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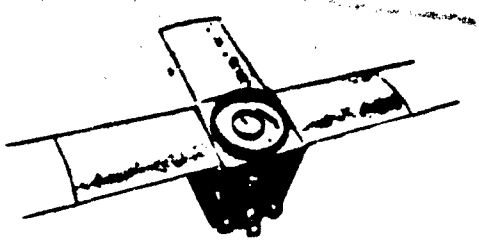
CLIMATIC HANDBOOK FOR POINT MUGU AND SAN NICOLAS ISLAND, PART II. UPPER-AIR DATA

Robert de Violini

Pacific Missile Range
Point Mugu, California

19 January 1974



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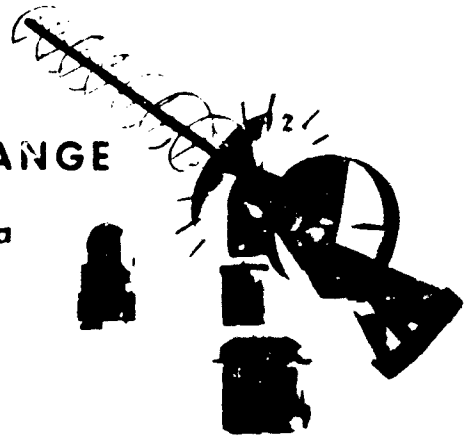
By

ROBERT de VIOLINI
Geophysics Division

19 January 1974



PACIFIC MISSILE RANGE

Point Mugu, California

PACIFIC MISSILE RANGE

POINT MUGU, CALIFORNIA

W. M. HARNISH, RADM USN
Commander

Mr. D. A. Lea, Head, Atmospheric Sciences Branch; CDR W. E. Heyl, Head, Geophysics Division; and Mr. R. S. McMullin, Deputy Range Operations Officer, have reviewed this report for publication.

Approved by:
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20 ABSTRACT (Continue on reverse side if necessary and identify by block number)

In this handbook, upper-air climatic data for Point Mugu and San Nicolas Island relating to wind, temperature, pressure, and density between sea level and 200,000 feet (62 kilometers) are presented by both month and season. This publication is a companion volume to PMR-TP-74-1, "Climatic Data for Point Mugu and San Nicolas Island, Part I, Surface Data."

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PREFACE

The climatic handbooks for Point Mugu and San Nicolas Island are intended as basic references both for personnel of the Pacific Missile Range's Geophysics Division, and for those who are now using or are planning to use, the facilities of the PMR. These volumes contain descriptions of the surface (Part I) and upper-air (Part II) weather phenomena which may influence the scheduling or results of operations carried out on the range. The extensive revisions contained in these publications dictate that the two earlier publications of similar name (PMR-MR-67-2 and PMR-MR-69-7) should be discarded.

The present volumes should be considered as complementary to the Point Mugu Forecasters Handbook (PMR-TP-72-1, AD 747641) of 1 April 1972. That publication contains technical discussions of meteorological phenomena affecting both the local Point Mugu-Ventura County area and southern California in general, and is designed for use by the professional meteorological community.

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SUMMARY

Upper-air meteorological data—primarily winds and temperatures—for Point Mugu and San Nicolas Island have been summarized and are presented here in two sections.

The first section includes the altitude range from sea level to 100,000 feet, or 31 kilometers, obtained through the use of rawinsonde data to that altitude from San Nicolas Island. Supplementary data from Point Mugu balloon soundings are included below 60,000 feet. The data provided include occurrence frequencies of wind velocity components, mean values and ranges of temperature, moisture, and height at the standard pressure levels, and the mean vertical patterns of the temperature and of the zonal and meridional wind components.

The second section presents somewhat similar data, but for altitudes extending above 100,000 feet. From data obtained from the firings of meteorological rockets at Point Mugu, mean pictures of the wind and temperature patterns at these higher altitudes are provided to approximately 200,000 feet, or 61 kilometers.

Two appendixes present preliminary summaries of balloon-borne ozonesonde data and falling sphere measurements of high-altitude winds and thermodynamics. A third appendix provides comparison data from the 1962 U.S. Standard Atmosphere and the 1966 Standard Atmosphere Supplements as they apply to the Point Mugu-San Nicolas Island area.

INTRODUCTION

Upper air data (winds, temperature, pressure-height, moisture, etc.) for Point Mugu and San Nicolas Island are presented here to supplement the surface climatic data found in Part I (reference 1) of this publication. Station locations and histories are also to be found in that volume. Technical discussion of meteorological phenomena affecting Southern California may be found in reference 2.

The upper-air data are given here in two sections, according to altitude. The lower portion, between the surface and 100,000 feet (about 31 kilometers*) is based on balloon-borne rawinsonde data from San Nicolas Island and Point Mugu, California. Tables in appendix A summarize ozone data in this lower portion. The upper portion extends to 200,000 feet (about 62 kilometers). It is based on data collected from firings of meteorological rockets at Point Mugu. Tables in appendix B extend these data to 280,000 feet (85 kilometers) based on preliminary analyses of falling-sphere data from the high-altitude Viper-Dart-Robin system.

*In the text, conversions from feet to kilometers and vice versa have been rounded off.

TERMINOLOGY

The terms and units in this publication are those in common meteorological usage. They are listed below, with some definitions and conversion factors.

WIND SPEED

Given in knots or meters per second (this difference is a result of the source tabulations having been prepared in differing formats). One knot is 0.514791 meter per second, 1.15155 miles per hour. One meter per second is 1.94254 knots, 2.23694 miles per hour.

WIND DIRECTION

Always the direction from which the wind is blowing. In upper-air measurement, directions are usually given to the nearest 10 degrees (a 36-point compass) as measured clockwise from true North, but in many data tabulations, direction is given to 16 points of the compass (N, NNW, NW, WNW, etc.). Values of the 16-point compass in degrees are provided in table 1.

Table 1. Wind Direction Conversion Table

Compass Point	Degrees True	Range (Inclusive Degrees)
N	000	349 to 011
NNE	022.5	012 to 033
NE	045	034 to 056
ENE	067.5	057 to 078
E	090	079 to 101
ESE	112.5	102 to 123
SE	135	124 to 146
SSE	157.5	147 to 168
S	180	169 to 191
SSW	202.5	192 to 213
SW	225	214 to 236
WSW	247.5	237 to 258
W	270	259 to 281
WNW	292.5	282 to 303
NW	315	304 to 326
NNW	337.5	327 to 348
N	360	349 to 011

WIND COMPONENTS

Since wind velocity is a vector quantity having both magnitude and direction, it is often convenient for purposes of numerical manipulation to resolve the wind into its component parts. A northwesterly wind, for example, has both north and west components and can be described in those terms alone. The north-south component is the meridional or U component, the east-west component is the zonal or V component. The south and west portions are positive. Thus a -14 knot meridional (or U) component and a +10 knot zonal (or V) component combine to form a resultant wind velocity of 306 degrees at 17 knots. Summarized wind data are often presented in terms of the zonal and meridional components only.

TEMPERATURE

In degrees Celsius.

PRESSURE

In millibars. One thousand millibars equal 29.53 inches of mercury, 14.5038 pounds per square inch. Ten pounds per square inch equal 689.476 millibars.

RELATIVE HUMIDITY

In percent of saturation (100 percent).

HEIGHT

In feet or kilometers. Supplementary scales indicating the secondary unit of measurement are included in the figures. One thousand feet are 0.3048 kilometer; one kilometer is 3,280.8399 feet. Conversion listings for feet to kilometers and kilometers to feet are incorporated in tables C-1 and C-2 in appendix C.

The several major regions of the atmosphere (indicated in the temperature-altitude profile of figure C-1 in appendix C) are generally defined by their temperature characteristics, as in the following paragraphs.

TROPOSPHERE

The lowest region of the atmosphere, the troposphere, is surface-based and is the region within which the major portion of weather phenomena occur. It is characterized by a general decrease of temperature with increasing altitude. The top of the troposphere is the tropopause. This level can be defined as the height (above 500 millibars) at which the temperature lapse rate decreases to become 2 Celsius degrees or less per kilometer. The height and temperature of the tropopause vary with the latitude, and to some extent, with the time of the year. It is highest and coldest in the tropics, occurring as high as about 18 kilometers (60,000 feet), and has a mean temperature of nearly -80°C. At midlatitudes, the tropopause is often found near 11 kilometers (36,000 feet) and with a mean temperature of about -56°C. The average tropopause height in polar regions is close to 9 kilometers (30,000 feet) and is higher in summer than in winter. The mean tropopause temperature at high latitudes is nearly -53°C and is warmer in summer than in winter.

STRATOSPHERE

This region extends upward from the tropopause to about 50 kilometers (164,000 feet). It is a very stable region and is characterized by a general increase of temperature with altitude. The top of the stratosphere is the stratopause. Its temperature is close to -3° C.

MESOSPHERE

This region extends upward from the stratopause to about 80 kilometers (260,000 feet). It is characterized by a general decrease of temperature with altitude. The temperature at the upper boundary, the mesopause, is close to -90° C. (Above the mesopause, the temperature once again increases--the thermosphere--reaching values of over 1,000° C at an altitude of about 245 kilometers or 785,000 feet.)

Detailed discussions of the characteristics of the atmosphere at levels above the tropopause may be found in references 3 and 4.

UPPER AIR DATA TO 100,000 FEET

This section contains presentations of upper-air data based on balloon observations made at Point Mugu between 1948 and 1968; at San Nicolas Island between 1953 and 1968; and summarized by the Naval Weather Service Environmental Detachment at the National Climatic Center, Asheville, North Carolina (references 5 and 6).

Although the overall period of record at Point Mugu is longer than at San Nicolas Island, there were far fewer observations made at Point Mugu during this time period. The Point Mugu observations have also been much more sporadic during this period of record than those made at San Nicolas Island. Thus, the San Nicolas Island data are felt to present a more representative picture of conditions over the sea test range, particularly above the first few thousand feet, than do the data from Point Mugu.

The instrumentation system used in these upper-air soundings consisted, for the most part, of the AN/GMD-1 ground equipment and the AN/AMT-4D flight instrument. In more recent years, the AN/GMD-2 ground equipment and the AN/AMQ-9 instrument were used for a number of the soundings. However, there was no attempt to segregate the data obtained with either system. Information regarding the data reliability of these systems may be found in reference 7. Observational procedures have been in accordance with instructions contained in the editions of references 8 and 9 that were current at the time of the observations.

WIND DATA

Winds-Aloft Frequency Profiles

Vertical profiles of the annual and seasonal wind distribution over San Nicolas Island and Point Mugu to 60,000 feet (about 18 kilometers) are shown in figures 1 through 10 and 11 through 20, respectively. These figures provide, first, profiles of the frequency distribution of the scalar wind speed, and then the distributions of the zonal (east-west) and meridional (north-south) components of the mean resultant wind vector. In accordance with standard meteorological practice, the wind components are positive when from the west or south. The seasons are defined as: winter, December through February; spring, March through May; summer, June through August; and autumn, September through November.

In each figure, the mean speed profile is plotted along with profiles of the speed values one standard deviation above and below that mean speed and profiles of the speed values reached in 1, 5, 95, and 99 percent of the observations. These profiles are intended for first-look generalizations and, as such, are presented without great detail for annual and seasonal wind data.

Characteristics of Wind Profiles

At both locations, the annual scalar wind profiles show a general increase of mean wind speed from about 10 knots near the surface to a maximum of about 48 knots near 40,000 feet. Seasonally, the strongest mean winds occur in winter. Located in the height interval between about 35,000 and 40,000 feet, they average about 57 knots. The spring profiles show only a slight decrease from the winter values. In summer, the lowest mean speeds of the year are seen, with the maximum down to about 37 knots. In autumn, the wind speeds begin to increase again with average peak speeds reaching about 45 knots.

The mean zonal winds through 60,000 feet show a strong westerly component during most of the year. The westerlies are strongest in winter and weakest in summer. The greatest variability in the magnitude of the zonal component appears in winter when the otherwise prevailing westerlies are replaced on occasion by winds with an easterly component.

Annually, the mean meridional wind has a weak northerly component to about 30,000 feet and becomes somewhat more southerly above that altitude. Seasonally, the strongest northerly components are seen in winter, but there are stronger southerly components in the winds of summer. As with the zonal component, the variability of the meridional component is greatest in winter as the direction of the wind vector fluctuates with the passage of successive troughs and ridges. The least variability of the meridional component is seen in summer. This is a result of the mid-latitude centers of action moving to the north during this part of the year, replaced by relatively steady west-southwesterly winds from the subtropical Pacific. The spring and autumn profiles exhibit a very weak meridional component at all altitudes, switching from northerly to southerly above about 35,000 feet.

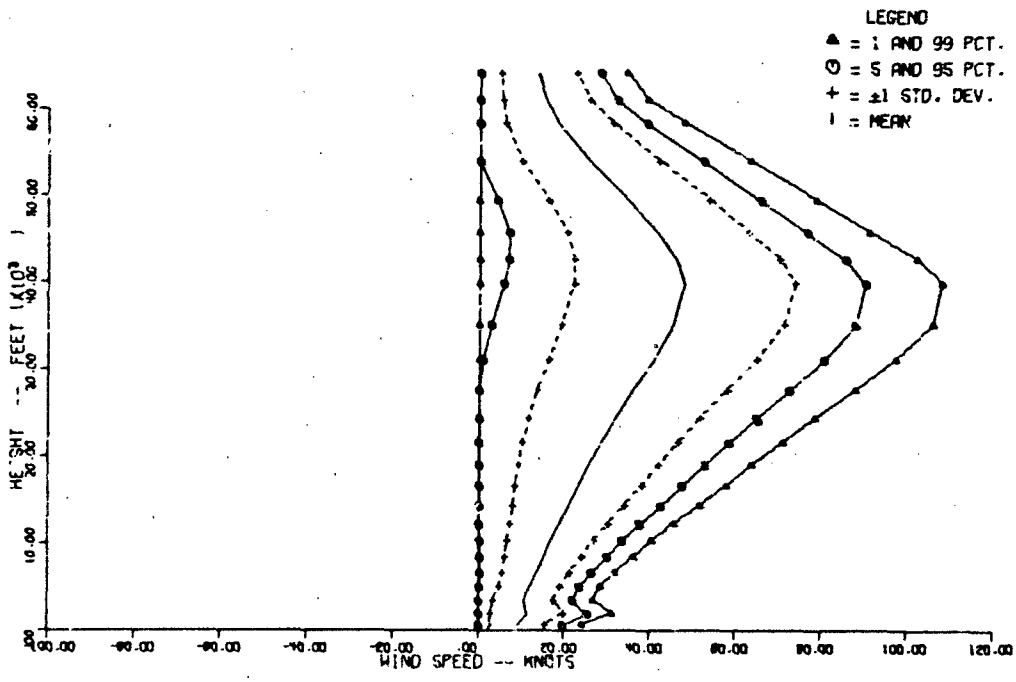


Figure 1. Upper Wind Profiles (Scalar) for San Nicolas Island. Annual.

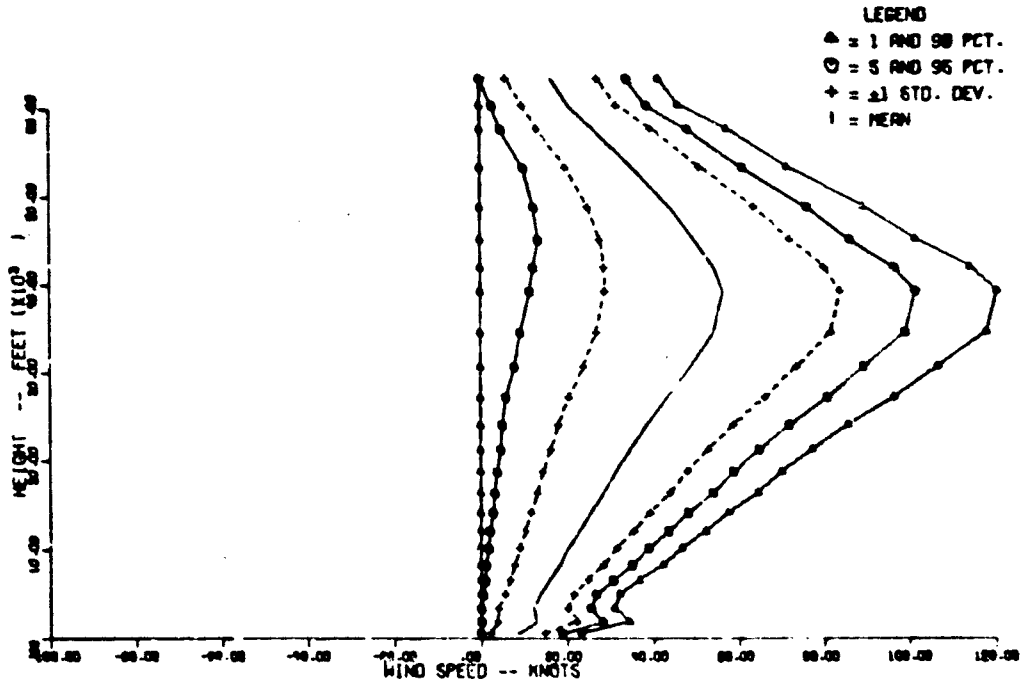


Figure 2. Upper Wind Profiles (Scalar) for San Nicolas Island: Winter.

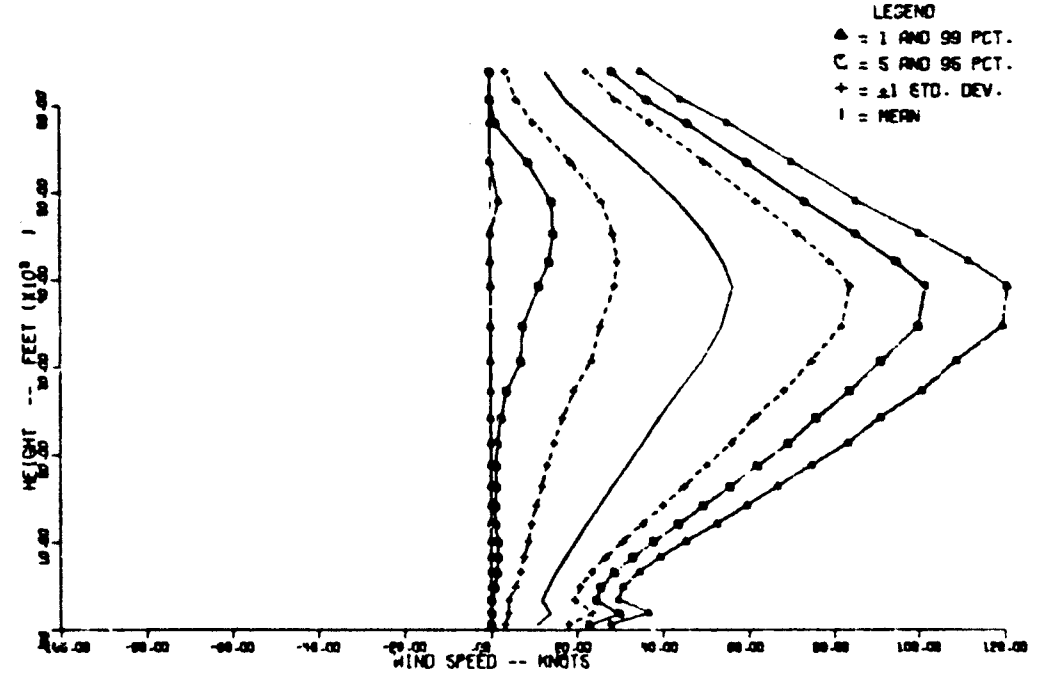


Figure 3. Upper Wind Profiles (Scalar) for San Nicolas Island: Spring.

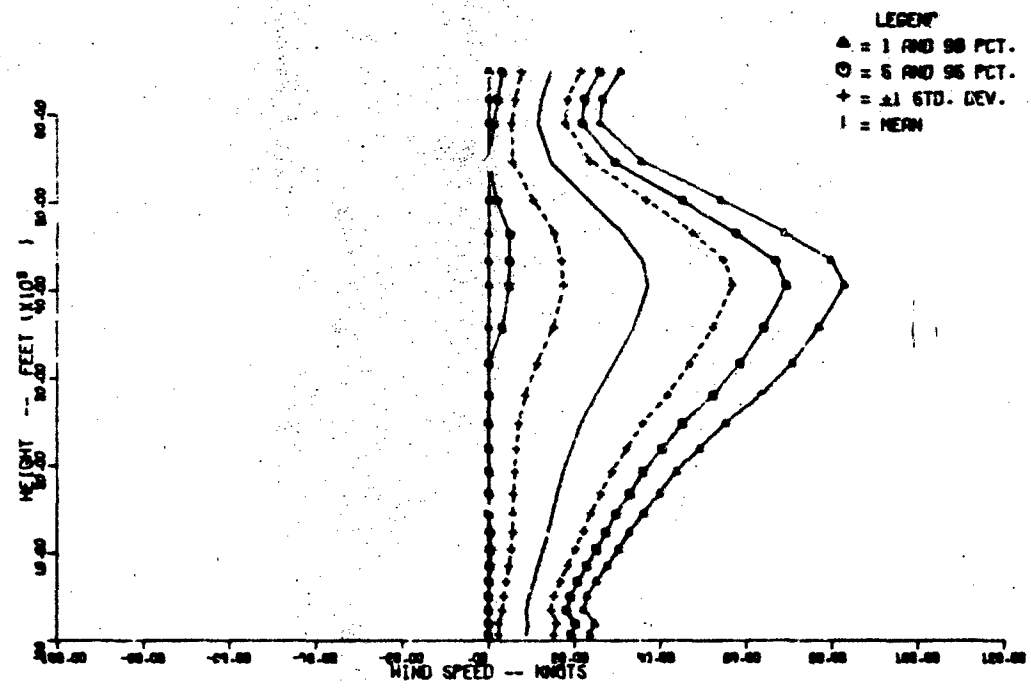


Figure 4. Upper Wind Profiles (Scalar) for San Nicolas Island: Summer.

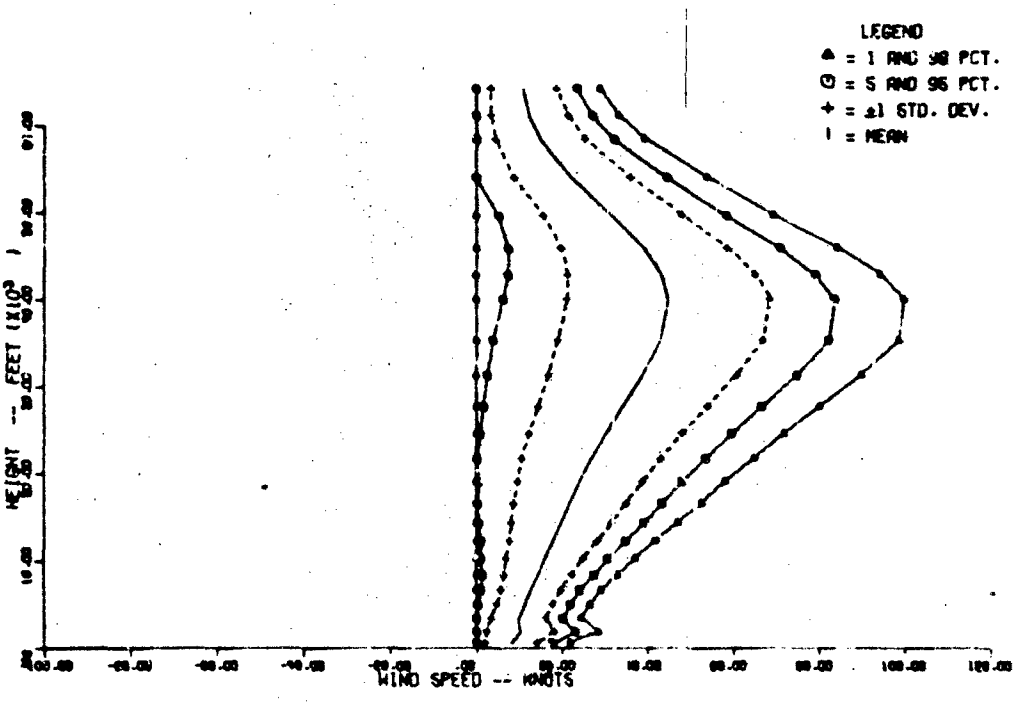
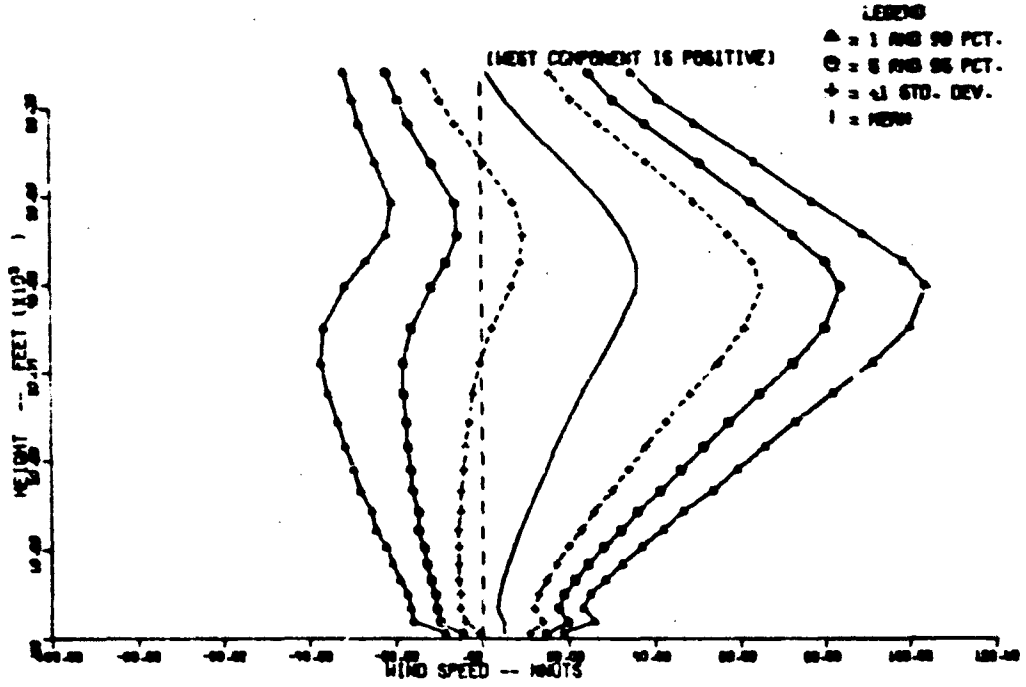
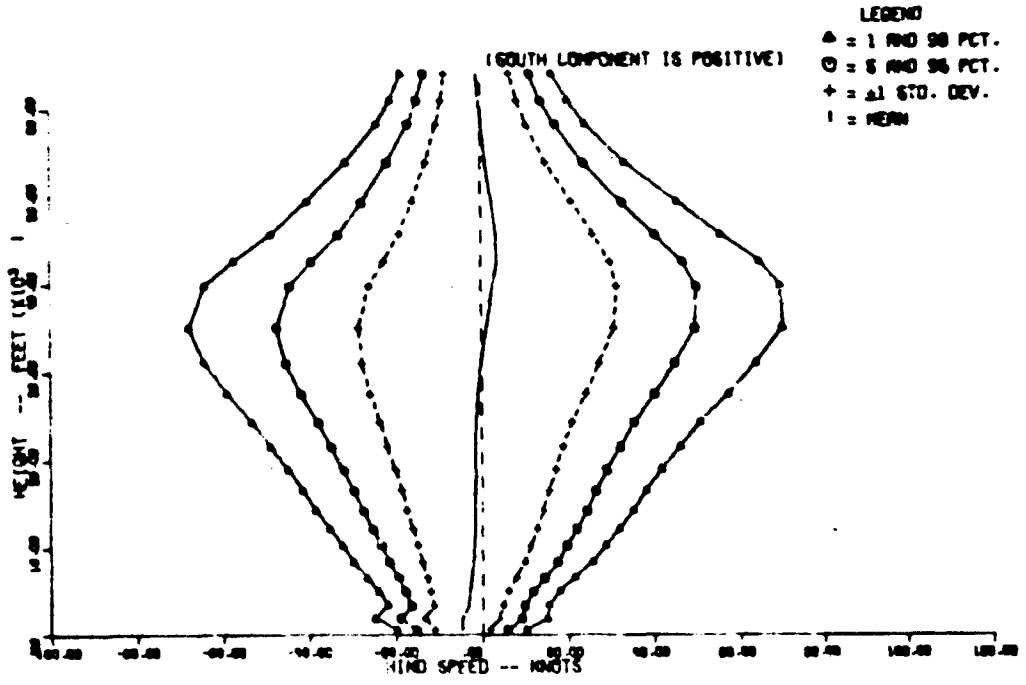


Figure 5. Upper Wind Profiles (Scalar) for San Nicolas Island: Autumn.

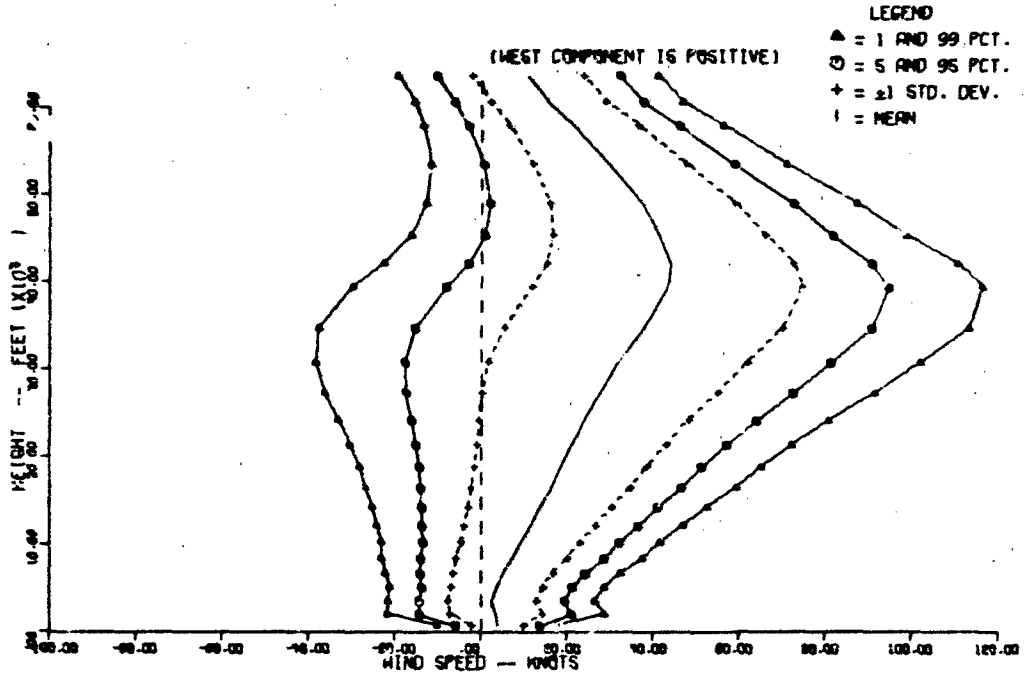


(a) Zonal

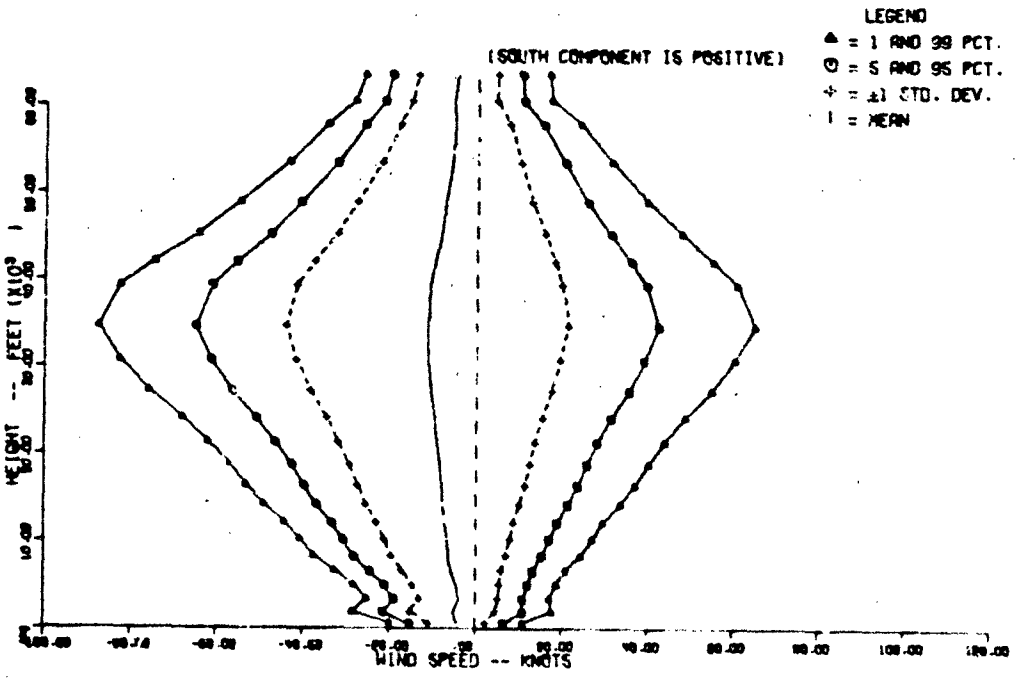


(b) Meridional

Figure 6. Upper Wind Component Profiles for San Nicolas Island: Annual

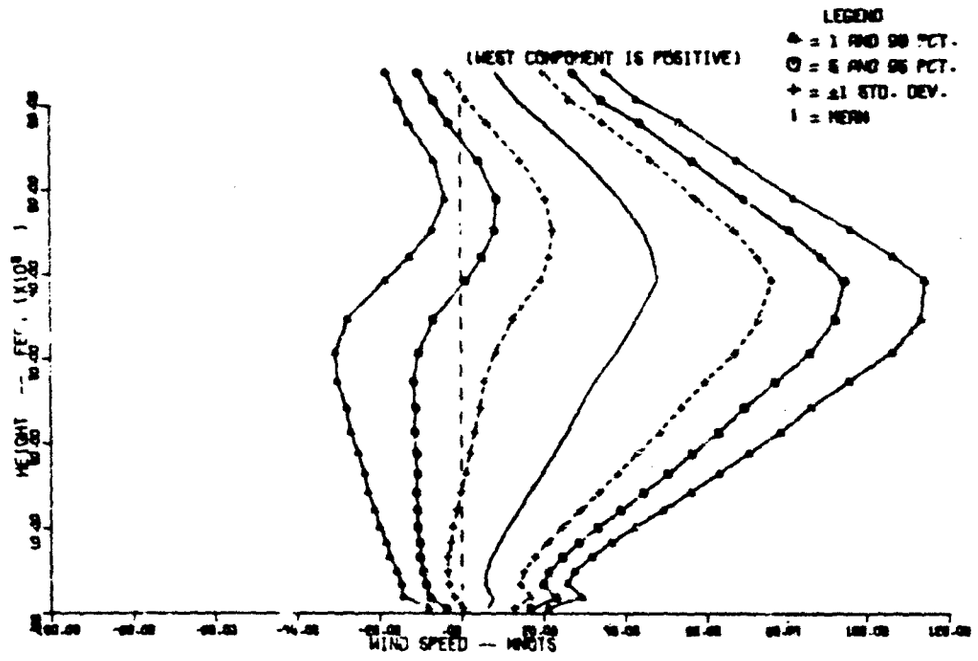


(a) Zonal.

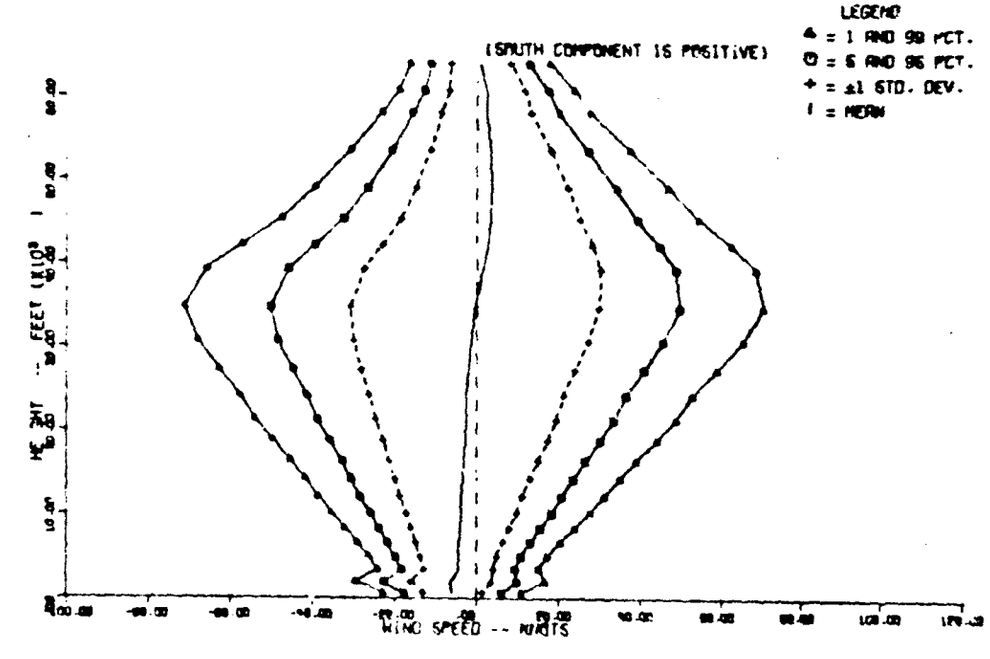


(b) Meridional.

Figure 7. Upper Wind Component Profiles for San Nicolas Island - Winter.

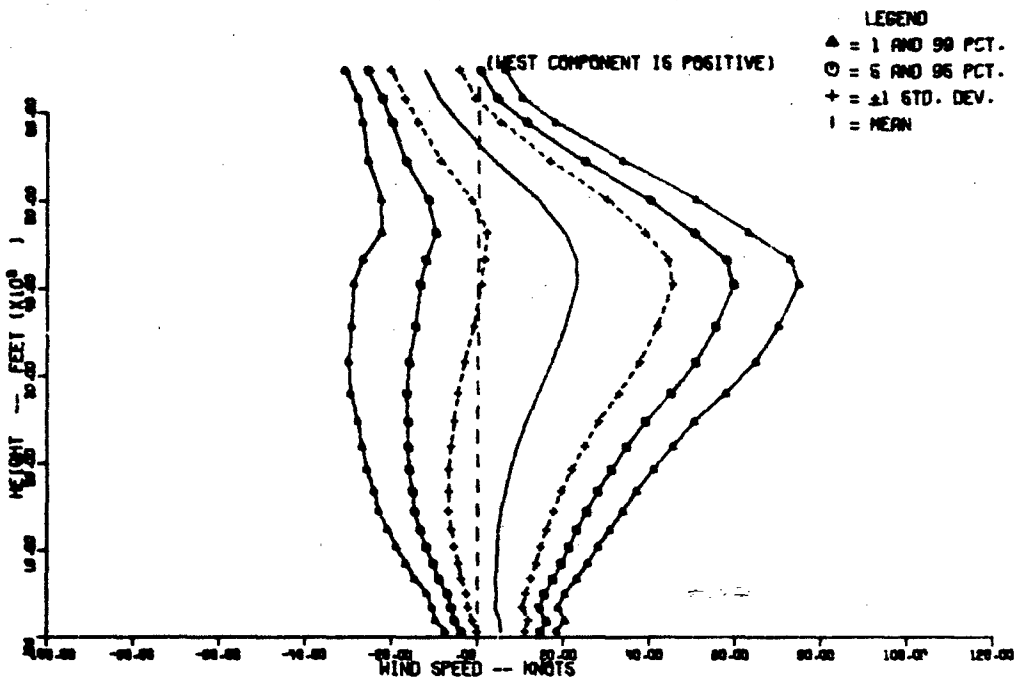


(a) Zonal



(b) Meridional

Figure 8. Upper Wind Component Profiles for San Nicolas Island, Spring.



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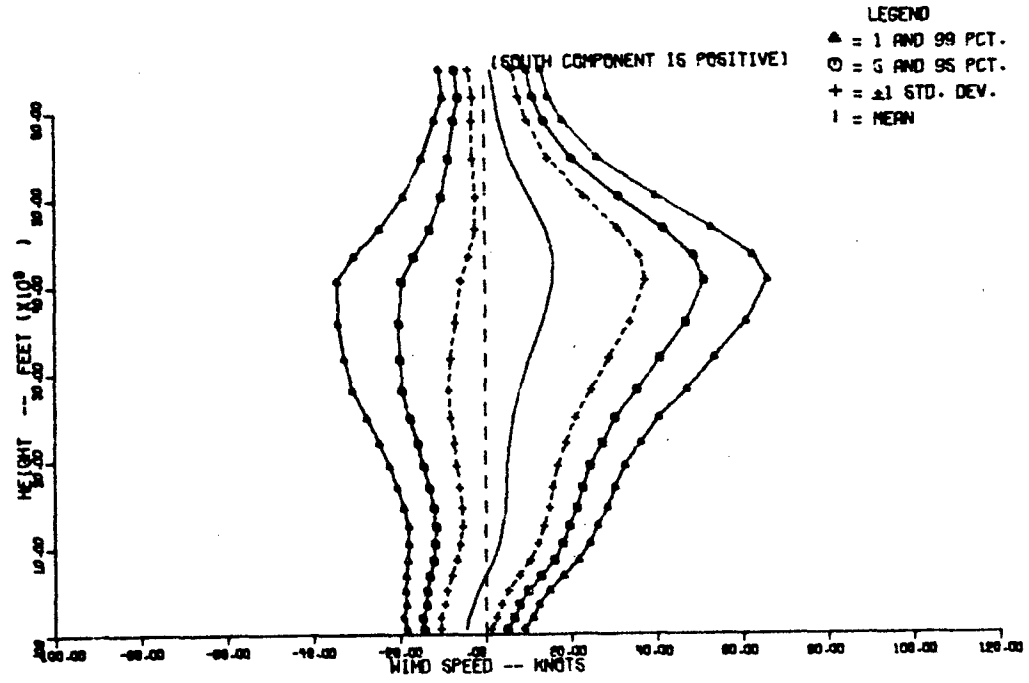
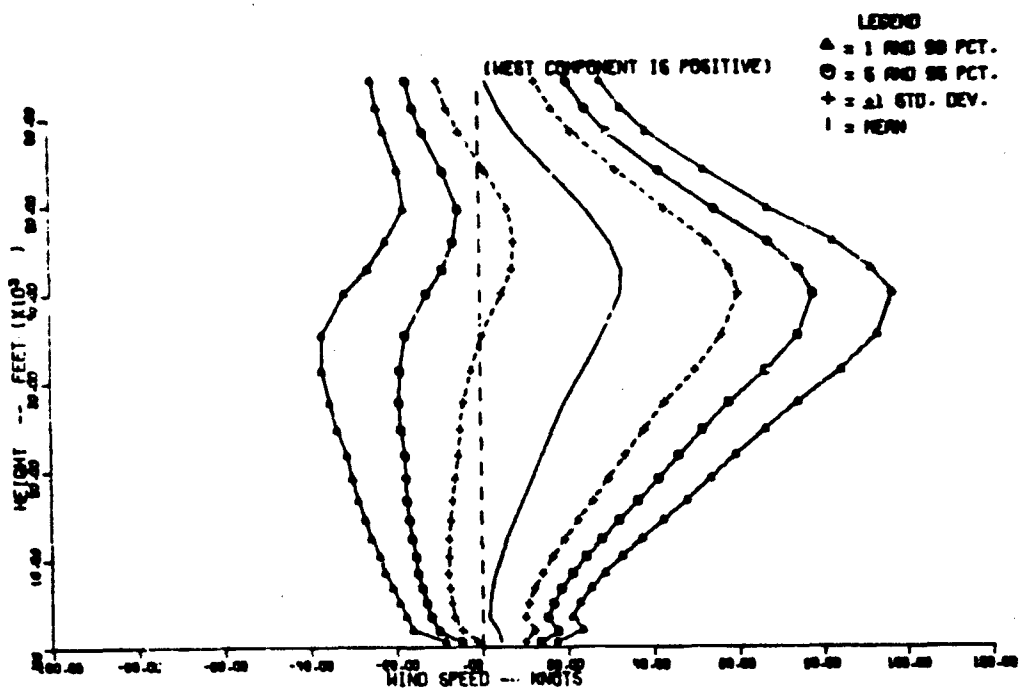


(b) Meridional.

Figure 9. Upper Wind Component Profiles for San Nicolas Island: Summer.



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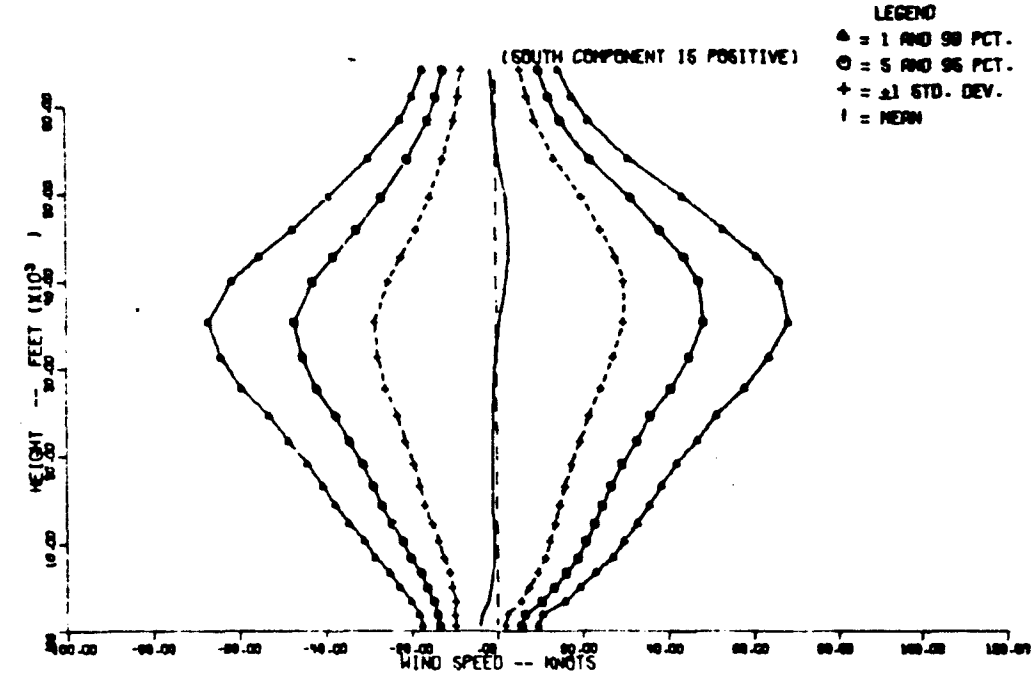


(b) Meridional.

Figure 10. Upper Wind Component Profiles for San Nicolas Island: Autumn.

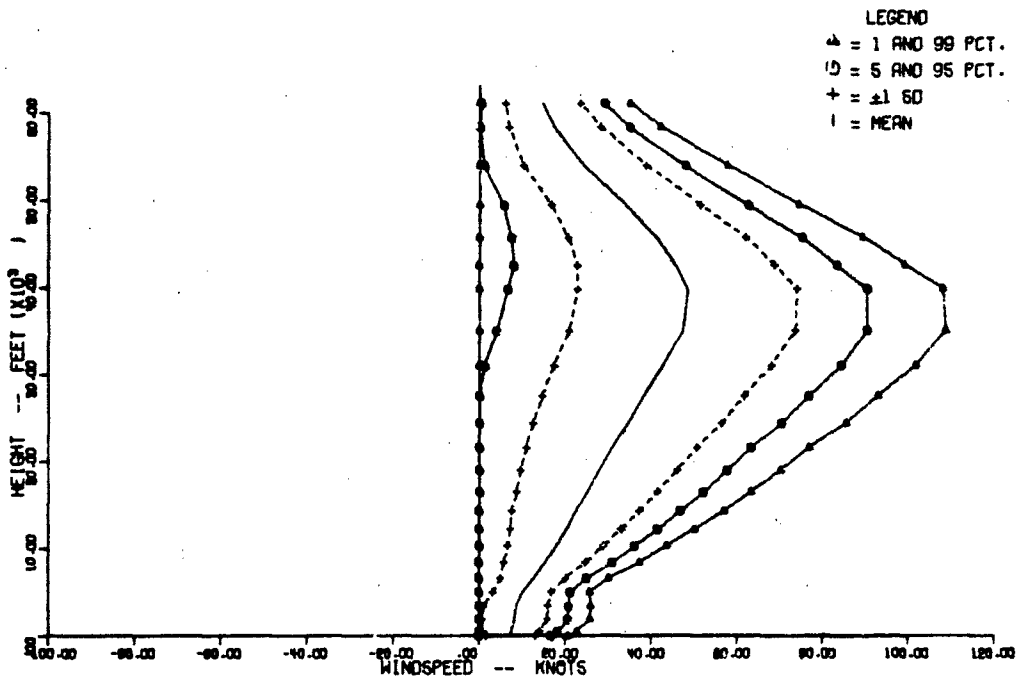


Figure 11. Upper Wind Profiles (Scalar) for Point Mugu, California: Annual.

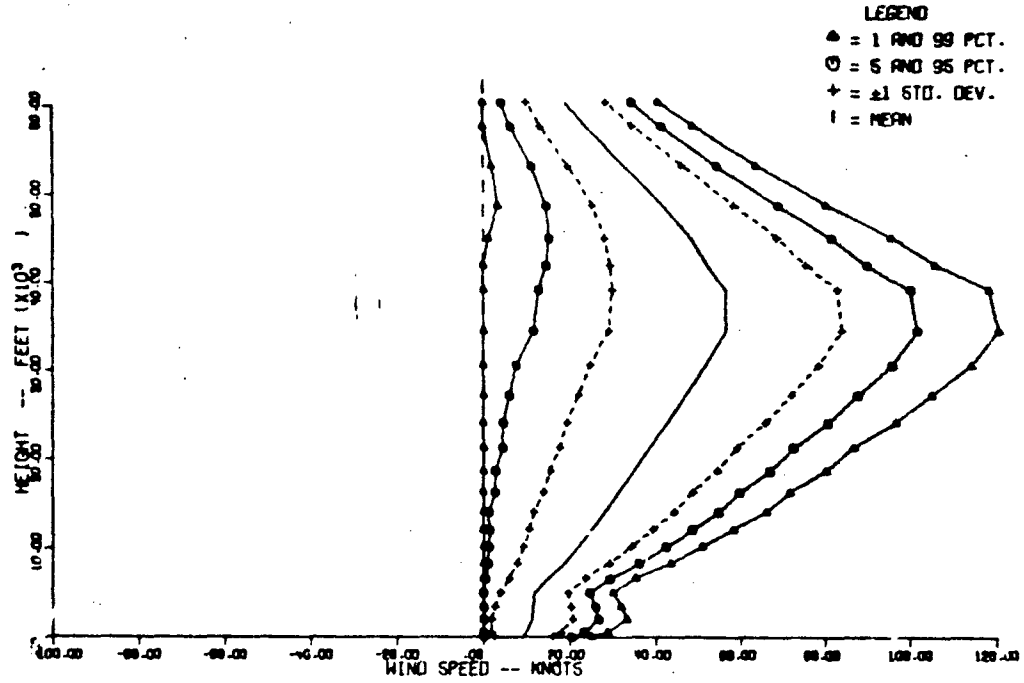


Figure 12. Upper Wind Profiles (Scalar) for Point Mugu, California: Winter.

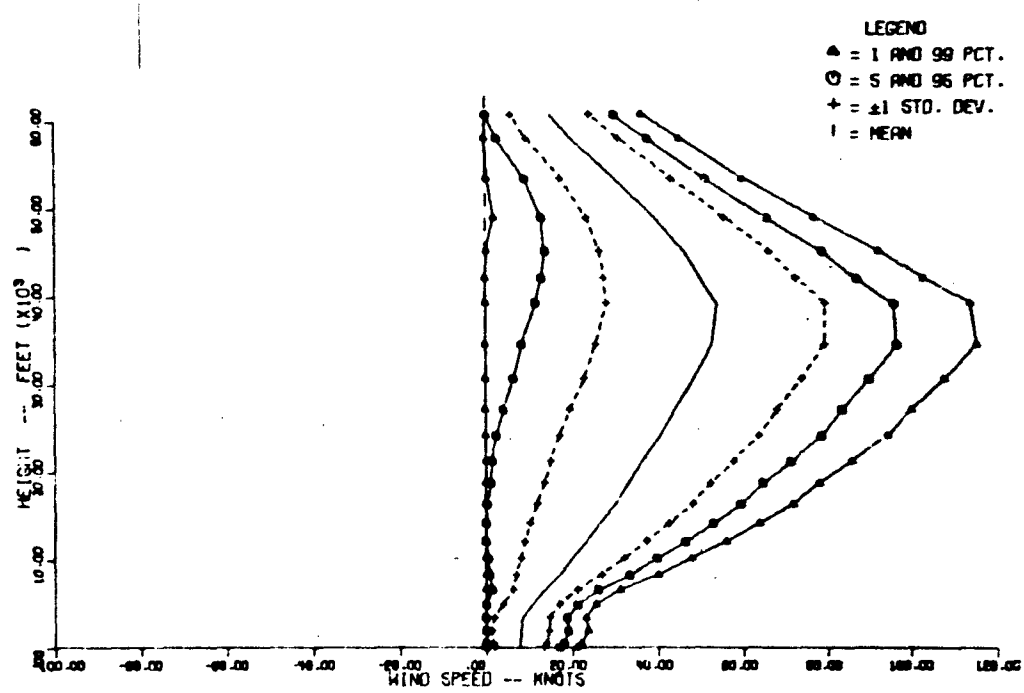


Figure 13. Upper Wind Profiles (Scalar) for Point Mugu, California: Spring.

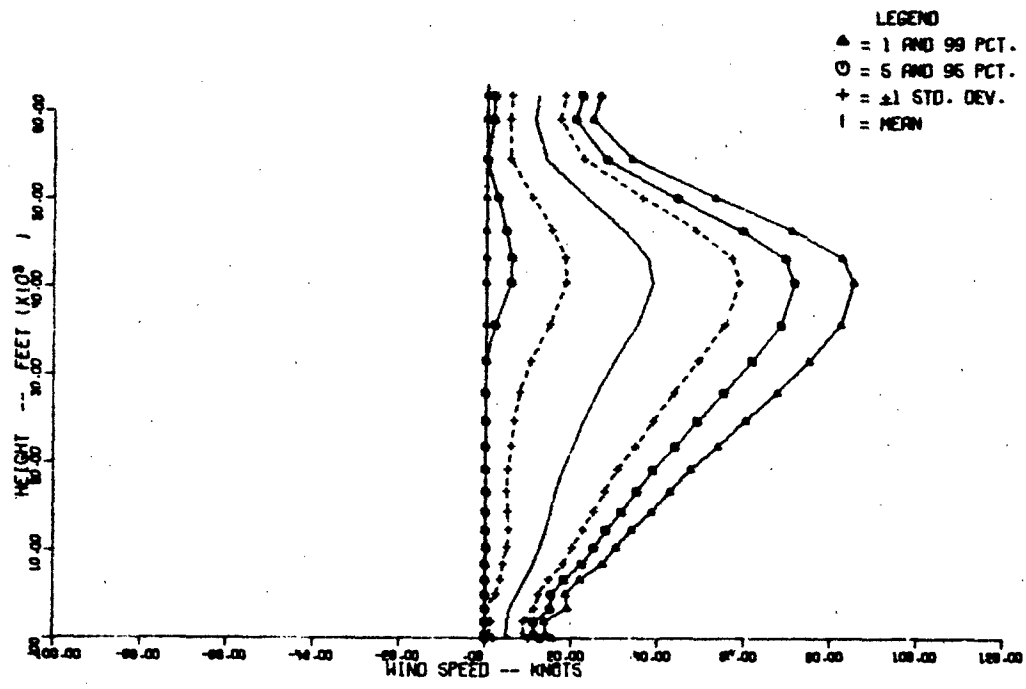


Figure 14. Upper Wind Profiles (Scalar) for Point Mugu, California: Summer.

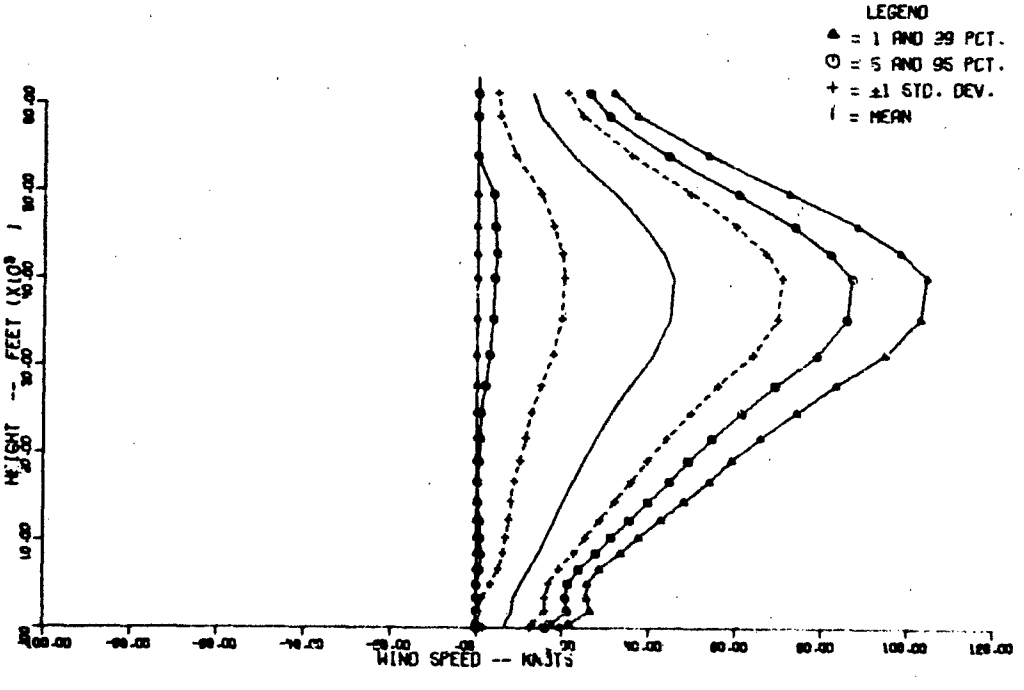
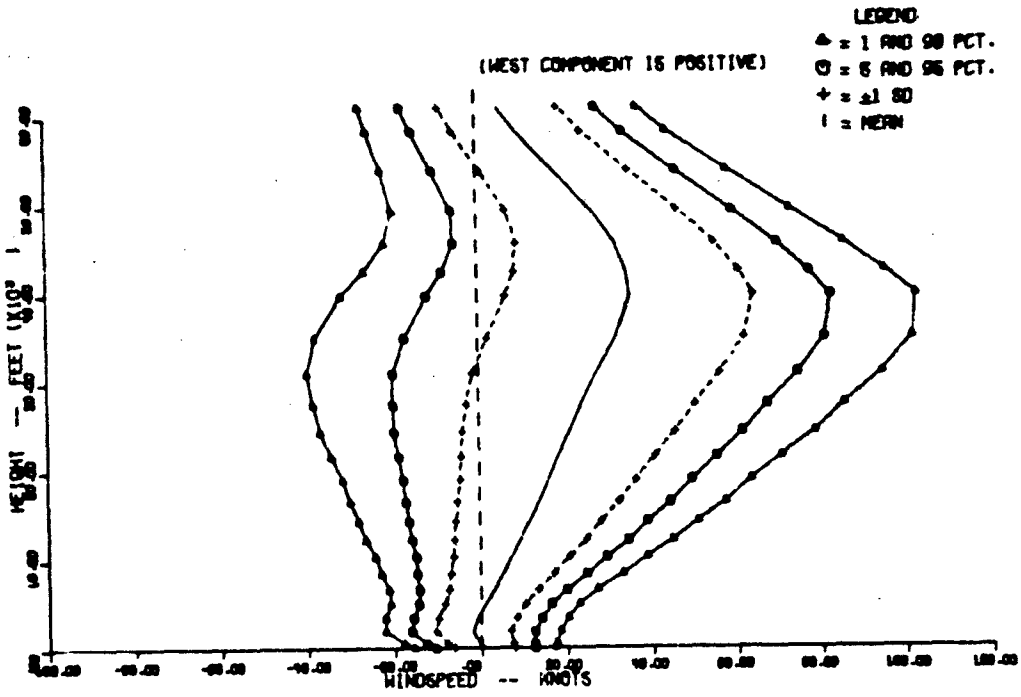
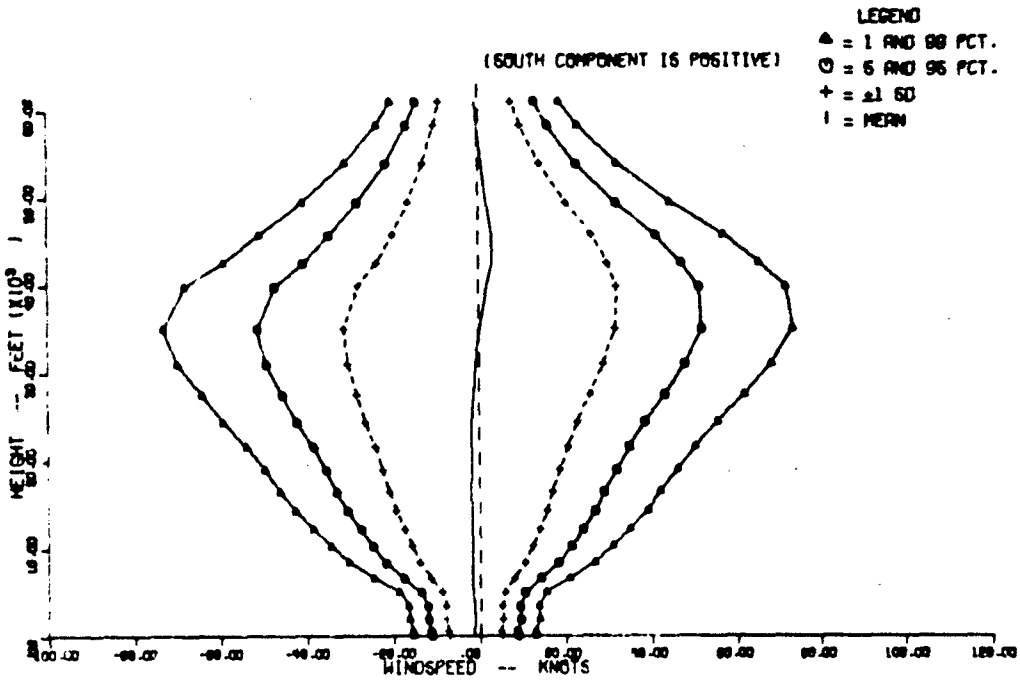


Figure 15. Upper Wind Profiles (Scalar) for Point Mugu, California: Autumn.

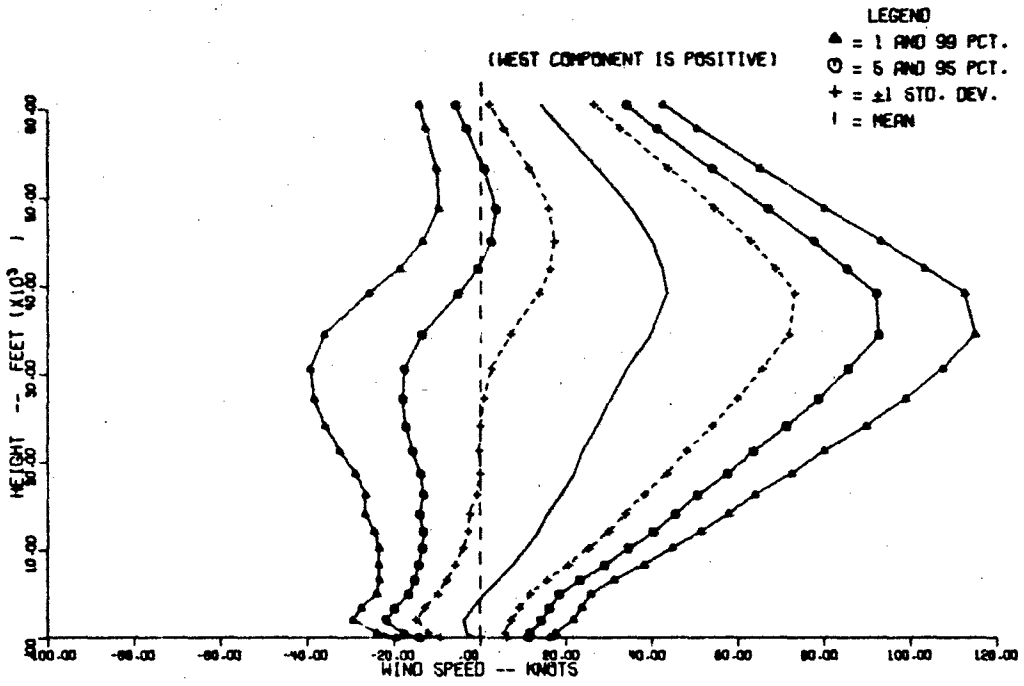


(a) Zonal.



(b) Meridional.

Figure 16. Upper Wind Component Profiles for Point Mugu, California: Annual.



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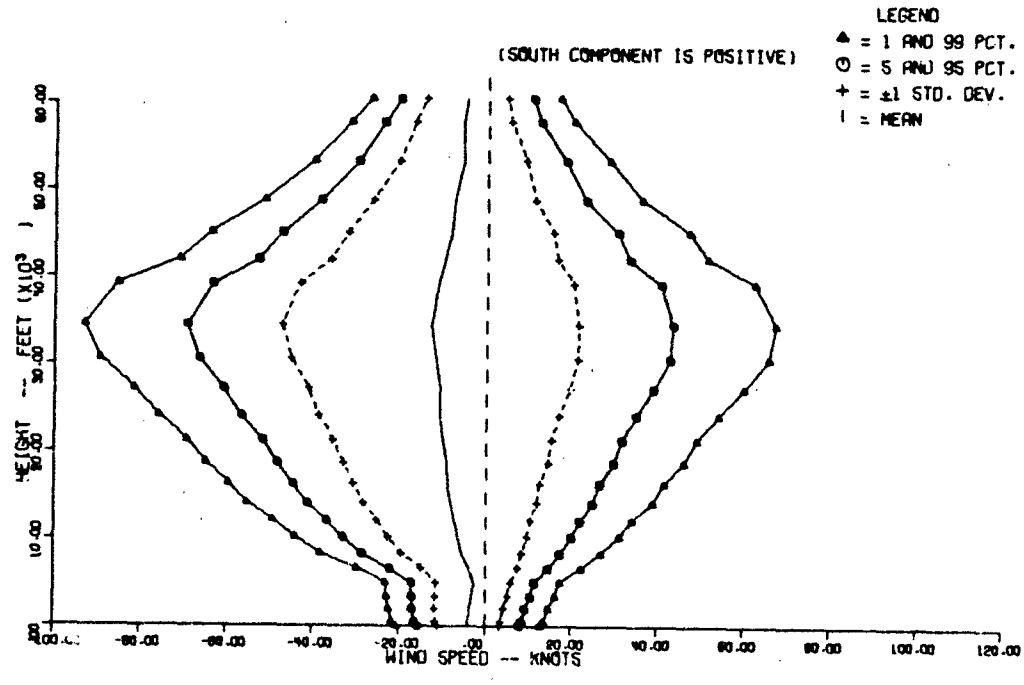
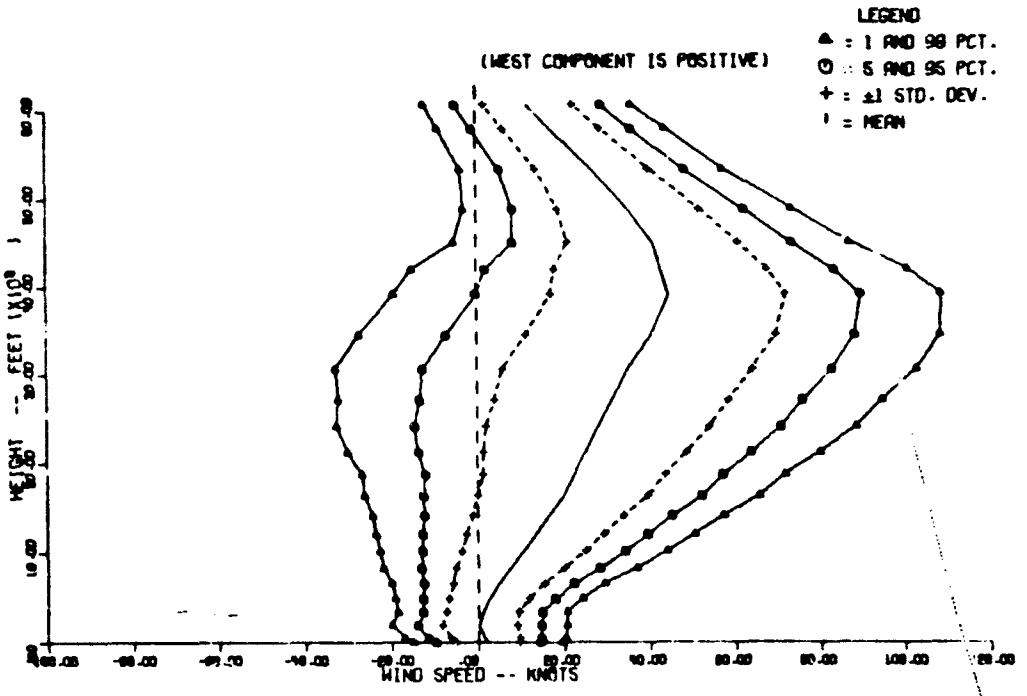


(b) Meridional.

Figure 17. Upper Wind Component Profiles for Point Mugu, California: Winter.



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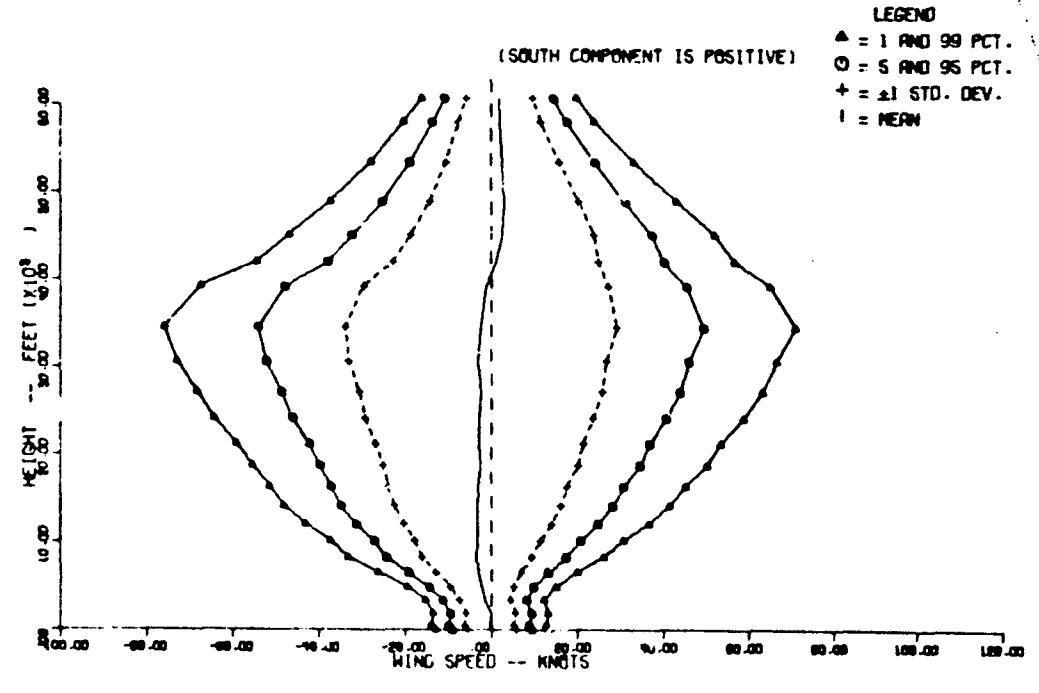
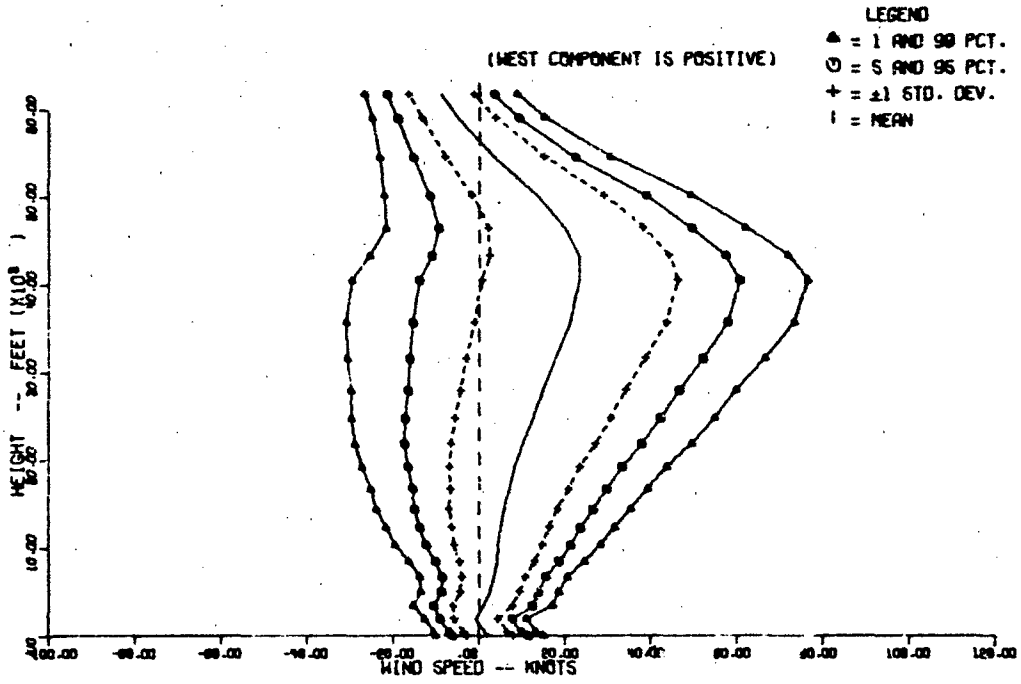
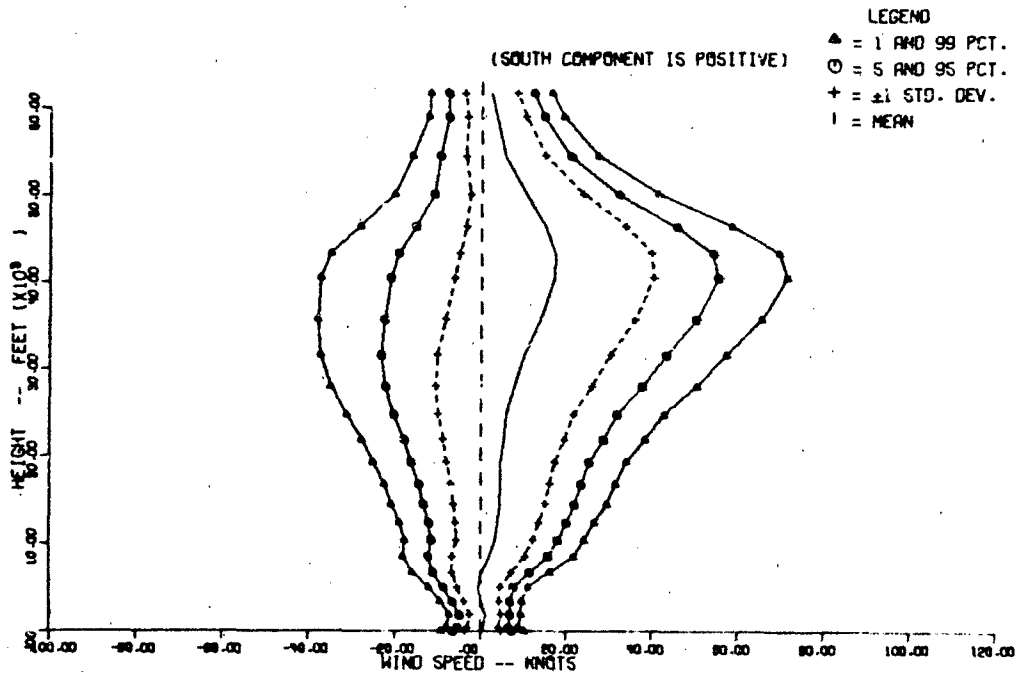


(b) Meridional

Figure 18 Upper Wind Component Profiles for Point Mugu, California: Spring.

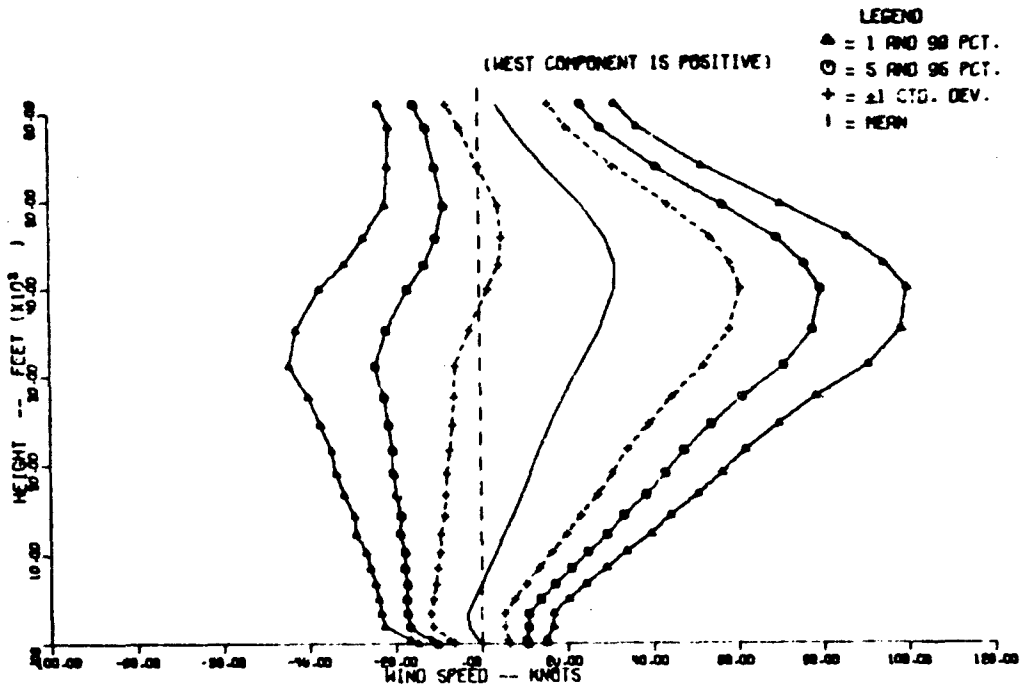


(a) Zonal.

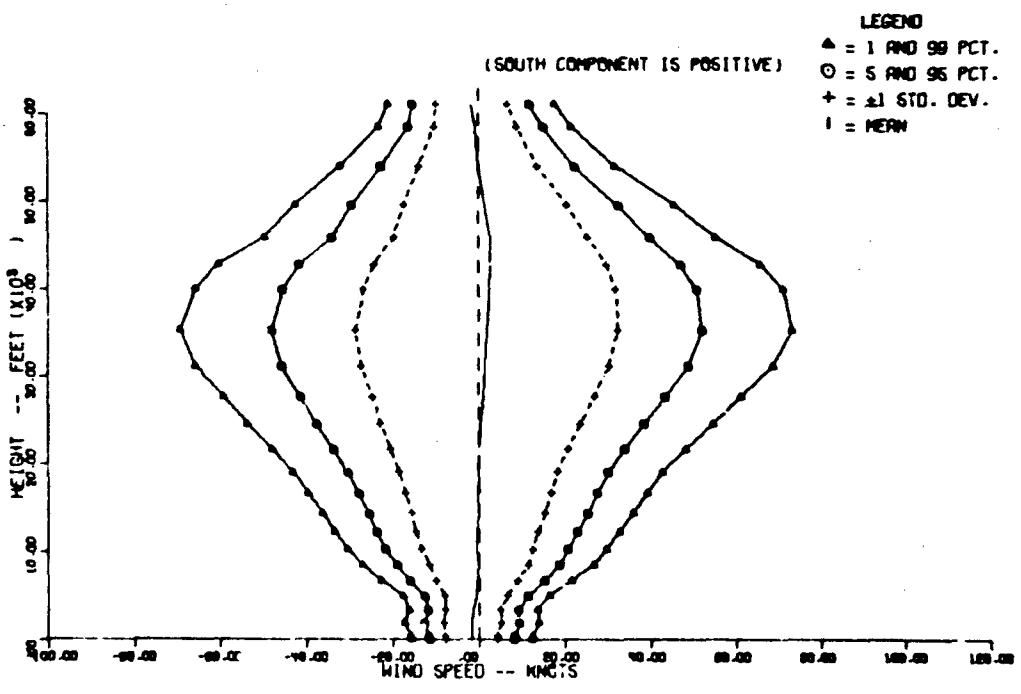


(b) Meridional.

Figure 19. Upper Wind Component Profiles for Point Mugu, California: Summer.



(a) Zonal.



(b) Meridional.

Figure 20. Upper Wind Component Profiles for Point Mugu, California: Autumn.

Cumulative Frequency Distributions

Much more detailed tabular listings of wind distribution data, including monthly, annual, and seasonal compilations, are provided in tables 2 through 52 for San Nicolas Island and in tables 53 through 103 for Point Mugu. The San Nicolas Island data are given to the 10-millibar level (about 102,000 feet or 31 kilometers) and those for Point Mugu to the 70-millibar level (about 61,000 feet or 18 kilometers). In each table the wind data are presented at the standard pressure levels (see table 104 for a listing of these with their Standard Atmosphere heights) with the mean height of the level for the month or season concerned. The wind data are in the form of a cumulative frequency distribution at 1-, 5-, 10-, 25-, 50-, 75-, 90-, and 99-percent levels of occurrence, in addition to the values at ± 1 and ± 2 standard deviations from the mean (50 percent level). There are three tables for each month or season: one for the scalar wind-speed distribution and two for the components of the mean resultant wind vector.

Two limitations should be kept in mind when using these data. The first deals with winds at the jet stream level. Because these wind data are provided for standard pressure levels only, the level of maximum winds—the jet steam—cannot be positioned precisely in altitude. This level will often occur between the standard pressure levels, and so only a zone within which the jet stream will most likely be found can be determined. For instance, in figures 1 through 5, it can be seen to occur most likely in the region between 35,000 and 45,000 feet. The value of the mean speed at these heights cannot be taken as representative of jet stream wind speeds. Rather, the 95- or 99-percent speed value might be a more likely indicator of those speeds.

The second limitation concerns wind shear. Normal observational procedures and the recognized limitations of the conventional rawinsonde equipment used for observing upper-level winds, when combined with the relatively large vertical spacing of the available data, have effectively masked out small-scale wind shears and have smoothed larger scale shears significantly. It is quite possible that maximum shears several times greater than those implied by the data presented here are possible. Thus caution should be exercised in any attempt to infer wind shear data from these profiles and tables.

