MONTH

PAGE 1

1500-1700

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																			TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥31	Dry Bulb	Wet Bulb		Dew Point		
104/103																		.3	3	3			
100/ 99																		.8	7	7			
98/ 97																		1.0	9	9			
96/ 95																		1.8	17	17			
94/ 93																	.2	4.8	47	47			
92/ 91																.1	1.1	4.4	52	52			
90/ 89														.3	.1	1.1	3.9	50	50				
88/ 87													.9	1.1	1.4	1.9	1.5	63	63				
86/ 85									.1				.1	1.2	2.3	1.8	.6	58	58				
84/ 83										.6		.6	.6	2.4	1.3	.9	.1	61	61				
82/ 81								.2	.2	.2	1.5	1.5	1.2	.6	.2			53	53				
80/ 79							.2	.2	.2	1.4	1.7	1.6	1.1	.9	.1			69	69				
78/ 77							.1	.3	.8	1.8	.9	1.5	.4					54	54				
76/ 75							.2	.5	1.2	1.1	1.6	.5	.3	.4				57	57				
74/ 73						.1	.5	1.4	1.7	1.5	.5	.3	.2					59	59				
72/ 71				.1	.1	.1	.9	1.2	.8	.3	1.1	.2	.2					46	47				
70/ 69					.1	.6	1.1	1.0	1.0	.4	1.2	.3	.2					55	56				
68/ 67					.1	.5	.8	.4	.2	.2								21	21	1			
66/ 65			.1		.1	.4	1.2	.9	.4	.2	.1							32	32	19			
64/ 63		.3	1.1	.5	.4	.8	.2	.1	.1									33	33	39			
62/ 61			.1	.6	.4	1.0	.4	.1	.1	.1								27	27	87			
60/ 59			.2	.3	.3	.2												10	10	173			
58/ 57			.1	.1	.9	.1												11	11	224			
56/ 55		.2	.6	.2	.3	.1												14	14	135			
54/ 53		.4	.4	.1														9	9	110			
52/ 51			.4	.2														6	6	67			
50/ 49			.2															2	2	45			
48/ 47		.1																1	1	17			
46/ 45		.2																2	2	8			
44/ 43																				3			
42/ 41																							
40/ 39																							
38/ 37																							
36/ 35																							
Element (X)	Σ x <sup>2</sup>	Σ x	X̄	s <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature						Total											
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F												
Dry Bulb																							
Wet Bulb																							
Dew Point																							

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE







DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112  
 STATION

MALMSTROM AFB MT/GREAT FALLS  
 STATION NAME

68-77  
 YEARS

YEARS

AUG  
 MONTH

PAGE 1

2100-2300  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL		TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
88/ 87																.1		1	1		
82/ 81										.1	.2			.2				5	5		
80/ 79								.1	.1	.3	.6	.1	.2	.1				15	15		
78/ 77								.1	.1	.3	.5	.2	.1					13	13		
76/ 75							.1	.3	.6	1.0	.5	.2	.1					22	22		
74/ 73						.2	.4	.9	.8	1.7	3.0	1.0	.3					43	43		
72/ 71					.3	.6	1.0	1.3	1.5	1.4	.1	.1						53	53		
70/ 69				.2	.4	.9	.8	1.7	3.0	1.0	.3	.5						77	77		
68/ 67			.1	.1	.4	2.3	1.8	1.6	1.4	.8	.6							68	69		
66/ 65		.2	.1	.4	1.1	1.8	1.4	2.6	1.1	.4								85	86		
64/ 63		.8	.2	.2	1.3	.6	1.7	1.3	1.0	.6								85	86	5	
62/ 61		.4	.9	2.2	1.6	1.7	1.4	1.1	.5	.1								72	72	16	
60/ 59		.9	2.6	1.9	1.7	1.0	1.1	1.2										92	92	31	8
58/ 57		.8	1.3	2.3	1.3	.4	.6	.4	.1									96	96	57	10
56/ 55		.9	1.6	1.3	.8	.8	.4	.2										67	67	122	12
54/ 53		.9	.5	1.1	.2	.2	.2	.1										55	55	166	40
52/ 51		.9	.6	.2	.1	.6												30	30	167	51
50/ 49		.6	.2	.1	.6													23	25	138	62
48/ 47		.6	.2	.3	.1													18	18	89	85
46/ 45		.5	.1	.1														7	7	64	95
44/ 43																				43	71
42/ 41																				16	78
40/ 39																				10	87
38/ 37																				3	70
36/ 35																					63
34/ 33																					66
32/ 31																					27
30/ 29																					29
28/ 27																					32
26/ 25																					21
24/ 23																					11
22/ 21																					5
20/ 19																					4
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE







DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

24112 Malmstrom AFB MT/Great Falls 68-77 AUG  
STATION STATION NAME YEARS MONTH

PAGE 2 ALL  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
38/ 37		0																1	1	44	623
36/ 35																				10	566
34/ 33																				1	462
32/ 31																					264
30/ 29																					213
28/ 27																					203
26/ 25																					100
24/ 23																					52
22/ 21																					25
20/ 19																					19
18/ 17																					3
TOTAL	.1	6.0	8.9	8.0	9.0	9.4	8.8	8.7	7.3	6.3	5.8	4.3	3.9	3.3	3.1	2.5	4.7		7440		7432
																		7432		7432	

Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature					Total	
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	19171888	340454	45.821	937	7432							
Dry Bulb	34083450	495232	66.612	265	7440			398.1	229.5	128.8	15.2	744
Wet Bulb	20916314	392108	52.8	550	7432			2				744
Dew Point	13245608	308750	41.5	7510	7432		88.0					744

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77

STATION STATION NAME YEARS

SEP  
 MONTH

PAGE 1 0000-0200  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
78/ 77													.1				1	1		
74/ 73													.1				1	1		
72/ 71												.2	.1				3	3		
70/ 69							.1				.2	.1					4	4		
68/ 67						.2	.1	.1		.3	.1	.1					9	9		
66/ 65						.3	.2	.4	.1	.2	.1	.1					12	12		
64/ 63						.2	.4	.3	.4	.2							15	15		
62/ 61			.2	.4	.6	.6	.7	.1									23	23		
60/ 59			.3	.6	.6	1.2	.3	.3									30	30		
58/ 57		.3	1.0	1.1	1.9	1.2	.2		.1								53	53	6	
56/ 55	.1	1.0	1.0	1.3	1.9	1.4	.3	.2									66	66	4	
54/ 53	.1	.7	1.3	2.1	1.9	.9	.2										65	65	24	
52/ 51		1.1	1.9	3.0	2.0	1.4											85	85	45	8
50/ 49	.3	1.2	3.0	3.0	1.2	.3											82	82	54	15
48/ 47	1.8	1.7	3.2	2.8	.7	.4											95	95	79	18
46/ 45	1.4	2.2	2.2	1.9	.8												77	77	111	39
44/ 43	1.8	2.2	2.1	1.1													65	65	114	52
42/ 41	1.0	1.3	1.8	.2													39	39	122	53
40/ 39	1.1	4.0	1.8														62	62	96	78
38/ 37	.3	1.0	2.2	.2													34	34	62	65
36/ 35	.2	.9	.3	.7													19	19	79	111
34/ 33	.4	.9	1.2	.1													24	24	39	85
32/ 31		.6	1.0	.1													15	15	16	94
30/ 29	1.1	.4															14	14	24	80
28/ 27		.2	.1														3	3	17	82
26/ 25		.3															3	3	6	40
24/ 23		.1															1	1	2	20
22/ 21																				33
20/ 19																				6
18/ 17																				1
TOTAL	1.0	12.8	21.1	21.0	17.6	12.2	8.4	2.7	1.2	.9	.6	.4	.1				900	900	900	900

Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature					Total	
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	3638677	55327	61.5	16.253	900							90
Dry Bulb	2173933	43539	48.4	8.675	900		3.6	1.8	.2			90
Wet Bulb	1619360	37752	41.9	6.310	900		6.5					90
Dew Point	1126992	31234	34.7	6.919	900		35.6					90

FORM 0-26-5 (OL A) REVISION PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE  
 USAF/AC JUL 64

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77

68-77

SEP

YEARS

MONTH

PAGE 1

0300-0500

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
72/ 71											.1						1	1		
70/ 69											.1	.2					3	3		
68/ 67										.1							1	1		
66/ 65					.3	.3			.1	.2	.1						10	10		
64/ 63					.3	.4	.3		.3	.1							14	14		
62/ 61					.4	.4	.6	.4	.4								21	21		
60/ 59					.7	.1	.9	.4	.2								21	21		
58/ 57		.2	.8	1.1	.3	.9	.1										31	31	5	
56/ 55	.1	.4	1.8	.8	1.8	.9			.1	.2							55	55	5	
54/ 53		.6	1.1	1.8	1.4	.6			.1								50	50	15	
52/ 51	.1	.8	1.4	2.7	1.1	.4	.1										60	60	29	
50/ 49	.1	2.2	2.9	2.6	1.2	.3											84	84	38	
48/ 47		2.2	3.4	1.7	1.1	.1											98	98	58	
46/ 45	.1	1.8	2.2	3.1	2.0	.7											89	89	115	
44/ 43	.1	1.8	2.2	2.0	1.0												64	64	106	
42/ 41		1.9	2.8	2.0	.4												64	64	114	
40/ 39	.1	1.4	3.9	.9	.1												58	58	94	
38/ 37	.2	1.0	3.2	1.0													49	49	85	
36/ 35	.2	1.8	1.1	.8													35	35	73	
34/ 35	.6	2.1	1.3	.2													38	38	56	
32/ 31	.2	.9	1.3														22	22	48	
30/ 29	.1	.9	.8														16	16	24	
28/ 27		.8	.3														10	10	25	
26/ 25		.3	.1														4	4	2	
24/ 23		.2															2	2	7	
22/ 21																			1	
20/ 19																				
18/ 17																			10	
16/ 15																			3	
TOTAL	1.7	17.4	25.9	21.4	15.9	9.0	5.0	1.1	1.3	.7	.3	.2					900	900	900	
Element (X)	Σ X <sup>2</sup>		Σ X		Σ		Σ		No. Obs.		Mean No. of Hours with Temperature									
Rel. Hum.	4040754		58596		65.1		15.847		900		≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total			
Dry Bulb	1988816		41594		46.2		8.602		900			5.4	.5				90			
Wet Bulb	1525987		36593		40.7		6.467		900			10.7					90			
Dew Point	1098237		30817		34.2		6.918		900			37.5					90			

USAFETAC FORM 41-41 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77

SEP  
 MONTH

PAGE 1 0600-0800  
 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)															TOTAL		TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
76/ 75																		1	1		
74/ 73								.1			.1	.1						3	3		
72/ 71								.2			.1							3	3		
70/ 69								.1		.3								4	4		
68/ 67						.1		.1	.2	.2	.2							8	8		
66/ 65						.2	.2	.1	.4	.1								10	10		
64/ 63				.1	.6	.1	.6	.8	.3	.7	.1							29	29		
62/ 61				.3	.3	.7	.7	1.0	.2									29	29		
60/ 59			.1	.4	.3	.7	.9	.7	.2	.2								32	32	1	
58/ 57			.2	1.1	.9	1.2	.9	.6	.1	.1								46	46	3	
56/ 55			.7	1.0	1.3	2.0	.8	.3										55	55	14	
54/ 53		.1	.2	1.3	2.1	2.1	1.1											63	63	20	4
52/ 51		.3	.6	1.9	3.1	1.6	.3											70	70	42	7
50/ 49		.2	2.2	2.3	1.6	1.3	.1											70	70	56	15
48/ 47		1.7	2.4	3.8	1.4	.3	.1											88	88	67	22
46/ 45		2.4	1.7	3.2	1.4	.2												81	81	122	25
44/ 43		2.8	2.2	2.0	.4													67	67	122	64
42/ 41		1.2	2.1	1.6	.9													52	52	116	64
40/ 39	.1	1.2	2.0	.7	.2													38	38	82	75
38/ 37	.1	.8	2.2	.4														32	32	63	107
36/ 35	.2	1.3	2.1	.4														37	37	46	100
34/ 33	.7	2.0	1.4	.1														38	38	57	89
32/ 31	.8	1.2	.1															19	19	38	76
30/ 29	.4	.8	.1															12	12	24	86
28/ 27		1.1																10	10	16	75
26/ 25	.1																	1	1	9	39
24/ 23		.1																1	1	1	21
22/ 21																					20
20/ 19	.1																	1	1	1	6
18/ 17																					4
16/ 15																					1
TOTAL	1.8	16.9	21.6	20.9	14.7	10.6	5.7	3.8	1.8	1.7	.6	.2						900	900	900	
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature					Total										
Rel. Hum.	3886735	57121	63.5	17.052	900	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	90									
Dry Bulb	2151193	43197	48.0	9.308	900		4.4	1.9	.4			90									
Wet Bulb	1616301	37671	41.9	6.630	900		8.9					90									
Dew Point	1149581	31565	35.1	6.878	900		32.8					90									

USAFETAC FORM 0-26-5 (CL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

SEP

STATION

STATION NAME

YEARS

MONTH

PAGE 1 0900-1100  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)															TOTAL D.B./W.B.	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28		29-30	≥ 31	Dry Bulb	Wet Bulb
86/ 85																.1		2	2	
82/ 81													.1			.1	.1	7	7	
80/ 79												.2	.1	.7	.3	.1		13	13	
78/ 77											.1	.1	.1	.3	.6	.1		14	14	
76/ 75											.2	.7	.9	1.1	.3			29	29	
74/ 73									.1	.1	.1	.3	.7	.9	.7			26	26	
72/ 71								.2	.2	.9	1.9	1.7	.4					48	48	
70/ 69						.1	.2	1.1	.3	2.2	.6	.6						46	46	
68/ 67						.2	.3	1.7	1.8	1.6	1.3	.7						51	51	1
66/ 65					.2	.3	1.7	1.8	1.6	1.4	.1							55	55	
64/ 63					.3	.6	1.1	1.7	1.4	.6		.2						53	53	1
62/ 61					.1	.9	2.3	2.2	.8	.2								59	59	5
60/ 59				.1	1.1	2.0	2.8	1.6	.4	.1	.1							74	74	11
58/ 57			.3	.6	1.0	2.8	1.6	.7	.1									63	63	25
56/ 55			.2	.6	1.6	1.8	1.6	.6	.1									57	57	58
54/ 53			.1	.9	1.6	2.1	1.1	.2										54	54	86
52/ 51			.9	.8	1.1	1.0	.7	.3										43	43	116
50/ 49		.8	1.1	1.1	1.4	.9	.2											50	50	127
48/ 47		.7	1.7	.7	.8	.4												38	38	124
46/ 45		.9	.8	1.0	.9	.3	.2											37	37	95
44/ 43		.7	.4	.6		.1												16	16	78
42/ 41		.3	.2	.1	.2													9	9	63
40/ 39		.1	.6	.4														10	10	29
38/ 37		.1	.8	.2														10	10	18
36/ 35	1.1	.3																13	13	12
34/ 33	.6	.2	.1															8	8	27
32/ 31	.8	.4	.1															12	12	11
30/ 29	.2	.1																3	3	8
28/ 27																				5
26/ 25																				56
24/ 23																				23
22/ 21																				10
20/ 19																				11
18/ 17																				5
																				3
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature					Total									
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F									
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) 0-26-5 (OL A) REVISOR PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 SEP  
STATION STATION NAME YEARS MONTH

PAGE 2 0900-1100  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																				TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point				
16/ 15																								2
TOTAL		6.2	8.2	7.2	10.4	13.6	14.1	11.8	8.1	7.9	5.1	3.8	2.3	.8	.3	.1					900			900
																					900		900	
Element (X)	Z <sub>x</sub> <sup>2</sup>	Z <sub>x</sub>	X	F <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature						Total												
Rel. Hum.	2308096	42480	47.2	8.360	900	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total												
Dry Bulb	3222386	52936	58.8	1.001	900		1.5	23.6	9.1	1.3		90												
Wet Bulb	2062379	42697	47.4	6.397	900		2.4	.1				90												
Dew Point	1249623	32997	36.7	6.657	900		23.8					90												

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 SEP  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 1200-1400  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	= 31	Dry Bulb	Wet Bulb	Dew Point															
96/ 95																	.1	1	1																
94/ 93																	.1	1	1																
92/ 91																	.2	2	2																
90/ 89																.1	.2	3	3																
88/ 87																.1	.2	3	3																
86/ 85												.2	.1	.1	.1	.1	.3	9	9																
84/ 83										.2	.1	.3	.1	.3	.7	.8	23	23																	
82/ 81									.1	.6	.2	.4	.9	1.3	.4	.1	37	37																	
80/ 79										.3	.4	1.7	1.1	.8	.1	.2	42	42																	
78/ 77								.1	.1	.3	.8	2.8	.9	.4	.1	.2	50	50																	
76/ 75								.3	.4	1.4	2.9	.8	.3	.1			57	57																	
74/ 73								.3	.6	1.0	1.9	1.1	.9	.2			54	54																	
72/ 71							.1	.4	1.6	1.6	1.4	1.1	.4	.1			61	61																	
70/ 69							.2	.6	1.8	1.4	.8	.9					51	51																	
68/ 67								.7	2.0	1.3	1.0	.1	.1				47	47																	
66/ 65						.2	.9	1.3	2.2	1.6	.4						60	60	6																
64/ 63					.1	.7	1.3	2.0	2.6	1.3	.1						73	73	3																
62/ 61				.1	.2	.4	1.1	1.4	1.0	.6	.1						45	45	12																
60/ 59			.1	.1	.3	.8	.9	1.2	1.6	.3							48	49	17																
58/ 57			.3	.2	.4	.4	1.0	.7	.1								29	29	43	1															
56/ 55			.1	.6	.4		1.3	.7	.7								34	35	100	3															
54/ 53		.4	.6	1.0	1.1	.7	.2	.1									37	37	161	2															
52/ 51	.1	1.0	.7	.4	.6	.1											26	26	106	8															
50/ 49	.2	.4	.3	.3	.2	.1											15	15	123	17															
48/ 47	.1	.8	.2	.3	.4	.2											19	19	97	27															
46/ 45	.2	.6	.4	.3	.1												15	15	51	32															
44/ 43	.1	.1	.3	.3													8	8	67	60															
42/ 41		.1	.2	.3													6	6	33	63															
40/ 39		.7	.1	.1													8	8	16	84															
38/ 37	.6	.7	.2														13	13	12	97															
36/ 35	.9	.3	.2														13	13	22	104															
34/ 33	.2	.4															6	6	14	104															
32/ 31	.1																1	1	10	66															
30/ 29	.1																1	1	5	72															
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$\%x$	No. Obs.	Mean No. of Hours with Temperature																													
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total																							
Dry Bulb																																			
Wet Bulb																																			
Dew Point																																			

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

SEP

STATION

STATION NAME

YEARS

MONTH

PAGE 2

1200-1400

HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	> 31		Dry Bulb	Wet Bulb	Dew Point
28/ 27																					66
26/ 25																					43
24/ 23																					13
22/ 21																					18
20/ 19																					15
18/ 17																					3
TOTAL		2.7	5.8	4.5	4.6	5.0	7.5	9.9	15.3	10.0	8.8	8.0	7.3	4.0	3.7	1.4	1.6	.898	900	898	898
Element (X)	$\sum X^2$	$\sum X$		$\bar{X}$	$\sigma_x$	No. Obs.		Mean No. of Hours with Temperature													
Rel. Hum.	1504166	33076		36.8	17.852	.898		≤ 0 F	≤ 32 F	≥ 47 F	≥ 73 F	≥ 80 F	≥ 93 F	Total							
Dry Bulb	3972879	58793		65.3	12.126	900			.2	44.1	28.2	10.1	.2	90							
Wet Bulb	2244547	44525		49.6	6.413	898			1.5					90							
Dew Point	1171592	31800		35.4	7.121	898			29.7					90							