Table 2. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: Annual

NO. OBSERVATIONS -- SURFACE = 8840. TOP = 4870

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)											
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	.5	2.3	4.5	8.9	13.3	15.7	17.3	19.7	22.1	24.3
950	1960	0	0	0	.4	2.8	5.6	11.4	17.2	20.0	22.4	25.5	28.6	31.4
900	3346	0	0	0	1.6	3.4	6.7	10.5	15.3	17.6	19.6	22.1	24.7	27.0
850	4951	0	0	0	2.5	4.5	6.9	11.7	16.5	18.9	20.9	23.5	26.1	28.5
800	6617	0	0	.2	3.1	5.3	7.9	13.3	18.7	21.3	23.5	26.4	29.3	31.9
750	8376	0	0	.2	3.5	6.0	9.0	15.1	21.2	24.2	26.7	30.0	33.3	36.3
700	10236	0	0	.1	3.7	6.6	10.0	16.8	23.6	27.0	29.9	33.5	37.2	40.6
650	12201	0	0	0	4.0	7.2	11.0	18.8	26.6	30.4	33.6	37.8	42.0	45.8
600	14304	0	0	0	4.0	7.7	12.1	20.9	29.7	34.1	37.8	42.5	47.3	51.7
550	16535	0	0	0	4.1	8.3	13.2	23.2	33.2	38.1	42.3	47.6	53.0	57.9
500	18957	0	0	0	4.5	9.1	14.5	25.6	36.7	42.1	46.7	52.7	58.6	64.0
450	21558	0	0	0	5.1	10.2	16.2	28.5	40.8	46.8	51.9	58.5	65.1	71.1
400	24416	0	0	0	6.0	11.6	18.2	31.7	45.2	51.8	57.4	64.7	71.9	78.5
350	27556	0	0	0	7.4	13.6	21.0	35.9	50.8	58.2	64.4	72.5	80.5	87.9
300	31066	0	0	.8	9.6	16.4	24.4	40.7	57.0	65.0	71.8	80.6	89.3	97.3
250	35069	0	0	2.8	12.1	19.4	28.0	45.4	62.8	71.4	78.7	88.0	97.4	106.0
200	39790	0	0	5.6	14.9	22.1	30.6	47.9	65.2	73.7	80.9	90.2	99.5	108.0
175	42552	0	0	6.8	15.5	22.2	30.1	46.2	62.3	70.2	76.9	85.6	94.2	102.1
150	45709	0	0	7.0	14.7	20.6	27.6	41.8	56.0	63.0	68.9	76.6	84.2	91.2
125	49393	0	0	4.2	10.9	16.2	22.4	35.0	47.6	53.8	59.1	65.8	72.6	78.8
100	53855	0	0	0	5.3	9.8	15.1	25.9	36.7	42.0	46.5	52.3	58.1	63.4
80	58314	0	0	0	2.4	5.9	10.1	18.5	26.9	31.1	34.6	39.2	43.7	47.9
70	61091	0	0	0	2.4	5.3	8.7	15.5	22.3	25.7	28.6	32.2	35.9	39.1
60	64124	0	0	0	2.2	4.7	7.6	13.4	19.6	22.5	25.0	28.2	31.4	34.3
50	67854	0	0	0	2.3	4.7	7.5	13.1	18.7	21.5	23.9	26.9	29.9	32.7
40	72470	0	0	0	2.4	4.9	7.9	13.9	19.9	22.9	25.4	28.7	31.9	34.9
30	2949	0	0	0	2.5	5.4	8.8	15.7	22.6	26.0	28.9	32.6	36.3	39.7
25	82362	0	0	0	3.2	6.3	9.9	17.1	24.7	28.3	31.4	35.3	39.3	42.9
20	87133	0	0	0	3.7	7.1	11.1	19.3	27.5	31.5	34.9	39.3	43.7	47.7
15	93349	0	0	0	4.2	8.3	13.1	22.8	32.5	37.3	41.4	46.6	51.8	56.6
10	102293	0	0	0	5.3	10.4	16.4	28.6	40.8	46.8	51.9	58.4	65.0	71.0

Table 3. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: Annual

NO. OBSERVATIONS -- SURFACE = 8840. TOP = 4870

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-8.7	-6.8	-4.7	-2.6	-0.9	1.0	5.0	9.0	10.9	12.6	14.7	16.8	18.7
950	1840	-16.1	-13.1	-9.9	-6.6	-4.1	-1.1	4.9	10.9	13.9	16.4	19.7	22.9	25.9
900	3346	-16.6	-13.8	-10.7	-7.6	-5.2	-2.4	3.4	9.2	12.0	14.4	17.5	20.6	23.4
850	4951	-17.4	-14.4	-11.1	-7.8	-5.3	-2.3	3.8	9.9	12.9	15.4	18.7	22.0	25.0
800	6617	-19.2	-15.8	-12.1	-8.5	-5.6	-2.2	4.6	11.4	14.8	17.7	21.3	25.0	28.4
750	8376	-20.9	-17.1	-13.0	-8.9	-5.7	-1.9	5.7	13.3	17.1	20.3	24.4	28.5	32.3
700	10236	-22.5	-18.3	-13.7	-9.2	-5.6	-1.4	7.1	15.6	19.8	23.4	27.9	32.5	36.7
650	12201	-24.6	-19.9	-14.8	-9.6	-5.6	-0.9	8.7	18.3	23.0	27.0	32.2	37.3	42.0
600	14304	-25.6	-20.5	-14.9	-9.3	-5.0	.1	10.5	20.9	26.0	30.3	35.9	41.5	46.6
550	16535	-28.3	-22.5	-16.2	-9.9	-5.0	.8	12.5	24.2	30.0	34.9	41.2	47.5	53.3
500	18957	-29.8	-23.5	-16.6	-9.7	-4.4	1.9	14.7	27.5	33.8	39.1	46.0	52.9	59.2
450	21558	-31.7	-24.8	-17.3	-9.8	-3.9	3.0	17.0	31.0	37.9	43.8	51.3	58.8	65.7
400	24414	-33.4	-25.9	-17.7	-9.5	-3.1	4.4	19.7	35.0	42.5	48.9	57.1	65.3	72.8
350	27556	-35.7	-27.4	-18.3	-9.3	-2.2	6.1	23.0	39.9	48.2	55.3	64.3	73.4	81.7
300	31046	-37.2	-28.1	-18.2	-8.2	-0.5	8.6	27.1	45.6	54.7	62.4	72.4	82.3	91.4
250	35049	-36.7	-27.0	-16.5	-5.9	2.3	12.0	31.6	51.2	60.9	69.1	79.7	90.2	99.9
200	39790	-31.7	-22.1	-11.7	-1.2	6.9	16.5	35.9	55.3	64.9	73.0	83.5	93.9	103.5
175	42552	-26.8	-17.9	-8.2	1.5	9.0	17.9	35.9	53.9	62.8	70.3	80.0	89.7	98.6
150	45709	-22.1	-14.2	-5.6	2.9	9.6	17.5	33.4	49.3	57.2	63.9	72.4	81.0	88.9
125	49393	-20.8	-13.9	-6.3	1.2	7.1	14.0	28.1	42.2	49.1	55.0	62.5	70.1	77.0
100	53855	-24.5	-18.3	-11.5	-4.7	-.6	6.8	19.5	32.2	38.4	43.1	50.5	57.3	63.5
80	58314	-28.3	-22.8	-16.8	-10.8	-6.1	-0.6	10.6	21.8	27.3	32.9	38.0	44.0	49.5
70	61001	-29.6	-24.6	-19.1	-13.7	-9.4	-4.4	5.8	16.0	21.0	25.3	30.7	36.2	41.2
60	64124	-31.7	-27.0	-21.6	-16.7	-12.7	-8.0	1.6	11.2	15.9	19.9	25.1	30.2	34.9
50	67854	-34.5	-29.9	-24.9	-19.9	-16.0	-11.4	-2.1	7.2	11.8	15.7	20.7	25.7	30.3
40	72470	-38.9	-34.1	-28.9	-23.7	-19.6	-14.8	-5.1	4.6	9.4	13.5	18.7	23.9	28.7
30	2969	-44.7	-39.2	-33.2	-27.2	-22.6	-17.1	-6.0	5.1	10.6	15.2	21.2	27.2	32.7
25	82362	-49.0	-42.9	-36.2	-29.6	-24.4	-18.3	-5.9	6.5	12.6	17.8	24.4	31.1	37.2
20	87133	-54.3	-47.3	-39.7	-32.0	-26.1	-19.1	-4.9	9.3	16.3	22.2	29.9	37.5	44.5
15	93349	-61.8	-53.3	-44.8	-34.8	-27.6	-19.1	-1.9	15.3	23.8	31.0	40.2	49.5	58.0
10	102293	-73.3	-62.6	-51.0	-39.3	-30.3	-19.4	2.0	23.6	34.3	43.3	55.0	66.6	77.3

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 4. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island Annual

NO. OBSERVATIONS -- SURFACE = 8848, TOP = 4870

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-19.6	-17.5	-15.2	-12.9	-11.1	-9.0	-4.7	-0.4	1.7	3.5	5.8	8.1	10.2
950	1840	-24.9	-22.1	-19.0	-15.9	-13.5	-10.7	-4.9	.9	3.7	6.1	9.2	12.3	15.1
900	3346	-21.9	-19.3	-16.4	-13.5	-11.3	-8.7	-3.3	2.1	4.7	6.9	9.8	12.7	15.3
850	4951	-24.1	-21.1	-17.9	-14.6	-12.1	-9.1	-3.1	2.9	5.9	8.4	11.7	14.9	17.9
800	6617	-26.6	-23.2	-19.5	-15.8	-12.9	-9.5	-2.6	4.3	7.7	10.6	14.3	18.0	21.4
750	8376	-29.9	-26.0	-21.7	-17.4	-14.1	-10.2	-2.2	5.8	9.7	13.0	17.3	21.6	25.5
700	10236	-32.3	-28.0	-23.3	-18.6	-14.9	-10.6	-1.8	7.0	11.3	15.0	19.7	24.4	28.7
650	12201	-35.3	-30.5	-25.3	-20.1	-16.1	-11.3	-1.7	7.9	12.7	16.7	21.9	27	31.9
600	14304	-38.4	-33.2	-27.5	-21.8	-17.4	-12.2	-1.6	9.0	14.2	18.6	24.3	30.0	35.2
550	16535	-41.4	-35.8	-29.6	-23.5	-18.7	-13.1	-1.4	9.9	15.5	20.3	26.6	32.6	38.2
500	18957	-44.8	-38.7	-32.0	-25.3	-20.1	-14.0	-1.5	11.0	17.1	22.3	29.0	35.7	41.8
450	21558	-48.9	-42.2	-34.9	-27.5	-21.8	-15.1	-1.4	12.3	19.0	24.7	32.1	39.4	46.1
400	24416	-53.3	-45.9	-37.9	-29.8	-23.6	-16.2	-1.3	13.6	21.0	27.2	35.3	43.3	50.7
350	27556	-59.2	-50.9	-41.9	-32.9	-25.9	-17.6	-0.9	15.9	24.1	31.1	40.1	49.1	57.3
300	31066	-64.2	-55.1	-45.2	-35.3	-27.6	-18.5	-0.1	18.3	27.4	35.1	45.0	54.9	64.0
250	35049	-67.9	-58.1	-47.4	-36.9	-28.5	-18.7	1.1	20.9	30.7	39.0	49.6	60.3	70.1
200	39790	-64.1	-54.6	-44.3	-33.9	-25.9	-16.4	2.8	22.0	31.5	39.5	49.9	60.2	69.7
175	42552	-57.3	-48.7	-39.3	-29.8	-22.5	-13.9	3.7	21.3	29.9	37.2	46.7	56.1	64.7
150	45749	-48.6	-41.2	-33.1	-25.1	-18.6	-11.4	3.6	18.6	26.0	32.3	40.3	48.4	55.8
125	49393	-40.3	-34.2	-27.6	-21.0	-15.8	-9.7	2.6	14.9	21.0	26.2	32.8	39.4	45.5
100	53855	-31.2	-26.6	-21.6	-16.6	-12.7	-8.1	1.2	10.5	15.1	19.0	24.0	29.0	33.6
80	58314	-24.0	-20.4	-16.9	-13.1	-10.2	-6.8	.2	7.2	10.6	13.5	17.3	21.0	24.4
70	61001	-20.7	-17.8	-14.6	-11.5	-9.0	-6.1	-0.2	5.7	8.6	11.1	14.2	17.4	20.3
60	64124	-18.3	-15.8	-13.1	-10.4	-8.3	-5.8	-0.8	4.2	6.7	9.8	11.5	14.2	16.7
50	67854	-16.8	-14.6	-12.2	-9.8	-7.9	-5.7	-1.2	3.3	5.5	7.4	9.8	12.2	14.4
40	72470	-15.5	-13.5	-11.3	-9.1	-7.4	-5.4	-1.3	2.8	4.8	6.5	8.7	10.9	12.9
30	2969	-15.5	-13.5	-11.3	-9.1	-7.6	-5.4	-1.3	2.8	4.8	6.5	8.7	10.9	12.9
25	82342	-16.0	-13.9	-11.6	-9.2	-7.6	-5.3	-0.9	3.5	5.6	7.4	9.8	12.1	14.2
20	87133	-17.1	-14.8	-12.3	-9.8	-7.8	-5.5	-0.8	3.9	6.2	8.2	10.7	13.2	15.5
15	93349	-19.4	-16.7	-13.8	-10.9	-8.6	-5.9	-0.5	4.9	7.6	9.9	12.8	15.7	18.4
10	102293	-23.4	-20.1	-16.5	-12.9	-10.1	-6.8	-0.1	6.6	9.9	12.7	16.3	19.9	23.2

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 5. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: Winter

NO. OBSERVATIONS -- SURFACE = 1961, TOP = 1031

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	.4	2.2	4.3	8.5	12.7	14.8	16.6	18.8	21.1	23.2
950	1916	0	0	0	1.2	3.8	6.8	13.0	19.2	22.2	24.8	28.1	31.4	34.4
900	3402	0	0	0	1.7	4.0	6.7	12.1	17.5	20.2	22.5	25.4	28.3	31.0
850	4961	0	0	.4	3.3	5.5	8.1	13.5	18.9	21.5	23.7	26.6	29.5	32.1
800	6598	0	0	.9	4.2	6.7	9.7	15.7	21.7	24.7	27.2	30.5	33.7	36.7
750	8323	0	0	1.2	4.9	7.8	11.2	18.1	25.0	28.4	31.3	35.0	38.7	42.1
700	10154	0	0	1.7	5.7	8.9	12.6	20.2	27.8	31.5	34.7	38.7	42.8	46.5
650	12083	0	0	2.0	6.6	10.1	14.3	22.7	31.1	35.3	38.8	43.4	47.9	52.1
600	14154	0	0	2.8	7.7	11.6	16.2	25.4	34.6	39.2	43.1	48.0	53.0	57.6
550	16348	0	0	3.1	8.7	13.0	18.1	28.4	38.7	43.8	48.1	53.7	59.2	64.3
500	18734	0	0	3.7	9.7	14.4	19.9	31.1	42.3	47.8	52.5	58.5	64.5	70.0
450	21289	0	0	4.5	11.1	16.2	22.2	34.5	46.8	52.8	57.9	64.5	71.1	77.1
400	24104	0	0	5.0	12.3	18.0	24.7	38.3	51.9	58.6	64.3	71.6	78.9	85.6
350	27192	0	0	5.8	14.0	20.4	27.9	43.2	58.5	66.0	72.4	80.6	88.8	96.3
300	30640	0	0	7.8	16.8	23.7	31.9	48.5	65.1	73.3	80.2	89.2	98.1	106.3
250	34577	0	0	9.2	19.1	26.7	35.7	54.0	72.3	81.3	88.9	98.8	108.6	117.6
200	39239	0	1.4	11.3	21.1	28.8	37.8	55.2	74.6	83.6	91.3	101.1	111.0	120.0
175	41995	0	3.0	12.2	21.4	28.6	37.0	54.2	71.4	79.8	87.0	96.2	105.4	113.8
150	45164	0	5.4	13.4	21.3	27.5	34.8	49.6	64.4	71.7	77.9	85.8	93.8	101.1
125	48875	0	5.4	12.3	19.3	24.7	31.1	44.0	56.9	63.3	68.7	75.7	82.6	89.0
100	53360	0	4.3	9.9	15.5	19.8	24.9	35.3	45.7	50.8	55.1	60.7	66.3	71.4
80	57808	0	0	4.7	9.4	13.1	17.5	26.3	35.1	39.5	43.2	47.9	52.7	57.1
70	60476	0	0	2.7	6.6	9.7	13.3	20.6	27.9	31.5	34.6	38.5	42.4	46.0
60	63442	0	0	0	3.0	6.0	9.5	16.6	23.7	27.2	30.2	34.0	37.8	41.3
50	67261	0	0	0	2.0	4.6	7.7	14.0	20.3	23.4	26.0	29.4	32.8	35.9
40	71814	0	0	0	1.6	4.1	7.1	13.2	19.3	22.3	24.8	28.1	31.4	34.4
30	77753	0	0	0	1.3	4.4	8.0	15.3	22.6	26.2	29.3	33.2	37.1	40.7
25	81558	0	0	0	1.5	4.6	8.7	16.7	24.7	28.6	31.9	36.2	40.5	44.4
20	86247	0	0	0	1.4	5.4	10.2	19.8	29.4	34.2	38.2	43.4	48.6	53.4
15	92372	0	0	0	1.9	7.0	13.0	25.2	37.4	43.4	48.5	55.0	61.6	67.6
10	101106	0	0	0	3.5	10.3	18.3	34.5	50.7	58.7	65.5	74.2	82.9	90.9

Table 6. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: Winter

NO. OBSERVATIONS -- SURFACE = 1961. TOP = 1031

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-10.3	-8.3	-6.1	-4.0	-2.3	-0.3	3.7	7.7	9.7	11.4	13.5	15.7	17.7
950	1916	-21.9	-18.3	-14.4	-10.5	-7.5	-3.9	3.3	10.5	14.1	17.1	21.0	24.9	28.5
900	3402	-21.6	-18.2	-14.5	-10.8	-7.9	-4.5	2.4	9.3	12.7	15.6	19.3	23.0	26.4
850	4961	-21.3	-17.8	-13.9	-10.1	-7.1	-3.6	3.6	10.8	14.3	17.3	21.1	25.0	28.5
800	6598	-22.3	-18.4	-14.2	-10.0	-6.7	-2.8	5.0	12.8	16.7	20.0	24.2	28.4	32.3
750	8323	-23.3	-19.0	-14.3	-9.6	-6.0	-1.7	7.0	15.7	20.0	23.6	28.3	33.0	37.3
700	10154	-23.3	-18.7	-13.7	-8.7	-4.8	-0.2	9.1	18.4	23.0	26.9	31.9	36.9	41.5
650	12083	-24.3	-19.3	-13.8	-8.3	-4.0	1.0	11.3	21.6	26.6	30.9	36.4	41.9	46.9
600	14154	-25.3	-19.8	-13.8	-7.8	-3.1	2.4	13.6	24.8	30.3	35.0	41.0	47.0	52.5
550	16349	-27.0	-20.9	-14.2	-7.6	-2.4	3.7	16.1	28.5	34.6	39.8	46.4	53.1	59.2
500	18734	-28.2	-21.6	-14.4	-7.2	-1.6	5.0	18.4	31.8	38.4	44.0	51.2	58.4	65.0
450	21289	-30.4	-23.1	-15.2	-7.3	-1.1	6.2	20.9	35.6	42.9	49.1	57.0	64.9	72.2
400	24106	-33.2	-25.1	-16.3	-7.5	-0.7	7.4	23.7	40.0	48.1	54.9	63.7	72.5	80.6
350	27192	-36.5	-27.5	-17.6	-7.8	-0.1	8.9	27.3	45.7	54.7	62.4	72.2	82.1	91.1
300	30640	-38.5	-28.6	-17.8	-6.9	1.5	11.4	31.6	51.8	61.7	70.1	81.0	91.8	101.7
250	34577	-37.7	-27.0	-15.4	-3.7	5.3	16.0	37.6	59.2	69.9	78.9	90.6	102.2	112.9
200	39239	-29.8	-19.5	-8.2	3.0	11.8	22.1	43.1	64.1	74.4	83.2	94.4	105.7	116.0
175	41995	-22.7	-13.3	-3.0	7.2	15.2	24.6	43.7	62.8	72.2	80.2	90.4	100.7	110.1
150	45164	-16.2	-8.1	.8	9.6	16.5	24.6	41.1	57.6	65.7	72.6	81.4	90.3	98.4
125	48875	-12.8	-5.7	2.0	9.7	15.7	22.8	37.1	51.4	58.5	64.5	72.2	79.9	87.0
100	53360	-11.6	-5.8	.6	6.9	11.9	17.7	29.6	41.5	47.3	52.3	58.6	65.0	70.8
80	57808	-13.4	-8.5	-3.1	2.2	6.4	11.3	21.3	31.3	36.2	40.4	45.7	51.1	56.0
70	60476	-15.5	-11.1	-6.3	-1.5	2.2	6.6	15.5	24.4	28.8	32.5	37.3	42.1	46.5
60	63442	-19.4	-15.1	-10.5	-5.8	-2.2	2.1	10.7	19.3	23.6	27.2	31.9	36.5	40.8
50	67241	-23.5	-19.3	-14.7	-10.2	-6.6	-2.4	6.1	14.6	18.8	22.4	26.9	31.5	35.7
40	71814	-28.9	-24.4	-19.5	-14.6	-10.8	-6.3	2.8	11.9	16.4	20.2	25.1	30.0	34.5
30	77753	-35.9	-30.5	-24.6	-18.6	-14.0	-8.6	2.5	13.6	19.0	23.5	29.6	35.5	40.9
25	81548	-39.2	-33.2	-26.7	-20.2	-15.1	-9.1	3.0	15.1	21.1	26.2	32.7	39.2	45.2
20	86247	-45.6	-38.4	-30.6	-22.7	-16.6	-9.4	5.2	19.8	27.0	33.1	41.0	48.8	56.0
15	92372	-51.[illegible]	-42.2	-32.6	-23.0	-15.5	-6.7	11.2	29.1	37.9	45.4	55.0	64.6	73.4
10	101106	-57.2	-46.1	-34.0	-21.9	-12.5	-1.4	21.1	43.6	54.7	64.1	76.2	88.3	99.4

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 7. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: Winter

NO. OBSERVATIONS -- SURFACE = 1961, TOP = 1031

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-19.7	-17.5	-15.1	-12.7	-10.9	-8.7	-4.3	.1	2.3	4.1	6.5	8.9	11.1
950	1916	-28.4	-25.1	-21.5	-18.0	-15.2	-11.9	-5.3	1.3	4.6	7.4	10.9	14.5	17.8
900	3402	-25.1	-22.1	-18.8	-15.5	-13.0	-10.0	-3.9	2.2	5.2	7.7	11.0	14.3	17.3
850	4961	-28.0	-24.7	-21.1	-17.4	-14.6	-11.3	-4.5	2.3	5.6	8.4	12.1	15.7	19.0
800	6598	-32.4	-28.6	-24.5	-20.3	-17.1	-13.3	-5.6	2.1	5.9	9.1	13.3	17.4	21.2
750	8323	-37.4	-33.0	-28.2	-23.4	-19.7	-15.3	-6.4	2.5	6.9	10.6	15.4	20.2	24.6
700	10154	-40.7	-35.9	-30.6	-25.4	-21.3	-16.5	-6.7	3.1	7.9	12.0	17.2	22.5	27.3
650	12083	-44.2	-39.0	-33.3	-27.6	-23.1	-17.9	-7.2	3.5	8.7	13.2	18.9	24.6	29.8
600	14154	-49.1	-43.2	-36.8	-30.4	-25.4	-19.5	-7.6	4.3	10.2	15.2	21.6	28.0	33.9
550	16348	-53.3	-46.9	-39.9	-32.9	-27.5	-21.1	-8.1	4.9	11.3	16.7	23.7	30.7	37.1
500	18734	-57.1	-50.2	-42.7	-35.2	-29.3	-22.4	-8.4	5.6	12.5	18.4	25.9	33.4	40.3
450	21289	-62.1	-54.6	-46.4	-38.2	-31.8	-24.3	-9.0	6.3	13.8	20.2	28.4	36.6	44.1
400	24104	-68.1	-59.8	-50.8	-41.7	-34.7	-26.4	-9.6	7.2	15.5	22.5	31.6	40.6	48.9
350	27192	-75.9	-66.6	-56.5	-46.4	-38.5	-29.2	-10.4	8.4	17.7	25.6	35.7	45.8	55.1
300	30640	-82.7	-72.6	-61.5	-50.5	-41.9	-31.8	-11.2	9.4	19.5	28.1	39.1	50.2	60.3
250	34577	-87.7	-76.9	-65.1	-53.3	-44.1	-33.3	-11.3	10.7	21.5	30.7	42.5	54.3	65.1
200	39239	-82.6	-72.4	-61.3	-50.2	-41.6	-31.4	-10.8	9.8	20.0	28.6	39.7	50.8	61.0
175	41995	-74.6	-65.4	-55.4	-45.3	-37.5	-28.3	-9.6	9.1	18.3	26.1	36.2	46.2	55.4
150	45164	-64.4	-56.4	-47.7	-39.0	-32.3	-24.3	-8.2	7.9	15.9	22.6	31.3	40.0	48.0
125	48875	-54.8	-48.1	-40.8	-33.5	-27.8	-21.1	-7.5	6.1	12.8	18.5	25.8	33.1	39.8
100	53360	-43.4	-38.1	-32.3	-26.5	-22.0	-16.7	-5.9	4.9	10.2	14.7	20.5	26.3	31.6
80	57808	-34.7	-30.5	-26.0	-21.4	-17.9	-13.7	-5.3	3.1	7.3	10.8	15.4	19.9	24.1
70	60476	-28.2	-25.0	-21.5	-17.9	-15.2	-12.0	-5.4	1.2	4.4	7.1	10.7	14.2	17.4
60	63442	-26.1	-23.1	-19.8	-16.5	-13.9	-10.9	-4.7	1.5	4.5	7.1	10.4	13.7	16.7
50	67261	-23.4	-20.7	-17.8	-14.9	-12.6	-9.9	-4.5	.9	3.6	5.9	8.8	11.7	14.4
40	71814	-20.7	-18.3	-15.7	-13.0	-11.0	-8.6	-3.7	1.2	3.6	5.6	8.3	10.9	13.3
30	77753	-21.8	-19.3	-16.5	-13.8	-11.6	-9.1	-3.9	1.3	3.8	6.0	8.7	11.5	14.0
25	81558	-23.2	-20.4	-17.4	-14.4	-12.0	-9.2	-3.6	2.0	4.8	7.2	10.2	13.2	16.0
20	86247	-25.0	-21.9	-18.5	-15.1	-12.5	-9.4	-3.1	3.2	6.3	8.9	12.3	15.7	18.8
15	92372	-28.2	-24.6	-20.7	-16.8	-13.7	-10.1	-2.8	4.5	8.1	11.2	15.1	19.0	22.6
10	101106	-35.2	-30.5	-25.4	-20.3	-16.3	-11.6	-2.1	7.4	12.1	16.1	21.2	26.3	31.0

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 8. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: Spring

NO. OBSERVATIONS -- SURFACE = 2142. TOP = 1163

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	1.1	3.2	5.6	10.6	15.6	18.0	20.1	22.7	25.4	27.8
950	1857	0	0	0	1.2	3.9	7.1	13.7	20.3	23.5	26.2	29.8	33.3	36.5
900	3343	0	0	0	1.8	4.0	6.5	11.7	16.9	19.4	21.6	24.3	27.1	29.6
850	4908	0	0	.8	3.5	5.6	8.1	13.1	18.1	20.6	22.7	25.4	28.1	30.6
800	6552	0	0	1.4	4.4	6.7	9.4	15.0	20.6	23.3	25.6	28.6	31.6	34.3
750	8284	0	0	1.5	4.9	7.6	10.7	17.1	23.5	26.6	29.3	32.7	36.1	39.2
700	10125	0	0	1.5	5.4	8.5	12.1	19.5	26.9	30.5	33.6	37.5	41.5	45.1
650	12064	0	0	1.0	5.7	9.3	13.6	22.2	30.8	35.1	38.7	43.4	48.0	52.3
600	14144	0	0	1.0	6.3	10.4	15.3	25.1	34.9	39.8	43.9	49.2	54.5	59.4
550	16348	0	0	1.1	7.1	11.7	17.1	28.2	39.3	44.7	49.3	55.3	61.2	66.6
500	18740	0	0	1.2	7.8	13.0	19.1	31.5	43.9	50.0	55.2	61.8	68.5	74.6
450	21309	0	0	1.3	8.7	14.5	21.3	35.1	48.9	55.7	61.5	68.9	76.3	83.1
400	24134	0	0	2.3	10.4	16.6	24.0	38.9	53.8	61.2	67.4	75.5	83.5	90.9
350	27231	0	0	3.6	12.4	19.2	27.3	43.6	59.9	68.0	74.8	83.6	92.4	100.5
300	30692	0	0	6.9	16.1	23.3	31.7	48.9	66.1	74.5	81.7	90.9	100.1	108.5
250	34639	0	0	7.4	17.5	25.4	34.7	53.6	72.5	81.8	89.7	99.8	110.0	119.3
200	39304	0	1.2	11.1	21.0	28.7	37.8	56.2	74.6	83.7	91.4	101.3	111.2	120.3
175	42054	0	4.6	13.5	22.4	29.3	37.5	54.0	70.5	78.7	85.6	94.5	103.4	111.6
150	45226	0	6.9	14.6	22.4	28.4	35.5	49.9	64.3	71.6	77.4	85.2	92.9	100.0
125	48963	1.9	7.8	14.2	20.7	25.7	31.6	43.6	55.6	61.5	66.5	73.0	79.4	85.3
100	53497	0	3.1	8.7	14.3	18.6	23.7	34.1	44.5	49.6	53.9	59.5	65.1	70.2
80	58009	0	0	1.2	6.1	9.9	14.4	23.5	32.6	37.1	40.9	45.8	50.7	55.2
70	60712	0	0	0	2.8	6.0	9.8	17.5	25.2	29.0	32.2	36.4	40.5	44.3
60	63852	0	0	0	1.0	3.6	6.7	13.0	19.3	22.4	25.0	28.4	31.8	34.9
50	67589	0	0	0	.4	2.6	5.2	10.4	16.0	18.6	20.8	23.7	26.6	29.2
40	72211	0	0	0	.2	2.4	4.9	10.1	15.3	17.8	20.0	22.7	25.5	28.0
30	78255	0	0	0	.2	2.5	5.2	10.8	16.4	19.1	21.4	24.4	27.4	30.1
25	82133	0	0	0	.4	3.0	6.0	12.2	18.4	21.4	24.0	27.3	30.6	33.6
20	86909	0	0	0	.8	3.7	7.1	14.0	20.9	24.3	27.2	30.9	34.6	38.0
15	93159	0	0	0	.9	4.5	8.7	17.2	25.7	29.9	33.5	38.0	42.6	46.8
10	102142	0	0	0	1.6	6.3	11.8	23.1	34.4	39.9	44.6	50.7	56.7	62.2

Table 9. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: Spring

NO. OBSERVATIONS -- SURFACE = 2142. TOP = 1163

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-8.3	-6.2	-3.9	-1.7	.1	2.2	6.4	10.6	12.7	14.5	16.7	19.0	21.1
950	1857	-14.4	-11.3	-7.9	-4.5	-1.9	1.2	7.5	13.8	16.9	19.5	22.9	26.3	29.4
900	3343	-14.8	-11.9	-8.8	-5.6	-3.2	-0.3	5.5	11.3	14.2	16.6	19.8	22.9	25.8
850	4908	-15.8	-12.7	-9.4	-6.0	-3.4	-0.3	5.9	12.1	15.2	17.8	21.2	24.5	27.6
800	6552	-17.6	-14.1	-10.3	-6.5	-3.5	-0.0	7.1	14.2	17.7	20.7	24.5	28.3	31.8
750	8284	-18.4	-14.5	-10.3	-6.0	-2.7	1.2	9.1	17.0	20.9	24.2	28.5	32.7	36.6
700	10125	-20.0	-15.6	-10.8	-6.0	-2.2	2.2	11.2	20.2	24.6	28.4	33.2	38.0	42.4
650	12064	-21.3	-16.3	-10.9	-5.4	-1.2	3.8	13.9	24.0	29.0	33.2	38.7	44.1	49.1
600	14144	-22.8	-17.2	-11.1	-5.0	-0.3	5.3	16.6	27.9	33.5	38.2	44.3	50.4	56.0
550	16348	-23.7	-17.6	-10.9	-4.2	1.0	7.1	19.6	32.1	38.2	43.4	50.1	56.8	62.9
500	18740	-25.3	-18.5	-11.1	-3.7	2.0	8.8	22.5	36.2	43.0	48.7	56.1	63.5	70.3
450	21309	-27.0	-19.5	-11.4	-3.2	3.1	10.6	25.7	40.8	48.3	54.6	62.8	70.9	78.4
400	24134	-28.1	-20.0	-11.2	-2.4	4.5	12.6	29.0	45.4	53.5	60.4	69.2	78.0	86.1
350	27231	-30.3	-21.4	-11.7	-2.0	5.6	14.5	32.6	50.7	59.6	67.2	76.9	86.6	95.5
300	30692	-30.6	-20.9	-10.4	.2	8.4	18.1	37.7	57.3	67.0	75.2	85.8	96.3	106.0
250	34639	-27.7	-17.7	-6.8	4.0	12.5	22.5	42.7	62.9	72.9	81.4	92.2	103.1	113.1
200	39304	-18.5	-9.1	1.1	11.3	19.3	28.7	47.7	66.7	76.1	84.1	94.3	104.5	113.9
175	42054	-12.4	-4.0	5.2	14.4	21.5	29.9	47.0	64.1	72.5	79.6	88.8	98.0	106.4
150	45226	-7.1	.2	8.2	16.1	22.3	29.6	44.4	59.2	66.5	72.7	80.6	88.6	95.9
125	48943	-3.9	2.2	8.8	15.4	20.6	26.7	39.0	51.3	57.4	62.6	69.2	75.8	81.9
100	53497	-6.5	-1.3	4.4	10.1	14.6	19.8	30.5	41.2	46.4	50.9	56.6	62.3	67.5
80	58009	-12.8	-8.1	-3.0	2.1	6.1	10.8	20.3	29.8	34.5	38.5	43.6	48.7	53.4
70	60712	-15.2	-11.1	-6.6	-2.1	1.4	5.5	13.9	22.3	26.4	29.9	34.4	38.9	43.0
60	63852	-18.3	-14.5	-10.4	-6.2	-3.0	.8	6.5	16.2	20.0	23.2	27.4	31.5	35.3
50	67589	-22.2	-18.5	-14.5	-10.5	-7.4	-3.7	3.7	11.1	14.8	17.9	21.9	25.9	29.6
40	72211	-25.9	-22.2	-18.1	-14.1	-10.9	-7.2	.4	8.0	11.7	14.9	18.9	23.0	26.7
30	78255	-28.9	-24.8	-20.3	-15.9	-12.4	-8.3	0	8.3	12.4	15.9	20.3	24.8	28.9
25	82133	-32.0	-27.4	-22.4	-17.3	-13.4	-8.8	.6	10.0	14.6	18.5	23.6	28.6	33.2
20	86909	-35.1	-29.8	-24.0	-18.2	-13.7	-8.4	2.4	13.2	18.5	23.0	28.8	34.6	39.9
15	93159	-36.9	-30.7	-23.9	-17.1	-11.8	-5.6	7.1	19.8	26.0	31.3	38.1	44.9	51.1
10	102142	-41.1	-33.3	-24.8	-16.4	-9.8	-2.0	13.7	29.4	37.2	43.8	52.2	60.7	68.5

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 10. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: Spring

NO. OBSERVATIONS -- SURFACE = 2142. TOP = 1163

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-22.6	-20.2	-17.6	-15.0	-13.0	-10.6	-5.0	-1.0	1.4	3.4	6.0	8.6	11.0
950	1857	-29.5	-26.2	-22.6	-19.1	-16.3	-13.0	-6.4	.2	3.5	6.3	9.8	13.4	16.7
900	3343	-24.1	-21.3	-18.3	-15.3	-12.9	-10.1	-4.5	1.1	3.9	6.3	9.3	12.3	15.1
850	4908	-26.2	-23.1	-19.8	-16.4	-13.8	-10.7	-4.5	1.7	4.8	7.4	10.8	14.1	17.2
800	6552	-29.1	-25.6	-21.9	-18.0	-15.0	-11.5	-4.4	2.7	6.2	9.2	13.0	16.8	20.3
750	8284	-32.1	-28.1	-23.8	-19.5	-16.1	-12.1	-4.1	3.9	7.9	11.3	15.6	19.9	23.9
700	10125	-35.3	-30.8	-25.9	-21.1	-17.3	-12.8	-3.8	5.2	9.7	13.5	18.3	23.2	27.7
650	12064	-38.8	-33.8	-28.4	-23.0	-18.8	-13.9	-3.8	6.3	11.2	15.4	20.8	26.2	31.2
600	14144	-41.9	-36.5	-30.6	-24.6	-20.0	-14.6	-3.5	7.6	13.0	17.6	23.6	29.5	34.9
550	16348	-45.4	-39.4	-32.9	-26.4	-21.3	-15.3	-3.2	8.9	14.9	20.8	26.5	33.0	39.0
500	18740	-49.6	-43.0	-35.8	-28.5	-22.9	-16.3	-2.8	10.7	17.3	22.9	30.2	37.4	44.0
450	21309	-54.0	-46.7	-38.8	-30.9	-24.7	-17.4	-2.7	12.0	19.3	25.5	33.4	41.3	48.6
400	24134	-57.8	-50.0	-41.5	-32.9	-26.3	-18.5	-2.6	13.3	21.1	27.7	36.3	44.8	52.6
350	27231	-62.9	-54.3	-44.9	-35.5	-28.2	-19.6	-2.1	15.4	24.0	31.3	40.7	50.1	58.7
300	30692	-68.1	-58.7	-48.4	-38.1	-30.1	-20.7	-1.5	17.7	27.1	35.1	45.4	55.7	65.1
250	34639	-71.2	-61.2	-50.3	-39.3	-30.8	-20.8	-0.4	20.0	30.0	38.5	49.5	60.4	70.4
200	39304	-65.8	-56.3	-45.9	-35.6	-27.5	-18.0	1.3	20.6	30.1	38.2	48.5	58.9	68.4
175	42054	-57.2	-48.7	-39.4	-30.2	-23.0	-14.5	2.7	19.9	28.4	35.6	44.8	54.1	62.4
150	45226	-47.4	-40.2	-32.4	-24.5	-18.4	-11.2	3.4	18.0	25.2	31.3	39.2	47.0	54.2
125	48963	-39.5	-33.4	-26.7	-20.1	-14.9	-8.8	3.6	16.0	22.1	27.3	33.9	40.6	46.7
100	53497	-30.7	-25.9	-20.6	-15.4	-11.3	-6.5	3.3	13.1	17.9	22.0	27.2	32.5	37.3
80	58009	-23.1	-19.5	-15.6	-11.7	-8.6	-5.0	2.3	9.6	13.2	16.3	20.2	24.1	27.7
70	60712	-19.1	-16.1	-12.8	-9.5	-6.9	-3.9	2.3	8.5	11.5	14.1	17.4	20.7	23.7
60	63852	-16.2	-13.8	-11.2	-8.5	-6.5	-4.1	.8	5.7	8.1	10.1	12.8	15.4	17.8
50	67589	-14.8	-12.7	-10.4	-8.2	-6.4	-4.3	-0.1	4.1	6.2	8.0	10.2	12.5	14.6
40	72211	-13.4	-11.6	-9.6	-7.6	-6.0	-4.2	-0.4	3.4	5.2	6.8	8.8	10.8	12.6
30	78255	-13.2	-11.4	-9.4	-7.4	-5.8	-4.0	-0.2	3.6	5.4	7.0	9.0	11.0	12.8
25	82133	-13.7	-11.8	-9.7	-7.6	-5.9	-4.0	0	4.0	5.9	7.6	9.7	11.8	13.7
20	86909	-14.4	-12.4	-10.2	-7.9	-6.2	-4.2	0	4.2	6.2	7.9	10.2	12.4	14.4
15	93159	-16.4	-14.0	-11.4	-8.8	-6.8	-4.4	.4	5.2	7.6	9.6	12.2	14.8	17.2
10	102142	-19.5	-16.6	-13.4	-10.3	-7.8	-4.9	1.0	6.9	9.8	12.3	15.4	18.6	21.5

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 11. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: Summer

NO. OBSERVATIONS -- SURFACE = 2377. TOP = 1336

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	.5	2.3	4.4	8.7	13.0	15.1	16.9	19.2	21.5	23.6
950	1827	0	0	0	.5	2.4	4.6	9.1	13.6	15.8	17.7	20.1	22.5	24.7
900	3353	0	0	0	1.5	3.1	5.0	8.8	12.6	14.5	16.1	18.1	20.2	22.1
850	4970	0	0	0	2.0	3.6	5.5	9.4	13.3	15.2	16.8	18.9	21.0	22.9
800	6677	0	0	0	2.2	4.0	6.1	10.3	14.5	16.6	18.4	20.6	22.9	25.0
750	8468	0	0	.1	2.6	4.5	6.8	11.4	16.0	18.3	20.2	22.7	25.2	27.5
700	10367	0	0	.3	3.0	5.1	7.6	12.6	17.6	20.1	22.2	24.9	27.6	30.1
650	12369	0	0	.3	3.2	5.5	8.2	13.7	19.2	21.9	24.2	27.1	30.1	32.8
600	14511	0	0	0	3.1	5.6	8.6	14.7	20.8	23.8	26.3	29.6	32.9	35.9
550	16781	0	0	0	2.7	5.6	9.0	15.8	22.6	26.0	28.9	32.5	36.2	39.6
500	19245	0	0	0	2.7	5.9	9.6	17.2	24.8	28.5	31.7	35.7	39.8	43.5
450	21900	0	0	0	2.7	6.3	10.5	19.1	27.7	31.9	35.5	40.1	44.7	48.9
400	24806	0	0	0	3.0	7.0	11.8	21.4	31.0	35.8	39.8	45.0	50.2	55.0
350	28009	0	0	0	3.7	8.3	13.7	24.8	35.9	41.3	45.9	51.9	57.8	63.2
300	31591	0	0	0	6.1	11.1	17.0	28.9	40.8	46.7	51.7	58.1	64.5	70.4
250	35673	0	0	3.2	9.8	15.0	21.1	33.5	45.5	52.0	57.2	63.8	70.5	76.6
200	40469	0	0	4.6	11.6	17.1	23.6	36.7	49.8	56.3	61.8	68.8	75.9	82.4
175	43248	0	0	4.8	11.5	16.8	23.0	35.6	48.2	54.4	59.7	66.4	73.2	79.4
150	46391	0	0	4.8	10.5	15.0	20.3	31.0	41.7	47.0	51.5	57.2	63.0	68.3
125	50039	0	0	1.7	6.4	10.1	14.4	23.2	32.0	36.3	40.0	44.7	49.4	53.7
100	54459	0	0	0	2.8	5.3	8.3	14.3	20.3	23.3	25.8	29.1	32.3	35.3
80	58911	0	0	1.1	3.4	5.1	7.1	11.3	15.5	17.5	19.2	21.5	23.7	25.7
70	61614	0	0	2.0	4.2	5.9	7.9	12.0	16.1	18.1	19.8	22.0	24.2	26.2
60	64764	0	.4	2.9	5.4	7.3	9.6	14.2	18.8	21.1	23.0	25.5	28.0	30.3
50	68537	.6	2.9	5.5	8.0	10.0	12.3	17.1	21.9	24.2	26.2	28.7	31.3	33.6
40	73215	2.9	5.4	8.2	10.9	13.1	15.6	20.8	26.0	28.5	30.7	33.4	36.2	38.7
30	79327	4.9	7.6	10.6	13.6	15.9	18.6	24.2	29.8	32.5	34.8	37.8	40.8	43.5
25	83245	6.0	8.8	11.9	15.0	17.4	20.2	26.0	31.8	34.6	37.0	40.1	43.2	46.0
20	88047	6.5	9.5	12.7	16.0	18.5	21.5	27.5	33.5	36.5	39.0	42.3	45.5	48.5
15	94409	6.0	9.3	12.9	16.6	19.4	22.7	29.5	36.3	39.6	42.4	46.1	49.7	53.0
10	103478	6.7	10.0	14.1	18.2	21.4	25.2	32.8	40.4	44.2	47.4	51.5	55.6	59.4

Table 12. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: Summer

NO. OBSERVATIONS -- SURFACE = 2377. TOP = 1336

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-7.6	-5.8	-3.8	-1.8	-0.2	1.6	5.4	9.2	11.0	12.6	14.6	16.6	18.4
950	1827	-9.9	-7.8	-5.5	-3.1	-1.3	.8	5.2	9.6	11.7	13.5	15.9	18.2	20.1
900	3353	-10.6	-8.5	-6.2	-4.0	-2.2	-0.1	4.1	8.3	10.4	12.2	14.4	16.7	18.8
850	4970	-11.8	-9.5	-7.0	-4.5	-2.6	-0.3	4.3	8.9	11.2	13.1	15.6	18.1	20.4
800	6677	-14.7	-12.0	-9.1	-6.2	-3.9	-1.2	4.2	9.6	12.3	14.6	17.5	20.4	23.1
750	8468	-16.8	-13.8	-10.5	-7.2	-4.7	-1.7	4.4	10.5	13.5	16.8	19.3	22.6	25.6
700	10367	-19.0	-15.7	-12.1	-8.4	-5.6	-2.3	4.5	11.3	14.6	17.4	21.1	24.7	28.0
650	12369	-21.1	-17.4	-13.4	-9.4	-6.3	-2.6	4.8	12.2	15.9	19.8	23.0	27.0	30.7
600	14511	-23.1	-19.1	-14.7	-10.3	-6.9	-2.9	5.3	13.5	17.5	20.9	25.3	29.7	33.7
550	16781	-24.2	-19.9	-15.2	-10.5	-6.8	-2.5	6.3	15.1	19.4	23.1	27.8	32.5	36.8
500	19245	-25.8	-21.1	-16.0	-10.8	-6.8	-2.1	7.5	17.1	21.8	25.8	31.0	36.1	40.8
450	21900	-26.9	-21.8	-16.2	-10.6	-6.3	-1.2	9.2	19.6	24.7	29.0	34.6	40.2	45.3
400	24806	-27.8	-22.3	-16.3	-10.2	-5.5	.0	11.3	22.6	28.1	32.8	38.9	44.9	50.4
350	28009	-29.6	-23.4	-16.7	-9.9	-4.7	1.5	14.0	26.5	32.7	37.9	44.7	51.4	57.6
300	31591	-30.1	-23.4	-16.1	-8.8	-3.1	3.6	17.2	30.8	37.5	43.2	50.5	57.8	64.5
250	35673	-29.4	-22.4	-14.7	-7.1	-1.1	5.9	20.2	34.5	41.5	47.5	55.1	62.8	69.8
200	40449	-28.8	-21.5	-13.5	-5.5	.7	8.0	22.9	37.8	45.1	51.3	59.3	67.3	74.6
175	43248	-26.9	-19.9	-12.2	-4.6	1.4	8.4	22.7	37.0	44.0	50.0	57.6	65.3	72.3
150	46391	-22.4	-16.4	-9.8	-3.2	1.9	7.9	20.2	32.5	38.5	43.6	50.2	56.8	62.8
125	50039	-22.6	-17.4	-11.7	-6.1	-1.7	3.5	14.0	24.5	29.7	34.1	39.7	45.4	50.6
100	54459	-25.7	-21.5	-16.9	-12.4	-8.8	-4.6	3.9	12.4	16.6	20.2	24.7	29.3	33.5
80	58911	-27.0	-23.8	-20.3	-16.9	-14.2	-11.0	-4.6	1.8	5.0	7.7	11.1	14.6	17.8
70	61614	-28.1	-25.4	-22.4	-19.5	-17.2	-14.5	-9.0	-3.5	-0.8	1.5	4.4	7.4	10.1
60	64764	-31.1	-28.5	-25.6	-22.7	-20.5	-17.9	-12.5	-7.1	-4.5	-2.3	.6	3.5	6.1
50	68537	-34.6	-32.0	-29.1	-26.2	-24.0	-21.4	-16.0	-10.6	-8.0	-5.8	-2.9	0	2.6
40	73215	-39.5	-36.7	-33.7	-30.7	-28.3	-25.5	-19.9	-14.3	-11.5	-9.1	-6.1	-3.1	-0.3
30	79327	-44.6	-41.6	-38.3	-35.0	-32.5	-29.5	-23.4	-17.3	-14.3	-11.8	-8.5	-5.2	-2.2
25	83245	-47.1	-44.0	-40.6	-37.2	-34.6	-31.5	-25.2	-18.9	-15.8	-13.2	-9.8	-6.4	-3.3
20	88047	-49.2	-46.0	-42.5	-39.0	-36.3	-33.1	-26.6	-20.1	-16.9	-14.2	-10.7	-7.2	-4.3
15	94409	-54.4	-50.7	-46.7	-42.7	-39.6	-35.9	-28.5	-21.1	-17.4	-14.3	-10.3	-6.3	-2.6
10	103478	-60.9	-56.7	-52.2	-47.6	-44.1	-39.9	-31.5	-23.1	-18.9	-15.4	-10.8	-6.3	-2.1

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 13. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: Summer

NO. OBSERVATIONS -- SURFACE = 2377, TOP = 1338

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	[illegible]	-18.4	-16.5	-14.4	-12.3	-10.6	-8.7	-4.7	-0.7	1.2	2.9	5.0	7.1	9.0
950	1827	-19.3	-17.2	-14.9	-12.5	-10.7	-8.6	-4.2	.2	2.3	4.1	6.5	8.8	10.9
900	3353	-18.4	-16.2	-13.8	-11.4	-9.6	-7.4	-3.0	1.4	3.6	5.4	7.8	10.2	12.4
850	4970	-18.9	-16.5	-13.9	-11.3	-9.3	-6.9	-2.1	2.7	5.1	7.1	9.7	12.3	14.7
800	6677	-18.6	-16.0	-13.2	-10.3	-8.1	-5.5	-0.2	5.1	7.7	9.9	12.8	15.6	18.2
750	8468	-18.2	-15.4	-12.3	-9.2	-6.8	-4.0	1.8	7.6	10.4	12.8	15.9	19.0	21.8
700	10367	-18.1	-15.1	-11.8	-8.5	-6.0	-3.0	3.1	9.2	12.2	14.7	18.0	21.3	24.3
650	12369	-18.1	-15.0	-11.6	-8.2	-5.5	-2.4	4.3	10.4	13.5	16.2	19.6	23.0	26.1
600	14511	-19.3	-15.9	-12.2	-8.6	-5.7	-2.3	4.5	11.3	14.7	17.6	21.2	24.9	28.3
550	16781	-20.7	-17.1	-13.2	-9.3	-6.2	-2.6	4.7	12.0	15.6	18.7	22.6	26.5	30.1
500	19245	-22.5	-18.6	-14.4	-10.1	-6.8	-2.9	5.0	12.9	16.8	20.1	24.4	28.6	32.5
450	21900	-24.9	-20.6	-15.9	-11.2	-7.5	-3.2	5.6	14.4	18.7	22.4	27.1	31.8	36.1
400	24806	-27.7	-22.9	-17.6	-12.4	-8.3	-3.5	6.3	16.1	20.9	25.0	30.2	35.5	40.3
350	28009	-30.9	-25.4	-19.4	-13.4	-8.7	-3.2	8.0	19.2	24.7	29.4	35.4	41.4	46.9
300	31591	-32.9	-26.8	-20.1	-13.5	-8.3	-2.2	10.2	22.6	28.7	33.9	40.5	47.2	53.3
250	35673	-34.2	-27.5	-20.2	-12.8	-7.1	-0.4	13.3	27.0	33.7	39.4	46.8	54.1	60.8
200	40469	-34.4	-27.3	-19.6	-11.8	-5.8	1.3	15.7	30.1	37.2	43.2	51.0	58.7	65.8
175	43248	-30.4	-23.8	-16.6	-9.5	-3.9	2.7	16.0	29.3	35.9	41.5	48.6	55.8	62.4
150	46391	-24.6	-19.1	-13.1	-7.1	-2.5	3.0	14.1	25.2	30.7	35.3	41.3	47.3	52.8
125	50039	-19.0	-14.8	-10.3	-5.7	-2.2	2.0	10.4	18.8	23.0	26.5	31.1	35.6	39.8
100	54459	-14.8	-11.9	-8.7	-5.6	-3.1	-0.2	5.7	11.6	14.5	17.0	20.1	23.3	26.2
80	58911	-11.6	-9.5	-7.2	-4.9	-3.1	-1.0	3.3	7.6	9.7	11.5	13.8	16.1	18.2
70	61614	-9.9	-8.2	-6.3	-4.4	-2.9	-1.2	2.4	6.0	7.7	9.2	11.1	13.0	14.7
60	64764	-10.6	-8.9	-7.1	-5.2	-3.8	-2.1	1.3	4.7	6.4	7.8	9.7	11.5	13.2
50	68537	-10.4	-8.8	-7.1	-5.3	-4.0	-2.4	.8	4.0	5.6	6.9	8.7	10.4	12.0
40	73215	-12.2	-10.5	-8.6	-6.8	-5.3	-3.6	-0.1	3.4	5.1	6.6	8.4	10.3	12.0
30	79327	-11.8	-10.1	-8.3	-6.5	-5.1	-3.4	-0.1	3.3	4.9	6.3	8.1	9.9	11.5
25	83245	-12.5	-10.7	-8.8	-6.8	-5.3	-3.5	.1	3.7	5.5	7.0	9.0	10.9	12.7
20	88087	-13.4	-11.5	-9.4	-7.4	-5.8	-3.9	-0.1	3.7	5.6	7.2	9.2	11.3	13.2
15	94409	-14.5	-12.4	-10.1	-7.9	-6.1	-4.0	.2	4.4	6.5	8.3	10.5	12.8	14.9
10	103478	-16.9	-14.5	-11.8	-9.2	-7.1	-4.7	.3	5.3	7.7	9.8	12.4	15.1	17.5

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 14. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: Autumn

NO. OBSERVATIONS -- SURFACE = 2360, TOP = 1340

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.47 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	.3	2.0	4.0	8.0	12.0	14.0	15.7	17.8	20.0	22.0
950	1854	0	0	0	.1	2.3	4.9	10.2	15.5	18.1	20.3	23.2	26.0	28.6
900	3346	0	0	0	1.5	3.3	5.4	9.7	14.0	16.1	17.9	20.2	22.5	24.6
850	4961	0	0	.4	2.8	4.6	6.8	11.2	15.6	17.8	19.6	22.0	24.4	26.6
800	6640	0	0	1.0	3.5	5.5	7.8	12.6	17.4	19.7	21.7	24.2	26.8	29.1
750	8406	0	0	1.3	4.2	6.4	9.0	14.4	19.8	22.4	24.6	27.5	30.4	33.0
700	10272	0	0	1.0	4.3	6.8	9.8	15.9	22.0	25.0	27.5	30.8	34.1	37.1
650	12251	0	0	.9	4.6	7.5	10.9	17.8	24.7	28.1	31.0	34.7	38.4	41.8
600	14364	0	0	.3	4.6	7.9	11.8	19.7	27.6	31.5	34.8	39.1	43.3	47.2
550	16611	0	0	.2	4.9	8.6	13.0	21.8	30.6	35.0	38.7	43.4	48.2	52.6
500	19049	0	0	.3	5.5	9.6	14.4	24.2	34.0	38.8	42.9	48.1	53.4	58.2
450	21687	0	0	.2	6.0	10.6	16.0	26.9	37.8	43.2	47.8	53.6	59.5	64.9
400	24541	0	0	.7	7.2	12.2	18.1	30.1	42.1	48.0	53.0	59.5	65.9	71.8
350	27700	0	0	1.6	8.8	14.3	20.8	34.1	47.4	53.9	59.4	66.6	73.7	80.2
300	31230	0	0	2.6	10.5	16.7	24.0	38.7	53.4	60.7	66.9	74.8	82.7	90.0
250	35259	0	0	3.7	12.3	19.0	26.9	42.9	58.9	66.8	73.5	82.1	90.7	98.6
200	40007	0	0	6.1	14.6	21.2	29.0	44.8	60.6	68.4	75.0	83.5	92.0	99.8
175	42772	0	0	7.4	15.3	21.4	28.6	43.3	58.0	65.2	71.3	79.2	87.1	94.3
150	45915	0	.5	7.4	14.4	19.8	26.2	39.1	52.0	58.4	63.8	70.8	77.7	84.1
125	49573	0	0	5.1	11.0	15.5	20.8	31.7	42.6	47.9	52.4	58.3	64.1	69.4
100	53993	0	0	0	4.9	8.7	13.2	22.3	31.4	35.9	39.7	44.6	49.5	54.0
80	58415	0	0	0	1.5	4.4	7.9	14.9	21.9	25.4	28.3	32.1	35.9	39.4
70	61849	0	0	0	.9	3.4	6.4	12.4	18.4	21.4	23.9	27.2	30.4	33.4
60	64203	0	0	0	1.1	3.3	5.8	11.0	16.2	18.7	20.9	23.6	26.4	28.9
50	67927	0	0	0	1.4	3.5	5.9	10.9	15.9	18.3	20.4	23.0	25.7	28.1
40	72530	0	0	0	1.7	3.8	6.2	11.2	16.2	18.6	20.7	23.3	26.0	28.4
30	78543	0	0	0	2.3	4.8	7.1	12.4	17.7	20.3	22.5	25.4	28.2	30.8
25	82398	0	0	0	3.0	5.4	8.2	14.0	19.8	22.6	25.0	28.1	31.2	34.0
20	87152	0	0	0	2.6	5.5	8.9	15.9	22.9	26.3	29.2	33.0	36.7	40.1
15	93353	0	0	0	2.3	6.0	10.4	19.2	28.0	32.4	36.1	40.8	45.6	50.0
10	102208	0	0	0	2.9	7.6	13.2	24.5	35.8	41.4	46.1	52.2	58.3	63.9

Table 15. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: Autumn

NO. OBSERVATIONS -- SURFACE = 2360. TOP = 1340

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-8.6	-6.8	-4.8	-2.8	-1.2	.6	4.4	8.2	10.0	11.6	13.6	15.6	17.4
950	1854	-16.2	-13.4	-10.3	-7.3	-4.9	-2.1	3.6	9.3	12.1	14.5	17.5	20.6	23.4
900	3366	-17.7	-15.0	-12.0	-9.0	-6.7	-4.0	1.6	7.2	9.9	12.2	15.2	18.2	20.9
850	4961	-19.2	-16.2	-13.0	-9.7	-7.2	-4.2	1.3	7.8	10.8	13.3	16.6	19.8	22.8
800	6640	-20.9	-17.6	-14.0	-10.5	-7.7	-4.4	2.2	8.8	12.1	14.9	18.4	22.0	25.3
750	8406	-22.6	-19.0	-15.0	-11.1	-8.0	-4.4	3.0	10.4	14.0	17.1	21.0	25.0	28.6
700	10272	-23.9	-19.9	-15.5	-11.2	-7.8	-3.8	4.3	12.4	16.4	19.8	24.1	28.5	32.5
650	12251	-25.7	-21.2	-16.3	-11.5	-7.7	-3.2	5.8	14.8	19.3	23.1	27.9	32.8	37.3
600	14364	-27.1	-22.2	-16.8	-11.5	-7.3	-2.4	7.6	17.6	22.5	26.7	32.0	37.4	42.3
550	16611	-28.7	-23.3	-17.4	-11.5	-6.9	-1.5	9.5	20.5	25.9	30.5	36.4	42.3	47.7
500	19049	-30.0	-24.1	-17.7	-11.2	-6.2	-0.3	11.7	23.7	29.6	34.6	41.1	47.5	53.4
450	21667	-31.3	-24.9	-17.9	-10.9	-5.5	.9	13.9	26.9	33.3	38.7	45.7	52.7	59.1
400	24541	-33.4	-26.3	-18.6	-10.9	-4.9	2.2	16.5	30.8	37.9	43.9	51.6	59.3	66.4
350	27700	-35.1	-27.4	-19.0	-10.6	-4.0	3.7	19.4	35.1	42.8	49.4	57.8	66.2	73.9
300	31230	-36.9	-28.3	-18.9	-9.6	-2.3	6.3	23.7	41.1	49.7	57.0	66.3	75.7	84.3
250	35259	-36.8	-27.6	-17.6	-7.5	.3	9.5	28.2	46.9	56.1	63.9	74.0	84.0	93.2
200	40007	-31.6	-22.5	-12.6	-2.7	5.0	14.1	32.5	50.9	60.0	67.7	77.6	87.5	96.6
175	42772	-26.0	-17.7	-8.6	.5	7.6	15.9	32.9	49.9	58.2	65.3	74.4	83.5	91.8
150	45915	-21.8	-14.4	-6.3	1.7	8.0	15.4	30.4	45.4	52.8	59.1	67.1	75.2	82.6
125	49573	-17.6	-11.6	-5.0	1.5	6.6	12.6	24.8	37.0	43.0	48.1	55.6	61.2	67.2
100	53993	-18.9	-13.9	-8.4	-2.9	1.4	6.4	16.7	27.0	32.0	36.3	41.8	47.3	52.3
80	58415	-22.1	-17.8	-13.1	-8.4	-4.7	-0.4	8.4	17.2	21.5	25.2	29.9	34.6	38.9
70	61089	-23.7	-19.7	-15.3	-10.9	-7.5	-3.5	4.7	12.9	16.9	20.3	24.7	29.1	33.1
60	64203	-24.8	-21.0	-16.9	-12.8	-9.6	-5.8	1.9	9.4	13.2	16.4	20.5	24.6	28.4
50	67927	-27.2	-23.4	-19.3	-15.1	-11.9	-8.1	-0.4	7.3	11.1	14.2	18.5	22.6	26.4
40	72530	-29.7	-25.8	-21.5	-17.2	-13.9	-10.0	-2.0	6.0	9.9	13.2	17.5	21.8	25.7
30	78543	-33.1	-28.7	-23.9	-19.1	-15.3	-10.9	-1.9	7.1	11.5	15.3	20.1	24.9	29.3
25	82398	-36.4	-31.3	-25.8	-20.2	-15.9	-10.8	-0.5	9.8	14.9	19.2	24.5	30.3	35.4
20	87152	-40.7	-34.8	-28.3	-21.8	-16.8	-10.9	1.2	13.3	19.2	24.2	30.1	37.2	43.1
15	93353	-44.4	-37.3	-29.6	-21.9	-15.9	-8.8	5.5	19.8	26.9	32.9	40.6	48.3	55.4
10	102208	-50.6	-41.9	-32.4	-23.0	-15.6	-6.9	10.7	28.3	37.0	44.4	53.8	63.3	72.0

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 16. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: Autumn

NO. OBSERVATIONS -- SURFACE = 2360, TOP = 1360

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.8	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-17.5	-15.6	-13.5	-11.4	-9.8	-7.9	-4.0	-0.1	1.8	3.4	5.5	7.6	9.5
950	1854	-18.3	-16.3	-14.1	-11.8	-10.1	-8.1	-3.9	.3	2.3	4.0	6.3	8.5	10.5
900	3366	-20.1	-17.6	-14.8	-12.1	-9.9	-7.4	-2.2	3.8	5.5	7.7	10.4	13.2	15.7
850	4961	-22.6	-19.6	-16.4	-13.1	-10.6	-7.6	-1.6	4.4	7.4	9.9	13.2	16.4	19.4
800	6642	-25.0	-21.6	-17.9	-14.2	-11.3	-7.9	-1.0	5.9	9.3	12.2	15.9	19.6	23.0
750	8406	-28.5	-24.6	-20.3	-16.0	-12.7	-8.8	-.8	7.2	11.1	14.4	18.7	23.8	26.9
700	10272	-31.1	-26.8	-22.1	-17.4	-13.8	-9.5	-0.8	7.9	12.2	15.8	20.5	25.2	29.5
650	12251	-34.5	-29.7	-24.5	-19.3	-15.3	-10.5	-0.9	8.7	13.5	17.5	22.7	27.9	32.7
600	14364	-37.7	-32.5	-26.8	-21.2	-16.8	-11.6	-1.1	9.4	14.6	19.0	24.6	30.3	35.5
550	16611	-40.5	-34.9	-28.8	-22.7	-18.0	-12.4	-1.1	10.2	15.8	20.5	26.6	32.7	38.3
500	19049	-44.0	-37.9	-31.3	-24.7	-19.5	-13.4	-1.1	11.2	17.3	22.5	29.1	35.7	41.8
450	21667	-48.5	-41.8	-34.5	-27.1	-21.4	-14.7	-1.0	12.7	19.4	25.1	32.5	39.8	46.5
400	24541	-52.8	-45.4	-37.4	-29.3	-23.1	-15.7	-0.8	14.1	21.5	27.7	35.8	43.8	51.2
350	27700	-59.2	-50.9	-41.9	-32.8	-25.8	-17.5	-0.7	16.1	24.4	31.4	40.5	49.5	57.8
300	31230	-64.0	-55.0	-45.1	-35.3	-27.6	-18.6	-0.2	18.2	27.2	34.9	44.7	54.6	63.6
250	35259	-67.0	-57.4	-47.0	-36.5	-28.4	-18.8	.6	20.0	29.6	37.7	48.2	58.6	68.2
200	40007	-61.5	-52.5	-42.6	-32.8	-25.1	-16.1	2.3	20.7	29.7	37.4	47.2	57.1	66.1
175	42772	-55.1	-46.9	-37.9	-29.0	-22.0	-13.8	2.9	19.6	27.8	34.8	43.7	52.7	60.9
150	45915	-47.2	-40.1	-32.4	-24.6	-18.6	-11.5	2.9	17.3	24.4	30.4	38.2	45.9	53.0
125	49573	-38.9	-33.1	-26.7	-20.4	-15.4	-9.6	2.3	14.2	20.0	25.0	31.3	37.7	43.5
100	53993	-29.7	-25.4	-20.7	-16.0	-12.4	-8.1	.6	9.3	13.6	17.2	21.9	26.6	30.9
80	58415	-22.1	-19.0	-15.6	-12.2	-9.6	-6.5	-0.2	6.1	9.2	11.8	15.2	18.6	21.7
70	61089	-19.3	-16.7	-13.8	-10.9	-8.7	-6.1	-0.7	4.7	7.3	9.5	12.4	15.3	17.9
60	64203	-16.9	-14.7	-12.3	-9.8	-7.9	-5.7	-1.1	3.5	5.7	7.6	10.1	12.5	14.7
50	67927	-16.1	-14.0	-11.7	-9.5	-7.7	-5.6	-1.4	2.8	4.9	6.7	8.9	11.2	13.3
40	72530	-14.7	-12.8	-10.7	-8.6	-7.0	-5.1	-1.9	2.7	4.6	6.2	8.3	10.4	12.3
30	78543	-13.9	-12.1	-10.1	-8.1	-6.6	-4.8	-1.1	2.6	4.4	5.9	7.9	9.9	11.7
25	82398	-13.6	-11.8	-9.8	-7.8	-6.2	-4.4	-0.6	3.2	5.0	6.6	8.6	10.6	12.4
20	87152	-14.5	-12.5	-10.3	-8.1	-6.4	-4.4	-0.3	3.8	5.8	7.5	9.7	11.9	13.9
15	93353	-17.0	-14.6	-12.0	-9.3	-7.3	-4.9	0	4.9	7.3	9.3	12.0	14.6	17.0
10	102208	-20.9	-17.9	-14.7	-11.4	-8.9	-5.9	.1	6.1	9.1	11.6	14.9	18.1	21.1

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 17. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: January

NO. OBSERVATIONS -- SURFACE = 676, TOP = 326

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	40.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	1.0	2.5	4.3	7.9	11.5	13.3	14.8	16.8	18.7	20.5
950	1929	0	0	0	1.0	3.5	6.4	12.3	18.2	21.1	23.6	26.7	29.9	32.8
900	3415	0	0	0	1.2	3.4	6.0	11.2	16.4	19.0	21.2	24.0	26.8	29.4
850	4970	0	0	.0	2.8	4.9	7.4	12.5	17.6	20.1	22.2	25.0	27.7	30.2
800	6604	0	0	.8	3.8	6.2	9.0	14.7	20.4	23.2	25.6	28.6	31.7	34.5
750	8323	0	0	1.9	5.3	7.9	11.0	17.2	23.4	26.5	29.1	32.5	35.8	38.9
700	10151	0	0	2.8	6.4	9.2	12.5	19.2	25.9	29.2	32.0	35.6	39.2	42.5
650	12077	0	0	3.5	7.4	10.5	14.1	21.4	28.7	32.3	35.4	39.3	43.2	46.8
600	14147	0	.1	4.5	8.9	12.3	16.3	24.5	32.7	36.7	40.1	44.5	48.9	52.9
550	16335	0	0	4.9	9.8	13.7	18.3	27.4	36.7	41.3	45.2	50.1	55.1	59.7
500	18720	0	.7	6.0	11.3	15.4	20.3	30.1	39.9	44.8	48.9	54.2	59.5	64.4
450	21270	0	1.7	7.4	13.1	17.6	22.8	33.5	44.2	49.4	53.9	59.6	65.3	70.5
400	24085	0	1.9	8.2	14.6	19.5	25.3	37.1	49	54.7	59.6	66.0	72.3	78.1
350	27165	0	1.0	8.5	16.0	21.8	28.7	42.6	56.5	63.4	69.2	76.7	84.2	91.1
300	30610	0	2.7	10.7	18.7	24.9	32.2	47.1	62.0	69.3	75.5	83.5	91.5	98.8
250	34541	0	2.3	11.3	20.4	27.4	35.7	52.5	69.3	77.6	84.6	93.7	102.7	111.0
200	39193	0	2.3	11.7	21.0	28.3	36.9	54.3	71.7	80.3	87.6	96.9	106.3	114.9
175	41949	0	5.7	14.0	22.3	28.8	36.4	51.9	67.4	75.0	81.5	89.8	98.1	105.7
150	45118	1.7	8.2	15.3	22.5	28.0	34.5	47.8	61.1	67.6	73.1	80.3	87.4	93.9
125	48835	1.2	7.0	13.4	19.7	24.7	30.5	42.4	54.3	60.1	65.1	71.4	77.8	83.6
100	53323	1.0	5.8	11.0	16.2	20.2	25.0	34.6	44.2	49.0	53.0	58.2	63.4	68.2
80	57776	0	1.8	6.1	10.4	13.8	17.8	25.8	33.8	37.8	41.2	45.5	49.8	53.8
70	60446	0	0	1.5	5.8	9.1	13.0	20.9	28.8	32.7	36.0	40.3	44.5	48.4
60	63550	0	0	0	3.2	6.2	9.7	16.9	24.1	27.6	30.6	34.4	38.3	41.8
50	67247	0	0	0	1.9	4.7	8.0	14.7	21.4	24.7	27.5	31.1	34.7	38.0
40	71914	0		0	1.9	4.7	8.0	14.6	21.2	24.5	27.3	30.8	34.4	37.7
30	77759	0		0	2.3	5.6	9.5	17.3	25.1	29.0	32.3	36.5	40.7	44.6
25	81565	0	0	0	2.2	5.9	10.3	19.2	28.1	32.5	36.2	41.0	45.8	50.2
20	86253	0	0	0	1.7	6.0	11.0	21.3	31.6	36.6	40.9	46.4	51.9	56.9
15	92375	0	0	0	2.0	6.8	12.5	24.1	35.7	41.4	46.2	52.5	58.7	64.4
10	101109	0	0	0	1.5	7.8	15.3	30.4	45.5	53.0	59.3	67.5	75.6	83.1

Table 18. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: January

NO. OBSERVATIONS -- SURFACE = 676, TOP = 326

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-9.7	-7.9	-5.9	-3.9	-2.6	-0.6	3.1	6.8	8.6	10.1	12.1	14.1	15.9
950	1939	-21.3	-17.9	-14.2	-10.5	-7.6	-4.2	2.7	9.6	13.0	15.9	19.6	23.3	26.7
900	3415	-21.4	-18.1	-14.5	-10.9	-8.1	-4.8	1.9	8.6	11.9	14.7	18.3	21.9	25.2
850	4970	-21.0	-17.6	-13.9	-10.2	-7.3	-3.9	3.0	9.9	13.3	16.2	19.9	23.6	27.0
800	6604	-22.2	-18.4	-14.2	-10.0	-6.9	-3.0	4.8	12.6	16.4	19.6	23.8	28.0	31.8
750	8323	-23.3	-19.0	-14.4	-9.7	-6.1	-1.8	6.8	15.4	19.7	23.3	28.0	32.6	36.9
700	10151	-22.8	-18.1	-13.2	-8.4	-4.6	-0.1	8.9	17.9	22.4	26.2	31.0	35.9	40.4
650	12077	-23.5	-18.6	-13.3	-8.0	-3.9	1.0	10.8	20.6	25.5	29.6	34.9	40.2	45.1
600	14147	-24.9	-19.5	-13.6	-7.8	-3.2	2.2	13.1	24.0	29.4	34.0	39.8	45.7	51.1
550	16335	-27.7	-21.6	-15.0	-8.4	-3.2	2.9	15.2	27.5	33.6	38.8	45.4	52.0	58.1
500	18720	-29.0	-22.5	-15.4	-8.2	-2.7	3.8	17.1	30.4	36.9	42.4	49.6	56.7	63.2
450	21270	-30.7	-23.5	-15.7	-7.9	-1.8	5.4	19.9	34.4	41.6	47.7	55.5	63.3	70.5
400	24095	-31.9	-24.1	-15.6	-7.2	-0.6	7.2	22.9	38.6	46.4	53.0	61.4	69.9	77.7
350	27165	-36.8	-27.9	-18.0	-8.2	-0.6	8.4	26.6	44.8	53.8	61.4	71.2	81.0	90.0
300	30610	-38.0	-28.3	-17.8	-7.2	1.0	10.7	30.3	49.9	59.6	67.8	78.4	88.9	98.6
250	34541	-35.5	-25.3	-14.1	-3.0	5.7	15.9	36.7	57.5	67.7	76.4	87.5	98.7	108.9
200	39193	-28.1	-18.3	-7.6	3.2	11.5	21.3	41.3	61.3	71.1	79.4	90.2	100.9	110.7
175	41949	-20.4	-11.7	-2.2	7.4	14.8	23.5	41.3	59.1	67.8	75.2	84.8	94.3	103.0
150	45118	-14.8	-7.0	1.3	9.6	16.1	23.7	39.2	54.7	62.3	68.8	77.1	85.4	93.0
125	48[illegible]5	-12.0	-5.3	2.0	9.3	15.0	21.7	35.3	48.9	55.6	61.3	68.6	75.9	82.6
100	53223	-11.3	-5.7	.5	6.6	11.4	17.0	28.5	40.0	45.6	50.4	56.5	62.7	68.3
80	57776	-14.1	-9.2	-3.9	1.5	5.6	10.5	20.4	30.3	35.2	39.3	44.7	50.0	54.[illegible]
70	60446	-20.5	-15.5	-10.0	-4.6	-0.3	4.7	14.9	25.1	30.1	34.4	39.8	45.3	50.3
60	63550	-22.6	-17.9	-12.8	-7.7	-3.8	.9	10.3	19.7	24.4	28.3	33.4	38.5	43.2
50	67247	-27.5	-22.8	-17.7	-12.5	-8.5	-3.8	5.8	15.4	20.1	24.1	29.3	34.4	39.1
40	71814	-34.6	-29.5	-23.9	-18.3	-13.9	-8.8	1.7	12.2	17.3	21.7	27.3	32.9	38.0
30	77759	-43.4	-37.2	-30.4	-23.7	-18.4	-12.2	.4	13.0	19.2	24.5	31.2	38.0	44.2
25	81585	-49.3	-42.3	-34.7	-27.1	-21.2	-14.2	-0.1	14.0	21.0	26.9	34.5	42.1	49.1
20	86253	-54.8	-47.0	-38.5	-30.0	-23.4	-15.6	.2	16.0	23.8	30.4	38.9	47.4	55.2
15	92375	-57.9	-49.2	-39.7	-30.2	-22.8	-14.1	3.6	21.3	30.0	37.4	46.9	56.4	65.1
10	101109	-62.9	-52.3	-40.7	-29.2	-20.2	-9.6	11.9	33.4	44.0	53.0	64.5	76.1	86.7

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 19. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: January

NO. OBSERVATIONS -- SURFACE = 676. TOP = 326

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-17.9	-15.9	-13.7	-11.6	-9.9	-7.9	-3.9	.1	2.1	3.8	5.9	8.1	10.1
950	1929	-27.2	-24.0	-20.5	-17.0	-14.3	-11.1	-4.6	1.9	5.1	7.8	11.3	14.8	18.0
900	3415	-23.0	-20.2	-17.1	-14.0	-11.6	-8.8	-3.0	2.8	5.6	8.0	11.1	14.2	17.0
850	4970	-25.5	-22.4	-19.0	-15.6	-13.0	-9.9	-3.6	2.7	5.8	8.4	11.8	15.2	18.3
800	6604	-29.0	-25.6	-21.7	-17.9	-15.0	-11.5	-4.5	2.5	6.0	8.9	12.7	16.5	20.0
750	8323	-32.9	-29.0	-24.7	-20.4	-17.1	-13.2	-5.2	2.8	6.7	10.0	14.3	18.6	22.5
700	10151	-36.8	-32.3	-27.4	-22.6	-18.8	-14.3	-5.3	3.7	8.2	12.0	16.8	21.7	26.2
650	12077	-39.8	-34.9	-29.6	-24.3	-20.2	-15.3	-5.5	4.3	9.2	13.3	18.6	23.9	28.8
600	14147	-44.6	-39.1	-33.1	-27.1	-22.4	-16.9	-5.7	5.5	11.0	15.7	21.7	27.7	33.2
550	16335	-49.1	-43.0	-36.3	-29.7	-24.5	-18.4	-6.0	6.4	12.5	17.7	24.3	31.0	37.1
500	18720	-52.9	-46.3	-39.1	-32.0	-26.4	-19.8	-6.5	6.8	13.4	19.0	26.1	33.3	39.9
450	21270	-57.1	-50.0	-42.3	-34.5	-28.5	-21.4	-7.0	7.4	14.5	20.5	28.3	36.0	43.1
400	24085	-62.5	-54.7	-46.2	-37.7	-31.1	-23.3	-7.5	8.3	16.1	22.7	31.2	39.7	47.5
350	27165	-71.3	-62.4	-52.7	-43.0	-35.4	-26.5	-8.4	9.7	18.6	26.2	35.9	45.6	54.5
300	30610	-77.1	-67.4	-56.9	-46.3	-38.1	-28.4	-8.8	10.8	20.5	28.7	39.3	49.8	59.5
250	34541	-82.5	-72.1	-60.8	-49.5	-40.7	-30.3	-9.3	11.7	22.1	30.9	42.2	53.5	63.9
200	39193	-80.8	-70.7	-59.6	-48.6	-40.0	-29.9	-9.3	11.3	21.4	30.0	41.0	52.1	62.2
175	41949	-72.2	-63.1	-53.2	-43.3	-35.6	-26.5	-8.1	10.3	19.4	27.1	37.0	46.9	56.0
150	45118	-62.1	-54.3	-45.8	-37.3	-30.7	-22.9	-7.1	8.7	16.5	23.1	31.6	40.1	47.9
125	48835	-53.8	-47.1	-39.8	-32.5	-26.8	-20.1	-6.5	7.1	13.8	19.5	26.8	34.1	40.8
100	53323	-43.4	-38.0	-32.1	-26.2	-21.6	-16.2	-5.2	5.8	11.2	15.8	21.7	27.6	33.0
80	57776	-33.4	-29.2	-24.7	-20.1	-16.6	-12.4	-4.0	4.4	8.6	12.1	16.7	21.2	25.4
70	60446	-27.9	-24.6	-21.0	-17.5	-14.7	-11.4	-4.8	1.8	5.1	7.9	11.4	15.0	18.3
60	63550	-24.7	-21.7	-18.5	-15.2	-12.7	-9.7	-3.7	2.3	5.3	7.8	11.1	14.3	17.3
50	67247	-22.2	-19.6	-16.7	-13.8	-11.6	-9.0	-3.6	1.8	4.4	6.6	9.5	12.4	15.0
40	71814	-20.7	-18.2	-15.5	-12.7	-10.6	-8.1	-3.0	2.1	4.6	6.7	9.5	12.2	14.7
30	77759	-22.8	-20.1	-17.2	-14.3	-12.0	-9.3	-3.9	1.5	4.2	6.5	9.4	12.3	15.0
25	81565	-25.4	-22.4	-19.1	-15.8	-13.2	-10.2	-4.0	2.2	5.2	7.8	11.1	14.4	17.4
20	86253	-28.9	-25.3	-21.4	-17.5	-14.4	-10.8	-3.5	3.8	7.4	10.5	14.4	18.3	21.9
15	92375	-32.8	-28.6	-24.1	-19.5	-16.0	-11.8	-3.4	5.0	9.2	12.7	17.3	21.8	26.0
10	101109	-39.0	-33.7	-27.9	-22.2	-17.7	-12.4	-1.7	9.0	14.3	18.8	24.5	30.3	35.6

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 2C. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: February

NO. OBSERVATIONS -- SURFACE = 623, TOP = 321

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	0	1.5	3.9	8.8	13.7	16.1	18.1	20.8	23.4	25.8
950	1916	0	0	0	1.0	3.7	6.9	13.4	19.9	23.1	25.8	29.3	32.8	36.0
900	3406	0	0	0	2.1	4.3	6.9	12.1	17.3	19.9	22.1	24.9	27.7	30.3
850	4944	0	0	.6	3.4	5.6	8.2	13.4	18.6	21.2	23.4	26.2	29.0	31.6
800	6601	0	0	1.1	4.3	6.8	9.7	15.7	21.7	24.6	27.1	30.3	33.5	36.4
750	8327	0	0	.6	4.4	7.4	10.9	18.1	25.3	28.8	31.8	35.6	39.5	43.0
700	10157	0	0	1.6	5.7	8.8	12.5	20.0	27.5	31.2	34.3	38.4	42.4	46.1
650	12087	0	0	2.2	6.8	10.3	14.5	22.9	31.3	35.5	39.0	43.6	48.1	52.3
600	14157	0	0	3.3	8.2	12.0	16.5	25.6	34.7	39.2	43.0	47.9	52.8	57.3
550	16348	0	0	3.9	9.2	13.4	18.3	28.3	38.3	43.2	47.4	52.7	58.1	63.0
500	18727	0	0	5.5	11.1	15.5	20.7	31.2	41.7	46.9	51.3	56.9	62.6	67.8
450	21280	0	.8	6.8	12.9	17.6	23.1	34.4	45.7	51.2	55.9	62.0	68.0	73.5
400	24085	0	.3	7.2	14.1	19.4	25.7	38.5	51.3	57.6	62.9	69.8	76.7	83.0
350	27162	0	0	7.5	15.4	21.6	28.9	43.6	58.3	65.6	71.8	79.7	87.6	94.9
300	30600	0	.6	9.6	18.6	25.6	33.8	50.6	67.3	75.6	82.6	91.6	100.6	108.8
250	34524	0	.9	11.2	21.5	29.5	38.9	58.1	77.3	86.7	94.7	105.0	115.3	124.7
200	39180	0	4.7	15.1	25.4	33.5	43.0	62.3	81.6	91.1	99.2	109.5	119.9	129.4
175	41946	0	4.8	14.7	24.5	32.2	41.2	59.6	78.0	87.0	94.7	104.5	114.4	123.4
150	45131	0	7.5	15.9	24.3	30.9	38.6	54.3	70.0	77.7	84.3	92.7	101.1	108.8
125	48858	1.0	7.7	15.0	22.2	27.9	34.6	48.1	61.6	68.3	74.0	81.2	88.5	95.2
100	53356	.7	6.0	11.8	17.6	22.1	27.4	38.2	49.0	54.3	58.8	64.6	70.4	75.7
80	57812	0	1.1	6.1	11.1	15.0	19.6	28.9	38.2	42.8	46.7	51.7	56.7	61.3
70	60476	0	1.1	4.7	8.4	11.2	14.5	21.3	28.1	31.4	34.2	37.9	41.5	44.8
60	63570	0	0	0	3.7	6.8	10.4	17.8	25.2	28.8	31.9	35.8	39.8	43.4
50	67251	0	0	0	1.9	4.7	8.0	14.7	21.4	24.7	27.5	31.1	34.7	38.0
40	71804	0	0	0	1.6	4.1	7.1	13.1	19.1	22.1	24.6	27.9	31.1	34.1
30	77746	0	0	0	.4	3.5	7.2	14.7	22.2	25.9	29.0	33.1	37.1	40.8
25	81575	0	0	0	.9	4.1	7.9	15.5	23.1	26.9	30.1	34.2	38.3	42.1
20	86280	0	0	0	.3	4.4	9.3	19.1	28.9	33.8	37.9	43.2	48.5	53.4
15	92497	0	0	0	0	4.8	11.2	24.1	37.0	43.4	48.8	55.8	62.7	69.1
10	101266	0	0	0	0	6.7	15.4	33.2	51.0	59.7	67.1	76.7	86.2	94.9

Table 21. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: February

NO. OBSERVATIONS -- SURFACE = 623, TOP = 321

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-10.0	-8.0	-5.8	-3.6	-1.9	.1	4.2	8.3	10.3	12.0	14.2	16.4	18.4
950	1916	-21.1	-17.5	-13.6	-9.7	-6.6	-3.0	4.3	11.6	15.2	18.3	22.2	26.1	29.7
900	3406	-20.3	-17.0	-13.4	-9.9	-7.1	-3.8	2.8	9.4	12.7	15.5	19.0	22.6	25.9
850	4964	-20.6	-17.2	-13.5	-9.9	-7.0	-3.6	3.2	10.0	13.4	16.3	19.9	23.6	27.0
800	6601	-20.4	-16.8	-12.8	-8.9	-5.8	-2.2	5.2	12.6	16.2	19.3	23.2	27.2	30.8
750	8327	-20.6	-16.7	-12.4	-8.1	-4.8	-0.9	7.1	15.1	19.0	22.3	26.6	30.9	34.8
700	10157	-20.6	-16.4	-11.8	-7.2	-3.6	.6	9.2	17.8	22.0	25.6	30.2	34.8	39.0
650	12087	-21.8	-17.0	-11.8	-6.6	-2.6	2.2	11.8	21.4	26.2	30.2	35.4	40.6	45.4
600	14157	-21.2	-16.2	-10.7	-5.3	-1.0	4.0	14.2	24.4	29.4	33.7	39.1	44.6	49.6
550	16348	-22.0	-16.5	-10.5	-4.5	.2	5.7	16.9	28.1	33.6	38.3	44.3	50.3	55.8
500	18727	-22.5	-16.6	-10.1	-3.6	1.4	7.3	19.4	31.5	37.4	42.4	48.9	55.4	61.3
450	21240	-23.8	-17.3	-10.2	-3.1	2.4	8.9	22.1	35.3	41.8	47.3	54.4	61.5	68.0
400	24085	-26.6	-19.2	-11.2	-3.1	3.1	10.5	25.4	40.3	47.7	53.9	62.0	70.0	77.4
350	27162	-29.4	-21.1	-12.0	-2.9	4.2	12.5	29.5	46.5	54.8	61.9	71.0	80.1	88.4
300	30600	-33.5	-23.8	-13.2	-2.6	5.7	15.4	35.2	55.0	64.7	73.0	83.6	94.2	103.9
250	34524	-36.2	-25.0	-12.8	-0.6	8.9	20.1	42.8	65.5	76.7	86.2	98.4	110.6	121.8
200	39180	-25.1	-14.3	-2.6	9.2	18.3	29.1	50.9	72.7	83.5	92.6	104.4	116.1	126.9
175	41946	-18.5	-8.7	2.0	12.7	21.0	30.8	50.7	70.6	80.4	88.7	99.4	110.1	119.9
150	45131	-7.4	.3	8.7	17.1	23.6	31.3	46.9	62.5	70.2	76.7	85.1	93.5	101.2
125	48858	-10.1	-2.7	5.4	13.4	19.7	27.1	42.1	57.1	64.5	70.8	78.8	86.9	94.3
100	53356	-8.8	-2.8	3.7	10.2	15.3	21.3	33.4	45.5	51.5	56.6	63.1	69.6	75.6
80	57812	-10.5	-5.5	-0.1	5.3	9.5	14.4	24.5	34.5	39.5	43.7	49.1	54.5	59.5
70	60476	-10.8	-6.9	-2.6	1.7	5.0	8.9	16.9	24.9	28.8	32.1	36.4	40.7	44.6
60	63570	-17.5	-13.2	-8.5	-3.8	-0.2	4.1	12.8	21.5	25.8	29.4	34.1	38.8	43.1
50	67251	-23.5	-19.1	-14.3	-9.6	-5.9	-1.5	7.3	16.1	20.5	24.2	28.9	33.7	38.1
40	71804	-27.6	-23.2	-18.4	-13.6	-9.8	-5.4	3.6	12.6	17.0	20.8	25.6	30.4	34.8
30	77746	-36.1	-30.6	-24.6	-18.5	-13.8	-8.3	3.0	14.3	19.8	24.5	30.6	36.6	42.1
25	81575	-38.6	-32.7	-26.3	-19.9	-14.9	-9.0	2.9	14.8	20.7	25.7	32.1	38.5	44.4
20	86280	-47.5	-40.1	-32.0	-23.9	-17.6	-10.2	4.9	20.0	27.4	33.7	41.8	49.9	57.3
15	92457	-56.3	-47.0	-36.8	-26.7	-18.8	-9.5	9.4	28.3	37.6	45.5	55.6	65.8	75.1
10	101266	-68.2	-55.9	-42.5	-29.1	-18.7	-6.4	18.5	43.4	55.7	66.1	79.5	92.9	105.2

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 22. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: February

NO. OBSERVATIONS -- SURFACE = 623, TOP = 321

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-21.9	-19.5	-16.8	-14.2	-12.1	-9.7	-4.7	.3	2.7	4.8	7.4	10.1	12.5
950	1916	-29.2	-25.9	-22.3	-18.8	-16.0	-12.7	-6.1	.5	3.8	6.6	10.1	13.7	17.0
900	3406	-25.3	-22.3	-19.1	-15.8	-13.3	-10.3	-4.3	1.7	4.7	7.2	10.5	13.7	16.7
850	4964	-28.5	-25.2	-21.6	-18.0	-15.2	-11.9	-5.2	1.5	4.8	7.6	11.2	14.8	18.1
800	6601	-33.8	-29.9	-25.7	-21.5	-18.2	-14.3	-6.5	1.3	5.2	8.5	12.7	16.9	20.8
750	8327	-39.9	-35.3	-30.3	-25.3	-21.4	-16.8	-7.5	1.8	6.4	10.3	15.3	20.3	24.9
700	10157	-42.2	-37.3	-32.0	-26.6	-22.5	-17.6	-7.7	2.2	7.1	11.2	16.6	21.9	26.8
650	12087	-46.5	-41.1	-35.2	-29.3	-24.7	-19.3	-8.3	2.7	8.1	12.7	18.6	24.5	29.9
600	14157	-51.1	-45.1	-38.5	-32.0	-26.9	-20.9	-8.7	3.5	9.5	14.6	21.1	27.7	33.7
550	16348	-42.9	-38.1	-32.9	-27.7	-23.6	-18.8	-9.1	.6	5.4	9.5	14.7	19.9	24.7
500	18727	-58.0	-51.1	-43.6	-36.1	-30.3	-23.4	-9.5	4.4	11.3	17.1	24.6	32.1	39.0
450	21280	-61.6	-54.3	-46.3	-38.3	-32.1	-24.8	-9.9	5.0	12.3	18.5	26.5	34.5	41.8
400	24085	-67.5	-59.4	-50.6	-41.8	-34.9	-26.8	-10.4	6.0	14.1	21.0	29.8	38.6	46.7
350	27162	-75.2	-66.2	-56.3	-46.5	-38.8	-29.8	-11.4	7.0	16.0	23.7	33.5	43.4	52.4
300	30600	-83.3	-73.2	-62.2	-51.2	-42.7	-32.6	-12.2	8.2	18.3	26.8	37.8	48.8	58.9
250	34524	-88.3	-77.5	-65.7	-53.9	-44.7	-33.9	-11.9	10.1	20.9	30.1	41.9	53.7	64.5
200	39180	-83.6	-73.4	-62.3	-51.2	-42.6	-32.4	-11.8	8.8	19.0	27.6	38.7	49.8	60.0
175	41946	-73.6	-64.8	-55.2	-45.6	-38.1	-29.3	-11.4	6.5	15.3	22.8	32.4	42.0	50.8
150	45131	-63.9	-56.3	-48.0	-39.7	-33.2	-25.6	-10.1	5.4	13.0	19.5	27.8	36 1	43.7
125	48858	-53.4	-47.1	-40.3	-33.4	-28.1	-21.8	-9.1	3.6	9.9	15.2	22.1	28.9	35.2
100	53356	-42.4	-37.4	-32.0	-26.6	-22.4	-17.5	-7.4	2.6	7.6	11.8	17.2	22.6	27.5
80	57812	-35.9	-31.8	-27.3	-22.9	-19.4	-15.3	-7.0	1.3	5.4	8.9	13.3	17.8	21.9
70	60476	-28.1	-25.1	-21.8	-18.5	-15.9	-12.9	-6.7	-0.5	2.5	5.1	8.4	11.7	14.7
60	63570	-25.7	-22.9	-19.8	-16.8	-14.4	-11.6	-5.9	-0.2	2.6	5.0	8.0	11.1	13.9
50	67251	-23.1	-20.6	-17.9	-15.2	-13.1	-10.6	-5.6	-0.6	1.9	4.0	6.7	9.4	11.9
40	71804	-19.6	-17.4	-15.0	-12.6	-10.8	-8.6	-4.2	.2	2.4	4.2	6.6	9.0	11.2
30	77746	-17.6	-15.5	-13.2	-10.9	-9.1	-7.0	-2.7	1.6	3.7	5.5	7.8	10.1	12.2
25	81575	-17.1	-15.1	-12.9	-10.6	-8.9	-6.9	-2.7	1.5	3.5	5.2	7.5	9.7	11.7
20	86280	-18.1	-15.8	-13.2	-10.7	-8.7	-6.4	-1.6	3.2	5.5	7.5	10.0	12.6	14.9
15	92457	-20.2	-17.5	-14.5	-11.6	-9.3	-6.6	-1.1	4.4	7.1	9.4	12.3	15.3	18.0
10	101246	-22.1	-19.1	-15.8	-12.5	-10.0	-7.0	-0.9	5.2	8.2	10.7	14.0	17.3	20.3

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 23. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: March

NO. OBSERVATIONS -- SURFACE = 755, TOP = 362

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	1.2	3.3	5.8	10.8	15.8	18.3	20.4	23.1	25.8	28.3
950	1890	0	0	0	1.7	4.5	7.8	14.5	21.2	24.5	27.3	30.9	34.5	37.8
900	3363	0	0	0	2.2	4.4	7.0	12.3	17.6	20.2	22.4	25.3	28.1	30.7
850	4918	0	0	.8	3.7	5.9	8.5	13.8	19.1	21.7	23.9	26.8	29.6	32.2
800	6552	0	0	1.3	4.5	7.0	9.9	15.9	21.9	24.8	27.3	30.5	33.7	36.6
750	8271	0	0	2.0	5.5	8.3	11.6	18.2	24.8	28.1	30.9	34.4	38.0	41.3
700	10095	0	0	2.4	6.5	9.6	13.3	20.8	28.3	32.0	35.1	39.2	43.2	46.9
650	12021	0	0	2.6	7.3	10.9	15.2	23.8	32.4	36.7	40.3	45.0	49.6	53.9
600	14098	0	0	2.9	8.2	12.3	17.2	27.0	36.8	41.7	45.8	51.1	56.4	61.3
550	16276	0	0	3.4	9.3	13.9	19.3	30.3	41.3	46.7	51.3	57.2	63.1	68.5
500	18652	0	0	4.3	10.8	15.8	21.7	33.8	45.9	51.8	56.8	63.3	69.8	75.7
450	21201	0	0	4.4	11.7	17.4	24.1	37.7	51.3	58.0	63.7	71.0	78.3	85.0
400	24003	0	0	4.4	12.6	18.9	26.4	41.5	56.6	64.1	70.4	78.6	86.7	94.2
350	27077	0	0	5.5	14.7	21.8	30.2	47.3	64.4	72.8	79.9	89.1	98.3	106.7
300	30512	0	0	7.8	17.7	25.4	34.5	52.9	71.3	80.4	88.1	98.0	107.9	117.0
250	34432	0	0	9.2	20.1	28.5	38.4	58.6	78.8	88.7	97.1	108.0	118.8	128.7
200	39081	0	3.7	14.1	24.6	32.7	42.3	61.7	81.1	90.7	98.8	109.3	119.7	129.3
175	41837	0	8.1	17.4	26.7	34.0	42.5	59.9	77.3	85.8	93.1	102.4	111.7	120.2
150	45020	1.2	9.0	17.5	26.0	32.6	40.4	56.2	72.0	79.8	86.4	94.9	103.4	111.2
125	48757	3.4	9.9	17.0	24.0	29.5	36.0	49.1	62.2	68.7	74.2	81.2	88.3	94.8
100	53284	.6	6.2	12.3	18.4	23.1	28.7	40.0	51.3	56.9	61.6	67.7	73.8	79.4
80	57782	0	0	4.7	10.2	14.5	19.5	29.8	40.1	45.1	49.4	54.9	60.4	65.4
70	60476	0	0	2.5	7.0	10.6	14.8	23.3	31.8	36.0	39.6	44.1	48.7	52.9
60	63602	0	0	.5	4.3	7.7	10.7	17.7	24.7	28.2	31.1	34.9	38.7	42.2
50	67320	0	0	0	1.3	4.0	7.1	13.5	19.9	23.0	25.7	29.1	32.5	35.6
40	71916	0	0	0	0	2.2	5.4	11.9	18.4	21.6	24.3	27.8	31.3	34.5
30	77913	0	0	0	0	2.2	5.7	12.8	19.9	23.4	26.4	30.2	34.0	37.5
25	81782	0	0	0	.4	3.6	7.3	14.9	22.5	26.2	29.4	33.4	37.5	41.2
20	86506	0	0	0	2.4	5.9	10.0	18.3	26.6	30.7	34.2	38.6	43.1	47.2
15	92707	0	0	0	3.8	8.2	13.4	23.9	34.4	39.6	44.0	49.6	55.3	60.5
10	101608	0	0	0	4.8	10.9	18.1	32.7	47.3	54.5	60.6	68.5	76.3	83.5

Table 24. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: March

NO. OBSERVATIONS -- SURFACE = 755, TOP = 362

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-9.3	-7.1	-4.7	-2.3	-0.5	1.7	6.1	10.5	12.7	14.5	16.9	19.3	21.5
950	1880	-17.2	-13.8	-10.1	-6.4	-3.5	-0.1	6.8	13.7	17.1	20.0	23.7	27.4	30.8
900	3363	-16.9	-13.8	-10.5	-7.1	-4.5	-1.4	4.8	11.0	14.1	16.7	20.1	23.4	26.5
850	4918	-17.3	-14.1	-10.6	-7.0	-4.3	-1.1	5.5	12.1	15.3	18.0	21.6	25.1	28.3
800	6552	-18.6	-14.9	-10.9	-6.9	-3.8	-0.1	7.3	14.7	18.4	21.5	25.5	29.5	33.2
750	8271	-19.3	-15.2	-10.7	-6.3	-2.8	1.3	9.6	17.9	22.0	25.5	29.9	34.4	38.5
700	10095	-20.5	-15.9	-10.9	-5.9	-2.0	2.6	11.9	21.2	25.8	29.7	34.7	39.7	44.3
650	12021	-22.2	-17.0	-11.3	-5.6	-1.2	4.0	14.6	25.2	30.4	34.8	40.5	46.2	51.4
600	14088	-23.6	-17.8	-11.4	-5.1	-0.1	5.7	17.6	29.5	35.3	40.3	46.6	53.0	58.8
550	16276	-23.9	-17.6	-10.7	-3.8	1.6	7.9	20.8	33.7	40.0	45.4	52.3	59.2	65.5
500	18652	-25.0	-18.1	-10.5	-3.0	2.9	9.8	23.9	38.0	44.9	50.8	58.3	65.9	72.8
450	21201	-26.1	-18.5	-10.2	-1.9	4.5	12.1	27.5	42.9	50.5	56.9	65.2	73.5	81.1
400	24003	-28.1	-19.7	-10.6	-1.4	5.7	14.1	31.1	48.1	56.5	63.6	72.8	81.9	90.3
350	27077	-30.5	-21.1	-10.8	-0.6	7.4	16.8	35.9	55.0	64.4	72.4	82.6	92.9	102.3
300	30512	-30.2	-20.1	-9.0	2.0	10.6	20.7	41.3	61.9	72.0	80.6	91.6	102.7	112.8
250	34432	-28.2	-17.5	-5.8	5.9	15.0	25.7	47.5	69.3	80.0	89.1	100.8	[illegible]	123.2
200	39091	-16.0	-6.2	4.5	15.3	23.6	33.4	53.4	73.4	83.2	91.5	102.3	113.0	122.8
175	41837	-10.1	-1.2	8.6	18.3	25.9	34.8	53.0	71.2	80.1	87.7	97.[illegible]	107.2	116.1
150	45020	-7.0	1.2	10.1	19.0	25.9	34.1	50.6	67.1	75.3	82.2	91.1	100.0	108.2
125	48757	-3.5	3.3	10.7	18.1	23.9	30.7	44.5	58.3	65.1	70.9	78.3	85.7	92.5
100	53284	-4.5	1.3	7.6	14.0	18.9	24.7	36.5	48.3	54.1	59.0	65.4	71.7	77.5
80	57782	-9.9	-4.7	1.0	6.7	11.1	16.3	26.9	37.5	42.7	47.1	52.8	58.5	63.7
70	60476	-10.3	-5.9	-1.1	3.6	7.3	11.7	20.5	29.3	33.7	37.4	42.1	46.9	51.3
60	63602	-13.7	-9.7	-5.3	-1.0	2.4	6.4	14.4	22.6	26.6	30.0	34.3	38.7	42.7
50	67320	-17.4	-13.6	-9.5	-5.1	-2.1	1.7	9.4	17.1	20.9	24.1	28.3	32.4	36.2
40	71916	-25.0	-20.7	-16.0	-11.3	-7.7	-3.4	5.3	14.0	18.3	21.9	26.6	31.3	35.6
30	77913	-30.1	-25.2	-19.9	-14.5	-10.4	-5.5	4.6	14.3	19.2	23.3	28.7	34.0	38.9
25	81742	-33.9	-28.3	-22.2	-16.1	-11.4	-5.8	5.5	16.8	22.4	27.1	33.2	39.3	44.9
20	86506	-38.6	-32.1	-25.0	-17.8	-12.3	-5.8	7.5	20.8	27.3	32.8	40.0	47.1	53.6
15	92707	-45.5	-37.3	-28.4	-19.5	-12.6	-4.4	12.1	28.6	36.8	43.7	52.6	61.5	69.7
10	101608	-53.3	-42.8	-31.4	-19.9	-11.0	-0.5	20.8	42.1	52.6	61.5	73.0	84.4	94.9

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 25. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: March

NO. OBSERVATIONS -- SURFACE = 755, TOP = 362

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-23.4	-20.9	-18.2	-15.4	-13.3	-10.8	-5.7	-0.6	1.9	4.0	6.8	9.5	12.0
950	1880	-31.6	-28.0	-24.1	-20.2	-17.1	-13.5	-6.2	1.1	4.7	7.8	11.7	15.6	19.2
900	3363	-25.9	-22.8	-19.4	-16.0	-13.4	-10.3	-4.0	2.3	5.4	8.0	11.4	14.8	17.9
850	4918	-28.2	-24.8	-21.1	-17.5	-14.6	-11.2	-4.4	2.4	5.8	8.7	12.3	16.0	19.4
800	6552	-31.5	-27.7	-23.6	-19.5	-16.3	-12.5	-4.9	2.7	6.5	9.7	13.8	17.9	21.7
750	8271	-34.5	-30.3	-25.8	-21.2	-17.7	-13.5	-5.1	3.3	7.5	11.0	15.6	20.1	24.3
700	10095	-37.8	-33.1	-28.0	-22.9	-19.0	-14.3	-4.9	4.5	9.2	13.1	18.2	23.3	28.0
650	12021	-41.6	-36.4	-30.7	-25.1	-20.7	-15.5	-5.0	5.5	10.7	15.1	20.7	26.4	31.6
600	14088	-45.0	-39.3	-33.1	-26.9	-22.1	-16.4	-4.9	6.6	12.3	17.1	23.3	29.5	35.2
550	16276	-49.1	-42.8	-36.0	-29.1	-23.8	-17.5	-4.8	7.9	14.2	19.5	26.4	33.2	39.5
500	18652	-53.1	-46.2	-38.7	-31.2	-25.3	-18.4	-4.4	9.6	16.5	22.4	29.9	37.4	44.3
450	21201	-58.0	-50.4	-42.2	-33.9	-27.5	-19.9	-4.6	10.7	18.3	24.7	33.0	41.2	48.8
400	24003	-61.9	-53.8	-45.0	-36.2	-29.3	-21.2	-4.8	11.6	19.7	26.6	35.4	44.2	52.3
350	27077	-69.1	-60.0	-50.1	-40.1	-32.4	-23.3	-4.8	13.7	22.8	30.5	40.5	50.4	59.5
300	30512	-73.9	-64.0	-53.2	-42.5	-34.1	-24.2	-4.2	15.8	25.7	34.1	44.8	55.6	65.5
250	34432	-78.1	-67.6	-56.2	-44.7	-35.8	-25.3	-4.0	17.3	27.8	36.7	48.2	59.6	70.1
200	39081	-72.9	-63.0	-52.2	-41.4	-33.0	-23.1	-3.0	17.1	27.0	35.4	46.2	57.0	66.9
175	41837	-64.0	-55.2	-45.6	-35.9	-28.4	-19.6	-1.6	16.4	25.2	32.7	42.4	52.0	60.8
150	45020	-55.1	-47.4	-39.0	-30.6	-24.1	-16.4	-0.8	14.8	22.5	29.0	37.4	45.8	53.5
125	48757	-46.4	-39.9	-32.8	-25.7	-20.2	-13.7	-0.5	12.7	19.2	24.7	31.8	38.9	45.4
100	53284	-36.7	-31.5	-25.8	-20.2	-15.8	-10.6	-0.1	10.4	15.6	20.0	25.6	31.3	36.5
80	57782	-28.7	-24.7	-20.3	-15.9	-12.5	-8.5	-0.3	7.9	11.9	15.3	19.7	24.1	28.1
70	60476	-24.9	-21.4	-17.6	-13.8	-10.8	-7.3	-0.2	6.9	10.4	13.4	17.2	21.0	24.5
60	63602	-19.4	-16.7	-13.8	-10.9	-8.6	-5.9	-0.5	4.9	7.6	9.9	12.8	15.7	18.4
50	67320	-17.7	-15.4	-12.8	-10.3	-8.3	-6.0	-1.2	3.6	5.9	7.9	10.4	13.0	15.3
40	71916	-15.4	-13.4	-11.2	-8.9	-7.2	-5.2	-1.0	3.2	5.2	6.9	9.2	11.4	13.4
30	77913	-14.5	-12.5	-10.3	-8.2	-6.5	-4.5	-0.5	3.5	5.5	7.2	9.3	11.5	13.5
25	81762	-13.8	-11.9	-9.8	-7.7	-6.0	-4.1	-0.1	3.9	5.8	7.5	9.6	11.7	13.6
20	86506	-15.0	-12.9	-10.6	-8.4	-6.6	-4.5	-0.3	3.9	6.0	7.8	10.0	12.3	14.4
15	92707	-18.3	-15.7	-12.8	-9.9	-7.7	-5.1	.3	5.7	8.3	10.5	13.4	16.3	18.9
10	101608	-23.5	-20.1	-16.4	-12.6	-9.7	-6.3	.7	7.7	11.1	14.0	17.8	21.5	24.9

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 26. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: April

NO. OBSERVATIONS -- SURFACE = 679. TOP = 396

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.47 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	1.0	2.9	5.2	9.8	14.4	16.7	18.6	21.1	23.6	25.9
950	1850	0	0	0	1.5	4.2	7.4	13.9	20.4	23.6	26.3	29.8	33.3	36.5
900	3337	0	0	0	1.9	4.1	6.7	12.1	17.5	20.1	22.3	25.2	28.1	30.7
850	4898	0	0	1.0	3.7	5.8	8.3	13.3	18.3	20.8	22.9	25.6	28.3	30.8
800	6519	0	0	1.9	4.8	7.1	9.8	15.2	20.6	23.3	25.6	28.5	31.4	34.1
750	8244	0	0	2.0	5.4	8.0	11.1	17.4	23.7	26.8	29.4	32.8	36.2	39.3
700	10102	0	[illegible]	1.6	5.7	8.8	12.5	20.0	27.5	31.2	34.3	38.4	42.4	46.1
650	12034	0	0	1.0	5.8	9.6	14.0	23.0	32.0	36.4	40.2	45.0	49.8	54.2
600	14111	0	0	.9	6.5	10.8	15.9	26.1	36.7	41.8	46.1	51.7	57.3	62.4
550	16312	0	0	.7	7.0	12.0	17.8	29.7	41.6	47.4	52.4	58.7	65.1	70.9
500	18701	0	0	.4	7.6	13.3	20.0	33.5	47.0	53.7	59.4	66.6	73.9	80.6
450	21263	0	0	.6	8.7	14.9	22.3	37.2	52.1	59.5	65.7	73.8	81.8	89.2
400	24085	0	0	1.8	10.5	17.2	25.2	41.3	57.4	65.4	72.1	80.8	89.5	97.5
350	27178	0	0	2.5	11.9	19.3	28.0	45.6	63.2	71.9	79.3	88.7	98.2	106.9
300	30636	0	0	4.8	14.9	22.8	32.1	51.0	69.9	79.2	87.1	97.2	107.4	116.7
250	34577	0	0	7.8	18.0	26.0	35.4	54.4	73.4	82.8	90.8	101.0	111.2	120.6
200	39236	0	1.3	11.1	20.8	28.4	37.3	55.5	73.7	82.6	90.2	99.9	109.7	118.6
175	41[illegible]2	0	4.2	13.0	21.8	28.6	36.7	53.0	69.3	77.4	84.2	93.0	101.8	109.9
150	45154	.1	7.0	14.6	22.1	28.0	34.9	49.0	63.1	70.0	75.9	83.4	91.0	97.9
125	48891	2.3	8.1	14.4	20.8	25.7	31.5	43.3	55.1	60.9	65.8	72.2	78.5	84.3
100	53432	.4	5.1	10.2	15.4	19.4	24.1	33.7	43.3	46.0	52.0	57.2	62.3	67.8
80	57949	0	.2	4.5	8.8	12.1	16.0	24.0	32.0	35.9	39.2	43.5	47.8	51.7
70	60653	0	0	.7	4.5	7.5	11.0	18.1	25.2	28.7	31.7	35.5	39.3	42.8
60	63796	0	0	0	2.6	5.0	7.8	13.6	19.4	22.2	24.6	27.7	30.8	33.6
50	67536	0	0	0	.8	2.9	5.4	10.4	15.4	17.9	20.0	22.7	25.4	27.9
40	72152	0	0	0	.9	2.8	5.0	9.5	14.0	16.2	18.1	20.5	22.9	25.1
30	78205	0	0	0	.8	2.7	5.0	9.6	14.2	16.5	18.4	20.9	23.4	25.7
25	82080	0	0	0	.7	3.0	5.7	11.2	16.7	19.4	21.7	24.6	27.6	30.3
20	86860	0	0	0	.9	3.4	6.4	12.5	18.6	21.6	24.1	27.4	30.7	33.7
15	93110	0	0	0	1.6	4.6	8.1	15.3	22.5	26.0	29.0	32.8	36.7	40.2
10	102106	0	0	1.7	6.2	9.8	14.0	22.5	31.0	35.2	38.8	43.3	47.9	52.1

Table 27. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: April

NO. OBSERVATIONS -- SURFACE = 679, TOP = 396

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	40.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-8.1	-6.1	-3.9	-1.7	-0.0	2.0	6.1	10.2	12.2	13.9	16.1	18.3	20.3
950	1850	-13.9	-10.8	-7.4	-4.0	-1.4	1.7	8.0	14.3	17.4	20.0	23.4	26.8	29.9
900	3337	-15.7	-12.6	-9.3	-5.9	-3.3	-0.2	6.0	12.2	15.3	17.9	21.3	24.6	27.7
850	4898	-16.1	-12.9	-9.4	-5.9	-3.2	.0	6.5	13.0	16.2	18.9	22.4	25.9	29.1
800	6539	-17.5	-13.9	-10.0	-6.1	-3.1	.5	7.7	14.9	18.5	21.5	25.4	29.3	32.9
750	8264	-17.4	-13.5	-9.3	-5.1	-1.8	2.1	9.9	17.7	21.6	24.9	29.1	33.3	37.2
700	10102	-19.4	-14.9	-10.0	-5.2	-1.4	3.1	12.1	21.1	25.6	29.4	34.2	39.1	43.6
650	12034	-20.4	-15.4	-9.9	-4.4	-0.1	4.9	15.2	25.5	30.5	34.8	40.3	45.8	50.8
600	14111	-22.5	-16.8	-10.5	-4.3	.6	6.3	18.0	29.7	35.4	40.3	46.5	52.8	58.5
550	16312	-25.0	-18.5	-11.4	-4.2	1.3	7.8	21.1	34.4	40.9	46.4	53.6	60.7	67.2
500	18701	-27.5	-20.1	-12.1	-4.0	2.2	9.6	24.5	39.4	46.8	53.0	61.1	69.1	76.5
450	21263	-30.1	-21.9	-13.0	-4.1	2.8	11.0	27.5	44.0	52.2	59.1	68.0	76.9	85.1
400	24095	-32.1	-23.2	-13.5	-3.8	3.8	12.7	30.8	48.9	57.8	65.4	75.1	84.8	93.7
350	27178	-34.6	-24.8	-14.1	-3.5	4.8	14.6	34.4	54.2	64.0	72.3	82.9	93.6	103.4
300	30636	-35.0	-24.5	-13.1	-1.6	7.3	17.8	39.1	60.4	70.9	79.8	91.3	102.7	113.2
250	34577	-30.3	-20.0	-8.8	2.5	11.2	21.5	42.4	63.3	73.6	82.3	93.6	104.8	115.1
200	39236	-20.3	-10.9	-0.6	9.7	17.7	27.1	46.3	65.5	74.9	82.9	93.2	103.5	112.9
175	41982	-13.2	-4.9	4.2	13.3	20.4	28.7	45.7	62.7	71.0	78.1	87.2	96.3	104.6
150	45154	-6.1	.9	8.6	16.2	22.2	29.2	43.5	57.8	64.8	70.8	78.4	86.1	93.1
125	48891	-3.3	2.6	9.1	15.6	20.6	26.5	38.6	50.7	56.6	61.6	68.1	74.6	80.5
100	53432	-4.0	.8	6.1	11.3	15.4	20.2	30.0	39.8	44.6	48.7	53.9	59.2	64.0
80	57949	-8.2	-4.1	.4	4.8	8.3	12.4	20.7	29.0	33.1	36.6	41.0	45.5	49.6
70	60653	-11.5	-7.8	-3.8	.3	3.4	7.1	14.6	22.1	25.8	28.9	33.0	37.0	40.7
60	63796	-14.4	-11.0	-7.3	-3.6	-0.7	2.7	9.6	16.5	19.9	22.8	26.5	30.2	33.6
50	67536	-18.6	-15.3	-11.7	-8.1	-5.3	-2.0	4.7	11.4	14.7	17.5	21.1	24.7	28.0
40	72162	-22.0	-18.7	-15.1	-11.5	-8.7	-5.4	1.3	8.0	11.3	14.1	17.7	21.3	24.6
30	78205	-22.9	-19.5	-15.8	-12.0	-9.1	-5.7	1.3	8.3	11.7	14.6	18.4	22.1	25.5
25	82040	-26.0	-22.0	-17.6	-13.3	-9.9	-5.9	2.2	10.3	14.3	17.7	22.0	26.4	30.4
20	86860	-26.3	-21.9	-17.1	-12.4	-8.7	-4.3	4.5	13.3	17.7	21.4	26.1	30.9	35.3
15	93110	-20.8	-16.3	-11.4	-6.6	-2.8	1.7	10.7	19.7	24.2	28.0	32.8	37.7	42.2
10	102106	-14.5	-9.7	-4.4	.8	4.9	9.7	19.5	29.3	34.1	38.2	43.4	48.7	53.5

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 28. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: April

NO. OBSERVATIONS -- SURFACE = 679, TOP = 396

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95	97.73 +2SD	99.0
SFC	571	-20.3	-18.1	-15.7	-13.3	-11.5	-9.3	-4.9	-0.5	1.7	3.5	5.9	8.3	10.5
950	1850	-29.2	-25.9	-22.3	-18.7	-15.9	-12.6	-5.9	.8	4.1	6.9	10.5	14.1	17.4
900	3337	-23.8	-21.0	-18.0	-15.0	-12.6	-9.8	-4.2	1.4	4.2	6.6	9.6	12.6	15.4
850	4898	-25.2	-22.2	-18.9	-15.6	-13.1	-10.1	-4.0	2.1	5.1	7.6	10.9	14.2	17.2
800	6539	-23.2	-24.8	-21.1	-17.3	-14.4	-11.0	-4.0	3.0	6.4	9.3	13.1	16.8	20.2
750	8244	-31.7	-27.8	-23.5	-19.2	-15.9	-12.0	-4.0	4.0	7.9	11.2	15.5	19.8	23.7
700	10112	-35.3	-30.8	-25.9	-21.1	-17.3	-12.8	-3.8	5.2	9.7	13.5	18.3	23.2	27.7
650	12034	-39.2	-34.2	-28.8	-23.4	-19.2	-14.3	-4.2	5.9	10.8	15.0	20.4	25.8	30.8
600	14111	-43.7	-38.1	-32.0	-25.9	-21.2	-15.6	-4.3	7.0	12.6	17.3	23.4	29.5	35.1
550	16312	-47.2	-41.1	-34.4	-27.7	-22.5	-16.4	-3.9	8.6	14.7	19.9	26.6	33.3	39.4
500	18711	-51.6	-44.8	-37.4	-30.0	-24.3	-17.5	-3.8	9.9	16.7	22.4	29.8	37.2	44.0
450	21263	-55.9	-48.5	-40.5	-32.4	-26.2	-18.8	-3.9	11.0	18.6	24.6	32.7	40.7	48.1
400	24085	-60.6	-52.5	-43.7	-34.9	-28.1	-20.0	-3.7	12.6	20.7	27.5	36.3	45.1	53.2
350	27178	-64.6	-55.9	-46.4	-36.8	-29.4	-20.7	-2.9	14.9	23.6	31.0	40.6	50.1	58.8
300	30536	-70.6	-60.9	-50.4	-39.8	-31.6	-21.9	-2.3	17.3	27.0	35.2	45.8	56.3	66.0
250	34577	-74.3	-63.9	-52.6	-41.3	-32.5	-22.1	-1.1	19.9	30.3	39.1	50.4	61.7	72.1
200	39236	-67.6	-57.9	-47.4	-36.8	-28.6	-18.9	.7	20.3	30.0	38.2	48.8	59.3	69.0
175	41982	-57.3	-48.8	-39.5	-30.2	-23.0	-14.5	2.8	20.1	28.6	35.8	45.1	54.4	62.9
150	45154	-48.3	-41.0	-33.0	-25.0	-18.8	-11.5	5.4	18.3	25.6	31.8	39.8	47.8	55.1
125	48891	-40.2	-34.0	-27.2	-20.4	-15.1	-8.9	3.8	16.5	22.7	28.0	34.8	41.6	47.8
100	53412	-30.7	-25.8	-20.5	-15.2	-11.1	-6.2	3.6	13.4	18.3	22.4	27.7	33.0	37.9
80	57949	-23.0	-19.3	-15.3	-11.2	-8.1	-4.4	3.1	10.6	14.3	17.4	21.5	25.5	29.2
70	60653	-18.4	-15.3	-11.9	-8.5	-5.9	-2.8	3.5	9.8	12.9	15.5	18.9	22.3	25.4
60	63796	-15.7	-13.2	-10.5	-7.8	-5.7	-3.2	1.8	6.8	9.3	11.4	14.1	16.8	19.3
50	67536	-13.9	-11.8	-9.5	-7.2	-5.4	-3.1	1.0	5.3	7.4	9.2	11.5	13.8	15.9
40	72142	-13.2	-11.3	-9.2	-7.1	-5.5	-3.6	.3	4.2	6.1	7.7	9.8	11.9	13.8
30	78205	-12.5	-10.7	-8.7	-6.7	-5.2	-3.4	.3	4.0	5.8	7.3	9.3	11.3	13.1
25	82080	-14.1	-12.0	-9.7	-7.5	-5.7	-3.6	.6	4.8	6.9	8.7	10.9	13.2	15.3
20	86850	-14.7	-12.6	-10.3	-7.9	-6.1	-4.0	.4	4.8	6.9	8.7	11.1	13.4	15.5
15	93110	-15.5	-13.2	-10.6	-8.1	-6.1	-3.8	1.0	5.8	8.1	10.1	12.6	15.2	17.5
10	102106	-17.4	-14.7	-11.7	-8.8	-6.5	-3.8	1.7	7.2	9.9	12.2	15.1	18.1	20.8

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 29. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: May

NO. OBSERVATIONS -- SURFACE = 708, TOP = 405

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	[illegible]	0	0	0	1.3	3.5	6.0	11.2	16.4	18.9	21.1	23.8	26.6	29.1
950	1841	0	0	0	.5	3.2	6.4	12.8	19.2	22.4	25.1	28.5	32.0	35.2
900	3333	0	0	0	1.8	3.8	6.1	10.8	15.5	17.8	19.8	22.3	24.8	27.1
850	4908	0	0	.8	3.3	5.2	7.5	12.1	16.7	19.0	20.9	23.4	25.9	28.2
800	6568	0	0	1.2	3.9	6.1	8.6	13.8	19.0	21.5	23.7	26.4	29.2	31.7
750	8317	0	0	1.1	4.3	6.8	9.7	15.7	21.7	24.6	27.1	30.3	33.5	36.4
700	10174	0	0	.8	4.4	7.3	10.7	17.5	24.3	27.7	30.6	34.2	37.9	41.3
650	12136	0	0	0	4.2	7.6	11.6	19.7	27.8	31.8	35.2	39.5	43.9	47.9
600	14232	0	0	.3	5.0	8.7	13.1	21.9	30.7	35.1	38.8	43.5	48.3	52.7
550	16460	0	0	.1	5.5	9.6	14.5	24.4	34.3	39.2	43.3	48.7	54.0	58.9
500	18875	0	0	.4	6.2	10.8	16.2	27.1	38.0	43.4	48.0	53.8	59.7	65.1
450	21470	0	0	.6	7.1	12.2	18.2	30.4	42.6	48.6	53.7	60.2	66.8	72.8
400	24318	0	0	2.7	9.5	14.8	21.0	33.7	46.4	52.6	57.9	64.7	71.5	77.7
350	27444	0	0	4.9	12.0	17.6	24.2	37.5	50.8	57.4	63.0	70.1	77.3	83.9
300	30935	0	0	5.8	13.9	20.[illegible]	27.5	42.4	57.3	64.7	70.9	79.0	87.0	94.4
250	34918	0	0	7.3	16.1	22.9	31.0	47.3	63.6	71.7	78.5	87.3	96.1	104.2
200	39606	0	1.0	10.0	18.9	25.9	34.1	50.8	67.5	75.7	82.7	91.6	100.6	108.8
175	42356	0	4.0	12.0	20.1	26.3	33.7	48.6	63.5	70.9	77.1	85.2	93.2	100.6
150	45515	3.1	8.9	15.2	21.5	26.4	32.2	43.9	55.6	61.4	66.3	72.6	78.9	84.7
125	49245	4.8	9.5	14.6	19.7	23.7	28.4	37.9	47.4	52.1	56.1	61.2	66.3	71.0
100	53783	0	3.2	7.7	12.2	15.7	19.8	28.2	36.6	40.7	44.2	48.7	53.2	57.3
80	58304	0	0	1.7	5.0	7.5	10.5	16.5	22.5	25.5	28.0	31.3	34.5	37.5
70	61014	0	0	0	2.3	4.3	6.6	11.4	16.2	18.5	20.5	23.0	25.6	27.9
60	64160	0	0	0	.7	2.2	4.0	7.6	11.2	13.0	14.5	16.5	18.4	20.2
50	67917	0	0	0	.9	2.4	4.1	7.6	11.1	12.8	14.3	16.1	18.0	19.7
40	72566	0	0	0	1.7	3.2	5.0	8.7	12.4	14.2	15.7	17.7	19.7	21.5
30	78652	0	0	0	1.7	3.5	5.6	9.8	14.0	16.1	17.9	20.1	22.4	24.5
25	82552	0	0	0	1.6	3.6	5.9	10.6	15.3	17.6	19.6	22.1	24.6	26.9
20	87369	0	0	0	1.5	3.6	6.0	11.0	16.0	18.4	20.5	23.1	25.8	28.2
15	93665	0	0	0	2.7	4.9	7.4	12.6	17.8	20.3	22.5	25.2	28.0	30.5
10	102687	0	0	0	3.2	5.8	8.9	15.1	21.3	24.4	27.0	30.4	33.7	36.8

Table 30 Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: May

NO. OBSERVATIONS -- SURFACE = 708, TOP = 405

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-7.1	-5.1	-2.9	-0.7	1.0	3.0	7.1	11.2	13.2	14.9	17.1	19.3	21.3
950	1841	-11.5	-8.8	-5.8	-2.8	-0.5	2.2	7.8	13.4	16.1	18.4	21.4	24.4	27.1
900	3333	-11.4	-9.0	-6.3	-3.7	-1.6	.8	5.8	10.8	13.2	15.3	17.9	20.6	23.0
850	4908	-13.1	-10.4	-7.5	-4.6	-2.3	.4	5.8	11.2	13.9	16.2	19.1	22.0	24.7
800	6568	-16.5	-13.3	-9.8	-6.2	-3.5	-0.3	6.3	12.9	16.1	18.8	22.4	25.9	29.1
750	8317	-18.1	-14.4	-10.4	-6.4	-3.3	.4	7.8	15.2	18.9	22.0	26.0	30.0	33.7
700	10174	-19.4	-15.3	-10.8	-6.4	-2.9	1.2	9.5	17.8	21.9	25.4	29.8	34.3	38.4
650	12136	-20.1	-15.6	-10.7	-5.7	-1.9	2.6	11.8	21.0	25.5	29.3	34.3	39.2	43.7
600	14232	-21.1	-16.1	-10.7	-5.2	-1.0	4.0	14.1	24.2	29.2	33.4	38.9	44.3	49.3
550	16460	-21.0	-15.7	-9.9	-4.0	.5	5.8	16.7	27.6	32.9	37.4	43.3	49.1	54.4
500	18875	-21.6	-15.9	-9.6	-3.4	1.5	7.2	18.9	30.6	36.3	41.2	47.4	53.7	59.4
450	21470	-22.7	-16.4	-9.5	-2.6	2.7	9.0	21.8	34.6	40.9	46.2	53.1	60.0	66.3
400	24318	-21.4	-14.8	-7.6	-0.5	5.1	11.7	25.8	38.3	44.9	50.5	57.6	64.8	71.4
350	27444	-22.1	-15.0	-7.3	.5	6.5	13.6	28.0	42.4	49.5	55.5	63.3	71.0	78.1
300	30935	-23.2	-15.3	-6.7	1.9	8.6	16.5	32.5	48.5	56.4	63.1	71.7	80.3	88.2
250	34918	-21.5	-13.1	-3.9	5.3	12.4	20.8	37.9	55.0	63.4	70.5	79.7	88.9	97.3
200	39606	-16.1	-7.8	1.3	10.4	17.5	25.8	42.8	59.8	68.1	75.2	84.3	93.4	101.7
175	42356	-10.3	-2.9	5.2	13.2	19.5	26.9	41.9	56.9	64.3	70.6	78.6	86.7	94.1
150	45515	-2.4	3.4	9.8	16.1	21.1	26.9	38.8	50.7	56.5	61.5	67.8	74.2	80.0
125	49245	.8	5.5	10.6	15.7	19.6	24.3	33.	43.1	47.8	51.7	56.8	61.9	66.6
100	53783	-4.4	-0.3	4.2	8.6	12.1	16.2	24.5	32.8	36.9	40.4	44.8	49.3	53.4
80	58304	-9.8	-6.4	-2.9	.6	3.3	6.5	13.0	19.5	22.7	25.4	28.9	32.4	35.6
70	61014	-13.3	-10.5	-7.4	-4.3	-1.9	.9	6.7	12.5	15.3	17.7	20.8	23.9	26.7
60	64140	-15.1	-12.8	-10.3	-7.8	-5.8	-3.5	1.2	5.9	8.2	10.2	12.7	15.2	17.5
50	67917	-19.9	-17.5	-14.9	-12.3	-10.3	-7.9	-3.1	1.7	4.1	6.1	8.7	11.3	13.7
40	72566	-22.7	-20.3	-17.7	-15.0	-13.0	-10.6	-5.7	-0.8	1.6	3.6	6.3	8.9	11.3
30	78652	-25.7	-22.9	-19.8	-16.8	-14.4	-11.6	-5.9	-0.2	2.6	5.0	8.0	11.1	13.9
25	82552	-28.9	-25.6	-22.0	-18.4	-15.6	-12.3	-5.6	1.1	4.4	7.2	10.8	14.4	17.7
20	87369	-30.6	-27.8	-23.0	-19.1	-16.0	-12.4	-5.0	2.4	6.9	9.1	13.0	17.0	20.6
15	93645	-32.5	-28.1	-23.3	-18.5	-14.8	-10.4	-1.5	7.4	11.8	15.5	20.3	25.1	29.5
10	102647	-35.4	-30.2	-24.5	-18.8	-14.3	-9.1	1.6	12.3	17.5	22.0	27.7	33.4	38.6

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 31. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: May

NO. OBSERVATIONS -- SURFACE = 708. TOP = 405

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.27 -2SD	5.0	10.0	15.87 -1SD	25.0	40.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-23.3	-21.0	-18.4	-15.9	-13.9	-11.6	-6.8	-2.8	.3	2.3	4.8	7.4	9.7
950	1841	-27.1	-24.3	-21.2	-18.1	-15.7	-12.9	-7.1	-1.3	1.5	3.9	7.0	10.1	12.9
900	3333	-21.5	-19.2	-16.7	-14.2	-12.3	-10.0	-5.4	-0.8	1.5	3.4	5.9	8.4	10.7
850	4908	-24.3	-21.6	-18.6	-15.7	-13.4	-10.7	-5.2	.3	3.0	5.3	8.2	11.2	13.9
800	6568	-27.1	-23.9	-20.4	-16.8	-14.1	-10.9	-4.3	2.3	5.5	8.2	11.8	15.3	18.5
750	8317	-30.0	-26.2	-22.1	-17.9	-14.7	-10.9	-3.2	4.5	8.3	11.5	15.7	19.8	23.6
700	10174	-32.0	-27.8	-23.3	-18.7	-15.2	-11.0	-2.6	5.8	10.0	13.5	18.1	22.4	26.8
650	12136	-35.0	-30.3	-25.2	-20.1	-16.2	-11.5	-2.1	7.3	12.0	15.9	21.0	26.1	30.8
600	14232	-36.3	-31.3	-25.9	-20.5	-16.3	-11.4	-1.3	8.8	13.7	17.9	23.3	28.7	33.7
550	16468	-39.2	-33.8	-27.9	-21.9	-17.3	-11.9	-0.8	10.3	15.7	20.3	26.3	32.2	37.6
500	18875	-42.9	-36.8	-30.2	-23.6	-18.4	-12.3	0	12.3	18.4	23.6	30.2	36.8	42.9
450	21470	-47.0	-40.3	-33.0	-25.6	-19.9	-13.2	.5	14.2	20.9	26.6	34.0	41.3	48.0
400	24318	-49.7	-42.5	-34.7	-26.9	-20.8	-13.6	.9	15.4	22.6	28.7	36.5	44.3	51.5
350	27444	-53.1	-45.3	-36.8	-28.4	-21.8	-14.0	1.7	17.4	25.2	31.8	40.2	48.7	56.5
300	30935	-57.8	-49.3	-40.0	-30.7	-23.5	-15.0	2.3	19.6	28.1	35.3	44.6	53.9	62.4
250	34918	-63.2	-53.7	-44.3	-32.9	-24.8	-15.3	4.1	23.5	33.0	41.1	51.5	61.9	71.4
200	39606	-54.6	-46.0	-36.6	-27.1	-19.8	-11.2	6.4	24.0	32.6	39.9	49.4	58.8	67.4
175	42356	-47.6	-39.8	-31.3	-22.8	-16.2	-8.4	7.4	23.2	31.0	37.6	46.1	54.6	62.4
150	45515	-35.9	-29.7	-22.9	-16.2	-10.9	-4.7	7.9	20.5	26.7	32.8	38.7	45.5	51.7
125	49245	-29.2	-24.0	-18.3	-12.6	-8.2	-3.0	7.6	18.2	23.4	27.8	33.5	39.2	44.4
100	53783	-22.0	-17.9	-13.5	-9.0	-5.6	-1.5	6.7	14.9	19.0	22.4	26.9	31.3	35.4
80	58304	-15.3	-12.5	-9.5	-6.5	-4.1	-1.3	4.3	9.9	12.7	15.1	18.1	21.1	23.9
70	61014	-12.5	-10.2	-7.7	-5.2	-3.3	-1.0	3.6	8.2	10.5	12.4	14.9	17.4	19.7
60	64140	-12.5	-10.6	-8.5	-6.4	-4.7	-2.8	1.2	5.2	7.1	8.8	10.9	13.0	14.9
50	67917	-11.3	-9.7	-7.9	-6.2	-4.8	-3.2	.1	3.4	5.0	6.4	8.1	9.9	11.5
40	72546	-11.1	-9.6	-7.9	-6.3	-5.0	-3.5	-0.4	2.7	4.2	5.5	7.1	8.8	10.3
30	78652	-12.7	-11.0	-9.1	-7.2	-5.7	-4.0	-0.4	3.2	4.9	6.4	8.3	10.2	11.9
25	82552	-13.2	-11.4	-9.4	-7.4	-5.9	-4.1	-0.4	3.3	5.1	6.6	8.6	10.6	12.4
20	87349	-13.2	-11.4	-9.4	-7.4	-5.8	-4.0	-0.2	3.6	5.4	7.0	9.0	11.0	12.8
15	93645	-14.7	-12.8	-10.3	-8.1	-6.3	-4.2	0	4.2	6.3	8.1	10.3	12.6	14.7
10	102687	-17.3	-14.8	-12.0	-9.3	-7.1	-4.6	.6	5.8	8.3	10.5	13.2	16.0	18.5

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 32. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: June

NO. OBSERVATIONS -- SURFACE = 751, TOP = 416

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	.9	2.9	5.3	16.2	15.1	17.5	19.5	22.2	24.8	27.2
950	1801	0	0	0	1.0	3.3	6.0	11.8	17.0	19.7	22.0	24.9	27.9	30.6
900	3910	0	0	0	2.4	4.3	6.5	11.1	15.7	17.9	19.8	22.3	24.7	26.9
850	4915	0	0	1.0	3.4	5.3	7.5	12.0	16.5	18.7	20.6	23.0	25.4	27.6
800	6601	0	0	1.1	3.7	5.7	8.1	12.9	17.7	20.1	22.1	24.7	27.3	29.7
750	8379	0	0	.9	3.8	6.0	8.6	13.9	19.2	21.8	24.0	26.9	29.7	32.3
700	10262	0	0	1.0	4.2	6.6	9.5	15.3	21.1	24.0	26.4	29.6	32.7	35.6
650	12251	0	0	1.1	4.5	7.2	10.4	16.8	23.2	26.4	29.1	32.5	36.0	39.2
600	14340	0	0	.8	4.7	7.7	11.3	18.5	25.7	29.3	32.3	36.2	40.1	43.7
550	16647	0	0	.4	4.8	8.2	12.2	20.4	28.6	32.6	36.0	40.4	44.8	48.8
500	18970	0	0	.3	5.2	9.0	13.5	22.6	31.7	36.2	40.0	44.9	49.8	54.3
450	21732	0	0	0	5.4	9.8	14.9	25.4	35.9	41.0	45.4	51.0	56.6	61.7
400	24619	0	0	0	5.0	10.0	15.9	28.0	40.1	46.0	51.0	57.5	64.0	69.9
350	27799	0	0	0	5.7	11.4	18.2	31.9	45.6	52.4	58.1	65.5	72.9	79.7
300	31345	0	0	0	7.5	13.7	21.1	36.0	50.9	58.3	64.5	72.6	80.6	88.0
250	35390	0	0	4.9	12.9	19.2	28.6	41.6	56.6	64.0	70.3	78.3	86.4	93.8
200	40168	0	0	6.4	14.8	21.4	29.2	44.9	60.6	68.4	75.0	83.4	91.9	99.7
175	42917	0	0	7.7	15.6	21.8	29.1	43.9	58.7	66.0	72.2	80.1	88.1	95.4
150	46063	0	3.0	9.4	15.7	20.7	26.5	38.4	50.3	56.1	61.1	67.4	73.8	79.6
125	49767	0	1.2	6.4	11.6	15.7	20.5	30.2	39.9	44.7	48.8	54.0	59.2	64.0
100	54209	0	0	.1	4.1	7.3	11.0	18.4	26.2	29.9	33.1	37.1	41.2	44.9
80	58615	0	0	0	1.5	3.5	5.8	10.5	15.2	17.5	19.5	22.0	24.5	26.8
70	61388	0	0	0	1.6	3.3	5.3	9.3	13.3	15.3	17.0	19.1	21.3	23.3
60	64537	0	0	0	2.1	4.0	6.2	10.7	15.2	17.4	19.3	21.7	24.1	26.3
50	68304	0	0	1.4	4.0	6.0	8.4	13.2	18.0	20.4	22.4	25.0	27.6	30.0
40	72976	0	1.3	4.0	6.8	8.9	11.4	16.5	21.6	24.1	26.2	29.0	31.7	34.2
30	79094	0	2.0	4.8	7.7	9.9	12.5	17.8	23.1	25.7	27.9	30.8	33.6	36.2
25	83012	.9	3.5	6.3	9.2	11.4	14.0	19.3	24.6	27.2	29.4	32.3	35.1	37.7
20	87858	.7	3.4	6.4	9.4	11.7	14.4	20.0	25.6	28.3	30.6	33.6	36.6	39.3
15	94186	.5	3.4	6.6	9.8	12.3	15.2	21.2	27.2	30.1	32.6	35.8	39.0	41.9
10	103281	1.7	4.0	8.4	11.8	14.5	17.7	24.1	30.5	33.7	36.4	39.8	43.3	46.5

Table 33. *Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: June*

NO. OBSERVATIONS -- SURFACE = 751, TOP = 416

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-8.0	-6.0	-3.8	-1.5	.2	2.2	6.4	10.6	12.6	14.3	16.6	18.8	20.8
950	1801	-11.0	-8.5	-5.7	-3.0	-0.8	1.7	6.9	12.1	14.6	16.8	19.5	22.3	24.8
900	3310	-10.5	-8.2	-5.7	-3.2	-1.2	1.1	5.8	10.5	12.8	14.8	17.3	19.8	22.1
850	4915	-11.5	-9.0	-6.3	-3.5	-1.4	1.1	6.2	11.3	13.8	15.9	18.7	21.4	23.9
800	6601	-14.4	-11.4	-8.2	-4.9	-2.4	.6	6.6	12.6	15.6	18.1	21.4	24.6	27.6
750	8379	-17.0	-13.6	-9.9	-6.1	-3.2	.2	7.2	14.2	17.6	20.5	24.3	28.0	31.4
700	10262	-19.4	-15.5	-11.3	-7.0	-3.7	.2	8.1	16.0	19.9	23.2	27.5	31.7	35.6
650	12251	-20.4	-16.2	-11.6	-7.0	-3.4	.8	9.4	18.0	22.2	25.8	30.4	35.0	39.2
600	14340	-21.3	-16.7	-11.7	-6.8	-2.9	1.7	10.9	20.1	24.7	28.6	33.5	38.5	43.1
550	16647	-22.7	-17.7	-12.3	-6.8	-2.6	2.4	12.5	22.6	27.6	31.8	37.3	42.7	47.7
500	18970	-23.4	-18.0	-12.1	-6.3	-1.7	3.7	14.6	25.5	30.9	35.5	41.3	47.2	52.6
450	21732	-24.7	-18.8	-12.4	-5.9	-0.9	5.0	17.0	29.0	34.9	39.9	46.4	52.8	58.7
400	24619	-26.9	-20.3	-13.1	-6.0	-0.4	6.2	19.5	32.8	39.4	45.0	52.1	59.3	65.9
350	27799	-28.8	-21.5	-13.6	-5.7	.5	7.8	22.5	37.2	44.5	50.7	58.6	66.5	73.8
300	31345	-29.7	-21.7	-13.0	-4.3	2.4	10.4	26.5	42.6	50.6	57.3	66.0	74.7	82.7
250	35390	-26.1	-18.0	-9.2	-0.4	6.4	14.5	30.8	47.1	55.2	62.0	70.8	79.6	87.7
200	40148	-23.0	-14.8	-5.8	3.2	10.2	18.5	35.2	52.0	60.2	67.2	76.2	85.2	93.4
175	42917	-18.6	-10.9	-2.5	5.9	12.4	20.1	35.7	51.3	59.0	65.5	73.9	82.3	90.0
150	46063	-12.2	-6.0	.8	7.6	12.9	19.1	31.8	44.5	50.7	56.0	62.8	69.6	75.8
125	49747	-11.6	-6.4	-0.7	5.0	9.4	14.6	25.2	35.8	41.0	45.4	51.1	56.8	62.0
100	54209	-16.9	-12.5	-7.7	-3.0	.7	5.1	13.9	22.7	27.1	30.8	35.5	40.3	44.7
80	58615	-21.3	-18.0	-14.4	-10.8	-8.0	-4.7	2.0	8.7	12.0	14.8	18.4	22.0	25.3
70	61388	-24.1	-21.2	-18.1	-14.9	-12.5	-9.6	-3.8	2.0	4.9	7.3	10.5	13.6	16.5
60	64537	-27.1	-24.4	-21.5	-18.6	-16.3	-13.6	-8.2	-2.8	-0.1	2.2	5.1	8.0	10.7
50	68304	-30.7	-28.0	-25.0	-22.1	-19.8	-17.1	-11.6	-6.1	-3.4	-1.1	1.8	4.8	7.5
40	72976	-33.8	-31.2	-28.4	-25.5	-23.3	-20.7	-15.4	-10.1	-7.5	-5.3	-2.4	.4	3.0
30	79094	-36.7	-33.9	-30.8	-27.8	-25.4	-22.6	-16.9	-11.2	-8.4	-6.0	-3.0	.1	2.9
25	83312	-38.5	-35.6	-32.5	-29.3	-26.9	-24.0	-18.2	-12.4	-9.5	-7.1	-3.9	-0.8	2.1
20	87858	-40.8	-37.8	-34.5	-31.2	-28.6	-25.6	-19.4	-13.2	-10.2	-7.6	-4.3	-1.0	2.0
15	94186	-43.8	-40.4	-36.7	-32.9	-30.0	-26.6	-19.6	-12.6	-9.7	-6.3	-2.5	1.2	4.6
10	103281	-49.7	-45.8	-41.5	-37.2	-33.9	-30.0	-22.0	-14.0	-10.1	-6.8	-2.5	1.8	5.7

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 34. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: June

NO. OBSERVATIONS -- SURFACE = 751, TOP = 416

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-21.2	-19.0	-16.6	-14.2	-12.4	-10.2	-5.8	-1.4	.8	2.6	5.0	7.4	9.6
950	1801	-23.3	-20.9	-18.3	-15.6	-13.6	-11.2	-6.3	-1.4	1.0	3.0	5.7	8.3	10.7
900	3310	-22.6	-20.2	-17.6	-14.9	-12.9	-10.5	-5.8	-0.7	1.7	3.7	6.4	9.0	11.4
850	4915	-23.9	-21.3	-18.4	-15.5	-13.3	-10.7	-5.3	.1	2.7	4.9	7.8	10.7	13.3
800	6601	-24.3	-21.4	-18.2	-15.1	-12.6	-9.7	-3.8	2.1	5.0	7.5	10.6	13.8	16.7
750	8379	-24.5	-21.3	-17.8	-14.4	-11.7	-8.5	-2.1	4.3	7.5	10.2	13.6	17.1	20.3
700	10262	-24.9	-21.5	-17.8	-14.1	-11.2	-7.8	-0.9	6.0	9.4	12.3	16.0	19.7	23.1
650	12251	-25.8	-22.2	-18.2	-14.3	-11.2	-7.6	-0.2	7.2	10.8	13.9	17.8	21.8	25.7
600	14380	-28.5	-24.4	-20.0	-15.5	-12.1	-8.0	.2	8.4	12.5	15.9	20.4	24.8	29.9
550	16647	-30.4	-26.0	-21.2	-16.4	-12.7	-8.3	.6	9.5	13.9	17.6	22.4	27.2	31.6
500	18970	-33.6	-28.7	-23.4	-18.0	-13.9	-9.0	.9	10.8	15.7	19.8	25.2	30.5	35.4
450	21732	-37.7	-32.2	-26.2	-20.2	-15.6	-10.1	1.0	12.1	17.6	22.2	28.2	34.2	39.7
400	24619	-41.4	-35.4	-28.8	-22.2	-17.1	-11.1	1.2	13.5	19.5	24.6	31.2	37.8	43.8
350	27799	-47.3	-40.4	-32.8	-25.3	-19.4	-12.5	1.6	15.7	22.6	28.5	36.0	43.6	50.5
300	31345	-51.3	-43.6	-35.2	-26.8	-20.3	-12.6	3.0	18.6	26.3	32.8	41.2	49.6	57.3
250	35390	-54.8	-46.3	-37.0	-27.8	-20.6	-12.1	5.1	22.3	30.8	38.0	47.2	56.5	65.0
200	40148	-52.4	-44.0	-34.8	-25.6	-18.4	-10.0	7.2	24.4	32.8	40.0	49.2	58.4	66.8
175	42917	-46.1	-38.4	-30.0	-21.7	-15.2	-7.5	8.0	23.5	31.2	37.7	46.0	54.4	62.1
150	46063	-36.2	-30.0	-23.2	-16.4	-11.1	-4.9	7.8	20.5	26.7	32.0	38.8	45.6	51.8
125	49747	-26.7	-22.0	-16.9	-11.8	-7.8	-3.1	6.4	15.9	20.6	24.6	29.7	34.8	39.5
100	54209	-17.9	-14.8	-11.4	-8.0	-5.3	-2.2	4.2	10.6	13.7	16.4	19.8	23.2	26.3
80	58615	-12.8	-10.6	-8.2	-5.7	-3.8	-1.6	3.0	7.6	9.8	11.7	14.2	16.6	18.8
70	61388	-11.0	-9.2	-7.2	-5.2	-3.7	-1.9	1.8	5.5	7.3	8.8	10.8	12.8	14.6
60	64537	-11.1	-9.4	-7.6	-5.7	-4.3	-2.3	.8	4.2	5.9	7.3	9.2	11.0	12.7
50	68304	-10.6	-9.0	-7.2	-5.5	-4.1	-2.5	.8	4.1	5.7	7.1	8.8	10.6	12.2
40	72976	-13.0	-11.2	-9.2	-7.2	-5.7	-3.9	-0.2	3.5	5.3	6.8	8.8	10.8	12.6
30	79094	-11.9	-10.3	-8.5	-6.8	-5.4	-3.8	-0.5	2.8	4.4	5.8	7.5	9.3	10.9
25	83012	-12.2	-10.5	-8.7	-6.8	-5.4	-3.7	-0.3	3.1	4.8	6.2	8.1	9.9	11.6
20	87858	-13.1	-11.3	-9.3	-7.3	-5.7	-3.9	-0.1	3.7	5.5	7.1	9.1	11.1	12.9
15	94186	-14.4	-12.4	-10.2	-8.1	-6.4	-4.4	-0.4	3.6	5.6	7.3	9.4	11.6	13.6
10	103281	-15.9	-13.7	-11.3	-8.8	-6.9	-4.7	-0.1	4.5	6.7	8.6	11.1	13.5	15.7

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 35. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: July

NO. OBSERVATIONS -- SURFACE = 796, TOP = 470

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	.6	2.3	4.2	8.2	12.2	14.1	15.8	17.9	20.0	21.9
950	1837	0	0	0	.8	2.4	4.2	8.0	11.8	13.6	15.2	17.2	19.2	21.0
900	3369	0	0	0	1.7	3.0	4.6	7.8	11.0	12.6	13.9	15.7	17.4	19.0
850	5000	0	0	.4	2.2	3.5	5.1	8.3	11.5	13.1	14.4	16.2	17.9	19.5
800	6713	0	0	0	1.9	3.5	5.4	9.2	13.0	14.9	16.5	18.5	20.6	22.5
750	8514	0	0	0	2.2	4.0	6.1	10.3	14.5	16.6	18.4	20.6	22.9	25.0
700	10420	0	0	.6	3.0	4.8	7.0	11.4	15.8	18.0	19.8	22.2	24.6	26.8
650	12431	0	0	.8	3.3	5.2	7.5	12.1	16.7	19.0	20.9	23.4	25.9	28.2
600	14577	0	0	.8	3.5	5.5	7.9	12.8	17.7	20.1	22.1	24.8	27.4	29.8
550	16854	0	0	.1	3.0	5.3	8.0	13.5	19.0	21.7	24.0	26.9	29.9	32.6
500	19321	0	0	.1	3.3	5.8	8.7	14.7	20.7	23.6	26.1	29.3	32.5	35.4
450	21982	0	0	0	3.2	6.0	9.3	16.0	22.7	26.0	28.8	32.4	36.0	39.3
400	24898	0	0	0	3.9	7.0	10.6	18.0	25.4	29.0	32.1	36.0	40.0	43.6
350	28114	0	0	.8	5.3	8.8	12.9	21.3	29.7	33.8	37.3	41.8	46.3	50.4
300	31713	0	0	3.1	8.1	11.9	16.4	25.6	34.8	39.3	43.1	48.1	53.0	57.5
250	35817	0	.7	6.0	11.3	15.4	20.3	30.1	39.9	44.8	48.9	54.2	59.5	64.4
200	40640	0	0	5.9	11.8	16.4	21.8	32.8	43.8	49.2	53.8	59.7	65.6	71.0
175	43428	0	0	5.2	11.0	15.6	21.0	31.9	42.8	48.2	52.8	58.6	64.5	69.9
150	46568	0	0	3.9	9.0	13.0	17.7	27.2	36.7	41.4	45.4	50.5	55.6	60.3
125	50197	0	0	1.3	5.4	8.6	12.4	20.0	27.6	31.4	34.6	38.7	42.8	46.6
100	54593	0	0	1.5	4.0	5.9	8.2	12.8	17.4	19.7	21.6	24.1	26.6	28.9
80	59032	0	.9	3.0	5.1	6.7	8.6	12.5	16.4	18.3	19.9	22.0	24.1	26.0
70	61726	2.0	3.7	5.6	7.5	9.0	10.7	14.3	17.9	19.6	21.1	23.0	24.9	26.6
60	64879	2.7	4.7	6.9	9.2	10.9	12.9	17.1	21.3	23.3	25.0	27.3	29.5	31.5
50	68652	5.6	7.6	9.8	12.1	13.8	15.8	20.0	24.2	26.2	27.9	30.2	32.4	34.4
40	73333	8.2	10.4	12.8	15.2	17.0	19.2	23.6	28.0	30.2	32.0	34.4	36.8	39.0
30	79452	12.7	14.9	17.3	19.7	21.5	23.7	28.1	32.5	34.7	36.5	38.9	41.3	43.5
25	83373	13.7	16.0	18.5	21.0	23.0	25.3	30.0	34.7	37.0	39.0	41.5	44.0	46.3
20	88222	14.9	17.3	19.9	22.5	24.5	26.9	31.7	36.5	38.9	40.9	43.5	46.1	48.5
15	94554	16.9	19.4	22.1	24.9	27.0	29.5	34.6	39.7	42.2	44.3	47.1	49.8	52.3
10	103629	16.6	19.7	23.1	26.5	29.1	32.2	38.5	44.8	47.9	50.5	53.9	57.3	60.4

Table 36. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: July

NO. OBSERVATIONS -- SURFACE = 794, TOP = 470

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-7.0	-5.3	-3.4	-1.6	-0.1	1.6	5.1	8.6	10.3	11.8	13.6	15.5	17.2
950	1837	-9.0	-7.1	-5.0	-3.0	-1.4	.5	4.3	8.1	10.0	11.6	13.6	15.7	17.6
900	3369	-10.2	-8.3	-6.2	-4.1	-2.5	-0.6	3.3	7.2	9.1	10.7	12.8	14.9	16.8
850	5000	-11.4	-9.3	-7.0	-4.8	-3.0	-0.9	3.3	7.5	9.6	11.4	13.6	15.9	18.0
800	6713	-14.6	-12.1	-9.4	-6.7	-4.6	-2.1	2.9	7.9	10.4	12.5	15.2	17.9	20.4
750	8514	-15.9	-13.2	-10.3	-7.4	-5.1	-2.4	3.0	8.4	11.1	13.4	16.3	19.2	21.9
700	10420	-17.5	-14.6	-11.5	-8.3	-5.9	-3.0	2.8	8.6	11.5	13.9	17.1	20.2	23.1
650	12431	-19.2	-16.1	-12.8	-9.4	-6.8	-3.7	2.5	8.7	11.8	14.4	17.8	21.1	24.2
600	14577	-19.9	-16.7	-13.2	-9.7	-7.0	-3.8	2.7	9.2	12.4	15.1	18.6	22.1	25.3
550	16854	-20.3	-17.0	-13.4	-9.7	-6.9	-3.6	3.2	10.0	13.3	16.1	19.8	23.4	26.7
500	19321	-22.5	-18.8	-14.8	-10.7	-7.6	-3.9	3.6	11.1	14.8	17.9	22.0	25.8	29.7
450	21982	-23.3	-19.3	-15.0	-10.7	-7.3	-3.3	4.7	12.7	16.7	20.1	24.4	28.7	32.7
400	24898	-23.5	-19.3	-14.7	-10.1	-6.5	-2.3	6.3	14.9	19.1	22.7	27.3	31.9	36.1
350	28114	-24.0	-19.4	-14.4	-9.3	-5.4	-0.8	8.6	18.0	22.6	26.5	31.6	36.6	41.2
300	31713	-24.9	-19.8	-14.2	-8.6	-4.3	.8	11.2	21.6	26.7	31.0	36.6	42.2	47.3
250	35817	-25.6	-20.1	-14.1	-8.1	-3.5	2.0	13.1	24.2	29.7	34.3	40.3	46.3	51.8
200	40640	-25.5	-19.9	-13.8	-7.7	-2.9	2.7	14.1	25.5	31.1	35.9	42.0	48.1	53.7
175	43428	-24.8	-19.3	-13.3	-7.3	-2.7	2.8	13.9	25.8	30.5	35.1	41.1	47.1	52.6
150	46568	-21.1	-16.4	-11.3	-6.1	-2.1	2.6	12.2	21.8	26.5	30.5	35.7	40.8	45.5
125	50197	-21.4	-17.4	-13.0	-8.7	-5.3	-1.3	6.8	14.9	18.9	22.3	26.6	31.0	35.0
100	54593	-21.9	-19.1	-16.1	-13.1	-10.7	-7.9	-2.3	3.3	6.1	8.5	11.5	14.5	17.3
80	59032	-24.9	-22.7	-20.3	-17.8	-15.9	-13.7	-9.1	-4.5	-2.3	-0.4	2.1	4.5	6.7
70	61726	-25.9	-24.0	-21.9	-19.9	-18.3	-16.4	-12.6	-8.8	-6.9	-5.3	-3.3	-1.2	.7
60	64879	-31.4	-29.2	-26.8	-24.4	-22.6	-20.4	-16.0	-11.6	-9.4	-7.6	-5.2	-2.8	-0.6
50	68652	-34.3	-32.2	-29.9	-27.5	-25.7	-23.6	-19.2	-14.8	-12.7	-10.9	-8.5	-6.2	-4.1
40	73333	-38.3	-36.1	-33.7	-31.3	-29.5	-27.3	-22.9	-18.5	-16.3	-14.5	-12.1	-9.7	-7.5
30	79452	-43.1	-40.9	-38.5	-36.1	-34.2	-32.0	-27.5	-23.0	-20.8	-18.9	-16.5	-14.1	-11.9
25	83373	-46.2	-43.8	-41.2	-38.6	-36.6	-34.2	-29.4	-24.6	-22.2	-20.2	-17.6	-15.0	-12.6
20	88222	-48.2	-45.8	-43.2	-40.5	-38.5	-36.1	-31.2	-26.3	-23.9	-21.9	-19.2	-16.6	-14.2
15	94554	-51.7	-49.2	-46.5	-43.7	-41.6	-39.1	-34.0	-28.9	-26.4	-24.3	-21.5	-18.8	-16.3
10	103629	-59.5	-56.4	-53.1	-49.7	-47.1	-44.0	-37.8	-31.6	-28.5	-25.9	-22.5	-19.2	-16.1

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 37. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: July

NO. OBSERVATIONS -- SURFACE = 794, TOP = 470

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-16.9	-15.1	-13.2	-11.2	-9.7	-7.9	-4.3	-0.7	1.1	2.6	4.6	6.5	8.3
950	1837	-16.8	-14.9	-12.8	-10.7	-9.0	-7.1	-3.1	.9	2.8	4.5	6.6	8.7	10.6
900	3369	-15.8	-13.8	-11.6	-9.4	-7.7	-5.7	-1.6	2.5	4.5	6.2	8.4	10.6	12.6
850	5000	-15.4	-13.3	-11.0	-8.7	-6.9	-4.8	-0.5	3.8	5.9	7.7	10.0	12.3	14.4
800	6713	-14.7	-12.4	-9.9	-7.4	-5.4	-3.1	1.6	6.3	8.6	10.6	13.1	15.6	17.9
750	8514	-13.7	-11.2	-8.5	-5.8	-3.7	-1.2	3.8	8.8	11.3	13.4	16.1	18.8	21.3
700	10420	-12.3	-9.8	-7.1	-4.3	-2.2	.3	5.4	10.5	13.0	15.1	17.9	20.6	23.1
650	12431	-12.0	-9.4	-6.6	-3.7	-1.5	1.1	6.4	11.7	14.3	16.5	19.4	22.2	24.8
600	14577	-12.3	-9.6	-6.6	-3.6	-1.3	1.4	7.0	12.6	15.3	17.6	20.6	23.6	26.3
550	16854	-13.2	-10.3	-7.1	-3.9	-1.4	1.5	7.5	13.5	16.4	18.9	22.1	25.3	28.2
500	19321	-14.2	-11.0	-7.5	-4.1	-1.4	1.8	8.2	14.6	17.8	20.5	23.9	27.4	30.6
450	21982	-15.2	-11.8	-8.1	-4.3	-1.4	2.0	9.0	16.0	19.4	22.3	26.1	29.8	33.2
400	24898	-17.4	-13.5	-9.3	-5.0	-1.7	2.2	10.1	18.0	21.9	25.2	29.5	33.7	37.6
350	28114	-18.5	-14.1	-9.3	-4.5	-0.7	3.7	12.7	21.7	26.1	29.9	34.7	39.5	43.9
300	31713	-18.1	-13.2	-7.9	-2.6	1.5	6.4	16.2	26.0	30.9	35.0	40.3	45.6	50.5
250	35817	-16.9	-11.6	-5.8	-0.1	4.4	9.7	20.4	31.1	36.4	40.9	46.6	52.4	57.7
200	40640	-18.9	-13.0	-6.5	-0.0	5.0	10.9	23.0	35.1	41.0	46.0	52.5	59.0	64.9
175	43428	-16.8	-11.2	-5.1	1.0	5.8	11.4	22.8	34.2	39.8	44.6	50.7	56.8	62.4
150	46548	-14.1	-9.3	-4.1	1.1	5.1	9.9	19.5	29.1	33.9	37.9	43.1	48.3	53.1
125	50197	-12.2	-8.4	-4.3	-0.2	3.0	6.8	14.4	22.0	25.8	29.0	33.1	37.2	41.0
100	54593	-12.3	-9.5	-6.4	-3.3	-0.9	1.9	7.7	13.5	16.3	18.7	21.8	24.9	27.7
80	59032	-11.3	-9.1	-6.7	-4.3	-2.5	-0.3	4.1	8.5	10.7	12.5	14.9	17.3	19.5
70	61726	-9.6	-7.8	-5.8	-3.8	-2.3	-0.5	3.2	6.9	8.7	10.2	12.2	14.2	16.0
60	64879	-10.1	-8.4	-6.5	-4.7	-3.2	-1.5	2.0	5.5	7.2	8.7	10.5	12.4	14.1
50	68652	-9.8	-8.2	-6.5	-4.7	-3.4	-1.8	1.4	4.6	6.2	7.5	9.3	11.0	12.6
40	73333	-13.3	-11.4	-9.3	-7.3	-5.7	-3.8	0	3.8	5.7	7.3	9.3	11.4	13.3
30	79452	-12.5	-10.7	-8.8	-6.8	-5.3	-3.5	.1	3.7	5.5	7.0	9.0	10.9	12.7
25	83373	-12.5	-10.7	-8.7	-6.7	-5.1	-3.3	.5	4.3	6.1	7.7	9.7	11.7	13.5
20	88222	-13.2	-11.4	-9.4	-7.4	-5.8	-4.0	-0.2	3.6	5.4	7.0	9.0	11.0	12.8
15	94554	-13.8	-11.8	-9.6	-7.3	-5.6	-3.6	.6	4.8	6.8	8.5	10.8	13.0	15.0
10	103629	-17.0	-14.6	-11.9	-9.3	-7.2	-4.8	.2	5.2	7.6	9.7	12.3	15.0	17.4

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 38. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: August

NO. OBSERVATIONS -- SURFACE = 832, TOP = 450

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	.4	2.1	4.0	8.0	12.0	13.9	15.6	17.7	19.8	21.7
950	1837	0	0	0	1.1	2.6	4.4	8.1	11.8	13.6	15.1	17.1	19.1	20.9
900	3373	0	0	0	1.6	2.9	4.5	7.6	10.7	12.3	13.6	15.3	17.0	18.6
850	5010	0	0	0	1.6	3.0	4.6	8.0	11.4	13.0	14.4	16.2	18.0	19.6
800	6709	0	0	.2	2.1	3.6	5.3	8.9	12.5	14.2	15.7	17.6	19.5	21.2
750	8507	0	0	.6	2.7	4.4	6.3	10.3	14.3	16.2	17.9	20.0	22.1	24.0
700	10413	0	0	.7	3.1	4.9	7.0	11.4	15.8	17.9	19.7	22.1	24.4	26.5
650	12418	0	0	.9	3.4	5.4	7.7	12.4	17.1	19.4	21.4	23.9	26.4	28.7
600	14564	0	0	.4	3.2	5.4	8.0	13.2	18.4	21.0	23.2	26.0	28.8	31.4
550	16841	0	0	0	2.9	5.3	8.1	13.8	19.5	22.3	24.7	27.7	30.8	33.6
500	19311	0	0	0	3.0	5.6	8.6	14.8	21.0	24.0	26.6	29.9	33.2	36.2
450	21949	0	0	0	3.6	6.4	9.7	16.5	23.3	26.6	29.4	33.1	36.7	40.0
400	24888	0	0	.5	4.5	7.6	11.3	18.7	26.1	29.8	32.9	36.9	40.9	44.6
350	28100	0	0	0	4.6	8.4	12.8	21.8	30.8	35.2	39.0	43.8	48.6	53.0
300	31696	0	0	1.6	6.8	10.8	15.5	25.1	34.7	39.4	43.5	48.6	53.7	58.4
250	35791	0	0	4.1	9.7	14.0	19.1	29.4	39.7	44.8	49.1	54.7	60.2	65.3
200	40600	0	1.3	7.0	12.7	17.1	22.3	32.9	43.5	48.7	53.1	58.8	64.5	69.7
175	43383	0	1.9	7.3	12.6	16.8	21.7	31.7	41.7	46.6	50.8	56.1	61.5	66.4
150	46522	0	1.0	5.8	10.6	14.4	18.8	27.8	36.8	41.2	45.0	49.8	54.6	59.0
125	50157	0	0	2.6	6.4	9.3	12.8	19.8	26.8	30.3	33.2	37.0	40.8	44.3
100	54557	0	0	1.1	3.5	5.3	7.5	11.9	16.3	18.5	20.3	22.7	25.1	27.3
80	59003	0	0	1.9	3.9	5.4	7.2	10.9	14.6	16.4	17.9	19.9	21.9	23.7
70	61706	0	.1	2.3	4.5	6.2	8.2	12.3	16.4	18.4	20.1	22.3	24.5	26.5
60	64862	0	1.9	4.2	6.4	8.2	10.3	14.5	18.7	20.8	22.6	24.8	27.1	29.2
50	68638	3.1	5.2	7.5	9.7	11.5	13.6	17.8	22.0	24.1	25.9	28.1	30.4	32.5
40	73314	5.6	7.9	10.4	12.9	14.9	17.2	21.9	26.6	28.9	30.9	33.4	35.9	38.2
30	79419	10.2	12.4	14.8	17.3	19.2	21.4	26.0	30.6	32.8	34.7	37.2	39.6	41.8
25	83333	12.1	14.4	16.9	19.4	21.3	23.6	28.2	32.8	35.1	37.0	39.5	42.0	44.3
20	88163	12.3	14.7	17.4	20.0	22.1	24.5	29.5	34.5	36.9	39.0	41.6	44.3	46.7
15	94472	11.8	14.7	17.8	21.0	23.4	26.3	32.1	37.9	40.8	43.2	46.4	49.5	52.4
10	103504	11.9	15.2	18.8	22.3	25.1	28.4	35.0	41.6	44.9	47.7	51.2	54.8	58.1

Table 39. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: August

NO. OBSERVATIONS -- SURFACE = 832. TOP = 450

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-7.2	-5.5	-3.6	-1.8	-0.3	1.4	4.9	8.4	10.1	11.6	13.4	15.3	17.0
950	1837	-8.9	-7.0	-4.9	-2.9	-1.3	.6	4.4	8.2	10.1	11.7	13.7	15.8	17.7
900	3373	-9.7	-7.9	-5.9	-3.9	-2.3	-0.5	3.3	7.1	8.9	10.5	12.5	14.5	16.3
850	5000	-11.3	-9.2	-6.9	-4.7	-2.9	-0.8	3.4	7.6	9.7	11.5	13.7	16.0	18.1
800	6709	-13.5	-11.1	-8.5	-5.9	-3.9	-1.5	3.3	8.1	10.5	12.5	15.1	17.7	20.1
750	8507	-15.4	-12.8	-9.9	-7.0	-4.8	-2.2	3.2	8.6	11.2	13.4	16.3	19.2	21.8
700	10413	-17.7	-14.8	-11.6	-8.4	-5.9	-3.0	3.0	9.0	11.9	14.4	17.6	20.8	23.7
650	12418	-20.2	-16.9	-13.3	-9.8	-7.0	-3.7	2.9	9.5	12.8	15.6	19.1	22.7	26.0
600	14564	-22.8	-19.2	-15.2	-11.3	-8.2	-4.6	2.8	10.2	13.8	16.9	20.8	24.8	28.4
550	16841	-23.4	-19.6	-15.4	-11.2	-8.0	-4.2	3.6	11.4	15.2	18.4	22.6	26.8	30.6
500	19311	-24.4	-20.2	-15.7	-11.1	-7.6	-3.4	5.0	13.4	17.6	21.1	25.7	30.2	34.4
450	21969	-24.4	-20.0	-15.2	-10.4	-6.7	-2.3	6.6	15.5	19.9	23.6	28.4	33.2	37.6
400	24888	-24.5	-19.8	-14.7	-9.5	-5.5	-0.8	8.8	18.4	23.1	27.1	32.3	37.4	42.1
350	28100	-26.8	-21.4	-15.[illegible]	-9.6	-5.0	.4	11.4	22.4	27.8	32.4	38.3	44.2	49.6
300	31696	-26.1	-20.4	-14.1	-7.9	-3.0	2.7	14.4	26.1	31.8	36.7	42.9	49.2	54.9
250	35791	-25.8	-19.7	-13.0	-6.3	-1.1	5.0	17.5	30.0	36.1	41.3	48.0	54.7	60.8
200	40600	-24.0	-17.8	-11.0	-4.2	1.1	7.3	20.0	32.7	38.9	44.2	51.0	57.8	64.0
175	43303	-21.6	-15.8	-9.5	-3.2	1.7	7.5	19.2	30.9	36.7	41.6	47.9	54.2	60.0
150	46522	-18.9	-13.8	-8.2	-2.6	1.7	6.8	17.2	27.6	32.7	37.0	42.6	48.2	53.3
125	50157	-19.8	-15.5	-10.8	-6.1	-2.4	1.9	10.7	19.5	23.8	27.5	32.2	36.9	41.2
100	54557	-22.0	-18.8	-15.3	-11.7	-9.0	-5.8	.8	7.4	10.6	13.3	16.9	20.4	23.6
80	59003	-25.4	-22.7	-19.7	-16.8	-14.5	-11.8	-6.3	-0.8	1.9	4.2	7.1	10.1	12.8
70	61706	-27.4	-25.0	-22.3	-19.7	-17.6	-15.2	-10.2	-5.2	-2.8	-0.7	1.9	4.6	7.0
60	64862	-30.3	-27.9	-25.2	-22.6	-20.5	-18.1	-13.1	-8.1	-5.7	-3.6	-1.0	1.7	4.1
50	68638	-33.9	-31.5	-28.8	-26.2	-24.1	-21.7	-16.7	-11.7	-9.3	-7.2	-4.6	-1.9	.5
40	73314	-40.9	-38.1	-35.0	-31.9	-29.5	-26.7	-20.9	-15.1	-12.3	-9.9	-6.8	-3.7	-0.9
30	79419	-44.7	-41.9	-38.9	-35.9	-33.5	-30.7	-25.1	-19.5	-16.7	-14.3	-11.3	-8.3	-5.5
25	83333	-46.4	-43.7	-40.7	-37.8	-35.5	-32.8	-27.3	-21.8	-19.1	-16.8	-13.9	-10.9	-8.2
20	88163	-48.6	-45.8	-42.7	-39.6	-37.2	-34.4	-28.6	-22.8	-20.0	-17.6	-14.5	-11.4	-8.6
15	94472	-53.5	-50.3	-46.8	-43.4	-40.7	-37.5	-31.1	-24.7	-21.5	-18.8	-15.4	-11.9	-8.7
10	103504	-59.4	-55.8	-51.8	-47.9	-44.8	-41.2	-33.8	-26.4	-22.8	-19.7	-15.8	-11.8	-8.2

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 40. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: August