USAF/AC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

SEP  
MONTH

PAGE 1

1500-1700  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
96/ 95																	.1	1	1	
94/ 93																	.2	2	2	
92/ 91																	.6	5	5	
90/ 89																.1	.1	2	2	
88/ 87															.2	.2	.2	6	6	
86/ 85											.2	.2	.1	.3	.6	.3	.3	19	19	
84/ 83											.3	.1	.7	.4	.4	.9	.3	29	29	
82/ 81											.3	.3	.6	.9	2.3	1.0	.2	51	51	
80/ 79										.1	.1	.7	.3	2.8	.8	.1	.1	45	45	
78/ 77										.8	.4	1.1	2.1	1.3	.7	.2		60	60	
76/ 75								.2	.7	.7	1.8	1.6	.7	.1	.1			52	52	
74/ 73								.2	.4	.9	1.3	1.2	1.1	.2				49	49	
72/ 71								.4	.9	1.3	.8	1.4	.4	.1				49	49	
70/ 69							.4	.4	1.6	1.3	1.8	1.3	.6					67	67	
68/ 67						.1	.2	.9	1.8	1.9	.8							51	51	
66/ 65					.1	.3	.8	.8	2.3	1.9	.7							60	60	3
64/ 63					.3	.2	.8	1.7	1.2	1.1	.7	.2						56	56	4
62/ 61					.3	.2	2.0	1.7	1.8									54	54	13
60/ 59				.2	.4	.3	.4	.7	.4	.2	.2							27	27	30
58/ 57			.1	.2	.4	.3	.9	1.3	.1	.1								30	30	53
56/ 55			.2	.4	.6	.7	.8	.2	.7									32	32	86
54/ 53			.4	.6	.6	1.0	.6	.6	.1									34	34	150
52/ 51		.2	.9	.6	.1	.4												20	20	114
50/ 49		.3	.4	.3	.1	.2	.2	.2										17	17	121
48/ 47			.1	.6	.8	.4	.3											20	20	95
46/ 45		.6	.1	.2	.6	.4	.1											18	18	77
44/ 43			.3	.1														4	4	46
42/ 41			.2	.2														4	4	20
40/ 39			1.1	.2														12	12	31
38/ 37		.3	.2	.1														6	6	12
36/ 35		.6		.9														13	13	27
34/ 33		.4																4	4	4
32/ 31	.1																	1	1	9
30/ 29																				5
Element (X)	Σx'	Σx	Σ	Σ	No. Obs.	Mean No. of Hours with Temperature						Total								
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F									
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALNSTROM AFB MT/GREAT FALLS

68-77

SEP  
 MONTH

PAGE 2 1500-1700  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb	Dew Point
28/ 27																					71
26/ 25																					33
24/ 23																					23
22/ 21																					24
20/ 19																					26
18/ 17																					81
16/ 15																					3
TOTAL	.1	2.4	4.2	4.4	4.0	4.6	5.9	9.4	11.4	12.1	8.3	8.4	7.4	7.0	5.2	2.9	2.0	900	900	900	
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total									
Rel. Hum.	1334603	30757	34.2	17.758	900	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	90									
Dry Bulb	4142788	60054	66.7	12.281	900		.1	48.8	32.1	14.1	.3	90									
Wet Bulb	2264820	44788	49.8	6.325	900		1.4					90									
Dew Point	1119951	31019	34.5	7.522	900		37.0					90									

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 SEP  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 1800-2000  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)															TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb
92/ 91																.2	2	2		
88/ 87																.1	2	2		
86/ 85																.1	1	1		
84/ 83														.3			3	3		
82/ 81										.1	.1	.1	.1	.2			6	6		
80/ 79									.1	.2	.4	.4	.1				12	12		
78/ 77								.1	.1	.2	.2	.4	.2	.2			14	14		
76/ 75							.1	.6	.4	.3	.4	.3	.3				23	23		
74/ 73								.3	.4	.8	1.3	.6					38	38		
72/ 71							.2	.2	.4	.6	1.0	.7	.2				30	30		
70/ 69							.2	.6	1.0	1.3	1.1	.7	.2				46	46		
68/ 67						.1	.3	1.3	.9	.9	.8	.2					41	41		
66/ 65						.3	.7	1.3	1.3	.9	.7	.1					48	48		
64/ 63			.2	.1	.2	.9	2.4	2.6	1.0	.2	.1						70	70		
62/ 61				.8	1.0	1.9	1.4	1.4	1.2	.1							71	71	5	
60/ 59			.2	.7	1.9	3.1	1.6	1.4	.1								81	81	16	
58/ 57		.1	.2	.7	1.4	2.1	1.7	.6									61	61	24	
56/ 55	.2	.3	.4	.6	1.2	2.6	.7	.2									56	56	44	
54/ 53		.8	.6	.6	1.7	1.2	.4	.3									50	50	76	2
52/ 51	.1	.9	1.0	1.7	.8	.4	.1										45	45	97	9
50/ 49	.6	.9	.2	.9	.6	.2											30	30	134	19
48/ 47	.3	.4	.4	1.9	.9	.3											39	39	110	33
46/ 45	1.0	.4	1.0	1.1	1.1												42	42	105	41
44/ 43		.9	.7	.3	.6												22	22	85	51
42/ 41	.2	.1	.3	.1													7	7	51	64
40/ 39	.4	1.1	.1	.2													17	17	51	64
38/ 37	.1	.1	.9	.2	.2												14	14	28	77
36/ 35	.4	.1	.1														6	6	30	83
34/ 33	.1	1.2	.6	.1													18	18	18	110
32/ 31	.2	.3															5	5	14	107
30/ 29																			10	57
28/ 27																			2	65
26/ 25																				42
24/ 23																				33
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 68 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

**PSYCHROMETRIC SUMMARY**

24112 STATION MALMSTROM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS SEP MONTH

PAGE 2 1800-2000 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																		TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point		
22/ 21																					23		
20/ 19																					13		
18/ 17																					6		
16/ 15																					1		
TOTAL	.2	4.9	7.9	5.9	9.8	11.8	14.2	12.2	11.3	7.4	5.6	3.9	2.3	1.4	.6	.2	.3	900	900	900	900		

Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						
						≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≥ 80 F	≥ 93 F	Total
Rel. Hum.	2082792	40002	44.4	18.414	900							
Dry Bulb	3221160	52920	58.8	11.033	900		.5	21.8	10.1	2.3		90
Wet Bulb	2007345	42101	46.8	6.494	900		2.6					90
Dew Point	1147053	31429	34.9	7.422	900		34.7					90

REF 04 V 40-3 (04-2)

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

SEP

STATION

STATION NAME

YEARS

MONTH

PAGE 1

2100-2300

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
78/ 77																		2	2	
74/ 73										.1								5	5	
72/ 71								.2	.1	.2	.1							6	6	
70/ 69								.2	.2	.1	.1	.7	.1					13	13	
68/ 67								.3	.2	.4	.3	.7	.1					19	19	
66/ 65					.2			.3	.4	.3	.9	.8						27	27	
64/ 63								.4	.4	1.2	.9	.8	.2					36	36	
62/ 61				.1	.6			.4	1.1	1.1	.7	.1						37	37	
60/ 59				.3	.8	1.2	1.8	1.7	.8				.1					60	60	4
58/ 57			.3	.8	1.6	1.9	1.4	1.1	.1									65	65	6
56/ 55		.1	.7	1.3	1.6	2.0	2.0	.9	.2									79	79	16
54/ 53		.1	.3	1.7	1.6	2.7	2.6	.6										85	85	33
52/ 51		.3	.8	1.6	1.8	2.2	.6	.2										67	67	49
50/ 49		.3	1.3	2.7	2.3	2.3	.6	.2										88	88	97
48/ 47		1.6	2.0	1.7	1.1	.4	.3											64	64	105
46/ 45		.8	1.0	1.7	1.3	.2												45	45	111
44/ 43		.7	1.8	1.4	1.1	.1												46	46	124
42/ 41		.8	.8	1.3	.9													34	34	88
40/ 39		.6	2.1	.9	.6													37	37	76
38/ 37	.3	.8	1.0	.3														22	22	51
36/ 35		.6	.6	.2														12	12	53
34/ 33	.4	1.1	.9	.1														23	23	33
32/ 31		.6	1.1															15	15	21
30/ 29		.7	.1															7	7	13
28/ 27	.2	.3																5	5	18
26/ 25		.1																1	1	2
24/ 23																				19
22/ 21																				23
20/ 19																				17
18/ 17																				1
TOTAL	1.0	9.3	14.8	16.3	15.8	15.2	11.8	7.2	4.0	2.7	1.1	.4	.1	.2				900	900	900
Element (X)	Σ x <sup>2</sup>		Σ x		X		x <sub>s</sub>		No. Obs.		Mean No. of Hours with Temperature					Total				
Revis. Num.	3096325		50343		55.9		17.658		900		≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total			
Dry Bulb	2465245		46339		51.5		9.395		900			2.8	4.5	.7			90			
Wet Bulb	1739437		39139		43.5		6.447		900			3.4					90			
Dew Point	1140865		31371		34.9		7.259		900			35.7					90			

FORM 0-26-5 (OL A) REVISD PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

USAFETAC

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

SEP

STATION

STATION NAME

YEARS

MONTH

PAGE 1

ALL

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
96/ 95																	.0	2	2	
94/ 93																	.0	3	3	
92/ 91																	.1	9	9	
90/ 89																	.0	5	5	
88/ 87															.0	.0	.0	11	11	
86/ 85											.1	.0	.0	.1	.1	.1	.1	31	31	
84/ 83									.0	.1	.1	.1	.1	.1	.1	.2	.0	55	55	
82/ 81								.0	.0	.1	.1	.2	.3	.5	.2	.0	.0	101	101	
80/ 79									.0	.1	.2	.4	.6	.2	.0	.0	.0	112	112	
78/ 77							.0	.0	.1	.1	.3	.8	.3	.2	.0	.0	.0	141	141	
76/ 75							.0	.2	.3	.4	.8	.4	.2	.0	.0	.0	.0	162	162	
74/ 73							.0	.1	.2	.4	.6	.6	.4	.1	.0	.0	.0	176	176	
72/ 71							.1	.2	.5	.7	.7	.5	.1	.0			.0	201	201	
70/ 69						.0	.2	.4	.6	.8	.7	.5	.1				.0	234	234	
68/ 67					.1	.3	.6	.9	.8	.5	.1	.0					.0	227	227	1
66/ 65					.3	.6	1.1	.8	.3	.0							.0	282	282	9
64/ 63			.0	.2	.4	.7	1.3	1.2	.7	.2	.1						.0	346	346	8
62/ 61			.1	.4	.6	1.1	1.3	.8	.5	.0							.0	339	339	35
60/ 59			.0	.3	.7	1.0	1.5	.9	.7	.1	.1						.0	373	374	79
58/ 57			.2	.6	.9	1.3	1.2	.8	.2	.1							.0	378	378	165
56/ 55		.1	.5	.9	1.0	1.4	1.4	.5	.3	.0							.0	434	435	327
54/ 53		.0	.4	1.0	1.4	1.8	1.1	.3	.1								.0	438	438	565
52/ 51		.2	.9	1.2	1.7	1.2	.5	.1									.0	416	416	598
50/ 49		.4	1.2	1.6	1.5	1.0	.3	.1									.0	436	436	750
48/ 47		1.0	1.4	1.8	1.3	.6	.2										.0	461	461	735
46/ 45	.0	1.1	1.1	1.6	1.2	.5	.0										.0	404	404	787
44/ 43	.0	1.0	1.3	1.2	.5	.1											.0	292	292	742
42/ 41		.7	1.0	.9	.4												.0	215	215	607
40/ 39	.0	.6	1.9	.6	.2												.0	242	242	475
38/ 37	.1	.6	1.4	.3	.0												.0	180	180	331
36/ 35	.1	.9	.6	.4													.0	148	148	342
34/ 33	.3	1.1	.8	.1													.0	159	159	248
32/ 31	.0	.5	.7	.0													.0	90	90	167
30/ 29	.1	.9	.2														.0	53	53	113
Element (X)	Z <sub>X</sub> <sup>2</sup>	Z <sub>X</sub>	X	σ <sub>X</sub>	No. Obs.	Mean No. of Hours with Temperature														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 64 JUL 64 0-26-5 (C-1 A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77

SEP

YEARS

MONTH

PAGE 2

ALL

HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																		TOTAL	TOTAL																																																																									
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point																																																																								
28/ 27	.0	.3	.1															28	28	83	578																																																																								
26/ 25	.0	.1	.0															9	9	19	308																																																																								
24/ 23		.1																4	4	10	169																																																																								
22/ 21																				1	175																																																																								
20/ 19	.0																	1	1	1	98																																																																								
18/ 17																					29																																																																								
16/ 15																					11																																																																								
<b>TOTAL</b>	<b>.7</b>	<b>9.1</b>	<b>13.7</b>	<b>12.7</b>	<b>11.6</b>	<b>10.2</b>	<b>9.1</b>	<b>7.3</b>	<b>6.8</b>	<b>5.4</b>	<b>3.8</b>	<b>3.2</b>	<b>2.5</b>	<b>1.7</b>	<b>1.2</b>	<b>.6</b>	<b>.5</b>	<b>7200</b>		<b>7198</b>																																																																									
																		<b>7198</b>		<b>7198</b>																																																																									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Element (X)</th> <th rowspan="2">Σ X<sup>2</sup></th> <th rowspan="2">Σ X</th> <th rowspan="2">X̄</th> <th rowspan="2">s<sub>x</sub></th> <th rowspan="2">No. Obs.</th> <th colspan="6">Mean No. of Hours with Temperature</th> <th rowspan="2">Total</th> </tr> <tr> <th>≤ 0 F</th> <th>≤ 32 F</th> <th>≥ 67 F</th> <th>≥ 73 F</th> <th>≥ 80 F</th> <th>≥ 93 F</th> </tr> </thead> <tbody> <tr> <td>Rel. Hum.</td> <td>21892148</td> <td>367702</td> <td>51.120</td> <td>7.83</td> <td>7198</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Dry Bulb</td> <td>23338400</td> <td>399372</td> <td>55.512</td> <td>8.35</td> <td>7200</td> <td>18.5</td> <td>147.0</td> <td>80.8</td> <td>27.8</td> <td>.5</td> <td></td> <td>720</td> </tr> <tr> <td>Wet Bulb</td> <td>15079776</td> <td>325268</td> <td>45.2</td> <td>7.279</td> <td>7198</td> <td>39.4</td> <td>.1</td> <td></td> <td></td> <td></td> <td></td> <td>720</td> </tr> <tr> <td>Dew Point</td> <td>9203894</td> <td>252232</td> <td>35.0</td> <td>7.123</td> <td>7198</td> <td>266.8</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>720</td> </tr> </tbody> </table>																						Element (X)	Σ X <sup>2</sup>	Σ X	X̄	s <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature						Total	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Rel. Hum.	21892148	367702	51.120	7.83	7198									Dry Bulb	23338400	399372	55.512	8.35	7200	18.5	147.0	80.8	27.8	.5		720	Wet Bulb	15079776	325268	45.2	7.279	7198	39.4	.1					720	Dew Point	9203894	252232	35.0	7.123	7198	266.8						720
Element (X)	Σ X <sup>2</sup>	Σ X	X̄	s <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature						Total																																																																																	
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F																																																																																		
Rel. Hum.	21892148	367702	51.120	7.83	7198																																																																																								
Dry Bulb	23338400	399372	55.512	8.35	7200	18.5	147.0	80.8	27.8	.5		720																																																																																	
Wet Bulb	15079776	325268	45.2	7.279	7198	39.4	.1					720																																																																																	
Dew Point	9203894	252232	35.0	7.123	7198	266.8						720																																																																																	

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISION PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTROM AFP MT/GREAT FALLS 68-77 OCT  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 0000-0200  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL D.B./W.B.	TOTAL			
	0	1	2	3-4	5	6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28		29-30	≥ 31	Dry Bulb	Wet Bulb
66/ 65											.1	.1								2	2	
64/ 63											.2	.1	.1				.1			5	5	
62/ 61											.1	.1	.1	.1						8	8	
60/ 59								.1			.1	.5								7	7	
58/ 57								.5	.8	1.1	.3									25	25	
56/ 55					.1			.9	1.5	.5	.1									29	29	
54/ 53				.1	.3	1.2	1.7	.5												36	36	
52/ 51			.8	.2	.9	1.6	2.0	.2	.1											54	54	
50/ 49		.1				2.2	1.4	.4	.1											47	47	4
48/ 47			.1	1.1	2.8	1.3	.2	.1												52	52	20
46/ 45			.4	2.3	3.0	1.1														63	63	33
44/ 43	.1	.9	.6	2.8	1.6	.5														61	61	73
42/ 41		.8	1.4	2.5	1.3		.1													56	56	85
40/ 39		1.2	2.3	1.9	1.3	.1														63	63	96
38/ 37		1.8	2.7	2.0	.3															64	64	91
36/ 35	.1	1.7	2.9	1.5	.2															60	60	93
34/ 33	.1	2.6	2.7	1.1	.2															62	62	74
32/ 31	.2	2.6	2.5	.4																53	53	96
30/ 29	.1	3.0	2.3	.5																55	55	65
28/ 27	.9	1.3	.6	.2																28	28	63
26/ 25	.6	2.2	.9	.2																36	36	34
24/ 23	.6	2.0	.2																	27	27	42
22/ 21	.4	1.0	.2																	15	15	30
20/ 19	.3	.3																		6	6	12
18/ 17		.3																		3	3	4
16/ 15		.3																		3	3	4
14/ 13		.1																		1	1	2
12/ 11		.1																		1	1	1
10/ 9		.2																		2	2	2
8/ 7																						10
6/ 5																						5
4/ 3		.3																		3	3	1
2/ 1	.1																			1	1	3
0/ -1																						1
Element (X)	$\sum X^2$	$\sum X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature																
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total										
Dry Bulb																						
Wet Bulb																						
Dew Point																						

USAFETAC FORM 44 JUL 64 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77

DC\*

PAGE 2 0000-0200  
 MONTH HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																														TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	>31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point														
-2/-3	.1																	1	1	1	3														
-4/-5	.1																	1	1	1	2														
<b>TOTAL</b>	<b>3.9</b>	<b>22.8</b>	<b>20.5</b>	<b>17.8</b>	<b>14.1</b>	<b>8.7</b>	<b>6.8</b>	<b>2.8</b>	<b>1.5</b>	<b>.6</b>	<b>.2</b>	<b>.1</b>	<b>.1</b>					<b>930</b>	<b>930</b>	<b>930</b>	<b>930</b>														

Element (X)	Z <sub>X</sub> <sup>2</sup>	Z <sub>X</sub>	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature					Total	
						≤ 0 F	≤ 32 F	≤ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	3919669	57969	62.318	1.159	930							93
Dry Bulb	1583060	37070	39.910	0.654	930	.2	23.0					93
Wet Bulb	132416	31948	34.4	0.689	930	.2	36.1					93
Dew Point	71540	24844	26.7	0.177	930	.6	74.6					93

USAFETAC FORM NR 44 0-26-5 (OL A) REVISION PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRUM AFB MT/GREAT FALLS 68-77  
 STATION STATION NAME YEARS  
 PAGE 1 0300-0500  
 MONTH HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point															
66/ 65								.1										1	1																	
64/ 63								.1	.1	.1								3	3																	
62/ 61							.1	.4	.3	.3								11	11																	
60/ 59							.1	.1	.4	.2								8	8																	
58/ 57						.4	.6	.3	.3									16	16																	
56/ 55					.4	.8	.9	.3	.1									23	23																	
54/ 53			.1	.2	.2	1.2	1.2	.4										29	29																	
52/ 51		.1	.2	.2	1.3	1.3	.4											35	35																	
50/ 49		.1	.2	1.3	2.3	1.1												46	46	5																
48/ 47	.1	.3	1.4	2.0	1.2	.2												49	49	20																
46/ 45	.4	.1	2.4	2.8	1.5	.2												69	69	23	2															
44/ 43	.9	.1	3.1	1.2	.3													52	52	57	4															
42/ 41	.3	1.0	2.5	1.2	.3													49	49	65	12															
40/ 39	1.5	.3	2.0	1.2														65	65	91	9															
38/ 37	1.4	3.0	1.6	.8														63	63	93	22															
36/ 35	.1	1.5	3.1	1.3	.2													77	77	93	39															
34/ 33	.1	2.0	2.5	.9	.2													58	58	93	60															
32/ 31	.5	2.7	2.0	1.2														60	60	89	93															
30/ 29	.0	3.0	1.9	.4														59	59	79	124															
28/ 27	1.1	1.8	.9	.3														38	38	59	150															
26/ 25	.5	2.3	1.1	.1														37	37	44	91															
24/ 23	1.5	1.4	.1															28	28	47	68															
22/ 21	.5	1.9	.3															26	26	31	81															
20/ 19	.2	1.1	.3															15	15	20	55															
18/ 17	.3																	3	3	9	38															
16/ 15																				2	33															
14/ 13																					23															
12/ 11																					8															
10/ 9		.3																3	3	2	1															
8/ 7	.1																	1	1	2	4															
6/ 5																					5															
4/ 3																					2															
2/ 1	.3																	3	3	3																
0/ -1	.2																	2	2	2	2															
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature																														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total																								
Dry Bulb																																				
Wet Bulb																																				
Dew Point																																				

USAFETAC FORM 0-26-5 (OLA) JUL 64 AND PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77

OCT  
MONTH

PAGE 2 0300-0500  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																					TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point				
-2/-3	.1																	1	1	1	3				
-4/-5																					1				
TOTAL	6.3	25.6	19.2	17.7	11.7	9.5	5.7	2.2	1.3	.6	.1							930	930	930	930				

Element (X)	$\sum x^2$	$\sum x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature						Total
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	4174163	59875	64.418	18.539	930							93
Dry Bulb	1485325	35835	38.510	7.607	930	.3	27.6					93
Wet Bulb	1097453	31135	33.5	7.761	930	.3	39.0					93
Dew Point	687366	24422	26.3	7.040	930	.6	78.2					93