NO. OBSERVATIONS -- SURFACE = 832, TOP = 450

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-16.9	-15.1	-13.1	-11.1	-9.6	-7.8	-4.1	-0.4	1.4	2.9	4.9	6.9	8.7
950	1837	-16.7	-14.8	-12.7	-10.7	-9.1	-7.2	-3.4	.4	2.3	3.9	5.9	8.0	9.9
900	3373	-15.4	-13.5	-11.4	-9.3	-7.7	-5.8	-1.9	2.0	3.9	5.5	7.6	9.7	11.6
850	5000	-15.0	-13.0	-10.8	-8.5	-6.8	-4.8	-0.6	3.6	5.6	7.3	9.6	11.8	13.8
800	6709	-14.0	-11.8	-9.4	-7.0	-5.2	-3.0	1.4	5.8	8.0	9.8	12.2	14.6	16.8
750	8507	-13.9	-11.5	-8.8	-6.2	-4.1	-1.7	3.3	8.3	10.7	12.8	15.4	18.1	20.5
700	10413	-13.8	-11.2	-8.4	-5.5	-3.3	-0.7	4.4	9.9	12.5	14.7	17.6	20.4	23.0
650	12418	-13.6	-10.9	-7.9	-5.0	-2.7	.0	5.5	11.0	13.7	16.0	18.9	21.9	24.6
600	14564	-13.8	-11.0	-7.9	-4.9	-2.5	.3	6.0	11.7	14.5	16.9	19.9	23.0	25.8
550	16841	-15.5	-12.5	-9.2	-5.9	-3.4	-0.4	5.7	11.8	14.8	17.3	20.6	23.9	26.9
500	19311	-16.2	-13.1	-9.7	-6.3	-3.7	-0.6	5.7	12.0	15.1	17.7	21.1	24.5	27.6
450	21969	-18.0	-14.5	-10.7	-6.9	-4.0	-0.5	6.5	13.5	17.0	19.9	23.7	27.5	31.0
400	24888	-19.9	-16.0	-11.8	-7.6	-4.3	-0.4	7.4	15.2	19.1	22.4	26.6	30.8	34.7
350	28100	-21.3	-17.0	-12.3	-7.6	-3.9	.4	9.2	18.0	22.3	26.0	30.7	35.4	39.7
300	31696	-22.2	-17.5	-12.4	-7.2	-3.2	1.5	11.1	20.7	25.4	29.4	34.6	39.7	44.4
250	35791	-23.7	-18.4	-12.6	-6.8	-2.3	3.0	13.8	24.6	29.9	34.4	40.2	46.0	51.3
200	40600	-24.1	-18.4	-12.1	-5.9	-1.0	4.7	16.4	28.1	33.8	38.7	44.9	51.2	56.9
175	43383	-21.4	-16.0	-10.1	-4.2	.4	5.8	16.8	27.8	33.2	37.8	43.7	49.6	55.0
150	46522	-18.5	-13.8	-8.7	-3.6	.4	5.1	14.6	24.1	28.8	32.8	37.9	43.0	47.7
125	50157	-14.8	-11.3	-7.4	-3.6	-0.6	2.9	10.1	17.3	20.8	23.8	27.6	31.5	35.0
100	54557	-13.0	-10.4	-7.6	-4.8	-2.6	-0.0	5.2	10.4	13.0	15.2	18.0	20.8	23.4
80	59003	-10.3	-8.4	-6.3	-4.3	-2.7	-0.8	3.0	6.8	8.7	10.3	12.3	14.4	16.3
70	61706	-9.3	-7.7	-5.9	-4.2	-2.8	-1.2	2.1	5.4	7.0	8.4	10.1	11.9	13.5
60	64862	-10.5	-8.9	-7.1	-5.4	-4.0	-2.4	.9	4.2	5.8	7.2	8.9	10.7	12.3
50	68638	-10.5	-9.0	-7.3	-5.7	-4.4	-2.9	.2	3.3	4.8	6.1	7.7	9.4	10.9
40	73314	-10.5	-9.0	-7.4	-5.8	-4.5	-3.0	0	3.0	4.5	5.8	7.4	9.0	10.5
30	79419	-10.7	-9.2	-7.5	-5.9	-4.6	-3.1	0	3.1	4.6	5.9	7.5	9.2	10.7
25	83333	-12.5	-10.7	-8.8	-6.8	-5.3	-3.5	.1	3.7	5.5	7.0	9.0	10.9	12.7
20	88163	-13.4	-11.5	-9.4	-7.3	-5.7	-3.8	.1	4.0	5.9	7.5	9.6	11.7	13.6
15	94472	-15.0	-12.8	-10.4	-8.0	-6.2	-4.0	.4	4.8	7.0	8.8	11.2	13.6	15.8
10	103504	-17.6	-15.0	-12.2	-9.3	-7.1	-4.5	.8	6.1	8.7	10.9	13.8	16.6	19.2

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 41. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: September

NO. OBSERVATIONS -- SURFACE = 805, TOP = 449

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	.7	2.4	4.4	8.4	12.4	14.4	16.1	18.2	20.4	22.4
950	1804	0	0	0	.5	2.3	4.4	8.8	13.2	15.3	17.1	19.5	21.8	23.9
900	3330	0	0	0	1.5	3.0	4.8	8.5	12.2	14.0	15.5	17.5	19.5	21.3
850	4941	0	0	.6	2.7	4.4	6.3	10.3	14.3	16.2	17.9	20.0	22.1	24.0
800	6637	0	0	1.6	3.8	5.6	7.7	11.9	16.1	18.2	20.0	22.2	24.5	26.6
750	8422	0	0	2.4	4.9	6.8	9.0	13.6	18.2	20.4	22.3	24.8	27.2	29.4
700	10315	0	0	2.0	4.7	6.9	9.4	14.6	19.8	22.3	24.5	27.2	30.0	32.5
650	12310	0	0	1.7	4.8	7.2	10.0	15.8	21.6	24.4	26.8	29.9	33.0	35.8
600	14440	0	0	1.1	4.5	7.2	10.4	16.8	23.2	26.4	29.1	32.5	36.0	39.2
550	16716	0	0	1.4	5.0	7.9	11.3	18.1	24.9	28.3	31.2	34.8	38.5	41.9
500	19177	0	0	1.7	5.7	8.9	12.6	20.2	27.8	31.5	34.7	38.7	42.8	46.5
450	21824	0	0	1.7	6.2	9.8	14.0	22.5	31.0	35.2	38.8	43.3	47.9	52.1
400	24728	0	0	2.3	7.5	11.6	16.4	26.2	36.0	40.8	44.9	50.1	55.4	60.2
350	27920	0	0	4.1	9.8	14.3	19.6	30.3	41.0	46.3	50.8	56.5	62.3	67.6
300	31493	0	0	5.0	11.7	16.9	23.0	35.5	48.0	54.1	59.3	66.0	72.7	78.8
250	35544	0	0	6.8	14.3	20.2	27.1	41.2	55.3	62.2	68.1	75.6	83.2	90.1
200	40358	0	2.7	10.2	17.7	23.6	30.5	44.5	58.5	65.4	71.3	78.8	86.3	93.2
175	43140	0	4.2	11.3	18.3	23.8	30.3	43.4	56.5	63.0	68.5	75.5	82.6	89.1
150	46283	0	5.3	11.2	17.2	21.8	27.2	38.3	49.4	54.8	59.4	65.4	71.3	76.7
125	49931	0	0	3.2	8.9	13.4	18.6	29.3	40.0	45.2	49.7	55.4	61.1	66.3
100	54337	0	0	1.2	4.6	7.3	10.4	16.8	23.2	26.3	29.0	32.4	35.8	38.9
80	58766	0	0	0	1.4	3.3	5.5	10.1	14.7	16.9	18.8	21.3	23.7	25.9
70	61453	0	0	.4	2.4	3.9	5.7	9.3	12.9	14.7	16.2	18.2	20.1	21.9
60	64593	0	0	.1	2.2	3.9	5.8	9.8	13.8	15.7	17.4	19.5	21.6	23.5
50	68350	0	0	1.4	3.5	5.1	7.0	10.9	14.8	16.7	18.3	20.4	22.5	24.4
40	73002	0	0	1.5	4.0	6.0	8.3	13.0	17.7	20.0	22.0	24.5	27.0	29.3
30	79085	0	0	1.8	4.5	6.7	9.2	14.4	19.6	22.1	24.3	27.0	29.8	32.3
25	82992	0	0	2.7	5.4	7.6	10.1	15.3	20.5	23.0	25.2	27.9	30.7	33.2
20	87795	0	0	2.3	5.3	7.7	10.5	16.1	21.7	24.5	26.9	29.9	32.9	35.7
15	94048	0	0	1.6	4.7	7.2	10.1	16.0	21.9	24.8	27.3	30.4	33.6	36.5
10	103018	0	0	1.3	4.7	7.4	10.5	16.9	23.3	26.4	29.1	32.5	35.9	39.0

Table 42. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: September

NO. OBSERVATIONS -- SURFACE = 805, TOP = 449

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-7.0	-5.3	-3.4	-1.5	-0.0	1.7	5.3	8.9	10.6	12.1	14.0	15.9	17.6
950	1804	-12.3	-10.0	-7.4	-4.9	-2.9	-0.6	4.2	9.0	11.3	13.3	15.8	18.4	20.7
900	3330	-15.7	-13.2	-10.5	-7.9	-5.7	-3.2	1.8	6.8	9.3	11.4	14.1	16.8	19.3
850	4941	-18.3	-15.4	-12.3	-9.1	-6.7	-3.8	2.0	7.8	10.7	13.1	16.3	19.4	22.3
800	6637	-20.2	-17.0	-13.5	-10.1	-7.4	-4.2	2.2	8.6	11.8	14.5	17.9	21.4	24.6
750	8422	-22.1	-18.6	-14.8	-11.0	-8.0	-4.5	2.6	9.7	13.2	16.2	20.0	23.8	27.3
700	10315	-23.2	-19.4	-15.3	-11.2	-8.0	-4.2	3.4	11.0	14.8	18.0	22.1	26.2	30.0
650	12310	-23.8	-19.8	-15.4	-11.1	-7.7	-3.7	4.4	12.5	16.5	19.9	24.2	28.6	32.6
600	14446	-24.2	-19.9	-15.3	-10.6	-7.0	-2.7	5.9	14.5	18.8	22.4	27.1	31.7	36.0
550	16716	-24.3	-19.8	-14.9	-10.0	-6.2	-1.7	7.4	16.5	21.0	24.8	29.7	34.6	39.1
500	19177	-24.7	-19.8	-14.5	-9.2	-5.1	-0.2	9.6	19.4	24.3	28.4	33.7	39.0	43.9
450	21824	-25.5	-20.2	-14.4	-8.7	-4.2	1.1	11.8	22.5	27.8	32.3	38.0	43.8	49.1
400	24728	-28.1	-22.0	-15.3	-8.7	-3.5	2.6	15.0	27.4	33.5	38.7	45.3	52.0	58.1
350	27920	-28.2	-21.6	-14.4	-7.1	-1.5	5.1	18.6	32.1	38.7	44.3	51.6	58.8	65.4
300	31493	-29.5	-21.9	-13.7	-5.4	1.0	8.6	23.9	39.2	46.8	53.2	61.5	69.7	77.3
250	35544	-29.8	-21.4	-12.2	-3.0	4.1	12.5	29.6	46.7	55.1	62.2	71.4	80.6	89.0
200	40358	-22.9	-14.8	-6.0	2.8	9.7	17.8	34.2	50.6	58.7	65.6	74.4	83.2	91.3
175	43148	-17.9	-10.5	-2.4	5.7	12.0	19.4	34.5	49.6	57.0	63.3	71.4	79.5	86.9
150	46243	-13.7	-7.4	-0.6	6.3	11.6	17.9	30.6	43.3	49.6	54.9	61.8	68.6	74.9
125	49931	-12.4	-7.4	-1.9	3.5	7.8	12.8	23.0	33.2	38.2	42.5	47.9	53.4	58.4
100	54337	-16.1	-12.2	-8.0	-3.8	-0.5	3.4	11.2	19.0	22.9	26.2	30.4	34.6	38.5
80	58766	-20.8	-17.7	-14.3	-10.9	-8.2	-5.1	1.3	7.7	10.8	13.5	16.9	20.3	23.4
70	61453	-22.2	-19.5	-16.5	-13.5	-11.2	-8.5	-2.9	2.7	5.4	7.7	10.7	13.7	16.4
60	64593	-24.4	-21.7	-18.7	-15.8	-13.5	-10.8	-5.3	.2	2.9	5.2	8.1	11.1	13.8
50	68350	-26.1	-23.6	-20.8	-18.1	-15.9	-13.4	-8.2	-3.0	-0.5	1.7	4.-	7.2	9.7
40	73002	-30.4	-27.7	-24.7	-21.7	-19.4	-16.7	-11.1	-5.5	-2.8	-0.5	2.5	5.5	8.2
30	79045	-33.4	-30.5	-27.3	-24.2	-21.7	-18.8	-12.9	-7.0	-4.1	-1.6	1.5	4.7	7.6
25	82992	-34.4	-31.5	-28.3	-25.1	-22.6	-19.7	-13.7	-7.7	-4.8	-2.3	.9	4.1	7.0
20	87795	-37.4	-34.1	-30.5	-26.9	-24.1	-20.8	-14.1	-7.4	-4.1	-1.3	2.3	5.9	9.2
15	94048	-38.4	-34.9	-31.0	-27.2	-24.2	-20.7	-13.5	-6.3	-2.8	.2	4.0	7.9	11.4
10	103018	-42.0	-37.9	-33.5	-29.0	-25.6	-21.5	-13.3	-5.1	-1.0	2.4	6.9	11.3	15.4

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 43. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: September

NO. OBSERVATIONS -- SURFACE = 805. TOP = 449

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-17.3	-15.5	-13.5	-11 5	-9.9	-8.1	-4.3	-0.5	1.3	2.9	4.9	6.9	8.7
950	1804	-18.2	-16.1	-13.8	-11.4	-9.6	-7.5	-3.1	1.3	3.4	5.2	7.6	9.9	12.0
900	3330	-16.5	-14.4	-12.1	-9.7	-7.9	-5.8	-1.4	3.0	5.1	6.9	9.3	11.6	13.7
850	4961	-18.3	-15.7	-12.9	-10.1	-7.9	-5.3	-0.1	5.1	7.7	9.9	12.7	15.5	18.1
800	6637	-19.2	-16.3	-13.1	-9.9	-7.4	-4.5	1.5	7.5	10.4	12.9	16.1	19.3	22.2
750	8422	-21.4	-18.0	-14.3	-10.6	-7.7	-4.3	2.6	9.5	12.9	15.8	19.5	23.2	26.6
700	10315	-22.5	-18.9	-14.9	-11.0	-7.9	-4.3	3.1	10.5	14.1	17.2	21.1	25.1	28.7
650	12310	-25.2	-21.2	-16.8	-12.4	-9.0	-5.0	3.2	11.4	15.4	18.8	23.2	27.6	31.6
600	14446	-27.2	-22.9	-18.3	-13.6	-10.0	-5.7	2.9	11.5	15.8	19.4	24.1	28.7	33.0
550	16716	-28.8	-24.3	-19.4	-14.5	-10.7	-6.2	2.9	12.0	16.5	20.3	25.2	30.1	34.6
500	19177	-31.8	-26.9	-21.6	-16.2	-12.1	-7.2	2.7	12.6	17.5	21.6	27.0	32.3	37.2
450	21824	-34.8	-29.5	-23.7	-17.8	-13.3	-8.0	2.9	13.8	19.1	23.6	29.5	35.3	40.6
400	24728	-38.1	-32.2	-25.8	-19.3	-14.3	-8.4	3.6	15.6	21.5	26.5	33.0	39.4	45.3
350	27920	-42.5	-35.9	-28.7	-21.4	-15.8	-9.2	4.3	17.8	24.4	30.0	37.3	44.5	51.1
300	31493	-45.6	-38.3	-30.4	-22.5	-16.3	-9.0	5.7	20.4	27.7	33.9	41.8	49.7	57.0
250	35564	-47.4	-39.4	-31.1	-22.6	-16.0	-8.2	7.6	23.4	31.2	37.8	46.3	54.8	62.6
200	40358	-45.8	-38.0	-29.5	-20.9	-14.3	-6.5	9.4	25.3	33.1	39.7	48.3	56.8	64.6
175	43140	-41.0	-33.8	-26.0	-18.1	-12.0	-4.8	9.8	24.4	31.6	37.7	45.6	53.4	60.6
150	46283	-34.8	-28.6	-21.8	-15.1	-9.8	-3.6	9.0	21.6	27.8	33.1	39.8	46.6	52.8
125	49931	-28.7	-23.7	-18.3	-12.9	-8.7	-3.8	6.3	16.4	21.3	25.5	30.9	36.3	41.3
100	54337	-21.3	-17.9	-14.2	-10.6	-7.7	-4.3	2.5	9.3	12.7	15.6	19.2	22.9	26.3
80	58766	-16.8	-14.3	-11.6	-8.8	-6.7	-4.2	.9	6.0	8.5	10.6	13.4	16.1	18.6
70	61453	-14.2	-12.2	-10.0	-7.8	-6.1	-4.1	0	4.1	6.1	7.8	10.0	12.2	14.2
60	64593	-13.4	-11.5	-9.4	-7.3	-5.6	-3.7	.3	4.3	6.2	7.9	10.0	12.1	14.0
50	68350	-12.2	-10.5	-8.7	-6.8	-5.4	-3.7	-0.3	3.1	4.8	6.2	8.1	9.9	11.6
40	73002	-11.6	-10.0	-8.2	-6.5	-5.1	-3.5	-0.2	3.1	4.7	6.1	7.8	9.[illegible]	11.2
30	79085	-11.2	-9.6	-7.9	-6.2	-4.9	-3.3	-0.2	2.9	4.5	5.8	7.5	9.[illegible]	10.8
25	82992	-11.5	-9.8	-8.0	-6.1	-4.7	-3.0	.4	3.8	5.5	6.9	8.8	10.6	12.3
20	87795	-12.9	-11.1	-9.1	-7.1	-5.5	-3.7	.1	3.9	5.7	7.3	9.3	11.3	13.1
15	94068	-13.4	-11.4	-9.2	-7.1	-5.4	-3.4	.6	4.6	6.6	8.3	10.4	12.6	14.6
10	103018	-16.0	-13.7	-11.2	-8.7	-6.7	-4.4	.3	5.0	7.3	9.3	11.8	14.3	16.6

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 44. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: October

NO. OBSERVATIONS -- SURFACE = 806, TOP = 540

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	0	1.5	3.4	7.2	11.0	12.9	14.5	16.5	18.6	20.5
950	1857	0	0	0	.2	2.3	4.8	9.8	14.8	17.3	19.4	22.1	24.8	27.3
900	3376	0	0	0	1.6	3.3	5.2	9.7	13.2	15.1	16.8	18.9	21.0	22.9
850	4974	0	0	.6	2.8	4.5	6.5	10.4	14.7	16.7	18.4	20.6	22.8	24.8
800	6654	0	0	1.1	3.5	5.3	7.5	11.9	16.3	18.5	20.3	22.7	25.1	27.3
750	8422	0	0	1.4	4.0	6.1	8.5	13.5	18.5	20.9	23.0	25.6	28.3	30.7
700	10295	0	0	1.8	4.6	6.8	9.4	14.6	19.8	22.4	24.6	27.4	30.2	32.8
650	12274	0	0	1.8	5.0	7.5	10.4	16.4	22.4	25.3	27.8	31.0	34.2	37.1
600	14390	0	0	1.8	5.4	8.2	11.5	18.2	24.9	28.2	31.0	34.6	38.2	41.5
550	16640	0	0	1.3	5.5	8.7	12.5	20.2	27.9	31.7	34.9	39.1	43.2	47.0
500	19078	0	0	1.2	5.6	9.5	13.8	22.4	31.0	35.3	38.9	43.6	48.2	52.5
450	21699	0	0	.3	5.7	9.9	14.8	24.9	35.0	39.9	44.1	49.5	54.9	59.9
400	24570	0	0	.6	6.5	11.1	16.5	27.5	38.5	43.9	48.5	54.4	60.3	65.7
350	27730	0	0	.9	7.5	12.7	18.8	31.2	43.6	49.7	54.9	61.5	68.2	74.3
300	31297	0	0	.7	8.1	13.9	20.7	34.5	48.3	55.1	60.9	68.3	75.7	82.5
250	35282	0	0	.7	8.9	15.2	22.7	37.8	52.9	60.4	66.7	74.9	83.0	90.5
200	40026	0	0	2.1	10.1	16.4	23.8	38.8	53.8	61.2	67.5	75.5	83.6	91.0
175	42792	0	0	3.5	10.9	16.7	23.5	37.7	51.1	57.9	63.7	71.1	78.5	85.3
150	45938	0	0	4.2	10.7	15.8	21.8	34.0	46.2	52.2	57.3	63.8	70.4	76.4
125	49596	0	0	2.9	8.5	12.9	19.1	28.6	39.1	44.3	48.7	54.3	60.0	65.2
100	54016	0	0	.4	4.9	8.4	12.5	20.9	29.3	33.4	36.9	41.4	45.9	50.0
80	58425	0	0	0	1.9	4.5	7.5	13.7	19.9	22.9	25.5	28.8	32.1	35.1
70	61096	0	0	0	2.0	3.8	6.0	10.4	14.8	17.0	18.8	21.2	23.6	25.8
60	64199	0	0	0	.8	2.6	4.8	9.2	13.6	15.8	17.6	20.0	22.4	24.6
50	67920	0	0	0	.7	2.4	4.4	8.6	12.8	14.8	16.5	18.8	21.0	23.0
40	72523	0	0	0	1.1	2.6	4.4	8.1	11.8	13.6	15.1	17.1	19.1	20.9
30	78547	0	0	0	1.6	3.2	5.1	9.0	12.9	14.8	16.4	18.5	20.6	22.5
25	82415	0	0	0	2.0	3.8	5.9	10.2	14.5	16.6	18.4	20.7	23.0	25.1
20	87178	0	0	0	2.0	4.2	6.8	12.0	17.2	19.8	22.0	24.8	27.6	30.2
15	93376	0	0	0	2.3	5.2	8.6	15.6	22.6	26.0	28.9	32.7	36.4	39.8
10	102219	0	0	.7	5.4	9.0	13.3	21.9	30.5	34.8	38.4	43.1	47.7	52.0

Table 45. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: October

NO. OBSERVATIONS -- SURFACE = 806, TOP = 540

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-8.3	-6.6	-4.7	-2.9	-1.4	.3	3.8	7.3	9.0	10.5	12.3	14.2	15.9
950	1857	-16.7	-13.9	-10.8	-7.8	-5.4	-2.6	3.1	8.8	11.6	14.0	17.0	20.1	22.9
900	3376	-17.6	-15.0	-12.1	-9.2	-7.0	-4.4	1.0	6.4	9.0	11.2	14.1	17.0	19.6
850	4974	-19.8	-16.9	-13.7	-10.6	-8.1	-5.2	.7	6.6	9.5	12.0	15.1	18.3	21.2
800	6654	-22.1	-18.9	-15.4	-12.0	-9.3	-6.1	.3	6.7	9.9	12.6	16.0	19.5	22.7
750	8422	-23.6	-20.1	-16.3	-12.5	-9.6	-6.1	.9	7.9	11.4	14.3	18.1	21.9	25.4
700	10295	-24.3	-20.6	-16.6	-12.5	-9.4	-5.7	1.8	9.3	13.0	16.1	20.2	24.2	27.9
650	12274	-26.2	-22.1	-17.6	-13.1	-9.6	-5.5	2.9	11.3	15.4	18.9	23.4	27.9	32.0
600	14390	-28.0	-23.4	-18.4	-13.4	-9.5	-4.9	4.4	13.7	18.3	22.2	27.2	32.2	36.8
550	16640	-30.0	-24.9	-19.4	-13.8	-9.5	-4.4	5.9	16.2	21.3	25.6	31.2	36.7	41.8
500	19078	-31.9	-26.3	-20.1	-14.0	-9.2	-3.6	7.9	19.4	25.0	29.8	35.9	42.1	47.7
450	21699	-34.3	-28.1	-21.3	-14.5	-9.2	-3.0	9.7	22.4	28.6	33.9	40.7	47.5	53.7
400	24570	-36.5	-29.7	-22.2	-14.8	-9.0	-2.2	11.7	25.6	32.4	38.2	45.6	53.1	59.9
350	27730	-40.2	-32.5	-24.1	-15.7	-9.2	-1.5	14.1	29.7	37.4	43.9	52.3	60.7	68.4
300	31257	-42.2	-33.8	-24.6	-15.4	-8.3	.1	17.2	34.3	42.7	49.8	59.0	68.2	76.6
250	35282	-42.4	-33.4	-23.5	-13.7	-6.0	3.0	21.4	39.8	48.8	56.5	66.3	76.2	85.2
200	40026	-37.4	-28.5	-18.7	-9.0	-1.4	7.5	25.7	43.9	52.8	60.4	70.1	79.9	88.8
175	42792	-32.0	-23.7	-14.7	-5.6	1.4	9.7	26.5	43.3	51.6	58.6	67.7	76.7	85.0
150	45938	-26.4	-19.1	-11.2	-3.3	2.9	10.2	24.9	39.6	46.9	53.1	61.0	68.9	76.2
125	49596	-20.9	-14.9	-8.3	-1.8	3.3	9.3	21.5	33.7	39.7	44.8	51.3	57.9	63.9
100	54016	-17.0	-12.4	-7.4	-2.4	1.5	6.1	15.4	24.7	29.3	33.2	38.2	43.2	47.8
80	58425	-17.0	-13.4	-9.5	-5.6	-2.6	1.0	8.2	15.4	19.0	22.0	25.9	29.8	33.4
70	61096	-16.1	-13.2	-10.1	-6.9	-4.5	-1.6	4.2	10.0	12.9	15.3	18.5	21.6	24.5
60	64199	-17.7	-14.9	-11.8	-8.7	-6.3	-3.5	2.3	8.1	10.9	13.3	16.4	19.5	22.3
50	67920	-17.8	-15.2	-12.3	-9.4	-7.2	-4.6	.8	6.2	8.8	11.0	13.9	16.8	19.4
40	72523	-17.4	-14.9	-12.1	-9.4	-7.2	-4.7	.5	5.7	8.2	10.4	13.1	15.9	18.4
30	78547	-18.9	-16.0	-12.8	-9.7	-7.2	-4.3	1.6	7.5	10.4	12.9	16.0	19.2	22.1
25	82415	-20.3	-16.9	-13.2	-9.6	-6.7	-3.3	3.5	10.3	13.7	16.6	20.2	23.9	27.3
20	87178	-21.2	-17.3	-13.1	-8.9	-5.6	-1.7	6.1	13.9	17.8	21.1	25.3	29.5	33.4
15	93376	-21.0	-16.5	-11.6	-6.6	-2.8	1.7	10.9	20.1	24.6	28.4	33.4	38.3	42.8
10	102215	-21.3	-15.9	-10.0	-4.0	.6	6.0	17.1	28.2	33.6	38.2	44.2	50.1	55.5

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 46 Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: October

NO. OBSERVATIONS -- SURFACE = 806. TOP = 540

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-16.6	-14.9	-12.8	-10.8	-9.2	-7.4	-3.6	.6	2.0	3.6	5.6	7.6	9.4
950	1857	-21.1	-18.9	-16.2	-13.6	-11.5	-9.1	-4.1	.9	3.3	5.4	8.0	10.7	13.1
900	3376	-18.5	-16.2	-13.7	-11.2	-9.3	-7.0	-2.4	2.2	4.5	6.4	8.9	11.4	13.7
850	4974	-21.2	-18.5	-15.5	-12.5	-10.2	-7.5	-1.9	3.7	6.4	8.7	11.7	14.7	17.4
800	6654	-23.4	-20.6	-17.1	-13.7	-11.0	-7.8	-1.4	5.0	8.2	10.9	14.3	17.8	21.0
750	8422	-27.5	-23.8	-19.8	-15.8	-12.7	-9.0	-1.6	5.8	9.5	12.6	16.6	20.6	24.3
700	10295	-29.7	-25.7	-21.4	-17.1	-13.7	-9.7	-1.7	6.3	10.3	13.7	18.0	22.3	26.3
650	12274	-33.5	-29.1	-24.3	-19.5	-15.7	-11.3	-2.3	6.7	11.1	14.9	19.7	24.5	28.9
600	14390	-36.9	-31.7	-26.4	-21.2	-17.1	-12.3	-2.5	7.3	12.1	16.2	21.4	26.7	31.5
550	16660	-40.5	-35.2	-29.4	-23.5	-19.0	-13.7	-2.8	8.1	13.4	17.9	23.8	29.6	34.9
500	19078	-43.5	-37.4	-31.5	-25.3	-20.4	-14.7	-3.0	8.7	14.4	19.3	25.5	31.8	37.5
450	21649	-49.0	-42.5	-35.4	-28.3	-22.8	-16.3	-3.1	10.1	16.6	22.1	29.2	36.3	42.8
400	24570	-52.6	-45.6	-37.9	-30.3	-24.3	-17.3	-3.8	11.3	18.3	24.3	31.9	39.6	46.6
350	27790	-58.5	-50.7	-42.2	-33.6	-27.0	-19.2	-3.3	12.6	20.4	27.0	35.6	44.1	51.9
300	31257	-63.4	-55.0	-45.8	-36.6	-29.4	-21.0	-3.8	13.4	21.8	29.0	38.2	47.4	55.8
250	35282	-66.2	-57.4	-47.8	-38.1	-30.6	-21.8	-3.8	14.2	23.0	30.5	40.2	49.8	58.6
200	40026	-59.3	-51.1	-42.2	-33.2	-26.3	-18.1	-1.5	15.1	23.3	30.2	39.2	48.1	56.3
175	42742	-52.0	-44.7	-36.8	-28.9	-22.7	-15.4	-0.7	14.0	21.3	27.5	35.4	43.3	50.6
150	45938	-46.2	-39.7	-32.6	-25.6	-20.1	-13.6	-0.5	12.6	19.1	24.6	31.6	38.7	45.2
125	49596	-38.3	-32.9	-27.0	-21.0	-16.4	-11.0	.1	11.2	16.6	21.2	27.2	33.1	38.5
100	54016	-30.1	-25.9	-21.3	-16.8	-13.2	-9.3	-0.5	8.0	12.2	15.8	20.3	24.9	29.1
80	58425	-22.4	-19.3	-16.0	-12.6	-10.0	-6.8	-0.7	5.5	8.5	11.2	14.6	17.9	21.0
70	61055	-19.0	-16.6	-13.9	-11.3	-9.2	-6.8	-1.8	3.2	5.6	7.7	10.3	13.0	15.4
60	64199	-17.8	-15.5	-13.0	-10.5	-8.6	-6.3	-1.7	2.9	5.2	7.1	9.6	12.1	14.4
50	67920	-17.2	-15.0	-12.6	-10.2	-8.4	-6.2	-1.8	2.6	4.8	6.6	9.0	11.4	13.6
40	72523	-16.6	-12.7	-10.6	-8.5	-6.9	-5.0	-1.1	2.8	4.7	6.3	8.4	10.5	12.4
30	78567	-14.2	-12.3	-10.2	-8.2	-6.6	-4.7	-0.9	2.9	4.8	6.4	8.4	10.5	12.4
25	82415	-13.1	-11.3	-9.4	-7.4	-5.9	-4.1	-0.5	3.1	4.9	6.4	8.4	10.3	12.1
20	87178	-12.9	-11.1	-9.1	-7.1	-5.3	-3.7	.1	3.9	5.7	7.3	9.3	11.3	13.1
15	93376	-16.1	-13.8	-11.3	-8.8	-6.9	-4.6	0	4.6	6.9	8.8	11.3	13.8	16.1
10	102215	-21.2	-18.3	-15.1	-11.9	-9.4	-6.5	-0.5	5.5	8.4	10.9	14.1	17.3	20.2

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 47. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: November

NO. OBSERVATIONS -- SURFACE = 749, TOP = 415

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	.6	2.3	4.3	8.5	12.7	14.7	16.4	18.7	20.9	22.9
950	1900	0	0	0	.4	3.0	6.0	12.2	18.4	21.4	24.0	27.3	30.6	33.6
900	3399	0	0	0	2.0	4.1	6.5	11.5	16.5	18.9	21.0	23.6	26.3	28.7
850	4970	0	0	.5	3.2	5.3	7.8	12.8	17.8	20.3	22.4	25.1	27.8	30.3
800	6624	0	0	1.1	4.0	6.2	8.8	14.2	19.6	22.2	24.4	27.3	30.2	32.8
750	8366	0	0	1.0	4.4	7.0	10.1	16.4	22.7	25.8	28.4	31.8	35.2	38.3
700	10210	0	0	.7	4.6	7.7	11.3	18.7	26.1	29.7	32.8	36.7	40.7	44.3
650	12162	0	0	1.3	5.8	9.2	13.3	21.5	29.7	33.8	37.2	41.7	46.1	50.2
600	14249	0	0	1.1	6.2	10.2	14.9	24.4	33.9	38.6	42.6	47.7	52.8	57.5
550	16470	0	0	1.3	7.0	11.5	16.7	27.4	38.1	43.3	47.8	53.5	59.2	64.4
500	18878	0	0	2.0	8.3	13.1	18.8	30.4	42.0	47.7	52.5	58.8	65.0	70.7
450	21467	0	0	2.7	9.5	14.8	21.0	33.7	46.4	52.6	57.9	64.7	71.5	77.7
400	24308	0	0	3.4	10.8	16.6	23.4	37.2	51.0	57.8	63.6	71.0	78.4	85.2
350	27434	0	0	4.2	12.3	18.7	26.2	41.4	56.6	64.1	70.5	78.6	86.8	94.3
300	30925	0	0	6.5	15.3	22.2	30.3	46.8	63.3	71.4	78.3	87.1	96.0	104.1
250	34911	0	0	7.4	16.9	24.2	32.8	50.4	68.0	76.6	83.9	93.4	102.8	111.4
200	39610	0	.5	9.7	18.9	26.1	34.5	51.7	68.9	77.3	84.5	93.7	102.9	111.3
175	42356	0	2.0	10.6	19.1	25.8	33.7	49.4	65.5	73.4	80.1	88.6	97.2	105.1
150	45492	0	2.8	10.5	18.2	24.2	31.2	45.6	59.9	67.0	73.0	80.7	88.4	95.5
125	49157	0	1.4	8.0	14.5	19.6	25.6	37.8	50.0	56.0	61.1	67.6	74.2	80.2
100	53593	0	0	4.9	10.4	14.7	19.7	30.0	40.3	45.3	49.6	55.1	60.6	65.6
80	58028	0	0	2.0	6.3	9.6	13.5	21.5	29.5	33.4	36.7	41.0	45.3	49.2
70	60676	0	0	0	3.3	6.5	10.3	18.0	25.7	29.5	32.7	36.9	41.0	44.8
60	63770	0	0	0	2.5	5.1	8.2	14.5	20.8	23.9	26.5	29.9	33.3	36.4
50	67457	0	0	0	1.9	4.4	7.4	13.5	19.6	22.6	25.1	28.4	31.7	34.7
40	72011	0	0	0	1.7	4.1	6.9	12.7	18.5	21.3	23.7	26.8	29.9	32.7
30	77949	0	0	0	2.6	5.1	8.0	13.9	19.8	22.7	25.2	28.3	31.5	34.4
25	81745	0	0	.0	3.7	6.5	9.8	16.6	23.4	26.7	29.5	33.2	36.8	40.1
20	86444	0	0	0	3.7	7.3	11.5	20.1	28.7	32.9	36.5	41.1	45.7	49.9
15	92566	0	0	0	5.6	10.2	15.6	26.6	37.6	43.0	47.6	53.5	59.4	64.8
10	101319	0	0	1.4	8.9	14.8	21.7	35.8	49.9	56.8	62.7	70.2	77.8	84.7

Table 48. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: November

NO. OBSERVATIONS -- SURFACE = 749, TOP = 415

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-10.0	-8.0	-5.8	-3.6	-1.9	.1	4.2	8.3	10.3	12.0	14.2	16.4	18.4
950	1900	-19.4	-16.2	-12.7	-9.1	-6.4	-3.2	3.4	10.0	13.2	15.9	19.5	23.0	26.2
900	3399	-19.7	-16.6	-13.3	-9.9	-7.3	-4.2	2.0	8.2	11.3	13.9	17.3	20.6	23.7
850	4970	-19.2	-16.1	-12.7	-9.3	-6.6	-3.5	2.9	9.3	12.4	15.1	18.5	21.9	25.0
800	6624	-19.7	-16.3	-12.6	-9.0	-6.1	-2.7	4.1	10.9	14.3	17.2	20.8	24.5	27.9
750	8366	-20.8	-17.5	-12.9	-8.8	-5.6	-1.8	5.8	13.4	17.2	20.4	24.5	28.6	32.4
700	10210	-22.3	-18.0	-13.3	-8.6	-5.0	-0.7	8.0	16.7	21.0	24.6	29.3	34.0	38.3
650	12162	-24.0	-19.1	-13.8	-8.4	-4.3	.6	10.5	20.4	25.3	29.4	34.8	40.1	45.0
600	14249	-25.5	-20.1	-14.2	-8.2	-3.6	1.8	12.9	24.0	29.4	34.0	40.0	45.9	51.3
550	16470	-27.4	-21.3	-14.6	-8.0	-2.8	3.3	15.7	28.1	34.2	39.4	46.0	52.7	58.8
500	18878	-29.1	-22.4	-15.1	-7.9	-2.2	4.5	18.0	31.5	38.2	43.9	51.1	58.4	65.1
450	21467	-29.2	-22.1	-14.4	-6.7	-0.7	6.4	20.7	35.0	42.1	48.1	55.8	63.5	70.6
400	24308	-30.7	-23.0	-14.6	-6.3	[illegible]	7.9	23.4	38.9	46.6	53.1	61.4	69.8	77.5
350	27434	-32.2	-23.9	-14.9	-5.8	1.2	9.5	26.3	43.1	51.4	58.4	67.5	76.5	84.8
300	30925	-34.8	-25.6	-15.5	-5.4	2.4	11.6	30.4	49.2	58.4	66.2	76.3	86.4	95.6
250	34911	-34.8	-25.1	-14.5	-3.9	4.4	14.1	33.9	53.7	63.4	71.7	82.3	92.9	102.6
200	39610	-30.7	-21.0	-10.4	.2	8.5	18.2	38.0	57.9	67.5	75.8	86.4	97.0	106.7
175	42356	-24.8	-15.9	-6.2	3.5	11.1	20.0	38.1	56.2	65.1	72.7	82.4	92.1	101.0
150	45492	-21.6	-13.4	-4.5	4.5	11.4	19.6	36.2	52.8	61.0	67.9	76.9	85.8	94.0
125	49157	-15.6	-9.1	-2.0	5.2	10.7	17.2	30.5	43.8	50.3	55.8	63.0	70.1	76.6
100	53593	-15.7	-10.0	-3.8	2.4	7.2	12.9	24.6	35.9	41.6	46.4	52.6	58.8	64.5
80	58028	-16.4	-11.7	-6.6	-1.5	2.5	7.2	16.7	26.2	30.9	34.9	40.0	45.1	49.8
70	60676	-17.6	-13.2	-8.4	-3.6	.1	4.5	13.4	22.3	26.7	30.4	35.2	40.0	44.4
60	63770	-19.6	-15.5	-11.0	-6.6	-3.1	1.0	9.3	17.6	21.7	25.2	29.6	34.1	38.2
50	67457	-22.7	-18.5	-13.9	-9.3	-5.7	-1.5	7.1	15.7	19.9	23.5	28.1	32.7	36.9
40	72111	-24.7	-20.5	-15.9	-11.3	-7.7	-3.5	5.1	13.7	17.9	21.5	26.1	30.7	34.9
30	77969	-26.2	-21.6	-16.6	-11.6	-7.7	-3.1	6.2	15.5	20.1	24.0	29.0	34.0	38.6
25	81745	-27.3	-22.1	-16.4	-10.7	-6.3	-1.1	9.5	20.1	25.3	29.7	35.4	41.1	46.3
20	86444	-32.1	-25.8	-18.9	-12.0	-6.7	-0.4	12.4	25.2	31.5	36.8	43.7	50.6	56.9
15	92546	-33.0	-25.5	-17.4	-9.2	-2.9	4.6	19.7	34.8	42.3	48.6	56.8	64.9	72.4
10	101319	-34.6	-25.6	-15.7	-5.9	1.8	10.8	29.2	47.6	56.6	64.3	74.1	84.0	93.0

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 49. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: November

NO. OBSERVATIONS -- SURFACE = 749, TOP = 415

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-18.8	-16.7	-14.4	-12.2	-10.4	-8.3	-4.1	.1	2.2	4.0	6.2	8.5	10.6
950	1900	-28.4	-25.0	-21.3	-17.7	-14.8	-11.4	-4.6	2.2	5.6	8.5	12.1	15.8	19.2
900	3399	-24.8	-21.7	-18.3	-14.9	-12.3	-9.2	-2.9	3.4	6.5	9.1	12.5	15.9	19.0
850	4970	-27.7	-24.2	-20.4	-16.6	-13.6	-10.1	-3.0	4.1	7.6	10.6	14.4	18.2	21.7
800	6624	-30.4	-26.6	-22.4	-18.2	-15.0	-11.2	-3.4	4.4	8.2	11.4	15.6	19.8	23.6
750	8366	-34.8	-30.4	-25.6	-20.8	-17.1	-12.7	-3.8	5.1	9.5	13.2	18.0	22.8	27.2
700	10210	-38.5	-33.6	-28.3	-22.9	-18.8	-13.9	-4.0	5.9	10.8	14.9	20.3	25.6	30.5
650	12162	-42.1	-36.7	-30.8	-24.9	-20.3	-14.9	-3.9	7.1	12.5	17.1	23.0	28.9	34.3
600	14249	-47.0	-40.9	-34.2	-27.6	-22.4	-16.3	-3.9	8.5	14.6	19.8	26.4	33.1	39.2
550	16470	-50.1	-43.5	-36.3	-29.1	-23.5	-16.9	-3.5	9.9	16.5	22.1	29.3	36.5	43.1
500	18878	-54.5	-47.2	-39.3	-31.4	-25.2	-17.9	-3.2	11.5	18.8	25.0	32.9	40.8	48.1
450	21467	-59.9	-51.8	-43.0	-34.2	-27.4	-19.3	-3.0	13.3	21.4	28.2	37.0	45.8	53.9
400	24308	-65.4	-56.6	-47.0	-37.4	-29.9	-21.1	-3.2	14.7	23.5	31.0	40.6	50.2	59.0
350	27434	-73.2	-63.3	-52.5	-41.7	-33.3	-23.4	-3.3	16.8	26.7	35.1	45.9	56.7	66.6
300	30925	-79.4	-68.5	-56.7	-44.8	-35.6	-24.7	-2.7	19.3	30.2	39.4	51.3	63.1	74.0
250	34911	-82.7	-71.3	-58.8	-46.4	-36.7	-25.3	-2.1	21.1	32.5	42.2	54.6	67.1	78.5
200	39610	-75.5	-65.0	-53.5	-42.0	-33.1	-22.6	-1.2	20.2	30.7	39.6	51.1	62.6	73.1
175	42356	-68.7	-59.1	-48.6	-38.1	-29.9	-20.3	-0.7	18.9	28.5	36.7	47.2	57.7	67.3
150	45492	-57.8	-49.6	-40.7	-31.7	-24.8	-16.6	0	16.6	24.8	31.7	40.7	49.6	57.8
125	49157	-48.2	-41.3	-33.8	-26.3	-20.5	-13.6	.3	14.2	21.1	26.9	34.4	41.9	48.8
100	53593	-36.3	-31.2	-25.6	-20.0	-15.7	-10.6	-0.2	10.2	15.3	20.6	25.2	30.8	35.9
80	58028	-26.9	-23.2	-19.2	-15.1	-12.0	-8.3	-0.8	6.7	10.4	3.5	17.6	21.6	25.3
70	60676	-23.4	-20.1	-16.5	-13.0	-10.2	-6.9	-0.3	6.3	9.6	12.4	15.9	19.5	22.8
60	63770	-19.0	-16.6	-13.9	-11.3	-9.2	-6.8	-1.8	3.2	5.6	7.7	10.3	13.0	15.4
50	67457	-18.5	-16.2	-13.7	-11.2	-9.2	-6.9	-2.2	2.5	4.8	6.8	9.3	11.8	14.1
40	72011	-17.1	-15.0	-12.7	-10.5	-8.7	-6.6	-2.4	1.8	3.9	5.7	7.9	10.2	12.3
30	77949	-16.0	-14.1	-12.0	-9.9	-8.2	-6.3	-2.3	1.7	3.6	5.3	7.4	9.5	11.4
25	81745	-15.8	-13.8	-11.6	-9.5	-7.8	-5.8	-1.8	2.2	4.2	5.9	8.0	10.2	12.2
20	86444	-17.4	-15.1	-12.6	-10.1	-8.2	-5.9	-1.3	3.3	5.6	7.5	10.0	12.5	14.8
15	92566	-21.2	-18.3	-15.1	-12.0	-9.5	-6.6	-0.7	5.2	8.1	10.6	13.7	16.9	19.8
10	101319	-24.9	-21.3	-17.4	-13.5	-10.4	-6.8	.5	7.8	11.4	14.5	18.4	22.3	25.9

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 50. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for San Nicolas Island: December

NO. OBSERVATIONS -- SURFACE = 662. TOP = 384

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	0	0	0	1.1	2.8	4.8	8.8	12.8	14.8	16.5	18.6	20.8	22.8
950	1900	0	0	0	1.4	4.0	7.0	13.2	19.4	22.4	25.0	28.3	31.6	34.6
900	3386	0	0	0	2.0	4.4	7.2	12.9	18.6	21.4	23.8	26.8	29.9	32.7
850	4948	0	0	.5	3.5	5.9	8.7	14.4	20.1	22.9	25.3	28.3	31.4	34.2
800	6588	0	0	1.1	4.5	7.2	10.3	16.7	23.1	26.2	28.9	32.3	35.7	38.8
750	8317	0	0	1.3	5.2	8.2	11.8	19.0	26.2	29.8	32.8	36.7	40.6	44.2
700	10151	0	0	1.0	5.4	8.9	13.0	21.3	29.6	33.7	37.2	41.6	46.1	50.2
650	12087	0	0	.9	5.9	9.8	14.4	23.7	33.0	37.6	41.5	46.5	51.5	56.1
600	14160	0	0	.9	6.5	10.8	15.9	26.2	36.5	41.6	45.9	51.5	57.0	62.1
550	16365	0	0	1.1	7.3	12.1	17.8	29.3	40.8	46.5	51.3	57.5	63.7	69.4
500	18757	0	0	.3	7.3	12.7	19.1	32.1	45.1	51.5	56.9	63.9	70.9	77.3
450	21322	0	0	0	7.7	13.8	21.0	35.5	50.0	57.2	63.3	71.1	78.9	86.1
400	24147	0	0	.5	9.0	15.6	23.4	39.2	55.0	62.8	69.4	77.9	86.4	94.2
350	27244	0	0	2.0	11.1	18.2	26.5	43.5	60.5	68.8	75.9	85.0	94.1	102.4
300	30712	0	0	3.9	13.6	21.1	30.0	48.0	65.0	74.9	82.4	92.1	101.8	110.7
250	34662	0	0	6.3	16.2	24.0	33.1	51.7	70.3	79.4	87.2	97.1	107.1	116.2
200	39337	0	0	8.8	18.4	25.8	34.5	52.3	70.1	78.8	86.2	95.8	105.3	114.0
175	42097	0	0	9.2	18.4	25.6	34.1	51.3	68.5	77.0	84.2	93.4	102.7	111.2
150	45240	0	2.0	10.1	18.2	24.5	31.9	47.0	62.1	69.5	75.8	83.9	92.0	99.4
125	48934	0	3.1	10.1	17.1	22.5	28.9	41.9	54.9	61.3	66.7	73.7	80.7	87.1
100	53402	0	2.4	8.0	13.6	17.9	23.0	33.4	43.8	48.9	53.2	58.8	64.4	69.5
80	57844	0	0	2.6	7.4	11.1	15.5	24.4	33.3	37.7	41.4	46.2	51.0	55.4
70	60505	0	0	2.3	6.1	9.1	12.6	19.8	27.0	30.5	33.5	37.3	41.2	44.7
60	63596	0	0	0	2.4	5.2	8.5	15.2	21.9	25.2	28.0	31.6	35.2	38.5
50	67290	0	0	0	2.3	4.6	7.3	12.7	18.1	20.8	23.1	26.0	28.9	31.6
40	71824	0	0	0	1.4	3.7	6.4	12.0	17.6	20.3	22.6	25.6	28.6	31.3
30	77749	0	0	0	1.7	4.4	7.5	13.9	20.3	23.4	26.1	29.5	32.9	36.0
25	81575	0	0	0	2.0	4.9	8.3	15.3	22.3	25.7	28.6	32.4	36.1	39.5
20	86207	0	0	0	1.7	5.5	9.9	18.9	27.9	32.3	36.1	40.9	45.7	50.1
15	92297	0	0	0	4.1	9.1	15.0	27.1	39.2	45.1	50.1	56.6	63.1	69.0
10	100958	0	0	1.7	9.9	16.3	23.8	39.1	54.4	61.9	68.3	76.5	84.7	92.2

Table 51. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for San Nicolas Island: December

NO. OBSERVATIONS -- SURFACE = 662, TOP = 384

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-10.8	-8.7	-6.4	-4.2	-2.4	-0.3	3.9	8.1	10.2	12.0	14.2	16.5	18.6
950	1900	-23.2	-19.5	-15.5	-11.4	-8.3	-4.6	2.9	10.4	14.1	17.2	21.3	25.3	29.0
900	3386	-22.9	-19.3	-15.3	-11.4	-8.3	-4.7	2.7	10.1	13.7	16.8	20.7	24.7	28.3
850	4948	-23.2	-19.4	-15.3	-11.1	-7.9	-4.1	3.6	11.3	15.1	18.3	22.5	26.6	30.4
800	6598	-24.0	-19.9	-15.4	-10.9	-7.4	-3.3	5.1	13.5	17.6	21.1	25.6	30.1	34.2
750	8317	-25.4	-20.8	-15.8	-10.8	-6.9	-2.3	7.0	16.3	20.9	24.8	29.8	34.8	39.4
700	10151	-26.3	-21.3	-15.8	-10.3	-6.0	-1.0	9.3	19.6	24.6	28.9	34.4	39.9	44.9
650	12087	-28.2	-22.6	-16.5	-10.4	-5.6	.0	11.4	22.8	28.4	33.2	39.3	45.4	51.0
600	14160	-29.4	-23.3	-16.7	-10.1	-4.9	1.2	13.5	25.8	31.9	37.1	43.7	50.3	56.4
550	16365	-30.4	-23.8	-16.6	-9.4	-3.8	2.8	16.2	29.6	36.2	41.8	49.0	56.2	62.8
500	18757	-32.2	-25.0	-17.1	-9.2	-3.1	4.1	18.8	33.5	40.7	46.8	54.7	62.6	69.8
450	21322	-36.2	-28.1	-19.3	-10.5	-3.7	4.4	20.7	37.0	45.1	51.9	60.7	69.5	77.6
400	24147	-39.7	-30.8	-21.1	-11.4	-3.9	5.0	23.0	41.0	49.9	57.4	67.1	76.8	85.7
350	27244	-42.1	-32.5	-22.0	-11.5	-3.3	6.3	25.9	45.5	55.1	63.3	73.8	84.3	93.9
300	30712	-43.2	-32.9	-21.7	-10.4	-1.7	8.6	29.5	50.4	60.7	69.4	80.7	91.9	102.2
250	34662	-39.9	-29.5	-18.2	-6.8	2.0	12.4	33.5	54.6	65.0	73.8	85.2	96.5	106.9
200	39337	-32.2	-22.3	-11.5	-0.7	7.7	17.6	37.7	57.8	67.7	76.1	86.9	97.7	107.6
175	42087	-26.3	-17.0	-6.8	3.3	11.2	20.5	39.4	58.3	67.6	75.5	85.6	95.8	105.1
150	45240	-19.3	-11.2	-2.4	6.4	13.2	21.3	37.6	53.9	62.0	68.8	77.6	86.4	94.5
125	48934	-14.6	-7.7	-0.1	7.4	13.3	20.2	34.3	48.4	55.3	61.2	68.7	76.3	83.2
100	53402	-13.4	-7.6	-1.3	5.0	9.9	15.7	27.4	39.1	44.9	49.8	56.1	62.4	68.2
80	57844	-14.7	-9.9	-4.6	.6	4.7	9.5	19.3	29.1	33.9	38.0	43.2	48.5	53.3
70	60505	-14.2	-10.1	-5.6	-1.1	2.4	6.5	14.9	23.3	27.4	30.9	35.4	39.9	44.0
60	63596	-17.3	-13.5	-9.4	-5.3	-2.1	1.7	9.3	16.9	20.7	23.9	28.0	32.1	35.9
50	67280	-18.6	-15.2	-11.5	-7.8	-4.9	-1.5	5.4	12.3	15.7	18.6	22.3	26.0	29.4
40	71824	-23.5	-19.7	-15.6	-11.5	-8.3	-4.5	3.1	10.7	14.5	17.7	21.8	25.9	29.7
30	77749	-26.9	-22.5	-17.7	-12.9	-9.2	-4.8	4.1	13.0	17.4	21.1	25.9	30.7	35.1
25	81535	-27.7	-22.9	-17.7	-12.5	-8.5	-3.7	5.9	15.5	20.3	24.3	29.5	34.7	39.5
20	86207	-32.3	-26.3	-19.7	-13.2	-8.1	-2.1	10.1	22.3	28.3	33.4	39.9	46.5	52.5
15	92237	-35.2	-27.5	-19.1	-10.7	-4.1	3.6	19.3	35.0	42.7	49.3	57.7	66.1	73.8
10	100958	-36.1	-26.6	-16.2	-5.9	2.2	11.7	31.0	50.3	59.8	67.9	78.2	88.6	98.1

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 52. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for San Nicolas Island: December

NO. OBSERVATIONS -- SURFACE = 662. TOP = 384

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	-19.0	-16.9	-14.6	-12.4	-10.6	-8.5	-4.3	-0.1	2.0	3.8	6.0	8.3	10.4
950	1900	-28.3	-25.0	-21.4	-17.9	-15.1	-11.8	-5.2	1.4	4.7	7.5	11.0	14.6	17.9
900	3396	-26.7	-23.5	-20.0	-16.6	-13.9	-10.7	-4.3	2.1	5.3	8.0	11.4	14.9	18.1
850	4948	-29.7	-26.2	-22.3	-18.5	-15.5	-12.0	-4.8	2.4	5.9	8.9	12.7	16.6	20.1
800	6588	-34.5	-30.4	-26.0	-21.5	-18.1	-14.0	-5.8	2.4	6.5	9.9	14.4	18.8	22.9
750	8317	-38.9	-34.3	-29.3	-24.4	-20.5	-15.9	-6.7	2.5	7.1	11.0	15.9	20.9	25.5
700	10151	-43.1	-38.0	-32.5	-26.9	-22.6	-17.5	-7.2	3.1	8.2	12.5	18.1	23.6	28.7
650	12097	-46.6	-41.1	-35.1	-29.1	-24.5	-19.0	-7.9	3.2	8.7	13.3	19.3	25.3	30.8
600	14160	-51.1	-45.1	-38.5	-31.9	-26.8	-20.8	-8.5	3.8	9.8	14.9	21.5	28.1	34.1
550	16365	-56.1	-49.5	-42.3	-35.0	-29.4	-22.8	-9.3	4.2	10.4	16.4	23.7	30.9	37.5
500	18757	-60.5	-53.3	-45.4	-37.5	-31.4	-24.2	-9.5	5.2	12.4	18.5	26.4	34.3	41.5
450	21322	-67.3	-59.2	-50.4	-41.6	-34.7	-26.6	-10.2	6.2	14.3	21.2	30.0	38.8	46.9
400	24147	-73.6	-64.7	-55.0	-45.3	-37.8	-28.9	-10.9	7.1	16.0	23.5	33.2	42.9	51.8
350	27246	-80.5	-70.7	-60.0	-49.4	-41.1	-31.3	-11.5	8.3	18.1	26.4	37.0	47.7	57.5
300	30712	-87.4	-76.8	-65.2	-53.7	-44.7	-34.1	-12.6	8.9	19.5	28.5	40.0	51.6	62.2
250	34642	-92.3	-81.0	-68.7	-56.4	-46.9	-35.6	-12.8	10.0	21.3	30.8	43.1	55.4	66.7
200	39337	-85.1	-74.7	-63.4	-52.0	-43.2	-32.8	-11.7	9.4	19.8	28.6	40.0	51.3	61.7
175	42097	-77.6	-67.9	-57.4	-46.8	-38.6	-28.9	-9.3	10.3	20.0	28.2	38.8	49.3	59.0
150	45240	-66.7	-58.3	-49.2	-40.0	-32.9	-24.5	-7.5	9.5	17.9	25.0	34.2	43.3	51.7
125	48934	-56.9	-49.8	-42.1	-34.4	-28.4	-21.3	-7.0	7.3	14.4	20.4	28.1	35.8	42.9
100	53402	-43.8	-38.4	-32.5	-26.5	-21.9	-16.5	-5.4	5.7	11.1	15.7	21.7	27.6	33.0
80	57844	-34.7	-30.5	-25.9	-21.4	-17.8	-13.6	-5.1	3.4	7.6	11.2	15.7	20.3	24.5
70	60505	-28.9	-25.5	-21.8	-18.2	-15.3	-11.9	-5.1	1.7	5.1	8.0	11.6	15.3	18.7
60	63596	-27.4	-24.2	-20.7	-17.1	-14.4	-11.2	-4.8	2.0	5.2	7.9	11.5	15.0	18.2
50	67290	-24.2	-21.4	-18.4	-15.4	-13.0	-10.2	-4.6	1.0	3.8	6.2	9.2	12.2	15.0
40	71824	-21.7	-19.2	-16.5	-13.7	-11.6	-9.1	-4.0	1.1	3.6	5.7	8.5	11.2	13.7
30	77749	-23.9	-21.2	-18.2	-15.3	-13.0	-10.3	-4.8	.7	3.4	5.7	8.6	11.6	14.3
25	81535	-25.2	-22.2	-18.9	-15.6	-13.1	-10.1	-4.0	2.1	5.1	7.6	10.9	14.2	17.2
20	86207	-26.0	-22.9	-19.5	-16.1	-13.5	-10.4	-4.1	2.2	5.3	7.9	11.3	14.7	17.8
15	92297	-29.4	-26.2	-22.2	-18.1	-15.0	-11.3	-3.8	3.7	7.4	10.5	14.6	18.6	22.3
10	100958	-40.5	-35.3	-29.6	-23.9	-19.4	-14.2	-3.5	7.2	12.4	16.9	22.6	28.3	33.5

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 53. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: Annual

NO. OBSERVATIONS -- SURFACE = 3136, TOP = 1969

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	.2	1.8	3.7	7.5	11.3	13.2	14.8	16.8	18.9	20.8
1000	449	0	0	0	0	.8	3.0	7.4	11.8	14.0	15.8	18.2	20.6	22.8
950	1877	0	0	0	0	.5	2.0	8.1	13.2	15.7	17.8	20.6	23.3	25.8
900	3376	0	0	0	0	1.0	3.5	8.5	13.5	16.0	18.1	20.8	23.5	26.0
850	4957	0	0	0	1.3	3.2	5.4	10.0	14.6	16.8	18.7	21.2	23.6	25.8
800	6621	0	0	0	2.8	4.9	7.4	12.5	17.6	20.1	22.2	25.0	27.7	30.2
750	8376	0	0	0	3.1	5.8	8.9	15.3	21.7	24.8	27.5	30.9	34.3	37.4
700	10226	0	0	0	3.5	6.6	10.3	17.7	25.1	28.8	31.9	35.9	39.9	43.6
650	12192	0	0	0	3.6	7.2	11.5	20.1	28.7	33.0	36.6	41.3	45.9	50.2
600	14285	0	0	0	3.5	7.6	12.5	22.4	32.3	37.2	41.3	46.7	52.0	56.9
550	16522	0	0	0	4.0	8.6	14.0	25.0	36.0	41.4	46.0	51.9	57.8	63.2
500	18934	0	0	0	4.4	9.5	15.5	27.7	39.9	45.9	51.0	57.5	64.1	70.1
450	21549	0	0	0	5.4	10.9	17.4	30.7	44.0	50.5	56.0	63.2	70.3	76.8
400	24390	0	0	0	6.3	12.4	19.6	34.3	49.0	56.2	62.3	70.2	78.1	85.3
350	27513	0	0	0	7.9	14.5	22.3	38.0	53.7	61.5	68.1	76.5	85.0	92.8
300	31017	0	0	1.1	10.2	17.3	25.6	42.6	59.6	67.9	75.0	84.1	93.2	101.5
250	35013	0	0	4.0	13.4	20.8	29.5	47.1	64.7	73.4	80.8	90.2	99.7	108.4
200	39741	0	0	6.5	15.7	22.8	31.2	48.3	65.4	73.8	80.9	90.1	99.3	107.7
175	42507	0	0	8.0	16.3	22.7	30.3	45.6	60.9	68.5	74.9	83.2	91.4	99.0
150	45666	0	0	7.3	14.7	20.5	27.3	41.1	54.9	61.7	67.5	74.9	82.3	89.1
125	49360	0	0	5.5	11.8	16.6	22.3	33.9	45.5	51.2	56.0	62.3	68.5	74.2
100	53839	0	0	1.1	6.2	10.2	14.9	24.4	33.9	38.6	42.6	47.7	52.8	57.5
80	58314	0	0	0	3.7	6.7	10.2	17.3	24.4	27.9	30.9	34.7	38.5	42.0
70	61007	0	0	.3	3.5	5.9	8.8	14.6	20.4	23.3	25.7	28.9	32.0	34.9

Table 54. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California. Annual

NO. OBSERVATIONS -- SURFACE = 3136. TOP = 1969

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-15.5	-13.2	-10.7	-8.2	-6.2	-3.9	.8	5.5	7.8	9.8	12.3	14.8	17.1
1000	449	-17.9	-15.4	-12.7	-9.9	-7.8	-5.3	-0.2	4.9	7.4	9.5	12.3	15.0	17.5
950	1877	-22.1	-19.2	-16.1	-12.9	-10.5	-7.6	-1.8	4.0	6.9	9.3	12.5	15.6	18.5
900	3376	-22.0	-19.0	-15.7	-12.4	-9.9	-6.9	-0.8	5.3	8.3	10.8	14.1	17.4	20.4
850	4957	-20.9	-17.8	-14.4	-11.0	-8.4	-5.3	1.0	7.3	10.4	13.0	16.4	19.8	22.9
800	6621	-21.3	-17.9	-14.2	-10.4	-7.5	-4.1	2.9	9.9	13.3	16.2	20.0	23.7	27.1
750	8374	-22.9	-18.9	-14.6	-10.3	-6.9	-2.9	5.1	13.1	17.1	20.5	24.8	29.1	33.1
700	10226	-24.3	-19.8	-14.9	-10.1	-6.3	-1.8	7.2	16.2	20.7	24.5	29.3	34.2	38.7
650	12192	-26.4	-21.4	-15.9	-10.4	-6.1	-1.1	9.2	19.5	24.5	28.8	34.3	39.8	44.9
600	14285	-28.1	-22.5	-16.4	-10.3	-5.6	-0.0	11.3	22.6	28.2	32.9	39.0	45.1	50.7
550	16522	-29.9	-23.7	-17.0	-10.2	-5.0	1.2	13.7	26.2	32.4	37.4	44.4	51.1	57.3
500	18934	-31.6	-24.9	-17.6	-10.2	-4.5	2.2	15.9	29.6	36.3	42.0	49.4	56.7	63.4
450	21549	-34.2	-26.8	-18.7	-10.6	-4.3	3.1	18.2	33.3	40.7	47.0	55.1	63.2	70.6
400	24390	-36.7	-28.5	-19.6	-10.7	-3.8	4.4	20.9	37.4	45.6	52.5	61.4	70.3	78.5
350	27513	-38.2	-29.4	-19.8	-10.2	-2.8	6.0	23.8	41.6	50.4	57.8	67.4	77.0	85.8
300	31017	-39.7	-30.2	-19.8	-9.5	-1.4	8.1	27.4	46.7	56.2	64.3	74.6	85.0	94.5
250	35013	-37.7	-27.8	-17.0	-6.3	2.1	12.0	32.0	52.0	61.9	70.3	81.0	91.8	101.7
200	39741	-31.7	-22.2	-11.8	-1.5	6.6	16.1	35.4	54.7	64.2	72.3	82.6	93.0	102.5
175	42507	-26.2	-17.4	-8.2	1.2	8.5	17.1	34.6	52.1	60.7	68.0	77.4	86.8	95.4
150	45646	-21.4	-13.8	-5.5	2.8	9.2	16.8	32.2	47.6	55.2	61.6	69.9	78.2	85.8
125	49360	-19.7	-13.1	-5.9	1.2	6.8	13.4	26.7	40.0	46.6	52.2	59.3	66.5	73.1
100	53879	-22.1	-16.4	-10.2	-4.0	.8	6.5	18.0	29.5	35.2	40.0	46.2	52.4	58.1
80	58314	-25.2	-20.3	-14.9	-9.6	-5.4	-0.5	9.5	19.5	24.4	28.6	33.9	39.3	44.2
70	61007	-27.1	-22.5	-17.5	-12.6	-8.7	-4.1	5.1	14.3	18.9	22.8	27.7	32.7	37.3

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 55. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California: Annual

NO. OBSERVATIONS -- SURFACE = 3136, TOP = 1969

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-15.4	-13.4	-11.2	-9.0	-7.3	-5.3	-1.2	2.9	4.9	6.6	8.8	11.0	13.0
1000	449	-15.6	-13.6	-11.4	-9.2	-7.5	-5.5	-1.4	2.7	4.7	6.4	8.6	10.8	12.8
950	1877	-16.4	-14.3	-12.0	-9.6	-7.8	-5.7	-1.3	3.1	5.2	7.0	9.4	11.7	13.8
900	3376	-16.6	-14.5	-12.2	-9.8	-8.0	-5.9	-1.5	2.9	5.0	6.8	9.2	11.5	13.6
850	4957	-18.6	-16.2	-13.6	-10.9	-8.9	-6.5	-1.6	3.3	5.7	7.7	10.4	13.0	15.4
800	6621	-24.4	-21.2	-17.7	-14.2	-11.5	-8.3	-1.8	4.7	7.9	10.6	14.1	17.6	20.8
750	8376	-30.3	-26.3	-21.9	-17.5	-14.1	-10.1	-1.9	6.3	10.3	13.7	18.1	22.5	26.5
700	10226	-34.4	-29.8	-24.8	-19.7	-15.8	-11.2	-1.8	7.6	12.2	16.1	21.2	26.2	30.8
650	12192	-38.4	-33.2	-27.5	-21.9	-17.5	-12.3	-1.8	8.7	13.9	18.3	23.9	29.6	34.8
600	14285	-42.7	-36.9	-30.6	-24.3	-19.4	-13.6	-1.9	9.8	15.6	20.5	26.8	33.1	38.9
550	16522	-46.0	-39.8	-33.0	-26.2	-20.9	-14.7	-2.0	10.7	16.9	22.2	29.0	35.8	42.0
500	18934	-49.7	-42.9	-35.5	-28.1	-22.4	-15.6	-1.9	11.8	18.6	24.3	31.7	39.1	45.9
450	21549	-53.8	-46.4	-38.4	-30.3	-24.1	-16.7	-1.8	13.1	20.5	26.7	34.8	42.8	50.2
400	24390	-59.2	-51.1	-42.2	-33.4	-26.5	-18.4	-1.9	14.6	22.7	29.6	38.4	47.	55.4
350	27513	-64.1	-55.2	-45.5	-35.8	-28.2	-19.3	-1.2	16.9	25.8	33.4	43.1	52.6	61.7
300	31017	-69.8	-60.6	-49.3	-38.7	-30.4	-20.6	-0.9	19.0	28.8	37.1	47.7	58.4	68.2
250	35013	-73.0	-62.6	-51.3	-40.0	-31.2	-20.8	.2	21.2	31.6	40.4	51.7	63.0	73.4
200	39741	-68.0	-58.1	-47.3	-36.5	-28.1	-18.2	1.9	22.0	31.9	40.3	51.1	61.9	71.8
175	42507	-59.1	-50.3	-40.7	-31.1	-23.6	-14.8	3.1	21.0	29.8	37.3	46.9	56.5	65.3
150	45666	-50.6	-43.0	-34.7	-26.4	-19.9	-12.3	3.2	18.7	26.3	32.8	41.1	49.4	57.0
125	49360	-40.6	-34.6	-28.0	-21.4	-16.3	-10.3	2.0	14.3	20.3	25.4	32.0	38.6	44.6
100	53839	-30.8	-26.3	-21.4	-16.6	-12.8	-8.3	.7	9.7	14.2	18.0	22.8	27.7	32.2
80	58314	-23.5	-20.2	-16.6	-13.0	-10.2	-6.9	-0.2	6.5	9.8	12.6	16.2	19.8	23.1
70	61047	-20.2	-17.4	-14.4	-11.4	-9.0	-6.2	-0.4	5.0	7.8	10.2	13.2	16.2	19.0

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 56. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: Winter

NO. OBSERVATIONS -- SURFACE = 788, TOP = 454

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	.4	2.3	4.5	9.1	13.7	15.9	17.8	20.3	22.7	24.9
1000	518	0	0	0	0	1.7	4.4	9.8	15.2	17.9	20.2	23.1	26.0	28.7
950	1929	0	0	0	0	1.8	4.9	11.2	17.5	20.6	23.2	26.6	30.0	33.1
900	409	0	0	0	.6	2.5	5.4	11.3	17.2	20.1	22.6	25.7	28.9	31.8
850	57	0	0	0	1.8	4.0	6.6	11.8	17.0	19.6	21.8	24.6	27.4	30.0
800	518	0	0	.3	3.4	5.9	8.8	14.7	20.6	23.5	26.0	29.1	32.3	35.2
750	8314	0	0	1.0	4.8	7.8	11.3	18.5	25.7	29.2	32.2	36.0	39.9	43.4
700	10128	0	0	1.2	5.7	9.2	13.3	21.7	30.1	34.2	37.7	42.2	46.7	50.8
650	12044	0	0	1.4	6.6	10.6	15.3	24.9	34.5	39.2	43.2	48.4	53.5	58.2
600	14117	0	0	1.2	7.0	11.6	17.0	27.9	38.8	44.2	48.8	54.6	60.5	65.9
550	16372	0	0	2.8	9.1	13.9	19.6	31.2	42.8	48.5	53.3	59.6	65.8	71.5
500	18891	0	0	2.8	9.8	15.3	21.7	34.8	47.9	54.3	59.8	66.8	73.8	80.2
450	21743	0	0	4.4	11.8	17.6	24.4	38.3	52.2	59.0	64.8	72.2	79.7	86.5
400	24958	0	0	4.5	12.8	19.3	27.0	42.5	58.0	65.7	72.2	80.5	88.9	96.6
350	27546	0	0	6.0	14.9	21.9	30.1	46.8	63.5	71.7	78.7	87.6	96.6	104.8
300	30594	0	0	7.6	17.3	24.8	33.6	51.4	69.6	78.4	85.9	95.6	105.2	114.0
250	34521	0	1.6	11.5	21.3	29.0	38.0	56.4	74.8	83.8	91.5	101.3	111.2	120.2
200	39177	0	3.3	12.8	22.4	29.8	38.5	56.3	74.1	82.8	90.2	99.8	109.3	118.0
175	41936	0	6.4	14.6	22.9	29.3	36.9	52.2	67.5	75.1	81.5	89.8	98.0	105.6
150	45098	1.1	7.8	15.1	22.3	28.0	34.7	46.2	41.7	68.4	74.1	81.3	88.6	95.3
125	48819	3.3	8.7	14.6	20.6	25.2	30.6	41.7	52.8	58.2	62.8	68.8	74.7	80.1
100	53317	1.9	6.3	11.1	15.8	19.5	23.9	32.7	41.5	45.9	49.6	54.3	59.1	63.5
80	57785	0	2.5	6.4	10.2	13.2	16.7	23.9	31.1	34.6	37.6	41.4	45.3	48.8
70	60456	0	.8	4.1	7.4	10.0	13.0	19.2	25.4	28.4	31.0	34.3	37.6	40.6

Table 57. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California: Winter

NO. OBSERVATIONS -- SURFACE = 788. TOP = 454

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-19.4	-16.9	-14.1	-11.4	-9.2	-6.7	-1.5	3.7	6.2	8.4	11.1	13.9	16.4
1000	516	-23.8	-20.9	-17.7	-14.5	-12.0	-9.1	-3.1	2.9	5.8	8.3	11.5	14.7	17.6
950	1929	-29.4	-25.8	-21.8	-17.9	-14.8	-11.2	-3.8	3.6	7.2	10.3	14.2	18.2	21.8
900	3409	-27.4	-23.8	-19.8	-15.9	-12.8	-9.2	-1.8	5.6	9.2	12.3	16.2	20.2	23.8
850	4957	-24.1	-20.6	-16.7	-12.9	-9.9	-6.4	.8	8.0	11.5	14.5	18.3	22.2	25.7
800	6598	-23.4	-19.5	-15.3	-11.1	-7.8	-3.9	3.9	11.7	15.6	18.9	23.1	27.3	31.2
750	8314	-23.4	-19.0	-14.2	-9.5	-5.8	-1.4	7.4	16.2	20.6	24.3	29.0	33.8	38.2
700	10128	-23.5	-18.7	-13.4	-8.2	-4.1	.7	10.5	20.3	25.1	29.2	34.4	39.7	44.5
650	12064	-24.6	-19.2	-13.3	-7.5	-2.9	2.5	13.4	24.3	29.7	34.3	40.1	46.0	51.4
600	14117	-26.6	-20.6	-14.1	-7.5	-2.5	3.5	15.6	27.7	33.7	38.8	45.3	51.8	57.8
550	16322	-26.7	-20.3	-13.3	-6.3	-0.9	5.5	18.5	31.5	37.9	43.3	50.3	57.3	63.7
500	18691	-28.9	-21.7	-13.9	-6.1	-0.0	7.2	21.7	36.2	43.4	49.5	57.3	65.1	72.3
450	21263	-32.4	-24.4	-15.7	-7.0	-0.3	7.7	23.8	39.9	47.9	54.6	63.3	72.0	80.0
400	24058	-35.8	-26.9	-17.2	-7.5	-0.0	8.9	26.9	44.9	53.8	61.3	71.0	80.7	89.6
350	27146	-38.4	-28.7	-18.1	-7.5	.7	10.4	30.1	49.8	59.5	67.7	78.3	88.9	98.6
300	30594	-39.3	-28.9	-17.6	-6.3	2.5	12.9	33.9	54.9	65.3	74.1	85.4	96.7	107.1
250	34521	-36.0	-25.3	-13.7	-2.0	7.0	17.7	39.3	60.9	71.6	80.6	92.3	103.9	114.6
200	39177	-25.8	-16.0	-5.3	5.3	13.6	23.4	43.2	63.0	72.8	81.1	91.7	102.4	112.2
175	41936	-18.6	-10.0	-0.6	8.8	16.1	24.7	42.2	59.7	68.3	75.6	85.0	94.4	103.0
150	45038	-13.4	-5.9	2.3	10.5	16.9	24.4	39.7	55.0	62.5	68.9	77.1	85.3	92.8
125	48819	-9.7	-3.4	3.5	10.4	15.8	22.1	35.0	47.9	54.2	59.6	66.5	73.4	79.7
100	53317	-10.3	-5.0	.8	6.6	11.1	16.4	27.2	38.0	43.3	47.8	53.6	59.4	64.7
80	57785	-12.8	-8.3	-3.4	1.4	5.2	9.7	18.7	27.7	32.2	36.0	40.8	45.7	50.2
70	60456	-14.2	-10.2	-5.8	-1.5	1.9	5.9	14.6	23.1	26.1	29.5	33.8	38.2	42.2

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 58. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California Winter

NO. OBSERVATIONS -- SURFACE = 788. TOP = 454

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-20.7	-18.3	-15.7	-13.1	-11.1	-8.7	-3.9	.9	3.3	5.3	7.9	10.5	12.9
1000	518	-21.7	-19.2	-16.5	-13.7	-11.6	-9.1	-4.0	1.1	3.6	5.7	8.5	11.2	13.7
950	1939	-22.5	-19.9	-17.0	-14.1	-11.9	-9.3	-3.9	1.5	4.1	6.3	9.2	12.1	14.7
900	3469	-22.9	-20.1	-17.1	-14.1	-11.7	-8.9	-3.7	2.3	5.1	7.5	10.5	13.5	16.3
850	4957	-23.3	-20.3	-17.2	-14.0	-11.6	-8.7	-2.9	2.9	5.8	8.2	11.4	14.5	17.6
800	6588	-29.9	-26.2	-22.2	-18.1	-15.0	-11.3	-3.8	3.7	7.4	10.5	14.6	18.6	22.3
750	8314	-38.2	-33.6	-28.6	-23.5	-19.6	-15.0	-5.6	3.8	8.6	12.3	17.4	22.4	27.0
700	10128	-44.1	-38.8	-33.0	-27.1	-22.6	-17.3	-6.6	4.5	9.8	14.3	20.2	26.0	31.3
650	12044	-49.2	-43.3	-36.9	-30.4	-25.4	-19.5	-7.5	4.5	10.6	15.6	21.9	28.3	34.2
600	14117	-55.3	-48.6	-41.3	-34.1	-28.4	-21.7	-8.2	5.3	12.0	17.7	24.9	32.2	38.9
550	16322	-59.7	-52.5	-44.7	-36.9	-30.8	-23.6	-9.1	5.4	12.6	18.7	26.5	34.3	41.5
500	18691	-64.8	-56.9	-48.3	-39.8	-33.1	-25.2	-9.3	6.6	14.5	21.2	29.7	38.3	46.2
450	21263	-69.2	-60.8	-51.7	-42.5	-35.4	-27.0	-10.0	7.0	15.4	22.5	31.7	40.8	49.2
400	24058	-75.9	-66.7	-56.7	-46.6	-38.8	-29.6	-10.9	7.8	17.0	24.8	34.9	44.9	54.1
350	27144	-81.7	-71.7	-60.8	-49.8	-41.3	-31.3	-10.9	9.5	19.5	28.0	39.0	49.9	59.9
300	30594	-89.5	-78.5	-66.5	-54.5	-45.2	-34.2	-11.9	10.4	21.6	30.7	42.7	54.7	65.7
250	34521	-93.1	-81.7	-69.3	-56.9	-47.3	-35.9	-12.9	10.1	21.5	31.1	43.5	55.9	67.3
200	39177	-85.4	-74.9	-63.5	-52.1	-43.2	-32.7	-11.5	9.7	20.2	29.1	40.5	51.9	62.4
175	41936	-71.1	-62.4	-52.9	-43.5	-36.1	-27.4	-9.8	7.8	16.5	23.9	33.3	42.8	51.5
150	45038	-63.9	-56.0	-47.4	-38.9	-32.2	-24.3	-8.4	7.5	15.4	22.1	30.6	39.2	47.1
125	48819	-51.4	-45.2	-38.4	-31.7	-26.4	-20.2	-7.4	5.0	11.2	16.5	23.2	30.0	36.2
100	53317	-40.0	-35.1	-29.8	-24.5	-20.4	-15.5	-5.7	4.1	9.0	13.1	18.4	23.7	28.6
80	57785	-31.7	-28.0	-24.0	-20.0	-16.9	-13.2	-5.8	1.6	5.3	8.4	12.6	16.4	20.1
70	60456	-26.8	-23.7	-20.3	-16.9	-14.3	-11.2	-4.9	1.4	4.5	7.1	10.5	13.9	17.0

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 59. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: Spring

NO. OBSERVATIONS -- SURFACE = 813. TOP = 477

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	.3	1.9	3.8	7.8	11.4	13.3	14.9	16.9	19.0	20.9
1000	453	0	0	0	0	1.6	3.6	7.8	12.0	14.0	15.7	18.0	20.2	22.2
950	1873	0	0	0	0	1.2	3.4	7.9	12.4	14.6	16.5	18.9	21.3	23.5
900	3356	0	0	0	.1	1.9	4.0	8.3	12.6	14.7	16.5	18.8	21.1	23.2
850	4918	0	0	0	2.2	4.0	6.1	10.5	14.9	17.0	18.8	21.2	23.5	25.6
800	6562	0	0	1.3	4.0	6.1	8.6	13.6	18.6	21.1	23.2	25.9	28.6	31.1
750	8301	0	0	.7	4.2	7.0	10.3	16.9	23.5	26.8	29.6	33.1	36.7	40.0
700	10128	0	0	.5	4.8	8.1	12.0	20.0	28.0	31.9	35.2	39.5	43.8	47.7
650	12073	0	0	0	5.1	9.0	13.7	23.1	32.5	37.2	41.1	46.2	51.3	56.0
600	14140	0	0	0	5.7	10.2	15.5	26.3	37.1	42.4	46.9	52.7	58.5	63.8
550	16355	0	0	.4	6.9	11.9	17.8	29.9	42.0	47.9	52.9	59.4	65.9	71.8
500	18737	0	0	1.2	8.2	13.6	20.8	32.9	45.8	52.2	57.6	64.6	71.5	77.9
450	21319	0	0	1.3	8.9	14.9	21.9	36.2	50.5	57.5	63.5	71.1	78.8	85.8
400	24127	0	0	2.3	10.6	17.1	24.8	40.3	55.8	63.5	70.0	78.3	86.7	94.4
350	27208	0	0	4.1	12.8	19.6	27.6	43.8	60.0	68.0	74.8	83.5	92.2	100.2
300	30649	0	0	6.4	15.6	22.7	31.1	48.2	65.3	73.7	80.8	90.0	99.2	107.6
250	34623	0	0	8.4	18.1	25.6	34.5	52.5	70.5	79.4	86.9	96.6	106.3	115.2
200	39285	0	2.3	11.6	20.8	28.0	36.5	53.7	70.9	79.4	86.6	95.8	105.1	113.6
175	42037	0	4.8	12.9	21.1	27.4	34.9	50.0	65.1	72.6	78.9	87.1	95.2	102.7
150	45210	.1	5.6	13.7	20.9	26.4	32.9	46.2	59.5	66.0	71.5	78.7	85.8	92.3
125	48953	1.9	7.2	13.0	18.8	23.3	28.6	39.4	50.2	55.5	60.0	65.8	71.6	76.9
100	53501	.4	4.6	9.2	13.6	17.4	21.6	30.2	38.8	43.0	46.6	51.2	55.8	60.8
80	58035	0	0	2.7	6.5	9.5	13.0	20.2	27.4	30.9	33.9	37.7	41.6	45.1
70	60745	0	0	.2	3.5	6.0	9.0	15.1	21.2	24.2	26.7	30.0	33.3	36.3

Table 6J. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California Spring

NO. OBSERVATIONS -- SURFACE = 813. TOP = 477

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-15.0	-12.6	-9.9	-7.3	-5.2	-2.8	2.2	7.2	9.6	11.7	14.3	17.0	19.4
1000	453	-17.1	-14.5	-11.6	-8.7	-6.5	-3.9	1.5	6.9	9.5	11.7	14.6	17.5	20.1
950	1873	-20.1	-17.2	-14.1	-10.9	-8.5	-5.6	.2	6.0	8.9	11.3	14.5	17.6	20.5
900	3356	-18.7	-15.9	-12.9	-9.9	-7.5	-4.7	.9	6.5	9.3	11.7	14.7	17.7	20.5
850	4918	-19.2	-16.1	-12.8	-9.6	-6.8	-3.7	2.5	8.7	11.8	14.4	17.8	21.1	24.2
800	6562	-20.0	-16.5	-12.7	-8.9	-5.9	-2.4	4.7	11.8	15.3	18.3	22.1	25.9	29.4
750	8301	-22.0	-17.8	-13.3	-8.7	-5.2	-1.0	7.4	15.8	20.0	23.5	28.1	32.6	36.8
700	10128	-22.7	-18.0	-12.9	-7.7	-3.7	1.0	10.6	20.2	24.9	28.9	34.1	39.2	43.9
650	12073	-23.	-18.5	-12.8	-7.1	-2.6	2.6	13.1	24.0	29.2	33.7	39.4	45.1	50.3
600	14140	-24.5	-18.7	-12.6	-6.1	-1.2	4.6	16.3	28.0	33.8	38.7	45.0	51.3	57.1
550	16355	-26.2	-19.7	-12.6	-5.5	-0.0	6.5	19.7	32.9	39.6	44.9	52.0	59.1	65.6
500	18737	-26.9	-19.9	-12.3	-4.7	1.2	8.2	22.1	36.6	43.6	49.3	56.9	64.5	71.5
450	21319	-30.0	-22.2	-13.7	-5.2	1.4	9.2	25.0	40.8	48.6	55.2	63.7	72.2	80.0
400	24127	-32.7	-24.1	-14.7	-5.4	1.9	10.5	27.9	45.3	53.9	61.2	70.5	79.9	88.5
350	27208	-32.3	-23.3	-13.5	-3.7	3.9	12.9	31.1	49.3	58.3	65.9	75.7	85.5	94.5
300	30669	-32.3	-23.2	-12.7	-2.2	5.9	15.5	35.0	54.5	64.1	72.2	82.7	93.2	102.8
250	34623	-27.4	-17.8	-7.3	3.2	11.3	20.9	40.4	59.9	69.5	77.6	88.1	98.6	108.2
200	39285	-19.2	-10.2	-0.3	9.5	17.2	26.2	44.6	63.0	72.0	79.7	89.5	99.4	108.4
175	42037	-15.1	-6.9	2.0	11.0	17.9	26.1	42.7	59.3	67.5	74.4	83.4	92.3	100.5
150	45210	-5.2	1.3	8.4	15.6	21.1	27.6	40.9	54.2	60.7	66.2	73.4	80.5	87.0
125	48953	-3.0	2.4	8.3	14.2	18.8	24.2	35.2	46.2	51.6	56.2	62.1	68.0	73.4
100	53501	-3.6	.7	5.4	10.1	13.4	18.1	26.9	35.7	40.0	43.7	48.4	53.1	57.4
80	58035	-8.9	-5.2	-1.1	2.9	6..	9.8	17.6	25.0	28.7	31.9	35.9	40.0	43.7
70	60745	-12.0	-8.6	-4.9	-1.2	1.7	5.1	12.0	18.9	22.3	25.2	28.9	32.6	36.0

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 61. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California: Spring