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 OCT  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 0600-0800  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	≥ 31	Dry Bulb	Wet Bulb
66/ 65									.1	.1								3	3	
64/ 63								.3	.3	.3								9	9	
62/ 61							.1	.2	.3	.4	.1							11	11	
60/ 59							.4	.3	.4	.2								13	13	
58/ 57					.1	.5	1.4	.3	.2									24	24	
56/ 55					.2	.8	.8	.3	.5									24	24	
54/ 53				.1	.2	1.2	.6	.5	.1									26	26	
52/ 51					.9	1.5	1.1	.3										35	35	
50/ 49				.4	1.4	1.6	.6	.3										41	41	9
48/ 47			.3	1.1	2.3	1.4	.3											50	50	22
46/ 45		.5	.5	1.2	3.7	1.2	.1											67	67	31
44/ 43		1.2	.3	2.2	1.7	.3												53	53	60
42/ 41		.4	1.0	2.8	1.3	.2												53	53	70
40/ 39		.6	3.3	1.7	1.2	.3												67	67	77
38/ 37		2.2	2.7	1.5	.8													66	56	92
36/ 35	.1	2.3	2.3	.9	.1													52	52	108
34/ 33	.1	3.2	2.2	.9	.2													61	61	71
32/ 31	.6	4.0	1.8	1.1														70	70	93
30/ 29	.4	3.0	.9	.8														47	47	82
28/ 27	1.4	2.2	.8	.3														43	43	53
26/ 25	1.0	1.3	.6															27	27	45
24/ 23	1.3	2.4	.1															35	35	34
22/ 21	.8	.9																15	15	33
20/ 19	.9	1.2																19	19	18
18/ 17	.2	.2	.1															5	5	10
16/ 15	.1	.2																3	3	3
14/ 13		.2																2	2	3
12/ 11																				1
10/ 9		.1																1	1	6
8/ 7																				2
6/ 5	.1																	1	1	1
4/ 3	.1	.1																2	2	1
2/ 1	.1	.1																2	2	3
0/ -1	.2																	2	2	2
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature					Total									
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F									
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISION PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

## PSYCHROMETRIC SUMMARY

24112 STATION Malmstrom AFB MT/GREAT FALLS 68-77 YEARS OCT MONTH

PAGE 2 0600-0800 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31		Dry Bulb	Wet Bulb	Dew Point
-2/-3	.1																	1	1	1	2
-4/-5																					1
-6/-7																					2
TOTAL	7.5	26.2	16.9	14.8	14.0	9.0	5.5	2.7	2.0	1.1	.1	.1						930	930	930	
																		930	930		

Element (X)	$\sum x^2$	$\sum x$	$\bar{x}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total
Rel. Hum.	4173460	59620	64.1	19.448	930							
Dry Bulb	1530265	36277	39.0	11.135	930	.3	27.5					93
Wet Bulb	1119160	31410	33.8	7.923	930	.3	39.0					93
Dew Point	697316	24608	26.5	7.051	930	.6	77.9					93

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 OCT  
 STATION STATION NAME YEARS MONTH  
 PAGE 2 0900-1100  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
12/ 11		.1																1	1	1	6
10/ 9		.2																2	2	1	6
8/ 7																			1	1	2
6/ 5																					2
<b>TOTAL</b>	3.4	13.0	10.0	9.7	11.9	15.3	11.2	7.0	6.6	3.4	4.5	1.9	1.2	.6	.1		929	930	929	929	

Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	2811498	47208	50.8	21.085	929							
Dry Bulb	2310446	44768	48.1	12.934	930		11.5	7.9	2.2	.1		93
Wet Bulb	1479201	36353	39.1	7.814	929		18.3					93
Dew Point	786497	26333	28.3	6.571	929		67.9					93

USAFETAC FORM 0-26-5 (OLA) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

OCT  
 MONTH

PAGE 1 1200-1400  
 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
82/ 81														.2	.5	.2		9	9		
80/ 79													.2	.1	.4	.2		9	9		
78/ 77												.1	.2	1.3	.6			21	21		
76/ 75												.2	.9	1.0				19	19		
74/ 73											.3	.8	1.0	.5				24	24		
72/ 71									.2		.4	1.3	.4	.1				23	23		
70/ 69									1.4	1.5	1.4	.3						43	43		
68/ 67								.3	2.0	.8	.3	.1						33	33		
66/ 65							.6	.6	1.8	.6	.6							41	41		
64/ 63						.1	.5	1.2	1.6	.8	.3							42	42		
62/ 61					.2	.6	.5	1.7	.5	.3	.1							38	38		
60/ 59					.1	.6	1.7	1.5	.4									41	41		
58/ 57					.2	.1	.9	2.9	.5	.3								46	46		
56/ 55					.5	1.4	2.9	2.3	.6	.1								73	73	10	
54/ 53				.1	.2	1.0	2.9	2.5	.4									66	66	21	
52/ 51				.5	.9	3.8	1.3	.1										61	61	77	
50/ 49				.1	1.1	1.7	1.4	.3										43	43	95	
48/ 47			.2	.4	.9	1.2	1.3											37	37	65	
46/ 45		.3	.8	1.0	1.3	1.2	.6	.3										51	51	89	
44/ 43		.6	1.1	.6	.3	.5												30	30	99	3
42/ 41		.4	.5	.3	.6	.5	.3											26	26	104	10
40/ 39		.2	1.4	.6	.3	.2	.1											27	27	107	27
38/ 37		.9	1.1	.2	.4													24	24	63	39
36/ 35		.3	1.0	.5														17	17	51	52
34/ 33	.3	.5	.4	.8														19	19	31	87
32/ 31	.4	1.1	.1	.3														18	18	34	115
30/ 29	.2	1.1	.1															13	13	34	118
28/ 27	.1	1.4	.2	.2														18	18	22	126
26/ 25	.1	.6	.2															9	9	10	99
24/ 23																				8	78
22/ 21																				1	45
20/ 19		.3																3	3	2	52
18/ 17		.3																3	3	1	28
16/ 15		.2																2	2	3	22
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature															
Ref. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OLA) JUL 64 REVISOR PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

OCT

STATION

STATION NAME

YEARS

MONTH

PAGE 2

1200-1400

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point		
14/ 13		.1																1	1	2	9		
12/ 11																				1	5		
10/ 9																					6		
8/ 7																					5		
4/ 3																					3		
2/ 1																					1		
TOTAL	1.2	7.8	6.7	5.7	6.8	8.8	16.1	13.1	7.1	8.5	4.7	5.2	3.0	3.2	1.6	.4	930	930	930	930			
Element (X)	Σ X <sup>2</sup>		Σ X		X	Σ X	No. Obs.										Mean No. of Hours with Temperature						
Rel. Hum.	1942652		38122		41.0	20.224	930										≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total
Dry Bulb	2885401		50277		54.1	13.422	930											6.7	18.1	8.2	1.0		93
Wet Bulb	1671044		38802		41.7	7.491	930											11.8					93
Dew Point	760833		25859		27.8	6.709	930											71.2					93

USAFETAC FORM 0-26-5 (OLA) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77

68-77

OCT

STATION

STATION NAME

YEARS

MONTH

PAGE 1

1500-1700

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)															TOTAL	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
84/ 83															.1			1	1		
82/ 81															.3			3	3		
80/ 79														.2	.2			13	13		
78/ 77													.3	1.0	.5	.1		17	17		
76/ 75										.3	.1	1.2	1.1				25	25			
74/ 73										.5	.5	.9	.2				20	20			
72/ 71										.3	.8	.9	.5				23	23			
70/ 69										.6	1.9	.5	.2				31	31			
68/ 67										.4	1.3	1.4	.5	.1			35	35			
66/ 65								.6	1.4	1.4	1.2	.4					54	54			
64/ 63							.1	.6	1.0	1.6	.9	.3					42	42			
62/ 61							.4	.5	1.5	.6	.2						31	31			
60/ 59					.1	.1	.5	1.7	1.7	.2	.2						43	43			
58/ 57					.5	1.3	1.9	1.5	.4								53	53			
56/ 55				.1	.2	.9	2.0	2.2	.5								55	55	9		
54/ 53				.1	.3	1.5	1.8	2.7	.5								65	65	22		
52/ 51				.3	.4	1.2	2.6	1.3	.2								56	56	68		
50/ 49			.2	.5	.6	1.3	2.6	.5									54	54	92		
48/ 47		.1	.2	1.1	.8	2.9	.8										54	54	76		
46/ 45		.1	.3	1.0	1.2	1.8	.4	.2									47	47	87		
44/ 43		.1	.6	.4	.4	.6	.6										27	27	100	6	
42/ 41		.6	.9	.2	.8	.1	.4	.1									29	29	93	8	
40/ 39		.8	1.0	.9	.5	.3											32	32	104	26	
38/ 37		.3	.1	.4	.6												14	14	81	42	
36/ 35		.5	1.0	.4	.2												20	20	44	60	
34/ 33	.2	1.1	.6	.5	.1												24	24	30	89	
32/ 31	.1	.9	.5														14	14	39	109	
30/ 29	.3	.3	.3	.1													10	10	33	94	
28/ 27	.2	1.7	.3	.1													22	22	21	105	
26/ 25	.1	.3															4	4	11	105	
24/ 23	.1	.2															3	3	9	83	
22/ 21																			2	71	
20/ 19		.2															2	2	1	41	
18/ 17		.1															1	1	2	34	
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature					Total										
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F										
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTROM AFB MT/GREAT FALLS 68-77  
STATION STATION NAME YEARS

OCT  
MONTH

PAGE 2 1500-1700  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)															TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28		29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point
16/ 15		.4	.1															5	5	3	21
14/ 13																				2	14
12/ 11		.1																1	1		7
10/ 9																				1	9
6/ 5																					1
4/ 3																					2
2/ 1																					2
0/ -1																					1
TOTAL	1.1	8.0	6.2	6.2	6.3	11.3	13.7	12.5	8.8	7.3	7.2	3.5	3.4	2.5	1.8	.1		930	930	930	930
Element (X)	Σ x <sup>2</sup>		Σ x		·x̄		·x̄		No. Obs.		Mean No. of Hours with Temperature						Total				
Rel. Hum.	1921604		37948		40.8		20.042		930		≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F			93		
Dry Bulb	2861303		50075		53.8		13.329		930				6.2	16.8	7.9	.9			93		
Wet Bulb	1659333		38655		41.6		7.529		930				12.4						93		
Dew Point	750279		25619		27.5		6.925		930		.1	69.9							93		

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISION PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
YEARS

OCT  
MONTH

PAGE 1 1800-2000  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
74/ 73													.1					1	1		
72/ 71											.2	.1	.3					6	6		
70/ 69											.3	.4						7	7		
68/ 67									.1	.2	.2							5	5		
66/ 65								.1	.1	.4	.5							11	11		
64/ 63								1.3	1.2	.4	.1							28	28		
62/ 61							.3	1.1	1.7	.9	.1							38	38		
60/ 59						.1	.5	1.2	1.3	.2								31	31		
58/ 57						.3	2.2	1.1	.3	.1								37	37		
56/ 55				.1	.2	1.4	1.2	1.4	.6	.1								47	47		
54/ 53			.1		1.4	2.0	1.5	.5	.2	.1								55	55		
52/ 51			.1	.9	2.2	1.4	1.1	.1										53	53	7	
50/ 49			.1	.8	1.6	1.8	1.3	.3										55	55	30	
48/ 47		.1	.6	1.1	1.8	2.5	1.1											67	67	49	
46/ 45		.2	1.1	.6	3.2	1.8	.4											69	69	89	1
44/ 43		.2	1.0	2.9	1.7	1.4												67	67	88	3
42/ 41		.5	1.1	1.8	1.3	.8	.1											52	52	90	6
40/ 39		1.4	2.4	2.2	.6	.3	.1											65	65	88	17
38/ 37		1.2	.8	1.5	.8	.5												44	44	122	43
36/ 35		.9	1.4	1.2	.5													37	37	93	53
34/ 33	.1	1.6	.9	1.1	.6													40	40	55	104
32/ 31	.2	1.6	.6	.4	.2													30	30	59	115
30/ 29		1.0	.5	.2														16	16	48	79
28/ 27	.4	1.7	.3															23	23	42	123
26/ 25	.1	1.5	.4															19	19	25	93
24/ 23	.1	1.0																10	10	21	72
22/ 21	.3	.2																5	5	11	70
20/ 19		.1																1	1	1	58
18/ 17		.1																1	1	1	32
16/ 15	.1	.3																4	4	5	22
14/ 13																					10
12/ 11	.1	.1																2	2	2	7
10/ 9		.1																1	1		16
8/ 7	.1																	1	1	2	1
Element (X)	$\Sigma X'$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE  
 JUL 64

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRÖM AFB MT/GREAT FALLS 68-77  
 STATION STATION NAME YEARS MONTH  
 PAGE 2 1800-2000  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																				TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point			
6/ 5	.1																	1	1	1	1			
4/ 3	.1																	1	1	1	1			
2/ 1																					2			
0/ -1																					1			
<b>TOTAL</b>	1.9	13.9	11.3	14.0	14.9	15.2	10.1	8.1	5.7	2.5	1.5	.5	.4					930	930	930	930			
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature																		
Rel. Hum.	2907409	48795	52.5	19.333	930	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total												
Dry Bulb	2053565	42413	45.6	11.324	930		11.5	1.9	.1			93												
Wet Bulb	1363539	34941	37.6	7.393	930		21.9					93												
Dew Point	738019	25391	27.3	6.944	930	.1	70.3					93												

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTROM AFB MT/GREAT FALLS 68-77 OCT  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 2100-2300  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
68/ 67																	.3	3	3	
66/ 65																	.1 .1	2	2	
64/ 63												.1	.2				.1 .1	7	7	
62/ 61												.9	.3				.1	12	12	
60/ 59										.1	.4	1.0	.6					20	20	
58/ 57										.3	.5	1.2	.6					25	25	
56/ 55								.1	1.1	1.7	1.0							36	36	
54/ 53			.1					.6	1.4	1.3	.3	.1						37	37	
52/ 51			.2	.3	1.4	2.3	1.3	.3										54	54	
50/ 49			.1	.4	2.7	1.3	.4	.1										47	47	4
48/ 47				1.6	2.6	1.3	1.1											61	61	27
46/ 45			.6	1.3	2.8	1.0	.1											54	54	46 2
44/ 43		.4	.8	2.5	2.7	1.2												70	70	81 1
42/ 41	.2	.4	1.6	2.5	1.8	.3												64	64	95 8
40/ 39		1.2	1.9	2.3	1.2													61	61	78 10
38/ 37	.1	1.7	2.4	1.6	1.1													64	64	101 33
36/ 35	.4	1.8	3.0	1.5	.4	.1												68	68	111 55
34/ 33	.1	1.7	1.6	1.6	.3													50	50	73 93
32/ 31	.3	2.2	1.9	.6	.5													52	52	80 103
30/ 29		3.0	1.4	.5	.1													47	47	61 111
28/ 27	.6	1.4	.6															25	25	59 121
26/ 25	.3	1.6	.5	.1														24	24	39 86
24/ 23	.5	1.4	.1															19	19	32 68
22/ 21	.9	.9																13	13	23 67
20/ 19		.2																2	2	7 68
18/ 17																				40
16/ 15		.4																4	4	3 18
14/ 13		.2																2	2	2 14
12/ 11		.1																1	1	2 8
10/ 9																				13
8/ 7																				3
6/ 3																				2
4/ 3	.1	.1																2	2	1 1
2/ 1	.3	.1																4	4	4
Element (X)	Z <sub>X</sub> <sup>2</sup>	Z <sub>X</sub>	$\bar{X}$	$\sigma^2$	No. Obs.	Mean No. of Hours with Temperature														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 64 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
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PSYCHROMETRIC SUMMARY

24112 MALNSTRON AFB MT/GREAT FALLS 68-77 OCT  
STATION STATION NAME YEARS MONTH

PAGE 2 2100-2300  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																					TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point					
0/ -1																								1	
-2/ -3																									4
-4/ -5																									1
TOTAL	3.7	18.9	17.0	16.9	18.5	10.3	6.9	4.8	1.9	.1	.3	.4	.2									930		930	
																						930		930	
Element (X)	Σ X <sup>2</sup>		Σ X		X̄		s <sub>x</sub>		No. Obs.		Mean No. of hours with Temperature						Total								
Rel. Hum.	3635243		55541		59.718		5.09		930		≤ 0 F	≤ 32 F	≥ 67 F	≥ 77 F	≥ 80 F	≥ 93 F	93								
Dry Bulb	1687540		38366		41.310		6.21		930			19.5	.3				93								
Wet Bulb	1201988		32704		35.27		4.77		930		.1	31.4					93								
Dew Point	717541		24981		26.97		7.076		930		.5	72.8					93								

USAFETAC FORM 0-26.5 (OLA) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRQM AFB MT/GREAT FALLS

68-77

OCT

STATION

STATION NAME

YEARS

MONTH

PAGE 1

ALL

HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	≥31	Dry B. Bulb	Wet Bulb
84/ 83															.0			1	1	
82/ 81															.0	.1	.0	12	12	
80/ 79													.1	.1	.2	.0		23	23	
78/ 77													.0	.1	.3	.1		41	41	
76/ 75											.1	.1	.2	.3	.0			52	52	
74/ 73											.1	.2	.3	.1				55	55	
72/ 71										.1	.2	.4	.2	.0				62	62	
70/ 69									.0	.3	.7	.4	.1					107	107	
68/ 67									.1	.5	.5	.2	.0					97	97	
66/ 65								.2	.5	.7	.4	.1						142	142	
64/ 63							.0	.4	.8	.6	.3	.1	.0					169	169	
62/ 61						.0	.2	.6	.9	.4	.1	.1						178	178	
60/ 59					.0	.1	.5	1.0	.9	.2	.0							200	200	
58/ 57					.1	.4	1.2	1.3	.5	.2								272	272	
56/ 55			.1	.2	1.2	1.5	1.1	.3	.0									333	333	20
54/ 53			.0	.1	.5	1.4	1.7	1.0	.2	.0								364	364	52
52/ 51			.1	.2	.7	1.8	1.9	.7	.1									403	403	179
50/ 49		.0	.1	.5	1.5	1.7	1.1	.2										380	380	307
48/ 47		.0	.2	1.0	1.9	1.7	.8	.0										424	424	354
46/ 45		.3	.5	1.4	2.6	1.3	.3	.1										482	482	489
44/ 43	.0	.5	.6	2.1	1.4	.7	.2											413	413	527
42/ 41	.0	.5	1.1	1.7	1.1	.4	.1	.0										372	372	688
40/ 39		.9	2.0	1.7	.9	.2	.0											434	434	733
38/ 37	.0	1.4	1.7	1.2	.7	.1												381	381	742
36/ 35	.1	1.5	2.0	1.0	.2	.0												362	362	664
34/ 33	.2	1.8	1.5	.9	.2													340	340	485
32/ 31	.4	2.0	1.3	.6	.1													328	328	549
30/ 29	.3	1.9	1.0	.3	.0													269	269	438
28/ 27	.7	1.6	.5	.1														216	216	354
26/ 25	.4	1.3	.5	.1														169	169	228
24/ 23	.6	1.1	.1															132	132	210
22/ 21	.3	.6	.1															78	78	135
20/ 19	.2	.5	.0															55	55	68
18/ 17	.0	.2	.0															16	16	30
Element (X)	ΣX <sup>2</sup>		ΣX		Σ	Σ <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature						Total						
Rel. Hum.							≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total							
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRÖM AFB MT/GREAT FALLS 68-77 OCT  
 STATION STATION NAME YEARS MONTH

PAGE 2 ALL  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																			TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point		
16/ 15	.0	.3	.0															24	24	24	189		
14/ 13	.0	.1																8	8	15	115		
12/ 11	.0	.1																6	6	8	57		
10/ 9																		9	9	6	67		
8/ 7	.0																	2	3	6	22		
6/ 5	.0																	2	2	2	13		
4/ 3	.0	.1																8	8	4	12		
2/ 1	.1	.0																10	10	13	7		
0/ -1	.1																	4	4	5	6		
-2/ -3	.0																	3	3	3	12		
-4/ -5	.0																	1	1	1	5		
-6/ -7																					2		
<b>TOTAL</b>	<b>3.6</b>	<b>17.0</b>	<b>13.5</b>	<b>12.9</b>	<b>12.3</b>	<b>11.0</b>	<b>9.5</b>	<b>6.6</b>	<b>4.4</b>	<b>3.0</b>	<b>2.3</b>	<b>1.5</b>	<b>1.0</b>	<b>.8</b>	<b>.4</b>	<b>.1</b>		<b>7439</b>	<b>7440</b>	<b>7439</b>	<b>7439</b>		
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total											
Rel. Hum.	25485698	405078	54.5	21.468	7439	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	744											
Dry Bulb	16396905	335083	45.0	13.247	7440	.8	134.1	45.0	18.4	2.0		744											
Wet Bulb	10744134	275948	37.1	8.263	7439	.9	209.9					744											
Dew Point	5849391	202057	27.2	6.968	7439	2.5	582.8					744											

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRUM AFB MT/GREAT FALLS 68-77

NOV  
 MONTH

PAGE 1 0000-0200  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dr. Bulb	Wet Bulb
60/ 59									.1								1	1		
58/ 57								.2									3	3		
56/ 55							.7	.3	.1								11	11		
54/ 53					.2	.2	.6	.1	.4								14	14		
52/ 51					.8	.7	.4										17	17		
50/ 49			.3	.8	.6	.7	.6										26	26		
48/ 47			.2	.9	.9	.7	.2										26	26		
46/ 45			.1	1.1	1.7	1.7	.2										43	43	4	
44/ 43			.7	.8	2.1	1.4	.1										46	46	14	
42/ 41		.3	.7	2.0	1.6	.3	.2										46	46	33	
40/ 39		.3	1.1	1.9	1.6	1.3											56	56	44	1
38/ 37		.6	.6	2.1	.8	.3											39	39	53	6
36/ 35	.1	.4	1.4	2.2	1.0	.2											49	49	79	9
34/ 33	.3	1.4	2.1	1.9	.4												56	56	62	37
32/ 31		1.4	2.6	1.8													52	52	70	33
30/ 29	.1	2.7	2.2	1.0	.1												55	55	79	42
28/ 27	1.6	2.4	3.4	.2													69	69	80	70
26/ 25	1.0	3.0	1.4	.1													50	50	72	83
24/ 23	1.0	1.2	1.4														33	33	68	74
22/ 21	.6	1.6	1.0														28	28	31	88
20/ 19	.6	2.2	.2														27	27	39	70
18/ 17		1.2															11	11	22	61
16/ 15	.3	1.0	.1														13	13	16	72
14/ 13	.7	1.6	.2														22	22	16	57
12/ 11	.9	1.7	.1														24	24	26	35
10/ 9	1.1	.7															16	16	20	36
8/ 7	.3	.4															7	7	9	31
6/ 5	.2	.3															5	5	5	16
4/ 3	.7	.6															11	11	10	7
2/ 1	.4	.9															12	12	14	6
0/ -1	.7	.2															8	8	8	9
-2/ -3	.3	.6															8	8	9	9
-4/ -5	.3	.1															4	4	5	12
-6/ -7	.3	.1															4	4	3	6
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OLA) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112  
 STATION

MALMSTRUM AFB NY/GREAT FALLS  
 STATION NAME

68-77  
 YEARS

NOV  
 MONTH

PAGE 2

0000-0200  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-8/-9	.1																	1	1	2	4
-10/-11	.6																	5	5	5	10
-12/-13																					7
-14/-15	.2																	2	2	2	3
-16/-17																					1
-18/-19																					2
-20/-21																					1
-22/-23																					1
-24/-25																					1
TOTAL	12.4	27.0	19.4	15.7	11.1	7.8	3.8	1.8	.8	.2								900		900	900
																		900		900	
Element (X)	Σ X <sup>2</sup>	Σ X	Σ X	Σ X	Σ X	No. Obs.	Mean No. of Hours with Temperature						Total								
Rel. Hum.	3920438	57144	63.5	18.028	900	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	90									
Dry Bulb	1020040	27594	30.7	13.912	900	3.2	46.7					90									
Wet Bulb	738546	23718	26.4	11.236	900	3.4	61.1					90									
Dew Point	407542	16636	18.5	10.549	900	6.6	54.7					90									

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTROM AFB MT/GREAT FALLS 68-77 NOV  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 0300-0500  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
58/ 57								.1									1	1		
56/ 55						.3	.4	.1	.2								10	10		
54/ 53						.2	.8	.7	.1								16	16		
52/ 51					.2	.4	.7	.6	.3								20	20		
50/ 49				.2	.7	.3	.2	.2	.1								16	16		
48/ 47			.1	.2	1.1	.3	.1	.2									19	19		
46/ 45				.8	1.7	1.4	.6	.2									42	42	3	
44/ 43			.9	1.7	1.4	1.1	.1										47	47	14	
42/ 41		.8	.4	1.1	1.2	1.6	.1										47	47	23	
40/ 39		.4	1.2	2.1	1.2	.9											53	53	64	1
38/ 37		.1	1.6	2.8	1.0	.2											51	51	41	11
36/ 35		.8	1.2	2.2	1.3												50	50	53	10
34/ 33	.1	1.2	1.0	2.1	.8												47	47	76	28
32/ 31	.2	1.4	1.7	1.7	.4												49	49	72	45
30/ 29	.7	1.8	2.6	.6	.1												51	51	76	41
28/ 27	1.0	3.1	3.0	.3													67	67	78	69
26/ 25	1.3	2.7	1.8	.2													54	54	74	71
24/ 23	.7	2.3	1.1														37	37	62	65
22/ 21	.9	1.9	.4														29	29	50	76
20/ 19	.9	1.8	.1														25	25	28	69
18/ 17	.7	2.0	.1														25	25	30	71
16/ 15	.3	1.1	.3														16	16	20	79
14/ 13	.8	1.3															19	19	17	65
12/ 11	1.0	.2	.2														13	13	20	35
10/ 9	.8	1.0															16	16	11	37
8/ 7	.2	.9	.1														11	11	14	25
6/ 5	.4	.6															9	9	9	10
4/ 3	.2	1.6															16	16	12	5
2/ 1	.3	.6															8	9	14	10
0/ -1	1.2	.7															17	17	14	10
-2/ -3	.1	.2															3	3	9	16
-4/ -5		.1															1	1	1	9
-6/ -7	.2																2	2	2	11
-8/ -9	.3																3	3	3	8
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature						Total								
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F									
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
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# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 NOV  
STATION STATION NAME YEARS MONTH  
 PAGE 2 0300-0500  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-10/-11	.4																	4	4	4	6
-12/-13	.1																	1	1	1	3
-14/-15	.2																	2	2	2	3
-16/-17																					3
-18/-19	.1																	1	1	1	2
-20/-21	.1																	1	1	1	3
-22/-23																					1
-28/-29																					1
TOTAL	13.5	28.6	17.9	16.0	11.2	6.9	3.0	2.0	.9								899	900	899	899	

Element (X)	$\sum X^2$	$\sum X$	$\bar{X}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature					Total	
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	4046160	57994	64.5	18.429	899							
Dry Bulb	985599	26969	30.0	14.050	900	3.5	48.1					90
Wet Bulb	719292	23256	25.9	11.448	899	3.8	62.6					90
Dew Point	404923	16363	18.2	10.921	899	7.6	85.0					90

USAFETAC FORM 04 JUL 64 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

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NOV

STATION

STATION NAME

Y1 ARS

MONTH

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0600-0800

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	≥ 31	Dry Bulb	Wet Bulb
58/ 57									.1									4	4	
56/ 55								.3	.3									9	9	
54/ 53							.2	.7	.6	.1								14	14	
52/ 51							.8	.1	.4	.1								13	13	
50/ 49					.6	1.0	.2	.4	.3									23	23	
48/ 47				.6	.4	.4	.3	.2										18	18	
46/ 45			.1	1.0	1.3	1.0	.2											32	32	3
44/ 43		.1	.4	1.6	1.7	2.0	.6											57	57	8
42/ 41		.3	.3	2.0	1.1	1.3	.2											48	48	34
40/ 39		.8	1.0	1.7	1.0	.7	.1											47	47	41
38/ 37		.6	1.6	1.8	1.3	.2												49	49	48
36/ 35		.7	1.3	1.9	1.0													44	44	63
34/ 33	.2	1.0	1.3	2.0	.9													49	49	78
32/ 31		.9	2.3	1.3	.1													42	42	61
30/ 29	.6	3.6	3.2	1.3	.3													83	83	74
28/ 27	1.2	2.8	3.1	.2														66	66	96
26/ 25	.8	2.0	2.1															44	44	73
24/ 23	.4	2.4	1.0															35	35	57
22/ 21	.4	2.1	.1															24	24	44
20/ 19	.9	2.9																34	34	40
18/ 17	.7	1.3																18	18	28
16/ 15	.7	.8	.3															16	16	17
14/ 13	.7	.9																14	14	8
12/ 11	.8	1.0																16	16	21
10/ 9	1.0	.9	.1															18	18	16
8/ 7	.1	1.0																10	10	9
6/ 5	.1	.6	.1															7	7	11
4/ 3	.7	1.0																15	15	10
2/ 1	1.1	1.0																19	19	25
0/ -1	1.2	.2																13	13	14
-2/ -3	.2	.7																8	8	8
-4/ -5																				2
-6/ -7	.1																	1	1	1
-8/ -9	.4																	4	4	4
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.				Mean No. of Hours with Temperature											
Rel. Hum.					≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OLA) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
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# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

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HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-10/-11	.6																	5	5	5	5
-12/-13																					6
-14/-15	.1																	1	1	1	5
-16/-17																					3
-18/-19																					4
TOTAL	13.0	29.7	18.4	15.3	9.8	7.7	2.8	2.1	.9	.3							900	900	900	900	

Element (X)	$\sum X^2$	$\sum X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	4043626	57936	64.4	18.692	900							
Dry Bulb	974705	26837	29.8	13.930	900	3.2	49.3					90
Wet Bulb	708070	23116	25.7	11.278	900	3.3	62.5					90
Dew Poi.	393405	16129	17.9	10.774	900	8.4	85.7					90

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

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NDV

STATION

STATION NAME

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0900-1100

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL		TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
70/ 69													.1					1	1		
68/ 67													.1					1	1		
66/ 65																.2		2	2		
64/ 63										.1								1	1		
62/ 61								.1	.2	.7	.3							12	12		
60/ 59							.3		.3	.3	.1							10	10		
58/ 57							.4	.3	.3	.2								12	12		
56/ 55						.6	.8	.9	.4									24	24		
54/ 53					.1	.6	1.1	.9	.3	.1								28	28		
52/ 51				.1	.6	1.3	.7	1.1	.3									37	37		
50/ 49				.1	1.0	1.8	1.9	.1	.2									46	46		
48/ 47				.9	.4	1.6	1.2	.9										45	45	7	
46/ 45		.1	.2	.6	1.7	1.8	1.0	.1										49	49	19	
44/ 43		.1	.6	1.4	1.7	1.3	1.3											58	58	37	
42/ 41		.1	.9	1.7	1.2	1.3	.3											50	50	63	3
40/ 39			.9	1.4	1.9	1.0												47	47	50	1
38/ 37		.3	.8	1.3	1.9	.6												44	44	88	7
36/ 35	.1	1.0	2.1	1.9	1.9	.1												64	64	63	16
34/ 33	.2	1.8	1.8	1.6	.4													52	52	80	37
32/ 31	.3	1.0	1.6	1.7	.2													43	43	102	46
30/ 29	.8	1.9	1.8	.4	.1													45	45	80	58
28/ 27	.9	1.6	1.0	.2														33	33	72	78
26/ 25	1.0	.6	.3	.1														18	18	38	100
24/ 23	.3	1.0	.4	.2														18	18	23	62
22/ 21	.7	.9	.2															16	16	23	80
20/ 19	.2	1.6	.1															17	17	13	56
18/ 17	.7	1.6	.3															23	23	30	77
16/ 15	.4	1.2																15	15	17	70
14/ 13	.6	.3																8	8	11	41
12/ 11	.4	.3	.1															8	8	7	48
10/ 9	.2	.8																9	9	6	16
8/ 7	.3	.3	.1															7	7	10	18
6/ 5	.3	1.2																14	14	15	14
4/ 3	.3	.9	.1															12	12	9	6
Element (X)	Z <sub>x</sub> <sup>2</sup>	Z <sub>x</sub>	X	σ <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 64



DATA PROCESSING BRANCH  
 USAF ETAC  
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# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

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PAGE 2 0900-1100  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
2/ 1	.3	1.3																15	15	14	6
0/ -1	1.0																	9	9	15	12
-2/ -3	.1	.1																2	2	1	14
-4/ -5	.3																	3	3	4	8
-6/ -7	.2																	2	2	2	14
-8/ -9																					4
-10/-11																					1
-12/-13																					1
-14/-15																					4
-18/-19																					1
-20/-21																					1
TOTAL	9.9	20.0	13.3	13.7	13.1	11.9	9.1	4.4	2.2	1.4	.7		.2					900		900	900
																		900		900	

Element (X)	Z <sub>x</sub> <sup>1</sup>	Z <sub>x</sub>	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature					Total	
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	3322227	51375	57.1	20.817	900							
Dry Bulb	1338891	32109	35.7	14.665	900	1.6	31.7	.2				90
Wet Bulb	901954	26698	29.7	11.060	900	2.2	49.3					90
Dew Point	451235	17963	20.0	10.155	900	6.0	83.6					90

USAFETAC FORM 7 JUL 64 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 NOV  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 1200-1400  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
74/ 73														.1				1	1	
72/ 71														.1	.1			4	4	
70/ 69														.1	.1			2	2	
68/ 67														.2				2	2	
66/ 65														.4	.8			11	11	
64/ 63										.2	.1	.9	.3	.3			17	17		
62/ 61								.1	.1	.6	1.1	.3					19	19		
60/ 59						.1	.1	.8	.6	.4	.1						19	19		
58/ 57						.8	.8	2.2	.8	.4	.1						31	31		
56/ 55						.8	.8	2.2	.8	.4	.1						46	46		
54/ 53						1.1	1.2	1.1	.8								38	38		
52/ 51			.2		.6	1.0	2.7	.8	.1	.2							50	50	2	
50/ 49			.1	.1	.7	1.1	2.7	1.3	.4								58	58	5	
48/ 47			.4	.6	1.8	1.2	1.3										48	48	18	
46/ 45			.9	1.8	3.1	2.0	.4										74	74	50	2
44/ 43			.1	.7	1.0	2.6	1.8	.1									56	56	50	1
42/ 41			.2	.7	.7	2.0	.6										37	37	81	2
40/ 39			.6	.3	.8	1.6	.2										31	31	67	1
38/ 37		.9	.9	1.4	1.7	.8											51	51	78	2
36/ 35		1.2	1.7	1.7	.6	.7											52	52	87	22
34/ 33	.1	1.9	1.1	1.0	.8												44	44	96	40
32/ 31	.1	1.4	.7	1.0	.1												30	30	84	49
30/ 29	.2	1.6	.4	.4													24	24	69	51
28/ 27	1.0	.7	1.0	.2													26	26	47	83
26/ 25	.1	.8	.3														11	11	25	100
24/ 23	.3	.1	.4														8	8	23	73
22/ 21	.1	1.0	.1														11	11	11	78
20/ 19		1.3	.1														13	13	12	53
18/ 17	.3	.6															8	8	14	61
16/ 15		.9	.3														11	11	6	70
14/ 13	.3	.1	.1														5	5	10	50
12/ 11	.1	.7															7	7	5	36
10/ 9		.8															7	7	6	32
8/ 7	.4	.4															8	8	10	19
Element (X)	Σx'		Σx		X̄		s <sub>x</sub>		No. Obs.		Mean No. of Hours with Temperature									
Rel. Hum.											≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total			
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
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# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 NOV  
STATION STATION NAME YEARS MONTH

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HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
6/ 5		1.0																9	9	9	15
4/ 3	.4	1.3																16	16	12	11
2/ 1		1.1																10	10	17	8
0/ -1	.2																	2	2	3	9
-2/ -3		.3																3	3		5
-4/ -5																				3	11
-6/ -7																					10
-8/ -9																					1
-10/-11																					2
-12/-13																					2
-14/-15																					1
TOTAL	3.9	18.1	8.4	8.9	9.1	16.6	14.1	9.9	5.1	2.4	1.4	1.3	.3	.3			900	900	900	900	

Element (X)	$\Sigma x'$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature						
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total
Rel. Hum.	2573700	44084	49.02	21.469	900							
Dry Bulb	1693814	36650	40.71	14.965	900	.5	20.9	.9	.1			90
Wet Bulb	1055612	29298	32.61	10.645	900	.6	36.6					90
Dew Point	458327	18363	20.4	9.647	900	4.1	83.0					90

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

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HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL D.B./W.B.	TOTAL					
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point																		
74/ 73																																	1	1				
72/ 71																									.1	.1							2	2				
70/ 69																																		2	2			
66/ 65																																			5	5		
64/ 63																																			9	9		
62/ 61												.1	.6																					15	15			
60/ 59												.4	1.2																					20	20			
58/ 57								.1	.1	.3	.6	.7	.2																					18	18			
56/ 55							.1	.3	1.0	1.7	1.0	.3																						40	40			
54/ 53							.1	1.2	1.4	.9	.6	.2																						40	40			
52/ 51							.6	1.3	1.3	.9	.4	.1																						42	42			
50/ 49					.3	1.0	1.1	2.1	.9	.3																								52	52	7		
48/ 47		.1		.3	.7	2.1	1.2	.9																										48	48	12		
46/ 45		.2		.4	2.4	2.6	2.1	.1																										71	71	31		
44/ 43			.1	.3	1.6	2.1	1.3	.1																										50	50	52	1	
42/ 41				1.0	1.8	2.2	.8																											52	52	68	3	
40/ 39			.8	1.0	1.8	1.1	.6																											47	47	60	2	
38/ 37		.4	.9	1.4	1.3	1.0																												46	46	80	7	
36/ 35	.1	1.6	1.9	2.0	1.2	.6																												66	66	81	19	
34/ 33	.3	1.0	1.1	1.3	1.0																													43	43	97	31	
32/ 31		1.4	.8	1.6	.3																													37	37	89	37	
30/ 29		1.1	1.0	.7	.1																													26	26	73	53	
28/ 27	.3	1.0	.6	.2	.1																													20	20	49	88	
26/ 25	.6	1.6	.8																															26	26	48	92	
24/ 23	.2	.7	.4																															12	12	28	77	
22/ 21		.7	.1																															7	7	12	69	
20/ 19		1.8																																16	16	13	66	
18/ 17	.4	.9																																12	12	21	55	
16/ 15																																				4	63	
14/ 13	.2	1.1																																12	12	9	68	
12/ 11	.1	.1																																2	2	5	37	
10/ 9	.1	.3	.1																															5	5	1	37	
8/ 7	.9	.6																																13	13	13	18	
6/ 5	.2	.4																																6	6	7	16	
Element (X)	Σ X <sup>2</sup>		Σ X		X̄		s <sub>x</sub>		No. Obs.		Mean No. of Hours with Temperature																											
Rel. Hum.											≤ 0 F		≤ 32 F		≥ 67 F		≥ 73 F		≥ 80 F		≥ 93 F		Total															
Dry Bulb																																						
Wet Bulb																																						
Dew Point																																						

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISOR PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 NDV  
STATION STATION NAME YEARS MONTH

PAGE 2 1500-1700  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																			TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point		
4/ 3	.2	1.4																15	15	15	12		
2/ 1		1.0																9	9	9	8		
0/ -1	.7	.1																7	7	9	2		
-2/ -3	.1	.2																3	3	2	11		
-4/ -5																				2	4		
-6/ -7		.1																1	1		10		
-8/ -9																				1	4		
-10/-11	.1																	1	1	1	5		
-12/-13																					1		
-16/-17																					1		
-18/-19																					1		
-20/-21																					1		
TOTAL	4.7	17.9	8.6	10.7	14.2	15.8	12.3	7.0	5.0	1.9	1.0	.6	.1	.1	.1			899	899	899	899		

Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature						
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total
Rel. Hum.	2660094	45314	50.4	20.464	399							
Dry Bulb	1569171	35199	39.2	14.584	899	1.2	23.0	.5	.1			90
Wet Bulb	999546	28410	31.6	10.644	899	1.5	41.1					90
Dew Point	444185	17947	20.0	9.781	899	4.0	83.7					90

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRUM AFB MT/GREAT FALLS 8-77 NOV  
STATION STATION NAME YEARS MONTH

PAGE 1 1800-2000  
HOJRS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL D.B./W.B.	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point																
62/ 61									.1																							1	1			
60/ 59									.4	.1	.1																					6	6			
58/ 57									.3	.3	.4																					10	10			
56/ 55								.1	.2	.1	.4	.1																				9	9			
54/ 53					.1	.8	.7	.7	.1																							21	21			
52/ 51				.1	1.0	1.3	.2	.1																								25	25			
50/ 49				.2	1.1	1.0	1.2	.6	.1																							38	38			
48/ 47				.6	.9	1.2	.7	.3																								33	33			
46/ 45			.1	.9	1.4	1.2	.6	.2																								40	40	15		
44/ 43			.8	1.2	1.9	1.3	.2																									49	49	17		
42/ 41		.1	.8	.9	1.2	1.2																										38	38	39		
40/ 39		.2	.9	1.8	3.1	1.2	.1																									66	66	63	3	
38/ 37		.4	1.4	3.2	1.6	.4																										64	64	55	3	
36/ 35		1.1	2.7	2.0	1.3	.7																										70	70	62	12	
34/ 33		1.8	1.0	2.3	.1	.1																										48	48	86	35	
32/ 31	.2	1.6	.9	1.0	.6																											38	38	99	49	
30/ 29	.3	2.7	1.1	1.6	.2																												53	53	85	37
28/ 27	.6	1.4	1.6	.8																													39	39	58	86
26/ 25	.4	2.3	1.9	.2																													44	44	53	81
24/ 23	.9	1.9	1.6	.1																													40	40	56	62
22/ 21	.1	1.6	1.2	.1																													27	27	33	88
20/ 19	.2	2.2	.6	.3																													30	30	33	58
18/ 17	.6	1.1																															15	15	40	58
16/ 15	.6	.7	.1	.1																													13	13	17	69
14/ 13	.3	.8																															10	10	13	63
12/ 11	.1	.7																															7	7	5	51
10/ 9	.3	.6																															8	8	9	37
8/ 7	.2	.2																															4	4	7	24
6/ 5	.6	.2																															7	7	6	9
4/ 3	.1	.9																															9	9	10	10
2/ 1	.6	.8																															12	12	7	5
0/ -1	1.0																																10	10	15	10
-2/ -3	.2																																2	2	3	15
-4/ -5	.3																																3	3	3	3
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$\sigma_x$	Nr. Obs.	Mean No. of Hours with Temperature																														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total																								
Dry Bulb																																				
Wet Bulb																																				
Dew Point																																				