NO. OBSERVATIONS -- SURFACE = 813. TOP = 477

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)											
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-12.9	-11.1	-9.1	-7.1	-5.5	-3.7	.1	3.9	5.7	7.3	9.3	11.3	13.1
1000	453	-13.8	-11.9	-9.8	-7.8	-6.2	-4.3	-0.5	3.3	5.2	6.8	8.8	10.9	12.8
950	1873	-13.4	-11.5	-9.4	-7.4	-5.8	-3.9	-0.1	3.7	5.6	7.2	9.3	11.3	13.2
900	3356	-15.2	-13.3	-11.2	-9.1	-7.4	-5.5	-1.5	2.5	4.4	6.1	8.2	10.3	12.2
850	4918	-19.5	-17.1	-14.4	-11.8	-9.7	-7.3	-2.3	2.7	5.1	7.2	9.8	12.5	14.9
800	6562	-26.2	-22.9	-19.3	-15.8	-13.0	-9.7	-3.1	3.5	6.8	9.6	13.1	16.7	20.0
750	8301	-33.0	-28.8	-24.2	-19.7	-16.1	-11.9	-3.4	5.1	9.3	12.9	17.4	22.0	26.2
700	10128	-37.2	-32.4	-27.1	-21.9	-17.8	-13.0	-3.2	6.6	11.4	15.5	20.7	26.0	30.8
650	12073	-43.0	-37.4	-31.2	-25.1	-20.3	-14.7	-3.2	8.3	13.9	18.7	24.8	31.0	36.6
600	14140	-48.0	-41.7	-34.8	-27.9	-22.5	-16.2	-3.3	9.6	15.9	21.3	28.2	35.1	41.4
550	16355	-51.3	-44.5	-37.0	-29.6	-23.8	-17.0	-3.1	10.8	17.6	23.4	30.8	38.3	45.1
500	18737	-55.2	-47.7	-39.6	-31.4	-25.1	-17.6	-2.5	12.6	20.1	26.4	34.6	42.7	50.2
450	21319	-59.0	-51.0	-42.3	-33.6	-26.9	-18.9	-2.8	13.3	21.3	28.0	36.7	45.4	53.4
400	24127	-64.3	-55.6	-46.1	-36.6	-29.2	-20.5	-2.8	14.9	23.6	31.0	40.5	50.0	58.7
350	27208	68.2	-58.9	-48.7	-38.6	-30.7	-21.4	-2.5	16.4	25.7	33.6	43.7	53.9	63.2
300	30649	-72.8	-62.9	-52.1	-41.4	-33.0	-23.1	-3.1	16.9	26.8	35.2	45.9	56.7	66.6
250	34623	-75.8	-65.4	-54.1	-42.7	-33.9	-23.5	-2.4	18.7	29.1	37.9	49.3	60.6	71.0
200	39285	-67.5	-58.1	-47.9	-37.7	-29.7	-20.3	-1.3	17.7	27.1	35.1	45.3	55.5	64.9
175	42037	-54.3	-46.4	-37.8	-29.3	-22.6	-14.7	1.2	17.1	25.0	31.7	40.2	48.8	56.7
150	45210	-46.9	-39.9	-32.3	-24.6	-18.7	-11.7	2.5	16.7	23.7	29.6	37.3	44.9	51.9
125	48953	-37.2	-31.5	-25.3	-19.1	-14.3	-8.6	2.9	14.4	20.1	24.9	31.1	37.3	43.0
100	53501	-27.9	-23.6	-18.9	-14.2	-10.5	-6.2	2.6	11.4	15.7	19.4	24.1	28.8	33.1
80	58035	-20.2	-17.1	-13.7	-10.3	-7.6	-4.5	1.9	8.3	11.4	14.1	17.5	20.9	24.0
70	60745	-16.1	-13.6	-10.8	-8.1	-5.9	-3.4	1.8	7.0	9.5	11.7	14.4	17.2	19.7

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 62. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, Califo[illegible] Summer

NO. OBSERVATIONS -- SURFACE = 751. TOP = 495

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	.9	2.0	3.4	6.1	8.8	10.2	11.3	12.9	14.3	15.7
1000	39.	0	0	0	0	1.0	2.3	5.0	7.7	9.0	10.1	11.6	13.0	14.3
950	1841	0	0	0	.2	1.3	2.6	5.1	7.6	8.9	10.0	11.3	12.7	14.[illegible]
900	3356	0	0	0	0	0	1.7	5.6	9.5	11.4	13.0	15.1	17.2	19.1
850	4974	0	0	0	1.1	2.5	4.1	7.4	10.7	12.3	13.7	15.4	1[illegible].2	18.8
800	6677	0	0	0	1.9	3.5	5.3	9.1	12.9	14.7	16.3	18.3	20.3	22.1
750	8476	0	0	0	2.1	4.1	6.4	11.1	15.8	18.1	20.1	22.6	25.1	27.4
700	10357	0	0	1	2.9	5.0	7.5	12.6	17.7	20.2	22.3	25.1	27.8	30.3
650	12379	0	0	0	2.9	5.3	8.1	13.9	19.7	22.5	24.[illegible]	28.0	31.1	33.9
600	14511	0	0	0	2.4	5.2	8.5	15.2	21.9	25.2	28.0	31.6	35.2	38.5
550	16791	0	0	0	1.6	4.8	8.6	16.2	23.8	27.6	30.8	34.9	39.0	42.8
500	19249	0	0	0	1.6	5.2	9.4	17.9	26.4	30.6	34.2	38.7	43.3	47.5
450	21916	0	0	0	1.9	5.9	10.7	20.3	29.9	34.7	38.7	43.9	49.1	53.9
400	24816	0	0	0	2.0	6.5	11.8	22.6	33.4	38.7	43.2	49.0	54.8	60.1
350	28002	0	0	0	2.9	7.9	13.8	25.8	37.8	43.7	48.7	55.2	61.6	67.5
300	31588	0	0	0	5.0	10.4	16.8	29.8	42.8	49.2	54.6	61.6	68.6	75.0
250	35666	0	0	1.9	9.1	14.8	21.5	35.0	48.5	55.2	60.9	68.1	75.4	82.1
200	40463	0	0	5.8	13.0	18.6	25.2	38.6	52.0	58.6	64.2	71.4	78.6	85.2
175	43245	0	0	5.7	12.7	18.1	24.5	37.4	50.3	56.7	62.1	69.1	76.0	82.4
150	46348	0	0	4.5	10.5	15.2	20.7	31.9	43.1	48.6	53.3	59.3	65.3	70.8
125	50039	0	0	2.5	7.0	10.6	14.8	23.3	31.8	36.0	39.6	44.1	48.7	52.9
100	54449	0	0	0	2.9	5.3	8.1	13.8	19.5	22.3	24.7	27.7	30.8	33.6
80	58930	0	0	1.6	3.7	5.3	7.2	11.1	15.0	16.9	18.5	20.6	22.7	24.6
70	61631	0	0	1.6	3.9	5.6	7.6	11.8	16.0	18.0	19.7	22.0	24.2	26.2

Table 63. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California: Summer

NO. OBSERVATIONS -- SURFACE = 751. TOP = 495

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-10.0	-8.2	-6.3	-4.3	-2.8	-1.0	2.6	6.2	8.0	9.5	11.5	13.4	15.2
1000	394	-10.4	-8.7	-6.9	-5.0	-3.6	-1.9	1.5	4.9	6.6	8.0	9.9	11.7	13.4
950	1841	-12.6	-10.9	-9.1	-7.2	-5.8	-4.1	-0.7	2.7	4.4	5.8	7.7	9.5	11.2
900	3356	-15.5	-13.2	-10.7	-8.2	-6.2	-3.9	-.8	5.5	7.8	9.8	12.3	14.8	17.1
850	4974	-13.7	-11.4	-8.9	-6.4	-4.5	-2.2	2.4	7.0	9.3	11.2	13.7	16.2	18.5
800	6677	-13.8	-11.4	-8.7	-6.1	-4.0	-1.6	3.4	8.4	10.8	12.9	15.5	18.2	20.6
750	8474	-16.4	-13.5	-10.3	-7.2	-4.7	-1.8	4.1	10.0	12.9	15.4	18.5	21.7	24.6
700	10367	-19.6	-16.2	-12.5	-8.8	-5.9	-2.5	4.4	11.3	14.7	17.6	21.3	25.0	28.4
650	12379	-21.7	-17.9	-13.8	-9.7	-6.5	-2.7	4.9	12.5	16.3	19.5	23.6	27.7	31.5
600	14511	-23.9	-19.7	-15.1	-10.6	-7.0	-2.8	5.7	14.2	18.4	22.0	26.5	31.1	35.3
550	16791	-25.3	-20.7	-15.7	-10.8	-6.9	-2.3	6.9	16.1	20.7	24.6	29.5	34.5	39.1
500	19249	-27.2	-22.2	-16.7	-11.3	-7.0	-2.0	8.2	18.4	23.4	27.7	33.1	38.6	43.6
450	21916	-28.9	-23.4	-17.4	-11.3	-6.6	-1.1	10.2	21.5	27.0	31.7	37.8	43.8	49.3
400	24816	-29.7	-23.7	-17.2	-10.7	-5.6	.4	12.5	24.6	30.6	35.7	42.2	48.7	54.7
350	28002	-29.9	-23.6	-16.7	-9.8	-4.4	1.9	14.8	27.7	34.0	39.4	46.3	53.2	59.5
300	31588	-30.7	-23.8	-16.3	-8.8	-3.0	3.9	17.8	31.7	38.6	44.4	51.9	59.4	66.3
250	35666	-30.8	-23.4	-15.4	-7.3	-1.1	6.3	21.2	36.1	43.5	49.7	57.8	65.8	73.2
200	40463	-29.7	-22.2	-14.0	-5.9	.5	8.0	23.2	38.4	45.9	52.3	60.4	68.6	76.1
175	43245	-25.4	-18.5	-11.0	-3.5	2.3	9.2	23.1	37.0	43.9	49.7	57.2	64.7	71.6
150	46388	-21.7	-15.8	-9.4	-2.9	2.1	8.0	20.0	32.0	37.9	42.9	49.4	55.8	61.7
125	50039	-22.0	-17.0	-11.5	-6.0	-1.7	3.3	13.6	23.9	28.9	33.2	38.7	44.2	49.2
100	54469	-23.3	-19.5	-15.4	-11.2	-8.0	-4.2	3.5	11.2	15.0	18.2	22.4	26.5	30.3
80	58930	-24.9	-22.1	-19.0	-15.9	-13.5	-10.7	-4.9	.9	3.7	6.1	9.2	12.3	15.1
70	61631	-26.6	-24.1	-21.4	-18.6	-16.5	-14.0	-8.9	-3.8	-1.3	.8	3.6	6.3	8.8

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 54. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California. Summer

NO. OBSERVATIONS -- SURFACE = 751. TOP = 495

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-9.3	-7.9	-6.4	-4.9	-3.7	-2.3	.5	3.3	4.7	5.9	7.4	8.9	10.3
1000	394	-7.8	-6.6	-5.3	-4.0	-3.0	-1.8	.6	3.0	4.2	5.2	6.5	7.8	9.0
950	1841	-7.3	-6.1	-4.8	-3.5	-2.5	-1.3	1.1	3.5	4.7	5.7	7.0	8.3	9.5
900	3356	-9.4	-8.0	-6.5	-5.0	-3.9	-2.5	.2	2.9	4.3	5.4	6.9	8.4	9.8
850	4974	-12.0	-10.4	-8.6	-6.8	-5.4	-3.8	-0.4	2.9	4.6	6.0	7.8	9.6	11.3
800	6677	-15.9	-13.6	-11.1	-8.6	-6.7	-4.4	.2	4.8	7.1	9.0	11.5	14.0	16.3
750	8474	-18.1	-15.3	-12.2	-9.1	-6.7	-3.9	1.9	7.7	10.5	12.9	16.0	19.1	21.9
700	10367	-17.7	-14.7	-11.5	-8.2	-5.7	-2.7	3.3	9.3	12.3	14.8	18.1	21.3	24.3
650	12379	-18.8	-15.6	-12.1	-8.5	-5.8	-2.6	4.0	10.6	13.8	16.5	20.1	23.6	26.8
600	14511	-20.9	-17.3	-13.4	-9.5	-6.5	-2.9	4.3	11.5	15.1	18.1	22.0	25.9	29.5
550	16791	-22.5	-18.7	-14.5	-10.3	-7.1	-3.3	4.5	12.3	16.1	19.3	23.5	27.7	31.5
500	19249	-25.0	-20.8	-16.2	-11.7	-8.1	-3.9	4.6	13.1	17.3	20.9	25.4	30.0	34.2
450	21916	-27.7	-23.0	-17.9	-12.8	-8.8	-4.1	5.4	14.9	19.6	23.6	28.7	33.8	38.5
400	24816	-31.1	-25.9	-20.2	-14.5	-10.0	-4.8	5.9	16.6	21.8	26.3	32.0	37.7	42.9
350	28002	-34.9	-28.9	-22.3	-15.7	-10.6	-4.6	7.7	20.0	26.0	31.1	37.7	44.3	50.3
300	31588	-37.2	-30.5	-23.2	-15.9	-10.2	-3.5	10.1	23.7	30.4	36.1	43.4	50.7	57.4
250	35666	-37.8	-30.5	-22.5	-14.5	-8.3	-1.0	13.9	28.8	36.1	42.3	50.3	58.3	65.6
200	40463	-37.2	-29.5	-21.1	-12.7	-6.2	1.5	17.1	32.7	40.4	46.9	55.3	63.7	71.4
175	43245	-34.8	-27.4	-19.3	-11.3	-5.0	2.4	17.4	32.4	39.8	46.1	54.1	62.2	69.6
150	46388	-28.1	-22.0	-15.3	-8.6	-3.4	2.7	15.2	27.7	33.8	39.0	45.7	52.4	58.5
125	50039	-20.3	-15.9	-11.1	-6.4	-2.7	1.7	10.5	19.3	23.7	27.4	32.1	36.9	41.3
100	54469	-16.1	-13.0	-9.7	-6.3	-3.7	-0.6	5.4	11.8	14.9	17.5	20.9	24.2	27.3
80	58930	-12.2	-10.0	-7.6	-5.1	-3.2	-1.0	3.6	8.2	10.4	12.3	14.8	17.2	19.4
70	61691	-11.9	-9.9	-7.7	-5.5	-3.8	-1.8	2.3	6.4	8.4	10.1	12.3	14.5	16.5

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 65. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: Autumn

NO. OBSERVATIONS -- SURFACE = 784, TOP = 543

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	0	1.5	3.3	7.0	10.7	12.5	14.0	16.0	18.0	19.8
1000	423	0	0	0	0	.4	2.5	6.8	11.1	13.2	15.0	17.3	19.6	21.7
950	1870	0	0	0	0	.2	2.8	8.1	13.4	16.0	18.2	21.1	23.9	26.5
900	3383	0	0	0	0	1.2	3.6	8.6	13.6	16.0	18.1	20.7	23.4	25.8
850	4977	0	0	0	1.5	3.4	5.6	10.2	14.8	17.0	18.9	21.4	23.8	26.0
800	6654	0	0	.7	3.2	5.2	7.5	12.3	17.1	19.4	21.4	23.9	26.5	28.8
750	8425	0	0	1.0	3.9	6.2	8.9	14.4	19.9	22.6	24.9	27.8	30.8	33.5
700	10285	0	0	.8	4.2	6.8	9.9	16.1	22.3	25.4	28.0	31.4	34.7	37.8
650	12267	0	0	.8	4.6	7.6	11.1	18.2	25.3	28.8	31.8	35.6	39.4	42.9
600	14377	0	0	.2	4.5	7.9	11.9	20.0	28.1	32.1	35.5	39.8	44.2	48.2
550	16627	0	0	.1	5.0	8.8	13.3	22.4	31.5	36.0	39.8	44.7	49.6	54.1
500	19052	0	0	.6	6.0	10.1	15.0	24.9	34.8	39.7	43.8	49.2	54.5	59.4
450	21683	0	0	.8	6.7	11.3	16.7	27.7	38.7	44.1	48.7	54.6	60.5	65.9
400	24544	0	0	1.0	7.6	12.8	18.9	31.3	43.7	49.8	55.0	61.6	68.3	74.4
350	27684	0	0	1.9	9.3	15.0	21.8	35.5	49.2	56.0	61.7	69.1	76.5	83.3
300	31214	0	0	2.9	11.2	17.7	25.4	40.9	56.4	64.1	70.6	78.9	87.3	95.0
250	35240	0	0	3.7	12.7	19.7	28.0	44.7	61.5	69.7	76.7	85.7	94.7	102.9
200	39997	0	0	4.0	13.1	20.2	28.5	45.5	62.5	70.8	77.9	87.0	96.1	104.4
175	42772	0	0	4.6	13.1	19.7	27.5	43.3	59.1	66.9	73.5	82.0	90.5	98.3
150	45915	0	0	4.1	11.8	17.7	24.7	38.9	53.1	60.1	66.0	73.7	81.3	88.3
125	49583	0	0	3.7	10.0	14.8	20.5	32.1	43.7	49.4	54.2	60.5	66.7	72.4
100	54009	0	0	0	4.8	8.6	13.1	22.1	31.1	35.6	39.4	44.2	49.1	53.6
80	58442	0	0	0	2.5	5.2	8.4	14.8	21.2	24.4	27.1	30.5	34.0	37.2
70	61115	0	0	0	2.3	4.6	7.3	12.7	18.1	20.8	23.1	26.0	28.9	31.6

Table 66. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California: Autumn

NO. OBSERVATIONS -- SURFACE = 784. TOP = 543

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-14.9	-12.0	-10.5	-8.2	-6.4	-4.3	0	4.3	6.4	8.2	10.5	12.8	14.9
1000	423	-16.7	-14.5	-12.1	-9.6	-7.7	-5.5	-0.9	3.7	5.9	7.8	10.3	12.7	14.9
950	1870	-22.7	-19.9	-16.9	-13.9	-11.5	-8.7	-3.1	2.5	5.3	7.7	10.7	13.7	16.5
900	3383	-23.2	-20.4	-17.3	-14.2	-11.8	-9.0	-3.2	2.6	5.4	7.8	10.9	14.0	16.8
850	4977	-23.9	-20.8	-17.4	-14.0	-11.3	-8.2	-1.8	4.6	7.7	10.4	13.8	17.2	20.3
800	6654	-24.6	-21.1	-17.3	-13.5	-10.6	-7.1	-0.1	6.9	10.4	13.3	17.1	20.9	24.4
750	8425	-25.9	-22.0	-17.8	-13.5	-10.2	-6.3	1.6	9.5	13.4	16.7	21.0	25.2	29.1
700	10285	-26.9	-22.6	-17.9	-13.2	-9.6	-5.3	3.4	12.1	16.4	20.0	24.7	29.4	33.7
650	12247	-29.1	-24.2	-18.9	-13.6	-9.5	-4.6	5.2	15.0	19.9	24.0	29.3	34.6	39.5
600	14377	-29.5	-24.3	-18.6	-12.9	-8.5	-3.3	7.3	17.9	23.1	27.5	33.2	38.9	44.1
550	16627	-31.9	-26.0	-19.6	-13.3	-8.3	-2.5	9.4	21.3	27.1	32.1	38.4	44.8	50.6
500	19052	-33.7	-27.3	-20.4	-13.4	-8.0	-1.6	11.3	24.6	30.6	36.0	43.0	49.9	56.3
450	21683	-34.7	-27.9	-20.4	-13.0	-7.2	-0.4	13.5	27.4	34.2	40.0	47.4	54.9	61.7
400	24544	-37.2	-29.6	-21.4	-13.1	-6.7	.9	16.2	31.5	39.1	45.5	53.8	62.0	69.6
350	27684	-40.0	-31.6	-22.5	-13.3	-6.2	2.2	19.2	36.2	44.6	51.7	60.9	70.0	78.4
300	31214	-44.4	-34.8	-24.4	-13.9	-5.8	3.8	23.2	42.6	52.2	60.3	70.8	81.2	90.8
250	35240	-42.8	-32.8	-21.9	-11.0	-2.5	7.5	27.8	48.1	58.1	66.6	77.5	88.4	98.4
200	39997	-37.2	-27.5	-16.9	-6.3	1.9	11.6	31.3	51.0	60.7	68.9	79.5	90.1	99.8
175	42772	-31.4	-22.5	-12.8	-3.1	4.5	13.4	31.5	49.6	58.5	66.1	75.8	85.5	94.4
150	45915	-27.0	-19.0	-10.3	-1.6	5.2	13.2	29.4	45.6	53.6	60.4	69.1	77.8	85.8
125	49583	-21.9	-15.4	-8.3	-1.1	4.4	10.9	24.2	37.5	44.0	49.5	56.7	63.8	70.3
100	54009	-21.6	-16.0	-10.3	-4.7	-0.3	4.9	15.4	25.9	31.1	35.5	41.1	46.8	52.0
80	58442	-20.9	-16.9	-12.3	-7.9	-4.4	-0.3	8.0	16.3	20.4	23.9	28.3	32.8	36.9
70	61115	-23.2	-19.3	-15.1	-10.8	-7.5	-3.6	4.3	12.2	16.1	19.4	23.7	27.9	31.8

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 67. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California: Autumn

NO. OBSERVATIONS -- SURFACE = 784, TOP = 543

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-15.6	-13.6	-11.4	-9.3	-7.6	-5.6	-1.6	2.4	4.4	6.1	8.2	10.4	12.4
1000	423	-15.9	-13.9	-11.7	-9.5	-7.8	-5.8	-1.7	2.4	4.4	6.1	8.3	10.5	12.5
950	1870	-17.2	-15.0	-12.6	-10.2	-8.3	-6.1	-1.6	2.9	5.1	7.0	9.4	11.8	14.0
900	3383	-16.3	-14.2	-11.9	-9.6	-7.8	-5.7	-1.4	2.9	5.0	6.8	9.1	11.4	13.5
850	4977	-17.7	-15.3	-12.7	-10.0	-8.0	-5.6	-0.7	4.2	6.6	8.6	11.3	13.9	16.3
800	6654	-22.6	-19.5	-16.1	-12.7	-10.0	-6.9	-0.5	5.9	9.0	11.7	15.1	18.5	21.6
750	8425	-26.8	-23.0	-18.9	-14.8	-11.5	-7.7	-0.0	7.7	11.5	14.7	18.8	23.0	27.8
700	10285	-30.5	-26.2	-21.6	-16.9	-13.3	-9.0	-0.4	8.2	12.5	16.1	20.8	25.4	29.7
650	12267	-33.5	-28.8	-23.7	-18.6	-14.6	-9.9	-0.4	9.1	13.8	17.8	22.9	28.0	32.7
600	14377	-36.2	-31.1	-25.5	-19.9	-15.6	-10.5	-0.1	10.3	15.4	19.7	25.3	30.9	36.0
550	16627	-39.6	-34.0	-27.9	-21.8	-17.1	-11.5	-0.2	11.1	16.7	21.4	27.5	33.6	39.2
500	19052	-43.0	-36.9	-30.3	-23.7	-18.5	-12.4	-0.1	12.2	18.3	23.5	30.1	36.7	42.8
450	21683	-47.8	-41.0	-33.6	-26.2	-20.4	-13.6	.2	14.0	20.8	26.6	34.0	41.4	48.2
400	24544	-53.7	-46.0	-37.6	-29.3	-22.8	-15.1	.4	15.9	23.6	30.1	38.4	46.8	54.5
350	27684	-59.0	-50.6	-41.2	-31.9	-24.7	-16.2	1.1	18.4	26.9	34.1	43.4	52.7	61.2
300	31214	-65.6	-56.1	-45.7	-35.4	-27.3	-17.8	1.5	20.8	30.3	38.4	48.7	59.1	68.6
250	35240	-69.2	-59.1	-48.1	-37.1	-28.6	-18.5	1.9	22.3	32.4	40.9	51.9	62.9	73.0
200	39997	-65.7	-56.0	-45.5	-34.9	-26.7	-17.0	2.6	22.2	31.9	40.1	50.7	61.2	70.9
175	42772	-60.2	-51.3	-41.6	-31.9	-24.3	-15.4	2.7	20.8	29.7	37.3	47.0	56.7	65.6
150	45915	-49.6	-42.2	-34.1	-26.0	-19.7	-12.3	2.8	17.9	25.3	31.6	39.7	47.8	55.2
125	49583	-42.4	-36.2	-29.4	-22.6	-17.3	-11.1	1.6	14.3	20.5	25.8	32.6	39.4	45.6
100	54009	-32.0	-27.5	-22.6	-17.6	-13.8	-9.3	-0.1	9.1	13.6	17.4	22.4	27.3	31.8
80	58442	-23.0	-19.8	-16.3	-12.9	-10.2	-7.0	-0.6	5.8	9.0	11.7	15.1	18.6	21.8
70	61115	-20.9	-18.2	-15.2	-12.2	-9.9	-7.2	-1.6	4.0	6.7	9.0	12.0	15.0	17.7

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 68. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: January

NO. OBSERVATIONS -- SURFACE = 246, TOP = 173

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	.5	2.4	4.6	9.1	13.6	15.8	17.7	20.1	22.5	24.7
1000	531	0	0	0	0	.6	3.7	9.9	16.1	19.2	21.8	25.2	28.5	31.6
950	1942	0	0	0	0	1.6	4.7	10.9	17.1	20.2	22.8	26.2	29.5	32.6
900	3412	0	0	0	0	2.0	5.0	11.0	17.0	20.0	22.5	25.8	29.0	32.0
850	4961	0	0	.3	2.8	4.7	7.0	11.6	16.2	18.5	20.4	22.9	25.4	27.7
800	6545	0	0	.7	3.6	5.9	8.6	14.1	19.6	22.3	24.6	27.5	30.5	33.2
750	8310	0	0	1.8	5.2	7.9	11.1	17.5	23.9	27.1	29.8	33.2	36.7	39.9
700	10118	0	0	3.3	7.1	10.1	13.6	20.7	27.8	31.3	34.3	38.1	41.9	45.4
650	12047	0	0	3.4	7.9	11.4	15.5	23.9	32.3	36.4	39.9	44.4	48.9	53.0
600	14101	0	0	4.0	9.0	12.9	17.5	26.8	36.1	40.7	44.6	49.6	54.6	59.2
550	16306	0	.1	5.6	11.0	15.3	20.3	30.5	40.7	45.7	50.0	55.4	60.9	65.9
500	18648	0	1.1	7.0	13.0	17.6	23.0	34.1	45.2	50.6	55.2	61.2	67.1	72.5
450	21234	0	1.7	8.2	14.7	19.7	25.6	37.7	49.8	55.7	60.7	67.2	73.7	79.6
400	24019	0	.8	8.3	15.7	21.5	28.3	42.2	56.1	62.9	68.7	76.1	83.6	90.4
350	27116	0	2.7	10.6	18.5	24.7	32.0	46.7	61.4	68.7	74.9	82.8	90.7	98.0
300	30554	0	4.9	13.3	21.6	28.1	35.8	51.3	66.8	74.5	81.0	89.3	97.7	105.4
250	34472	0	4.7	14.1	23.4	30.7	39.3	56.7	74.1	82.7	90.0	99.3	108.7	117.3
200	39111	0	1.0	11.2	21.3	29.2	38.5	57.4	76.3	85.6	93.5	103.6	113.8	123.1
175	41870	0	5.9	14.5	[illegible]	29.8	37.7	53.7	69.7	77.6	84.3	92.9	101.5	109.4
150	45036	0	5.1	13.0	[illegible]	27.0	34.2	48.9	63.6	70.8	76.9	84.8	92.7	99.9
125	48773	0	5.4	12.0	18.6	23.8	29.9	42.2	54.5	60.6	65.8	72.4	79.0	85.1
100	53284	0	4.3	9.3	14.3	18.2	22.8	32.1	41.4	46.0	49.9	54.9	59.9	64.5
80	57762	0	2.7	6.3	10.0	12.8	16.1	22.9	29.7	33.0	35.8	39.5	43.1	46.4
70	60443	0	0	3.3	6.9	9.6	12.8	19.4	26.0	29.2	31.9	35.5	39.0	42.2

Table 69. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California: January

NO. OBSERVATIONS -- SURFACE = 246 TOP = 173

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-18.5	-16.2	-13.7	-11.2	-9.2	-6.9	-2.2	2.5	4.8	6.8	9.3	11.8	14.1
1000	531	-23.7	-20.9	-17.8	-14.8	-12.4	-9.6	-3.9	1.8	4.6	7.0	10.0	13.1	15.9
950	1942	-29.4	-25.8	-21.9	-18.0	-15.0	-11.4	-4.2	3.0	6.6	9.6	13.5	17.4	21.0
900	3412	-27.7	-24.0	-20.0	-16.0	-12.9	-9.2	-1.8	5.6	9.3	12.4	16.4	20.4	24.1
850	4961	-23.9	-20.4	-16.6	-12.8	-9.9	-6.4	.6	7.6	11.1	14.0	17.8	21.6	25.1
800	6585	-23.6	-19.8	-15.6	-11.4	-8.2	-4.4	3.4	11.2	15.0	18.2	22.4	26.6	30.4
750	8310	-24.1	-19.7	-14.9	-10.1	-6.4	-2.0	6.9	15.8	20.2	23.9	28.7	33.5	37.9
700	10118	-23.8	-19.0	-13.8	-8.6	-4.5	.3	10.0	19.7	24.5	28.6	33.8	39.0	43.8
650	12047	-25.8	-20.4	-14.5	-8.5	-3.9	1.5	12.4	23.7	29.1	33.7	39.7	45.6	51.0
600	14101	-27.4	-21.5	-15.1	-8.6	-3.6	2.3	14.3	26.3	32.2	37.2	43.7	50.1	56.0
550	16306	-29.3	-22.7	-15.5	-8.4	-2.8	3.8	17.1	30.4	37.0	42.6	49.7	56.9	63.5
500	18668	-31.7	-24.4	-16.4	-8.4	-2.2	5.1	20.0	34.9	42.2	48.4	56.4	64.4	71.7
450	21234	-36.0	-27.8	-18.9	-10.0	-3.1	5.1	21.6	38.1	46.3	53.2	62.1	71.0	79.2
400	24019	-38.6	-29.6	-19.7	-9.9	-2.2	6.8	25.2	43.6	52.6	60.3	70.1	80.0	89.0
350	27116	-43.0	-32.9	-21.9	-10.9	-2.4	7.7	28.1	48.5	58.6	67.1	78.1	89.1	99.2
300	30556	-44.4	-33.7	-22.1	-10.4	-1.4	9.3	30.9	52.5	63.2	72.2	83.9	95.5	106.2
250	34472	-42.4	-31.2	-19.0	-6.8	2.7	13.9	36.6	59.3	70.5	80.0	92.2	104.4	115.6
200	39111	-31.4	-20.9	-9.5	1.9	10.8	21.3	42.5	63.7	74.2	83.1	95.5	105.9	116.4
175	41870	-23.2	-13.9	-3.8	6.3	14.2	23.5	42.3	61.1	70.4	78.3	88.4	98.5	107.8
150	45036	-17.5	-9.4	-0.6	8.2	15.0	23.1	39.4	55.7	63.8	70.6	79.4	88.2	96.3
125	48773	-12.6	-5.9	1.4	8.8	14.5	21.2	34.9	48.6	55.3	61.6	68.4	75.7	82.4
100	53284	-12.2	-6.8	-0.9	5.1	9.7	15.1	26.2	37.3	42.7	47.3	53.3	59.2	64.6
80	57742	-15.6	-11.0	-6.0	-0.9	3.0	7.6	17.6	26.4	31.0	34.9	40.0	45.0	49.6
70	60463	-19.8	-15.1	-10.0	-4.9	-1.0	3.7	13.1	22.5	27.2	31.1	36.2	41.3	46.0

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 70. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California: January

NO. OBSERVATIONS -- SURFACE = 246. TOP = 173

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-21.7	-19.2	-16.5	-13.8	-11.7	-9.2	-4.2	.8	3.3	5.4	8.1	10.8	13.3
1000	531	-22.4	-19.8	-17.0	-14.2	-12.0	-9.4	-4.2	1.0	3.6	5.8	8.6	11.4	14.0
950	1942	-21.6	-19.1	-16.3	-13.6	-11.4	-8.9	-3.7	1.5	4.0	6.2	8.9	11.7	14.2
900	3412	-22.3	-19.6	-16.6	-13.7	-11.4	-8.7	-3.2	2.3	5.0	7.3	10.2	13.2	15.9
850	4961	-21.2	-18.6	-15.7	-12.8	-10.6	-8.0	-2.6	2.8	5.4	7.6	10.5	13.4	16.0
800	6595	-27.7	-24.3	-20.6	-16.8	-13.9	-10.5	-3.5	3.5	6.9	9.8	13.6	17.3	20.7
750	8310	-33.6	-29.6	-25.2	-20.8	-17.4	-13.4	-5.2	3.0	7.0	10.4	14.8	19.2	23.2
700	10118	-38.8	-34.1	-29.0	-23.9	-20.0	-15.3	-5.9	3.5	8.2	12.1	17.2	22.3	27.0
650	12047	-43.8	-38.6	-32.9	-27.2	-22.7	-17.5	-6.8	3.9	9.1	13.6	19.3	25.0	30.2
600	14101	-50.1	-44.2	-37.7	-31.2	-26.2	-20.3	-8.2	3.9	9.8	14.8	21.3	27.8	33.7
550	16316	-55.5	-49.0	-41.9	-34.9	-29.4	-22.9	-9.8	3.3	9.8	15.3	22.3	29.4	35.9
500	18648	-59.2	-52.2	-44.6	-36.9	-31.0	-24.0	-9.8	4.4	11.4	17.3	25.0	32.6	39.6
450	21234	-65.4	-57.8	-49.5	-41.2	-34.8	-27.2	-11.8	3.6	11.2	17.6	25.9	34.2	41.8
400	24019	-72.5	-64.1	-54.9	-45.7	-38.6	-30.2	-13.1	4.0	12.4	19.5	28.7	37.9	46.3
350	27116	-77.9	-68.7	-58.7	-48.7	-40.9	-31.7	-13.1	5.5	14.7	22.5	32.5	42.5	51.7
300	30554	-87.0	-76.9	-65.9	-54.9	-46.4	-36.3	-15.9	4.5	14.6	23.1	34.1	45.1	55.2
250	34472	-94.5	-83.6	-71.8	-59.9	-50.7	-39.8	-17.8	4.2	15.1	24.3	36.2	48.0	58.9
200	39111	-90.7	-80.1	-68.5	-57.0	-48.0	-37.4	-15.9	5.6	16.2	25.2	36.7	48.3	58.9
175	41870	-75.1	-66.3	-56.7	-47.0	-39.5	-30.7	-12.7	5.3	14.1	21.6	31.3	40.9	49.7
150	45036	-68.3	-60.2	-51.3	-42.5	-35.6	-27.5	-11.0	5.5	13.6	20.5	29.3	38.2	46.3
125	48773	-55.9	-49.3	-42.1	-34.9	-29.3	-22.7	-9.3	4.1	10.7	16.3	23.5	30.7	37.3
100	53284	-41.5	-36.6	-31.2	-25.8	-21.6	-16.6	-6.6	3.4	8.6	12.6	18.0	23.4	28.4
80	57762	-30.1	-26.6	-22.8	-19.0	-16.0	-12.5	-5.4	1.7	5.2	8.2	12.0	15.8	19.3
70	60443	-25.9	-22.8	-19.5	-16.1	-13.5	-10.4	-4.2	2.0	5.1	7.7	11.1	14.4	17.5

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 71. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: February

NO. OBSERVATIONS -- SURFACE = 210, TOP = 143

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	0	1.7	4.0	8.6	13.2	15.5	17.4	19.9	22.4	24.7
1000	531	0	0	0	0	1.1	3.7	9.1	14.5	17.1	19.3	22.2	25.1	27.7
950	1939	0	0	0	0	1.1	4.2	10.5	16.8	19.9	22.5	25.9	29.3	32.4
900	3422	0	0	0	.2	2.4	5.0	10.3	15.6	18.2	20.4	23.3	26.1	28.7
850	4970	0	0	0	1.3	3.3	5.6	10.4	15.2	17.5	19.5	22.0	24.6	26.9
800	6601	0	0	.4	3.3	5.5	8.1	13.4	18.7	21.3	23.5	26.4	29.2	31.8
750	8323	0	0	1.1	4.9	7.8	11.2	18.2	25.2	28.6	31.5	35.3	39.0	42.4
700	10141	0	0	1.0	5.7	9.3	13.6	22.3	31.0	35.3	38.9	43.6	48.3	52.6
650	12070	0	0	.6	5.9	10.1	15.0	25.0	35.0	39.9	44.1	49.4	54.8	59.7
600	14127	0	0	.2	6.3	11.1	16.7	28.2	39.7	45.3	50.1	56.2	62.4	68.0
550	16322	0	0	2.3	8.7	13.6	19.4	31.2	43.0	48.8	53.7	60.1	66.4	72.2
500	18694	0	0	3.1	9.9	15.2	21.4	34.1	46.8	53.0	58.3	65.1	71.9	78.1
450	21250	0	0	6.3	13.2	18.5	24.8	37.6	50.4	56.7	62.0	68.9	75.8	82.1
400	24039	0	1.1	8.3	15.5	21.1	27.7	41.1	54.5	61.1	66.7	73.9	81.1	87.7
350	27116	0	0	8.2	16.5	22.9	30.5	45.8	61.1	68.7	75.1	83.4	91.6	99.2
300	30554	0	1.3	10.6	19.9	27.1	35.6	52.9	70.2	78.7	85.9	95.2	104.5	113.0
250	34462	2.2	10.1	18.7	27.4	34.1	42.0	58.1	74.2	82.1	88.8	97.5	106.1	114.0
200	39111	6.2	13.5	21.5	29.5	35.7	43.0	57.9	72.8	80.1	86.3	94.3	102.3	109.6
175	41877	8.5	14.8	21.6	28.5	33.8	40.1	52.8	65.5	71.8	77.1	84.0	90.8	97.1
150	45046	10.3	15.9	22.9	28.1	32.9	38.5	49.9	61.3	66.9	71.7	77.8	83.9	89.5
125	48783	8.6	13.6	18.6	23.8	27.9	32.7	42.4	52.1	56.9	61.0	66.2	71.4	76.2
100	53304	8.0	11.8	16.0	20.2	23.4	27.2	35.0	42.8	46.6	49.8	54.0	58.2	62.0
80	57785	1.2	4.6	8.3	11.9	14.8	18.2	25.0	31.8	35.2	38.1	41.7	45.4	48.8
70	60446	0	1.1	4.3	7.6	10.1	13.1	19.1	25.1	28.1	30.6	33.9	37.1	40.1

Table 72. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California February

NO. OBSERVATIONS -- SURFACE = 210. TOP = 143

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-18.5	-16.1	-13.5	-10.8	-8.8	-6.4	-1.5	3.4	5.8	7.8	10.5	13.1	15.5
1000	541	-22.3	-19.4	-16.6	-13.7	-11.4	-8.7	-3.2	2.3	5.0	7.3	10.2	13.2	15.9
950	1939	-27.9	-24.6	-21.0	-17.6	-14.6	-11.3	-4.6	2.1	5.4	8.2	11.8	15.4	18.7
900	3422	-24.8	-21.7	-18.3	-14.9	-12.3	-9.2	-2.9	3.4	6.5	9.1	12.5	15.9	19.0
850	4970	-22.1	-19.0	-15.6	-12.2	-9.6	-6.5	-0.2	6.1	9.2	11.8	15.2	18.6	21.7
800	6601	-20.5	-17.2	-13.6	-10.0	-7.2	-3.9	2.8	9.5	12.8	15.6	19.2	22.8	26.1
750	8323	-20.0	-16.3	-12.2	-8.2	-5.0	-1.3	6.3	13.9	17.6	20.8	24.8	28.9	32.6
700	10141	-21.0	-16.6	-11.8	-7.1	-3.4	1.0	9.8	18.6	23.0	26.7	31.4	36.2	40.6
650	12070	-20.6	-15.9	-10.8	-5.7	-1.7	3.0	13.5	22.8	26.7	30.7	35.8	40.9	45.6
600	14127	-21.4	-16.2	-10.5	-4.8	-0.4	4.8	15.4	26.0	31.2	35.6	41.3	47.6	52.2
550	16322	-18.5	-13.3	-7.6	-2.0	2.4	7.6	18.1	28.6	33.8	38.2	43.8	49.5	54.7
500	18684	-20.9	-15.0	-8.5	-2.0	3.0	8.9	21.0	33.1	39.0	44.0	50.5	57.0	62.9
450	21250	-21.8	-15.4	-8.4	-1.4	4.1	10.5	23.6	36.7	43.1	48.6	55.6	62.6	69.0
400	24069	-22.1	-15.3	-7.9	-0.5	5.3	12.1	25.9	39.7	46.5	52.3	59.7	67.1	73.9
350	27116	-24.1	-16.4	-8.0	.4	6.9	14.6	30.2	45.8	53.5	60.0	68.4	76.8	84.5
300	30554	-29.4	-20.1	-9.9	.3	8.2	17.5	36.5	55.5	64.8	72.7	82.9	93.1	102.4
250	34462	-26.7	-16.9	-6.2	4.6	12.9	22.7	42.7	62.7	72.5	80.8	91.6	102.3	112.1
200	39111	-13.1	-4.5	4.9	14.2	21.	30.1	47.5	64.9	73.5	80.8	90.1	99.5	108.1
175	41877	-5.8	1.3	9.1	18.3	22.9	30.0	44.5	59.0	66.1	72.1	79.9	87.7	94.8
150	45046	-4.2	2.4	9.6	16.8	22.4	29.0	42.4	55.8	62.4	68.0	75.2	82.4	89.0
125	48793	-3.3	2.4	8.6	14.9	19.7	25.4	37.0	48.6	54.3	59.1	65.4	71.6	77.3
100	53304	-5.7	-0.7	4.8	10.2	14.5	19.5	29.7	39.9	44.9	49.2	54.6	60.1	65.1
80	57785	-9.2	-5.0	-0.5	4.1	7.6	11.8	20.2	28.6	32.8	36.3	40.9	45.4	49.6
70	60446	-12.6	-8.8	-4.7	-0.5	2.7	6.5	14.2	21.9	25.7	28.9	33.1	37.2	41.0

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 73. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California: February

NO. OBSERVATIONS -- SURFACE = 210. TOP = 143

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-20.5	-18.1	-15.5	-12.9	-10.9	-8.5	-3.7	1.1	3.5	5.5	8.1	10.7	13.1
1000	531	-21.0	-18.6	-16.0	-13.3	-11.3	-8.9	-4.0	.9	3.3	5.3	8.0	10.6	13.0
950	1939	-22.4	-19.8	-17.0	-14.1	-11.9	-9.3	-4.0	1.3	3.9	6.1	9.0	11.8	14.4
900	3422	-21.2	-18.7	-15.9	-13.2	-11.0	-8.5	-3.7	1.9	4.4	6.6	9.3	12.1	14.6
850	4970	-21.2	-18.6	-15.6	-12.7	-10.4	-7.7	-2.4	3.1	5.8	8.1	11.0	13.9	16.6
800	6601	-29.4	-25.7	-21.6	-17.6	-14.4	-10.7	-3.1	4.5	8.2	11.4	15.4	19.5	23.2
750	8323	-39.7	-34.6	-29.0	-23.4	-19.1	-14.0	-3.6	6.8	11.9	16.2	21.8	27.4	32.5
700	10141	-50.5	-44.3	-37.6	-30.8	-25.6	-19.4	-6.9	5.6	11.8	17.0	24.8	30.5	36.7
650	12070	-55.9	-49.1	-41.7	-34.3	-28.6	-21.8	-8.1	5.6	12.4	18.1	25.5	32.9	39.7
600	14127	-62.0	-54.4	-46.1	-37.8	-31.3	-23.7	-8.2	7.3	14.9	21.4	29.7	38.0	45.6
550	16322	-67.4	-59.1	-50.0	-41.0	-33.9	-25.6	-8.7	8.2	16.5	23.6	32.6	41.7	50.0
500	18684	-69.2	-60.6	-51.2	-41.8	-34.5	-25.9	-8.4	9.1	17.7	25.0	34.4	43.8	52.4
450	21250	-73.1	-63.9	-53.9	-43.1	-36.1	-26.9	-8.3	10.3	19.5	27.3	37.3	47.3	56.5
400	24039	-79.9	-70.0	-59.2	-48.3	-39.9	-30.0	-9.8	10.4	20.3	28.7	39.6	50.4	60.3
350	27116	-86.0	-75.1	-63.3	-51.4	-42.2	-31.3	-9.3	12.7	23.6	32.8	44.7	56.5	67.4
300	30554	-90.7	-78.8	-65.8	-52.9	-42.8	-30.9	-6.8	17.3	29.2	39.3	52.2	65.2	77.1
250	34462	-87.2	-75.7	-63.2	-50.6	-40.9	-29.4	-6.1	17.2	28.7	38.4	51.0	63.5	75.0
200	39111	-75.0	-65.2	-54.5	-43.7	-35.4	-25.6	-5.6	14.4	24.2	32.5	43.3	54.0	63.8
175	41877	-71.1	-58.6	-49.3	-40.0	-32.8	-24.3	-7.0	10.3	18.8	26.0	35.3	44.6	53.1
150	45046	-60.1	-53.1	-44.8	-36.5	-30.1	-22.5	-7.1	8.3	15.9	22.3	30.6	38.9	46.5
125	48783	-46.9	-41.2	-34.9	-28.7	-23.8	-18.1	-6.4	5.3	11.0	15.9	22.1	28.4	34.1
100	53306	-39.8	-35.0	-29.8	-24.6	-20.6	-15.8	-6.2	3.4	8.2	12.2	17.4	22.6	27.4
80	57785	-32.2	-28.6	-24.6	-20.7	-17.6	-14.0	-6.6	.8	4.4	7.5	11.4	15.4	19.0
70	60446	-26.4	-23.6	-20.5	-17.5	-15.0	-12.2	-6.4	-0.6	2.2	4.6	7.7	10.8	13.6

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 74. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: March

NO. OBSERVATIONS -- SURFACE = 263, TOP = 178

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	0	1.6	3.7	7.9	12.1	14.2	16.0	18.2	20.5	22.6
1000	482	0	0	0	0	1.6	3.8	8.4	13.0	15.2	17.1	19.6	22.0	24.2
950	1833	0	0	0	0	.9	3.5	8.9	14.1	16.7	18.9	21.9	24.6	27.2
900	3373	0	0	0	.4	2.3	4.5	9.1	13.7	15.9	17.8	20.3	22.7	24.9
850	4925	0	0	.0	2.5	4.4	6.6	11.2	15.8	18.0	19.9	22.4	24.8	27.0
800	6555	0	0	.4	3.4	5.8	8.6	14.3	20.0	22.6	25.2	28.2	31.3	34.1
750	8278	0	0	0	3.7	6.8	10.4	17.7	25.0	28.6	31.7	35.6	39.5	43.1
700	10099	0	0	0	4.1	7.9	12.3	21.3	30.3	34.7	38.5	43.3	48.1	52.5
650	12018	0	0	0	4.9	9.1	14.1	24.2	34.3	39.3	43.5	49.0	54.4	59.4
600	14072	0	0	0	5.4	10.2	15.8	27.3	38.8	44.4	49.2	55.3	61.5	67.1
550	16266	0	0	4.0	9.7	14.2	19.5	30.2	40.9	46.2	50.7	56.4	62.2	67.5
500	18629	0	0	4.1	10.4	15.4	21.2	33.1	45.0	50.8	55.8	62.1	68.5	74.3
450	21191	0	0	5.7	12.6	18.0	24.3	37.2	50.1	56.4	61.8	68.7	75.6	81.9
400	23973	0	0	7.2	14.7	20.5	27.4	41.3	55.2	62.1	67.9	75.4	82.9	89.8
350	27041	0	.9	8.9	16.9	23.1	30.4	45.3	60.2	67.5	73.7	81.7	89.7	97.0
300	30472	0	2.0	10.9	19.7	26.6	34.7	51.2	67.7	75.8	82.7	91.5	100.4	108.5
250	34393	0	1.6	11.5	21.4	29.1	38.2	56.6	75.0	84.1	91.8	101.7	111.6	120.7
200	39049	0	4.8	14.8	24.7	32.5	41.6	60.2	78.8	87.9	95.7	105.6	115.6	124.7
175	41808	0	8.0	16.7	25.5	32.3	40.3	56.6	72.9	80.9	87.7	96.5	105.2	113.2
150	44997	4.2	10.9	18.2	25.5	31.2	37.9	51.5	65.1	71.8	77.5	84.8	92.1	98.8
125	48740	4.5	10.1	16.3	22.4	27.2	32.8	44.3	55.8	61.4	66.2	72.3	78.5	84.1
100	53291	4.6	9.0	13.8	18.6	22.3	26.7	35.6	44.5	48.9	52.6	57.4	62.2	66.6
80	57805	.2	3.8	7.7	11.6	14.7	18.3	25.6	32.9	36.5	39.6	43.5	47.4	51.0
70	60505	0	.6	4.1	7.7	10.4	13.6	20.2	26.8	30.0	32.7	36.3	39.8	43.0

Table 75. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California: March

NO. OBSERVATIONS -- SURFACE = 263, TOP = 178

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-16.9	-14.4	-11.6	-8.9	-6.7	-4.2	1.0	6.2	8.7	10.9	13.6	16.4	18.9
1000	482	-19.9	-17.1	-14.0	-10.9	-8.5	-5.7	.1	5.9	8.7	11.1	14.2	17.3	20.1
950	1893	-23.1	-19.9	-16.4	-13.0	-10.3	-7.1	-0.7	5.7	8.9	11.6	15.0	18.5	21.7
900	3373	-20.5	-17.6	-14.4	-11.3	-8.8	-5.9	0	5.9	8.8	11.3	14.4	17.6	20.5
850	4925	-20.4	-17.3	-13.9	-10.5	-7.8	-4.7	1.7	8.1	11.2	13.9	17.3	20.7	23.8
800	6555	-20.9	-17.3	-13.4	-9.5	-6.5	-2.9	4.3	11.5	15.1	18.1	22.0	25.9	29.5
750	8278	-23.1	-18.8	-14.1	-9.4	-5.8	-1.5	7.2	15.9	20.2	23.8	28.5	33.2	37.5
700	10089	-24.2	-19.2	-13.8	-8.4	-4.2	.8	10.8	20.9	25.8	30.0	35.4	40.8	45.8
650	12018	-26.2	-20.6	-14.5	-8.4	-3.7	1.9	13.2	24.5	30.1	34.8	40.9	47.0	52.6
600	14072	-26.9	-20.9	-14.3	-7.7	-2.6	3.4	15.7	28.0	34.0	39.1	45.7	52.3	58.3
550	16266	-28.0	-21.4	-14.2	-6.9	-1.3	5.3	18.8	32.3	38.9	44.5	51.8	59.0	65.6
500	18629	-30.1	-22.9	-15.0	-7.1	-1.0	6.2	20.9	35.6	42.8	48.9	56.8	64.7	71.9
450	21191	-35.0	-26.7	-17.7	-8.7	-1.7	6.5	23.3	40.0	48.3	55.3	64.3	73.3	81.5
400	23973	-36.8	-27.8	-18.0	-8.2	-0.6	8.4	26.6	44.8	53.8	61.4	71.2	81.0	90.0
350	27041	-34.6	-25.3	-15.1	-5.0	2.9	12.2	31.1	50.0	59.3	67.2	77.3	87.5	96.8
300	30472	-34.2	-24.2	-13.3	-2.3	6.2	16.2	36.6	57.0	67.0	75.5	86.5	97.4	107.4
250	34393	-28.1	-18.0	-6.9	4.1	12.7	22.8	43.4	64.0	74.1	82.7	93.7	104.8	114.9
200	39049	-15.3	-6.0	4.2	14.3	22.2	31.5	50.4	69.3	78.6	86.5	96.6	106.8	116.1
175	41808	-21.2	-11.5	-0.9	9.7	17.9	27.6	47.3	67.0	76.7	84.9	95.5	106.1	115.8
150	44997	-4.9	2.3	10.1	18.0	24.1	31.3	45.9	60.5	67.7	73.8	81.7	89.5	96.7
125	48740	-3.4	2.7	9.4	16.1	21.3	27.4	39.9	52.4	59.5	63.7	70.4	77.1	83.2
100	53291	-0.0	4.6	9.6	14.7	18.6	23.2	32.6	42.0	46.6	50.5	55.6	60.6	65.2
80	57805	-3.2	.6	4.7	8.8	12.0	15.8	23.4	31.0	34.8	38.0	42.1	46.2	50.0
70	60505	-7.8	-4.2	-0.2	3.7	6.8	10.4	17.8	25.2	28.8	31.9	35.8	39.8	43.4

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 76. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California: March

NO. OBSERVATIONS -- SURFACE = 263. TOP = 178

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	1s	-15.9	-13.8	-11.5	-9.2	-7.4	-5.3	-1.0	3.3	5.4	7.2	9.5	11.8	13.9
1000	482	-16.5	-14.4	-12.1	-9.8	-8.0	-5.9	-1.6	2.7	4.8	6.6	8.9	11.2	13.3
950	1883	-17.5	-15.3	-12.9	-10.5	-8.6	-6.4	-1.9	2.6	4.8	6.7	9.1	11.5	13.7
900	3373	-18.2	-15.9	-13.4	-10.9	-8.9	-6.6	-1.9	2.8	5.1	7.1	9.6	12.1	14.4
850	4925	-22.4	-19.6	-16.5	-13.4	-11.0	-8.2	-2.4	3.4	6.2	8.6	11.7	14.8	17.6
800	6555	-30.2	-26.5	-22.5	-18.4	-15.3	-11.6	-4.1	3.4	7.1	10.2	14.3	18.3	22.0
750	8278	-36.6	-32.1	-27.2	-22.4	-18.6	-14.1	-5.1	3.9	8.4	12.2	17.0	21.9	26.4
700	10099	-43.4	-38.1	-32.3	-26.5	-22.0	-16.7	-5.9	4.9	10.2	14.7	20.5	26.3	31.6
650	12018	-47.7	-41.8	-35.3	-28.8	-23.8	-17.9	-5.8	6.3	12.2	17.2	23.7	30.2	36.1
600	14072	-54.0	-47.3	-40.0	-32.6	-26.9	-20.2	-6.5	7.2	13.9	19.6	27.0	34.3	41.0
550	16266	-51.1	-44.7	-37.8	-30.3	-25.4	-19.0	-6.1	6.8	13.2	18.6	25.6	32.5	38.9
500	18629	-55.9	-48.8	-41.1	-33.3	-27.3	-20.2	-5.8	8.6	15.7	21.7	29.5	37.2	44.3
450	21191	-60.9	-53.2	-44.8	-36.4	-29.8	-22.1	-6.4	9.3	17.0	23.6	32.0	40.4	48.1
400	23973	-66.0	-57.6	-48.2	-39.0	-31.8	-23.3	-6.1	11.1	19.6	26.8	36.0	45.3	53.8
350	27041	-70.0	-61.0	-51.2	-41.4	-33.8	-24.8	-6.6	11.6	20.6	28.2	38.0	47.8	56.8
300	30472	-78.0	-68.1	-57.3	-46.4	-38.0	-28.1	-7.9	12.3	22.2	30.6	41.5	52.3	62.2
250	34393	-84.3	-73.5	-61.8	-50.0	-40.9	-30.1	-8.3	13.5	24.3	33.4	45.2	56.9	67.7
200	39049	-81.8	-71.5	-60.2	-49.0	-40.2	-29.9	-8.9	12.1	22.4	31.2	42.4	53.7	64.0
175	41808	-65.5	-55.9	-47.5	-38.2	-30.9	-22.3	-4.9	12.5	21.1	28.4	37.7	47.1	55.7
150	44997	-53.8	-46.6	-38.8	-31.0	-24.9	-17.7	-3.2	11.3	18.5	24.6	32.4	40.2	47.4
125	48740	-44.0	-38.1	-31.7	-25.2	-20.2	-14.3	-2.3	9.7	15.6	20.6	27.1	33.5	39.4
100	53241	-32.9	-28.4	-23.5	-18.7	-14.9	-10.4	-1.4	7.6	12.1	15.9	20.7	25.6	30.1
80	57805	-23.6	-20.4	-16.9	-13.3	-10.6	-7.4	-0.8	5.8	9.0	11.7	15.3	18.8	22.0
70	60505	-19.7	-17.1	-14.1	-11.1	-8.8	-6.1	-0.5	5.1	7.8	10.1	13.1	16.1	18.8

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 77. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: April

NO. OBSERVATIONS -- SURFACE = 282, TOP = 198

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	.0	.1	1.6	3.4	7.1	10.8	12.6	14.1	16.1	18.1	19.9
1000	453	0	0	0	.0	1.7	3.6	7.6	11.6	13.5	15.2	17.3	19.4	21.3
950	1870	0	0	0	0	1.6	3.7	8.1	12.5	14.6	16.4	18.8	21.1	23.2
900	3350	0	0	0	1.2	2.9	4.9	8.9	12.9	14.9	16.6	18.7	20.9	22.9
850	4908	0	0	.3	2.7	4.5	6.6	11.0	15.4	17.5	19.3	21.7	24.0	26.1
800	6545	0	0	2.5	5.1	7.1	9.5	14.3	19.1	21.5	23.5	26.1	28.7	31.1
750	8278	0	0	2.9	6.2	8.7	11.7	17.7	23.7	26.7	29.2	32.5	35.7	38.7
700	10102	0	0	2.8	6.7	9.8	13.4	20.8	28.2	31.8	34.9	38.8	42.8	46.4
650	12034	0	0	1.7	6.6	10.5	15.1	24.3	33.5	38.1	42.0	46.9	51.9	56.5
600	14098	0	0	2.3	7.9	12.3	17.5	28.0	38.5	43.7	48.1	53.7	59.4	64.6
550	16302	0	0	.1	7.1	12.6	19.1	32.2	45.3	51.8	57.3	64.3	71.4	77.9
500	18675	0	0	1.5	9.0	14.8	21.7	35.6	49.5	56.4	62.2	69.7	77.2	84.1
450	21243	0	0	1.2	9.5	16.0	23.6	39.1	54.6	62.2	68.7	77.0	85.3	92.9
400	24042	0	0	3.3	12.2	19.1	27.3	43.8	60.3	68.5	75.4	84.3	93.2	101.4
350	27096	0	0	6.0	15.2	22.4	30.9	48.1	65.3	73.8	81.0	90.2	99.5	108.0
300	30551	0	0	8.7	18.0	25.3	33.8	51.2	68.6	77.1	84.4	93.7	103.0	111.5
250	34495	0	3.3	12.4	21.5	28.6	36.9	53.9	70.9	79.2	86.3	95.4	104.5	112.8
200	39144	0	7.3	15.5	23.8	30.2	37.8	53.1	68.4	76.0	82.4	90.7	98.9	106.5
175	41900	2.0	8.6	15.8	22.9	28.5	35.1	48.4	61.7	68.3	73.9	81.0	88.2	94.8
150	45079	0	6.3	13.3	20.3	25.8	32.2	45.3	58.4	64.8	70.3	77.3	84.3	90.7
125	48737	3.4	8.4	13.9	19.3	23.6	28.6	38.8	49.0	54.0	58.3	63.7	69.2	74.2
100	53406	1.0	5.1	9.6	14.0	17.5	21.6	29.9	38.2	42.3	45.8	50.2	54.7	58.8
80	57958	0	1.3	5.0	8.6	11.5	14.9	21.7	28.5	31.9	34.8	38.4	42.1	45.5
70	60649	0	0	2.2	5.1	7.4	10.1	15.5	20.9	23.6	25.9	28.8	31.7	34.4

Table 78. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California. April

NO. OBSERVATIONS -- SURFACE = 282. TOP = 198

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-14.5	-12.1	-9.5	-6.8	-4.8	-2.4	2.5	7.4	9.8	11.8	14.5	17.1	19.5
1000	453	-16.3	-13.7	-10.9	-8.1	-5.9	-3.3	1.9	7.1	9.7	11.9	14.7	17.5	20.1
950	1870	-19.3	-16.4	-13.3	-10.1	-7.7	-4.8	1.0	6.8	9.7	12.1	15.3	18.4	21.3
900	3350	-18.3	-15.5	-12.4	-9.3	-6.9	-4.1	1.7	7.5	10.3	12.7	15.8	18.9	21.7
850	4908	-19.3	-16.1	-12.6	-9.2	-6.5	-3.3	3.1	9.5	12.7	15.4	18.8	22.3	25.5
800	6545	-19.5	-15.9	-12.0	-8.1	-5.0	-1.4	5.9	13.2	16.8	19.9	23.8	27.7	31.3
750	8278	-20.7	-16.6	-12.1	-7.6	-4.1	.0	8.4	16.8	20.9	24.4	28.9	33.4	37.5
700	10102	-21.3	-16.6	-11.5	-6.4	-2.4	2.3	11.8	21.3	26.0	30.0	35.1	40.2	44.9
650	12036	-20.9	-15.8	-10.2	-4.6	-0.3	4.8	15.2	25.6	30.7	35.0	40.6	46.2	51.3
600	14098	-22.5	-16.7	-10.4	-4.1	.8	6.6	18.3	30.0	35.8	40.7	47.0	53.3	59.1
550	16302	-25.9	-19.1	-11.7	-4.3	1.4	8.2	21.9	35.6	42.4	48.1	55.5	62.9	69.7
500	18675	-26.2	-19.0	-11.2	-3.3	2.8	10.0	24.6	39.2	46.4	52.5	60.4	68.2	75.4
450	21243	-30.3	-22.0	-13.0	-4.0	3.0	11.3	28.0	44.8	53.0	60.0	69.0	78.0	86.3
400	24042	-33.5	-24.4	-14.4	-4.5	3.3	12.4	31.0	49.6	58.7	66.5	76.4	86.4	95.5
350	27096	-32.9	-23.4	-13.0	-2.6	5.5	15.0	34.4	53.8	63.3	71.4	81.8	92.2	101.7
300	30551	-32.9	-23.0	-12.2	-1.5	6.9	16.8	36.9	56.8	66.7	75.1	85.8	96.6	106.5
250	34495	-28.3	-18.8	-6.4	4.0	12.1	21.6	41.0	60.4	69.9	78.0	88.4	98.8	108.3
200	39144	-19.3	-10.4	-0.7	9.0	16.5	25.4	43.4	61.4	70.3	77.6	87.5	97.2	106.1
175	41900	-9.3	-2.1	5.8	13.7	19.8	27.0	41.7	56.4	63.6	69.7	77.6	85.5	92.7
150	45079	-4.2	2.0	8.8	15.5	20.8	27.0	39.6	52.2	58.4	63.7	70.4	77.2	83.4
125	48737	-1.9	3.2	8.8	14.4	18.7	23.8	34.2	44.6	49.7	54.0	59.6	65.2	70.3
100	53406	-3.3	.9	5.4	10.0	13.5	17.7	26.1	34.5	38.7	42.2	46.8	51.3	55.5
80	57956	-8.8	-4.9	-0.7	3.6	6.9	10.8	18.7	26.6	30.5	33.8	38.1	42.3	46.2
70	60669	-9.3	-6.3	-3.0	.3	2.9	5.9	12.1	18.3	21.3	23.9	27.2	30.5	33.5

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 79. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California: April

NO. OBSERVATIONS -- SURFACE = 282. TOP = 198

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-10.4	-8.9	-7.2	-5.6	-4.3	-2.8	.3	3.4	4.9	6.2	7.8	9.5	11.0
1000	453	-12.5	-10.8	-8.9	-7.0	-5.5	-3.8	-0.2	3.4	5.1	6.6	8.5	10.4	12.1
950	1870	-13.7	-11.9	-9.9	-7.9	-6.3	-4.5	-0.7	3.1	4.9	6.5	8.5	10.5	12.3
900	3350	-15.9	-13.9	-11.7	-9.5	-7.8	-5.8	-1.7	2.4	4.4	6.1	8.3	10.5	12.5
850	4908	-20.1	-17.6	-14.9	-12.2	-10.1	-7.6	-2.6	2.4	4.9	7.0	9.7	12.4	14.9
800	6545	-25.7	-22.5	-19.0	-15.6	-12.9	-9.7	-3.3	3.1	6.3	9.0	12.4	15.9	19.1
750	8278	-32.9	-28.8	-24.4	-19.9	-16.5	-12.4	-4.2	4.0	8.1	11.5	16.0	20.4	24.5
700	10102	-36.5	-31.8	-26.7	-21.6	-17.7	-13.0	-3.6	5.8	10.5	14.4	19.5	24.6	29.3
650	12034	-43.9	-38.2	-32.0	-25.7	-20.9	-15.2	-3.6	8.0	13.7	18.5	24.8	31.0	36.7
600	14098	-48.9	-42.5	-35.5	-28.5	-23.1	-16.7	-3.7	9.3	15.7	21.1	28.1	35.1	41.5
550	16302	-57.0	-49.5	-41.4	-33.2	-26.9	-19.4	-4.3	10.8	18.3	24.6	32.8	40.9	48.4
500	18675	-6[illegible].0	-52.9	-44.0	-35.2	-28.3	-20.2	-3.7	12.8	20.9	27.8	36.6	45.5	53.6
450	21243	-6[illegible].0	-54.6	-45.5	-36.3	-29.2	-20.8	-3.8	13.2	21.6	28.7	37.9	47.0	55.4
400	24042	-69.7	-60.4	-50.2	-40.1	-32.2	-22.9	-4.0	14.9	24.2	32.1	42.2	52.4	61.7
350	27096	-75.1	-64.9	-53.7	-42.6	-33.9	-23.7	-2.9	17.9	28.1	36.8	47.9	59.1	69.3
300	30551	-79.1	-68.5	-57.0	-45.5	-36.5	-25.9	-4.5	16.9	27.5	36.5	48.0	59.5	70.1
250	34495	-78.0	-67.4	-55.9	-44.4	-35.4	-24.8	-3.4	18.0	28.6	37.6	49.1	60.6	71.2
200	39144	-64.6	-55.6	-45.8	-36.0	-28.4	-19.4	-1.2	17.0	26.0	33.6	43.4	53.2	62.2
175	41900	-53.3	-45.7	-37.4	-29.1	-22.7	-15.1	.3	15.7	23.3	29.7	38.0	46.3	53.9
150	45079	-51.4	-43.9	-35.7	-27.6	-21.2	-13.7	1.5	16.7	24.2	30.6	38.7	46.9	54.4
125	48737	-39.1	-33.2	-26.8	-20.3	-15.3	-9.4	2.6	14.6	20.5	25.5	32.0	38.4	44.3
100	53400	-30.0	-25.3	-20.2	-15.1	-11.2	-6.5	2.9	12.3	17.0	20.9	26.0	31.1	35.8
80	57956	-20.6	-17.3	-13.7	-10.0	-7.[illegible]	-3.9	2.9	9.7	13.0	15.8	19.5	23.1	26.4
70	60649	-14.2	-11.6	-8.8	-6.0	-[illegible]	-1.2	4.0	9.2	11.8	14.0	16.8	19.6	22.2

NOTE -- POSITIVE COMPONENTS ARE F[illegible]HE SOUTH.

Table 90 Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: May

NO. OBSERVATIONS -- SURFACE = 268; TOP = 193

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	1.1	2.6	4.3	7.9	11.5	13.2	14.7	16.6	18.5	20.2
1000	430	0	0	0	.1	1.7	3.6	7.5	11.4	13.3	14.9	17.0	19.1	21.0
950	1854	0	0	0	0	1.3	3.1	6.8	10.5	12.3	13.8	15.8	17.8	19.6
900	3343	0	0	0	0	.7	2.7	6.8	10.9	12.9	14.6	16.8	19.0	21.0
850	4921	0	0	0	1.5	3.2	5.2	9.3	13.4	15.4	17.1	19.3	21.5	23.5
800	6585	0	0	1.5	3.9	5.7	7.9	12.3	16.7	18.9	20.7	23.1	25.5	27.7
750	8343	0	0	0	3.2	5.9	9.1	15.5	21.9	25.1	27.8	31.2	34.7	37.9
700	10194	0	0	0	3.7	6.8	10.4	17.8	25.2	28.8	31.9	35.8	39.8	43.4
650	12159	0	0	0	4.2	7.8	12.1	20.8	29.5	33.8	37.4	42.1	46.8	51.1
600	14249	0	0	0	4.4	8.6	13.5	23.6	33.7	38.6	42.8	48.2	53.6	58.6
550	16490	0	0	0	4.8	9.7	15.5	27.2	38.9	44.7	49.6	55.9	62.2	68.0
500	18901	0	0	0	5.7	11.0	17.2	29.8	42.4	48.[illegible]	53.9	60.6	67.4	73.6
450	21516	0	0	0	5.6	11.4	18.3	32.2	46.1	53.0	58.8	66.3	73.8	80.7
400	24354	0	0	0	6.4	12.8	20.4	35.7	51.0	58.6	[illegible]5.0	73.3	81.5	89.1
350	27470	0	0	0	8.0	14.6	22.3	38.0	53.7	61.4	68.0	76.4	84.8	92.5
300	30948	0	0	1.1	10.1	17.1	25.3	42.1	58.8	67.1	74.1	83.1	92.1	100.3
250	34954	0	0	2.7	12.4	20.0	28.9	47.1	65.3	74.2	81.8	91.5	101.3	110.2
200	39642	0	0	6.3	15.4	22.5	30.8	47.8	64.8	73.1	80.2	89.3	98.4	106.7
175	42388	0	1.0	9.0	16.9	23.1	30.4	45.2	60.0	67.3	73.5	81.4	89.4	96.7
150	45538	0	4.8	11.5	18.1	23.3	29.4	41.8	54.2	60.3	65.5	72.1	78.8	84.9
125	49265	.8	5.7	11.0	16.4	20.5	25.4	35.3	45.2	50.1	54.2	59.6	64.9	69.8
100	53789	.6	4.1	7.9	11.7	14.7	18.2	25.3	32.4	35.9	38.9	42.7	46.5	50.0
80	58323	0	0	1.6	4.3	6.4	8.9	13.9	18.9	21.4	23.5	26.2	28.9	31.4
70	61040	0	0	.3	2.3	3.9	5.8	9.6	13.4	15.3	16.9	18.9	21.0	22.9

Table 81. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California: May

NO. OBSERVATIONS -- SURFACE = 268. TOP = 193

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-13.3	-11.0	-8.4	-5.9	-3.9	-1.6	3.2	8.0	10.3	12.3	14.8	17.4	19.7
1000	430	-15.2	-12.7	-10.0	-7.2	-5.1	-2.6	2.5	7.6	10.1	12.2	15.0	17.7	20.2
950	1854	-17.2	-14.7	-12.0	-9.2	-7.1	-4.6	.5	5.6	8.1	10.2	13.0	15.7	18.2
900	3343	-17.3	-14.7	-11.9	-9.0	-6.8	-4.2	1.1	6.4	9.0	11.2	14.1	16.9	19.5
850	4921	-17.9	-15.0	-11.8	-8.7	-6.2	-3.3	2.6	8.5	11.4	13.9	17.0	20.2	23.1
800	6585	-19.7	-16.4	-12.8	-9.1	-6.3	-3.0	3.8	10.6	13.9	16.[illegible]	[illegible]0.4	24.0	27.3
750	8343	-21.8	-17.8	-13.4	-9.0	-5.6	-1.6	6.6	14.8	18.8	22.[illegible]	26.6	31.0	35.0
700	10194	-22.3	-17.8	-12.9	-8.1	-4.3	.2	9.2	18.2	22.7	26.5	31.[illegible]	36.2	40.7
650	12159	-23.6	-18.6	-13.2	-7.7	-3.5	1.5	11.6	21.7	26.7	30.[illegible]	36.4	41.8	46.8
600	14249	-24.0	-18.5	-12.5	-6.5	-1.9	3.6	14.7	25.8	31.3	35.9	[illegible].9	47.9	53.4
550	16490	-24.3	-18.3	-11.7	-5.1	0	6.0	18.3	30.6	36.6	41.7	[illegible]8.[illegible]	54.9	60.9
500	18901	-24.0	-17.6	-10.7	-3.7	1.7	8.1	21.0	33.9	40.3	45.[illegible]7	52.7	59.6	66.0
450	21516	-24.0	-17.3	-10.0	-2.7	3.0	9.7	23.3	36.9	43.6	49.3	56.6	63.9	70.6
400	24354	-26.9	-19.4	-11.3	-3.1	3.2	10.7	25.8	40.9	48.4	54.7	62.9	71.0	78.5
350	27470	-28.6	-20.6	-11.9	-3.2	3.5	11.5	27.6	43.7	51.7	[illegible]8.4	67.1	75.8	83.8
300	30968	-30.4	-21.6	-12.0	-2.4	5.0	13.8	31.6	49.4	58.2	65.6	75.2	84.8	93.6
250	34954	-27.5	-18.4	-8.5	1.5	9.2	18.3	36.8	55.3	64.4	72.1	82.1	92.0	101.1
200	39642	-20.7	-12.1	-2.7	6.7	14.0	22.6	40.1	57.6	66.2	73.5	82.9	92.3	100.9
175	42388	-12.3	-5.0	3.0	11.0	17.2	24.5	39.4	54.3	61.6	67.8	75.8	83.8	91.1
150	45538	-3.7	2.1	8.5	14.8	19.8	25.6	37.5	49.4	55.2	60.2	66.5	72.9	78.7
125	49265	-0.6	4.0	9.0	14.0	17.9	22.5	31.8	41.1	45.7	49.6	54.6	59.6	64.2
100	53749	-1.7	1.7	5.4	9.2	12.1	15.5	22.5	29.5	32.9	35.8	39.6	43.3	46.7
80	58323	-7.2	-4.7	-1.9	.8	3.0	5.5	10.7	15.9	18.4	20.6	23.3	26.1	28.6
70	61040	-9.6	-7.4	-5.0	-2.5	-0.6	1.6	6.2	10.8	13.0	14.9	17.4	19.8	22.0

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 82. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California: May

NO. OBSERVATIONS -- SURFACE = 268, TOP = 193

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-12.0	-10.2	-8.2	-6.2	-4.7	-2.9	.8	4.5	6.3	7.8	9.8	11.8	13.6
1000	430	-11.8	-10.1	-8.3	-6.4	-5.0	-3.3	.1	3.6	5.2	6.6	8.5	10.3	12.0
950	1854	-10.3	-8.8	-7.2	-5.6	-4.3	-2.8	.2	3.2	4.7	6.0	7.6	9.2	10.7
900	3343	-11.4	-9.9	-8.3	-6.7	-5.4	-3.9	-0.9	2.1	3.6	4.9	6.5	8.1	9.6
850	4921	-15.8	-13.8	-11.6	-9.5	-7.8	-5.8	-1.8	2.2	4.2	5.9	8.0	10.1	12.2
800	6585	-22.2	-19.3	-16.2	-13.0	-10.6	-7.7	-1.9	3.9	6.8	9.2	12.4	15.5	18.4
750	8343	-28.8	-24.9	-20.6	-16.3	-13.0	-9.1	-1.1	6.9	10.8	14.1	18.4	22.7	26.6
700	10194	-31.1	-26.7	-21.9	-17.2	-13.5	-9.1	-0.3	8.5	12.9	16.6	21.3	26.1	30.5
650	12159	-36.5	-31.4	-25.8	-20.2	-15.8	-10.7	-0.2	10.3	15.4	19.8	25.4	31.0	36.1
600	14249	-39.6	-34.0	-27.8	-21.7	-16.9	-11.3	.2	11.7	17.3	22.1	28.2	34.4	40.0
550	16490	-44.3	-37.9	-30.9	-23.9	-18.5	-12.1	.9	13.9	20.3	25.7	32.7	39.7	46.1
500	18901	-46.2	-39.4	-31.9	-24.5	-18.7	-11.9	2.0	15.9	22.7	28.5	35.9	43.4	50.2
450	21516	-51.1	-43.6	-35.5	-27.3	-21.0	-13.5	1.6	16.7	24.2	30.5	38.7	46.8	54.3
400	24354	-56.3	-48.1	-39.2	-30.2	-23.3	-15.1	1.5	18.1	26.3	33.2	42.2	51.1	59.3
350	27470	-57.3	-48.9	-39.8	-30.6	-23.5	-15.1	1.9	18.9	27.3	34.4	43.6	52.7	61.1
300	30948	-57.9	-49.3	-39.9	-30.4	-23.1	-14.5	3.1	20.7	29.3	36.6	46.1	55.5	64.1
250	34954	-62.6	-53.1	-42.8	-32.4	-24.4	-14.9	4.3	23.5	33.0	41.0	51.4	61.7	71.2
200	39642	-50.8	-42.7	-33.9	-25.1	-18.3	-10.2	6.1	22.4	30.5	37.3	46.1	54.9	63.0
175	42388	-39.4	-32.6	-25.2	-17.8	-12.1	-5.3	8.4	22.1	28.9	34.6	42.0	49.4	56.2
150	45538	-30.1	-24.5	-18.4	-12.3	-7.6	-2.0	9.3	20.6	26.2	30.9	37.0	43.1	48.7
125	49265	-24.5	-19.9	-14.9	-9.8	-5.9	-1.3	8.1	17.5	22.1	26.0	31.1	36.1	40.7
100	53789	-17.4	-14.1	-10.5	-6.8	-4.0	-0.7	6.1	12.9	16.2	19.0	22.7	26.3	29.6
80	58325	-15.1	-12.5	-9.7	-6.8	-4.6	-2.0	3.3	8.6	11.2	13.4	16.3	19.1	21.7
70	61040	-12.5	-10.5	-8.3	-6.0	-4.3	-2.3	1.9	6.1	8.1	9.8	12.1	14.3	16.3

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 83. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: June

NO. OBSERVATIONS -- SURFACE = 230. TOP = 173

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	1.1	2.3	3.8	6.7	9.6	11.1	12.3	13.9	15.5	17.0
1000	384	0	0	0	.2	1.3	2.6	5.3	8.0	9.3	10.4	11.9	13.3	14.6
950	1821	0	0	0	1.0	1.9	3.0	5.2	7.4	8.5	9.4	10.6	11.8	12.9
900	3320	0	0	0	.0	1.3	2.8	5.9	9.0	10.5	11.8	13.4	15.1	16.6
850	4921	0	0	1.1	2.9	4.2	5.8	9.0	12.2	13.8	15.1	16.9	18.6	20.2
800	6608	0	0	1.8	3.8	5.4	7.3	11.1	14.9	16.8	18.4	20.4	22.5	24.4
750	8396	0	0	1.7	4.4	6.4	8.8	13.7	18.6	21.0	23.0	25.7	28.2	30.7
700	10272	0	0	2.4	5.5	7.9	10.7	16.5	22.3	25.1	27.5	30.6	33.7	36.5
650	12270	0	0	2.2	5.7	8.4	11.6	18.1	24.6	27.8	30.5	34.0	37.5	40.7
600	14393	0	0	.8	5.0	8.3	12.2	20.0	27.8	31.7	35.0	39.2	43.4	47.3
550	16673	0	0	.8	5.5	9.2	13.5	22.3	31.1	35.4	39.1	43.8	48.5	52.6
500	19114	0	0	0	5.3	9.6	14.6	24.8	35.0	40.0	44.3	49.7	55.2	60.2
450	21768	0	0	0	5.8	10.7	16.5	28.3	40.1	45.9	50.8	57.2	63.5	69.3
400	24652	0	0	0	5.9	11.5	18.1	31.6	45.1	51.7	57.3	64.6	71.8	78.4
350	27802	0	0	0	6.5	12.8	20.3	35.4	50.5	58.0	64.3	72.5	80.6	88.1
300	31358	0	0	0	7.8	14.7	22.8	39.3	55.8	63.9	70.8	79.6	88.5	96.6
250	35400	0	0	3.6	12.6	19.6	27.8	44.6	61.3	69.6	76.6	85.6	94.6	102.8
200	40148	0	.2	8.8	17.4	24.1	32.0	48.0	64.0	71.9	78.6	87.2	95.8	103.7
175	42917	0	2.2	10.2	18.2	24.4	31.7	46.6	61.5	68.8	75.0	83.0	91.0	98.3
150	46043	0	3.1	9.8	16.5	21.7	27.8	40.3	52.8	58.9	64.1	70.8	77.5	83.6
125	49747	0	1.6	6.7	11.8	15.8	20.5	30.0	39.5	44.2	48.2	53.3	58.4	63.1
100	54226	0	0	.0	3.8	6.8	10.3	17.4	24.5	28.0	31.0	34.8	38.6	42.1
80	58717	0	0	.3	2.3	3.9	5.8	9.6	13.4	15.3	16.9	18.9	21.0	22.9
70	61430	0	0	.5	2.5	4.0	5.8	9.4	13.0	14.8	16.3	18.3	20.2	22.0

Table 84. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California: June

NO. OBSERVATIONS -- SURFACE = 230. TOP = 173

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-11.1	-9.2	-7.1	-5.0	-3.3	-1.4	2.6	6.6	8.5	10.2	12.3	14.4	16.3
1000	394	-10.3	-8.6	-6.8	-4.9	-3.5	-1.8	1.6	5.0	6.7	8.1	10.0	11.8	13.5
950	1821	-12.2	-10.5	-8.7	-6.8	-5.4	-3.7	-0.3	3.1	4.8	6.2	8.1	9.9	11.6
900	3320	-13.0	-10.9	-8.6	-6.4	-4.6	-2.5	1.7	5.9	8.0	9.8	12.0	14.3	16.4
850	4921	-13.7	-11.2	-8.5	-5.8	-3.7	-1.2	3.8	8.8	11.3	13.4	16.1	18.8	21.3
800	6618	-15.2	-12.4	-9.3	-6.5	-3.9	-1.1	4.6	10.3	13.1	15.5	18.5	21.6	24.4
750	8364	-18.9	-15.4	-11.5	-7.7	-4.7	-1.2	6.0	13.2	16.7	19.7	23.5	27.4	30.9
700	10272	-24.1	-19.7	-14.9	-10.1	-6.3	-1.9	7.1	16.1	20.5	24.3	29.1	33.9	38.3
650	12270	-24.5	-19.8	-14.7	-9.6	-5.6	-1.9	8.6	18.1	22.8	26.8	31.9	37.0	41.7
600	14393	-24.3	-19.3	-13.9	-8.4	-4.2	.8	10.9	21.0	26.0	30.2	35.7	41.1	46.1
550	16663	-24.3	-18.9	-13.0	-7.2	-2.6	2.8	13.7	24.6	30.0	34.6	40.4	46.3	51.7
500	19114	-26.2	-20.3	-13.8	-7.3	-2.3	3.6	15.7	27.8	33.7	38.7	45.2	51.7	57.6
450	21768	-28.5	-21.8	-14.5	-7.2	-1.5	5.2	18.8	32.4	39.1	44.8	52.1	59.4	66.1
400	24652	-30.2	-22.9	-14.9	-6.9	-0.7	6.6	21.5	36.4	43.7	49.9	57.9	65.9	73.2
350	27802	-30.6	-22.8	-14.3	-5.8	.8	8.6	24.4	40.2	48.0	54.6	63.1	71.6	79.4
300	31358	-32.1	-23.6	-14.3	-5.1	2.1	10.6	27.8	45.0	53.5	60.7	69.9	79.2	87.7
250	35400	-29.8	-21.0	-11.4	-1.7	5.8	14.6	32.6	50.6	59.4	66.9	76.8	86.2	95.0
200	40148	-24.2	-15.6	-6.2	3.2	10.5	19.1	36.6	54.1	62.7	70.0	79.4	88.8	97.4
175	42917	-20.1	-12.1	-3.4	5.3	12.0	20.0	36.1	52.2	60.2	66.9	75.6	84.3	92.3
150	46065	-14.3	-7.7	-0.5	6.7	12.3	18.9	32.3	45.7	52.3	57.9	65.1	72.3	78.9
125	49747	-13.0	-7.7	-1.9	3.8	8.3	13.6	24.3	35.0	43.3	48.8	50.5	56.3	61.6
100	54224	-16.7	-12.6	-8.2	-3.7	-0.3	3.8	12.0	20.2	24.3	27.7	32.2	36.6	40.7
80	59717	-29.6	-17.6	-14.4	-11.1	-8.6	-5.6	.4	6.4	9.4	11.9	15.2	18.4	21.4
70	61430	-22.4	-20.2	-17.5	-14.9	-12.8	-10.4	-5.4	-0.4	2.0	4.1	6.7	9.4	11.8

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 85. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California: June

NO. OBSERVATIONS -- SURFACE = 230, TOP = 173

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	<0.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-9.3	-7.8	-6.2	-4.6	-3.3	-1.8	1.2	4.2	5.7	7.0	8.6	10.2	11.7
1000	384	-7.4	-6.2	-4.9	-3.5	-2.5	-1.3	1.2	3.7	4.9	5.9	7.3	8.6	9.8
950	1821	-6.6	-5.5	-4.3	-3.1	-2.2	-1.1	1.1	3.3	4.4	5.3	6.5	7.7	8.8
900	3320	-9.1	-7.9	-6.6	-5.3	-4.3	-3.1	-0.7	1.7	2.9	3.9	5.2	6.5	7.7
850	4921	-14.6	-12.9	-11.0	-9.2	-7.7	-6.0	-2.5	1.0	2.7	4.2	6.0	7.9	9.6
800	6508	-20.0	-17.6	-14.9	-12.3	-10.2	-7.8	-2.8	2.2	4.6	6.7	9.3	12.0	14.4
750	8396	-23.7	-20.6	-17.2	-13.8	-11.1	-8.0	-1.6	4.8	7.9	10.6	14.0	17.4	20.5
700	10272	-25.6	-22.0	-18.1	-14.2	-11.2	-7.6	-0.4	6.8	10.4	13.4	17.3	21.2	24.8
650	12270	-28.3	-24.3	-19.9	-15.5	-12.1	-8.1	.1	8.3	12.3	15.7	20.1	24.5	28.5
600	14393	-32.1	-27.6	-22.7	-17.7	-13.9	-9.4	-0.2	9.0	13.5	17.3	22.3	27.2	31.7
550	16663	-34.6	-29.7	-24.4	-19.1	-15.0	-10.1	-0.3	9.5	14.4	18.5	23.8	29.1	34.0
500	19114	-38.9	-33.4	-27.4	-21.4	-16.7	-11.2	0	11.2	16.7	21.4	27.4	33.4	38.9
450	21768	-43.3	-37.1	-30.4	-23.6	-18.4	-12.2	.3	12.8	19.0	24.2	31.0	37.7	43.9
400	24652	-48.9	-41.9	-34.3	-26.6	-20.7	-13.7	.5	14.7	21.7	27.6	35.3	42.9	49.9
350	27802	-57.2	-49.0	-40.1	-31.1	-24.2	-16.0	.6	17.2	25.4	32.3	41.3	50.2	58.4
300	31358	-61.5	-52.7	-43.1	-33.4	-25.9	-17.1	.9	18.9	27.7	35.2	44.9	54.5	63.3
250	35480	-64.0	-54.5	-44.1	-33.8	-25.7	-16.2	3.1	22.4	31.9	40.0	50.3	60.7	70.2
200	40148	-61.5	-52.0	-41.6	-31.3	-23.2	-13.7	5.6	24.9	34.4	42.5	52.8	63.2	72.7
175	42917	-56.5	-47.5	-37.7	-27.9	-20.3	-11.3	6.9	25.1	34.1	41.7	51.5	61.3	70.3
150	46063	-43.0	-35.8	-28.0	-20.2	-14.1	-6.9	7.6	22.1	29.3	35.4	43.2	51.0	58.2
125	49747	-29.9	-24.9	-19.5	-14.0	-9.8	-4.8	5.3	15.4	20.4	24.6	30.1	35.5	40.5
100	54226	-21.7	-18.2	-14.4	-10.6	-7.6	-4.1	3.0	10.1	13.6	16.6	20.4	24.2	27.7
80	58717	-13.1	-11.0	-8.7	-6.4	-4.6	-2.5	1.8	6.1	8.2	10.0	12.3	14.6	16.7
70	61430	-11.4	-9.6	-7.6	-5.6	-4.0	-2.2	1.6	5.4	7.2	8.8	10.8	12.8	14.6

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 86. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: July

NO. OBSERVATIONS -- SURFACE 239, TOP = 195

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	.4	1.6	3.0	5.8	8.6	10.0	11.2	12.7	14.2	15.6
1000	397	0	0	0	0	.6	2.0	4.8	7.6	9.0	10.2	11.7	13.2	14.6
950	1867	0	0	0	0	.5	1.9	4.7	7.5	8.9	10.1	11.6	13.1	14.5
900	3369	0	0	0	0	0	.3	5.8	11.3	14.0	16.3	19.2	22.2	24.9
850	4997	0	0	0	.2	1.5	3.1	6.3	9.5	11.1	12.4	14.2	15.9	17.5
800	6709	0	0	0	1.1	2.6	4.4	8.1	11.3	13.6	15.1	17.1	19.1	20.9
750	8517	0	0	0	.5	2.5	4.9	9.8	14.7	17.1	19.1	21.8	24.4	26.8
700	10413	0	0	.4	2.7	4.4	6.4	10.6	14.8	16.8	18.5	20.8	23.0	25.0
650	12431	0	0	.5	3.0	4.9	7.2	11.8	16.4	18.7	20.6	23.1	25.6	27.9
600	14570	0	0	.5	3.3	5.5	8.1	13.3	18.5	21.1	23.3	26.1	28.9	31.5
550	16856	0	0	.0	3.0	5.4	8.2	13.8	19.4	22.2	24.6	27.6	30.6	33.4
500	19318	0	0	0	3.3	5.8	8.8	14.9	21.0	24.0	26.5	29.8	33.1	36.1
450	21991	0	0	.1	3.8	6.7	10.1	17.0	23.9	27.3	30.2	33.9	37.6	41.0
400	24805	0	0	0	3.9	7.2	11.1	18.9	26.7	30.6	33.9	38.1	42.3	46.2
350	28100	0	0	.7	5.4	9.1	13.5	22.3	31.1	35.5	39.2	43.9	48.7	53.1
300	31699	0	0	3.0	8.2	12.3	17.1	26.9	36.7	41.5	45.6	50.8	56.1	60.9
250	35804	0	.6	6.2	11.8	16.2	21.3	31.8	42.3	47.4	51.8	57.4	63.0	68.1
200	40623	0	2.5	8.5	14.6	19.3	24.8	36.1	47.4	52.9	57.6	63.7	69.7	75.2
175	43409	0	.2	6.5	12.7	17.6	23.3	35.0	46.7	52.4	57.1	63.5	69.8	75.5
150	46542	0	0	4.0	9.6	13.9	19.0	29.4	39.8	44.9	49.2	54.8	60.4	65.5
125	50174	0	0	3.4	7.3	10.4	14.0	21.4	28.8	32.4	35.5	39.4	43.4	47.0
100	54547	0	0	.5	3.3	5.4	7.9	13.0	18.1	20.6	22.7	25.5	28.2	30.7
80	59012	0	.3	2.6	4.8	6.6	8.7	12.9	17.1	19.2	21.0	23.2	25.5	27.6
70	61709	0	1.3	3.7	6.1	8.0	10.2	14.7	19.2	21.4	23.3	25.7	28.1	30.3

Table 87. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California: July

NO. OBSERVATIONS -- SURFACE = 239. TOP = 195

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-10.2	-8.4	-6.4	-4.4	-2.9	-1.1	2.6	6.3	8.1	9.6	11.6	13.6	15.4
1000	377	-10.5	-8.8	-7.0	-5.1	-3.7	-2.0	1.4	4.8	6.5	7.9	9.8	11.6	13.3
950	1847	-12.0	-10.4	-8.7	-7.0	-5.7	-4.1	-1.0	2.1	3.7	5.0	6.7	8.4	10.0
900	3349	-19.3	-16.5	-13.4	-10.3	-7.9	-5.1	.7	6.5	9.3	11.7	14.8	17.9	20.7
850	4997	-13.2	-11.1	-8.8	-6.5	-4.7	-2.6	1.7	6.0	8.1	9.9	12.2	14.5	16.6
800	6709	-12.1	-10.0	-7.7	-5.3	-3.5	-1.4	3.0	7.4	9.5	11.3	13.7	16.0	18.1
750	8517	-13.7	-11.3	-8.7	-6.0	-4.0	-1.6	3.3	8.2	10.6	12.6	15.3	17.9	20.3
700	10413	-14.3	-11.8	-9.1	-6.3	-4.2	-1.7	3.4	8.5	11.0	13.1	15.9	18.6	21.1
650	12431	-16.6	-13.8	-10.7	-7.7	-5.3	-2.5	3.2	8.9	11.7	14.1	17.1	20.2	23.0
600	14570	-19.8	-16.5	-12.9	-9.4	-6.6	-3.3	3.3	9.9	13.2	16.0	19.5	23.1	26.4
550	16954	-20.2	-16.8	-13.1	-9.5	-6.6	-3.2	3.6	10.4	13.8	16.7	20.3	24.0	27.4
500	19318	-22.4	-18.7	-14.6	-10.6	-7.4	-3.7	3.9	11.5	15.2	18.4	22.4	26.5	30.2
450	21991	-24.7	-20.5	-16.0	-11.4	-7.9	-3.7	4.7	13.1	17.3	20.8	25.4	29.9	34.1
400	24895	-24.7	-20.3	-15.5	-10.7	-7.0	-2.6	6.3	15.2	19.6	23.3	28.1	32.9	37.3
350	28100	-26.1	-21.3	-16.0	-10.8	-6.7	-1.9	7.9	17.7	22.5	26.6	31.8	37.1	41.9
300	31699	-26.1	-20.9	-15.2	-9.5	-5.0	.2	10.9	21.6	26.8	31.3	37.0	42.7	47.9
250	35804	-27.2	-21.6	-15.5	-9.4	-4.6	1.0	12.4	23.8	29.4	34.2	40.3	46.4	52.0
200	40623	-26.8	-21.1	-14.9	-8.7	-3.9	1.8	13.3	24.8	30.5	35.3	41.5	47.7	53.4
175	43409	-23.1	-17.9	-12.2	-6.5	-2.1	3.1	13.7	24.3	29.5	33.9	39.6	45.3	50.5
150	46542	-20.1	-15.6	-10.7	-5.8	-2.0	2.5	11.6	20.7	25.2	29.0	33.9	38.8	43.3
125	50174	-20.2	-16.3	-12.1	-7.9	-4.6	-0.7	7.1	14.9	18.8	22.1	26.3	30.5	34.4
100	54567	-20.9	-18.2	-15.2	-12.3	-10.0	-7.3	-1.8	3.7	6.4	8.7	11.6	14.6	17.3
80	59012	-25.0	-22.7	-20.1	-17.6	-15.6	-13.3	-8.5	-3.7	-1.4	.6	3.1	5.7	8.0
70	61709	-28.9	-26.5	-23.9	-21.3	-19.3	-16.9	-12.1	-7.3	-4.9	-2.9	-0.3	2.3	4.7

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 86. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, Califo[illegible] July

NO. OBSERVATIONS -- SURFACE = 239, TOP = 195

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	.4	1.6	3.0	5.8	8.6	10.0	11.2	12.7	14.2	15.6
1000	397	0	0	0	0	.6	2.0	4.8	7.6	9.0	10.2	11.7	13.2	14.6
950	1847	0	0	0	0	.5	1.9	4.7	7.5	8.9	10.1	11.6	13.1	14.5
900	3369	0	0	0	0	0	.3	5.8	11.3	14.0	16.3	19.2	22.2	24.9
850	4997	0	0	0	.2	1.5	3.1	6.3	9.5	11.1	12.4	14.2	15.9	17.5
800	6709	0	0	0	1.1	2.6	4.4	8.1	11.8	13.6	15.1	17.1	19.1	20.9
750	8517	0	0	0	.5	2.5	4.9	9.8	14.7	17.1	19.1	21.8	24.4	26.8
700	10413	0	0	.4	2.7	4.4	6.4	10.6	14.8	16.8	18.5	20.8	23.0	25.0
650	12431	0	0	.5	3.0	4.9	7.2	11.8	16.4	18.7	20.6	23.1	25.6	27.9
600	14570	0	0	.5	3.3	5.5	8.1	13.3	18.5	21.1	23.3	26.1	28.9	31.5
550	16854	0	0	.0	3.0	5.4	8.2	13.8	19.4	22.2	24.6	27.6	30.6	33.4
500	19318	0	0	0	3.3	5.8	8.8	14.9	21.0	24.0	26.5	29.8	33.1	36.1
450	21991	0	0	.1	3.8	6.7	10.1	17.0	23.9	27.3	30.2	33.9	37.6	41.0
400	24895	0	0	0	3.9	7.2	11.1	18.9	26.7	30.6	33.9	38.1	42.3	46.2
350	28100	0	0	.7	5.4	9.1	13.5	22.3	31.1	35.5	39.2	43.9	48.7	53.1
300	31699	0	0	3.0	8.2	12.3	17.1	26.9	36.7	41.5	45.6	50.8	56.1	60.9
250	35804	0	.6	6.2	11.8	16.2	21.3	31.8	42.3	47.4	51.8	57.4	63.0	68.1
200	40623	0	2.5	8.5	14.6	19.3	24.8	36.1	47.4	52.9	57.6	63.7	69.7	75.2
175	43309	0	.2	6.5	12.7	17.6	23.3	35.0	46.7	52.4	57.3	63.5	69.8	75.5
150	46542	0	0	4.0	9.6	13.9	19.0	29.4	39.8	44.9	49.2	54.8	60.4	65.5
125	50174	0	0	3.4	7.3	10.4	14.0	21.4	28.8	32.4	35.5	39.4	43.4	47.0
100	54547	0	0	.5	3.3	5.4	7.9	13.0	18.1	20.6	22.7	25.5	28.2	30.7
80	59012	0	.3	2.6	4.8	6.6	8.7	12.9	17.1	19.2	21.0	23.2	25.5	27.6
70	61709	0	1.3	3.7	6.1	8.0	10.2	14.7	19.2	21.4	23.3	25.7	28.1	30.3

Table 88. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California: July

NO. OBSERVATIONS -- SURFACE = 239, TOP = 195

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-8.7	-7.4	-6.0	-4.6	-3.5	-2.2	.4	3.0	4.3	5.4	6.8	8.2	9.5
1000	397	-7.0	-5.9	-4.7	-3.5	-2.6	-1.5	.7	2.9	4.0	4.9	6.1	7.3	8.4
950	1847	-7.8	-6.5	-5.1	-3.7	-2.6	-1.3	1.3	3.9	5.2	6.3	7.7	9.1	10.4
900	3369	-11.2	-9.5	-7.6	-5.8	-4.3	-2.6	.9	4.4	6.1	7.6	9.4	11.3	13.0
850	4997	-9.5	-8.0	-6.4	-4.8	-3.6	-2.1	.8	3.7	5.2	6.4	8.0	9.6	11.1
800	6709	-12.9	-10.8	-8.5	-6.2	-4.4	-2.3	2.0	6.3	8.4	10.2	12.5	14.8	16.9
750	8517	-15.5	-12.8	-9.8	-6.8	-4.5	-1.8	3.8	9.4	12.1	14.4	17.4	20.4	23.1
700	10413	-12.0	-9.6	-6.9	-4.3	-2.2	.2	5.2	10.2	12.6	14.7	17.3	20.0	22.4
650	12431	-12.2	-9.6	-6.7	-3.8	-1.6	1.0	6.4	11.8	14.4	16.6	19.5	22.4	25.0
600	14570	-12.5	-9.7	-6.6	-3.5	-1.1	1.7	7.5	13.3	16.1	18.5	21.6	24.7	27.5
550	16856	-12.4	-9.5	-6.3	-3.2	-0.7	2.2	8.1	14.0	16.9	19.4	22.5	25.7	28.6
500	19318	-13.5	-10.4	-7.0	-3.6	-0.9	2.2	8.6	15.0	18.1	20.8	24.2	27.6	30.7
450	21991	-14.2	-10.7	-6.9	-3.1	-0.2	3.3	10.3	17.3	20.8	23.7	27.5	31.3	34.8
400	24895	-17.3	-13.2	-8.8	-4.3	-0.9	3.2	11.4	19.6	23.7	27.1	31.6	36.0	40.1
350	28100	-18.0	-13.4	-8.4	-3.4	.5	5.1	14.4	23.7	28.3	32.2	37.2	42.2	46.8
300	31699	-22.4	-16.6	-10.2	-3.9	1.1	6.9	18.8	30.7	36.5	41.5	47.8	54.2	60.0
250	35804	-12.8	-7.6	-1.9	3.7	8.1	13.3	23.8	34.3	39.5	43.9	49.5	55.2	60.4
200	40623	-13.2	-7.3	-0.9	5.5	10.5	16.4	28.3	40.2	46.1	51.1	57.5	63.9	69.8
175	43409	-14.5	-8.5	-2.0	4.5	9.6	15.6	27.7	39.8	45.8	50.9	57.4	63.9	69.9
150	46542	-13.6	-8.4	-2.7	3.0	7.4	12.6	23.2	33.8	39.0	43.4	49.1	54.8	60.0
125	50174	-9.5	-5.8	-1.8	2.2	5.3	9.0	16.4	23.8	27.5	30.6	34.6	38.6	42.3
100	54567	-10.6	-7.8	-4.7	-1.7	.7	3.5	9.2	14.9	17.7	20.1	23.1	26.2	29.0
80	59012	-11.8	-9.4	-6.7	-4.1	-2.0	.4	5.4	10.4	12.8	14.9	17.5	20.2	22.6
70	61709	-13.1	-10.8	-8.2	-5.7	-3.7	-1.4	3.4	8.2	10.5	12.5	15.0	17.6	19.9

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 89. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: August

NO. OBSERVATIONS -- SURFACE = 282, TOP = 238

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	1.0	2.1	3.4	5.9	8.4	9.7	10.8	12.1	13.5	14.8
1000	397	0	0	0	.2	1.3	2.6	5.1	7.6	8.9	10.0	11.3	12.7	14.0
950	1854	0	0	0	.5	1.6	2.9	5.4	7.9	9.2	10.3	11.6	13.0	14.3
900	3376	0	0	0	.2	1.3	2.6	5.3	8.0	9.3	10.4	11.9	13.3	14.6
850	5000	0	0	0	.8	2.1	3.7	6.9	10.1	11.7	13.0	14.8	16.5	18.1
800	6709	0	0	.0	1.9	3.3	5.0	8.4	11.8	13.5	14.9	16.8	18.6	20.3
750	8507	0	0	.6	2.7	4.3	6.2	10.1	14.0	15.9	17.5	19.6	21.7	23.6
700	10407	0	0	.6	3.0	4.8	6.9	11.3	15.7	17.8	19.6	22.0	24.3	26.4
650	12421	0	0	0	2.4	4.5	7.0	12.1	17.2	19.7	21.8	24.6	27.3	29.8
600	14560	0	0	0	1.8	4.2	7.1	12.9	18.7	21.6	24.0	27.2	30.3	33.2
550	16844	0	0	0	.5	3.3	6.6	13.4	20.2	23.5	26.3	30.0	33.6	36.9
500	19304	0	0	0	.9	3.9	7.5	14.7	21.9	25.5	28.5	32.4	36.3	39.9
450	21978	0	0	0	1.6	4.9	8.8	16.7	24.6	28.5	31.8	36.1	40.3	44.2
400	24882	0	0	0	2.6	6.1	10.2	18.6	27.0	31.1	34.6	39.1	43.6	47.7
350	28084	0	0	0	3.8	7.6	12.1	21.1	30.1	34.6	38.4	43.2	48.1	52.6
300	31680	0	0	0	5.1	9.4	14.5	24.8	35.1	40.2	44.5	50.1	55.6	60.7
250	35771	0	0	3.1	9.1	13.7	19.2	30.3	41.4	46.9	51.5	57.5	63.5	69.1
200	40584	0	.2	6.2	12.2	16.9	22.4	33.6	44.8	50.3	55.0	61.0	67.0	72.5
175	43373	0	.9	6.6	12.3	16.8	22.0	32.7	43.4	48.6	53.1	58.8	64.5	69.7
150	46512	0	.1	5.1	10.1	14.0	18.6	27.9	37.2	41.8	45.7	50.7	55.7	60.3
125	50154	0	0	1.7	5.7	8.8	12.5	19.9	27.3	31.0	34.1	38.1	42.1	45.8
100	54570	0	0	1.4	3.6	5.4	7.5	11.7	15.9	18.0	19.8	22.0	24.3	26.4
80	59026	0	.8	2.6	4.4	5.8	7.4	10.8	14.2	15.8	17.2	19.0	20.8	22.4
70	61729	0	.7	2.6	4.5	6.0	7.7	11.3	14.9	16.6	18.1	20.0	21.9	23.6

Table 90. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California: August

NO. OBSERVATIONS -- SURFACE = 282. TOP = 238

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-9.0	-7.4	-5.6	-3.8	-2.4	-0.8	2.6	5.9	7.6	9.0	10.8	12.6	14.3
1000	397	-10.0	-8.4	-6.6	-4.9	-3.5	-1.9	1.4	4.7	6.3	7.7	9.4	11.2	12.8
950	1854	-13.2	-11.5	-9.6	-7.7	-6.2	-4.5	-0.9	2.7	4.4	5.9	7.8	9.7	11.4
900	3376	-13.2	-11.3	-9.2	-7.1	-5.5	-3.6	.3	4.2	6.1	7.7	9.8	11.9	13.8
850	5000	-14.1	-11.9	-9.5	-7.1	-5.2	-3.0	1.5	6.0	8.2	10.1	12.5	14.9	17.1
800	6709	-13.6	-11.3	-8.7	-6.2	-4.2	-1.9	2.9	7.7	10.0	12.0	14.5	17.1	19.4
750	8507	-15.2	-12.6	-9.8	-6.9	-4.7	-2.1	3.2	8.5	11.1	13.3	16.2	19.0	21.6
700	10407	-18.0	-15.0	-11.8	-8.5	-6.0	-3.0	3.0	9.0	12.0	14.5	17.8	21.0	24.0
650	12421	-20.8	-17.4	-13.7	-10.0	-7.1	-3.7	3.2	10.1	13.5	16.4	20.1	23.8	27.2
600	14560	-23.4	-19.6	-15.5	-11.3	-8.1	-4.3	3.4	11.1	14.9	18.1	22.3	26.4	30.2
550	16844	-24.4	-20.3	-15.9	-11.4	-8.0	-3.9	4.3	12.5	16.6	20.0	24.5	28.9	33.0
500	19304	-24.8	-20.4	-15.6	-10.9	-7.2	-2.8	6.0	14.8	19.2	22.9	27.6	32.4	36.8
450	21978	-25.1	-20.4	-15.3	-10.2	-6.2	-1.5	8.0	17.5	22.2	26.2	31.3	36.4	41.1
400	24882	-24.5	-19.6	-14.2	-8.8	-4.6	.3	10.4	20.4	25.4	29.6	35.0	40.4	45.4
350	28084	-22.9	-17.8	-12.3	-6.7	-2.4	2.7	13.0	23.3	28.4	32.7	38.3	43.8	48.9
300	31680	-23.4	-17.9	-11.9	-5.8	-1.1	4.4	15.7	27.0	32.5	37.2	43.3	49.3	54.8
250	35771	-22.9	-16.9	-10.3	-3.7	1.4	7.4	19.7	32.0	38.0	43.1	49.7	56.3	62.3
200	40584	-22.6	-16.4	-9.6	-2.8	2.5	8.7	21.4	34.1	40.3	45.6	52.4	59.2	65.4
175	43373	-17.7	-12.2	-6.2	-0.1	4.6	10.1	21.4	32.7	38.2	42.9	49.0	55.0	60.5
150	46512	-15.7	-10.9	-5.7	-0.5	3.5	8.3	17.9	27.5	32.3	36.3	41.5	46.7	51.5
125	50154	-19.6	-15.2	-10.4	-5.7	-2.0	2.4	11.2	20.0	24.4	28.1	32.8	37.6	42.0
100	54570	-20.9	-17.7	-14.2	-10.8	-8.1	-4.9	1.5	7.9	11.1	13.8	17.2	20.7	23.9
80	59026	-23.5	-21.0	-18.3	-15.5	-13.4	-10.9	-5.8	-0.7	1.8	3.9	6.7	9.4	11.9
70	61729	-24.6	-22.4	-20.0	-17.5	-15.6	-13.4	-8.8	-4.2	-2.0	-0.1	2.4	4.8	7.0

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 91. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California: August

NO. OBSERVATIONS -- SURFACE = 282. TOP = 238

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.)	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-9.6	-8.2	-6.7	-5.2	-4.1	-2.7	0	2.7	4.1	5.2	6.7	8.2	9.6
1000	397	-8.7	-7.4	-6.0	-4.7	-3.6	-2.3	.2	2.7	4.0	5.1	6.4	7.8	9.1
950	1854	-7.6	-6.4	-5.1	-3.7	-2.7	-1.5	1.0	3.5	4.7	5.7	7.1	8.4	9.6
900	3376	-6.9	-5.8	-4.6	-3.5	-2.6	-1.5	.4	2.7	3.8	4.7	5.8	7.0	8.1
850	5000	-10.8	-9.2	-7.5	-5.7	-4.4	-2.8	.4	3.6	5.2	6.5	8.3	10.0	11.6
800	6709	-13.1	-11.1	-8.9	-6.7	-5.0	-3.0	1.1	5.2	7.2	8.9	11.1	13.3	15.3
750	8507	-13.9	-11.5	-8.9	-6.2	-4.2	-1.8	3.1	8.0	10.4	12.4	15.1	17.7	20.1
700	10407	-13.1	-10.4	-7.9	-5.1	-3.0	-0.5	4.4	9.7	12.2	14.3	17.1	19.8	22.3
650	12421	-13.4	-10.8	-7.9	-5.0	-2.8	-0.2	5.2	10.6	13.2	15.4	18.3	21.2	23.8
600	14560	-14.2	-11.4	-8.4	-5.4	-3.0	-0.2	5.4	11.0	13.8	16.2	19.2	22.2	25.0
550	16844	-16.0	-13.0	-9.7	-6.4	-3.8	-0.8	5.4	11.6	14.6	17.2	20.5	23.8	26.8
500	19304	-18.0	-14.7	-11.1	-7.6	-4.8	-1.5	5.1	11.7	15.0	17.8	21.3	24.9	28.2
450	21978	-20.4	-16.7	-12.7	-8.7	-5.6	-1.9	5.5	12.9	16.6	19.7	23.7	27.7	31.4
400	24842	-21.5	-17.6	-13.4	-9.2	-5.9	-2.0	5.8	13.6	17.5	20.8	25.0	29.2	33.1
350	28084	-21.4	-17.2	-12.7	-8.1	-4.6	-0.4	8.0	16.4	20.6	24.1	28.7	33.2	37.4
300	31640	-24.2	-19.3	-14.0	-8.6	-4.5	.4	10.3	20.2	25.1	29.2	34.6	39.9	44.8
250	35771	-24.7	-19.2	-13.2	-7.2	-2.6	2.9	14.0	25.1	30.6	35.2	41.2	47.2	52.7
200	40586	-25.3	-19.6	-13.0	-6.5	-1.5	4.4	16.4	28.4	34.3	39.3	45.8	52.2	58.1
175	43373	-24.1	-18.7	-12.0	-5.7	-0.8	5.0	16.7	28.4	34.2	39.1	45.4	51.7	57.5
150	46512	-22.2	-17.1	-11.5	-5.9	-1.5	3.6	14.1	24.6	29.7	34.1	39.7	45.3	50.4
125	50156	-17.5	-13.7	-9.6	-5.4	-2.2	1.6	9.3	17.0	20.8	24.0	28.2	32.3	36.1
100	54570	-13.8	-11.2	-8.4	-5.5	-3.3	-0.7	4.6	9.9	12.5	14.7	17.6	20.4	23.0
80	59026	-10.8	-8.8	-6.6	-4.3	-2.6	-0.6	3.6	7.8	9.8	11.5	13.8	16.0	18.0
70	61729	-10.4	-8.7	-6.8	-4.9	-3.4	-1.7	1.9	5.5	7.2	8.7	10.6	12.5	14.2

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 92. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: September

NO. OBSERVATIONS -- SURFACE = 264, TOP = 225

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	.8	2.0	3.4	6.2	9.0	10.4	11.6	13.1	14.6	16.0
1000	358	0	0	0	0	.9	2.4	5.5	8.6	10.1	11.4	13.0	14.7	16.2
950	1811	0	0	0	0	.1	2.1	6.1	10.1	12.1	13.8	15.9	18.1	20.1
900	3337	0	0	0	0	.5	2.8	7.4	12.0	14.3	16.2	18.7	21.2	23.5
850	4951	0	0	0	.7	2.7	5.1	9.9	14.7	17.1	19.1	21.7	24.3	26.7
800	6647	0	0	.4	2.9	4.9	7.2	11.9	16.6	18.9	20.9	23.4	25.9	28.2
750	8438	0	0	1.0	3.8	6.0	8.6	13.8	19.0	21.6	23.8	26.6	29.4	32.0
700	10322	0	0	.8	4.1	6.6	9.6	15.7	21.8	24.8	27.3	30.6	33.9	36.9
650	12323	0	0	.6	4.3	7.2	10.6	17.5	24.4	27.8	30.7	34.4	38.1	41.5
600	14449	0	0	.4	4.4	7.5	11.2	18.6	26.0	29.7	32.8	36.8	40.8	44.5
550	16726	0	0	.9	5.2	8.6	12.6	20.6	28.6	32.6	36.0	40.3	44.6	48.6
500	19173	0	0	.9	5.7	9.5	13.9	22.9	31.9	36.3	40.1	44.9	49.7	54.1
450	21831	0	0	1.2	6.5	10.6	15.5	25.3	35.1	40.0	44.1	49.4	54.7	59.6
400	24718	0	0	3.4	9.2	13.7	19.0	29.8	40.6	45.9	50.4	56.2	62.0	67.3
350	27894	0	0	3.6	10.2	15.4	21.5	33.9	46.3	52.4	57.6	64.2	70.9	77.0
300	31440	0	0	4.8	12.4	18.4	25.4	39.7	54.0	61.0	67.0	74.6	82.3	89.3
250	35531	0	0	6.2	14.7	21.4	29.3	45.2	61.1	69.0	75.7	84.2	92.8	100.7
200	40331	0	.3	8.8	17.2	23.8	31.6	47.3	63.0	70.8	77.4	85.8	94.3	102.1
175	43117	0	2.0	9.7	17.5	23.5	30.6	45.0	59.4	66.5	72.5	80.3	88.0	95.1
150	46266	0	0	6.2	13.2	18.6	25.0	38.0	51.0	57.4	62.8	69.6	76.8	83.2
125	49921	0	0	5.3	10.7	14.8	19.7	29.6	39.5	44.4	48.5	53.9	59.2	64.1
100	54344	0	0	1.5	4.9	7.6	10.8	17.2	23.6	26.8	29.5	32.9	36.4	39.6
80	58780	0	0	.9	3.0	4.7	6.6	10.6	14.6	16.5	18.2	20.3	22.4	24.3
70	61463	0	0	.4	2.4	3.9	5.7	9.3	12.9	14.7	16.2	18.2	20.1	21.9

Table 93. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California: September

NO. OBSERVATIONS -- SURFACE = 264. TOP = 225

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-10.9	-9.2	-7.3	-5.4	-3.9	-2.2	1.4	5.0	6.7	8.2	10.1	12.0	13.7
1000	358	-11.0	-9.3	-7.5	-5.6	-4.2	-2.5	.9	4.3	6.0	7.4	9.3	11.1	12.8
950	1811	-16.3	-14.3	-12.1	-10.0	-8.3	-6.3	-2.3	1.7	3.7	5.4	7.5	9.7	11.7
900	3337	-21.4	-18.9	-16.1	-13.4	-11.2	-8.7	-3.5	1.7	4.2	6.4	9.1	11.9	14.4
850	4951	-25.8	-22.5	-18.9	-15.3	-12.5	-9.2	-2.5	4.2	7.5	10.3	13.9	17.5	20.8
800	6647	-27.0	-23.3	-19.3	-15.3	-12.2	-8.5	-1.1	6.3	10.0	13.1	17.1	21.1	24.8
750	8438	-29.0	-24.9	-20.4	-16.0	-12.5	-8.4	-0.1	8.2	12.3	15.8	20.2	24.7	28.8
700	10322	-30.0	-25.5	-20.6	-15.8	-12.0	-7.5	1.5	10.5	15.0	18.8	23.6	28.5	33.0
650	12323	-31.1	-26.2	-20.9	-15.5	-11.4	-6.5	3.4	13.3	18.2	22.3	27.7	33.0	37.9
600	14442	-30.8	-25.7	-20.2	-14.6	-10.3	-5.2	5.1	15.4	20.5	24.8	30.4	35.9	41.0
550	16726	-32.0	-26.5	-20.5	-14.5	-9.8	-4.3	6.9	18.1	23.6	28.3	34.3	40.3	45.8
500	19173	-34.4	-28.3	-21.7	-15.1	-9.9	-3.8	8.5	20.8	26.9	32.1	38.7	45.3	51.4
450	21831	-34.9	-28.4	-21.3	-14.2	-8.7	-2.2	11.0	24.2	30.7	36.2	43.3	50.4	56.9
400	24718	-37.3	-30.0	-22.0	-14.1	-7.9	-0.6	14.2	29.0	36.3	42.5	50.4	58.4	65.7
350	27864	-41.4	-33.1	-24.0	-15.0	-7.9	.4	17.3	34.2	42.5	49.6	58.6	67.7	76.0
300	31440	-44.3	-34.9	-24.6	-14.3	-6.3	3.1	22.3	41.5	50.9	58.9	69.2	79.5	88.9
250	35531	-41.9	-31.9	-21.0	-10.1	-1.6	8.4	28.7	49.0	59.0	67.5	78.4	89.3	99.3
200	40331	-32.8	-23.4	-13.1	-2.8	5.2	14.6	33.8	53.0	62.4	70.6	80.7	91.0	100.4
175	43117	-25.4	-17.0	-7.9	1.3	8..	16.8	33.8	50.8	59.2	66.3	75.5	84.6	93.0
150	46266	-21.0	-13.8	-6.0	1.9	8.0	15.2	29.8	44.4	51.6	57.7	65.6	73.4	80.6
125	49921	-17.7	-12.1	-5.9	.2	5.0	10.6	22.1	33.6	39.2	44.0	50.1	56.3	61.9
100	54344	-19.6	-15.5	-11.0	-6.5	-3.0	1.1	9.5	17.9	22.0	25.5	30.0	34.5	38.6
80	58780	-19.5	-16.5	-13.3	-10.0	-7.5	-4.5	1.5	7.5	10.5	13.0	16.3	19.5	[illegible]
70	61463	-20.9	-18.3	-15.5	-12.6	-10.4	-7.8	-2.5	2.8	5.4	7.6	10.5	13.3	[illegible]

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 94. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California: September

NO. OBSERVATIONS -- SURFACE = 264. TOP = 225

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-12.5	-10.8	-9.0	-7.1	-5.7	-4.0	-0.6	2.8	4.5	5.9	7.8	9.6	11.3
1000	358	-11.8	-10.2	-8.4	-6.7	-5.3	-3.7	-0.4	2.9	4.5	5.9	7.6	9.4	11.0
950	1811	-13.2	-11.4	-9.4	-7.4	-5.8	-4.0	-0.2	3.6	5.4	7.0	9.0	11.0	12.8
900	3337	-13.8	-11.9	-9.8	-7.8	-6.2	-4.3	-0.5	3.3	5.2	6.8	8.8	10.9	12.8
850	4951	-14.9	-12.8	-10.5	-8.2	-6.4	-4.3	0	4.3	6.4	8.2	10.5	12.8	14.9
800	6647	-17.1	-14.5	-11.6	-8.7	-6.5	-3.9	1.5	6.9	9.5	11.7	14.6	17.5	20.1
750	8438	-19.8	-16.6	-13.1	-9.7	-7.0	-3.8	2.6	9.0	12.2	14.9	18.3	21.8	25.0
700	10322	-24.5	-20.6	-16.4	-12.2	-8.9	-5.0	2.8	10.6	14.5	17.8	22.0	26.2	30.1
650	12323	-28.1	-23.7	-18.9	-14.2	-10.5	-6.1	2.7	11.5	15.9	19.6	24.3	29.1	33.5
600	14449	-30.4	-25.7	-20.6	-15.5	-11.5	-6.8	2.7	12.2	16.9	20.9	26.0	31.1	35.8
550	16726	-32.4	-27.4	-21.9	-16.4	-12.1	-7.1	3.2	13.5	18.5	22.8	28.3	33.8	38.8
500	19173	-36.0	-30.5	-24.5	-18.4	-13.7	-8.2	3.1	14.4	19.9	24.6	30.7	36.7	42.2
450	21831	-39.6	-33.5	-26.8	-20.2	-15.0	-8.9	3.5	15.9	22.0	27.2	33.8	40.5	46.6
400	24718	-45.7	-38.7	-31.1	-23.4	-17.5	-10.5	3.7	17.9	24.9	30.8	38.5	46.1	53.1
350	27894	-49.1	-41.5	-33.2	-24.9	-18.4	-10.8	4.7	20.2	27.8	34.3	42.6	50.9	58.5
300	31460	-54.4	-45.8	-36.4	-27.1	-19.8	-11.2	6.2	23.6	32.2	39.5	48.8	58.2	66.8
250	35531	-57.7	-48.4	-38.2	-28.0	-20.1	-10.8	8.2	27.2	36.5	44.4	54.6	64.8	74.1
200	40331	-53.1	-44.2	-34.4	-24.7	-17.1	-8.2	10.0	28.2	37.1	44.7	54.4	64.2	73.1
175	43117	-47.8	-39.7	-30.8	-22.0	-15.1	-7.0	9.5	26.0	34.1	41.0	49.8	58.7	66.8
150	46266	-39.2	-32.4	-24.9	-17.5	-11.7	-4.9	9.0	22.9	29.7	35.5	42.9	50.4	57.2
125	49921	-32.4	-26.9	-20.9	-14.9	-10.3	-4.8	6.3	17.4	22.9	27.5	33.5	39.5	45.0
100	54344	-25.4	-21.5	-17.3	-13.1	-9.8	-5.9	1.9	9.7	13.6	16.9	21.1	25.3	29.2
80	58780	-17.7	-15.1	-12.2	-9.3	-7.1	-4.5	.9	6.3	8.9	11.1	14.0	16.9	19.5
70	61463	-16.7	-14.4	-11.9	-9.4	-7.5	-5.2	-0.6	4.0	6.3	8.2	10.7	13.2	15.5

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 95. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: October

NO. OBSERVATIONS -- SURFACE = 284, TOP = 240

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	0	1.1	3.1	7.2	11.3	12.3	15.0	17.2	19.4	21.4
1000	430	0	0	0	0	.1	2.2	6.4	10.6	12.7	14.5	16.7	19.0	21.1
950	1877	0	0	0	0	0	2.5	7.9	13.3	15.9	18.1	21.0	23.9	26.5
900	3396	0	0	0	0	.8	3.3	8.3	13.3	15.8	17.9	20.6	23.3	25.8
850	4987	0	0	0	1.1	3.0	5.2	9.7	14.2	16.4	18.3	20.7	23.1	25.3
800	6663	0	0	.3	2.8	4.7	6.9	11.5	16.1	18.3	20.2	22.7	25.1	27.3
750	8435	0	0	.5	3.3	5.5	8.1	13.3	18.5	21.1	23.3	26.1	28.9	31.5
700	10299	0	0	1.0	4.0	6.4	9.2	14.8	20.4	23.2	25.6	28.6	31.6	34.4
650	12283	0	0	1.2	4.6	7.2	10.3	16.6	22.9	26.0	28.6	32.0	35.4	38.5
600	14393	0	0	.7	4.5	7.4	10.8	17.8	24.8	28.2	31.1	34.9	38.6	42.0
550	16647	0	0	.7	4.9	8.2	12.1	19.9	27.7	31.6	34.9	39.1	43.3	47.2
500	19075	0	0	2.2	6.5	9.9	13.9	21.9	29.9	33.9	37.3	41.6	45.9	49.9
450	21709	0	0	1.0	6.2	10.3	15.1	24.8	34.5	39.3	43.4	48.6	53.8	58.6
400	24570	0	0	1.3	7.0	11.5	16.7	27.4	38.1	43.3	47.8	53.5	59.2	64.4
350	27733	0	0	.7	7.4	12.7	18.9	31.5	44.1	50.3	55.6	62.3	69.1	75.3
300	31257	0	0	.6	8.3	14.3	21.4	35.7	50.0	57.1	63.1	70.8	78.5	85.6
250	35279	0	0	1.2	9.5	15.9	23.5	38.8	54.1	61.7	68.1	76.4	84.6	92.2
200	40023	0	0	0	8.0	14.9	23.1	39.7	56.3	64.5	71.4	80.4	89.3	97.5
175	42792	0	0	0	8.1	14.5	22.0	37.2	52.4	59.9	66.3	74.4	82.6	90.1
150	45935	0	0	1.7	9.0	14.7	21.4	35.0	48.6	55.3	61.0	68.3	75.6	82.3
125	49600	0	0	2.5	8.6	13.3	18.9	30.2	41.5	47.1	51.8	57.9	64.0	69.6
100	54026	0	0	.3	5.1	8.9	13.3	22.3	31.3	35.7	39.5	44.3	49.1	53.5
85	58442	0	0	0	3.0	5.7	8.8	15.2	21.6	24.7	27.4	30.8	34.2	37.3
70	61106	0	0	0	2.0	4.4	7.2	12.8	18.4	21.2	23.6	26.6	29.6	32.4

Table 96. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California: October

NO. OBSERVATIONS -- SURFACE = 284. TOP = 240

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-15.4	-13.2	-10.8	-8.4	-6.5	-4.3	.2	4.7	6.9	8.8	11.2	13.6	15.8
1000	430	-16.1	-14.0	-11.7	-9.3	-7.5	-5.4	-1.0	3.4	5.5	7.3	9.7	12.0	14.1
950	1877	-23.0	-20.2	-17.2	-14.2	-11.8	-9.0	-3.4	2.2	5.0	7.4	10.4	13.4	16.2
900	3386	-23.8	-20.9	-17.7	-14.6	-12.1	-9.2	-3.3	2.6	5.5	8.0	11.1	14.3	17.2
850	4987	-23.8	-20.7	-17.3	-13.9	-11.3	-8.2	-1.9	4.4	7.5	10.1	13.5	16.9	20.0
800	6663	-24.6	-21.2	-17.5	-13.9	-11.0	-7.6	-0.8	6.0	9.4	12.3	15.9	19.6	23.0
750	8435	-25.8	-22.1	-18.0	-14.0	-10.8	-7.1	.5	8.1	11.8	15.0	19.0	23.1	26.8
700	10299	-26.5	-22.4	-18.0	-13.5	-10.1	-6.0	2.2	10.4	14.5	17.9	22.4	26.8	30.9
650	12283	-28.6	-24.1	-19.2	-14.2	-10.4	-5.9	3.3	12.5	17.0	20.8	25.8	30.7	35.2
600	14393	-28.5	-23.7	-18.4	-13.2	-9.1	-4.3	5.5	15.3	20.1	24.2	29.4	34.7	39.5
550	16647	-29.9	-24.6	-18.8	-13.1	-8.6	-3.3	7.4	18.1	23.4	27.9	33.6	39.4	44.7
500	19075	-30.9	-25.3	-19.1	-13.0	-8.2	-2.6	8.9	20.4	26.0	30.8	36.9	43.1	48.7
450	21709	-33.8	-27.5	-20.6	-13.7	-8.3	-2.0	10.9	23.8	30.1	35.5	42.4	49.3	55.6
400	24570	-35.7	-28.8	-21.3	-13.8	-7.9	-1.0	13.0	27.0	33.9	39.8	47.3	54.8	61.7
350	27733	-39.8	-31.9	-23.3	-14.7	-8.0	-0.1	15.9	31.9	39.8	46.5	55.1	63.7	71.6
300	31257	-45.5	-36.4	-26.4	-16.5	-8.7	.4	19.0	37.6	46.7	54.5	64.4	74.4	83.5
250	35279	-44.9	-35.3	-24.8	-14.3	-6.2	3.4	22.9	42.4	52.0	60.1	70.6	81.1	90.7
200	40023	-42.2	-32.5	-21.9	-11.3	-3.0	6.7	26.5	46.3	56.0	64.3	74.9	85.5	95.2
175	42792	-35.4	-26.6	-17.0	-7.3	.2	9.0	27.0	45.0	53.8	61.3	71.0	80.6	89.4
150	45935	-29.1	-21.2	-12.6	-4.1	2.6	10.5	26.4	42.3	50.2	56.9	65.4	74.0	81.9
125	49600	-23.4	-16.9	-9.8	-2.7	2.8	9.3	22.5	35.7	42.2	47.7	54.8	61.9	68.4
100	54026	-19.1	-14.1	-8.6	-3.1	1.2	6.2	16.5	26.8	31.8	36.1	41.[illegible]	47.1	52.1
80	58442	-17.7	-13.9	-9.7	-5.5	-2.3	1.5	9.3	17.1	20.9	24.1	28.3	32.5	36.3
70	61106	-20.6	-16.9	-12.9	-8.8	-5.7	-2.0	5.5	13.0	16.7	19.8	23.9	27.9	31.6

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 98. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: November

NO. OBSERVATIONS -- SURFACE = 236, TOP = 197

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	.3	1.9	3.8	7.7	11.6	13.5	15.1	17.2	19.3	21.2
1000	492	0	0	0	0	1.1	3.6	8.7	13.8	16.3	18.4	21.2	23.9	26.4
950	1926	0	0	0	0	1.6	4.6	10.6	16.6	19.6	22.1	25.4	28.6	31.6
900	3425	0	0	0	.8	2.9	5.3	10.3	15.3	17.7	19.8	22.4	25.1	27.5
850	4907	0	0	.7	2.9	4.7	6.8	11.0	15.2	17.3	19.1	21.3	23.6	25.7
800	6650	0	0	1.5	4.1	6.2	8.6	13.6	18.6	21.0	23.1	25.7	28.4	30.8
750	8396	0	0	1.9	5.1	7.5	10.4	16.2	22.0	24.9	27.3	30.5	33.6	36.5
700	10236	0	0	1.1	4.8	7.7	11.1	18.0	24.9	28.3	31.2	34.9	38.6	42.0
650	12192	0	0	1.4	5.7	9.0	12.9	20.8	28.7	32.6	35.9	40.2	44.4	48.3
600	14272	0	0	1.3	6.2	10.1	14.7	23.9	33.1	37.7	41.6	46.5	51.5	56.1
550	16496	0	0	1.1	6.8	11.3	16.5	27.2	37.9	43.1	47.6	53.3	59.0	64.2
500	18888	0	0	2.1	8.4	13.2	18.9	30.5	42.1	47.8	52.6	58.9	65.1	70.8
450	21490	0	0	2.9	9.7	14.9	21.1	33.6	46.1	52.3	57.5	64.3	71.0	77.2
400	24318	0	0	1.8	9.7	15.8	23.0	37.6	52.2	59.4	65.5	73.4	81.2	88.4
350	27385	0	0	4.2	12.5	18.9	26.5	41.9	57.3	64.9	71.3	79.6	87.9	95.5
300	30873	0	0	6.6	15.8	22.9	31.3	48.3	65.3	73.7	80.8	90.0	99.1	107.5
250	34856	0	0	6.4	16.2	23.8	32.8	51.0	69.2	78.2	85.3	95.6	105.4	114.4
200	39567	0	0	6.8	16.4	23.8	32.5	50.3	68.1	76.8	84.2	93.8	103.3	112.0
175	42326	0	0	7.0	16.2	23.3	31.7	48.8	65.9	74.3	81.4	90.6	99.8	108.2
150	45469	0	0	6.1	14.4	20.9	28.5	44.0	59.5	67.1	73.6	81.9	90.2	97.8
125	49147	0	0	5.8	12.7	18.1	24.4	37.3	50.2	56.5	61.9	68.8	75.7	82.0
100	53596	0	0	2.7	8.1	12.4	17.4	27.6	37.8	42.8	47.1	52.5	58.0	63.0
80	58041	0	0	1.0	4.9	8.0	11.6	18.9	26.2	29.8	32.9	36.8	40.7	44.3
70	60709	0	0	2.1	5.3	7.7	10.6	16.4	22.2	25.1	27.5	30.7	33.8	36.7

Table 99. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California: November

NO. OBSERVATIONS -- SURFACE = 236. TOP = 197

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-17.3	-15.1	-12.7	-10.3	-8.4	-6.2	-1.7	2.8	5.0	6.9	9.3	11.7	13.9
1000	492	-21.7	-19.0	-16.1	-13.2	-10.9	-8.2	-2.8	2.6	5.3	7.6	10.5	13.4	16.1
950	1926	-27.9	-24.4	-20.7	-16.9	-14.0	-10.6	-3.6	3.4	6.8	9.7	13.5	17.2	20.6
900	3425	-25.4	-22.1	-18.6	-15.2	-12.5	-9.3	-2.5	3.5	6.7	9.4	12.6	16.3	19.5
850	4997	-22.3	-19.3	-16.0	-12.7	-10.1	-7.1	-0.9	5.3	8.3	10.9	14.2	17.5	20.5
800	6650	-21.5	-18.2	-14.6	-11.0	-8.2	-4.9	1.8	8.5	11.8	14.6	18.2	21.8	25.1
750	8396	-21.7	-18.0	-13.9	-9.9	-6.7	-3.0	4.4	12.2	15.9	19.1	23.1	27.2	30.9
700	10236	-22.5	-18.3	-13.8	-9.2	-5.7	-1.5	6.9	15.3	19.5	23.0	27.6	32.1	36.3
650	12192	-25.0	-20.1	-14.8	-9.5	-5.4	-0.5	9.3	19.1	24.0	28.1	33.4	38.7	43.6
600	14272	-27.4	-21.9	-15.9	-9.8	-5.1	.4	11.7	23.0	28.5	33.2	39.3	45.3	50.8
550	16496	-30.7	-24.3	-17.3	-10.3	-4.9	1.5	14.6	27.5	33.9	39.3	46.3	53.3	59.7
500	18888	-32.3	-25.3	-17.7	-10.1	-4.2	2.8	16.9	31.0	38.0	43.9	51.5	59.1	66.1
450	21490	-33.8	-25.6	-17.3	-9.5	-3.2	4.2	19.2	34.2	41.6	47.9	55.9	64.0	71.4
400	24318	-36.3	-28.0	-19.0	-10.0	-3.0	5.3	22.0	38.8	47.0	54.0	63.0	72.0	80.3
350	27345	-36.6	-27.9	-18.4	-8.8	-1.4	7.3	25.1	42.9	51.6	59.0	68.6	78.1	85.8
300	30873	-40.7	-30.8	-20.0	-9.2	-0.8	9.1	29.2	49.3	59.2	67.6	78.4	89.2	99.1
250	34856	-39.9	-29.6	-18.4	-7.2	1.5	11.8	32.6	53.4	63.7	72.4	83.6	94.8	105.1
200	39567	-35.0	-25.2	-14.5	-3.8	4.5	14.3	34.2	54.1	63.9	72.2	82.9	93.6	103.4
175	42336	-31.8	-22.5	-12.3	-2.1	5.8	15.1	34.1	53.1	62.4	70.3	80.5	90.7	100.6
150	45469	-30.2	-21.3	-11.6	-1.9	5.6	14.5	32.5	50.5	59.4	66.9	76.6	86.3	95.2
125	49147	-23.0	-15.7	-7.8	.1	6.3	13.6	28.3	43.0	50.3	56.5	64.4	72.3	79.6
100	53596	-18.8	-13.2	-7.0	-0.9	3.9	9.5	21.0	32.5	38.1	42.9	49.0	55.2	60.8
80	58041	-17.3	-12.9	-8.1	-3.3	.4	4.8	13.7	22.6	27.0	30.7	35.5	40.3	44.7
70	60709	-17.7	-13.7	-9.3	-5.0	-1.6	2.4	10.5	18.6	22.6	26.0	30.3	34.7	38.7

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 100. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California: November

NO. OBSERVATIONS -- SURFACE = 236, TOP = 197

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-17.0	-14.9	-12.6	-10.3	-8.5	-6.4	-2.1	2.2	4.3	6.1	8.4	10.7	12.8
1000	492	-19.8	-17.4	-14.8	-12.1	-10.1	-7.7	-2.8	2.1	4.5	6.5	9.2	11.8	14.2
950	1926	-21.5	-18.9	-16.0	-13.1	-10.9	-8.3	-2.9	2.5	5.1	7.3	10.2	13.1	15.7
900	3425	-19.6	-17.1	-14.4	-11.6	-9.5	-7.0	-1.9	3.2	5.7	7.8	10.6	13.3	15.8
850	4997	-21.2	-18.4	-15.3	-12.3	-9.9	-7.1	-1.4	4.3	7.1	9.5	12.5	15.6	18.4
800	6650	-28.6	-24.8	-20.7	-16.6	-13.4	-9.6	-2.0	5.6	9.4	12.6	16.7	20.8	24.6
750	8396	-34.3	-29.9	-25.1	-20.3	-16.5	-12.1	-3.1	5.9	10.3	14.1	18.9	23.7	28.1
700	10236	-37.2	-32.4	-27.1	-21.9	-17.8	-13.0	-3.2	6.6	11.4	15.5	20.7	26.0	30.8
650	12192	-41.0	-35.7	-29.9	-24.0	-19.5	-14.2	-3.3	7.6	12.9	17.4	23.3	29.1	34.4
600	14272	-45.5	-39.5	-32.9	-26.3	-21.2	-15.2	-2.9	9.4	15.4	20.5	27.1	33.7	39.7
550	16496	-49.6	-43.0	-35.8	-28.6	-23.0	-16.4	-3.0	10.4	17.0	22.6	29.8	37.0	43.6
500	18888	-54.2	-46.9	-38.9	-31.0	-24.8	-17.5	-2.7	12.1	19.4	25.6	33.5	41.5	48.8
450	21490	-59.4	-51.3	-42.4	-33.6	-26.7	-18.6	-2.1	14.4	22.5	29.4	38.2	47.1	55.2
400	24318	-66.9	-57.7	-47.7	-37.6	-29.8	-20.6	-1.9	16.8	26.0	33.8	43.9	53.9	63.1
350	27385	-73.6	-63.4	-52.3	-41.2	-32.5	-22.3	-1.6	19.1	29.3	38.0	49.1	60.2	70.4
300	30873	-83.3	-71.7	-59.1	-46.4	-36.6	-25.0	-1.5	22.0	33.6	43.4	56.1	68.7	80.3
250	34856	-86.6	-74.7	-61.7	-48.6	-38.5	-26.6	-2.3	22.0	33.9	44.0	57.1	70.1	82.0
200	39567	-82.1	-70.8	-58.5	-46.1	-36.5	-25.2	-2.2	20.8	32.1	41.7	54.1	66.4	77.7
175	42326	-77.3	-66.5	-54.7	-43.0	-33.8	-23.0	-1.1	20.8	31.6	40.8	52.5	64.3	75.1
150	45469	-61.5	-52.8	-43.3	-33.9	-26.5	-17.8	-0.2	17.4	26.1	33.5	42.9	52.4	61.1
125	49147	-51.3	-44.1	-36.2	-28.3	-22.2	-15.0	-0.3	14.4	21.6	27.7	35.6	43.5	50.7
100	53596	-38.4	-33.1	-27.3	-21.5	-17.0	-11.7	-0.9	9.9	15.2	19.7	25.5	31.3	36.6
80	58041	-25.7	-22.2	-18.4	-14.6	-11.6	-8.1	-1.0	6.1	9.8	12.6	16.4	20.2	23.7
70	60709	-22.4	-19.3	-16.0	-12.6	-10.0	-6.9	-0.7	5.5	8.6	11.2	14.6	17.9	21.0

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Table 101. Cumulative Frequency Distribution of Upper Winds (Scalar) at Standard Pressure Levels for Point Mugu, California: December

NO. OBSERVATIONS -- SURFACE = 332. TOP = 235

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	SCALAR WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.97 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	0	0	0	.7	2.6	4.8	9.4	14.0	16.2	18.1	20.6	23.0	25.2
1000	499	0	0	0	0	2.1	4.8	10.2	15.6	18.3	20.6	23.5	26.4	29.1
950	1913	0	0	0	0	2.5	5.6	11.9	18.2	21.3	23.9	27.3	30.7	33.8
900	3392	0	0	0	.5	3.0	6.0	12.1	18.2	21.2	23.7	27.0	30.3	33.3
850	4944	0	0	0	1.8	4.2	7.0	12.8	18.6	21.4	23.8	26.9	30.0	32.8
800	6578	0	0	.2	3.6	6.3	9.5	15.9	22.3	25.5	28.2	31.6	35.1	38.3
750	8307	0	0	.4	4.6	7.8	11.6	19.4	27.2	31.0	34.2	38.4	42.6	46.4
700	10128	0	0	.2	5.0	8.7	13.1	22.0	30.9	35.3	39.0	43.8	48.6	53.0
650	12067	0	0	.6	6.1	10.3	15.3	25.4	35.5	40.5	44.7	50.2	55.6	60.6
600	14124	0	0	0	6.2	11.1	16.8	28.5	40.2	45.9	50.8	57.0	63.3	69.0
550	16335	0	0	1.1	7.8	13.0	19.1	31.6	44.1	50.2	55.4	62.1	68.8	74.9
500	18714	0	0	0	7.9	14.0	21.2	35.9	50.6	57.8	63.9	71.8	79.7	86.9
450	21296	0	0	1.2	9.5	16.0	23.7	39.2	54.7	62.4	68.9	77.2	85.6	93.3
400	24101	0	0	0	9.6	17.0	25.8	43.6	61.4	70.2	77.6	87.2	96.8	105.6
350	27185	0	0	1.7	11.8	19.6	28.8	47.6	66.4	75.6	83.4	93.5	103.6	112.8
300	30646	0	0	2.1	12.9	21.2	31.0	51.0	71.0	80.8	89.1	99.9	110.6	120.4
250	34596	0	0	5.7	16.5	25.0	35.0	55.2	75.4	85.4	93.9	104.7	115.6	125.6
200	39248	0	0	9.5	19.4	27.1	36.2	54.6	73.0	82.1	89.8	99.7	109.6	118.7
175	42024	0	2.6	11.3	20.0	26.7	34.7	50.8	66.9	74.9	81.6	90.3	99.0	107.0
150	45140	0	5.8	13.2	20.6	26.3	33.1	46.8	60.5	67.3	73.0	80.4	87.8	94.6
125	48875	3.3	8.6	14.4	20.2	24.7	30.0	40.8	51.6	56.9	61.4	67.2	73.0	78.3
100	53353	.3	4.8	9.7	14.5	18.3	22.8	31.8	40.8	45.3	49.1	53.9	58.8	63.3
80	57802	0	1.1	5.2	9.3	12.5	16.3	23.9	31.5	35.3	38.5	42.6	46.7	50.5
70	60469	0	1.3	4.5	7.7	10.2	13.1	19.1	25.1	28.0	30.5	33.7	36.9	39.8

Table 102. Cumulative Frequency Distribution of the Zonal Upper Wind Component at Standard Pressure Levels for Point Mugu, California: December

NO. OBSERVATIONS -- SURFACE = 332. TOP = 235

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	ZONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-20.5	-17.7	-14.7	-11.7	-9.3	-6.5	-0.9	4.7	7.5	9.9	12.9	15.9	18.7
1000	499	-24.8	-21.6	-18.1	-14.7	-12.0	-8.8	-2.4	4.0	7.2	9.9	13.3	16.8	20.0
950	1913	-30.1	-26.3	-22.1	-17.9	-14.7	-10.9	-3.1	4.7	8.5	11.7	15.9	20.1	23.9
900	3392	-28.4	-24.5	-20.3	-16.1	-12.8	-8.9	-1.1	6.7	10.6	13.9	18.1	22.3	26.2
850	4944	-25.5	-21.7	-17.5	-13.3	-10.1	-6.3	1.5	9.3	13.1	16.3	20.5	24.7	28.5
800	6578	-24.7	-20.5	-15.9	-11.4	-7.8	-3.6	4.9	13.4	17.6	21.2	25.7	30.3	34.5
750	8307	-24.6	-19.9	-14.8	-9.7	-5.7	-1.0	8.5	18.0	22.7	26.7	31.8	36.9	41.6
700	10128	-24.7	-19.6	-14.1	-8.5	-4.2	.9	11.2	21.5	26.6	30.9	36.5	42.0	47.1
650	12067	-25.8	-20.1	-13.9	-7.6	-2.8	2.9	14.5	26.1	31.8	36.6	42.9	49.1	54.8
600	14124	-29.0	-22.5	-15.4	-8.4	-2.9	3.6	16.7	29.8	36.3	41.8	48.8	55.9	62.4
550	16335	-29.4	-22.4	-14.8	-7.2	-1.3	5.7	19.8	33.9	40.9	46.8	54.4	62.0	69.0
500	18714	-31.5	-23.7	-15.2	-6.8	-0.2	7.6	23.3	39.0	46.8	53.4	61.8	70.3	78.1
450	21296	-35.2	-26.6	-17.2	-7.8	-0.5	8.1	25.6	43.1	51.7	59.0	68.4	77.8	86.4
400	24101	-41.1	-31.2	-20.4	-9.7	-1.3	8.6	28.6	48.6	58.5	66.9	77.6	88.4	98.3
350	27185	-43.2	-32.6	-21.1	-9.6	-0.6	10.0	31.4	52.8	63.4	72.4	83.9	95.4	106.0
300	30646	-41.6	-30.8	-19.1	-7.3	1.8	12.6	34.4	56.2	67.0	76.1	87.9	99.6	110.4
250	34596	-36.3	-25.6	-13.9	-2.3	6.8	17.5	39.2	60.9	71.6	80.7	92.3	104.0	114.7
200	39268	-28.6	-19.7	-7.9	2.8	11.2	21.1	41.1	61.1	71.0	79.4	90.1	100.9	110.8
175	42024	-22.1	-13.2	-3.5	6.2	13.8	22.7	40.8	58.9	67.8	75.4	85.1	94.8	103.7
150	45180	-15.2	-7.6	.7	9.0	15.4	23.0	38.4	53.8	61.4	67.8	76.1	84.4	92.0
125	48875	-11.2	-4.8	2.2	9.2	14.6	21.0	34.0	47.0	53.4	58.8	65.8	72.8	79.2
100	53353	-11.1	-5.8	-0.0	5.8	10.3	15.6	26.4	37.2	42.5	47.0	52.8	58.6	63.9
80	57802	-12.5	-8.0	-3.1	1.7	5.5	10.0	19.0	28.0	32.5	36.3	41.1	46.0	50.5
70	60469	-10.7	-7.1	-3.2	.7	3.7	7.3	14.5	21.7	25.3	28.3	32.2	36.1	39.7

NOTE -- POSITIVE COMPONENTS ARE FROM THE WEST.

Table 103. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California: December

NO. OBSERVATIONS -- SURFACE = 332, TOP = 235

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-20.1	-17.8	-15.3	-12.8	-10.8	-8.5	-3.8	.9	3.2	5.2	7.7	10.2	12.5
1000	499	-21.4	-18.9	-16.2	-13.4	-11.3	-8.8	-3.7	1.4	3.9	6.0	8.8	11.5	14.0
950	1913	-23.5	-20.7	-17.7	-14.7	-12.3	-9.5	-3.9	1.7	4.5	6.9	9.9	12.9	15.7
900	3392	-24.2	-21.3	-18.1	-14.9	-12.4	-9.5	-3.5	2.5	5.4	7.9	11.1	14.3	17.2
850	4944	-25.5	-22.4	-19.0	-15.6	-13.0	-9.9	-3.6	2.7	5.8	8.4	11.8	15.2	18.3
800	6578	-32.0	-28.1	-23.9	-19.6	-16.3	-12.4	-4.5	3.4	7.3	10.6	14.9	19.1	23.0
750	8307	-38.9	-34.2	-29.1	-24.0	-20.0	-15.3	-5.8	3.7	8.4	12.4	17.5	22.6	27.3
700	10128	-43.9	-38.6	-32.8	-27.1	-22.6	-17.3	-6.6	4.1	9.4	13.9	19.6	25.4	30.7
650	12047	-48.6	-42.8	-36.5	-30.1	-25.2	-19.4	-7.6	4.2	10.0	14.9	21.3	27.6	33.4
600	14124	-54.2	-47.7	-40.6	-33.4	-27.9	-21.4	-8.1	5.2	11.7	17.2	24.4	31.5	38.0
550	16335	-57.1	-50.3	-42.8	-35.4	-29.6	-22.8	-8.9	5.0	11.8	17.6	25.0	32.5	39.3
500	18714	-65.9	-57.9	-49.2	-40.5	-33.7	-25.7	-9.5	6.7	14.7	21.5	30.2	38.9	46.9
450	21296	-69.1	-60.7	-51.5	-42.3	-35.2	-26.8	-9.7	7.4	15.9	22.9	32.1	41.3	49.7
400	24101	-75.7	-66.4	-56.2	-46.1	-38.2	-28.9	-10.0	8.9	18.2	26.1	36.2	46.4	55.7
350	27185	-81.8	-71.7	-60.6	-49.6	-41.0	-30.9	-10.3	10.3	20.4	29.0	40.0	51.1	61.2
300	30646	-89.2	-78.3	-66.4	-54.5	-45.2	-34.3	-12.1	10.1	21.0	30.3	42.2	54.1	65.0
250	34596	-94.0	-82.6	-70.1	-57.7	-48.0	-36.6	-13.4	9.8	21.2	30.9	43.3	55.8	67.2
200	39268	-86.0	-75.5	-64.0	-52.5	-43.6	-33.1	-11.7	9.7	20.2	29.1	40.6	52.1	62.6
175	42024	-70.2	-61.6	-52.2	-42.7	-35.4	-26.8	-9.2	8.4	17.0	24.3	33.8	43.2	51.8
150	45180	-62.4	-54.6	-46.1	-37.5	-30.9	-23.1	-7.2	8.7	16.5	23.1	31.7	40.2	48.0
125	48875	-50.6	-44.4	-37.7	-30.9	-25.7	-19.5	-7.0	5.5	11.7	16.9	23.7	30.4	36.6
100	53353	-38.7	-33.9	-28.6	-23.4	-19.3	-14.5	-4.7	5.1	9.9	14.0	19.2	24.5	29.3
80	57802	-32.2	-28.4	-24.3	-20.2	-17.0	-13.2	-5.6	2.0	5.8	9.0	13.1	17.2	21.0
70	60469	-27.7	-24.4	-20.8	-17.2	-14.4	-11.1	-4.4	2.3	5.6	8.4	12.0	15.6	18.9

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.

Winds-Aloft Time Sections

Figures 21 and 22 (a) and (b) present vertical time sections of the mean wind patterns to 100,000 feet over San Nicolas Island, month by month. These are based on information in tables 17 through 52. Mean scalar wind speeds are shown in figure 21.

In figure 21, it is seen that there is a well-defined region of speeds over 60 knots in the zone between 37,000 and 43,000 feet during February and March. A secondary maximum of slightly over 40 knots occurs in September between 35,000 and 45,000 feet. The lightest mean speeds at any altitude below the stratonull, the stratospheric wind minimum, are found in July and August. The stratonull is evident near 70,000 feet with minimum speeds of less than 10 knots found in spring and autumn.

Similar time sections of the mean zonal and meridional components are provided in figure 22 (a) and (b). The strongest westerlies are seen near 40,000 feet in late winter and early spring with summer easterlies prominent above about 60,000 feet. Light northerly wind components are seen through the winter six months of the year, with stronger southerly components evident in the warmer months. At stratospheric levels, the westerly component is quite weak, with summer easterlies as the predominant feature at these altitudes. The meridional component in the stratosphere is very weak and about equally likely to be northerly or southerly.

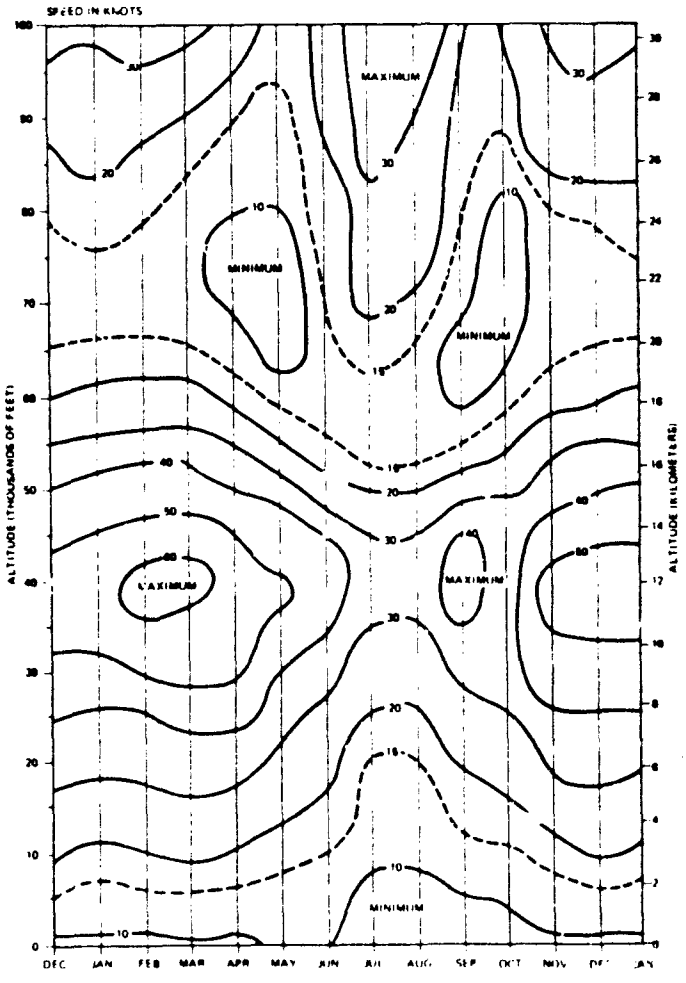


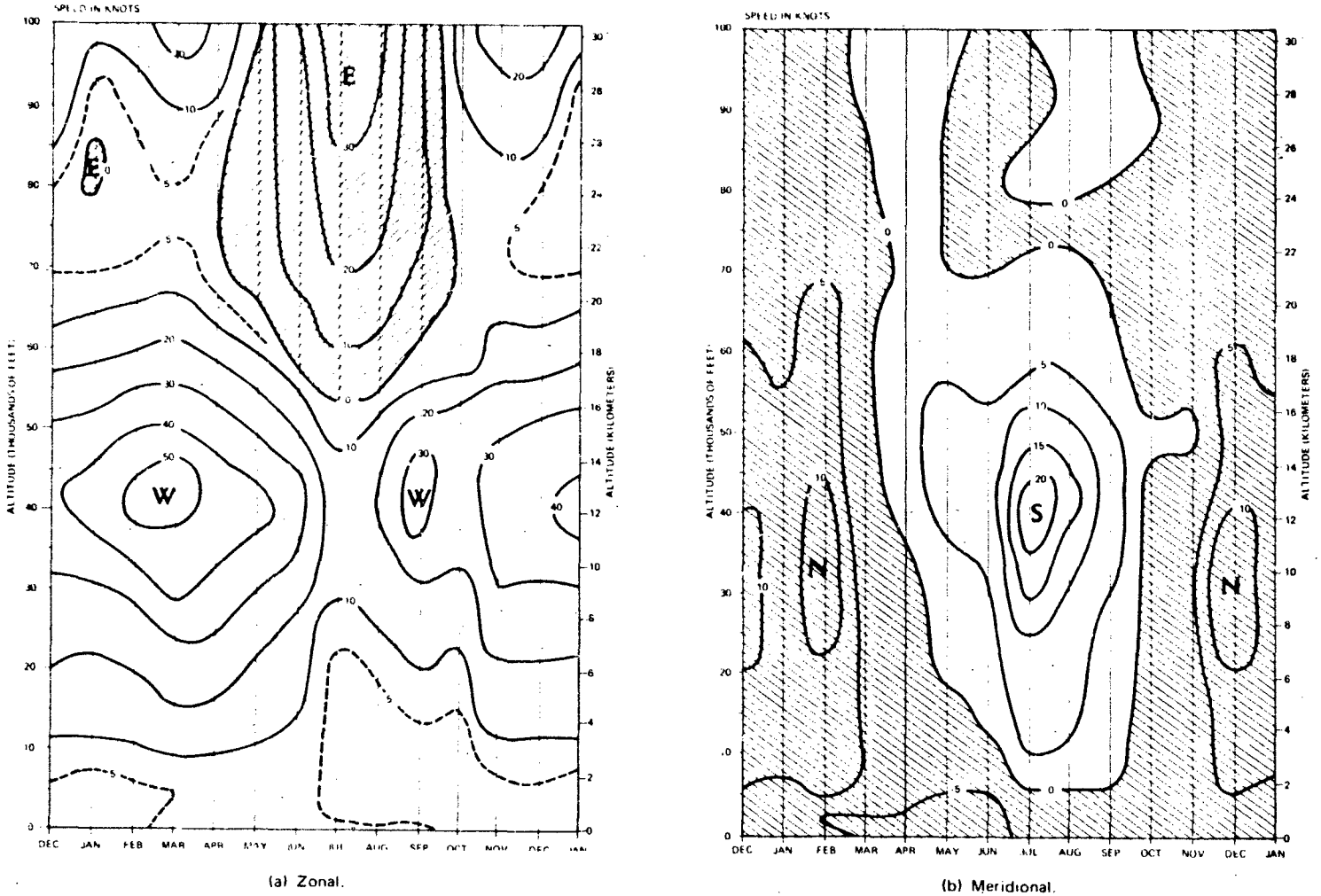
Figure 21. Mean Scalar Wind Speeds, San Nicolas Island.

Table 97. Cumulative Frequency Distribution of the Meridional Upper Wind Component at Standard Pressure Levels for Point Mugu, California: October

NO. OBSERVATIONS -- SURFACE = 284, TOP = 240

PRESSURE LEVEL (MbS)	MEAN HEIGHT (FT)	MERIDIONAL WIND SPEED (KNOTS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-16.8	-14.7	-12.4	-10.2	-8.4	-6.3	-2.1	2.1	4.2	6.0	8.2	10.5	14.6
1000	430	-15.4	-13.5	-11.4	-9.3	-7.7	-5.8	-1.9	2.0	3.9	5.5	7.6	9.7	11.6
950	1877	-16.7	-14.0	-12.3	-10.1	-8.3	-6.2	-2.0	2.2	4.3	6.1	8.3	10.6	12.7
900	3346	-15.3	-13.4	-11.3	-9.2	-7.6	-5.7	-1.8	2.1	4.0	5.6	7.7	9.8	11.7
850	4987	-16.7	-14.5	-12.1	-9.6	-7.7	-5.5	-0.9	3.7	5.9	7.8	10.3	12.7	14.9
800	6663	-21.0	-18.2	-15.1	-12.0	-9.6	-6.8	-1.0	4.8	7.6	10.0	13.1	16.2	19.0
750	8435	-25.4	-21.9	-18.1	-14.3	-11.3	-7.8	-0.7	6.4	9.9	12.9	16.7	20.5	24.0
700	10299	-28.0	-24.2	-20.0	-15.8	-12.6	-8.8	-1.0	6.8	10.6	13.8	18.0	22.2	26.0
650	12283	-30.5	-26.3	-21.7	-17.2	-13.6	-9.4	-0.9	7.6	11.8	15.4	19.9	24.5	28.7
600	14393	-31.9	-27.4	-22.5	-17.7	-13.9	-9.4	-0.6	8.6	13.1	16.9	21.7	26.6	31.1
550	16647	-35.9	-30.9	-25.5	-20.1	-15.9	-10.9	-0.9	9.2	14.1	18.3	23.7	29.1	34.0
500	19075	-37.7	-32.5	-26.8	-21.1	-16.7	-11.5	-0.9	9.7	14.9	19.3	25.0	30.7	35.9
450	21719	-44.0	-37.9	-31.3	-24.7	-19.5	-13.4	-1.1	11.2	17.3	22.5	29.1	35.7	41.8
400	24570	-47.5	-40.9	-33.7	-26.5	-20.9	-14.3	-0.9	12.5	19.1	24.7	31.9	39.1	45.7
350	27743	-53.7	-46.1	-37.8	-29.5	-23.1	-15.5	-0.1	15.3	22.9	29.3	37.6	45.9	53.5
300	31257	-58.1	-49.9	-41.0	-32.1	-25.2	-17.0	-0.5	16.0	24.2	31.1	40.0	48.9	57.1
250	35279	-60.9	-52.4	-43.1	-33.8	-26.5	-18.0	-0.6	16.8	25.3	32.6	41.9	51.2	59.7
200	40023	-58.8	-50.5	-41.5	-32.5	-25.5	-17.3	-0.5	16.3	24.5	31.5	40.5	49.5	57.8
175	42792	-50.2	-43.2	-35.5	-27.9	-21.9	-14.9	-0.6	13.7	20.7	26.7	34.3	42.0	49.0
150	45935	-45.6	-39.2	-32.2	-25.2	-19.8	-13.4	-0.4	12.6	19.0	24.4	31.4	38.4	44.8
125	49600	-41.6	-35.9	-29.7	-23.4	-18.6	-12.9	-1.3	10.3	16.0	20.8	27.1	33.3	39.0
100	54026	-31.9	-27.6	-22.9	-18.2	-14.5	-10.2	-1.4	7.4	11.7	15.4	20.1	24.8	29.1
80	58442	-25.1	-21.8	-18.2	-14.6	-11.8	-8.5	-1.8	4.9	8.2	11.0	14.6	18.2	21.5
70	61106	-22.4	-19.7	-16.7	-13.7	-11.4	-8.7	-3.1	2.5	5.2	7.5	10.5	13.5	16.2

NOTE -- POSITIVE COMPONENTS ARE FROM THE SOUTH.



(a) Zonal.

(b) Meridional.

Figure 22. Mean Monthly Wind Components, San Nicolas Island.

TEMPERATURE DATA

Mean Upper-Air Temperature Profiles

Annual and seasonal profiles of upper-air temperature distributions, presented in a manner similar to those of the wind distributions, are shown in figures 23 through 27 for San Nicolas Island and figures 28 through 32 for Point Mugu. In addition to profiles of the mean temperature and the ±1 standard deviation envelope, profiles are also plotted for the 1- and 99-percent occurrence frequencies.

As with the wind data, these curves are plotted at the mean heights of the standard pressure levels. Therefore, the inflection point of the mean temperature curves for either station should not be taken as a precise indicator of either the base or top of the low-level inversion or of the height of the tropopause.

Although the lower structure of the temperature profiles for Point Mugu might be taken as generally representative of the thermal conditions over the immediately adjacent ocean area, this is not true of the San Nicolas Island data. Surface at Point Mugu is 12 feet MSL. For San Nicolas, the height of the radiosonde release point was 571 feet (174 meters). Thus the station is, on many occasions, well within the inversion layer and only the inversion top is measured by the sounding. For the same reason, the San Nicolas Island surface data cannot be taken as representative of surface (sea-level) conditions over the surrounding waters. Also, because of the nature of the standard methods by which the data have been summarized, one cannot infer any of the fine structure of the atmospheric temperature profiles at either station.

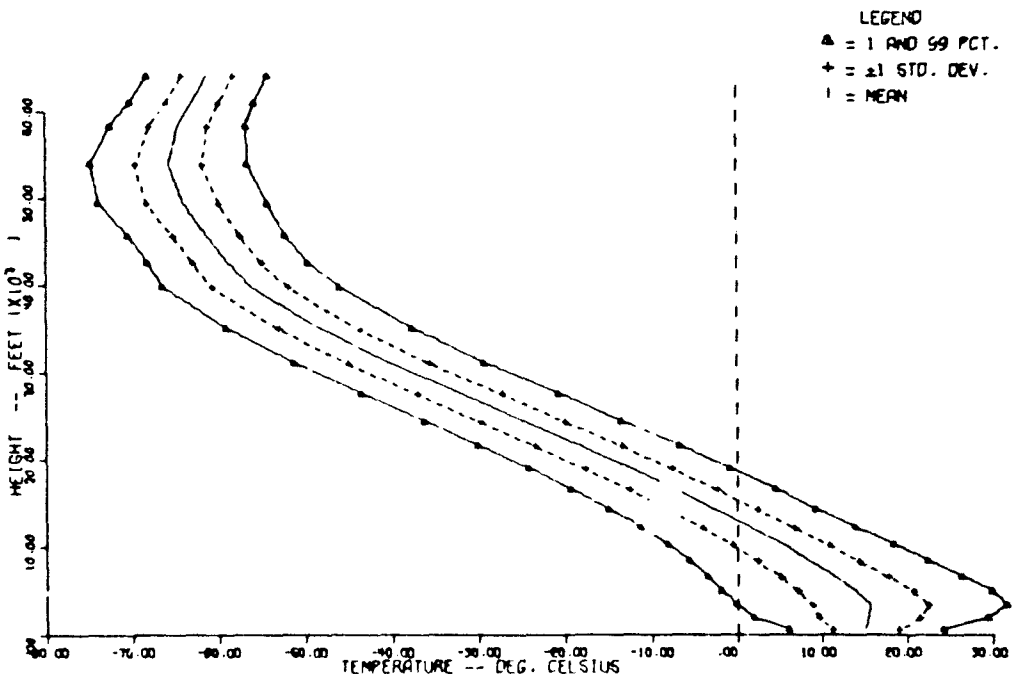


Figure 23. Upper-Air Temperatures for San Nicolas: Annual.

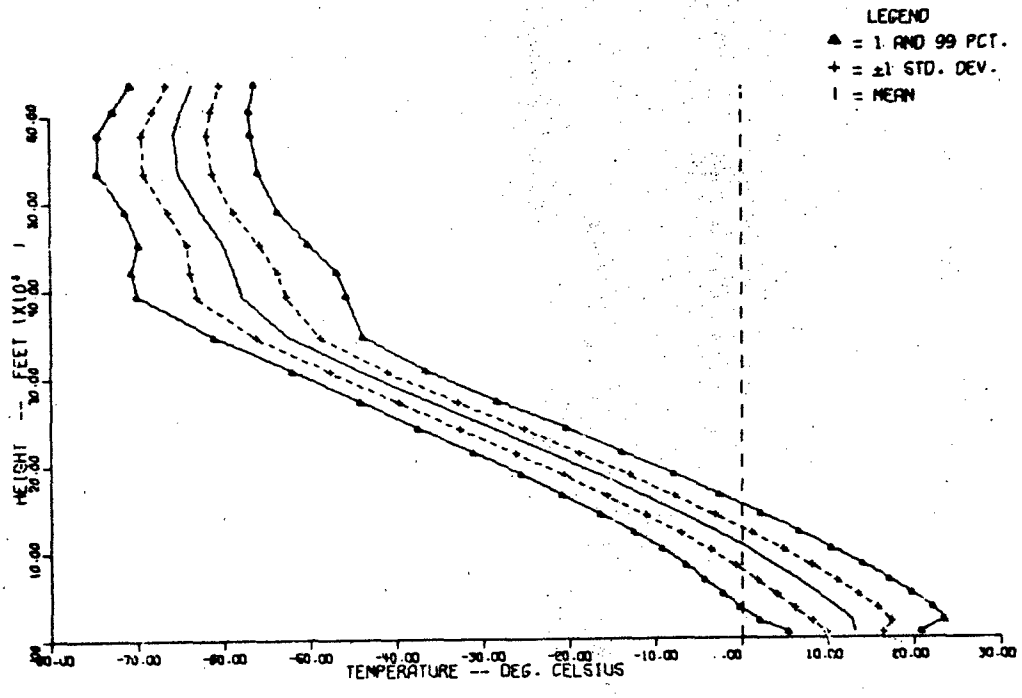


Figure 24. Upper-Air Temperatures for San Nicolas Island: Winter.

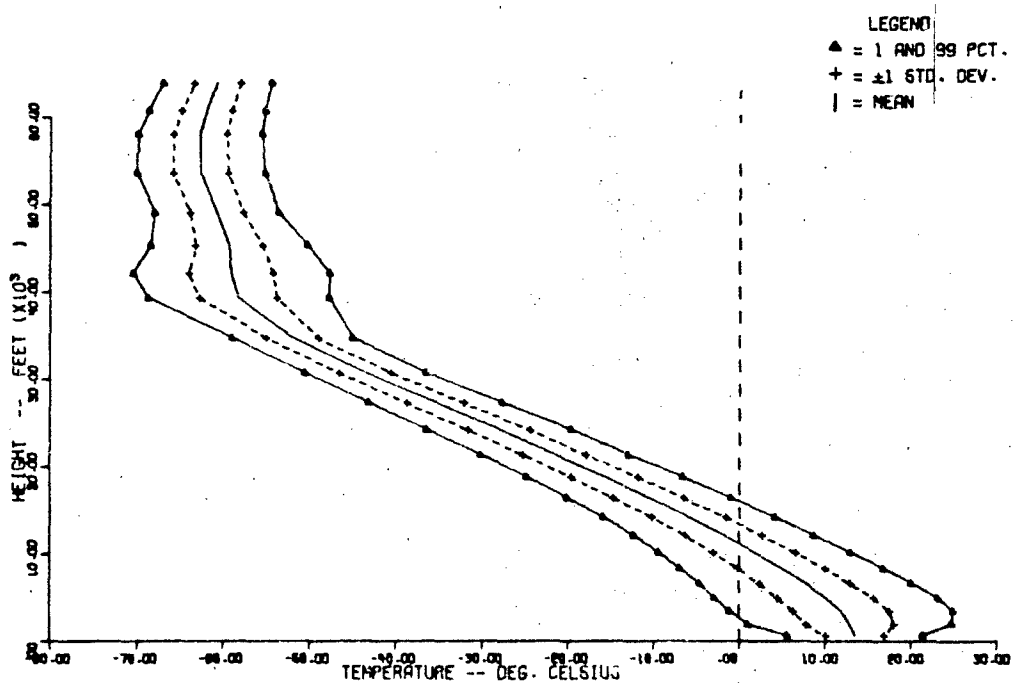


Figure 25. Upper-Air Temperatures for San Nicolas Island: Spring.