USAFETAC FORM 64 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77

NOV  
 MONTH

PAGE 2 1800-2000  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)															TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28		29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point
-5/-7																					7
-3/-9																					7
-10/-11	.2																	2	2	2	4
-12/-13	.3																	3	3	3	1
-14/-15	.1																	1	1	1	
-16/-17																					1
-18/-19	.2																	2	2	2	
-20/-21																					2
-22/-23																					1
-24/-25																					2
-28/-29																					1
-30/-31																					1
TOTAL	8.6	23.4	16.6	17.5	13.6	10.4	5.4	2.9	1.4	.2							897	897	897	897	

Element (X)	$\sum X^2$	$\sum X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature						Total
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	3479255	53277	59.4	18.747	897							
Dry Bulb	1158523	29867	33.2	13.695	897	2.3	38.0					90
Wet Bulb	812792	25202	28.1	10.811	897	2.9	56.2					90
Dew Point	424032	17168	19.1	10.321	897	5.5	84.5					90

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

NOV  
 MONTH

PAGE 1 2100-2300  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
60/ 59							.1		.1								2	2		
58/ 57							.6	.3	.1								9	9		
56/ 55							.3	.4									12	12		
54/ 53						.7	.2	.4	.4								16	16		
52/ 51				.2	.2	.7	.9	.7									24	24		
50/ 49				.1	.8	.9	.3	.2									21	21		
48/ 47					1.0	1.0	.3	.1									22	22		
46/ 45			.2	1.2	2.0	.6	1.1	.1									47	47	6	
44/ 43			1.0	1.6	2.7	.7	.2										55	55	20	
42/ 41			.6	1.2	1.1	.4	.1										31	31	28	
40/ 39		.2	.7	1.8	1.7	1.1											49	49	61	1
38/ 37		.2	.7	3.9	1.6	.3											60	60	52	5
36/ 35		1.1	1.4	1.9	1.3												52	52	65	10
34/ 33	.2	1.1	2.6	2.0	.7	.1											60	60	58	25
32/ 31	.3	1.8	2.2	1.7	.3												57	57	90	54
30/ 29	.3	2.2	2.6	.9													54	54	88	41
28/ 27	1.1	1.8	2.1	.2													47	47	71	67
26/ 25	.2	2.6	1.7	.1													41	41	61	87
24/ 23	.7	2.0	.8	.1													32	32	57	60
22/ 21	.2	1.8	.3	.1													22	22	33	83
20/ 19	.3	3.0	.8	.1													38	38	34	72
18/ 17	.3	2.5	.2														27	27	28	70
16/ 15	.3	1.3	.1														16	16	33	67
14/ 13	.7	.8	.1														14	14	18	56
12/ 11	.8	.8	.2														16	16	15	50
10/ 9	1.1	.7															16	16	18	31
8/ 7	.3																3	3	7	36
6/ 5	.6																5	5	5	10
4/ 3	.4	.8															11	11	4	9
2/ 1	.1	1.0															10	10	15	4
0/ -1	.4	.3															7	7	6	7
-2/ -3	.7	.2															8	8	10	10
-4/ -5	.2																2	2	3	12
-6/ -7	.3																3	3	3	4
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 NOV  
STATION STATION NAME YEARS MONTH

PAGE 2 2100-2300  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL	TOTAL					
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-8/-9	.1																	1	1	1	9
-10/-11	.3																	3	3	3	5
-12/-13	.1																	1	1	1	3
-14/-15																					1
-16/-17	.1																	1	1	1	1
-18/-19	.1																	1	1	1	1
-20/-21	.1																	1	1	1	1
-22/-23																					2
-24/-25																					2
-28/-29																					1
TOTAL	10.7	26.2	18.3	17.2	13.4	6.5	3.6	2.8	1.2	.2							897	897	897	897	

Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_n$	No. Obs.	Mean No. of Hours with Temperature						
Rel. Hum.	3761886	55760	62.2	18.166	897	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total
Dry Bulb	1061440	28228	31.5	13.900	897	2.8	43.8					90
Wet Bulb	757961	24101	26.9	11.100	897	3.0	60.9					90
Dew Point	409541	16761	18.7	10.370	897	5.9	85.9					90

FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 64

USAFETAC

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 08-77 NOV  
STATION STATION NAME YEARS MONTH

PAGE 1 ALL  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	≥ 31	Dry Bulb	Wet Bulb
74/ 73														.0	.0			2	2	
72/ 71													.0	.0	.0			6	6	
70/ 69											.0	.0	.0					5	5	
68/ 67													.0					3	3	
66/ 65										.0	.1	.1						18	18	
64/ 63								.0	.1	.2	.1	.1						27	27	
62/ 61							.0	.2	.2	.1	.1							47	47	
60/ 59						.0	.1	.2	.3	.2	.0							58	58	
58/ 57					.0	.0	.2	.4	.4	.2								88	88	
56/ 55					.0	.3	.6	.8	.5	.1	.0							161	161	
54/ 53					.1	.6	.8	.7	.4	.0								187	187	
52/ 51			.0	.1	.3	.9	1.0	.6	.2	.0								228	228	2
50/ 49			.0	.2	.8	1.0	1.2	.5	.2									280	280	12
48/ 47		.0	.0	.4	.8	1.2	.7	.3										259	259	37
46/ 45		.0	.1	.9	1.8	1.7	1.0	.2										398	398	131
44/ 43		.0	.6	1.2	1.8	1.6	.7	.0										418	418	217
42/ 41		.2	.5	1.3	1.2	1.3	.3											349	349	365
40/ 39		.3	.9	1.5	1.6	1.1	.1											396	396	450
38/ 37		.4	1.0	2.3	1.4	.5												404	404	495
36/ 35	.0	1.0	1.7	2.0	1.2	.3												447	447	553
34/ 33	.2	1.4	1.5	1.8	.6	.0												399	399	633
32/ 31	.2	1.4	1.6	1.5	.3													348	348	668
30/ 29	.4	2.2	1.9	.9	.1													391	391	624
28/ 27	1.0	1.8	2.0	.3	.0													367	367	551
26/ 25	.7	1.9	1.3	.1														288	288	444
24/ 23	.6	1.5	.9	.1														215	215	374
22/ 21	.4	1.4	.4	.0														164	164	237
20/ 19	.4	2.1	.2	.1														200	200	212
18/ 17	.5	1.4	.1															139	139	213
16/ 15	.3	.9	.2	.0														100	100	130
14/ 13	.5	.9	.1															104	104	102
12/ 11	.5	.7	.1															93	93	104
10/ 9	.6	.7	.0															95	95	87
8/ 7	.4	.5	.0															63	63	79
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 STATION MARMSTROM AFB MT/GREAT FALLS STATION NAME 68-77 YEARS NOV MONTH

PAGE 2 ALL HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																			TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point		
6/ 5	.3	.5	.0															62	62	67	98		
4/ 3	.4	1.1	.0															105	105	82	68		
2/ 1	.4	1.0																95	96	115	53		
0/ -1	.8	.2																73	73	84	72		
-2/ -3	.2	.3																37	37	42	100		
-4/ -5	.2	.0																13	13	23	65		
-6/ -7	.2	.0																13	13	11	77		
-8/ -9	.1																	9	9	11	44		
-10/-11	.3																	20	20	20	38		
-12/-13	.1																	5	5	5	24		
-14/-15	.1																	6	6	6	17		
-16/-17	.0																	1	1	1	10		
-18/-19	.1																	4	4	4	11		
-20/-21	.0																	2	2	2	9		
-22/-23																					5		
-24/-25																					5		
-28/-29																					3		
-30/-31																					1		
TOTAL	623.9	15.1	14.4	11.9	10.4	6.8	4.1	2.2	.8	.4	.2	.1	.1	.0			7192	7193	7192	7192			
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature						Total											
Rel. Hum.	27807386	422884	58.8	20.227	7192	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total											
Dry Bulb	9802183	243393	33.8	14.758	7193	18.3	301.6	1.6	.2			720											
Wet Bulb	6693773	203799	28.3	11.303	7192	20.9	430.3					720											
Dew Point	3393190	137330	19.1	10.354	7192	48.2	676.1					720											

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 67-76 DEC  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 0000-0200  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	≥ 31	Dry Bulb	Wet Bulb
54/ 53					.1		.2											3	3	
52/ 51					.2	.1												3	3	
50/ 49				.1	.3	.3	.1											8	8	
48/ 47				.1	.2	.3	.2											8	8	
46/ 45				1.0	1.9	.4	.9											39	39	1
44/ 43			.1	1.3	1.7	1.1												39	39	4
42/ 41			.5	1.6	2.0	.9												47	47	7
40/ 39			1.0	1.3	1.1	.8	.2											40	40	18
38/ 37			.8	1.5	1.1	.9												39	39	44
36/ 35		.1	.6	1.8	.8	.2												33	33	60
34/ 33	.1	.4	.4	2.8	.5	.1												41	41	46
32/ 31	.2	.8	1.7	1.4	.6													44	44	40
30/ 29	.1	.9	2.6	1.4	.2													48	48	55
28/ 27	.4	1.0	3.0	.5														46	46	79
26/ 25	.4	1.8	2.7	.3														49	49	50
24/ 23	.1	2.3	2.8															48	48	66
22/ 21	.4	4.2	1.1															53	53	60
20/ 19	.2	3.9	.4															42	42	60
18/ 17	.9	2.5																31	31	52
16/ 15	.1	2.5																24	24	27
14/ 13	1.1	1.3																22	22	31
12/ 11	1.0	1.7																25	25	18
10/ 9	1.2	2.0																30	31	37
8/ 7	.9	.8																15	15	17
6/ 5	.6	.5																11	11	15
4/ 3	1.5	1.1																24	24	16
2/ 1	.5	.6																11	11	15
0/ -1	1.6	.2																17	18	20
-2/ -3	1.7	.4																20	21	20
-4/ -5	1.0	.1																10	10	12
-6/ -7	.8																	7	7	7
-8/ -9	.9																	8	8	8
-10/-11	1.1																	10	10	10
-12/-13	.4																	4	4	4
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.		Mean No. of Hours with Temperature						Total							
Rel. Hum.							≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total							
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 67-76 DEC  
STATION STATION NAME YEARS MONTH

PAGE 2 0000-0200  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																		TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.J.W.B.	Dry Bulb	Wet Bulb	Dew Point	
-14/-15	.6																	6	6	6	7	
-16/-17	.5																	5	5	5	12	
-18/-19	.2																	2	2	2	7	
-20/-21	.3																	3	3	3	6	
-22/-23	.3																	3	3	3	2	
-24/-25	.3																	3	3	3	3	
-26/-27	.1																	1	1	1	6	
-28/-29	.1																	1	1	1	2	
-30/-31																					1	
-32/-33	.1																	1	1	1	5	
-38/-39																					2	
-40/-41	.1																	1	1	1		
-42/-43	.2																	2	2	2		
-48/-49																					3	
TOTAL	20.3	29.1	17.8	15.2	10.9	5.1	1.4	.2										927	930	927	927	
Element (X)	$\sum x^2$	$\sum x$	$\bar{x}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature																
Rel. Hum.	4195364	60648	65.4	15.675	927	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total										
Dry Bulb	759333	21565	23.2	16.706	930	10.6	63.0					93										
Wet Bulb	560149	18483	19.9	14.385	927	10.9	74.9					93										
Dew Point	315547	11539	12.4	13.625	927	14.6	91.3					93										

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRQM AFB MT/GREAT FALLS 67-76

67-76

DEC  
 MONTH

PAGE 1 0300-0500  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)														TOTAL D.B./W.B.	TOTAL					
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26		27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point
54/ 53					.1	.2	.1	.3									7	7			
52/ 51					.1	.3	.1										5	5			
50/ 49				.1	.3	.1	.1										7	7			
48/ 47				.1													1	1			
46/ 45				.6	.9	.8	.6										27	27	3		
44/ 43			.2	2.1	1.0	.8	.4										41	41	3		
42/ 41		.1	.4	2.2	1.5	.5	.3										47	47	11		
40/ 39		.1	.6	1.1	1.6	.8	.1										40	40	13		
38/ 37		.1	1.0	1.9	1.3	.1											41	41	37		
36/ 35			1.0	2.6	.8	.1											41	41	49	8	
34/ 33		.3	.3	2.2	.4												30	30	52	7	
32/ 31		.9	1.7	1.7	.6												46	46	57	20	
30/ 29	.1	1.3	2.2	.4	.3												40	40	47	36	
28/ 27	.3	1.5	2.9	.8													51	51	70	44	
26/ 25	.4	2.1	2.5	.5													51	51	55	29	
24/ 23	.4	3.4	2.5														58	58	60	49	
22/ 21	.4	3.8	1.2														50	50	68	77	
20/ 19	.4	3.6	.6														43	43	65	61	
18/ 17	.4	1.4	.3														20	20	44	71	
16/ 15	.2	2.3	.2														25	25	19	75	
14/ 13	.9	2.2															28	28	36	52	
12/ 11	1.0	1.1															19	21	22	72	
10/ 9	1.9	2.2															38	38	36	51	
8/ 7	1.0	.8															16	16	24	51	
6/ 5	.6	.5															11	12	7	33	
4/ 3	.5	1.0															14	14	10	23	
2/ 1	.6	.9															14	14	18	9	
0/ -1	1.4	.3															16	18	19	15	
-2/ -3	1.4	.6															19	19	20	13	
-4/ -5	1.0																9	9	10	14	
-6/ -7	1.2																11	11	11	9	
-8/ -9	2.2																20	20	20	15	
-10/-11	.8																7	7	7	14	
-12/-13	.2																2	2	2	12	
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F									Total	
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAFETAC FORM 0-26-5 (OLA) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 67-76 DEC  
STATION STATION NAME YEARS MONTH

PAGE 2 0300-0500  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31		Dry Bulb	Wet Bulb	Dew Point
-14/-15	.2																	2	2	2	16
-16/-17	.4																	4	4	4	5
-18/-19	.3																	3	3	3	12
-20/-21	.4																	4	4	4	4
-22/-23	.5																	5	5	5	2
-24/-25	.4																	4	4	4	3
-26/-27	.2																	2	2	2	5
-28/-29	.1																	1	1	1	2
-30/-31	.2																	2	2	2	4
-32/-33																					2
-34/-35																					6
-38/-39																					1
-40/-41	.2																	2	2	2	
-44/-45	.1																	1	1	1	
-46/-47																					2
-50/-51																					1
TOTAL	20.8	30.3	17.7	16.3	9.0	3.7	1.8	.4										925	930	925	925
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature						Total									
Rel. Hum.	4221419	60819	65.8	15.5	925	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	93									
Dry Bulb	743451	21011	22.6	17.0	930	11.6	64.3					93									
Wet Bulb	551764	18008	19.5	14.7	925	12.0	76.1					93									
Dew Point	520677	11159	12.1	14.1	925	15.8	91.5					93									

FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 64

USAFETAC

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 67-76 DEC  
 STATION STATION NAME YEARS MONTH

PAGE 1 0600-0800  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																				TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9	10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb		Dew Point		
54/ 53							.3	.2	.2											7	7			
52/ 51							.1	.1	.1											3	3			
50/ 49					.2		.1		.2											5	5			
48/ 47				.1	.3		.4	.4												12	12			
46/ 45				.9	1.1		.4	.6												28	28			
44/ 43				.8	1.3		.4	.8												30	30		3	
42/ 41			.2	1.2	1.5		.3	.2												32	32		10	
40/ 39		.3	1.6	1.7	2.6		.2	.1												61	61		16	
38/ 37		.1	.6	2.2	.8		.3													37	37		30	
36/ 35	.1		.9	1.9	1.3															39	39		44	
34/ 33		.2	1.1	2.7	.8															44	44		62	
32/ 31		1.3	1.8	1.0			.1													39	39		61	
30/ 29		.9	2.9	1.2	.2															48	48		53	
28/ 27	.3	3.0	2.4	.2																55	55		76	
26/ 25	.2	1.5	1.9																	34	34		61	
24/ 23	.6	3.2	1.4	.1																50	50		54	
22/ 21	.5	2.4	1.4																	40	40		52	
20/ 19	.3	3.9	.4																	43	43		49	
18/ 17	.5	3.2	.5																	40	40		45	
16/ 15	.4	1.9	.2																	24	24		41	
14/ 13	1.3	1.7																		28	28		36	
12/ 11	.6	.4	.1																	11	12		13	
10/ 9	1.9	2.5																		41	41		35	
8/ 7	1.3	1.1																		22	22		28	
6/ 5	.6	.4																		10	10		11	
4/ 3	1.2	.6																		17	17		18	
2/ 1	.4	1.4																		17	18		10	
0/ -1	1.6	.2																		17	17		24	
-2/ -3	1.2	.4																		15	15		16	
-4/ -5	1.1																			10	10		11	
-6/ -7	1.7																			16	16		16	
-8/ -9	1.5	.1																		15	15		15	
-10/-11	.4																			4	4		4	
-12/-13	.2																			3	3		3	
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature																		
Ref. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total												
Dry Bulb																								
Wet Bulb																								
Dew Point																								

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 STATION MALMSTROM AFB MT/GREAT FALLS STATION NAME 67-76 YEARS PAGE 2 DEC MONTH 0600-0800 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-14/-15	.4																	4	4	4	15
-16/-17	.1																	1	1	1	10
-18/-19	.8																	7	7	7	3
-20/-21	.3																	3	3	3	7
-22/-23	.2																	2	2	2	1
-24/-25	.6																	6	6	6	6
-26/-27	.1																	1	1	1	3
-28/-29	.1																	1	1	1	1
-30/-31	.2																	2	2	2	3
-32/-33																					2
-34/-35																					4
-36/-37	.1																	1	1	1	3
-38/-39	.1																	1	1	1	1
-40/-41	.1																	1	1	1	1
-42/-43	.1																	1	1	1	1
-44/-45																					2
-46/-47																					1
-50/-51																					1
TOTAL	21.8	30.9	17.6	13.9	10.0	2.8	2.5	.5										928	930	928	928
Element (X)	Σ x <sup>2</sup>	Σ x	Σ	σ <sub>x</sub>	No. Obs.	Mean No. of Hours with Temperature					Total										
Rel. Hum.	4272306	61240	66.0	15.786	928	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	93									
Dry Bulb	741556	20970	22.5	17.007	930	11.1	63.2					93									
Wet Bulb	550188	18006	19.4	14.718	928	12.0	76.9					93									
Dew Point	321399	11163	12.0	14.208	928	16.2	91.4					93									

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 67-76 DEC  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 0900-1100  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
58/ 57																		1	1	
56/ 55							.2	.4	.1		.2							9	9	
54/ 53							.3	.2	.2	.1								8	8	
52/ 51							.3	.4	.3	.2								12	12	
50/ 49							.4	.4	.5	.1								14	14	
48/ 47				.2	1.1	.6	.5	.3										26	26	
46/ 45			.2	1.0	1.1	.8	1.4	.2										43	43	3
44/ 43			.1	.6	1.2	1.7	.3	.1										38	38	8
42/ 41			.5	1.4	2.0	1.0	.2											48	48	21
40/ 39		.2	.6	1.2	2.0	.4												42	42	28
38/ 37			.3	2.2	1.3	.4	.1											40	40	38
36/ 35			.8	2.8	1.9													51	51	51
34/ 33		.2	1.5	2.9	1.0													52	52	77
32/ 31		1.2	1.7	2.6	.2													53	53	57
30/ 29	.2	1.3	2.3	1.2														46	46	89
28/ 27	.1	2.4	1.9	.8														48	48	67
26/ 25	.5	2.3	1.6	.3														44	44	70
24/ 23	.9	1.9	1.3	.1														39	39	58
22/ 21	.6	1.3	1.0															27	27	48
20/ 19		2.9	.6															33	33	26
18/ 17	.4	1.2	.3															18	19	32
16/ 15	.5	2.2	.1															26	27	32
14/ 13	.6	1.3	.1															19	19	26
12/ 11	.4	1.2	.1															16	16	15
10/ 9	1.0	1.6																24	24	21
8/ 7	.9	1.8																25	25	26
6/ 5	.9	.4																9	9	18
4/ 3	.4	1.6																19	19	9
2/ 1	.2	.1																3	3	12
0/ -1	1.3	.2																14	14	13
-2/ -3	1.0	.6																15	15	17
-4/ -5	.6	.1																7	7	6
-6/ -7	.8	.1																8	8	8
-8/ -9	1.6																	15	15	16
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature					Total									
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 67-76 DEC  
STATION STATION NAME YEARS MONTH

PAGE 2 0900-1100  
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb	Dew Point
-10/-11	1.0																	9	9	9	13
-12/-13	.2																	2	2	2	4
-14/-15	.5																	5	5	5	7
-16/-17	.2																	2	2	2	14
-18/-19	.5																	5	5	5	7
-20/-21	.3																	3	3	3	6
-22/-23	.1																	1	1	1	2
-24/-25	.3																	3	3	3	4
-26/-27	.2																	2	2	2	3
-28/-29	.1																	1	1	1	4
-30/-31																					1
-32/-33																					2
-34/-35																					2
-36/-37																					1
-38/-39	.1																	1	1	1	1
-40/-41	.2																	2	2	2	
-44/-45																					1
-46/-47																					1
-48/-49																					1
TOTAL	16.9	25.9	15.2	17.2	11.9	6.3	4.1	1.9	.4	.2								928	930	928	928
Element (X)	Z <sub>X</sub> <sup>1</sup>	Z <sub>X</sub>	X	σ <sub>X</sub>	No. Obs.	Mean No. of Hours with Temperature						Total									
Rel. Hum.	3827773	57381	61.8	17.371	928	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	93									
Dry Bulb	910172	24258	26.1	17.281	930	9.5	54.9					93									
Wet Bulb	643976	20406	22.0	14.513	928	9.6	70.4					93									
Dew Point	342115	12561	13.5	13.625	928	12.9	91.1					93									

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 METAC  
 WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

12 MARMSTRON AFB MT/GREAT FALLS 67-76 DEC  
 STATION STATION NAME YEARS MONTH  
 PAGE 1 1200-1400  
 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb	Dew Point
64/ 63												.1						1	1		
62/ 61												.1	.1					2	2		
60/ 59										.2		.1	.1					3			
58/ 57							.3	.4	.1	.2	.2							12			
56/ 55							.5	.8	.3	.4								19	14		
54/ 53							.6	.6	.3									15	15		
52/ 51						.4	.8	.5	.8	.3								26	26		
50/ 49						.8	1.5	1.1	.8	.4								42	42		
48/ 47				.2	.6	1.4	1.5	.5										39	39		2
46/ 45			.2	.6	1.2	1.8	.6	.3										45	45		2
44/ 43		.1	.1	.8	1.4	2.8	.6	.2										56	56	20	
42/ 41		.4	1.3	2.0	2.0													54	54	41	
40/ 39		.2	.1	1.4	2.6	2.0												59	59	43	1
38/ 37			.5	1.5	2.7	.8												51	51	58	4
36/ 35	.2		.3	3.1	1.9	.1												53	53	82	12
34/ 33	.1	.3	1.3	1.8	1.4													46	46	72	5
32/ 31		.9	1.1	1.1	.4													32	32	85	21
30/ 29	.2	1.2	1.5	.5														32	32	87	41
28/ 27	.4	1.9	1.5	.4														40	40	67	54
26/ 25	.6	1.1	1.9															34	34	50	47
24/ 23	.2	.8	1.2															20	20	38	63
22/ 21	.3	1.2	.6															22	22	35	89
20/ 19	.2	1.6																17	18	22	101
18/ 17		1.3	.1															13	13	18	63
16/ 15	.5	.8	.1															13	13	15	67
14/ 13	.5	1.6																20	20	18	61
12/ 11	.2	1.5																16	16	17	61
10/ 9	.4	1.8																21	21	19	46
8/ 7	.8	1.0																16	16	20	29
6/ 5	.9	.8																15	15	16	14
4/ 3	.2	.8																9	9	10	19
2/ 1	.1	1.0																10	10	8	17
0/ -1	1.4																	13	13	20	14
-2/ -3	1.1	.3																13	13	12	4
Element (X)	$\Sigma x^2$	$\Sigma x$	$\bar{x}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature															
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb																					
Wet Bulb																					
Dew Point																					

USAF/TAC FORM 34 JUL 54 G-26 5 (OL A) REVISED PER MILS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 67-76 DEC  
 STATION STATION NAME YEARS MONTH  
 PAGE 2 1200-1400  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb	Dew Point
-4/-5	.6	.4																10	10	10	19
-6/-7	1.1	.2																12	12	13	10
-8/-9	1.1																	10	10	10	15
-10/-11	.4																	4	4	4	8
-12/-13	.2																	2	2	2	4
-14/-15																					11
-16/-17	.3																	3	3	3	9
-18/-19	.2																	2	2	2	4
-20/-21	.1																	1	1	1	3
-22/-23																					1
-24/-25	.3																	3	3	3	5
-26/-27																					1
-30/-31																					1
-32/-33	.3																	3	3	3	1
-34/-35																					1
-36/-37																					1
-38/-39																					2
-40/-41																					1
TOTAL	13.5	20.7	11.1	12.7	15.5	13.2	5.9	4.4	1.7	.8	.4	.1						929	930	929	929

Element (X)	$\sum x^2$	$\sum x$	$\bar{x}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature						
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total
Rel. Hum.	3259041	52027	56.0	19.291	929							
Dry Bulb	1761022	28500	30.6	17.596	930	7.6	40.7					93
Wet Bulb	767756	23304	25.1	14.049	929	8.3	61.0					93
Dew Point	354517	13895	15.0	12.573	929	11.4	90.8					93

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MARMSTRUM AFB MT/GREAT FALLS 67-76 YEARS DEC MONTH

PAGE 1 1500-1700 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																					TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point					
60/ 59										.1	.1	.1						3	3						
58/ 57								.3	.1									4	4						
56/ 55						.1	.3	.4		.2								10	10						
54/ 53						.1	.2	.6	.2	.1								12	12						
52/ 51				.1	.2	.6	.3	.9	.2									22	22						
50/ 49				.1	.2	.8	.5	.4	.2									22	22						
48/ 47				.2	.9	1.1	1.3	.6										38	38						
46/ 45			.1	.5	1.7	1.3	1.4	.3										50	50	5					
44/ 43			.1	1.1	1.2	2.4	.3	.2										49	49	9					
42/ 41			.6	1.2	2.6	1.4	.4											58	58	26					
40/ 39			.4	1.7	2.9	1.0	.2											58	58	35					
38/ 37	.1		.3	1.0	2.5	1.4												49	49	59	3				
36/ 35	.1	.1	.4	3.2	1.4	.4												53	53	60	9				
34/ 33		.1	1.2	2.9	1.2													50	50	95	5				
32/ 31	.2	.2	1.9	2.0	.9													49	49	58	26				
30/ 29	.1	1.2	1.1	1.2	.2													35	35	88	29				
28/ 27	.3	1.4	2.3	.5														42	42	88	45				
26/ 25	.3	1.4	1.9	.1														35	35	51	48				
24/ 23	.3	1.0	1.2															23	23	50	50				
22/ 21	.8	1.5	.8															23	28	42	89				
20/ 19	.4	1.6	.6															25	27	25	98				
18/ 17	.6	1.1																16	16	26	76				
16/ 15	.5	1.3	.2															19	19	21	79				
14/ 13	.4	.8	.1															12	12	15	54				
12/ 11	.4	1.9																22	22	22	65				
10/ 9	.5	1.1																15	15	18	44				
8/ 7	.8	.8																14	14	15	39				
6/ 5	.5	.9																13	13	11	16				
4/ 3	.3	.8																10	10	14	22				
2/ 1	.4	1.0																13	13	12	15				
0/ -1	.8	.4																11	11	11	7				
-2/ -3	1.4	.6																19	19	22	15				
-4/ -5	.5																	5	5	6	14				
-6/ -7	1.2																	11	11	11	10				
Element (X)	$\Sigma X'$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature																			
Rel Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total													
Dry Bulb																									
Wet Bulb																									
Dew Point																									

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

**PSYCHROMETRIC SUMMARY**

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

67-76  
YEARS

DEC  
MONTH

PAGE 2

1500-1700  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-8/-9	1.1																	10	10	10	13
-10/-11	.6																	6	6	6	10
-12/-13	.3																	3	3	3	7
-14/-15	.1																	1	1	1	8
-16/-17	.6																	6	6	6	9
-18/-19	.1																	1	1	1	9
-22/-23																					1
-24/-25																					3
-26/-27	.3																	3	3	3	2
-28/-29																					2
-32/-33	.2																	2	2	2	
-34/-35	.1																	1	1	1	
-36/-37																					2
-38/-39																					1
-40/-41																					1
-42/-43																					1
-44/-45																					1
<b>TOTAL</b>	14.8	19.1	13.4	15.9	15.9	10.6	5.1	3.9	.8	.4	.1	.1						928	930	928	928
Element (X)	Σ x'	Σ x	X	x̄	No. Obs.	Mean No. of Hours with Temperature						Total									
Rel. Hum.	3368940	53204	57.3	18.540	928	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb	1061747	27137	29.2	17.045	930	7.9	45.2					93									
Wet Bulb	714993	22337	24.1	13.831	928	8.3	64.0					93									
Dew Point	337449	13327	14.4	12.552	928	11.6	91.3					93									

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF TAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 67-76 DEC  
 STATION STATION NAME YEARS MONTH

PAGE 1 1800-2000  
 HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																					TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point				
52/ 51					.3	.1	.2	.3										9	9						
50/ 49				.1	.1	.5	.5	.2										14	14						
48/ 47				.2	1.2	1.0	.8											29	29						
46/ 45				.4	1.0	1.1	.2	.2										27	27						
44/ 43			.2	1.6	.9	1.0	.3											37	37	6					
42/ 41			.6	.9	1.8	.8												40	40	5					
40/ 39			1.0	1.8	1.3	.5	.3											46	46	29					
38/ 37			1.0	2.1	1.5	.2												44	44	49	2				
36/ 35		.1	.8	2.5	1.1	.3												44	44	49	4				
34/ 33		.4	1.7	2.2	.9	.2												50	50	52	12				
32/ 31	.1		2.7	1.5	.8													47	47	52	18				
30/ 29		.8	2.9	2.6	.2													60	60	69	34				
28/ 27	.2	1.3	4.1	.9	.1													61	61	70	37				
26/ 25	.4	2.1	3.3															54	54	76	40				
24/ 23	.2	1.7	1.4															31	31	81	58				
22/ 21	1.1	2.6	1.6															49	49	66	75				
20/ 19	.8	1.8	.2															26	26	40	72				
18/ 17	.8	2.2	.4															31	32	40	93				
16/ 15	.6	2.2	.1															27	27	29	77				
14/ 13	.2	.5	.1															8	8	17	58				
12/ 11	.3	1.6																18	18	12	67				
10/ 9	.6	1.4																19	19	22	42				
8/ 7	1.4	.4																17	17	22	41				
6/ 5	.8	1.1																17	17	11	26				
4/ 3	.8	.8																14	14	20	22				
2/ 1	.5	1.0																14	14	11	16				
0/ -1	.8	.4																11	11	13	19				
-2/ -3	1.7																	21	22	20	5				
-4/ -5	.6																	6	7	10	11				
-6/ -7	1.1																	10	10	10	8				
-8/ -9	1.1	.1																11	11	11	24				
-10/-11	.9																	8	8	8	11				
-12/-13	.3																	3	3	3	4				
-14/-15	.6																	6	6	6	10				
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature																			
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total													
Dry Bulb																									
Wet Bulb																									
Dew Point																									

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTRUM AFB MT/GREAT FALLS 67-76 DEC  
 STATION MONTH  
 1800-2000  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL				
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point
-16/-17	.4																	4	4	4	4
-18/-19	.1																	1	1	1	9
-20/-21	.3																	3	3	3	6
-22/-23	.1																	1	1	1	3
-24/-25	.2																	2	2	2	4
-26/-27																					6
-28/-29	.1																	1	1	1	
-30/-31	.1																	1	1	1	2
-32/-33	.2																	2	2	2	
-36/-37	.1																	1	1	1	
-38/-39	.1																	1	1	1	2
-40/-41																					2
-44/-45																					1
-46/-47																					1
TOTAL	17.8	23.0	22.2	16.7	11.1	5.7	2.6	.8										926	929	926	926
Element (X)	$\Sigma X$	$\Sigma X^2$	$\bar{X}$	$\sigma^2$	No. Obs.	Mean No. of Hours with Temperature						Total									
Rel. Hum.	3938233	58489	63.2	16.238	926	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total									
Dry Bulb	833021	23251	25.0	16.449	929	9.5	59.0					93									
Wet Bulb	601484	19744	21.3	13.969	926	9.8	73.9					93									
Dew Point	323633	12905	13.3	13.157	926	13.3	91.2					93									

USAFETAC FORM 0-26-5 (OLA) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
USAF ETAC  
AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 67-76 DEC  
STATION STATION NAME YEARS MONTH  
PAGE 1 2100-2300  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
54/ 53																		1	1	
52/ 51					.3													4	4	
50/ 49					.3	.1	.2											6	6	
48/ 47				.1	.8	.9	.3											19	19	
46/ 45				.7	1.6	1.2	.3	.1										36	36	
44/ 43			.2	2.0	2.2	1.0	.1											50	50	5
42/ 41			.1	1.4	1.5	.7	.2											32	32	3
40/ 39		.1	.8	1.8	.7	.7	.2											39	39	24
38/ 37		.3	.5	1.5	1.2	.2												35	35	53
36/ 35		.1	.8	2.7	.4	.2												39	39	52
34/ 33		.4	1.0	2.0	1.0													40	40	47
32/ 31		.2	2.0	.9	.5													33	33	43
30/ 29		.7	2.7	2.0	.8													56	56	51
28/ 27	.3	1.2	4.2	1.0														62	62	63
26/ 25	.3	1.6	3.3	.2														50	50	59
24/ 23	.1	3.5	2.1															52	52	74
22/ 21	.5	3.8	.8															47	47	79
20/ 19	.2	3.4	.3															36	38	52
18/ 17	1.1	3.0	.1															39	39	50
16/ 15	1.1	2.4	.3															35	36	44
14/ 13	.1	1.3																13	13	17
12/ 11	.3	1.2																14	14	15
10/ 9	.7	1.2																17	18	18
8/ 7	1.4	.8																20	20	22
6/ 5	.5	1.0																14	14	10
4/ 3	.8	2.0																25	25	18
2/ 1	.4	.7																10	12	22
0/ -1	1.1																	10	10	13
-2/ -3	1.5	1.0																23	23	22
-4/ -5	1.1	.2																12	13	12
-6/ -7	1.1																	10	10	11
-8/ -9	1.2																	11	11	11
-10/-11	.5																	5	5	5
-12/-13	.4																	4	4	4
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 67-76  
STATION STATION NAME YEARS

DEC  
MONTH

PAGE 2 2100-2300  
HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																					TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point				
-14/-15	.4																	4	4	4	9				
-16/-17	.7																	6	6	6	7				
-18/-19	.1																	1	1	1	11				
-20/-21	.1																	1	1	1	1				
-22/-23	.1																	1	1	1	4				
-24/-25	.2																	2	2	2	5				
-26/-27	.3																	3	3	3	1				
-28/-29	.1																	1	1	1					
-30/-31																					3				
-32/-33	.1																	1	1	1	1				
-34/-35	.2																	2	2	2	3				
-36/-37	.1																	1	1	1					
-38/-39																					1				
-40/-41																					1				
-42/-43																					3				
<b>TOTAL</b>	17.4	29.9	19.1	16.2	11.3	4.4	1.5	.2										922	929	922	922				

Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature						Total
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel Hum.	4051446	59468	64.5	15.308	922							
Dry Bulb	769171	22013	23.7	16.333	929	9.9	62.9					93
Wet Bulb	563766	18782	20.4	14.023	922	10.2	74.4					93
Dew Point	310879	11703	12.7	13.276	922	14.4	92.0					93

USAFETAC FORM 0-26-5 (OL A) JUL 64  
 REVISOR PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS

67-76

DEC

MONTH

PAGE 1

ALL

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30		≥ 31	Dry Bulb	Wet Bulb
64/ 63																	.0	1	1	
62/ 61																	.0	2	2	
60/ 59																	.0	6	6	
58/ 57										.0	.1	.0	.0	.0			.0	17	17	
56/ 55								.0	.2	.2	.0	.1						38	38	
54/ 53						.0	.1	.2	.3	.1	.0							53	53	
52/ 51				.0	.2	.3	.2	.3	.1									84	84	
50/ 49				.1	.3	.5	.4	.3	.1									118	118	
48/ 47				.1	.6	.7	.6	.2										172	172	2
46/ 45			.1	.7	1.3	1.0	.8	.1										295	295	14
44/ 43		.0	.1	1.3	1.3	1.4	.4	.1										340	340	58
42/ 41		.0	.4	1.4	1.9	.9	.2											358	358	124
40/ 39		.1	.8	1.5	1.8	.8	.1											385	385	206
38/ 37	.0	.1	.6	1.7	1.5	.5	.0											336	336	368
36/ 35	.1	.1	.7	2.6	1.2	.2												353	353	447
34/ 33	.0	.3	1.1	2.4	.9	.0												353	353	503
32/ 31	.1	.7	1.8	1.5	.5	.0												343	343	453
30/ 29	.1	1.0	2.3	1.3	.2													365	365	540
28/ 27	.3	1.7	2.8	.6	.0													405	405	580
26/ 25	.4	1.7	2.4	.2														351	351	472
24/ 23	.4	2.2	1.7	.0														321	321	481
22/ 21	.6	2.6	1.1															316	316	450
20/ 19	.3	2.8	.4															265	270	339
18/ 17	.6	2.0	.2															208	210	307
16/ 15	.5	1.9	.2															193	195	228
14/ 13	.6	1.3	.0															150	150	196
12/ 11	.5	1.3	.0															141	144	134
10/ 9	1.0	1.7																205	207	206
8/ 7	1.0	.9																145	145	174
6/ 5	.7	.7																100	101	99
4/ 3	.7	1.1																132	132	115
2/ 1	.4	.8																92	95	108
0/ -1	1.2	.2																109	112	133
-2/ -3	1.4	.6																145	147	149
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature														
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total								
Dry Bulb																				
Wet Bulb																				
Dew Point																				

USAF ETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 67-76 DEC  
 STATION STATION NAME YEARS MONTH

PAGE 2 ALL  
 HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																			TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb		Dew Point		
-4/-5	.8	.1																		69	71	77	94
-6/-7	1.1	.0																		85	85	87	84
-8/-9	1.3	.0																		100	100	101	130
-10/-11	.7																			53	53	53	92
-12/-13	.3																			23	23	23	63
-14/-15	.4																			28	28	28	83
-16/-17	.4																			31	31	31	70
-18/-19	.3																			22	22	22	62
-20/-21	.2																			18	18	18	33
-22/-23	.2																			13	13	13	16
-24/-25	.3																			23	23	23	28
-26/-27	.2																			12	12	12	33
-28/-29	.1																			6	6	6	10
-30/-31	.1																			5	5	5	15
-32/-33	.1																			9	9	9	13
-34/-35	.0																			3	3	3	16
-36/-37	.0																			3	3	3	7
-38/-39	.0																			3	3	3	11
-40/-41	.1																			6	5	6	5
-42/-43	.0																			3	3	3	4
-44/-45	.0																			1	1	1	5
-46/-47																							5
-48/-49																							4
-50/-51																							2
TOTAL	17.9	26.1	16.8	15.5	12.0	6.5	3.1	1.6	.4	.2	.1	.0								7413	7438	7413	7413
Element (X)	Z <sub>X</sub> <sup>2</sup>	Z <sub>X</sub>	X	%	No. Obs.	Mean No. of Hours with Temperature						Total											
Rel. Hum.	31134522	463276	62.5	17.158	7413	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	744											
Dry Bulb	6979473	188703	25.4	17.168	7438	77.7	452.8					744											
Wet Bulb	4954076	159070	21.5	14.418	7413	81.2	571.2					744											
Dew Point	2626216	97652	19.2	13.445	7413	110.9	730.6					744											

USAFETAC FORM 0-26-5 (OLA) JUL 64  
 REVISION PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALHSTROM AFB MT/GREAT FALLS

67-77

ALL

STATION

STATION NAME

YEARS

MONTH

PAGE 1

ALL

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point															
106/105																														.0	1	1			
104/103																															.0	6	6		
102/101																															.0	5	5		
100/ 99																															.0	13	13		
98/ 97																															.0	20	20		
96/ 95																															.0	52	52		
94/ 93																									.0	.0	.0	.0	.0	.1	139	139			
92/ 91																								.0	.0	.0	.0	.0	.2	225	225				
90/ 89																								.0	.0	.0	.0	.1	.1	.1	300	300			
88/ 87												.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	414	414				
86/ 85												.0	.0	.0	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	475	475				
84/ 83										.0	.0	.0	.0	.1	.1	.1	.2	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	632	632				
82/ 81						.0	.0	.0	.0	.0	.0	.1	.2	.2	.2	.2	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	873	873				
80/ 79				.0	.0	.0	.0	.0	.1	.1	.2	.2	.2	.2	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	991	991				
78/ 77				.0	.0	.0	.0	.0	.1	.2	.2	.2	.2	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1005	1005				
76/ 75			.0	.0	.0	.0	.0	.0	.1	.2	.3	.2	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1175	1175				
74/ 73			.0	.0	.0	.0	.0	.1	.3	.3	.3	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1292	1294	5			
72/ 71			.0	.0	.0	.0	.1	.2	.3	.3	.3	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1446	1447	14	1		
70/ 69		.0	.0	.0	.0	.1	.2	.3	.3	.4	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1739	1741	29	6		
68/ 67		.0	.0	.0	.1	.2	.3	.3	.4	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1718	1719	52	13		
66/ 65		.0	.0	.0	.1	.2	.4	.4	.4	.4	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1988	1989	225	15		
64/ 63		.0	.1	.1	.2	.4	.5	.5	.5	.5	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2519	2520	499	25		
62/ 61		.0	.1	.2	.3	.4	.5	.5	.5	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2380	2380	1038	58		
60/ 59		.0	.1	.3	.5	.5	.5	.4	.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2507	2509	1821	122		
58/ 57		.1	.2	.4	.5	.6	.5	.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2818	2818	2477	214		
56/ 55		.1	.4	.5	.5	.7	.6	.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3236	3237	3111	396		
54/ 53		.2	.5	.5	.6	.8	.7	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3252	3252	3691	723		
52/ 51	.0	.2	.5	.5	.6	.7	.6	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3205	3205	4029	1063		
50/ 49	.0	.2	.6	.5	.7	.7	.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3165	3165	4193	1715		
48/ 47		.2	.6	.7	.7	.8	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3323	3324	4137	2278		
46/ 45	.0	.4	.5	.8	1.0	1.0	.9	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3992	3992	4306	3134		
44/ 43	.0	.4	.5	1.0	1.0	.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3457	3457	4180	3235		
42/ 41	.0	.4	.6	1.0	.9	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3144	3144	4142	3160		
40/ 39	.0	.4	1.0	1.0	1.0	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3680	3682	4143	3524		
Element (X)	Σ x²		Σ x̄		Σ	Σ x̄	No. Obs.					Mean No. of Hours with Temperature						Total																	
Rel. Hum.																																			
Dry Bulb																																			
Wet Bulb																																			
Dew Point																																			

FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE  
 USAF ETAC JUL 64

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 67-77

ALL

STATION

STATION NAME

YEARS

MONTH

PAGE 2

ALL

HOURS (L. S. T.)