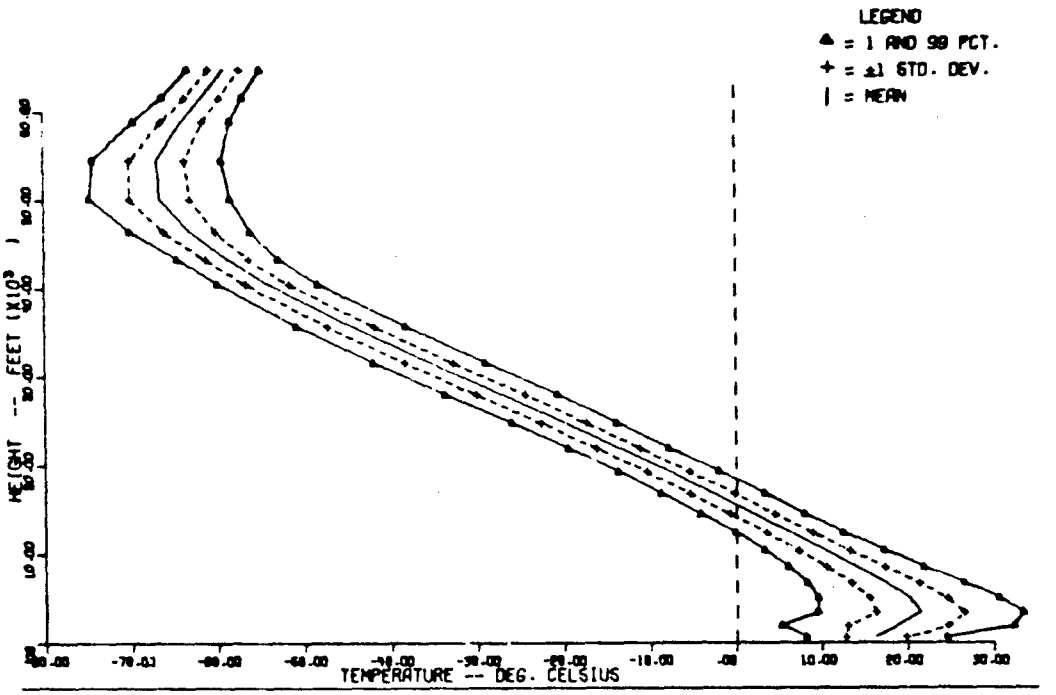


Figure 26. Upper-Air Temperatures for San Nicolas Island: Summer.

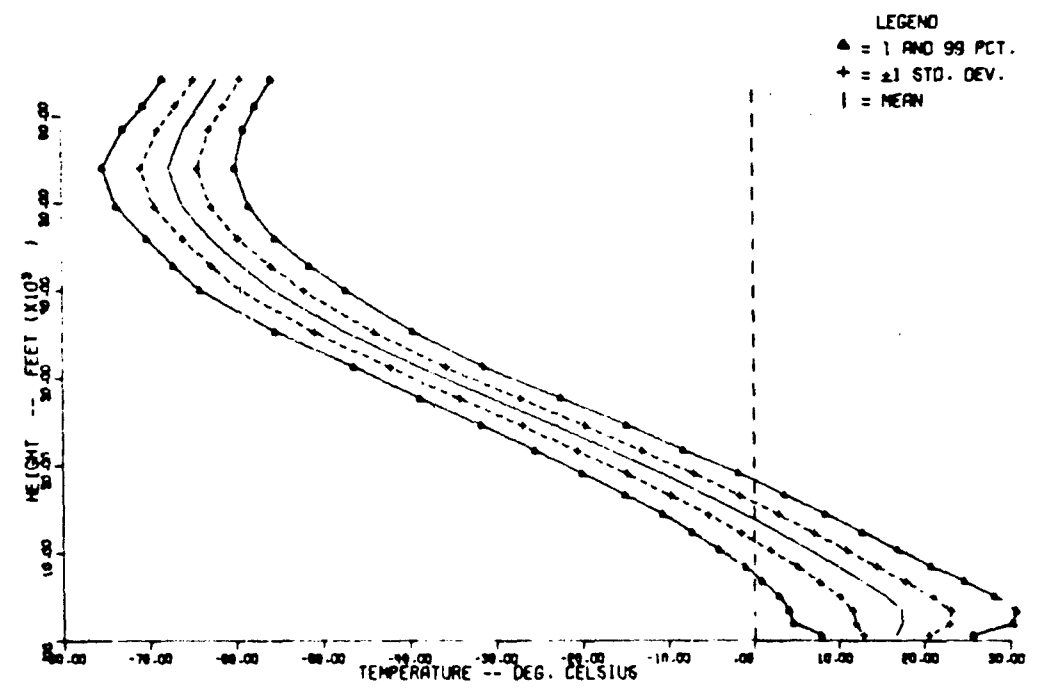


Figure 27. Upper-Air Temperatures for San Nicolas Island: Autumn.

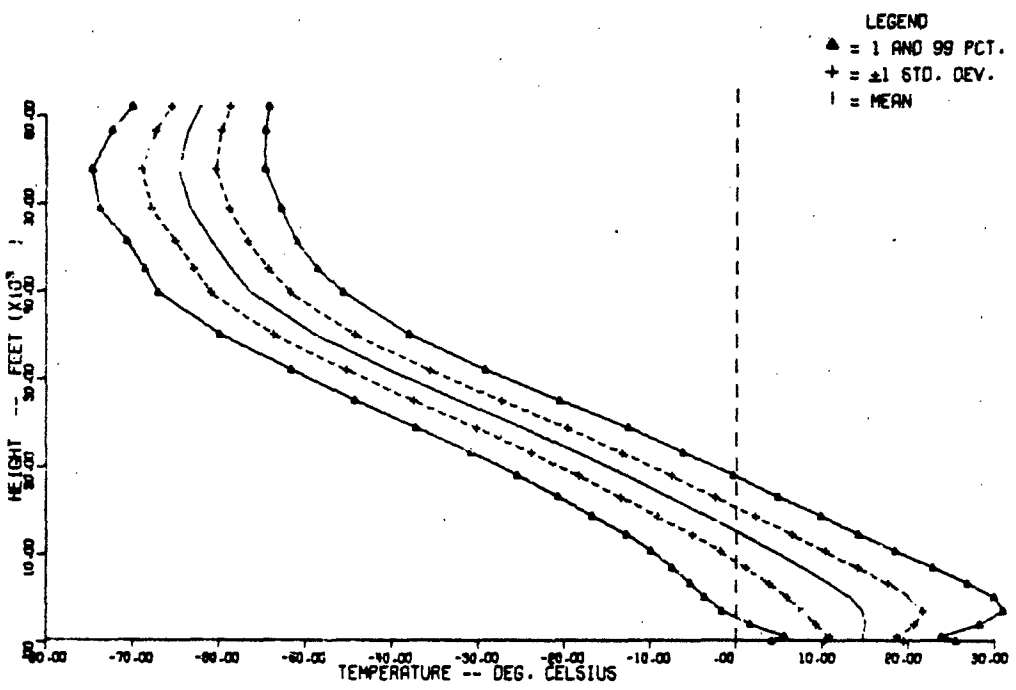


Figure 28. Upper-Air Temperatures for Point Mugu, California: Annual.

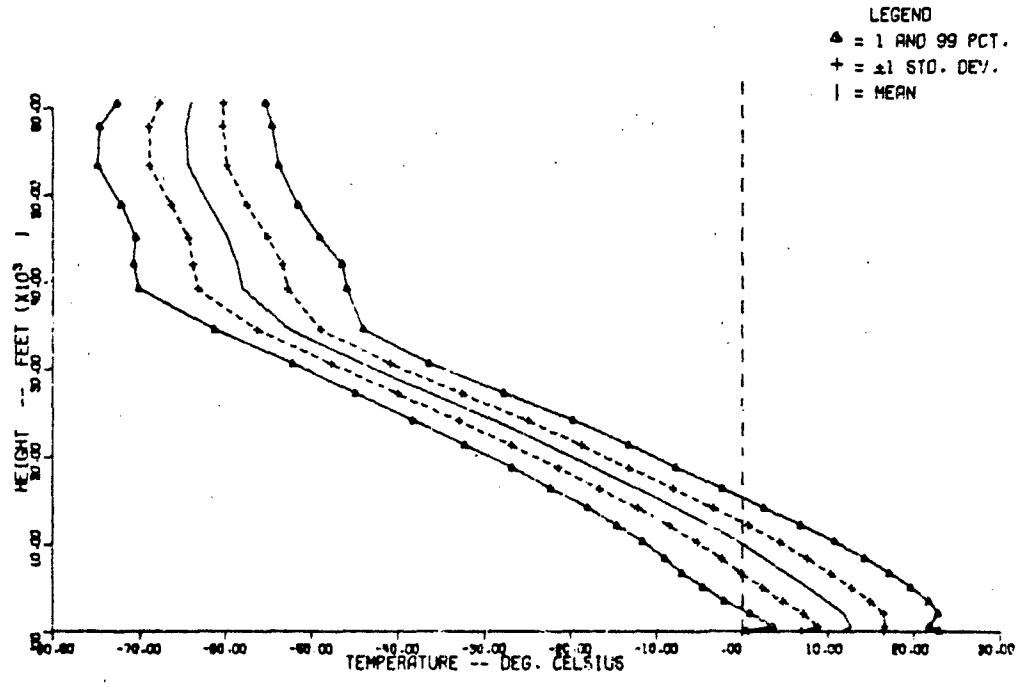


Figure 29. Upper-Air Temperatures for Point Mugu, California: Winter.

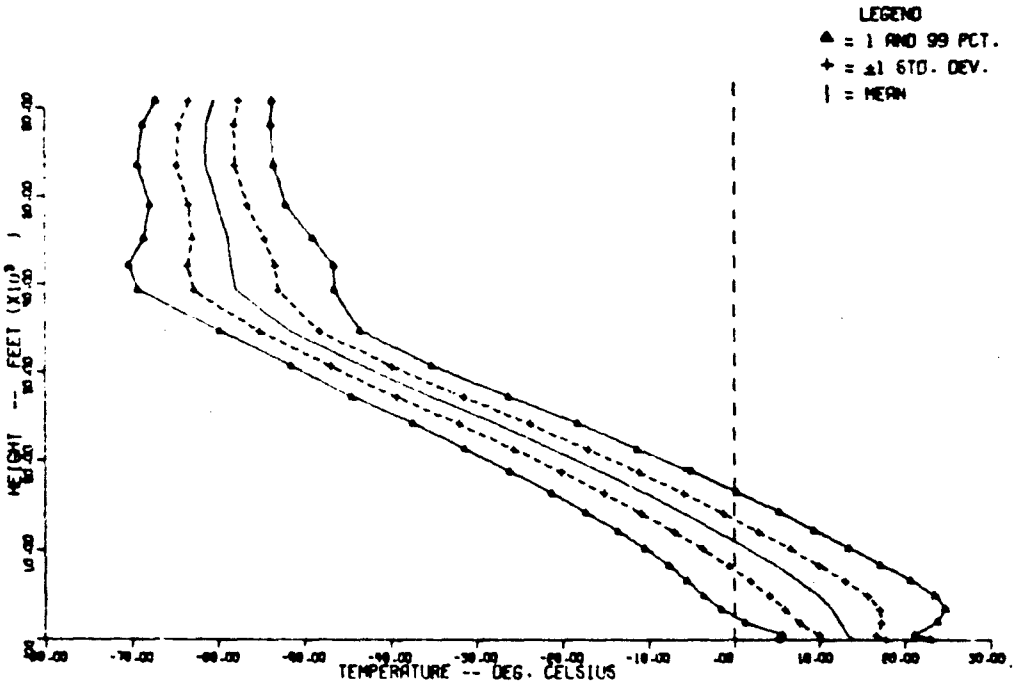


Figure 30. Upper-Air Temperatures for Point Mugu, California: Spring.

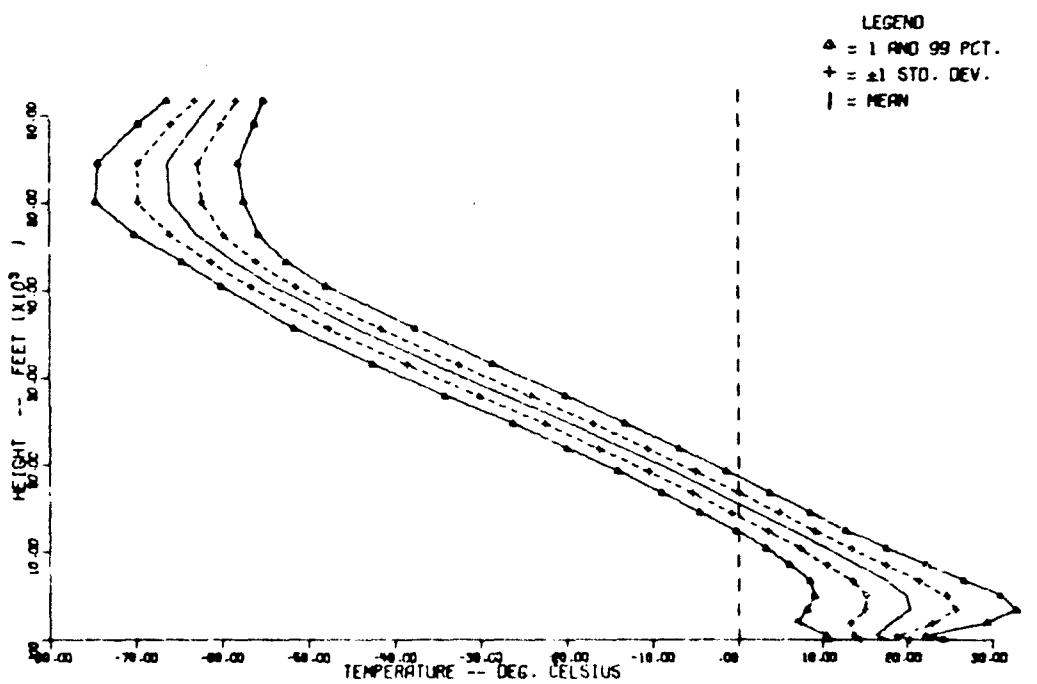


Figure 31. Upper-Air Temperatures for Point Mugu, California: Summer.

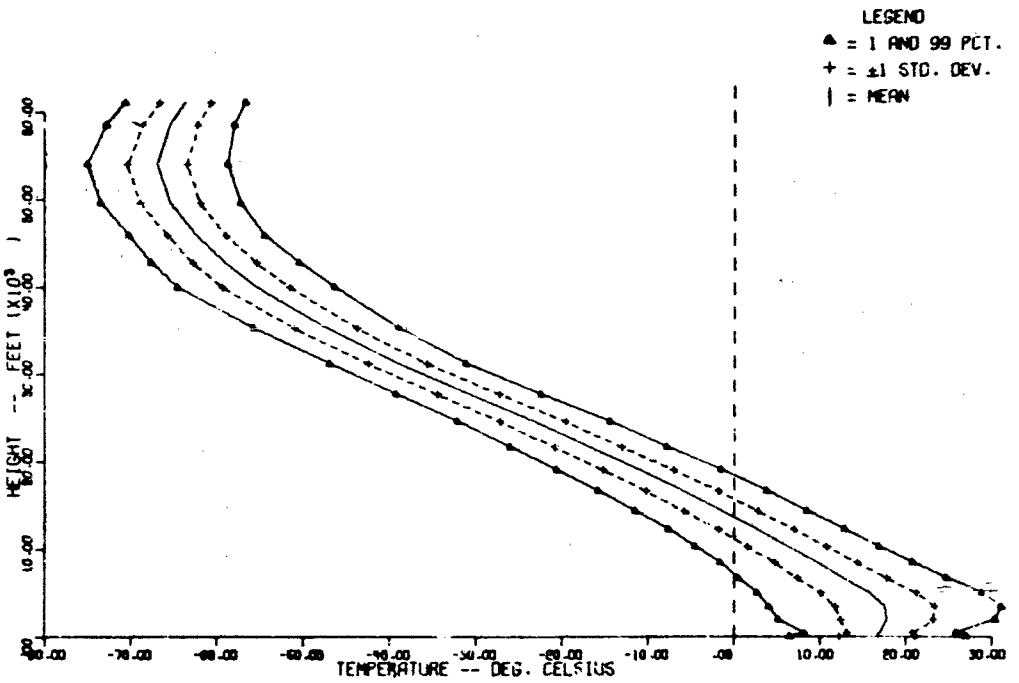


Figure 32. Upper-Air Temperatures for Point Mugu, California: Autumn.

Cumulative Frequency Distributions

Cumulative frequency distributions of the temperatures aloft between the surface and the 10-mb level (approximately 102,000 feet) are provided for each month as well as seasonally and annually in tables 104 through 120 and 121 through 137 for San Nicolas Island and Point Mugu, respectively. These are presented in a manner similar to the earlier tables of the wind frequency distribution.

Table 104. Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for San Nicolas Island: Annual

NO. OBSERVATIONS -- SURFACE = 8853, TOP = 3709

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CENTIGRADE) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.. MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	6.0	7.3	8.7	10.1	11.2	12.5	15.1	17.7	19.0	20.1	21.5	22.9	24.2
950	1840	1.9	3.8	5.9	8.0	9.7	11.6	15.6	19.6	21.5	23.2	25.3	27.4	29.3
900	3365	-0.1	2.1	4.5	7.0	8.9	11.1	15.7	20.3	22.5	24.4	26.9	29.3	31.5
850	4951	-1.9	.3	2.7	5.2	7.1	9.3	13.9	18.5	20.7	22.6	25.1	27.5	29.7
800	6617	-3.5	-1.4	.9	3.2	5.0	7.1	11.6	15.7	17.8	19.6	21.9	24.2	26.3
750	8376	-5.6	-3.6	-1.4	.7	2.4	4.4	8.6	12.4	14.4	16.1	18.2	20.4	22.4
700	10236	-8.2	-6.3	-4.2	-2.2	-0.6	1.3	5.1	8.9	10.8	12.4	14.4	16.5	18.4
650	12251	-11.3	-9.5	-7.6	-5.6	-4.1	-2.3	1.3	4.9	6.7	8.2	10.2	12.1	13.9
600	14434	-14.9	-13.2	-11.3	-9.5	-8.0	-6.3	-2.8	.7	2.4	3.9	5.7	7.6	9.3
550	16835	-19.3	-17.6	-15.8	-13.9	-12.5	-10.8	-7.4	-4.0	-2.3	-0.9	1.0	2.8	4.5
500	18987	-24.2	-22.6	-20.8	-19.0	-17.6	-15.9	-12.6	-9.2	-7.6	-6.2	-4.4	-2.6	-0.9
450	21558	-30.0	-28.4	-26.6	-24.8	-23.4	-21.8	-18.6	-15.0	-13.4	-12.0	-10.2	-8.4	-6.8
400	24416	-36.2	-34.6	-32.8	-31.1	-29.7	-28.1	-24.8	-21.5	-19.9	-18.5	-16.8	-15.0	-13.4
350	27556	-43.5	-41.9	-40.1	-38.4	-37.0	-35.4	-32.1	-28.8	-27.2	-25.8	-24.1	-22.3	-20.7
300	31046	-51.3	-49.7	-48.0	-46.3	-45.0	-43.4	-40.3	-37.2	-35.6	-34.3	-32.6	-30.9	-29.3
250	35049	-59.1	-57.6	-55.9	-54.3	-53.0	-51.5	-48.4	-45.3	-43.8	-42.5	-40.9	-39.2	-37.7
200	39790	-66.5	-65.1	-63.5	-61.9	-60.7	-59.2	-56.3	-53.4	-51.9	-50.7	-49.1	-47.5	-46.0
175	42582	-68.2	-66.9	-65.3	-64.0	-62.9	-61.6	-59.0	-56.2	-54.9	-53.8	-52.3	-50.9	-49.6
150	45709	-70.5	-69.2	-67.8	-66.4	-65.3	-64.0	-61.4	-58.8	-57.5	-56.4	-55.0	-53.6	-52.3
125	49333	-73.9	-72.5	-71.0	-69.5	-68.3	-66.9	-64.1	-61.3	-59.9	-58.7	-57.2	-55.7	-54.3
100	53855	-74.8	-73.5	-72.1	-70.7	-69.6	-68.3	-65.7	-63.1	-61.8	-60.7	-59.3	-57.9	-56.6
80	59314	-72.5	-71.4	-70.2	-69.0	-68.0	-66.9	-64.6	-62.3	-61.2	-60.2	-59.0	-57.8	-56.7
70	61001	-70.2	-69.2	-68.1	-67.0	-66.1	-65.1	-63.0	-60.9	-59.9	-59.0	-57.9	-56.8	-55.8
60	64124	-69.2	-67.2	-66.1	-65.0	-64.2	-63.2	-61.2	-59.2	-58.2	-57.4	-56.3	-55.2	-54.2
50	67854	-66.3	-65.3	-64.2	-63.1	-62.2	-61.2	-59.1	-57.0	-56.0	-55.1	-54.0	-52.9	-51.9
40	72479	-64.1	-63.0	-61.8	-60.7	-59.8	-58.7	-56.6	-54.5	-53.4	-52.5	-51.4	-50.2	-49.1
30	78434	-61.9	-60.6	-59.3	-58.1	-57.1	-55.9	-53.6	-51.3	-50.1	-49.1	-47.9	-46.6	-45.4
25	82342	-60.3	-59.1	-57.8	-56.4	-55.4	-54.2	-51.7	-49.2	-48.0	-47.0	-45.6	-44.3	-43.1
20	87133	-58.7	-57.4	-56.0	-54.5	-53.4	-52.1	-49.4	-46.7	-45.4	-44.3	-42.8	-41.4	-40.1
15	93369	-56.7	-55.2	-53.6	-52.0	-50.8	-49.3	-46.6	-43.5	-42.0	-40.8	-39.2	-37.6	-36.1
10	102283	-53.7	-52.0	-50.2	-48.4	-47.0	-45.3	-42.0	-38.7	-37.0	-35.6	-33.8	-32.0	-30.3
*	110276	-50.8	-49.0	-47.0	-45.0	-43.4	-41.6	-37.8	-34.0	-32.2	-30.6	-28.6	-26.6	-24.8

Table 105. Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for San Nicolas Island: Winter

NO. OBSERVATIONS -- SURFACE = 1962, TOP = 778

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	5.4	6.5	7.7	8.9	9.8	10.9	13.1	15.3	16.4	17.3	18.5	19.7	20.8
950	1916	2.1	3.6	5.3	6.9	8.2	9.7	12.8	15.9	17.4	18.7	20.3	22.0	23.5
900	3402	-0.3	1.3	3.0	4.8	6.1	7.7	10.9	14.1	15.7	17.0	18.8	20.5	22.1
850	4961	-2.3	-0.7	1.0	2.7	4.0	5.6	8.7	11.8	13.4	14.7	16.4	18.1	19.7
800	6598	-4.3	-2.8	-1.1	.5	1.8	3.3	6.4	9.5	11.0	12.3	13.9	15.6	17.1
750	8323	-6.6	-5.1	-3.5	-1.9	-0.7	.8	3.7	6.6	8.1	9.3	10.9	12.5	14.0
700	10154	-9.2	-7.8	-6.3	-4.8	-3.6	-2.2	.6	3.4	4.8	6.0	7.5	9.0	10.4
650	12083	-12.6	-11.2	-9.7	-8.2	-7.1	-5.7	-3.0	-0.3	1.1	2.2	3.7	5.2	6.6
600	14154	-16.4	-15.1	-13.7	-12.2	-11.1	-9.8	-7.1	-4.4	-3.1	-2.0	-0.5	.9	2.2
550	16348	-20.8	-19.5	-18.1	-16.7	-15.6	-14.3	-11.7	-9.1	-7.8	-6.7	-5.3	-3.9	-2.6
500	18734	-25.7	-24.4	-23.0	-21.7	-20.6	-19.3	-16.8	-14.3	-13.0	-11.9	-10.6	-9.2	-7.9
450	21289	-31.1	-29.9	-28.6	-27.2	-26.2	-25.0	-22.5	-20.0	-18.8	-17.8	-16.4	-15.1	-13.9
400	24104	-37.5	-36.3	-35.0	-33.6	-32.6	-31.4	-28.5	-26.4	-25.2	-24.2	-22.8	-21.5	-20.3
350	27192	-44.2	-43.1	-41.9	-40.7	-39.7	-38.6	-36.3	-34.0	-32.9	-31.9	-30.7	-29.5	-28.4
300	30640	-52.0	-50.9	-49.7	-48.5	-47.6	-46.5	-44.3	-42.1	-41.0	-40.1	-38.9	-37.7	-36.6
250	34577	-61.1	-59.9	-58.6	-57.2	-56.2	-55.0	-52.5	-50.0	-48.8	-47.8	-46.4	-45.1	-43.9
200	39239	-70.0	-68.3	-66.4	-64.6	-63.1	-61.4	-57.9	-54.4	-52.7	-51.2	-49.4	-47.5	-45.8
175	41995	-70.7	-69.0	-67.2	-65.3	-63.9	-62.2	-58.8	-55.4	-53.7	-52.3	-50.4	-48.6	-46.9
150	45164	-69.8	-68.4	-66.9	-65.4	-64.2	-62.8	-60.0	-57.2	-55.8	-54.5	-53.1	-51.6	-50.2
125	48875	-71.5	-70.2	-68.8	-67.5	-66.4	-65.1	-62.6	-60.1	-58.8	-57.7	-56.4	-55.0	-53.7
100	53340	-74.5	-73.2	-71.8	-70.3	-69.2	-67.9	-65.2	-62.5	-61.2	-60.1	-58.6	-57.2	-55.9
80	57808	-74.6	-73.3	-71.9	-70.6	-69.5	-68.2	-65.7	-63.2	-61.9	-60.8	-59.5	-58.1	-56.8
70	60476	-72.7	-71.6	-70.4	-69.2	-68.2	-67.1	-64.8	-62.5	-61.4	-60.4	-59.2	-58.0	-56.9
60	63442	-70.7	-69.7	-68.6	-67.5	-66.6	-65.6	-63.5	-61.4	-60.4	-59.5	-58.4	-57.3	-56.3
50	67241	-68.2	-67.3	-66.3	-65.3	-64.5	-63.6	-61.7	-59.8	-58.9	-58.1	-57.1	-56.1	-55.2
40	71814	-66.2	-65.3	-64.3	-63.3	-62.5	-61.6	-59.7	-57.8	-56.9	-56.1	-55.1	-54.1	-53.2
30	77753	-63.9	-62.9	-61.9	-60.8	-60.0	-59.0	-57.1	-55.2	-54.2	-53.4	-52.3	-51.3	-50.3
25	81558	-62.9	-61.8	-60.6	-59.5	-58.6	-57.5	-55.4	-53.3	-52.2	-51.3	-50.2	-49.0	-47.9
20	86247	-61.6	-60.4	-59.1	-57.9	-56.9	-55.7	-53.4	-51.1	-49.9	-48.9	-47.7	-46.4	-45.2
15	92372	-60.4	-59.0	-57.5	-56.0	-54.8	-53.4	-50.6	-47.8	-46.4	-45.2	-43.7	-42.2	-40.8
10	101106	-57.6	-56.0	-54.3	-52.6	-51.3	-49.7	-46.6	-43.5	-41.9	-40.6	-38.9	-37.2	-35.6
7	108901	-55.2	-53.4	-51.4	-49.4	-47.9	-46.1	-42.4	-38.7	-36.9	-35.4	-33.4	-31.4	-29.6

Table 106. Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for San Nicolas Island: Spring

NO. OBSERVATIONS -- SURFACE = 2144, TOP = 887

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	5.6	6.7	7.9	9.1	10.1	11.2	13.5	15.8	16.9	17.9	19.1	20.3	21.4
950	1857	1.0	2.7	4.5	6.4	7.8	9.5	12.9	16.3	18.0	19.4	21.3	23.1	24.8
900	3343	-1.1	.7	2.7	4.7	6.3	8.1	11.9	15.7	17.5	19.1	21.1	23.1	24.9
850	4918	-2.9	-1.1	.9	2.9	4.5	6.3	10.1	13.9	15.7	17.3	19.3	21.3	23.1
800	6552	-4.6	-2.9	-1.0	.9	2.4	4.1	7.7	11.3	13.0	14.5	16.4	18.3	20.0
750	8244	-7.0	-5.3	-3.5	-1.6	-0.2	1.5	4.9	8.3	10.0	11.4	13.3	15.1	16.8
700	10125	-9.4	-7.8	-6.1	-4.3	-3.0	-1.4	1.8	5.0	6.6	7.9	9.7	11.4	13.0
650	12044	-12.3	-10.8	-9.2	-7.6	-6.3	-4.8	-1.8	1.2	2.7	4.0	5.6	7.2	8.7
600	14144	-15.9	-14.5	-13.0	-11.4	-10.2	-8.8	-5.9	-3.0	-1.6	-0.4	1.2	2.7	4.1
550	16348	-20.2	-18.8	-17.3	-15.8	-14.7	-13.3	-10.6	-7.9	-6.5	-5.4	-3.9	-2.4	-1.0
500	18740	-24.8	-23.5	-22.1	-20.7	-19.6	-18.3	-15.7	-13.1	-11.8	-10.7	-9.3	-7.9	-6.6
450	21309	-30.1	-28.9	-27.6	-26.2	-25.2	-24.0	-21.5	-19.0	-17.8	-16.8	-15.4	-14.1	-12.9
400	24134	-36.4	-35.2	-33.9	-32.6	-31.6	-30.4	-28.0	-25.6	-24.4	-23.4	-22.1	-20.8	-19.6
350	27231	-43.1	-42.0	-40.8	-39.6	-38.7	-37.6	-35.4	-33.2	-32.1	-31.2	-30.0	-28.8	-27.7
300	30692	-50.5	-49.5	-48.4	-47.3	-46.5	-45.5	-43.5	-41.5	-40.5	-39.7	-38.6	-37.5	-36.5
250	34619	-58.9	-57.9	-56.8	-55.7	-54.9	-53.9	-51.9	-49.9	-48.9	-48.1	-47.0	-45.9	-44.9
200	39314	-68.7	-67.7	-65.6	-64.0	-62.7	-61.2	-58.2	-55.2	-53.7	-52.4	-50.8	-49.2	-47.7
175	42064	-70.4	-68.8	-67.0	-65.3	-63.9	-62.3	-59.0	-55.7	-54.1	-52.7	-51.0	-49.2	-47.6
150	45224	-68.4	-67.1	-65.7	-64.3	-63.2	-61.9	-59.3	-56.7	-55.4	-54.3	-52.9	-51.5	-50.2
125	48963	-67.9	-66.9	-65.8	-64.7	-63.8	-62.8	-60.7	-58.6	-57.6	-56.7	-55.6	-54.5	-53.5
100	53447	-70.1	-69.0	-67.8	-66.7	-65.8	-64.7	-62.6	-60.5	-59.4	-58.5	-57.4	-56.2	-55.1
80	58009	-69.9	-68.9	-67.8	-66.7	-65.8	-64.8	-62.7	-60.6	-59.6	-58.7	-57.6	-56.5	-55.5
70	60712	-68.7	-67.7	-66.7	-65.6	-64.8	-63.8	-61.9	-60.0	-59.0	-58.2	-57.1	-56.1	-55.1
60	63852	-67.0	-66.1	-65.1	-64.2	-63.4	-62.5	-60.7	-58.9	-58.0	-57.2	-56.3	-55.3	-54.4
50	67509	-65.2	-64.3	-63.3	-62.4	-61.6	-60.7	-58.9	-57.1	-56.2	-55.4	-54.5	-53.5	-52.6
40	72211	-62.4	-61.7	-60.7	-59.8	-59.0	-58.1	-56.3	-54.5	-53.6	-52.8	-51.9	-50.9	-50.0
30	78255	-59.7	-58.8	-57.8	-56.8	-56.0	-55.1	-53.2	-51.3	-50.4	-49.6	-48.6	-47.6	-46.7
25	82133	-58.3	-57.3	-56.2	-55.1	-54.3	-53.3	-51.3	-49.3	-48.3	-47.5	-46.4	-45.3	-44.3
20	86939	-56.6	-55.5	-54.3	-53.1	-52.1	-51.0	-48.7	-46.4	-45.3	-44.3	-43.1	-41.9	-40.8
15	93159	-53.6	-52.4	-51.1	-49.8	-48.8	-47.6	-45.2	-42.8	-41.6	-40.6	-39.3	-38.0	-36.8
10	102142	-49.0	-47.7	-46.3	-45.0	-43.9	-42.6	-40.1	-37.6	-36.3	-35.2	-33.9	-32.5	-31.2
7	110216	-44.5	-43.2	-41.8	-40.3	-39.2	-37.9	-35.2	-32.5	-31.2	-30.1	-28.6	-27.2	-25.9

Table 107. Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for San Nicolas Island: Summer

NO. OBSERVATIONS -- SURFACE = 2382. TOP = 999

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	8.1	9.3	10.6	11.8	12.8	14.0	16.3	18.6	19.8	20.8	22.0	23.3	24.5
950	1827	5.3	7.2	9.3	11.4	13.0	14.9	18.8	22.7	24.6	26.2	28.3	30.4	32.3
900	3353	9.5	11.2	13.0	14.9	16.3	18.0	21.4	24.8	26.5	27.9	29.8	31.6	33.3
850	4970	9.6	11.1	12.7	14.3	15.6	17.1	20.1	23.1	24.6	25.9	27.5	29.1	30.6
800	6677	8.3	9.6	11.0	12.4	13.5	14.8	17.4	20.0	21.3	22.4	23.8	25.2	26.5
750	8468	6.1	7.2	8.4	9.6	10.6	11.7	14.0	16.3	17.4	18.4	19.6	20.8	21.9
700	10367	3.3	4.3	5.4	6.5	7.3	8.3	10.3	12.3	13.3	14.1	15.2	16.3	17.3
650	12369	-0.1	.8	1.8	2.7	3.5	4.4	6.2	8.0	8.9	9.7	10.6	11.6	12.5
600	14511	-4.2	-3.3	-2.4	-1.4	-0.7	.2	1.9	3.6	4.5	5.2	6.2	7.1	8.0
550	16781	-8.9	-8.0	-7.1	-6.1	-5.4	-4.5	-2.8	-1.1	-0.2	.5	1.5	2.4	3.3
500	19245	-13.7	-12.9	-12.0	-11.1	-10.4	-9.6	-7.9	-6.2	-5.4	-4.7	-3.8	-2.9	-2.1
450	21930	-19.5	-18.7	-17.8	-16.9	-16.2	-15.4	-13.7	-12.0	-11.2	-10.5	-9.6	-8.7	-7.9
400	24806	-26.1	-25.2	-24.3	-23.3	-22.6	-21.7	-20.0	-18.3	-17.4	-16.7	-15.7	-14.8	-13.9
350	28009	-33.7	-32.8	-31.8	-30.8	-30.0	-29.1	-27.2	-25.3	-24.4	-23.6	-22.6	-21.6	-20.7
300	31591	-42.0	-41.1	-40.1	-39.1	-38.3	-37.4	-35.5	-33.6	-32.7	-31.9	-30.9	-29.9	-29.0
250	35673	-50.8	-49.9	-48.9	-48.0	-47.2	-46.3	-44.5	-42.7	-41.8	-41.0	-40.1	-39.1	-38.2
200	40469	-59.9	-59.1	-58.2	-57.3	-56.6	-55.8	-54.1	-52.4	-51.6	-50.9	-50.0	-49.1	-48.3
175	43248	-64.6	-63.8	-62.9	-62.0	-61.3	-60.5	-58.8	-57.1	-56.3	-55.6	-54.7	-53.8	-53.0
150	46391	-70.1	-69.1	-68.0	-66.9	-66.1	-65.1	-63.1	-61.1	-60.1	-59.3	-58.2	-57.1	-56.1
125	50039	-74.8	-73.6	-72.3	-71.1	-70.1	-68.9	-66.6	-64.3	-63.1	-62.1	-60.9	-59.6	-58.4
100	54459	-74.4	-73.3	-72.1	-71.0	-70.1	-69.0	-66.9	-64.8	-63.7	-62.8	-61.7	-60.5	-59.6
80	58911	-69.6	-68.8	-67.9	-67.1	-66.4	-65.6	-64.0	-62.4	-61.6	-60.9	-60.1	-59.2	-58.4
70	61614	-66.3	-65.6	-64.9	-64.2	-63.6	-62.9	-61.6	-60.3	-59.6	-59.0	-58.3	-57.6	-56.9
60	64744	-63.3	-62.7	-62.1	-61.4	-60.9	-60.3	-59.1	-57.9	-57.3	-56.8	-56.1	-55.5	-54.9
50	68517	-60.3	-59.8	-59.2	-58.6	-58.2	-57.7	-56.6	-55.5	-55.0	-54.6	-54.0	-53.4	-52.9
40	73215	-57.3	-56.8	-56.3	-55.7	-55.3	-54.8	-53.8	-52.8	-52.3	-51.9	-51.3	-50.8	-50.3
30	79327	-54.2	-53.7	-53.1	-52.5	-52.1	-51.6	-50.5	-49.4	-48.9	-48.5	-47.9	-47.3	-46.8
25	83245	-52.5	-51.9	-51.3	-50.7	-50.2	-49.6	-48.5	-47.4	-46.8	-46.3	-45.7	-45.1	-44.5
20	88087	-50.4	-49.8	-49.1	-48.4	-47.9	-47.3	-46.0	-44.7	-44.1	-43.6	-42.9	-42.2	-41.6
15	94409	-47.9	-47.2	-46.4	-45.6	-45.0	-44.3	-42.8	-41.3	-40.6	-40.0	-39.2	-38.4	-37.7
10	103478	-44.3	-43.4	-42.4	-41.5	-40.7	-39.8	-38.0	-36.2	-35.3	-34.5	-33.6	-32.6	-31.7
7	111578	-40.8	-39.8	-38.7	-37.6	-36.7	-35.7	-33.6	-31.5	-30.5	-29.6	-28.5	-27.4	-26.4

Table 108. Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for San Nicolas Island: Autumn

NO. OBSERVATIONS -- SURFACE = 2365, TOP = 1045

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	7.8	9.1	10.5	11.8	12.9	14.2	16.7	19.2	20.5	21.6	22.9	24.3	25.6
950	1854	4.6	6.4	8.4	10.4	11.9	13.7	17.4	21.1	22.9	24.4	26.4	28.4	30.2
900	3346	4.1	6.0	8.1	10.1	11.7	13.6	17.4	21.2	23.1	24.7	26.7	28.8	30.7
850	4941	2.9	4.7	6.6	8.6	10.1	11.9	15.5	19.1	20.9	22.4	24.4	26.3	28.1
800	6640	.9	2.6	4.4	6.3	7.7	9.4	12.8	16.2	17.9	19.3	21.2	23.0	24.7
750	8406	-1.2	.4	2.1	3.8	5.1	6.7	9.8	12.9	14.5	15.8	17.5	19.2	20.8
700	10272	-4.1	-2.6	-1.0	.6	1.9	3.4	6.4	9.4	10.9	12.2	13.8	15.4	16.9
650	12251	-7.2	-5.8	-4.3	-2.7	-1.5	-0.1	2.8	5.7	7.1	8.3	9.9	11.4	12.8
600	14364	-10.8	-9.4	-7.9	-6.4	-5.3	-3.9	-1.2	1.5	2.9	4.0	5.5	7.0	8.4
550	16611	-15.0	-13.7	-12.3	-10.8	-9.7	-8.4	-5.7	-3.0	-1.7	-0.6	.9	2.3	3.6
500	19049	-20.0	-18.7	-17.3	-15.9	-14.8	-13.5	-10.9	-8.3	-7.0	-5.9	-4.5	-3.1	-1.8
450	21647	-25.4	-24.2	-22.9	-21.5	-20.5	-19.3	-16.8	-14.3	-13.1	-12.1	-10.7	-9.4	-8.2
400	24541	-31.6	-30.4	-29.1	-27.8	-26.8	-25.6	-23.2	-20.8	-19.6	-18.6	-17.3	-16.0	-14.8
350	27700	-38.8	-37.6	-36.3	-35.1	-34.1	-32.9	-30.6	-28.3	-27.1	-26.1	-24.9	-23.6	-22.4
300	31230	-46.4	-45.3	-44.1	-43.0	-42.1	-41.0	-38.9	-36.8	-35.7	-34.8	-33.7	-32.5	-31.4
250	35259	-55.3	-54.2	-53.0	-51.8	-50.8	-49.7	-47.4	-45.1	-44.0	-43.0	-41.8	-40.6	-39.5
200	40007	-64.0	-62.8	-61.5	-60.2	-59.2	-58.0	-55.6	-53.2	-52.0	-51.0	-49.7	-48.4	-47.2
175	42772	-67.1	-66.0	-64.8	-63.6	-62.6	-61.5	-59.2	-56.9	-55.8	-54.8	-53.6	-52.4	-51.3
150	45915	-70.3	-69.2	-68.0	-66.9	-66.0	-64.9	-62.8	-60.7	-59.6	-58.7	-57.6	-56.4	-55.3
125	49573	-73.7	-72.6	-71.4	-70.2	-69.3	-68.2	-66.0	-63.8	-62.7	-61.8	-60.6	-59.4	-58.3
100	53993	-75.3	-74.2	-73.0	-71.8	-70.9	-69.8	-67.6	-65.4	-64.3	-63.4	-62.2	-61.0	-59.9
80	58415	-72.9	-71.9	-70.8	-69.7	-68.9	-67.9	-65.9	-63.9	-62.9	-62.1	-61.0	-59.9	-58.9
70	61049	-70.5	-69.6	-68.6	-67.6	-66.8	-65.9	-64.0	-62.1	-61.2	-60.4	-59.4	-58.4	-57.5
60	64203	-68.2	-67.3	-66.3	-65.4	-64.5	-63.7	-61.9	-60.1	-59.2	-58.4	-57.5	-56.5	-55.6
50	67927	-66.0	-65.1	-64.1	-63.2	-62.4	-61.5	-59.7	-57.9	-57.0	-56.2	-55.3	-54.3	-53.4
40	72530	-63.6	-62.7	-61.7	-60.7	-59.9	-59.0	-57.1	-55.2	-54.3	-53.5	-52.5	-51.5	-50.6
30	78543	-60.8	-59.8	-58.8	-57.7	-56.9	-55.9	-54.0	-52.1	-51.1	-50.3	-49.2	-48.2	-47.2
25	82398	-59.7	-58.6	-57.4	-56.3	-55.4	-54.3	-52.2	-50.1	-49.0	-48.1	-47.0	-45.8	-44.7
20	87152	-57.7	-56.6	-55.4	-54.2	-53.3	-52.2	-50.0	-47.8	-46.7	-45.8	-44.6	-43.4	-42.3
15	93353	-55.8	-54.6	-53.3	-52.0	-51.0	-49.8	-47.4	-45.0	-43.8	-42.8	-41.5	-40.2	-39.0
10	102218	-53.1	-51.8	-50.4	-48.9	-47.8	-46.5	-43.8	-41.1	-39.8	-38.7	-37.2	-35.8	-34.5
7	110042	-50.8	-49.3	-47.7	-46.1	-44.9	-43.4	-40.5	-37.6	-36.1	-34.9	-33.3	-31.7	-30.2

Table 109. Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for San Nicolas Island: January

NO. OBSERVATIONS -- SURFACE = 675, TOP = 252

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.(	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	5.2	6.3	7.5	8.6	9.5	10.6	12.7	14.8	15.9	16.8	17.9	19.1	20.2
950	1929	1.8	3.3	4.9	6.5	7.7	9.2	12.1	15.0	16.5	17.7	19.3	20.9	22.4
900	3415	-0.7	.8	2.5	4.1	5.4	6.9	10.0	13.1	14.6	15.9	17.5	19.2	20.7
850	4970	-2.3	-0.8	.8	2.4	3.6	5.1	8.0	10.9	12.4	13.6	15.2	16.8	18.3
800	6674	-4.0	-2.6	-1.1	.4	1.6	3.0	5.8	8.6	10.0	11.2	12.7	14.2	15.6
750	8323	-6.4	-5.0	-3.5	-2.0	-0.9	.5	3.2	5.9	7.3	8.4	9.9	11.4	12.8
700	10151	-9.2	-7.9	-6.5	-5.0	-3.9	-2.6	.1	2.8	4.1	5.2	6.7	8.1	9.4
650	12077	-12.6	-11.3	-9.9	-8.5	-7.4	-6.1	-3.5	-0.9	.4	1.5	2.9	4.3	5.6
600	14147	-16.3	-15.0	-13.6	-12.2	-11.1	-9.8	-7.2	-4.6	-3.3	-2.2	-0.8	.6	1.9
550	16335	-20.9	-19.6	-18.2	-16.9	-15.8	-14.5	-12.0	-9.5	-8.2	-7.1	-5.8	-4.4	-3.1
500	18720	-26.1	-24.8	-23.4	-22.1	-21.0	-19.7	-17.2	-14.7	-13.4	-12.3	-11.0	-9.6	-8.3
450	21270	-31.8	-30.5	-29.1	-27.8	-26.7	-25.4	-22.9	-20.4	-19.1	-18.0	-16.7	-15.3	-14.0
400	24085	-37.9	-36.7	-35.4	-34.0	-33.0	-31.8	-29.3	-26.8	-25.6	-24.6	-23.2	-21.9	-20.7
350	27145	-44.5	-43.4	-42.2	-41.0	-40.0	-38.9	-36.6	-34.3	-33.2	-32.2	-31.0	-29.8	-28.7
300	30610	-51.9	-50.9	-49.8	-48.7	-47.8	-46.8	-44.7	-42.6	-41.6	-40.7	-39.6	-38.5	-37.5
250	34541	-61.1	-59.9	-58.6	-57.4	-56.4	-55.2	-52.9	-50.6	-49.4	-48.4	-47.2	-45.9	-44.7
200	39193	-70.3	-68.6	-66.7	-64.9	-63.4	-61.7	-58.2	-54.7	-53.0	-51.5	-49.7	-47.8	-46.1
175	41949	-71.0	-69.3	-67.4	-65.6	-64.1	-62.4	-58.9	-55.4	-53.7	-52.2	-50.4	-48.5	-46.8
150	45118	-69.7	-68.3	-66.8	-65.3	-64.1	-62.7	-59.9	-57.1	-55.7	-54.5	-53.0	-51.5	-50.1
125	48815	-70.9	-69.7	-68.4	-67.0	-66.0	-64.8	-62.3	-59.8	-58.6	-57.6	-56.2	-54.9	-53.7
100	53323	-74.1	-72.8	-71.4	-70.0	-68.9	-67.6	-65.0	-62.4	-61.1	-60.0	-58.6	-57.2	-55.9
80	57776	-73.6	-72.4	-71.1	-69.8	-68.8	-67.6	-65.2	-62.8	-61.6	-60.6	-59.3	-58.0	-56.8
70	60446	-71.8	-70.7	-69.5	-68.4	-67.5	-66.4	-64.3	-62.2	-61.1	-60.2	-59.1	-57.9	-56.8
60	63550	-69.4	-68.5	-67.5	-66.5	-65.7	-64.8	-62.9	-61.0	-60.1	-59.3	-58.3	-57.3	-56.4
50	67247	-67.2	-66.3	-65.4	-64.4	-63.7	-62.9	-61.1	-59.4	-58.5	-57.8	-56.8	-55.9	-55.0
40	71814	-65.3	-64.4	-63.5	-62.5	-61.8	-60.9	-59.2	-57.5	-56.6	-55.9	-54.9	-54.0	-53.1
30	77759	-63.7	-62.7	-61.7	-60.6	-59.8	-58.8	-56.9	-55.0	-54.0	-53.2	-52.1	-51.1	-50.1
25	81565	-62.8	-61.7	-60.5	-59.4	-58.5	-57.4	-55.3	-53.2	-52.1	-51.2	-50.1	-48.9	-47.8
20	86253	-61.2	-60.1	-58.9	-57.7	-56.8	-55.7	-53.5	-51.3	-50.2	-49.3	-48.1	-46.9	-45.8
15	92375	-60.3	-59.0	-57.6	-56.2	-55.1	-53.8	-51.2	-48.6	-47.3	-46.2	-44.8	-43.4	-42.1
10	101109	-58.3	-56.7	-54.9	-53.2	-51.8	-50.2	-46.9	-43.6	-42.0	-40.6	-38.9	-37.1	-35.5
7	108904	-56.1	-54.3	-52.3	-50.3	-48.8	-47.0	-43.3	-39.6	-37.8	-36.3	-34.3	-32.3	-30.5

Table 110. Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for San Nicolas Island: February

NO. OBSERVATIONS -- SURFACE = 624. TOP = 248

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	5.1	6.3	7.6	8.8	9.8	11.0	13.3	15.6	16.8	17.8	19.0	20.3	21.5
950	1916	2.4	3.9	5.6	7.2	8.5	10.0	13.1	16.2	17.7	19.0	20.6	22.3	23.8
900	3406	.2	1.8	3.5	5.2	6.5	8.1	11.2	14.3	15.9	17.2	18.9	20.6	22.2
850	4964	-1.6	-0.1	1.5	3.1	4.4	5.9	8.9	11.9	13.4	14.7	16.3	17.9	19.4
800	6601	-3.4	-2.2	-0.7	.9	2.1	3.5	6.4	9.3	10.7	11.9	13.5	15.0	16.4
750	8327	-5.5	-4.2	-2.8	-1.3	-0.2	1.1	3.8	6.5	7.8	8.9	10.4	11.8	13.1
700	10157	-8.1	-6.9	-5.6	-4.2	-3.2	-2.0	.5	3.0	4.2	5.2	6.6	7.9	9.1
650	12087	-11.4	-10.2	-8.9	-7.7	-6.7	-5.5	-3.2	-0.9	.3	1.3	2.5	3.8	5.0
600	14157	-15.3	-14.2	-13.0	-11.8	-10.8	-9.7	-7.4	-5.1	-4.0	-3.0	-1.8	-0.6	.5
550	16348	-19.8	-18.7	-17.5	-16.3	-15.4	-14.3	-12.1	-9.9	-8.8	-7.9	-6.7	-5.5	-4.4
500	18727	-25.0	-23.9	-22.7	-21.5	-20.6	-19.5	-17.3	-15.1	-14.0	-13.1	-11.9	-10.7	-9.6
450	21280	-30.8	-29.7	-28.5	-27.3	-26.4	-25.3	-23.1	-20.9	-19.8	-18.9	-17.7	-16.5	-15.4
400	24045	-37.3	-36.2	-35.0	-33.8	-32.9	-31.8	-29.6	-27.4	-26.3	-25.4	-24.2	-23.0	-21.9
350	27142	-44.5	-43.4	-42.2	-41.1	-40.2	-39.1	-37.0	-34.9	-33.8	-32.9	-31.8	-30.6	-29.5
300	30600	-52.7	-51.6	-50.4	-49.2	-48.3	-47.2	-45.0	-42.8	-41.7	-40.8	-39.6	-38.4	-37.3
250	34524	-62.4	-61.1	-59.7	-58.2	-57.1	-55.8	-53.1	-50.4	-49.1	-48.0	-46.5	-45.1	-43.8
200	39140	-70.7	-68.9	-66.9	-64.9	-63.3	-61.5	-57.7	-53.9	-52.1	-50.5	-48.5	-46.5	-44.7
175	41946	-69.2	-67.6	-65.8	-64.1	-62.7	-61.1	-57.8	-54.5	-52.9	-51.5	-49.8	-48.0	-46.4
150	45131	-68.0	-66.7	-65.3	-64.0	-62.9	-61.6	-59.1	-56.6	-55.3	-54.2	-52.9	-51.5	-50.2
125	48858	-69.8	-68.7	-67.5	-66.3	-65.3	-64.2	-61.9	-59.6	-58.5	-57.5	-56.3	-55.1	-53.0
100	53356	-73.8	-72.5	-71.1	-69.8	-68.7	-67.4	-64.9	-62.4	-61.1	-60.0	-58.7	-57.3	-56.0
80	57812	-74.4	-73.2	-71.9	-70.5	-69.5	-68.3	-65.8	-63.3	-62.1	-61.1	-59.7	-58.4	-57.2
70	60476	-72.7	-71.6	-70.4	-69.2	-68.3	-67.2	-65.0	-62.8	-61.7	-60.8	-59.6	-58.4	-57.3
60	63570	-71.4	-70.3	-69.1	-68.0	-67.1	-66.0	-63.9	-61.6	-60.7	-59.8	-58.7	-57.5	-56.4
50	67251	-69.6	-68.5	-67.3	-66.2	-65.3	-64.2	-62.1	-60.0	-58.9	-58.0	-56.9	-55.7	-54.6
40	71804	-67.6	-66.5	-65.3	-64.1	-63.1	-62.0	-59.7	-57.4	-56.3	-55.3	-54.1	-52.9	-51.8
30	77746	-63.9	-62.9	-61.8	-60.7	-59.9	-58.9	-56.9	-54.9	-53.9	-53.1	-52.0	-50.9	-49.9
25	81575	-62.2	-61.3	-60.3	-59.3	-58.5	-57.6	-55.7	-53.8	-52.9	-52.1	-51.1	-50.1	-49.2
20	86290	-59.2	-58.2	-57.2	-56.1	-55.3	-54.3	-52.4	-50.5	-49.5	-48.7	-47.6	-46.6	-45.6
15	92457	-57.0	-55.8	-54.5	-53.3	-52.3	-51.1	-48.8	-46.5	-45.3	-44.3	-43.1	-41.8	-40.6
10	101266	-53.5	-52.2	-50.8	-49.4	-48.3	-47.0	-44.4	-41.8	-40.5	-39.4	-38.0	-36.6	-35.3
7	109104	-49.7	-48.3	-46.8	-45.2	-44.0	-42.6	-39.7	-36.8	-35.4	-34.2	-32.6	-31.1	-29.7

Table 111 Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for San Nicolas Island: March

NO. OBSERVATIONS -- SURFACE = 756. TOP = 241

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	5.7	6.7	7.8	8.9	9.8	10.8	12.9	15.0	16.0	16.9	18.0	19.1	20.1
950	1840	1.7	3.2	4.8	6.4	7.7	9.2	12.2	15.2	16.7	18.0	19.6	21.2	22.7
900	3383	-0.7	.9	2.6	4.4	5.7	7.3	10.5	13.7	15.3	16.6	18.4	20.1	21.7
850	4918	-2.7	-1.1	.6	2.3	3.6	5.2	8.3	11.4	13.0	14.3	16.0	17.7	19.3
800	6552	-5.0	-3.5	-1.8	-0.2	1.1	2.6	5.7	8.8	10.3	11.6	13.2	14.9	16.4
750	8271	-7.4	-5.9	-4.3	-2.7	-1.5	-0.0	2.9	5.8	7.3	8.5	10.1	11.7	13.2
700	10095	-9.8	-8.4	-6.9	-5.4	-4.3	-2.9	-0.2	2.5	3.9	5.0	6.5	8.0	9.4
650	12021	-12.8	-11.5	-10.1	-8.7	-7.6	-6.3	-3.7	-1.1	.2	1.3	2.7	4.1	5.4
600	14058	-16.7	-15.4	-14.0	-12.7	-11.6	-10.3	-7.8	-5.3	-4.0	-2.9	-1.6	-0.2	1.1
550	16276	-20.9	-19.7	-18.4	-17.1	-16.1	-14.9	-12.5	-10.1	-8.9	-7.9	-6.6	-5.3	-4.1
500	18652	-25.9	-24.7	-23.4	-22.2	-21.2	-20.0	-17.7	-15.4	-14.2	-13.2	-12.0	-10.7	-9.5
450	21201	-31.1	-30.0	-28.8	-27.6	-26.7	-25.6	-23.4	-21.2	-20.1	-19.2	-18.0	-16.8	-15.7
400	24003	-37.6	-36.5	-35.3	-34.1	-33.2	-32.1	-29.9	-27.7	-26.6	-25.7	-24.5	-23.3	-22.2
350	27077	-44.0	-43.0	-42.0	-40.9	-40.1	-39.1	-37.2	-35.3	-34.3	-33.5	-32.4	-31.4	-30.4
300	30512	-51.1	-50.2	-49.3	-48.3	-47.6	-46.7	-45.0	-43.3	-42.4	-41.7	-40.7	-39.8	-38.9
250	34432	-60.2	-59.2	-58.1	-57.0	-56.2	-55.2	-53.2	-51.2	-50.2	-49.4	-48.3	-47.2	-46.2
200	39041	-70.3	-68.6	-66.7	-64.9	-63.4	-61.7	-58.2	-54.7	-53.0	-51.5	-49.7	-47.8	-46.1
175	41837	-70.2	-68.5	-66.6	-64.8	-63.3	-61.6	-58.1	-54.6	-52.9	-51.4	-49.6	-47.7	-46.0
150	45020	-67.4	-66.2	-64.9	-63.5	-62.5	-61.3	-58.8	-56.3	-55.1	-54.1	-52.7	-51.4	-50.2
125	48757	-68.5	-67.4	-66.2	-65.1	-64.2	-63.1	-61.0	-58.9	-57.8	-56.9	-55.8	-54.6	-53.5
100	53284	-70.8	-69.7	-68.5	-67.4	-66.5	-65.4	-63.3	-61.2	-60.1	-59.2	-58.1	-56.9	-55.8
80	57782	-70.6	-69.6	-68.5	-67.4	-66.6	-65.6	-63.6	-61.6	-60.6	-59.8	-58.7	-57.6	-56.6
70	60476	-69.1	-68.2	-67.2	-66.3	-65.5	-64.6	-62.8	-61.0	-60.1	-59.3	-58.4	-57.4	-56.5
60	63602	-67.8	-66.9	-66.0	-65.0	-64.3	-63.4	-61.7	-60.0	-59.1	-58.4	-57.4	-56.5	-55.6
50	67320	-66.2	-65.3	-64.4	-63.4	-62.7	-61.8	-60.1	-58.4	-57.5	-56.8	-55.8	-54.9	-54.0
40	71916	-63.9	-63.0	-62.1	-61.1	-60.4	-59.5	-57.8	-56.1	-55.2	-54.5	-53.5	-52.6	-51.7
30	77913	-61.2	-60.3	-59.3	-58.4	-57.6	-56.7	-54.9	-53.1	-52.2	-51.4	-50.5	-49.5	-48.6
25	81742	-60.3	-59.3	-58.2	-57.1	-56.2	-55.2	-53.1	-51.0	-50.0	-49.1	-48.0	-46.9	-45.9
20	86536	-59.2	-58.0	-56.7	-55.3	-54.3	-53.1	-50.6	-48.1	-46.9	-45.9	-44.5	-43.2	-42.0
15	92707	-57.2	-55.8	-54.3	-52.7	-51.5	-50.1	-47.2	-44.3	-42.9	-41.7	-40.1	-38.6	-37.2
10	101648	-51.8	-50.4	-48.9	-47.3	-46.1	-44.7	-41.8	-38.9	-37.5	-36.3	-34.7	-33.2	-31.8
7	109536	-47.6	-46.1	-44.4	-42.8	-41.5	-40.0	-36.9	-33.8	-32.3	-31.0	-29.4	-27.7	-26.2

Table 112 Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for San Nicolas Island: April

NO. OBSERVATIONS -- SURFACE = 679, TOP = 321

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	4.9	6.1	7.4	8.8	9.8	11.0	13.5	16.0	17.2	18.2	19.6	20.9	22.1
950	1850	-0.3	1.5	3.5	5.5	7.1	8.9	12.7	16.5	18.3	19.9	21.9	23.9	25.7
900	3337	-2.8	-0.8	1.4	3.6	5.3	7.3	11.4	15.5	17.5	19.2	21.4	23.6	25.6
850	4898	-4.8	-2.8	-0.6	1.6	3.3	5.3	9.4	13.5	15.5	17.2	19.4	21.6	23.6
800	6539	-5.9	-4.1	-2.1	-0.1	1.5	3.3	7.1	10.9	12.7	14.3	16.3	18.3	20.1
750	8244	-8.3	-6.5	-4.6	-2.6	-1.1	.7	4.3	7.9	9.7	11.2	13.2	15.1	16.9
700	10102	-10.8	-9.1	-7.3	-5.4	-4.0	-2.3	1.1	4.5	6.2	7.6	9.5	11.3	13.0
650	12034	-13.4	-11.8	-10.1	-8.4	-7.1	-5.5	-2.4	.7	2.3	3.6	5.3	7.0	8.6
600	14111	-17.1	-15.6	-14.0	-12.4	-11.1	-9.6	-6.6	-3.6	-2.1	-0.8	.8	2.4	3.9
550	16312	-20.6	-19.2	-17.7	-16.2	-15.1	-13.7	-11.0	-8.3	-6.9	-5.8	-4.3	-2.8	-1.4
500	18721	-24.7	-23.5	-22.2	-20.8	-19.8	-18.6	-16.1	-13.6	-12.4	-11.4	-10.0	-8.7	-7.5
450	21243	-30.0	-28.8	-27.5	-26.3	-25.3	-24.1	-21.8	-19.5	-18.3	-17.3	-15.1	-14.8	-13.6
400	24085	-35.9	-34.8	-33.6	-32.5	-31.6	-30.5	-28.4	-26.3	-25.2	-24.3	-23.2	-22.0	-20.9
350	27178	-42.2	-41.3	-40.3	-39.3	-38.5	-37.6	-35.7	-33.8	-32.9	-32.1	-31.1	-30.1	-27.2
300	30636	-49.9	-49.0	-48.1	-47.1	-46.4	-45.5	-43.8	-42.1	-41.2	-40.5	-39.5	-38.6	-37.7
250	34577	-58.5	-57.6	-56.6	-55.7	-54.9	-54.0	-52.2	-50.4	-49.5	-48.7	-47.8	-46.8	-45.9
200	39236	-69.2	-67.7	-66.0	-64.4	-63.1	-61.6	-58.5	-55.4	-53.9	-52.6	-51.0	-49.3	-47.8
175	41942	-71.0	-69.3	-67.5	-65.6	-64.2	-62.5	-59.1	-55.7	-54.0	-52.6	-50.7	-48.9	-47.2
150	45154	-68.8	-67.4	-65.9	-64.4	-63.3	-61.9	-59.2	-56.5	-55.1	-54.0	-52.5	-51.0	-49.6
125	48841	-67.7	-66.7	-65.6	-64.5	-63.6	-62.6	-60.5	-58.4	-57.4	-56.5	-55.4	-54.3	-53.3
100	53432	-70.2	-69.1	-67.9	-66.7	-65.7	-64.6	-62.3	-60.0	-58.9	-57.9	-56.7	-55.5	-54.4
80	57949	-70.6	-69.4	-68.1	-66.9	-65.9	-64.7	-62.4	-60.1	-58.9	-57.9	-56.7	-55.4	54.2
70	60653	-69.1	-68.0	-66.8	-65.7	-64.8	-63.7	-61.6	-59.5	-58.4	-57.5	-56.4	-55.2	-54.1
60	63736	-67.6	-66.6	-65.5	-64.4	-63.6	-62.6	-60.6	-58.6	-57.6	-56.8	-55.7	-54.6	-53.6
50	67536	-65.0	-64.1	-63.1	-62.2	-61.4	-60.5	-58.7	-56.9	-56.0	-55.2	-54.3	-53.3	-52.4
40	72142	-62.3	-61.4	-60.5	-59.5	-58.8	-57.9	-56.2	-54.5	-53.6	-52.9	-51.9	-51.0	-50.1
30	78205	-59.2	-58.3	-57.4	-56.4	-55.7	-54.8	-53.1	-51.4	-50.5	-49.8	-48.8	-47.9	-47.0
25	82040	-57.7	-56.8	-55.8	-54.8	-54.0	-53.1	-51.2	-49.3	-48.4	-47.6	-46.6	-45.6	-44.7
20	86840	-55.3	-54.4	-53.4	-52.4	-51.6	-50.7	-48.8	-46.9	-46.0	-45.2	-44.2	-43.2	-42.3
15	93110	-51.5	-50.6	-49.6	-48.6	-47.8	-46.9	-45.0	-43.1	-42.2	-41.4	-40.4	-39.4	-38.5
10	102136	-47.5	-46.6	-45.2	-44.0	-43.1	-42.0	-39.8	-37.6	-36.5	-35.6	-34.4	-33.2	-32.1
7	110157	-44.0	-42.8	-41.5	-40.1	-39.1	-37.9	-35.5	-32.9	-31.7	-30.7	-29.3	-28.0	-26.8

TABLE 13. Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for San Nicolas Island: May

NO. OBSERVATIONS -- SURFACE = 709, TOP = 325

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	6.1	7.2	8.4	9.6	10.6	11.7	14.0	16.3	17.4	18.4	19.6	20.8	21.9
950	1841	2.1	3.7	5.5	7.3	8.7	10.3	13.7	17.0	18.7	20.1	21.9	23.7	25.3
900	3333	1.2	3.0	4.9	6.9	8.4	10.2	13.8	17.4	19.2	20.7	22.7	24.6	26.4
850	4918	.9	2.6	4.3	6.1	7.5	9.1	12.5	15.9	17.5	18.9	20.7	22.5	24.1
800	6548	-0.4	1.1	2.8	4.4	5.7	7.2	10.3	13.4	14.9	16.2	17.8	19.5	21.0
750	8217	-2.2	-0.8	.7	2.2	3.4	4.8	7.6	10.4	11.8	13.0	14.5	16.0	17.4
700	10174	-4.6	-3.3	-1.9	-0.5	.6	1.9	4.5	7.1	8.4	9.5	10.9	12.3	13.6
650	12136	-7.6	-6.4	-5.1	-3.8	-2.8	-1.6	.8	3.2	4.4	5.4	6.7	8.0	9.2
600	14232	-11.6	-10.4	-9.1	-7.9	-6.9	-5.7	-3.4	-1.1	.1	1.1	2.3	3.6	4.8
550	16460	-15.8	-14.7	-13.5	12.3	-11.4	-10.3	-8.1	-5.9	-4.8	-3.9	-2.7	-1.5	-0.4
500	18875	-20.5	-19.5	-18.4	-17.3	-16.4	-15.4	-13.3	-11.2	-10.2	-9.3	-8.2	-7.1	-6.1
450	21470	-25.9	-24.9	-23.9	-22.8	-22.0	-21.0	-19.1	-17.2	-16.2	-15.4	-14.3	-13.3	-12.3
400	24318	-32.6	-31.6	-30.5	-29.4	-28.6	-27.6	-25.6	-23.6	-22.6	-21.8	-20.7	-19.6	-18.6
350	27444	-39.7	-38.8	-37.8	-36.8	-36.0	-35.1	-33.2	-31.3	-30.4	-29.6	-28.6	-27.6	-26.7
300	30935	-47.0	-46.2	-45.3	-44.5	-43.8	-43.0	-41.4	-39.8	-39.0	-38.3	-37.5	-36.6	-35.8
250	34918	-55.5	-54.7	-53.9	-53.0	-52.4	-51.6	-50.1	-48.6	-47.8	-47.2	-46.3	-45.5	-44.7
200	39606	-66.3	-65.1	-63.8	-62.5	-61.5	-60.3	-57.9	-55.5	-54.3	-53.3	-52.0	-50.7	-49.5
175	42356	-69.5	-68.1	-66.6	-65.1	-63.9	-62.5	-59.7	-56.9	-55.5	-54.3	-52.8	-51.3	-49.9
150	45515	-69.4	-67.2	-65.9	-64.5	-63.5	-62.3	-59.8	-57.3	-56.1	-55.1	-53.7	-52.4	-51.2
125	49245	-67.7	-66.7	-65.6	-64.5	-63.7	-62.7	-60.7	-58.7	-57.7	-56.9	-55.8	-54.7	-53.7
100	53783	-68.9	-67.9	-66.9	-65.8	-65.0	-64.0	-62.1	-60.2	-59.2	-58.4	-57.3	-56.3	-55.3
80	58304	-68.6	-67.7	-66.7	-65.8	-65.0	-64.1	-62.3	-60.5	-59.6	-58.8	-57.9	-56.9	-56.0
70	61014	-66.9	-66.1	-65.2	-64.4	-63.7	-62.9	-61.3	-59.7	-58.9	-58.2	-57.4	-56.5	-55.7
60	64140	-64.9	-64.2	-63.4	-62.6	-62.0	-61.3	-59.8	-58.3	-57.6	-57.0	-56.2	-55.4	-54.7
50	67917	-62.8	-62.1	-61.3	-60.5	-59.9	-59.2	-57.7	-56.2	-55.5	-54.9	-54.1	-53.3	-52.6
40	72566	-59.8	-59.1	-58.3	-57.6	-57.0	-56.3	-54.9	-53.5	-52.8	-52.2	-51.5	-50.7	-50.0
30	78652	-55.4	-55.7	-54.9	-54.2	-53.6	-52.9	-51.5	-50.1	-49.4	-48.8	-48.1	-47.3	-46.6
25	82552	-54.4	-53.7	-52.9	-52.2	-51.6	-50.9	-49.5	-48.1	-47.4	-46.8	-46.1	-45.3	-44.6
20	87349	-51.9	-51.1	-50.3	-49.5	-48.9	-48.2	-46.7	-45.2	-44.5	-43.9	-43.1	-42.3	-41.6
15	93665	-48.9	-48.1	-47.3	-46.4	-45.8	-45.0	-43.5	-42.0	-41.2	-40.6	-39.7	-38.9	-38.1
10	102687	-45.1	-44.2	-43.2	-42.2	-41.4	-40.5	-38.6	-36.7	-35.8	-35.0	-34.0	-33.0	-32.1
7	110755	-41.7	-40.6	-39.4	-38.2	-37.2	-36.1	-33.8	-31.5	-30.4	-29.4	-28.2	-27.0	-25.9

Table 114. Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for San Nicolas Island: June

NO. OBSERVATIONS -- SURFACE = 755, TOP = 310

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	7.7	8.7	9.8	10.9	11.7	12.7	14.7	16.7	17.7	18.5	19.6	20.7	21.7
950	1801	2.4	4.4	6.4	8.4	10.0	11.8	15.6	19.4	21.2	22.8	24.8	26.8	28.6
900	3310	4.0	6.0	8..	10.3	12.0	14.0	18.0	22.0	24.0	25.7	27.8	30.0	32.0
850	4915	4.1	5.9	7.9	9.9	11.5	13.3	17.1	20.9	22.7	24.3	26.3	28.3	30.1
800	6641	3.4	5.0	6.8	8.5	9.9	..5	14.8	18.1	19.7	21.1	22.8	24.6	26.2
750	8374	1.9	3.3	4.8	6.4	7.6	9.0	11.9	14.8	16.2	17.4	19.0	20.5	21.9
700	10262	-0.3	1.0	2.4	3.7	4.8	6.1	8.6	11.1	12.4	13.5	14.8	16.2	17.5
650	12251	-3.6	-2.4	-1.1	.2	1.2	2.4	4.8	7.2	8.4	9.4	10.7	12.0	13.2
600	14380	-7.2	-6.1	-4.9	-3.7	-2.7	-1.6	.7	3.0	4.1	5.1	6.3	7.5	8..
550	16647	-11.6	-10.5	-9.3	-8.1	-7.2	-6.1	-3.9	-1.7	-0.6	.3	1.5	2.7	3.8
500	18970	-16.8	-15.7	-14.5	-13.4	-12.5	-11.4	-9.3	-7.2	-6.1	-5.2	-4.1	-2.9	-1.8
450	21732	-22.1	-21.1	-20.1	-19.0	-18.2	-17.2	-15.3	-13.4	-12.4	-11.6	-10.5	-9.5	-8.5
400	24619	-28.6	-27.6	-26.6	-25.5	-24.7	-23.7	-21.8	-19.9	-18.9	-18.1	-17.0	-16.0	-15.0
350	27799	-35.8	-34.9	-33.9	-32.9	-32.1	-31.2	-29.3	-27.4	-26.5	-25.7	-24.7	-23.7	-22.8
300	31345	-43.5	-42.7	-41.8	-40.9	-40.2	-39.4	-37.7	-36.0	-35.2	-34.5	-33.6	-32.7	-31.9
250	35390	-52.3	-51.5	-50.6	-49.8	-49.1	-48.3	-46.7	-45.1	-44.3	-43.6	-42.8	-41.9	-41.1
200	40148	-62.3	-61.3	-60.3	-59.2	-58.4	-..4	-55.5	-53.6	-52.6	-51.8	-50.7	-49.7	-48.7
175	42917	-66.9	-65.8	-64.6	-63.4	-62.4	-61..	-59.0	-56.7	-55.6	-54.6	-53.4	-52.2	-51.1
150	46043	-70.0	-68.8	-67.5	-66.2	-65.2	-64.0	-61.6	-59.2	-58.0	-57.0	-55.7	-54.4	-53.2
125	49747	-72.8	-71.6	-70.3	-68.9	-67.9	-66.7	-64.2	-61.7	-60.5	-59.5	-58.1	-56.8	-55.6
100	54209	-73.4	-72.2	-70.9	-69.7	-68.7	-67.5	-65.2	-62.9	-61.7	-60.7	-59.5	-58.2	-57.0
80	58615	-70.3	-69.3	-68.3	-67.2	-66.4	-65.4	-63.5	-61.6	-60.6	-59.8	-58.7	-57.7	-56.7
70	61388	-67.0	-66.2	-65.4	-64.5	-63.9	-63.1	-61.6	-60.1	-59.3	-58.7	-57.8	-57.0	-56.2
60	64537	-63.7	-63.1	-62.4	-61.7	-61.2	-60.6	-59.3	-58.0	-57.4	-56.9	-56.2	-55.5	-54.9
50	68304	-60.8	-60.2	-59.6	-59.0	-58.5	-57.9	-56.8	-55.7	-55.1	-54.6	-54.0	-53.4	-52.8
40	72976	-57.6	-57.1	-56.5	-55.9	-55.5	-55.0	-53.9	-52.8	-52.3	-51.9	-51.3	-50.7	-50.2
30	79094	-54.7	-54.1	-53.5	-52.8	-52.3	-51.7	-50.5	-49.3	-48.7	-48.2	-47.5	-46.9	-46.3
25	83012	-52.1	-51.6	-51.0	-50.4	-50.0	-49.5	-48.4	-47.3	-46.8	-46.4	-45.8	-45.2	-44.7
20	87858	-50.0	-49.4	-48.8	-48.1	-47.6	-47.0	-45.8	-44.6	-44.0	-43.5	-42.8	-42.2	-41.6
15	94146	-47.1	-46.4	-45.6	-44.9	-44.3	-43.6	-42.2	-40.8	-40.1	-39.5	-38.8	-38.0	-37.3
10	103281	-43.2	-42.4	-41.5	-40.6	-39.9	-39.1	-37.4	-35.7	-34.9	-34.2	-33.3	-32.4	-31.6
7	111411	-39.6	-38.8	-37.5	-36.4	-35.6	-34.6	-32.6	-30.6	-29.6	-28.8	-27.7	-26.6	-25.6

Table 115. Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for San Nicolas Island: July

NO. OBSERVATIONS -- SURFACE = 795, TOP = 351

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	8.6	9.7	10.9	12.1	13.1	14.2	16.5	18.8	19.9	20.9	22.1	23.3	24.4
950	1837	8.3	10.0	11.8	13.7	15.1	16.8	20.2	23.6	25.3	26.7	28.6	30.4	32.1
900	3369	15.9	16.9	18.0	19.1	20.0	21.0	23.1	25.2	26.2	27.1	28.2	29.3	30.3
850	5000	15.4	16.3	17.3	18.2	19.0	19.9	21.7	23.5	24.4	25.2	26.1	27.1	28.0
800	6713	13.4	14.2	15.0	15.9	16.5	17.3	18.8	20.3	21.1	21.7	22.6	23.4	24.2
750	8514	10.6	11.3	12.0	12.7	13.3	14.0	15.3	16.6	17.3	17.9	18.6	19.3	20.0
700	10420	7.2	7.8	8.4	9.1	9.6	10.2	11.4	12.6	13.2	13.7	14.4	15.0	15.6
650	12431	2.8	3.4	4.0	4.7	5.2	5.8	7.0	8.2	8.8	9.3	10.0	10.6	11.2
600	14577	-1.7	-1.1	-0.5	.2	.7	1.3	2.3	3.7	4.3	4.8	5.5	6.1	6.7
550	16854	-6.5	-5.9	-5.3	-4.6	-4.1	-3.5	-2.3	-1.1	-0.5	.0	.7	1.3	1.9
500	19321	-11.5	-10.9	-10.3	-9.6	-9.1	-8.5	-7.3	-6.1	-5.5	-5.0	-4.3	-3.7	-3.1
450	21982	-17.3	-16.7	-16.0	-15.3	-14.8	-14.2	-12.9	-11.6	-11.0	-10.5	-9.8	-9.1	-8.5
400	24898	-23.5	-22.9	-22.2	-21.5	-21.0	-20.4	-19.1	-17.8	-17.2	-16.7	-16.0	-15.3	-14.7
350	28114	-31.1	-30.4	-29.6	-28.8	-28.2	-27.5	-26.0	-24.5	-23.8	-23.2	-22.4	-21.6	-20.9
300	31713	-39.7	-38.9	-38.1	-37.2	-36.6	-35.8	-34.3	-32.8	-32.0	-31.4	-30.5	-29.7	-28.9
250	35817	-48.2	-47.5	-46.7	-46.0	-45.4	-44.7	-43.3	-41.9	-41.2	-40.6	-39.9	-39.1	-38.4
200	40640	-57.6	-57.0	-56.3	-55.6	-55.1	-54.5	-53.2	-51.9	-51.3	-50.8	-50.1	-49.4	-48.8
175	43428	-63.2	-62.5	-61.8	-61.1	-60.5	-59.8	-58.5	-57.2	-56.5	-55.9	-55.2	-54.5	-53.8
150	46548	-69.4	-68.6	-67.7	-66.9	-66.2	-65.4	-63.8	-62.2	-61.4	-60.7	-59.9	-59.0	-58.2
125	50197	-73.9	-73.0	-72.1	-71.1	-70.4	-69.5	-67.8	-66.1	-65.2	-64.5	-63.5	-62.6	-61.7
100	54593	-73.5	-72.7	-71.8	-71.0	-70.3	-69.5	-67.9	-66.3	-65.5	-64.8	-64.0	-63.1	-62.3
80	59032	-69.2	-68.5	-67.7	-67.0	-66.4	-65.7	-64.3	-62.9	-62.2	-61.6	-60.9	-60.1	-59.4
70	61726	-66.2	-65.6	-64.9	-64.2	-63.7	-63.1	-61.8	-60.5	-59.9	-59.4	-58.7	-58.0	-57.4
60	64879	-63.7	-63.1	-62.5	-61.9	-61.4	-60.8	-59.7	-58.6	-58.0	-57.5	-56.9	-56.3	-55.7
50	68652	-59.9	-59.4	-58.9	-58.3	-57.9	-57.4	-56.4	-55.4	-54.9	-54.5	-53.9	-53.4	-52.9
40	73333	-57.1	-56.6	-56.1	-55.5	-55.1	-54.6	-53.6	-52.6	-52.1	-51.7	-51.1	-50.6	-50.1
30	79452	-54.0	-53.5	-52.9	-52.3	-51.9	-51.4	-50.3	-49.2	-48.7	-48.3	-47.7	-47.1	-46.6
25	83373	-52.3	-51.7	-51.1	-50.5	-50.0	-49.4	-48.3	-47.2	-46.6	-46.1	-45.5	-44.9	-44.3
20	88222	-50.2	-49.6	-48.9	-48.2	-47.7	-47.1	-45.8	-44.5	-43.9	-43.4	-42.7	-42.0	-41.4
15	94554	-47.4	-46.7	-45.9	-45.2	-44.6	-43.9	-42.5	-41.1	-40.4	-39.8	-39.1	-38.3	-37.6
10	103629	-43.7	-42.8	-41.9	-40.9	-40.2	-39.3	-37.6	-35.9	-35.0	-34.3	-33.3	-32.4	-31.5
7	111729	-40.4	-39.4	-38.3	-37.2	-36.3	-35.3	-33.2	-31.1	-30.1	-29.2	-28.1	-27.0	-26.0

Table 118. Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for San Nicolas Island: August

NO. OBSERVATIONS -- SURFACE = 830, TOP = 338

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	9.6	10.7	11.9	13.1	14.1	15.2	17.5	19.8	20.9	21.9	23.1	24.3	25.4
950	1837	8.?	10.0	11.9	13.7	15.2	16.9	20.4	23.9	25.6	27.1	28.9	30.8	32.5
900	3373	13.3	14.7	16.2	17.7	18.8	20.2	22.9	25.6	27.0	28.1	29.6	31.1	32.5
850	5000	13.6	14.5	15.7	16.9	17.9	19.0	21.3	23.6	24.7	25.7	26.9	28.1	29.2
800	6709	11.9	12.8	13.8	14.8	15.6	16.5	18.4	20.3	21.2	22.0	23.0	24.0	24.9
750	8507	9.2	10.0	10.9	11.7	12.4	13.2	14.8	16.4	17.2	17.9	18.7	19.6	20.4
700	10413	6.0	6.7	7.5	8.2	8.8	9.5	10.9	12.3	13.0	13.6	14.3	15.1	15.8
650	12418	2.0	2.7	3.4	4.1	4.7	5.4	6.7	8.0	8.7	9.3	10.0	10.7	11.4
600	14546	-2.4	-1.7	-1.0	-0.3	.3	1.0	2.3	3.6	4.3	4.9	5.6	6.3	7.0
550	16841	-6.9	-6.2	-5.5	-4.8	-4.2	-3.5	-2.2	-0.9	-0.2	.4	1.1	1.8	2.5
500	19311	-11.9	-11.2	-10.5	-9.8	-9.2	-8.5	-7.2	-5.9	-5.2	-4.6	-3.9	-3.2	-2.5
450	21949	-17.3	-16.7	-16.0	-15.3	-14.8	-14.2	-12.9	-11.6	-11.0	-10.5	-9.8	-9.1	-8.5
400	24898	-23.5	-22.9	-22.2	-21.5	-21.0	-20.4	-19.1	-17.8	-17.2	-16.7	-16.0	-15.3	-14.7
350	28190	-31.4	-30.7	-29.9	-29.1	-28.5	-27.8	-26.3	-24.8	-24.1	-23.5	-22.7	-21.9	-21.2
300	31696	-40.1	-39.3	-38.5	-37.6	-37.0	-36.2	-34.7	-33.2	-32.4	-31.8	-30.9	-30.1	-29.3
250	35791	-49.2	-48.4	-47.6	-46.7	-46.1	-45.3	-43.8	-42.3	-41.5	-40.9	-40.0	-39.2	-38.4
200	40670	-58.1	-57.5	-56.8	-56.1	-55.6	-55.0	-53.7	-52.4	-51.8	-51.3	-50.6	-49.9	-49.3
175	43383	-63.0	-62.4	-61.8	-61.1	-60.6	-60.0	-58.8	-57.6	-57.0	-56.5	-55.8	-55.2	-54.6
150	46522	-69.2	-68.4	-67.6	-66.7	-66.1	-65.3	-63.8	-62.3	-61.5	-60.9	-60.0	-59.2	-58.4
125	50157	-74.6	-73.6	-72.5	-71.4	-70.6	-69.6	-67.6	-65.6	-64.6	-63.8	-62.7	-61.6	-60.6
100	54557	-74.6	-73.6	-72.4	-71.3	-70.5	-69.5	-67.6	-65.7	-64.7	-63.9	-62.8	-61.8	-60.8
80	59003	-69.2	-68.5	-67.7	-66.9	-66.3	-65.6	-64.1	-62.6	-61.9	-61.3	-60.5	-59.7	-59.0
70	61706	-65.7	-65.1	-64.5	-63.8	-63.3	-62.7	-61.5	-60.3	-59.7	-59.2	-58.5	-57.9	-57.3
60	64852	-62.4	-62.1	-61.5	-60.9	-60.5	-60.0	-58.9	-57.8	-57.3	-56.9	-56.3	-55.7	-55.2
50	68838	-59.4	-59.3	-58.8	-58.3	-57.9	-57.4	-56.4	-55.6	-55.1	-54.7	-54.2	-53.7	-53.2
40	73316	-57.4	-56.9	-56.4	-55.8	-55.4	-54.9	-53.9	-52.9	-52.4	-52.0	-51.4	-50.9	-50.4
30	79419	-54.2	-53.7	-53.2	-52.6	-52.2	-51.7	-50.7	-49.7	-49.2	-48.8	-48.2	-47.7	-47.2
25	83313	-53.1	-52.5	-51.9	-51.2	-50.7	-50.1	-48.9	-47.7	-47.1	-46.6	-45.9	-45.3	-44.7
20	88151	-51.2	-50.5	-49.8	-49.1	-48.5	-47.8	-46.5	-45.2	-44.5	-43.9	-43.2	-42.5	-41.8
15	94472	-48.6	-47.9	-47.1	-46.3	-45.7	-45.0	-43.5	-42.0	-41.3	-40.7	-39.9	-39.1	-38.4
10	103506	-45.1	-44.2	-43.3	-42.3	-41.6	-40.7	-39.0	-37.3	-36.4	-35.7	-34.7	-33.8	-32.9
7	111578	-41.1	-40.4	-39.4	-38.4	-37.6	-36.7	-34.8	-32.9	-32.0	-31.2	-30.2	-29.2	-28.3

Table 117. Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for San Nicolas Island: September