Temp (F)	WET BULB TEMPERATURE DEPRESSION (F)																		TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb		Wet Bulb	Dew Point	
38/ 37	.1	.5	1.0	1.2	.7	.2	.0											3180	3180	4510	3691	
36/ 35	.1	.7	1.0	1.2	.5	.1	.0											3151	3151	4693	4230	
34/ 33	.1	.8	1.1	1.1	.3	.0	.0											3049	3049	4656	4166	
32/ 31	.1	.8	1.1	.8	.2	.0												2568	2568	4559	4369	
30/ 29	.2	.9	1.1	.5	.1													2405	2405	4074	5044	
28/ 27	.2	1.0	1.1	.3	.0													2345	2345	3528	6088	
26/ 25	.3	1.0	.8	.1														1856	1856	2815	5066	
24/ 23	.3	1.0	.5	.0														1545	1545	2557	3984	
22/ 21	.2	1.0	.3	.0														1326	1326	1929	4584	
20/ 19	.2	1.0	.2	.0	.0													1226	1231	1478	4182	
18/ 17	.2	.7	.1															935	940	1267	3735	
16/ 15	.2	.6	.1	.0														826	830	1004	3265	
14/ 13	.3	.5	.0															719	728	831	2515	
12/ 11	.3	.5	.0															720	725	730	2203	
10/ 9	.3	.6	.0															767	780	750	2008	
8/ 7	.3	.4	.0															599	613	683	1268	
6/ 5	.2	.4	.0															497	505	535	805	
4/ 3	.2	.5	.0															581	593	521	712	
2/ 1	.2	.5																591	608	621	534	
0/ -1	.5	.1																516	528	666	488	
-2/ -3	.3	.2																419	424	449	550	
-4/ -5	.3	.1																351	355	370	466	
-6/ -7	.3	.1																364	365	375	452	
-8/ -9	.4	.0																392	392	419	512	
-10/-11	.4	.0																320	321	316	394	
-12/-13	.3	.0																234	234	241	350	
-14/-15	.2																	203	203	203	343	
-16/-17	.1																	103	103	103	267	
-18/-19	.1																	98	98	98	292	
-20/-21	.2																	146	146	146	249	
-22/-23	.1																	82	82	82	219	
-24/-25	.1																	77	77	77	170	
-26/-27	.1																	49	49	49	170	
-28/-29	.0																	34	35	34	123	
Element (X)	$\Sigma X^2$	$\Sigma X$	$\bar{X}$	$\sigma_x$	No. Obs.	Mean No. of Hours with Temperature																
Rel. Hum.						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total										
Dry Bulb																						
Wet Bulb																						
Dew Point																						

FORM 0-26-5 (OL AT) REVISION 10-67

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# PSYCHROMETRIC SUMMARY

24112 MALMSTROM AFB MT/GREAT FALLS 67-77 ALL  
STATION STATION NAME YEARS MONTH HOURS (L. S. T.)

PAGE 3 ALL

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																	TOTAL D.B./W.B.	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31		Dry Bulb	Wet Bulb	Dew Point
-30/-31	.0																	21	21	21	86
-32/-33	.0																	24	25	24	77
-34/-35	.0																	9	9	9	49
-36/-37	.0																	3	3	3	30
-38/-39	.0																	3	3	3	28
-40/-41	.0																	6	6	6	17
-42/-43	.0																	3	3	3	10
-44/-45	.0																	1	1	1	5
-46/-47																					5
-48/-49																					4
-50/-51																					2
TOTAL	7.5	10.7	14.1	13.0	10.9	9.1	7.0	5.4	4.2	3.2	2.4	1.9	1.4	1.1	.8	.5	.8	87531	87662	87531	87531

Element (X)	$\Sigma X'$	$\Sigma X$	$\bar{X}$	$s_x$	No. Obs.	Mean No. of Hours with Temperature						Total
						≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Rel. Hum.	303501144	822792	55.120.796		87531							
Dry Bulb	210630192	859832	44.021.542		87662	347.9	2304.4	1252.7	762.0	360.3	23.6	8760
Wet Bulb	137283315	3159701	36.116.289		87531	370.4	5162.1	10.0	.5			8760
Dew Point	82666085	2318749	26.515.578		87531	538.9	580.1	2.0				8760

USAFETAC FORM 0-26-5 (OL A) JUL 64 REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE



DATA PROCESSING BRANCH  
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## MEANS AND STANDARD DEVIATIONS

DRY-BULB TEMPERATURES DEG F FROM HOURLY OBSERVATIONS

24112 MALMSTRQM AFB MT/GREAT FALLS 67-77

STATION	STATION NAME	YEARS												
HRS (LST)		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
00-02	MEAN	16.8	23.9	27.8	35.7	44.7	53.1	58.4	58.1	48.4	39.9	30.7	23.2	38.4
	S D	20.880	14.062	12.471	9.363	7.390	7.532	6.835	6.725	8.675	10.654	13.912	16.706	18.222
	TOTAL OBS	930	849	930	900	930	900	930	930	900	930	900	930	10959
03-05	MEAN	16.1	23.2	26.7	33.8	42.5	50.8	55.3	55.0	46.2	38.5	30.0	22.6	36.8
	S D	21.054	14.406	12.437	8.897	6.881	7.146	6.827	6.319	8.602	10.607	14.050	17.009	17.599
	TOTAL OBS	930	849	930	900	930	900	930	930	900	930	900	930	10959
06-08	MEAN	15.9	22.9	27.0	36.4	47.3	56.4	61.1	58.8	48.0	39.0	29.8	22.5	38.8
	S D	21.136	14.505	12.828	9.841	7.586	7.717	7.020	7.529	9.308	11.135	13.930	17.007	19.331
	TOTAL OBS	930	849	930	900	930	900	930	930	900	930	900	930	10959
09-11	MEAN	18.2	27.8	34.5	45.1	55.6	64.4	71.3	70.2	58.8	48.1	35.7	26.1	46.4
	S D	21.562	15.939	14.535	11.892	9.519	9.348	8.127	9.550	11.001	12.934	14.665	17.281	21.963
	TOTAL OBS	930	849	930	900	930	900	930	930	900	930	900	930	10959
12-14	MEAN	22.0	33.3	39.6	49.9	60.3	69.4	77.6	76.7	65.3	54.1	40.7	30.6	51.7
	S D	21.788	16.557	14.602	13.127	10.661	10.737	8.605	10.653	12.126	13.422	14.965	17.596	22.794
	TOTAL OBS	930	849	930	900	929	900	930	930	900	920	900	930	10958
15-17	MEAN	21.5	33.8	40.4	51.1	61.3	70.4	79.6	78.4	66.7	53.8	39.2	29.2	52.2
	S D	21.496	15.937	14.300	13.458	11.001	10.905	9.090	10.934	12.281	13.329	14.584	17.045	23.426
	TOTAL OBS	930	849	930	900	930	900	930	930	900	930	899	930	10958
18-20	MEAN	18.2	27.7	34.5	46.0	57.2	65.8	74.8	72.5	58.8	45.6	33.2	25.0	46.7
	S D	20.770	14.232	12.983	11.942	9.948	9.698	8.796	10.348	11.035	11.324	13.695	16.449	22.544
	TOTAL OBS	930	849	930	900	930	900	930	930	900	930	897	929	10955
21-23	MEAN	17.6	24.9	29.9	39.1	48.9	57.3	64.1	62.7	51.5	41.3	31.5	23.7	41.1
	S D	20.919	13.986	12.170	9.941	7.923	7.890	7.304	7.602	9.395	10.621	13.900	16.333	19.503
	TOTAL OBS	930	849	930	900	930	900	930	930	900	930	897	929	10955
ALL HOURS	MEAN	13.3	27.2	32.5	42.1	52.2	61.0	67.8	66.6	55.5	45.0	33.8	25.4	44.0
	S D	21.306	15.516	14.283	12.828	11.305	11.383	11.708	12.265	12.835	13.247	14.758	17.168	21.542
	TOTAL OBS	7440	6792	7440	7200	7439	7200	7440	7440	7200	7440	7193	7438	87662

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

## MEANS AND STANDARD DEVIATIONS

WET-BULB TEMPERATURES DEG F FROM HOURLY OBSERVATIONS

24112 MALMSTRDM AFB MT/GREAT FALLS 67-77

STATION	STATION NAME	YEARS												
HRS (LST)		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
00-02	MEAN	14.1	21.0	24.4	31.1	39.4	46.7	49.9	49.4	41.9	34.4	26.4	19.9	33.3
	S D	18.680	11.940	10.376	7.252	5.850	5.625	5.391	4.870	6.310	7.689	11.236	14.385	15.460
	TOTAL OBS	930	838	930	900	929	900	930	930	900	930	900	927	10944
03-05	MEAN	13.5	20.5	23.5	29.9	38.0	45.3	48.4	47.8	40.7	33.5	25.9	19.5	32.5
	S D	18.921	12.324	10.519	7.090	5.700	5.574	5.448	4.922	6.467	7.701	11.448	14.756	15.261
	TOTAL OBS	925	835	930	900	930	900	930	930	900	930	899	925	10934
06-08	MEAN	13.3	20.3	23.8	31.8	41.3	48.9	51.9	50.2	41.9	33.8	25.7	19.4	33.6
	S D	18.989	12.414	10.840	7.534	5.760	5.381	5.074	4.875	6.630	7.923	11.278	14.718	16.282
	TOTAL OBS	929	832	930	900	930	900	929	930	900	930	900	928	10938
09-11	MEAN	15.1	23.6	28.5	36.6	45.2	52.1	55.9	55.0	47.4	39.1	29.7	22.0	37.6
	S D	18.979	12.834	10.998	7.664	5.736	5.632	4.970	4.367	6.397	7.814	11.060	14.513	16.712
	TOTAL OBS	930	840	930	900	930	900	930	930	900	929	900	928	10947
12-14	MEAN	17.8	26.9	31.4	38.7	46.9	53.5	57.4	56.6	49.6	41.7	32.6	25.1	39.9
	S D	18.481	12.439	10.033	7.607	5.643	5.668	4.849	4.086	6.413	7.491	10.645	14.049	16.054
	TOTAL OBS	930	848	929	899	929	900	930	930	898	930	900	929	10952
15-17	MEAN	17.5	27.3	31.8	39.1	47.2	53.7	57.5	56.7	49.8	41.6	31.6	24.1	39.9
	S D	18.325	11.917	9.657	7.519	5.486	5.573	4.807	3.996	6.325	7.529	10.644	13.831	16.127
	TOTAL OBS	930	846	929	900	930	900	930	928	900	930	899	928	10950
18-20	MEAN	15.2	23.8	28.6	36.8	45.8	52.7	56.4	55.0	46.8	37.6	28.1	21.3	37.4
	S D	18.404	11.653	9.691	7.425	5.597	5.614	4.944	4.170	6.494	7.393	10.811	13.969	16.594
	TOTAL OBS	928	839	930	900	930	900	930	927	900	930	897	926	10937
21-23	MEAN	14.8	22.0	25.9	33.3	42.0	49.2	52.6	51.4	43.5	35.2	26.9	20.4	34.8
	S D	18.512	11.817	9.804	7.222	5.531	5.515	5.102	4.570	6.447	7.477	11.100	14.025	15.821
	TOTAL OBS	928	836	930	899	930	900	930	927	900	930	897	922	10929
ALL HOURS	MEAN	15.2	23.2	27.2	34.7	43.2	50.3	53.7	52.8	45.2	37.1	28.3	21.5	36.1
	S D	18.721	12.440	10.710	8.131	6.554	6.316	6.045	5.550	7.279	8.263	11.303	14.418	16.289
	TOTAL OBS	7430	6714	7428	7198	7438	7200	7439	7432	7198	7439	7192	7413	87531

DATA PROCESSING BRANCH  
 USAF ETAC  
 AIR WEATHER SERVICE/MAC

# MEANS AND STANDARD DEVIATIONS

DEW-POINT TEMPERATURES DEG F FROM HOURLY OBSERVATIONS

24112 MALMSTRDM AFB MT/GREAT FALLS 67-77

STATION	STATION NAME	YEARS												
HRS II S T I		JAN	FEB	MAR	APR	MAY	JUN.	JUL	AUG.	SEP	OCT	NOV	DEC	ANNUAL
00-02	MEAN	6.3	13.8	17.5	23.9	32.9	40.5	42.3	41.2	34.7	26.7	18.5	12.4	26.0
	S D	18.891	11.830	9.761	7.528	7.319	6.635	7.482	7.691	6.919	7.177	10.549	13.625	15.673
	TOTAL OBS	930	838	930	900	929	900	930	930	900	930	900	927	10944
03-05	MEAN	5.9	13.2	16.9	23.3	32.2	39.8	41.9	40.8	34.2	26.3	18.2	12.1	25.5
	S D	19.008	12.104	10.262	7.338	7.114	6.510	6.975	7.310	6.918	7.040	10.921	14.190	15.718
	TOTAL OBS	925	835	930	900	930	900	930	930	900	930	899	925	10934
06-08	MEAN	5.6	13.0	17.1	24.6	34.2	42.0	44.1	42.5	35.1	26.5	17.9	12.0	26.3
	S D	19.207	12.308	10.539	7.529	6.806	6.476	6.797	6.971	6.878	7.051	10.774	14.208	16.388
	TOTAL OBS	929	832	930	900	930	900	929	930	900	930	900	928	10938
09-11	MEAN	6.8	14.7	18.6	25.3	34.3	41.8	44.1	43.2	36.7	28.3	20.0	13.5	27.3
	S D	18.744	11.855	9.801	7.363	7.177	7.277	7.536	6.753	6.657	6.571	10.155	13.625	15.854
	TOTAL OBS	930	840	930	900	930	900	930	930	900	929	900	928	10947
12-14	MEAN	8.2	15.8	18.7	24.5	33.5	40.7	42.8	41.6	35.4	27.8	20.4	15.0	27.1
	S D	17.735	10.724	8.724	7.371	7.523	7.721	8.155	7.239	7.121	6.709	9.647	12.573	14.878
	TOTAL OBS	930	848	929	899	929	900	930	930	898	930	900	929	10952
15-17	MEAN	7.9	16.2	18.5	24.0	33.2	40.3	41.6	40.7	34.5	27.5	20.0	14.4	26.6
	S D	17.806	10.382	8.400	7.482	8.032	7.918	8.590	7.580	7.522	6.925	9.781	12.552	14.766
	TOTAL OBS	930	846	929	900	930	900	930	928	900	930	899	928	10950
18-20	MEAN	6.5	15.5	18.5	24.5	33.9	41.7	42.5	41.1	34.9	27.3	19.1	13.3	26.7
	S D	18.325	11.110	8.649	7.919	8.362	8.347	8.910	7.973	7.422	6.944	10.321	13.157	15.539
	TOTAL OBS	928	839	930	900	930	900	930	927	900	930	897	926	10937
21-23	MEAN	6.7	14.8	18.1	24.6	33.9	41.5	42.8	41.3	34.9	26.9	18.7	12.7	26.5
	S D	18.555	11.649	9.145	7.793	7.708	7.322	8.003	8.133	7.259	7.076	10.370	13.276	15.673
	TOTAL OBS	928	836	930	899	930	900	930	927	900	930	897	922	10929
ALL HOURS	MEAN	6.8	14.6	18.0	24.3	33.5	41.0	42.8	41.5	35.0	27.2	19.1	13.2	26.5
	S D	18.551	11.556	9.461	7.560	7.545	7.340	7.882	7.510	7.123	6.968	10.354	13.445	15.578
	TOTAL OBS	7430	6714	7438	7198	7438	7200	7439	7432	7198	7439	7192	7413	87531

2

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

**RELATIVE HUMIDITY**

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
PERIOD

JAN  
MONTH

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
JAN	00-02	100.0	100.0	99.5	95.9	87.4	62.3	30.4	12.2	4.2	64.7	930
	03-05	100.0	99.9	99.4	96.2	87.5	67.6	31.0	12.4	3.9	65.2	925
	06-08	99.9	99.9	99.5	97.0	88.5	64.5	30.9	12.1	3.3	65.1	929
	09-11	100.0	100.0	98.4	93.7	80.4	60.3	26.1	9.8	3.2	62.7	930
	12-14	100.0	99.4	94.9	84.3	69.8	46.3	21.4	5.7	.8	57.8	930
	15-17	100.0	99.4	95.4	85.4	72.3	46.2	20.2	5.2	1.1	58.0	930
	18-20	100.0	100.0	99.2	94.1	82.5	59.8	25.3	8.2	1.3	62.6	928
	21-23	100.0	100.0	99.1	95.2	84.7	59.4	26.7	9.5	2.3	63.6	928
TOTALS		100.0	99.8	98.2	92.7	81.6	58.3	26.5	9.4	2.5	62.5	7430

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

**RELATIVE HUMIDITY**

24112  
 STATION

MALMSTROM AFB MT/GREAT FALLS  
 STATION NAME

68-77  
 PERIOD

FEB  
 MONTH

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
FEB	00-02	100.0	99.6	99.0	95.1	85.6	63.4	38.4	20.0	7.5	66.5	838
	03-05	100.0	99.6	98.7	95.4	86.9	64.4	39.4	18.1	6.8	66.5	835
	06-08	100.0	99.6	98.2	95.8	86.5	65.6	39.7	17.1	5.9	66.6	832
	09-11	100.0	99.4	95.9	84.4	67.0	50.1	31.5	16.1	6.0	60.6	840
	12-14	100.0	97.4	86.2	66.6	52.4	35.4	22.4	10.7	2.2	52.9	848
	15-17	100.0	97.8	86.2	67.3	51.8	35.3	22.1	8.7	1.2	52.6	846
	18-20	100.0	99.8	97.0	89.4	74.5	53.4	30.0	15.7	4.6	61.9	839
	21-23	100.0	100.0	99.3	94.3	86.1	65.7	37.9	20.2	7.1	66.4	836
TOTALS		100.0	99.2	95.1	86.0	73.9	54.2	32.7	15.8	5.2	61.8	6714

DATA PROCESSING BRANCH  
ETAC/USAF  
AIR WEATHER SERVICE/MAC

RELATIVE HUMIDITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
PERIOD

MAR  
MONTH

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
(FROM HOURLY OBSERVATIONS)

MONTH	HOURS (L.S.T.)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
MAR	00-02	100.0	100.0	99.5	95.8	82.3	62.7	41.7	23.5	9.6	67.1	930
	03-05	100.0	100.0	99.1	95.7	85.9	66.9	45.4	26.6	11.6	68.5	930
	06-08	100.0	100.0	99.1	95.6	85.7	66.7	44.2	25.7	11.2	68.2	930
	09-11	100.0	99.5	92.7	71.6	54.0	39.0	27.6	16.9	5.3	56.1	930
	12-14	100.0	97.0	72.8	49.7	38.2	29.6	20.3	10.3	2.7	47.7	929
	15-17	100.0	96.1	68.0	48.0	36.3	26.3	17.3	9.3	1.7	45.9	929
	18-20	100.0	99.8	92.0	72.2	54.0	39.9	26.6	14.0	4.0	55.7	930
	21-23	100.0	100.0	99.0	91.7	73.7	54.2	35.9	20.0	7.7	63.8	930
TOTALS		100.0	99.1	90.3	77.5	63.8	48.2	32.4	18.3	6.7	59.1	7438

2  
DATA PROCESSING BRANCH  
ETAC/USAF  
AIR WEATHER SERVICE/MAC

# RELATIVE HUMIDITY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 APR  
STATION STATION NAME PERIOD MONTH

## CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
APR	00-02	100.0	100.0	99.1	92.3	75.1	53.1	37.1	23.6	10.8	64.6	900
	03-05	100.0	100.0	99.8	94.4	82.2	61.2	43.8	27.3	11.3	67.4	900
	06-08	100.0	100.0	99.1	89.8	73.1	57.0	40.2	24.6	10.1	64.9	900
	09-11	100.0	97.8	81.6	56.9	40.9	31.0	20.8	13.4	4.2	50.2	900
	12-14	100.0	89.8	60.1	39.6	28.7	23.4	15.8	8.8	2.7	42.2	899
	15-17	100.0	83.8	51.3	36.7	28.9	21.0	13.8	8.2	2.9	40.2	900
	18-20	100.0	94.4	73.2	51.4	38.1	29.1	20.1	11.4	3.9	47.8	900
	21-23	100.0	99.9	96.0	79.9	58.8	43.7	30.9	20.5	7.7	59.2	899
TOTALS		100.0	95.7	82.5	67.6	53.2	39.9	27.8	17.2	6.7	54.6	7198

RELATIVE HUMIDITY

24112 MALMSTROM AFB MT/GREAT FALLS

68-77

MAY

STATION

STATION NAME

PERIOD

MONTH

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (L.S.T)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
MAY	00-02	100.0	100.0	99.7	92.2	76.7	59.5	40.4	24.1	7.3	65.7	929
	03-05	100.0	100.0	99.9	96.5	84.0	65.6	48.0	28.8	8.7	68.8	930
	06-08	100.0	100.0	99.2	89.6	71.2	51.9	34.2	20.0	6.2	62.7	930
	09-11	100.0	98.4	83.8	55.1	35.7	24.2	17.1	8.6	2.4	48.1	930
	12-14	100.0	91.7	59.0	37.8	27.1	18.1	10.8	5.9	1.9	40.8	929
	15-17	100.0	82.9	54.2	36.1	25.8	18.7	12.8	7.3	2.2	39.8	930
	18-20	100.0	92.0	70.4	49.6	36.3	26.6	18.7	9.7	2.9	46.2	930
	21-23	100.0	99.5	93.7	80.4	61.4	46.9	33.1	18.6	4.7	59.5	930
TOTALS		100.0	95.6	82.5	67.2	52.3	38.9	26.9	15.4	4.5	54.0	7438







DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# RELATIVE HUMIDITY

24112 MALMSTROM AFB MT/GREAT FALLS  
STATION STATION NAME

68-77  
PERIOD

AUG  
MONTH

## CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
AUG	00-02	100.0	99.9	93.1	75.5	54.5	39.1	26.8	12.7	3.5	56.3	930
	03-05	100.0	100.0	98.0	85.8	66.6	48.4	34.1	18.5	5.1	61.4	930
	06-08	100.0	99.8	94.2	78.8	59.8	42.5	29.6	14.7	3.2	57.8	930
	09-11	100.0	90.9	65.6	43.8	26.9	16.1	9.6	4.5	.6	41.5	930
	12-14	99.9	70.3	43.4	25.2	14.1	8.4	5.4	2.6	.4	32.5	930
	15-17	99.5	62.4	37.3	23.9	4	7.8	4.8	1.9	.2	30.2	928
	18-20	99.9	75.3	53.2	35.2	22.9	15.7	9.7	3.9	.3	37.1	927
	21-23	100.0	96.1	78.4	60.2	44.4	30.2	18.8	9.0	1.1	49.5	927
TOTALS		99.9	86.8	70.4	53.6	37.7	26.0	17.4	8.5	1.8	45.8	7432

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

## RELATIVE HUMIDITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77  
PERIOD

SEP  
MONTH

### CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
SEP	00-02	100.0	99.6	97.0	89.4	74.3	52.6	29.1	12.6	3.4	61.5	900
	03-05	100.0	99.6	98.2	93.4	81.3	61.6	38.0	16.9	4.6	65.1	900
	06-08	100.0	99.8	96.8	90.1	75.9	57.3	36.0	17.2	5.0	63.5	900
	09-11	100.0	96.7	82.0	58.1	35.4	21.7	14.0	6.9	1.4	47.2	900
	12-14	99.7	86.0	54.2	30.1	18.6	12.5	7.6	3.3	.6	36.8	898
	15-17	99.4	78.6	48.9	24.9	15.7	10.3	6.7	2.9	.6	34.2	900
	18-20	100.0	94.2	76.7	50.9	29.7	18.8	11.2	6.6	1.6	44.4	900
	21-23	100.0	99.4	92.4	79.4	58.1	38.9	23.0	10.2	2.6	55.9	900
TOTALS		99.9	94.2	80.8	64.5	48.6	34.2	20.7	9.6	2.5	51.1	7198

2  
DATA PROCESSING BRANCH  
ETAC/USAF  
AIR WEATHER SERVICE/MAC

## RELATIVE HUMIDITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

68-77

PERIOD

OCT  
MONTH

### CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
OCT	00-02	100.0	99.6	96.6	87.2	71.2	51.1	34.3	20.6	6.2	62.3	930
	03-05	100.0	99.8	97.1	89.1	74.1	56.0	39.7	25.2	7.8	64.4	930
	06-08	100.0	99.9	96.1	87.6	71.2	54.2	40.9	26.6	9.8	64.1	930
	09-11	100.0	96.2	83.3	61.6	41.9	29.9	20.9	13.8	4.3	50.8	929
	12-14	100.0	88.5	65.5	37.3	25.7	17.7	11.1	7.2	2.7	41.0	930
	15-17	100.0	88.6	63.1	37.3	23.9	18.4	11.5	6.9	1.5	40.8	930
	18-20	100.0	98.5	88.6	68.3	47.3	31.2	21.3	12.6	2.9	52.5	930
	21-23	100.0	99.0	96.5	84.4	64.6	44.7	28.4	17.8	6.2	59.7	930
TOTALS		100.0	96.3	85.9	69.1	52.5	37.9	26.0	16.3	5.2	54.5	7439

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

# RELATIVE HUMIDITY

24112 MALMSTROM AFB MT/GREAT FALLS 68-77 NOV  
 STATION STATION NAME PERIOD MONTH

### CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (L.S.T.)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
NOV	00-02	100.0	99.7	96.6	87.7	74.6	56.1	35.8	21.7	8.2	63.5	900
	03-05	100.0	99.7	96.4	89.1	75.6	57.6	40.2	22.9	9.6	64.5	899
	06-08	100.0	99.7	95.8	87.8	74.8	57.7	40.6	23.9	7.7	64.4	900
	09-11	100.0	98.6	90.0	74.4	57.3	42.2	30.0	17.7	6.3	57.1	900
	12-14	100.0	95.1	80.9	53.0	38.2	30.0	21.6	11.8	3.7	49.0	900
	15-17	100.0	97.0	83.6	59.5	43.2	31.0	21.8	11.0	2.6	50.4	899
	18-20	100.0	99.3	95.3	82.6	64.3	45.9	29.1	17.9	5.5	59.4	897
	21-23	100.0	100.0	95.4	87.4	72.1	53.7	33.3	19.6	6.6	62.2	897
TOTALS		100.0	98.6	91.8	77.7	62.5	46.8	31.6	18.3	6.3	59.8	7192

DATA PROCESSING BRANCH  
ETAC/USAF  
AIR WEATHER SERVICE/MAC

### RELATIVE HUMIDITY

24112  
STATION

MALMSTROM AFB MT/GREAT FALLS  
STATION NAME

67-76  
PERIOD

DEC  
MONTH

#### CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (L.S.T.)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
DEC	00-02	100.0	100.0	98.9	93.3	82.1	61.7	37.5	18.9	5.3	65.4	927
	03-05	100.0	100.0	98.8	93.2	83.8	62.5	38.1	19.5	5.4	65.8	925
	06-08	100.0	100.0	98.3	94.1	82.3	65.0	40.2	21.2	5.3	66.0	928
	09-11	100.0	99.7	96.2	88.8	72.3	52.2	32.5	17.3	5.4	61.8	928
	12-14	100.0	98.3	91.7	73.8	57.7	40.8	25.9	13.9	3.9	56.0	929
	15-17	100.0	98.7	93.9	78.9	62.3	41.2	25.1	14.7	5.0	57.3	928
	18-20	100.0	100.0	97.8	90.3	78.1	56.4	32.5	16.3	5.1	63.2	926
	21-23	100.0	100.0	99.3	93.8	81.6	59.3	37.1	16.7	4.2	64.5	922
TOTALS		100.0	99.6	96.1	88.3	75.0	54.9	33.6	17.3	5.0	62.5	7413

DATA PROCESSING BRANCH  
 ETAC/USAF  
 AIR WEATHER SERVICE/MAC

**RELATIVE HUMIDITY**

24112 MALMSTRUM AFB MT/GREAT FALLS  
 STATION STATION NAME

67-77  
 PERIOD

ALL  
 MONTH

**CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE  
 (FROM HOURLY OBSERVATIONS)**

MONTH	HOURS (L.S.T.)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
JAN	ALL	100.0	99.8	98.2	92.7	81.6	58.3	26.5	9.4	2.5	62.5	7430
FEB		100.0	99.2	95.1	86.0	73.9	54.2	32.7	15.8	5.2	61.8	6714
MAR		100.0	99.1	90.3	77.5	63.8	48.2	32.4	18.3	6.7	59.1	7438
APR		100.0	95.7	82.5	67.6	53.2	39.9	27.8	17.2	6.7	54.6	7198
MAY		100.0	95.6	82.5	67.2	52.3	38.9	26.9	15.4	4.5	54.0	7438
JUN		100.0	96.0	82.9	66.9	51.0	35.7	23.3	10.1	1.4	52.4	7200
JUL		100.0	89.8	72.1	54.3	36.8	22.8	11.8	4.8	.7	45.0	7439
AUG		99.9	86.8	70.4	53.6	37.7	26.0	17.4	8.5	1.8	45.8	7432
SEP		99.9	94.2	80.8	64.5	48.6	34.2	20.7	9.6	2.5	51.1	7198
OCT		100.0	96.3	85.9	69.1	52.5	37.9	26.0	16.3	5.2	54.5	7439
NOV		100.0	98.6	91.8	77.7	62.5	46.8	31.6	18.3	6.3	58.8	7192
DEC		100.0	99.6	96.9	88.3	75.0	54.9	33.6	17.3	5.0	62.5	7413
TOTALS		100.0	95.9	85.8	72.1	57.4	41.5	25.9	13.4	4.0	55.2	87531



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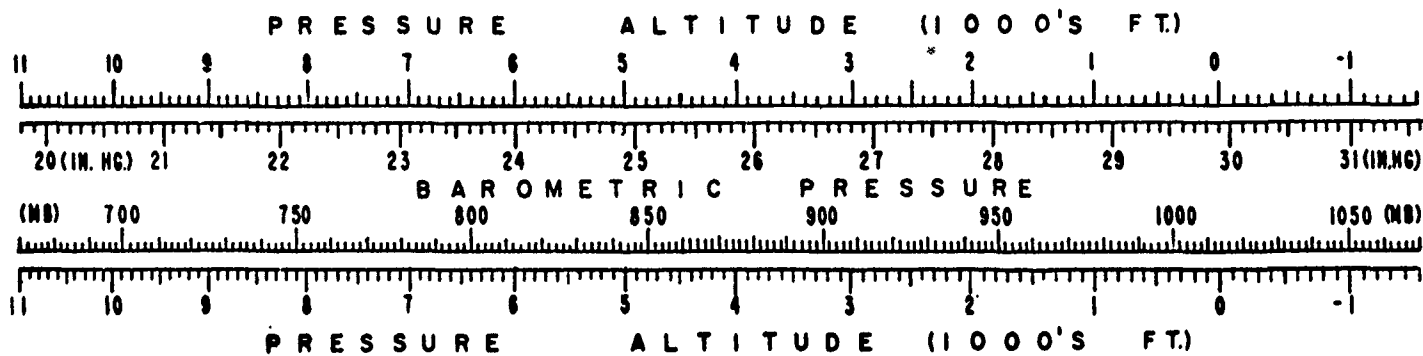
PART F PRESSURE SUMMARY

Presented in this part are two tables giving the means, standard deviations, and total number of observations of station pressure and sea-level pressure by month and annual for the local hourly observations corresponding to the eight 3-hourly synoptic times GCT. The same computations are also provided at the bottom of the page for all hours combined. All years of data available are combined in both of these tables, although the overall period is limited by service as indicated below.

NOTES: Station pressure not reported for all services until late in 1945.  
 Station pressure reported only at 6-hourly times for Air Force stations from Jan 64 - Jul 65.  
 METAR stations do not report Sea-level pressure for the period Jan 68 - Dec 70.

1. Station pressure is presented in the table in inches of mercury.
2. Sea-level pressure is presented in millibars.

Provided below is a scale to convert station pressure values in inches of mercury or millibars to pressure-altitude in 1000's of feet. This scale is an enlarged model of the pressure-altitude scale in the Smithsonian Meteorological Tables.



DATA PROCESSING BRANCH  
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## MEANS AND STANDARD DEVIATIONS

STATION PRESSURE IN INCHES HG FROM HOURLY OBSERVATIONS

24112 MALMSTROM AFB MT/GREAT FALLS 67-77

STATION		STATION NAME												YEARS
HRS (L S T)		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
02	MEAN	26.269	26.300	26.247	26.280	26.293	26.289	26.364	26.344	26.358	26.350	26.315	26.261	26.305
	S D	.216	.211	.201	.174	.166	.133	.120	.111	.173	.182	.206	.201	.182
	TOTAL OBS	293	273	301	296	303	296	285	288	295	302	293	298	3523
05	MEAN	26.263	26.297	26.244	26.280	26.299	26.292	26.376	26.351	26.361	26.348	26.313	26.262	26.307
	S D	.217	.210	.202	.176	.168	.134	.122	.113	.174	.184	.211	.209	.185
	TOTAL OBS	288	276	297	292	304	292	283	289	294	300	286	300	3501
08	MEAN	26.269	26.302	26.258	26.294	26.315	26.306	26.393	26.368	26.372	26.361	26.320	26.267	26.318
	S D	.221	.211	.201	.176	.172	.134	.122	.115	.176	.188	.211	.207	.186
	TOTAL OBS	292	277	305	296	303	294	282	293	294	297	294	304	3531
11	MEAN	26.286	26.316	26.259	26.288	26.305	26.296	26.381	26.357	26.368	26.361	26.323	26.284	26.318
	S D	.219	.215	.200	.176	.171	.133	.122	.117	.175	.192	.215	.209	.186
	TOTAL OBS	290	272	306	296	301	295	285	293	296	301	294	308	3537
14	MEAN	26.252	26.286	26.228	26.269	26.280	26.272	26.351	26.326	26.338	26.326	26.292	26.244	26.288
	S D	.216	.217	.205	.176	.167	.132	.120	.117	.171	.190	.212	.203	.184
	TOTAL OBS	294	279	302	295	304	293	286	295	292	299	295	300	3534
17	MEAN	26.265	26.283	26.223	26.255	26.267	26.257	26.328	26.307	26.333	26.327	26.302	26.260	26.284
	S D	.214	.212	.204	.176	.163	.130	.123	.117	.164	.185	.211	.197	.181
	TOTAL OBS	294	271	304	295	300	294	284	287	293	303	289	303	3517
20	MEAN	26.270	26.298	26.238	26.271	26.274	26.265	26.340	26.318	26.347	26.338	26.311	26.270	26.294
	S D	.210	.211	.202	.174	.161	.130	.117	.116	.165	.182	.213	.193	.179
	TOTAL OBS	291	274	305	294	303	292	279	293	294	302	292	305	3524
23	MEAN	26.265	26.301	26.247	26.286	26.292	26.287	26.362	26.340	26.357	26.348	26.310	26.276	26.306
	S D	.215	.208	.204	.174	.160	.133	.118	.114	.170	.184	.210	.196	.181
	TOTAL OBS	291	277	307	297	301	298	286	287	296	305	294	294	3533
ALL HOURS	MEAN	26.267	26.298	26.243	26.278	26.291	26.283	26.362	26.339	26.354	26.345	26.311	26.265	26.303
	S D	.216	.212	.202	.175	.166	.133	.122	.116	.171	.186	.211	.202	.183
	TOTAL OBS	2333	2199	2427	2361	2419	2354	2270	2325	2354	2409	2337	2412	28200

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## MEANS AND STANDARD DEVIATIONS

SEA LEVEL PRESSURE IN MBS FROM HOURLY OBSERVATIONS

24112 MALMSTRUM AFB MT/GREAT FALLS 67-77

STATION	STATION NAME	YEARS												
HRS (LST)		JAN	FEB	MAR.	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
02	MEAN	1017.3	1016.7	1013.8	1013.7	1012.9	1011.5	1013.6	1012.9	1014.8	1015.8	1016.1	1015.4	1014.5
	S D	10.139	8.916	8.952	7.614	6.760	5.566	4.935	4.693	7.372	7.973	8.951	8.934	7.912
	TOTAL OBS	310	283	310	300	310	300	310	310	300	310	300	310	3653
05	MEAN	1017.4	1016.8	1013.9	1013.9	1013.3	1011.9	1014.2	1013.3	1015.0	1016.1	1016.5	1015.7	1014.8
	S D	10.170	8.860	8.876	7.561	6.809	5.523	4.887	4.678	7.426	8.037	9.030	9.012	7.910
	TOTAL OBS	310	283	310	300	310	300	310	310	300	310	300	310	3653
08	MEAN	1017.8	1017.5	1014.7	1014.7	1013.7	1012.2	1014.8	1014.0	1015.9	1016.9	1017.0	1016.1	1015.4
	S D	10.264	8.971	8.789	7.479	6.906	5.405	4.909	4.713	7.464	8.089	9.128	9.064	7.906
	TOTAL OBS	310	283	310	300	309	300	310	310	300	310	300	310	3652
11	MEAN	1018.1	1017.5	1014.3	1014.3	1013.3	1011.8	1014.3	1013.5	1015.3	1016.4	1016.7	1016.2	1015.1
	S D	10.204	9.009	8.877	7.457	6.807	5.397	4.881	4.820	7.390	8.185	9.178	9.039	7.983
	TOTAL OBS	310	283	310	300	310	300	310	310	300	310	300	310	3653
14	MEAN	1017.4	1016.0	1013.1	1013.2	1012.4	1010.8	1013.1	1012.3	1014.0	1014.9	1015.3	1014.8	1013.9
	S D	10.46	9.142	8.886	7.533	6.780	5.464	4.896	4.874	7.275	8.132	9.078	8.964	7.933
	TOTAL OBS	310	283	310	300	310	300	310	310	300	310	300	310	3653
17	MEAN	1017.2	1016.2	1013.0	1012.9	1012.0	1010.3	1012.3	1011.6	1013.8	1015.2	1016.0	1015.7	1013.8
	S D	9.992	8.818	8.890	7.507	6.618	5.379	4.922	4.862	7.048	7.902	9.088	8.797	7.924
	TOTAL OBS	310	283	310	300	310	300	310	310	300	310	299	310	3652
20	MEAN	1017.6	1017.1	1014.1	1013.6	1012.2	1010.6	1012.6	1012.1	1014.8	1016.1	1016.6	1016.3	1014.5
	S D	9.973	8.993	8.889	7.587	6.560	5.351	4.799	4.832	7.084	7.871	9.205	8.679	7.966
	TOTAL OBS	310	283	310	300	310	300	310	310	300	310	299	310	3652
23	MEAN	1017.4	1016.9	1014.0	1014.0	1012.9	1011.5	1013.6	1012.8	1014.9	1016.0	1016.2	1016.1	1014.7
	S D	10.179	8.942	9.102	7.532	6.610	5.502	4.859	4.840	7.308	7.966	9.101	8.797	7.931
	TOTAL OBS	310	283	310	300	310	300	310	310	300	310	299	310	3652
ALL HOURS	MEAN	1017.4	1016.8	1013.8	1013.8	1012.8	1011.3	1013.6	1012.8	1014.8	1015.9	1016.3	1015.8	1014.6
	S D	10.128	8.958	8.911	7.542	6.745	5.476	4.945	4.840	7.313	8.031	9.095	8.912	7.954
	TOTAL OBS	2480	2264	2480	2400	2479	2400	2480	2480	2400	2480	2397	2480	29220