NO. OBSERVATIONS -- SURFACE = 800. TOP = 336

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	9.3	10.5	11.8	13.1	14.1	15.3	17.7	20.1	21.3	22.5	23.6	24.9	26.1
950	1804	6.0	7.8	9.8	11.8	13.3	15.1	18.-	22.5	24.3	25.8	27.8	29.8	31.6
900	3310	9.1	10.7	12.4	14.2	15.5	17.1	20.3	23.5	25.1	26.4	28.2	29.9	31.5
850	4941	9.5	10.8	12.2	13.7	14.8	16.1	18.8	21.5	22.8	23.9	25.4	26.8	28.1
800	6637	8.6	9.5	10.7	11.9	12.8	13.9	16.1	18.3	19.4	20.3	21.5	22.7	23.8
750	8422	6.3	7.2	8.2	9.2	10.0	10.9	12.8	14.7	15.6	16.4	17.4	18.-	19.3
700	10315	3.2	4.1	5.0	6.0	6.7	7.6	9.3	11.0	11.9	12.6	13.6	14.5	15.4
650	12310	-0.6	.3	1.2	2.2	2.9	3.8	5.5	7.2	8.1	8.8	9.8	10.7	11.6
600	14446	-4.3	-3.5	-2.6	-1.7	-1.0	-0.2	1.5	3.2	4.0	4.7	5.6	6.5	7.3
550	16716	-8.5	-7.7	-6.9	-6.0	-5.4	-4.6	-3.1	-1.6	-0.8	-0.2	.7	1.5	2.3
500	19177	-13.3	-12.6	-11.8	-11.0	-10.4	-9.7	-8.2	-6.7	-6.0	-5.4	-4.6	-3.8	-3.1
456	21824	-18.8	-18.1	-17.4	-16.7	-16.1	-15.4	-14.1	-12.8	-12.1	-11.5	-10.8	-10.1	-9.4
400	24726	-25.2	-24.5	-23.8	-23.1	-22.5	-21.8	-20.5	-19.2	-18.5	-17.9	-17.2	-16.5	-15.8
350	27920	-32.8	-32.1	-31.3	-30.6	-30.0	-29.3	-27.9	-26.5	-25.8	-25.2	-24.5	-23.7	-23.0
300	31493	-41.5	-40.8	-40.0	-39.3	-38.5	-37.7	-36.2	-34.7	-33.9	-33.3	-32.4	-31.6	-30.8
250	35564	-50.7	-49.9	-49.0	-48.1	-47.4	-46.6	-44.9	-43.2	-42.4	-41.7	-40.8	-39.9	-39.1
200	40358	-59.7	-58.9	-58.0	-57.1	-56.4	-55.6	-53.9	-52.2	-51.4	-50.7	-49.8	-48.9	-48.1
175	43140	-63.8	-63.0	-62.2	-61.3	-60.7	-59.9	-58.4	-56.9	-56.1	-55.5	-54.6	-53.8	-53.0
150	46283	-68.1	-67.3	-66.4	-65.5	-64.8	-64.0	-62.3	-60.6	-59.8	-59.1	-58.2	-57.3	-56.5
125	49931	-73.5	-72.6	-71.6	-70.5	-69.7	-68.7	-66.8	-64.9	-63.9	-63.1	-62.0	-61.0	-60.0
100	54337	-74.2	-73.3	-72.3	-71.3	-70.5	-69.6	-67.7	-65.8	-64.9	-64.1	-63.1	-62.1	-61.2
80	58746	-70.6	-69.8	-68.9	-68.1	-67.4	-66.6	-65.0	-63.4	-62.6	-61.9	-61.1	-60.2	-59.4
70	61453	-67.7	-67.0	-66.2	-65.4	-64.8	-64.1	-62.6	-61.1	-60.4	-59.8	-59.0	-58.2	-57.5
60	64593	-65.1	-64.4	-63.6	-62.8	-62.2	-61.5	-60.0	-58.5	-57.8	-57.2	-56.4	-55.6	-54.9
50	68350	-62.2	-61.5	-60.8	-60.1	-59.5	-58.8	-57.5	-56.2	-55.5	-54.9	-54.2	-53.5	-52.8
40	73002	-59.3	-58.7	-58.0	-57.3	-56.8	-56.2	-54.9	-53.6	-53.0	-52.5	-51.8	-51.1	-50.5
30	79085	-56.1	-55.5	-54.8	-54.1	-53.6	-53.0	-51.7	-50.4	-49.8	-49.3	-48.6	-47.9	-47.3
25	82992	-54.6	-53.7	-53.0	-52.3	-51.7	-51.0	-49.7	-48.4	-47.7	-47.1	-46.4	-45.7	-45.0
20	87795	-52.6	-51.8	-51.0	-50.3	-49.7	-49.0	-47.6	-46.2	-45.5	-44.9	-44.2	-43.4	-42.7
15	94068	-50.3	-49.5	-48.7	-47.8	-47.2	-46.4	-44.9	-43.4	-42.6	-42.0	-41.1	-40.3	-39.5
10	103018	-47.6	-46.7	-45.7	-44.8	-44.0	-43.1	-41.3	-39.5	-38.6	-37.8	-36.9	-35.9	-35.0
7	111081	-45.5	-44.4	-43.2	-42.0	-41.0	-39.9	-37.6	-35.3	-34.2	-33.2	-32.0	-30.8	-29.7

Table 118. Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for San Nicolas Island: October

NO. OBSERVATIONS -- SURFACE = 806. TOP = 383

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	8.4	9.6	11.0	12.5	13.6	14.9	17.6	20.3	21.6	22.7	24.2	25.6	26.9
950	1857	6.2	7.9	9.8	11.7	13.2	14.9	18.5	22.1	23.8	25.3	27.2	29.1	30.8
900	3376	6.5	8.1	9.9	11.7	13.1	14.8	18.1	21.5	23.1	24.5	26.3	28.1	29.8
850	4974	5.8	7.3	8.9	10.5	11.7	13.2	16.1	19.0	20.5	21.7	23.3	24.9	26.4
800	6656	4.0	5.3	6.7	8.2	9.3	10.6	13.3	16.0	17.3	18.4	19.9	21.3	22.6
750	8422	1.2	2.5	3.9	5.2	6.3	7.6	10.1	12.6	13.9	15.0	16.3	17.7	19.0
700	10245	-1.8	-0.6	.7	2.1	3.1	4.3	6.8	9.3	10.5	11.5	12.9	14.2	15.4
650	12274	-5.2	-4.0	-2.7	-1.4	-0.4	.8	3.2	5.6	6.8	7.8	9.1	10.4	11.6
600	14340	-8.[illegible]	-7.6	-6.4	-5.2	-4.2	-3.1	-0.8	1.5	2.6	3.6	4.8	6.0	7.1
550	16640	-13.[illegible]	-12.1	-10.9	-9.7	-8.8	-7.7	-5.5	-3.3	-2.2	-1.3	-0.1	1.1	2.2
500	19078	-18.1	-17.1	-16.0	-14.9	-14.0	-13.0	-10.9	-8.8	-7.8	-6.9	-5.8	-4.7	-3.7
450	21699	-23.8	-22.8	-21.7	-20.6	-19.8	-18.8	-16.8	-14.8	-13.8	-13.0	-11.9	-10.8	-9.8
400	24578	-30.0	-29.0	-28.0	-26.9	-26.1	-25.1	-23.2	-21.3	-20.3	-19.5	-18.4	-17.4	-16.4
350	27730	-37.4	-36.5	-35.5	-34.5	-33.7	-32.8	-30.9	-29.0	-28.1	-27.3	-26.3	-25.3	-24.4
300	31257	-44.7	-43.9	-43.0	-42.2	-41.5	-40.7	-39.1	-37.5	-36.7	-36.0	-35.2	-34.3	-33.5
250	35242	-54.1	-53.2	-52.2	-51.2	-50.4	-49.5	-47.6	-45.7	-44.8	-44.0	-43.0	-42.0	-41.1
200	40026	-63.5	-62.6	-61.2	-60.0	-59.0	-57.9	-55.6	-53.3	-52.2	-51.2	-50.0	-48.8	-47.7
175	42742	-66.6	-65.5	-64.3	-63.2	-62.3	-61.2	-59.1	-57.0	-55.9	-55.0	-53.9	-52.7	-51.6
150	45938	-69.6	-68.6	-67.5	-66.4	-65.6	-64.6	-62.6	-60.6	-59.6	-58.8	-57.7	-56.6	-55.6
125	49536	-72.7	-71.7	-70.7	-69.6	-68.8	-67.8	-65.9	-64.9	-63.0	-62.2	-61.1	-60.1	-59.1
100	54016	-75.6	-74.3	-73.1	-72.0	-71.1	-70.0	-67.9	-65.8	-64.7	-63.8	-62.7	-61.5	-60.4
80	58425	-72.9	-72.0	-71.0	-70.0	-69.2	-68.3	-66.4	-64.5	-63.6	-62.8	-61.8	-60.8	-59.9
70	61096	-70.3	-69.5	-68.6	-67.7	-67.0	-66.2	-64.5	-62.8	-62.0	-61.3	-60.4	-59.5	-58.7
60	64139	-67.7	-66.9	-66.1	-65.2	-64.6	-63.8	-62.3	-60.8	-60.0	-59.4	-58.5	-57.7	-56.9
50	67920	-64.7	-64.0	-63.2	-62.5	-61.9	-61.2	-59.8	-58.4	-57.7	-57.1	-56.4	-55.6	-54.9
40	72523	-61.9	-61.2	-60.4	-59.7	-59.1	-58.4	-57.0	-55.6	-54.9	-54.3	-53.6	-52.8	-52.1
30	78547	-58.4	-57.7	-57.0	-56.3	-55.7	-55.0	-53.7	-52.4	-51.7	-51.1	-50.4	-49.7	-49.0
25	82415	-57.0	-56.3	-55.5	-54.7	-54.1	-53.4	-51.9	-50.4	-49.7	-49.1	-48.3	-47.5	-46.8
20	87178	-55.2	-54.4	-53.5	-52.7	-52.0	-51.2	-49.6	-48.0	-47.2	-46.5	-45.7	-44.8	-44.0
15	93376	-54.2	-53.2	-52.2	-51.1	-50.3	-49.3	-47.4	-45.5	-44.5	-43.7	-42.6	-41.6	-40.6
10	102215	-51.7	-50.6	-49.4	-48.2	-47.3	-46.2	-44.0	-41.8	-40.7	-39.8	-38.6	-37.4	-36.3
7	110082	-49.0	-47.8	-46.5	-45.2	-44.2	-43.0	-40.8	-38.2	-37.0	-36.0	-34.7	-33.4	-32.2

Table 119. Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for San Nicolas Island: November

NO. OBSERVATIONS -- SURFACE = 752, TOP = 326

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	7.4	8.5	9.7	10.9	11.9	13.0	15.3	17.6	18.7	19.7	20.9	22.1	23.2
950	1900	3.9	5.5	7.2	8.9	10.2	11.8	14.9	18.0	19.6	20.9	22.6	24.3	25.9
900	3309	2.0	3.6	5.4	7.1	8.5	10.1	13.4	16.7	18.3	19.7	21.4	23.2	24.8
850	4970	-0.2	1.4	3.2	4.9	6.3	7.9	11.2	14.5	16.1	17.5	19.2	21.0	22.6
800	6624	-2.5	-0.9	.8	2.6	3.9	5.5	8.7	11.9	13.5	14.8	16.6	18.3	19.9
750	8366	-4.9	-3.3	-1.6	.1	1.4	3.0	6.1	9.2	10.8	12.1	13.8	15.5	17.1
700	10210	-7.5	-6.0	-4.4	-2.8	-1.5	-0.0	3.0	6.0	7.5	8.8	10.4	12.0	13.5
650	12162	-10.5	-9.1	-7.6	-6.0	-4.8	-3.4	-0.5	2.4	3.8	5.0	6.6	8.1	9.5
600	14249	-14.0	-12.6	-11.1	-9.6	-8.5	-7.1	-4.4	-1.7	-0.3	.8	2.3	3.8	5.2
550	16470	-18.0	-16.7	-15.3	-13.9	-12.8	-11.5	-8.9	-6.3	-5.0	-3.9	-2.5	-1.1	.2
500	18878	-22.9	-21.6	-20.2	-18.9	-17.8	-16.5	-14.0	-11.5	-10.2	-9.1	-7.8	-6.4	-5.1
450	21467	-28.0	-26.8	-25.5	-24.2	-23.2	-22.0	-19.6	-17.2	-16.0	-15.0	-13.7	-12.4	-11.2
400	24308	-34.2	-33.0	-31.7	-30.5	-29.5	-28.3	-26.0	-23.7	-22.5	-21.5	-20.3	-19.0	-17.8
350	27434	-40.8	-39.7	-38.5	-37.4	-36.5	-35.4	-33.3	-31.2	-30.1	-29.2	-28.1	-26.9	-25.8
300	30925	-47.7	-46.8	-45.8	-44.9	-44.1	-43.2	-41.4	-39.6	-38.7	-37.9	-37.0	-36.0	-35.1
250	34911	-56.8	-55.8	-54.7	-53.6	-52.8	-51.8	-49.8	-47.8	-46.8	-46.0	-44.9	-43.8	-42.8
200	39610	-66.7	-65.4	-64.0	-62.5	-61.4	-60.1	-57.4	-54.7	-53.4	-52.3	-50.8	-49.4	-48.1
175	42356	-70.0	-68.6	-67.1	-65.6	-64.4	-63.0	-60.2	-57.4	-56.0	-54.8	-53.3	-51.8	-50.4
150	45492	-72.0	-70.7	-69.3	-67.8	-66.7	-65.4	-62.7	-60.0	-58.7	-57.6	-56.1	-54.7	-53.4
125	49157	-74.4	-73.1	-71.7	-70.3	-69.2	-67.9	-65.3	-62.7	-61.4	-60.3	-58.9	-57.5	-56.2
100	53593	-75.9	-74.6	-73.2	-71.9	-70.8	-69.5	-67.0	-64.5	-63.2	-62.1	-60.8	-59.4	-58.1
80	58028	-74.7	-73.5	-72.2	-71.0	-70.0	-68.8	-66.5	-64.2	-63.0	-62.0	-60.8	-59.5	-58.3
70	60676	-72.1	-71.1	-70.0	-68.9	-68.1	-67.1	-65.1	-63.1	-62.1	-61.3	-60.2	-59.1	-58.1
60	63770	-69.3	-68.5	-67.6	-66.7	-66.0	-65.2	-63.5	-61.8	-61.0	-60.3	-59.4	-58.5	-57.7
50	67457	-66.7	-66.0	-65.2	-64.5	-63.9	-63.2	-61.8	-60.4	-59.7	-59.1	-58.4	-57.6	-56.9
40	72011	-64.4	-63.7	-63.0	-62.3	-61.7	-61.0	-59.7	-58.4	-57.7	-57.1	-56.4	-55.7	-55.0
30	77949	-62.2	-61.4	-60.6	-59.7	-59.1	-58.3	-56.8	-55.3	-54.5	-53.9	-53.0	-52.2	-51.4
25	81745	-61.4	-60.5	-59.5	-58.6	-57.8	-56.9	-55.1	-53.3	-52.4	-51.6	-50.7	-49.7	-48.8
20	86444	-59.8	-58.8	-57.8	-56.7	-55.9	-54.9	-53.0	-51.1	-50.1	-49.3	-48.2	-47.2	-46.2
15	92566	-57.9	-56.8	-55.6	-54.4	-53.5	-52.4	-50.2	-48.0	-46.9	-46.0	-44.8	-43.6	-42.5
10	101319	-55.6	-54.3	-52.9	-51.5	-50.4	-49.1	-46.5	-43.9	-42.6	-41.5	-40.1	-38.7	-37.4
7	109140	-53.1	-51.7	-50.2	-48.7	-47.5	-46.1	-43.3	-40.5	-39.1	-37.9	-36.4	-34.9	-33.5

Table 120. Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for San Nicolas Island December

NO. OBSERVATIONS -- SURFACE = 463. TOP = 278

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	571	5.7	6.8	8.0	9.1	10.0	11.1	13.2	15.3	16.4	17.3	18.4	19.6	20.7
950	1900	2.6	4.1	5.8	7.4	8.7	10.2	13.3	16.4	17.9	19.2	20.8	22.5	24.0
900	3386	-0.1	1.5	3.3	5.1	6.5	8.1	11.5	14.9	16.5	17.9	19.7	21.5	23.1
850	4948	-2.7	-1.0	.8	2.7	4.1	5.8	9.2	12.6	14.3	15.7	17.6	19.4	21.1
800	6588	-5.0	-3.3	-1.5	.4	1.8	3.5	6.9	10.3	12.0	13.4	15.3	17.1	18.8
750	8317	-7.2	-5.6	-3.8	-2.1	-0.7	.9	4.2	7.5	9.1	10.5	12.2	14.0	15.6
700	10151	-10.0	-8.4	-6.7	-4.9	-3.6	-2.0	1.2	4.4	6.0	7.3	9.1	10.8	12.4
650	12087	-13.0	-11.5	-9.8	-8.2	-6.9	-5.4	-2.3	.8	2.3	3.6	5.2	6.9	8.4
600	14140	-16.9	-15.4	-13.9	-12.2	-10.9	-9.4	-6.4	-3.4	-1.9	-0.6	1.0	2.6	4.1
550	16345	-20.9	-19.5	-18.0	-16.4	-15.2	-13.8	-10.9	-8.0	-6.6	-5.4	-3.8	-2.3	-0.9
500	18757	-25.2	-23.9	-22.5	-21.0	-19.9	-18.6	-15.9	-13.2	-11.9	-10.8	-9.3	-7.9	-6.6
450	21322	-30.4	-29.1	-27.7	-26.4	-25.3	-24.0	-21.5	-19.0	-17.7	-16.6	-15.3	-13.9	-12.6
400	24147	-36.5	-35.3	-34.0	-32.6	-31.6	-30.4	-27.9	-25.4	-24.2	-23.2	-21.8	-20.5	-19.3
350	27244	-43.1	-42.0	-40.8	-39.6	-38.6	-37.5	-35.2	-32.9	-31.8	-30.9	-29.6	-28.4	-27.3
300	30712	-50.6	-49.5	-48.3	-47.2	-46.3	-45.2	-43.1	-41.0	-39.9	-39.0	-37.9	-36.7	-35.6
250	34642	-59.7	-58.5	-57.2	-56.0	-55.0	-53.9	-51.5	-49.2	-48.0	-47.0	-45.8	-44.5	-43.3
200	39337	-69.0	-67.4	-65.7	-63.9	-62.6	-61.0	-57.8	-54.6	-53.0	-51.7	-49.9	-48.2	-46.6
175	42087	-71.2	-69.5	-67.7	-65.9	-64.5	-62.8	-59.5	-56.2	-54.5	-53.1	-51.3	-49.5	-47.8
150	45240	-71.0	-69.6	-68.1	-66.5	-65.3	-63.9	-61.0	-58.1	-56.7	-55.5	-53.9	-52.4	-51.0
125	48934	-73.0	-71.6	-70.1	-68.6	-67.5	-66.1	-63.4	-60.7	-59.3	-58.2	-56.7	-55.2	-53.8
100	53402	-76.0	-74.5	-72.9	-71.3	-70.1	-68.6	-65.7	-62.8	-61.3	-60.1	-58.5	-56.9	-55.4
80	57844	-75.8	-74.4	-72.9	-71.4	-70.2	-68.8	-66.0	-63.2	-61.8	-60.6	-59.1	-57.6	-56.2
70	60505	-73.7	-72.5	-71.2	-69.8	-68.8	-67.6	-65.1	-62.6	-61.4	-60.4	-59.0	-57.7	-56.5
60	63596	-71.0	-70.0	-68.9	-67.8	-66.9	-65.9	-63.8	-61.7	-60.7	-59.8	-58.7	-57.6	-56.6
50	67280	-68.1	-67.2	-66.3	-65.3	-64.6	-63.7	-62.0	-60.3	-59.4	-58.7	-57.7	-56.8	-55.9
40	71824	-65.8	-65.0	-64.1	-63.3	-62.6	-61.8	-60.2	-58.6	-57.8	-57.1	-56.3	-55.4	-54.6
30	77749	-63.9	-63.0	-62.0	-61.0	-60.2	-59.3	-57.4	-55.5	-54.6	-53.8	-52.8	-51.8	-50.9
25	81535	-63.7	-62.6	-61.4	-60.2	-59.3	-58.2	-56.0	-53.8	-52.7	-51.8	-50.6	-49.4	-48.3
20	86207	-63.3	-62.0	-60.6	-59.2	-58.1	-56.8	-54.2	-51.6	-50.3	-49.2	-47.8	-46.4	-45.1
15	92297	-62.0	-60.5	-58.9	-57.3	-56.1	-54.6	-51.7	-48.8	-47.3	-46.1	-44.5	-42.9	-41.4
10	100958	-58.9	-57.4	-55.7	-54.1	-52.8	-51.3	-48.2	-45.1	-43.6	-42.3	-40.7	-39.0	-37.5
7	108720	-56.8	-55.0	-53.0	-51.0	-49.5	-47.7	-44.0	-40.3	-38.5	-37.0	-35.0	-33.0	-31.2

Table 121. *Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for Point Mugu, California: Annual*

NO. OBSERVATIONS -- SURFACE = 4617, TOP = 1418

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	4.2	5.7	7.4	9.0	10.3	11.8	14.9	18.0	19.5	20.8	22.4	24.1	25.6
1000	449	5.7	7.0	8.4	9.8	10.9	12.2	14.8	17.4	18.7	19.8	21.2	22.6	23.9
950	1877	1.7	3.6	5.7	7.7	9.3	11.2	15.0	18.8	20.7	22.3	24.3	26.4	28.3
900	3376	-1.6	.7	3.2	5.7	7.7	10.0	14.7	19.4	21.7	23.7	26.2	28.7	31.0
850	4957	-3.6	-1.2	1.4	4.0	6.0	8.4	13.2	18.0	20.4	22.4	25.0	27.6	30.0
800	6621	-5.3	-3.0	-0.5	2.0	3.9	6.2	10.8	15.4	17.7	19.6	22.1	24.6	26.9
750	8376	-7.4	-5.3	-3.0	-0.6	1.2	3.3	7.7	12.1	14.2	16.0	18.4	20.7	22.8
700	10226	-9.9	-7.9	-5.7	-3.5	-1.9	.2	4.3	8.4	10.4	12.1	14.3	16.5	18.5
650	12192	-12.8	-10.9	-8.8	-6.7	-5.1	-3.2	.7	4.6	6.5	8.1	10.2	12.3	14.2
600	14285	-16.7	-14.8	-12.7	-10.7	-9.1	-7.2	-3.4	.4	2.3	3.9	5.9	8.0	9.9
550	16522	-20.7	-18.9	-16.9	-14.9	-13.4	-11.6	-7.9	-4.2	-2.4	-0.9	1.1	3.1	4.9
500	18934	-25.5	-23.7	-21.8	-19.8	-18.3	-16.5	-12.9	-9.3	-7.5	-6.0	-4.0	-2.1	-0.3
450	21549	-30.9	-29.2	-27.3	-25.4	-23.9	-22.2	-18.6	-15.0	-13.3	-11.6	-9.9	-8.0	-6.3
400	24390	-37.2	-35.5	-33.6	-31.7	-30.2	-28.5	-24.9	-21.3	-19.6	-18.1	-16.2	-14.3	-12.6
350	27513	-44.3	-42.6	-40.8	-38.9	-37.5	-35.8	-32.4	-29.0	-27.3	-25.9	-24.0	-22.2	-20.5
300	31017	-51.6	-50.0	-48.3	-46.5	-45.2	-43.6	-40.4	-37.2	-35.6	-34.3	-32.5	-30.8	-29.2
250	35013	-60.0	-58.4	-56.7	-55.0	-53.7	-52.1	-49.0	-45.9	-44.3	-43.0	-41.3	-39.6	-38.0
200	39741	-67.0	-65.5	-63.8	-62.2	-60.9	-59.4	-56.3	-53.2	-51.7	-50.4	-48.8	-47.1	-45.6
175	42507	-68.6	-67.2	-65.7	-64.1	-62.9	-61.5	-58.6	-55.7	-54.3	-53.1	-51.5	-50.0	-48.6
150	45666	-70.7	-69.3	-67.8	-66.3	-65.1	-63.7	-60.9	-58.1	-56.7	-55.5	-54.0	-52.5	-51.1
125	49360	-73.8	-72.3	-70.7	-69.1	-67.8	-66.3	-63.3	-60.3	-58.8	-57.5	-55.9	-54.3	-52.8
100	53839	-74.7	-73.3	-71.8	-70.2	-69.0	-67.6	-64.7	-61.8	-60.4	-59.2	-57.6	-56.1	-54.7
80	58314	-72.4	-71.1	-69.7	-68.4	-67.3	-66.0	-63.5	-61.0	-59.7	-58.6	-57.3	-55.9	-54.6
70	61007	-70.0	-68.9	-67.7	-66.5	-65.5	-64.4	-62.1	-59.8	-58.7	-57.7	-56.5	-55.3	-54.2
60	64150	-68.0	-66.9	-65.7	-64.5	-63.6	-62.5	-60.3	-58.1	-57.0	-56.1	-54.9	-53.7	-52.6
50	67897	-66.1	-65.0	-63.8	-62.6	-61.6	-60.5	-58.2	-55.9	-54.8	-53.8	-52.6	-51.4	-50.3
40	72523	-64.1	-62.9	-61.6	-60.3	-59.3	-58.1	-55.7	-53.3	-52.1	-51.1	-49.8	-48.5	-47.3
30	78563	-62.0	-60.7	-59.3	-57.8	-56.7	-55.4	-52.7	-50.0	-48.7	-47.6	-46.1	-44.7	-43.4
25	82408	-60.4	-59.1	-57.7	-56.2	-55.1	-53.8	-51.1	-48.4	-47.1	-46.0	-44.5	-43.1	-41.8
20	87192	-59.3	-57.8	-56.2	-54.6	-53.3	-51.8	-48.5	-45.8	-44.3	-43.0	-41.4	-39.8	-38.3
15	93402	-57.6	-56.0	-54.2	-52.5	-51.1	-49.5	-46.2	-42.9	-41.3	-39.9	-38.2	-36.4	-34.8
10	102393	-54.5	-52.7	-50.8	-48.8	-47.3	-45.5	-41.9	-38.3	-36.5	-35.0	-33.0	-31.1	-29.3

Table 122. Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for Point Mugu, California: Winter

NO. OBSERVATIONS -- SURFACE = 1161, TOP = 318

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES FAHRENHEIT) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	.5	2.1	3.8	5.6	6.9	8.5	11.7	14.9	16.5	17.8	19.6	21.3	22.9
1000	518	3.6	4.9	6.3	7.7	8.8	10.1	12.7	15.3	16.6	17.7	19.1	20.5	21.8
950	1929	.8	2.4	4.1	5.8	7.1	8.7	11.8	14.9	16.5	17.8	19.5	21.2	22.8
900	3409	-2.1	-0.4	1.4	3.3	4.7	6.4	9.8	13.2	14.9	16.3	18.2	20.0	21.7
850	4957	-4.4	-2.9	-1.0	.8	2.3	4.0	7.5	11.0	12.7	14.2	16.0	17.9	19.6
800	6598	-7.0	-5.3	-3.4	-1.6	-0.1	1.6	5.1	8.6	10.3	11.8	13.6	15.5	17.2
750	8314	-9.0	-7.4	-5.6	-3.8	-2.4	-0.8	2.4	5.9	7.6	9.0	10.8	12.6	14.3
700	10128	-11.6	-10.0	-8.3	-6.5	-5.2	-3.6	-0.4	2.8	4.4	5.7	7.5	9.2	10.8
650	12044	-14.6	-13.1	-11.4	-9.8	-8.5	-7.0	-3.9	-0.8	.7	2.0	3.6	5.3	6.8
600	14117	-18.1	-16.6	-15.0	-13.4	-12.2	-10.7	-7.8	-4.9	-3.4	-2.2	-0.6	1.0	2.5
550	16322	-22.3	-20.9	-19.4	-17.8	-16.6	-15.2	-12.3	-9.4	-8.0	-6.8	-5.2	-3.7	-2.3
500	18691	-26.9	-25.5	-24.0	-22.5	-21.4	-20.0	-17.3	-14.6	-13.2	-12.1	-10.6	-9.1	-7.7
450	21263	-32.4	-31.0	-29.5	-28.0	-26.9	-25.5	-22.8	-20.1	-18.7	-17.6	-16.1	-14.6	-13.2
400	24058	-38.3	-37.0	-35.6	-34.1	-33.0	-31.7	-29.0	-26.3	-25.0	-23.9	-22.4	-21.0	-19.7
350	27146	-44.9	-43.7	-42.4	-41.0	-40.0	-38.8	-36.3	-33.8	-32.6	-31.6	-30.2	-28.9	-27.7
300	30594	-52.2	-51.1	-49.9	-48.7	-47.7	-46.6	-44.3	-42.0	-40.9	-39.9	-38.7	-37.5	-36.4
250	34521	-61.2	-60.0	-58.7	-57.3	-56.3	-55.1	-52.6	-50.1	-48.9	-47.9	-46.5	-45.2	-44.0
200	39177	-70.1	-68.4	-66.5	-64.7	-63.2	-61.5	-58.0	-54.5	-52.8	-51.3	-49.5	-47.6	-45.9
175	41936	-70.7	-69.0	-67.1	-65.3	-63.8	-62.1	-58.6	-55.1	-53.4	-51.9	-50.1	-48.2	-46.5
150	45098	-70.4	-68.9	-67.2	-65.6	-64.3	-62.8	-59.7	-56.6	-55.1	-53.8	-52.2	-50.5	-49.0
125	48819	-72.2	-70.7	-69.1	-67.5	-66.3	-64.8	-61.9	-59.0	-57.5	-56.3	-54.7	-53.1	-51.6
100	53317	-74.8	-73.3	-71.7	-70.1	-68.8	-67.3	-64.3	-61.3	-59.8	-58.5	-56.9	-55.3	-53.8
80	57785	-74.6	-73.2	-71.7	-70.1	-68.9	-67.5	-64.6	-61.7	-60.3	-59.1	-57.5	-56.0	-54.6
70	60456	-72.5	-71.3	-70.0	-68.6	-67.6	-66.4	-63.9	-61.4	-60.2	-59.2	-57.8	-56.5	-55.3
60	63560	-70.3	-69.2	-68.0	-66.8	-65.9	-64.8	-62.6	-60.4	-59.3	-58.4	-57.2	-56.0	-54.9
50	67257	-68.2	-67.2	-66.2	-65.1	-64.3	-63.3	-61.4	-59.5	-58.5	-57.7	-56.6	-55.6	-54.6
40	71818	-65.7	-64.8	-63.8	-62.8	-62.0	-61.1	-59.2	-57.3	-56.4	-55.6	-54.6	-53.6	-52.7
30	77753	-63.9	-62.8	-61.7	-60.6	-59.9	-58.8	-56.8	-54.8	-53.8	-53.0	-51.9	-50.8	-49.8
25	81532	-62.5	-61.5	-60.4	-59.3	-58.4	-57.4	-55.3	-53.2	-52.2	-51.3	-50.2	-49.1	-48.1
20	86217	-61.9	-60.7	-59.4	-58.1	-57.1	-55.9	-53.5	-51.1	-49.9	-48.9	-47.6	-46.3	-45.1
15	92290	-60.5	-59.2	-57.8	-56.4	-55.3	-54.0	-51.4	-48.8	-47.5	-46.4	-45.0	-43.6	-42.3
10	100902	-58.5	-56.9	-55.2	-53.5	-52.2	-50.6	-47.5	-44.4	-42.8	-41.5	-39.8	-38.1	-36.5

Table 123. Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for Point Mugu, California: Spring

NO. OBSERVATIONS -- SURFACE = 1222, TOP = 332

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	5.1	6.4	7.8	9.1	10.2	11.5	14.0	16.5	17.8	18.9	20.2	21.6	22.9
1000	453	5.7	6.8	8.0	9.2	10.1	11.2	13.4	15.6	16.7	17.6	18.8	20.0	21.1
950	1873	1.3	2.9	4.6	6.4	7.7	9.3	12.5	15.7	17.3	18.6	20.4	22.1	23.7
900	3356	-1.5	.3	2.3	4.3	5.9	7.7	11.5	15.3	17.1	18.7	20.7	22.7	24.5
850	4918	-3.6	-1.7	.4	2.5	4.1	6.0	9.9	13.8	15.7	17.3	19.4	21.5	23.4
800	6562	-5.5	-3.7	-1.7	.3	1.9	3.7	7.5	11.3	13.1	14.7	16.7	18.7	20.5
750	8301	-7.6	-5.9	-4.0	-2.1	-0.6	1.1	4.7	8.3	10.0	11.5	13.4	15.3	17.0
700	10178	-10.4	-8.7	-6.9	-5.0	-3.6	-1.9	1.5	4.9	6.6	8.0	9.9	11.7	13.4
650	12073	-13.5	-11.9	-10.1	-8.4	-7.0	-5.4	-2.1	1.2	2.8	4.2	5.9	7.7	9.3
600	14140	-17.2	-15.6	-13.9	-12.1	-10.8	-9.2	-6.0	-2.8	-1.2	.1	1.9	3.6	5.2
550	16365	-21.2	-19.7	-18.0	-16.4	-15.1	-13.6	-10.5	-7.4	-5.9	-4.6	-3.0	-1.3	.2
500	18737	-26.1	-24.6	-23.0	-21.4	-20.1	-18.6	-15.6	-12.6	-11.1	-9.8	-8.2	-6.6	-5.1
450	21319	-31.3	-29.9	-28.4	-26.8	-25.6	-24.2	-21.3	-18.4	-17.0	-15.8	-14.2	-12.7	-11.3
400	2 127	-37.4	-36.0	-34.5	-33.0	-31.9	-30.5	-27.8	-25.1	-23.7	-22.6	-21.1	-19.6	-18.2
350	27208	-44.4	-43.1	-41.7	-40.3	-39.2	-37.9	-35.3	-32.7	-31.4	-30.3	-28.9	-27.5	-26.2
300	30669	-51.5	-50.3	-49.0	-47.8	-46.8	-45.6	-43.3	-41.0	-39.8	-38.8	-37.6	-36.3	-35.1
250	34623	-59.8	-58.6	-57.3	-56.1	-55.1	-53.9	-51.6	-49.3	-48.1	-47.1	-45.9	-44.6	-43.4
200	39285	-69.2	-67.6	-65.8	-64.1	-62.7	-61.1	-57.8	-54.5	-52.9	-51.5	-49.8	-48.0	-46.4
175	42037	-70.3	-68.6	-66.8	-64.9	-63.5	-61.8	-58.4	-55.0	-53.3	-51.9	-50.0	-48.2	-46.5
150	45210	-68.5	-67.1	-65.6	-64.1	-62.9	-61.5	-58.7	-55.9	-54.5	-53.3	-51.8	-50.3	-48.9
125	48953	-67.8	-66.7	-65.5	-64.3	-63.3	-62.2	-59.9	-57.6	-56.5	-55.5	-54.3	-53.1	-52.0
100	53501	-69.2	-68.1	-66.9	-65.7	-64.7	-63.6	-61.3	-59.0	-57.9	-56.9	-55.7	-54.5	-53.4
80	58035	-68.7	-67.6	-66.4	-65.3	-64.4	-63.3	-61.2	-59.1	-58.0	-57.1	-56.0	-54.8	-53.7
70	60745	-67.2	-66.2	-65.2	-64.1	-63.3	-62.3	-60.4	-58.5	-57.5	-56.7	-55.6	-54.6	-53.6
60	63904	-66.0	-65.0	-64.0	-62.9	-62.1	-61.1	-59.2	-57.3	-56.3	-55.5	-54.4	-53.4	-52.4
50	67644	-64.6	-63.6	-62.5	-61.4	-60.5	-59.5	-57.4	-55.3	-54.3	-53.4	-52.3	-51.2	-50.2
40	72303	-62.6	-61.5	-60.3	-59.1	-58.2	-57.1	-54.9	-52.7	-51.6	-50.7	-49.5	-48.3	-47.2
30	78360	-59.8	-58.7	-57.5	-56.3	-55.3	-54.2	-51.9	-49.6	-48.5	-47.5	-46.3	-45.1	-44.0
25	82208	-58.0	-56.9	-55.7	-54.5	-53.6	-52.5	-50.3	-48.1	-47.0	-46.1	-44.9	-43.7	-42.6
20	87021	-56.2	-55.0	-53.7	-52.3	-51.3	-50.1	-47.6	-45.1	-43.9	-42.9	-41.5	-40.2	-39.0
15	93284	-53.7	-52.4	-51.0	-49.5	-48.4	-47.1	-44.4	-41.7	-40.4	-39.3	-37.8	-36.4	-35.1
10	102277	-48.7	-47.4	-46.0	-44.5	-43.4	-42.1	-39.4	-36.7	-35.4	-34.3	-32.8	-31.4	-30.1

Table 124. Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for Point Mugu, California: Summer

NO. OBSERVATIONS -- SURFACE = 1152, TOP = 379

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	10.6	11.6	12.6	13.7	14.5	15.5	17.4	19.3	20.3	21.1	22.2	23.2	24.2
1000	394	10.5	11.3	12.2	13.1	13.8	14.6	16.3	18.0	18.8	19.5	20.4	21.3	22.1
950	1841	6.7	8.5	10.2	12.0	13.3	14.9	18.1	21.3	22.9	24.2	26.0	27.7	29.3
900	3356	8.1	9.8	11.7	13.6	15.1	16.8	20.4	24.0	25.7	27.2	29.1	31.0	32.7
850	4974	8.9	10.5	12.2	13.9	15.2	16.8	19.9	23.0	24.6	25.9	27.6	29.3	30.9
800	6677	8.4	9.7	11.1	12.5	13.6	14.9	17.5	20.1	21.4	22.5	23.9	25.3	26.6
750	8474	5.9	7.1	8.4	9.6	10.6	11.8	14.1	16.4	17.6	18.6	19.8	21.1	22.3
700	10347	3.2	4.2	5.3	6.4	7.3	8.3	10.4	12.5	13.5	14.4	15.5	16.6	17.6
650	12379	-0.2	.7	1.7	2.7	3.5	4.4	6.3	8.2	9.1	9.9	10.9	11.9	12.8
600	14511	-4.5	-3.6	-2.6	-1.6	-0.8	.1	2.0	3.9	4.8	5.6	6.6	7.6	8.5
550	16791	-8.9	-8.0	-7.0	-6.1	-5.3	-4.4	-2.6	-0.8	.1	.9	1.8	2.8	3.7
500	19249	-14.0	-13.1	-12.1	-11.2	-10.4	-9.5	-7.7	-5.9	-5.0	-4.2	-3.3	-2.3	-1.4
450	21916	-19.9	-19.0	-18.0	-17.0	-16.2	-15.3	-13.4	-11.5	-10.6	-9.8	-8.8	-7.8	-6.9
400	24816	-26.2	-25.3	-24.3	-23.3	-22.5	-21.6	-19.7	-17.8	-16.9	-16.1	-15.1	-14.1	-13.2
350	28002	-34.1	-33.1	-32.0	-30.9	-30.1	-29.1	-27.1	-25.1	-24.1	-23.3	-22.2	-21.1	-20.1
300	31548	-42.5	-41.5	-40.4	-39.3	-38.5	-37.5	-35.5	-33.5	-32.5	-31.7	-30.6	-29.5	-28.5
250	35666	-51.6	-50.6	-49.5	-48.4	-47.6	-46.6	-44.6	-42.6	-41.6	-40.8	-39.7	-38.6	-37.6
200	40463	-60.1	-59.2	-58.3	-57.3	-56.6	-55.7	-54.0	-52.3	-51.4	-50.7	-49.7	-48.8	-47.9
175	43245	-64.7	-63.8	-62.9	-61.9	-61.2	-60.3	-58.6	-56.9	-56.0	-55.3	-54.3	-53.4	-52.5
150	46348	-70.1	-69.1	-68.0	-66.9	-66.0	-65.0	-62.9	-60.8	-59.8	-58.9	-57.8	-56.7	-55.7
125	50039	-74.6	-73.4	-72.1	-70.7	-69.7	-68.5	-66.0	-63.5	-62.3	-61.3	-59.9	-58.6	-57.4
100	54449	-74.5	-73.3	-72.0	-70.8	-69.6	-68.6	-66.3	-64.0	-62.8	-61.8	-60.6	-59.3	-58.1
80	58930	-69.8	-68.8	-67.8	-66.7	-65.9	-64.9	-63.0	-61.1	-60.1	-59.3	-58.2	-57.2	-56.2
70	61631	-66.3	-65.5	-64.6	-63.8	-63.1	-62.3	-60.7	-59.1	-58.3	-57.6	-56.8	-55.9	-55.1
60	64803	-63.3	-62.6	-61.8	-61.0	-60.4	-59.7	-58.2	-56.7	-56.0	-55.4	-54.6	-53.8	-53.1
50	68549	-60.4	-59.7	-58.9	-58.2	-57.6	-56.9	-55.5	-54.1	-53.4	-52.8	-52.1	-51.3	-50.6
40	73278	-57.6	-56.9	-56.2	-55.5	-54.9	-54.2	-52.9	-51.6	-50.9	-50.3	-49.6	-48.9	-48.2
30	79396	-55.0	-54.2	-53.4	-52.5	-51.9	-51.1	-49.6	-48.1	-47.3	-46.7	-45.8	-45.0	-44.2
25	83291	-52.8	-52.1	-51.3	-50.6	-50.0	-49.3	-47.9	-46.5	-45.8	-45.2	-44.5	-43.7	-43.0
20	88143	-50.9	-50.1	-49.2	-48.4	-47.7	-46.9	-45.3	-43.7	-42.9	-42.2	-41.4	-40.5	-39.7
15	94455	-48.0	-47.2	-46.3	-45.5	-44.8	-44.0	-42.4	-40.8	-40.0	-39.3	-38.5	-37.6	-36.8
10	103517	-44.1	-43.2	-42.2	-41.2	-40.4	-39.5	-37.6	-35.7	-34.8	-34.0	-33.0	-32.0	-31.1

Table 125. Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for Point Mugu, California: Autumn

NO. OBSERVATIONS -- SURFACE = 1082, TOP = 3H9

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	6.4	7.9	9.5	11.1	12.3	13.8	16.7	19.6	21.1	22.3	23.9	25.5	27.0
1000	423	8.1	9.4	10.8	12.1	13.2	14.5	17.0	19.5	20.8	21.9	23.2	24.6	25.9
950	1870	5.2	7.0	8.9	10.9	12.4	14.2	17.8	21.4	23.2	24.7	26.7	28.6	30.4
900	3383	4.1	6.0	8.1	10.2	11.8	13.7	17.6	21.5	23.4	25.0	27.1	29.2	31.1
850	4977	2.7	4.5	6.5	8.5	10.1	11.9	15.7	19.5	21.3	22.9	24.9	26.9	28.7
800	6654	.5	2.2	4.1	5.9	7.4	9.1	12.6	16.1	17.8	19.3	21.1	23.0	24.7
750	8425	-1.6	-0.0	1.7	3.5	4.8	6.4	9.6	12.8	14.4	15.7	17.5	19.2	20.8
700	10285	-4.5	-3.0	-1.3	.3	1.6	3.1	6.2	9.3	10.8	12.1	13.7	15.4	16.9
650	12267	-7.7	-6.2	-4.6	-3.0	-1.8	-0.3	2.6	5.5	7.0	8.2	9.8	11.4	12.9
600	14377	-11.5	-10.1	-8.6	-7.0	-5.8	-4.4	-1.5	1.4	2.8	4.0	5.6	7.1	8.5
550	16627	-15.8	-14.4	-12.9	-11.4	-10.2	-8.8	-6.0	-3.2	-1.8	-0.6	.9	2.4	3.8
500	19052	-20.7	-19.3	-17.8	-16.3	-15.2	-13.8	-11.1	-8.4	-7.0	-5.9	-4.4	-2.9	-1.5
450	21683	-26.0	-24.7	-23.3	-21.9	-20.8	-19.5	-16.9	-14.3	-13.0	-11.9	-10.5	-9.1	-7.8
400	24544	-32.2	-30.9	-29.5	-28.2	-27.1	-25.8	-23.3	-20.8	-19.5	-18.4	-17.1	-15.7	-14.4
350	27684	-39.2	-38.0	-36.7	-35.4	-34.4	-33.2	-30.8	-28.4	-27.2	-26.2	-24.9	-23.6	-22.4
300	31214	-46.9	-45.8	-44.6	-43.4	-42.4	-41.3	-39.0	-36.7	-35.6	-34.6	-33.4	-32.2	-31.1
250	35240	-55.7	-54.6	-53.2	-51.9	-50.9	-49.7	-47.3	-44.9	-43.7	-42.7	-41.4	-40.1	-38.9
200	39997	-64.5	-63.2	-61.8	-60.4	-59.3	-58.0	-55.4	-52.8	-51.5	-50.4	-49.0	-47.6	-46.3
175	42772	-67.6	-66.4	-65.1	-63.7	-62.7	-61.5	-59.0	-56.5	-55.3	-54.3	-52.9	-51.8	-50.4
150	45915	-70.2	-69.1	-67.9	-66.7	-65.7	-64.6	-62.3	-60.0	-58.9	-57.9	-56.7	-55.5	-54.4
125	49583	-73.6	-72.4	-71.1	-69.9	-68.9	-67.7	-65.4	-63.1	-61.9	-60.9	-59.7	-58.4	-57.2
100	54009	-75.1	-73.9	-72.6	-71.4	-70.4	-69.2	-66.9	-64.6	-63.4	-62.4	-61.2	-59.9	-58.7
80	58442	-72.9	-71.8	-70.6	-69.5	-68.6	-67.5	-65.4	-63.3	-62.2	-61.3	-60.2	-59.0	-57.9
70	61115	-70.6	-69.6	-68.5	-67.4	-66.6	-65.6	-63.6	-61.6	-60.6	-59.8	-58.7	-57.6	-56.6
60	64232	-68.2	-67.2	-66.2	-65.1	-64.3	-63.3	-61.4	-59.5	-58.5	-57.7	-56.6	-55.6	-54.6
50	67959	-65.7	-64.8	-63.8	-62.8	-62.0	-61.1	-59.2	-57.3	-56.4	-55.6	-54.6	-53.6	-52.7
40	72569	-63.5	-62.5	-61.4	-60.3	-59.5	-58.5	-56.5	-54.5	-53.5	-52.7	-51.6	-50.5	-49.5
30	78583	-61.0	-59.9	-58.7	-57.5	-56.6	-55.5	-53.3	-51.1	-50.0	-49.1	-47.9	-46.7	-45.6
25	82421	-59.9	-58.7	-57.4	-56.2	-55.2	-54.0	-51.7	-49.4	-48.2	-47.2	-46.0	-44.7	-43.5
20	87188	-58.6	-57.3	-55.9	-54.6	-53.5	-52.2	-49.7	-47.2	-45.9	-44.8	-43.5	-42.1	-40.8
15	93396	-56.3	-55.0	-53.6	-52.3	-51.2	-49.9	-47.4	-44.9	-43.6	-42.5	-41.2	-39.8	-38.5
10	102228	-53.0	-51.7	-50.3	-48.8	-47.7	-46.4	-43.7	-41.0	-39.7	-38.6	-37.1	-35.7	-34.4

Table 126. Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for Point Mugu, California: January

NO. OBSERVATIONS -- SURFACE = 383, TOP = 102

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	-0.3	1.3	3.1	4.8	6.2	7.8	11.1	14.4	16.0	17.4	19.1	20.9	22.5
1000	531	2.4	3.8	5.3	6.8	8.0	9.4	12.2	15.0	16.4	17.6	19.1	20.6	22.0
950	1942	-0.6	1.1	2.9	4.7	6.1	7.7	11.1	14.4	16.1	17.5	19.3	21.1	22.7
900	3412	-3.5	-1.7	.2	2.2	3.7	5.5	9.1	12.7	14.5	16.0	18.0	19.9	21.7
850	4941	-5.8	-4.0	-2.1	-0.1	1.4	3.2	6.8	10.4	12.2	13.7	15.7	17.6	19.4
800	6595	-7.9	-6.2	-4.3	-2.4	-0.9	.8	4.4	8.0	9.7	11.2	13.1	15.0	16.7
750	8310	-9.9	-8.2	-6.4	-4.5	-3.1	-1.4	2.0	5.4	7.1	8.5	10.4	12.2	13.9
700	10118	-12.4	-10.8	-9.0	-7.3	-5.9	-4.3	-1.0	2.3	3.9	5.3	7.0	8.8	10.4
650	12047	-15.4	-13.8	-12.1	-10.4	-9.1	-7.5	-4.4	-1.3	.3	1.6	3.3	5.0	6.6
600	14101	-19.0	-17.5	-15.8	-14.2	-12.9	-11.4	-8.3	-5.2	-3.7	-2.4	-0.8	.9	2.4
550	16306	-23.1	-21.6	-20.0	-18.4	-17.2	-15.7	-12.8	-9.9	-8.4	-7.2	-5.6	-4.0	-2.5
500	18688	-28.0	-26.5	-24.9	-23.3	-22.1	-20.6	-17.7	-14.8	-13.3	-12.1	-10.5	-8.9	-7.4
450	21234	-33.7	-32.2	-30.6	-29.0	-27.8	-26.3	-23.4	-20.5	-19.0	-17.8	-16.2	-14.6	-13.1
400	24019	-39.4	-38.0	-36.5	-35.0	-33.8	-32.4	-29.6	-26.8	-25.4	-24.2	-22.7	-21.2	-19.8
350	27114	-45.8	-44.5	-43.1	-41.8	-40.7	-39.4	-36.9	-34.4	-33.1	-32.0	-30.7	-29.3	-28.0
300	30554	-52.8	-51.5	-50.3	-49.1	-48.2	-47.1	-44.9	-42.7	-41.6	-40.7	-39.5	-38.3	-37.2
250	34472	-61.7	-60.5	-59.2	-57.9	-56.9	-55.7	-53.3	-50.9	-49.7	-48.7	-47.4	-46.1	-44.9
200	39111	-71.0	-69.2	-67.3	-65.3	-63.8	-62.0	-58.4	-54.8	-53.0	-51.5	-49.5	-47.6	-45.8
175	41870	-70.9	-69.2	-67.3	-65.4	-63.9	-62.2	-58.6	-55.0	-53.3	-51.8	-49.9	-48.0	-46.3
150	45036	-69.4	-68.1	-66.5	-64.9	-63.6	-62.1	-59.1	-56.1	-54.6	-53.3	-51.7	-50.1	-48.6
125	48773	-71.0	-69.6	-68.1	-66.6	-65.4	-64.0	-61.2	-58.4	-57.0	-55.8	-54.3	-52.8	-51.4
100	53296	-74.1	-72.5	-70.9	-69.3	-68.1	-66.6	-63.7	-60.8	-59.3	-58.1	-56.5	-54.9	-53.4
80	57743	-73.3	-72.0	-70.6	-69.1	-68.0	-66.7	-64.0	-61.3	-60.0	-58.9	-57.4	-56.0	-54.7
70	60443	-71.4	-70.2	-68.9	-67.7	-66.7	-65.5	-63.2	-60.9	-59.7	-58.7	-57.5	-56.2	-55.0
60	63540	-68.9	-67.9	-66.8	-65.7	-64.8	-63.8	-61.7	-59.6	-58.6	-57.7	-56.6	-55.5	-54.5
50	67270	-66.7	-65.8	-64.8	-63.8	-63.0	-62.1	-60.2	-58.3	-57.4	-56.6	-55.6	-54.6	-53.7
40	71837	-64.8	-63.9	-63.0	-62.0	-61.3	-60.4	-58.7	-57.0	-56.1	-55.4	-54.4	-53.5	-52.6
30	77779	-63.0	-62.1	-61.1	-60.1	-59.3	-58.4	-56.5	-54.6	-53.7	-52.9	-51.9	-50.9	-50.0
25	81572	-62.3	-61.3	-60.2	-59.1	-58.2	-57.2	-55.1	-53.0	-52.0	-51.1	-50.0	-48.9	-47.9
20	86240	-61.1	-60.0	-58.8	-57.7	-56.8	-55.7	-53.6	-51.5	-50.4	-49.5	-48.4	-47.2	-46.1
15	92352	-60.0	-58.8	-57.5	-56.1	-55.1	-53.9	-51.4	-48.9	-47.7	-46.7	-45.3	-44.0	-42.8
10	101093	-58.2	-56.6	-54.9	-53.2	-51.9	-50.3	-47.2	-44.1	-42.5	-41.2	-39.5	-37.8	-36.2

Table 127. Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for Point Mugu, California: February

NO. OBSERVATIONS -- SURFACE = 331, TOP = 74

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	1.4	2.9	4.5	6.1	7.4	8.9	11.9	14.9	16.4	17.7	19.3	20.9	22.4
1000	531	4.6	5.8	7.1	8.3	9.3	10.5	12.8	15.1	16.3	17.3	18.5	19.8	21.0
950	1939	1.6	3.1	4.7	6.3	7.5	9.0	11.9	14.8	16.3	17.5	19.1	20.7	22.2
900	3422	-1.0	.6	2.3	4.0	5.3	6.9	10.0	13.1	14.7	16.0	17.7	19.4	21.0
850	4970	-3.3	-1.7	-0.0	1.7	3.0	4.6	7.7	10.8	12.4	13.7	15.4	17.1	18.7
800	6601	-5.5	-4.0	-2.3	-0.7	.6	2.1	5.2	8.3	9.8	11.1	12.7	14.4	15.9
750	8333	-7.4	-6.0	-4.5	-2.9	-1.7	-0.3	2.6	5.5	6.9	8.1	9.7	11.2	12.6
700	10141	-9.9	-8.6	-7.2	-5.7	-4.6	-3.3	-0.6	2.1	3.4	4.5	6.0	7.4	8.7
650	12070	-12.8	-11.6	-10.3	-8.9	-7.9	-6.7	-4.2	-1.7	-0.5	.5	1.9	3.2	4.4
600	14127	-16.2	-15.1	-13.9	-12.7	-11.7	-10.6	-8.3	-6.0	-4.9	-3.9	-2.7	-1.5	-0.4
550	16322	-20.5	-19.4	-18.2	-17.0	-16.1	-15.0	-12.8	-10.6	-9.5	-8.6	-7.4	-6.2	-5.1
500	18694	-25.3	-24.2	-23.0	-21.9	-21.0	-19.9	-17.8	-15.7	-14.6	-13.7	-12.6	-11.4	-10.3
450	21250	-31.2	-30.1	-28.9	-27.7	-26.7	-25.6	-23.3	-21.0	-19.9	-18.9	-17.7	-16.5	-15.4
400	24039	-37.6	-36.5	-35.3	-34.1	-33.1	-32.0	-29.7	-27.4	-26.3	-25.3	-24.1	-22.9	-21.8
350	27116	-45.0	-43.9	-42.7	-41.5	-40.5	-39.4	-37.1	-34.8	-33.7	-32.7	-31.5	-30.3	-29.2
300	30554	-52.8	-51.7	-50.5	-49.3	-48.4	-47.3	-45.1	-42.9	-41.8	-40.9	-39.7	-38.5	-37.4
250	34462	-61.9	-60.7	-59.4	-58.1	-57.1	-55.9	-53.5	-51.1	-49.9	-48.9	-47.6	-46.3	-45.1
200	39111	-70.4	-68.6	-66.7	-64.7	-63.2	-61.4	-57.8	-54.2	-52.4	-50.9	-48.9	-47.0	-45.2
175	41877	-68.8	-67.2	-65.4	-63.7	-62.3	-60.7	-57.4	-54.1	-52.5	-51.1	-49.4	-47.6	-46.0
150	45046	-67.8	-66.5	-65.1	-63.6	-62.5	-61.2	-58.5	-55.8	-54.5	-53.4	-51.9	-50.5	-49.2
125	48743	-69.4	-68.2	-66.9	-65.5	-64.5	-63.3	-60.8	-58.3	-57.1	-56.1	-54.7	-53.4	-52.2
100	53304	-72.8	-71.5	-70.1	-68.6	-67.5	-66.2	-63.5	-60.8	-59.5	-58.4	-56.9	-55.5	-54.2
80	57785	-73.3	-72.0	-70.6	-69.2	-68.1	-66.8	-64.2	-61.6	-60.3	-59.2	-57.8	-56.4	-55.1
70	60446	-71.2	-70.1	-68.9	-67.8	-66.9	-65.8	-63.7	-61.6	-60.5	-59.6	-58.5	-57.3	-56.2
60	63553	-69.6	-68.6	-67.6	-66.5	-65.7	-64.7	-62.8	-60.9	-59.9	-59.1	-58.0	-57.0	-56.0
50	67251	-67.6	-66.7	-65.7	-64.7	-63.9	-63.0	-61.1	-59.2	-58.3	-57.5	-56.5	-55.5	-54.6
40	71847	-65.8	-64.8	-63.8	-62.7	-61.9	-60.9	-59.0	-57.1	-56.1	-55.3	-54.2	-53.2	-52.2
30	77772	-62.7	-61.8	-60.8	-59.9	-59.1	-58.2	-56.4	-54.6	-53.7	-52.9	-52.0	-51.0	-50.1
25	81618	-60.4	-59.5	-58.6	-57.6	-56.9	-56.0	-54.3	-52.6	-51.7	-51.0	-50.0	-49.1	-48.2
20	86319	-59.2	-58.2	-57.1	-56.0	-55.1	-54.1	-52.0	-49.9	-48.9	-48.0	-46.9	-45.8	-44.8
15	92434	-57.0	-55.9	-54.7	-53.6	-52.7	-51.6	-49.5	-47.4	-46.3	-45.4	-44.3	-43.1	-42.0
10	101106	-55.0	-53.8	-52.1	-50.6	-49.4	-48.0	-45.2	-42.4	-41.0	-39.8	-38.3	-36.8	-35.4

Table 128 Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for Point Mugu, California: March

NO. OBSERVATIONS -- SURFACE = 393. TOP = 92

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	3.7	5.0	6.4	7.8	8.9	10.2	12.8	15.4	16.7	17.8	19.2	20.6	21.9
1000	442	5.5	6.8	7.7	8.8	9.8	10.6	12.8	14.6	15.6	16.4	17.5	18.6	19.6
950	1813	1.3	2.8	4.4	6.0	7.2	8.7	11.4	14.5	16.0	17.2	18.8	20.4	21.9
900	3373	-1.8	-0.7	1.6	3.4	4.8	6.4	9.8	13.2	14.8	16.2	18.0	19.8	21.4
850	4925	-3.5	-1.6	-0.2	1.6	2.9	4.5	7.7	10.9	12.5	13.8	15.6	17.3	18.9
800	6555	-5.7	-4.2	-2.5	-0.9	.4	1.9	5.0	8.1	9.6	10.9	12.5	14.2	15.7
750	8278	-8.0	-6.5	-4.9	-3.3	-2.1	-0.6	2.3	5.2	6.7	7.9	9.5	11.1	12.6
700	10059	-10.8	-9.4	-7.9	-6.3	-5.1	-3.7	-0.8	2.1	3.5	4.7	6.3	7.8	9.2
650	12018	-14.2	-12.8	-11.3	-9.8	-8.6	-7.2	-4.4	-1.6	-0.2	1.0	2.5	4.0	5.4
600	14072	-17.8	-16.4	-14.9	-13.4	-12.3	-10.9	-8.2	-5.5	-4.1	-3.0	-1.5	.0	1.4
550	16266	-21.8	-20.5	-19.1	-17.7	-16.6	-15.3	-12.7	-10.1	-8.8	-7.7	-6.3	-4.9	-3.6
500	18629	-26.9	-25.6	-24.2	-22.8	-21.7	-20.4	-17.8	-15.2	-13.9	-12.8	-11.4	-10.0	-8.7
450	21141	-32.1	-30.9	-29.6	-28.2	-27.2	-26.0	-23.5	-21.0	-19.8	-18.8	-17.4	-16.1	-14.9
400	23973	-38.2	-37.0	-35.7	-34.5	-33.5	-32.3	-30.0	-27.7	-26.5	-25.5	-24.3	-23.0	-21.8
350	27041	-45.3	-44.2	-43.0	-41.8	-40.8	-39.7	-37.4	-35.1	-34.0	-33.0	-31.8	-30.6	-29.5
300	30472	-52.5	-51.4	-50.2	-49.1	-48.2	-47.1	-45.0	-42.9	-41.8	-40.9	-39.8	-38.6	-37.5
250	34333	-60.4	-59.3	-58.1	-57.0	-56.1	-55.0	-52.9	-50.8	-49.7	-48.8	-47.7	-46.5	-45.4
200	39049	-70.4	-68.8	-66.6	-64.6	-63.1	-61.3	-57.6	-53.9	-52.1	-50.6	-48.6	-46.6	-44.8
175	41808	-69.4	-68.2	-66.3	-64.4	-62.9	-61.2	-57.6	-54.0	-52.3	-50.8	-48.9	-47.0	-45.3
150	44947	-67.1	-65.8	-64.4	-6 .1	-62.0	-60.7	-58.2	-55.7	-54.4	-53.3	-52.0	-50.6	-49.3
125	48740	-67.2	-66.2	-65.1	-64.0	-63.1	-62.1	-60.0	-57.9	-56.9	-56.0	-54.9	-53.8	-52.8
100	53291	-69.4	-68.3	-67.1	-66.0	-65.1	-64.0	-61.9	-59.8	-58.7	-57.9	-56.7	-55.5	-54.4
80	57835	-68.8	-67.7	-66.7	-65.7	-64.9	-64.0	-62.1	-60.2	-59.3	-58.5	-57.5	-56.5	-55.6
70	60535	-67.8	-66.7	-65.8	-64.8	-64.1	-63.2	-61.5	-59.8	-58.9	-58.2	-57.2	-56.3	-55.4
60	63648	-66.7	-65.8	-64.8	-63.9	-63.1	-62.2	-60.4	-58.6	-57.7	-56.9	-56.0	-55.0	-54.1
50	67348	-65.8	-64.6	-63.6	-62.5	-61.7	-60.7	-58.8	-56.9	-55.9	-55.1	-54.0	-53.0	-52.0
40	71945	-64.1	-63.0	-61.8	-60.7	-59.8	-58.7	-56.6	-54.5	-53.4	-52.5	-51.4	-50.2	-49.1
30	78031	-61.1	-60.0	-58.8	-57.7	-56.8	-55.7	-53.6	-51.5	-50.4	-49.5	-48.4	-47.2	-46.1
25	81849	-59.5	-58.4	-57.2	-56.0	-55.1	-54.0	-51.8	-49.6	-48.5	-47.6	-46.4	-45.2	-44.1
20	86 :6	-58.9	-57.6	-56.0	-54.5	-53.4	-52.0	-49.3	-46.6	-45.2	-44.1	-42.6	-41.1	-39.7
15	92854	-58.6	-56.8	-54.9	-52.9	-51.6	-49.6	-46.0	-42.4	-40.6	-39.1	-37.1	-35.2	-33.4
10	101755	-53.8	-52.1	-50.2	-48.3	-46.8	-45.1	-41.5	-37.9	-36.2	-34.7	-32.8	-30.9	-29.2

Table 129. Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for Point Mugu, California: April

NO. OBSERVATIONS -- SURFACE = 413, TOP = 112

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	5.8	6.8	8.1	9.3	10.3	11.5	13.8	16.1	17.3	18.3	19.5	20.8	22.0
1000	453	6.0	7.0	8.1	9.2	10.1	11.1	13.2	15.3	16.3	17.2	18.3	19.4	20.4
950	1870	.8	2.4	4.2	5.9	7.3	8.9	12.2	15.5	17.1	18.5	20.2	22.0	23.6
900	3350	-2.1	-0.3	1.7	3.7	5.3	7.1	10.9	14.7	16.5	18.1	20.1	22.1	23.9
850	4908	-4.0	-2.2	-0.2	1.8	3.4	5.2	9.0	12.8	14.6	16.2	18.2	20.2	22.0
800	6545	-6.0	-4.2	-2.3	-0.3	1.2	3.0	6.6	10.2	12.0	13.5	15.5	17.4	19.2
750	8278	-8.2	-6.5	-4.7	-2.8	-1.4	.3	3.7	7.1	8.8	10.2	12.1	13.9	15.6
700	10132	-10.9	-9.3	-7.5	-5.8	-4.4	-2.8	.5	3.8	5.4	6.8	8.5	10.3	11.9
650	12094	-14.0	-12.4	-10.7	-9.0	-7.7	-6.1	-3.0	.1	1.7	3.0	4.7	6.4	8.0
600	14238	-17.4	-15.9	-14.3	-12.7	-11.4	-9.9	-6.9	-3.9	-2.4	-1.1	.5	2.1	3.6
550	16302	-21.4	-20.0	-18.5	-16.9	-15.7	-14.3	-11.4	-8.5	-7.1	-5.9	-4.3	-2.8	-1.4
500	18675	-26.1	-24.7	-23.2	-21.7	-20.6	-19.2	-16.5	-13.8	-12.4	-11.3	-9.8	-8.3	-6.9
450	21243	-31.2	-29.9	-28.5	-27.1	-26.0	-24.7	-22.1	-19.5	-18.2	-17.1	-15.7	-14.3	-13.0
400	24042	-37.0	-35.8	-34.5	-33.2	-32.2	-31.0	-28.6	-26.2	-25.0	-24.0	-22.7	-21.4	-20.2
350	27096	-43.3	-42.3	-41.2	-40.1	-39.2	-38.2	-36.1	-34.0	-33.0	-32.1	-31.0	-29.9	-28.9
300	30551	-50.7	-49.7	-48.7	-47.6	-46.8	-45.8	-43.9	-42.0	-41.0	-40.2	-39.1	-38.1	-37.1
250	34495	-60.4	-59.2	-57.9	-56.7	-55.7	-54.5	-52.2	-49.9	-48.7	-47.7	-46.5	-45.2	-44.0
200	39144	-70.6	-69.8	-66.9	-64.9	-63.4	-61.6	-58.0	-54.4	-52.6	-51.1	-49.1	-47.2	-45.4
175	41910	-71.2	-69.4	-67.4	-65.4	-63.8	-62.0	-58.2	-54.4	-52.6	-51.0	-49.0	-47.0	-45.2
150	45079	-68.5	-67.0	-65.4	-63.8	-62.6	-61.1	-58.2	-55.3	-53.8	-52.6	-51.0	-49.4	-47.9
125	48737	-67.0	-65.9	-64.7	-63.5	-62.6	-61.5	-59.3	-57.1	-56.0	-55.1	-53.9	-52.7	-51.6
100	53676	-68.5	-67.4	-66.2	-65.0	-64.0	-62.9	-60.6	-58.3	-57.2	-56.2	-55.0	-53.8	-52.7
80	57956	-68.1	-67.0	-65.8	-64.6	-63.7	-62.6	-60.4	-58.2	-57.1	-56.2	-55.0	-53.8	-52.7
70	60649	-66.6	-65.6	-64.6	-63.5	-62.7	-61.7	-59.8	-57.9	-56.9	-56.1	-55.0	-54.0	-53.0
60	63839	-65.4	-64.4	-63.6	-62.5	-61.7	-60.7	-58.8	-56.9	-55.9	-55.1	-54.0	-53.0	-52.0
50	67606	-63.9	-62.9	-61.9	-60.8	-60.0	-59.0	-57.1	-55.2	-54.2	-53.4	-52.3	-51.3	-50.3
40	72251	-61.5	-60.5	-59.4	-58.3	-57.5	-56.5	-54.5	-52.5	-51.5	-50.7	-49.6	-48.5	-47.5
30	78323	-59.8	-58.6	-57.3	-56.1	-55.1	-53.9	-51.8	-49.3	-48.1	-47.1	-45.9	-44.6	-43.4
25	82149	-57.8	-56.7	-55.5	-54.4	-53.5	-52.4	-50.3	-48.2	-47.1	-46.2	-45.1	-43.9	-42.8
20	86954	-55.4	-54.3	-53.1	-51.9	-50.9	-49.8	-47.5	-45.2	-44.1	-43.1	-41.9	-40.7	-39.6
15	93202	-52.2	-51.1	-49.9	-48.7	-47.8	-46.7	-44.5	-42.3	-41.2	-40.3	-39.1	-37.9	-36.8
10	102175	-47.5	-46.3	-45.0	-43.8	-42.8	-41.6	-39.3	-37.0	-35.8	-34.8	-33.6	-32.3	-31.1

Table 130 Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for Point Mugu, California: May

NO. OBSERVATIONS -- SURFACE = 416. TOP = 128

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.3	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	7.0	8.2	9.5	10.8	11.8	13.0	15.4	17.8	19.0	20.0	21.3	22.6	23.8
1000	630	6.5	7.8	8.8	10.0	11.0	12.1	14.4	16.7	17.8	18.8	20.0	21.2	22.3
950	1856	2.5	4.1	5.8	7.6	8.9	10.5	13.7	16.9	18.5	19.8	21.6	23.3	24.9
900	3363	.7	2.5	4.5	6.5	8.1	9.9	13.7	17.5	19.3	20.9	22.9	24.9	26.7
850	4921	-0.0	1.8	3.8	5.8	7.4	9.2	13.0	16.8	18.6	20.2	22.2	24.2	26.0
800	6585	-1.4	.3	2.2	4.0	5.5	7.2	10.7	14.2	15.9	17.4	19.2	21.1	22.8
750	8363	-3.1	-1.5	.2	1.9	3.2	4.8	7.9	11.0	12.6	13.9	15.6	17.3	18.9
700	10194	-5.7	-4.2	-2.6	-1.0	.2	1.7	4.6	7.5	9.0	10.2	11.8	13.4	14.9
650	12159	-8.8	-7.4	-5.9	-4.4	-3.2	-1.8	1.0	3.8	5.2	6.4	7.9	9.4	10.8
600	14269	-12.7	-11.3	-9.8	-8.3	-7.2	-5.8	-3.1	-0.4	1.0	2.1	3.6	5.1	6.5
550	16490	-16.7	-15.4	-14.0	-12.6	-11.5	-10.2	-7.6	-5.0	-3.7	-2.6	-1.2	.2	1.5
500	18901	-21.3	-20.1	-18.8	-17.4	-16.4	-15.2	-12.7	-10.2	-9.0	-8.0	-6.6	-5.3	-4.1
450	21514	-26.9	-25.7	-24.4	-23.1	-22.1	-20.9	-18.5	-16.1	-14.9	-13.9	-12.6	-11.3	-10.1
400	24356	-33.5	-32.3	-31.0	-29.7	-28.7	-27.5	-25.1	-22.7	-21.5	-20.5	-19.2	-17.9	-16.7
350	27470	-40.9	-39.7	-38.4	-37.2	-36.2	-35.0	-32.7	-30.4	-29.2	-28.2	-27.0	-25.7	-24.5
300	30968	-48.5	-47.4	-46.2	-45.1	-44.2	-43.1	-41.0	-38.9	-37.8	-36.9	-35.8	-34.6	-33.5
250	34954	-57.0	-56.0	-54.9	-53.8	-52.9	-51.9	-49.8	-47.7	-46.7	-45.8	-44.7	-43.6	-42.6
200	39642	-66.2	-65.0	-63.7	-62.3	-61.3	-60.1	-57.6	-55.1	-53.9	-52.9	-51.5	-50.2	-49.0
175	42388	-69.3	-67.9	-66.6	-64.8	-63.6	-62.2	-59.3	-56.4	-55.0	-53.8	-52.2	-50.7	-49.3
150	45518	-69.5	-68.1	-66.6	-65.1	-64.0	-62.6	-59.9	-57.2	-55.8	-54.7	-53.2	-51.7	-50.3
125	49245	-69.0	-67.8	-66.5	-65.2	-64.2	-63.0	-60.6	-58.2	-57.0	-56.0	-54.7	-53.4	-52.2
100	53789	-70.0	-68.8	-67.5	-66.2	-65.2	-64.0	-61.6	-59.2	-58.0	-57.0	-55.7	-54.4	-53.2
80	58323	-68.3	-67.3	-66.2	-65.1	-64.2	-63.2	-61.1	-59.0	-58.0	-57.1	-56.0	-54.9	-53.9
70	61060	-66.8	-65.8	-64.8	-63.7	-62.9	-61.9	-60.0	-58.1	-57.1	-56.3	-55.2	-54.2	-53.2
60	64206	-65.4	-64.4	-63.4	-62.3	-61.5	-60.5	-58.6	-56.7	-55.7	-54.9	-53.8	-52.8	-51.8
50	67972	-63.7	-62.7	-61.6	-60.5	-59.6	-58.6	-56.5	-54.4	-53.4	-52.5	-51.4	-50.3	-49.3
40	72618	-61.2	-60.1	-58.9	-57.8	-56.9	-55.8	-53.7	-51.6	-50.5	-49.6	-48.5	-47.3	-46.2
30	78648	-57.2	-56.3	-55.3	-54.3	-53.5	-52.6	-50.7	-48.8	-47.9	-47.1	-46.1	-45.1	-44.2
25	82549	-55.6	-54.6	-53.5	-52.5	-51.7	-50.8	-48.9	-47.0	-46.1	-45.3	-44.3	-43.3	-42.4
20	87411	-53.1	-52.1	-51.0	-49.9	-49.1	-48.1	-46.1	-44.1	-43.1	-42.3	-41.2	-40.1	-39.1
15	93771	-48.8	-48.0	-47.1	-46.2	-45.5	-44.7	-43.0	-41.3	-40.5	-39.8	-38.9	-38.0	-37.2
10	102760	-42.6	-41.8	-40.9	-40.1	-39.4	-38.6	-37.0	-35.4	-34.6	-33.9	-33.1	-32.2	-31.4

Table 131 Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for Point Mugu, California: June

NO. OBSERVATIONS -- SURFACE = 359, TOP = 119

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	40.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	9.7	10.6	11.6	12.6	13.4	14.3	16.2	18.1	19.0	19.8	20.8	21.8	22.7
1000	346	9.5	10.3	11.2	12.0	12.7	13.5	15.1	16.7	17.5	18.2	19.0	19.9	20.7
950	1851	5.8	6.5	8.1	9.7	10.9	12.4	15.3	18.2	19.7	20.9	22.5	24.1	25.6
900	3370	3.5	5.3	7.5	9.6	11.2	13.1	17.0	20.9	22.8	24.4	26.5	28.6	30.5
850	4921	4.3	6.1	8.1	10.1	11.7	13.5	17.3	21.1	22.9	24.5	26.5	28.5	30.3
800	6614	4.0	5.8	7.3	9.1	10.4	12.0	15.2	18.4	20.0	21.3	23.1	24.8	26.4
750	8334	2.1	3.5	5.0	6.6	7.8	9.2	12.1	15.0	16.4	17.6	19.2	20.7	22.1
700	10272	-0.4	.9	2.3	3.7	4.8	6.1	8.7	11.3	12.6	13.7	15.1	16.5	17.8
650	12270	-3.5	-2.3	-1.0	.3	1.3	2.5	4.9	7.3	8.5	9.5	10.8	12.1	13.3
600	14303	-7.6	-6.2	-4.9	-3.7	-2.7	-1.5	.8	3.1	4.3	5.3	6.5	7.8	9.0
550	16643	-11.5	-10.4	-9.2	-8.0	-7.0	-5.9	-3.4	-1.3	-0.2	.8	2.0	3.2	4.3
500	19126	-16.7	-15.4	-14.4	-13.2	-12.2	-11.1	-8.8	-6.5	-5.4	-4.4	-3.2	-2.0	.9
450	21748	-22.2	-21.1	-19.9	-18.8	-17.9	-16.8	-14.7	-12.6	-11.5	-10.6	-9.5	-8.3	-7.2
400	24652	-28.5	-27.5	-26.4	-25.3	-24.4	-23.4	-21.3	-19.2	-18.2	-17.3	-16.2	-15.1	-14.1
350	27823	-36.8	-35.7	-34.5	-33.4	-32.5	-31.4	-29.3	-27.2	-26.1	-25.2	-24.1	-22.9	-21.8
300	31354	-46.4	-43.4	-42.4	-41.3	-40.5	-39.5	-37.6	-35.7	-34.7	-33.9	-32.8	-31.8	-30.8
250	35470	-53.5	-52.5	-51.5	-50.4	-49.6	-48.6	-46.7	-44.8	-43.8	-43.0	-41.9	-40.9	-39.9
200	40148	-62.7	-61.7	-60.6	-59.5	-58.6	-57.6	-55.5	-53.4	-52.4	-51.5	-50.4	-49.3	-48.3
175	42917	-66.7	-65.6	-64.4	-63.2	-62.2	-61.1	-58.8	-56.5	-55.4	-54.4	-53.2	-52.0	-50.9
150	45863	-70.1	-68.9	-67.6	-66.2	-65.2	-64.0	-61.5	-59.0	-57.8	-56.8	-55.4	-54.1	-52.9
125	49167	-72.4	-71.1	-69.7	-68.4	-67.3	-66.0	-63.5	-61.0	-59.7	-58.6	-57.3	-55.9	-54.6
100	52934	-72.8	-71.6	-70.3	-69.0	-68.0	-66.8	-64.4	-62.0	-60.8	-59.8	-58.5	-57.2	-56.0
80	58711	-69.2	-68.2	-67.1	-66.0	-65.2	-64.2	-62.2	-60.2	-59.2	-58.4	-57.3	-56.2	-55.2
70	61633	-66.3	-65.2	-64.3	-63.4	-62.7	-61.9	-60.2	-58.5	-57.7	-57.0	-56.1	-55.2	-54.4
60	64663	-63.2	-62.5	-61.7	-60.9	-60.3	-59.6	-58.1	-56.6	-55.9	-55.3	-54.5	-53.7	-53.0
50	68133	-60.6	-59.9	-59.1	-58.3	-57.7	-57.0	-55.5	-54.0	-53.3	-52.7	-51.9	-51.1	-50.4
40	73077	-57.3	-56.6	-55.9	-55.2	-54.6	-53.9	-52.6	-51.3	-50.6	-50.0	-49.3	-48.6	-47.9
30	79276	-55.2	-54.3	-53.4	-52.4	-51.7	-50.8	-49.1	-47.4	-46.5	-45.8	-44.8	-43.9	-43.0
25	83016	-52.4	-51.7	-50.9	-50.2	-49.6	-48.9	-47.5	-46.1	-45.4	-44.8	-44.1	-43.3	-42.6
20	87644	-50.2	-49.6	-48.5	-47.7	-47.0	-46.2	-44.6	-43.0	-42.2	-41.5	-40.7	-39.8	-39.0
15	93414	-47.3	-45.6	-44.8	-44.1	-43.5	-42.8	-41.4	-40.0	-39.3	-38.7	-38.0	-37.2	-36.5
10	101644	-41.6	-40.8	-40.0	-39.1	-38.5	-37.7	-36.2	-34.7	-33.9	-33.3	-32.4	-31.6	-30.8

Table 132 Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for Point Mugu, California: July

NO. OBSERVATIONS -- SURFACE = 370, TOP = 122

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	33	14.9	11.7	12.7	13.7	14.5	15.4	17.3	19.2	20.1	20.9	21.9	22.9	23.8
1000	337	10.7	11.5	12.4	13.2	13.9	14.7	16.3	17.9	18.7	19.4	20.2	21.1	21.9
950	1867	9.5	10.9	12.4	13.9	15.1	16.5	19.3	22.1	23.5	24.7	26.2	27.7	29.1
900	3383	14.1	15.3	16.6	17.8	18.8	20.0	22.3	24.6	25.8	26.8	28.0	29.3	30.5
850	4947	14.7	15.7	16.7	17.8	18.6	19.6	21.5	23.4	24.4	25.2	26.3	27.3	28.3
800	6579	13.0	13.8	14.7	15.6	16.3	17.1	18.8	20.5	21.3	22.0	22.9	23.8	24.6
750	8317	10.2	10.9	11.7	12.5	13.1	13.8	15.3	16.8	17.5	18.1	18.9	19.7	20.4
700	10113	6.6	7.3	8.0	8.7	9.3	10.0	11.3	12.6	13.3	13.9	14.6	15.3	16.0
650	12031	2.4	3.1	3.8	4.5	5.1	5.8	7.1	8.4	9.1	9.7	10.4	11.1	11.8
600	14070	-2.8	-2.2	-1.2	-0.3	.3	1.1	2.6	4.1	4.9	5.5	6.4	7.2	8.0
550	16256	-7.6	-6.8	-6.0	-5.1	-4.5	-3.7	-2.2	-0.7	.1	.7	1.6	2.4	3.2
500	18618	-12.4	-11.8	-11.0	-10.1	-9.5	-8.7	-7.2	-5.7	-4.9	-4.3	-3.4	-2.6	-1.8
450	21191	-18.5	-17.7	-16.8	-15.9	-15.2	-14.4	-12.7	-11.0	-10.2	-9.5	-8.6	-7.7	-6.9
400	24015	-24.4	-23.6	-22.7	-21.9	-21.2	-20.4	-18.8	-17.2	-16.4	-15.7	-14.9	-14.0	-13.2
350	28150	-31.6	-30.8	-29.9	-29.1	-28.4	-27.6	-26.0	-24.4	-23.6	-22.9	-22.1	-21.2	-20.4
300	31639	-40.0	-39.2	-38.3	-37.4	-36.7	-35.9	-34.2	-32.5	-31.7	-31.0	-30.1	-29.2	-28.4
250	35874	-48.4	-47.7	-46.9	-46.1	-45.5	-44.8	-43.3	-41.8	-41.1	-40.5	-39.7	-38.9	-38.2
200	40823	-58.3	-57.3	-56.6	-55.9	-55.3	-54.6	-53.3	-52.0	-51.3	-50.7	-50.0	-49.3	-48.6
175	43459	-64.0	-63.2	-62.4	-61.5	-60.9	-60.1	-58.6	-57.1	-56.3	-55.7	-54.8	-54.0	-53.2
150	46552	-69.7	-68.9	-68.0	-67.1	-66.4	-65.6	-63.9	-62.2	-61.4	-60.7	-59.8	-58.9	-58.1
125	50176	-76.4	-75.8	-72.7	-71.6	-70.7	-69.7	-67.8	-65.5	-64.5	-63.6	-62.5	-61.4	-60.4
100	54567	-73.8	-72.7	-71.7	-70.8	-70.0	-69.1	-67.3	-65.5	-64.6	-63.8	-62.9	-61.9	-61.0
80	58012	-69.1	-68.3	-67.4	-66.6	-65.9	-65.1	-63.5	-61.9	-61.1	-60.4	-59.6	-58.7	-57.9
70	61759	-66.5	-65.7	-64.9	-64.0	-63.4	-62.6	-61.1	-59.6	-58.8	-58.2	-57.3	-56.5	-55.7
60	64872	-63.6	-62.9	-62.1	-61.3	-60.7	-60.0	-58.5	-57.0	-56.3	-55.7	-54.9	-54.1	-53.4
50	68645	-60.5	-59.8	-59.0	-58.3	-57.7	-57.0	-55.6	-54.2	-53.5	-52.9	-52.2	-51.4	-50.7
40	73373	-57.8	-57.1	-56.4	-55.7	-55.1	-54.4	-53.1	-51.8	-51.1	-50.5	-49.8	-49.1	-48.4
30	79623	-55.3	-54.7	-53.5	-52.7	-52.1	-51.4	-49.9	-48.4	-47.7	-47.1	-46.3	-45.5	-44.8
25	83326	-53.1	-52.4	-51.6	-50.8	-50.2	-49.5	-48.0	-46.5	-45.8	-45.2	-44.4	-43.6	-42.9
20	88154	-51.1	-50.3	-49.4	-48.6	-47.9	-47.1	-45.5	-43.9	-43.1	-42.4	-41.6	-40.7	-39.9
15	94439	-48.3	-47.5	-46.6	-45.8	-45.1	-44.3	-42.7	-41.1	-40.3	-39.6	-38.8	-37.9	-37.1
10	103530	-44.5	-43.5	-42.5	-41.4	-40.6	-39.6	-37.7	-35.8	-34.8	-34.0	-32.9	-31.9	-30.9

Table 133. Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for Point Mugu, California: August

NO. OBSERVATIONS -- SURFACE = 423, TOP = 154

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	11.9	12.8	13.8	14.8	15.6	16.5	18.4	20.3	21.2	22.0	23.0	24.0	24.9
1000	367	12.4	13.3	14.1	14.8	15.4	16.1	17.5	18.9	19.6	20.2	20.9	21.7	22.4
950	1856	8.4	10.0	11.7	13.4	14.7	16.3	19.4	22.5	24.1	25.4	27.1	28.8	30.4
900	3376	10.1	11.7	13.5	15.2	16.6	18.2	21.5	24.8	26.4	27.8	29.5	31.3	32.9
850	5020	11.2	12.6	14.1	15.6	16.7	18.1	20.8	23.5	24.9	26.0	27.5	29.0	30.4
800	6739	10.5	11.6	12.8	14.0	14.9	16.0	18.2	20.4	21.5	22.4	23.6	24.8	25.9
750	8517	8.2	9.1	10.1	11.1	11.9	12.8	14.7	16.6	17.5	18.3	19.3	20.3	21.2
700	10437	5.3	6.1	7.0	7.8	8.5	9.3	10.9	12.5	13.3	14.0	14.8	15.7	16.5
650	12421	1.7	2.4	3.2	4.0	4.6	5.3	6.8	8.3	9.0	9.6	10.4	11.2	11.9
600	14546	-2.7	-2.0	-1.2	-0.4	.2	.9	2.4	3.9	4.6	5.2	6.0	6.8	7.5
550	16844	-7.1	-6.4	-5.6	-4.9	-4.3	-3.6	-2.2	-0.8	-0.1	.5	1.2	2.0	2.7
500	19354	-12.2	-11.5	-10.7	-10.0	-9.4	-8.7	-7.3	-5.9	-5.2	-4.6	-3.9	-3.1	-2.4
450	21978	-17.8	-17.1	-16.3	-15.6	-15.0	-14.3	-12.9	-11.5	-10.8	-10.2	-9.5	-8.7	-8.0
400	24842	-24.2	-23.5	-22.7	-21.9	-21.3	-20.6	-19.1	-17.6	-16.9	-16.3	-15.5	-14.7	-14.0
350	28044	-31.9	-31.1	-30.2	-29.4	-28.7	-27.9	-26.3	-24.7	-23.9	-23.2	-22.4	-21.5	-20.7
300	31680	-40.6	-39.8	-38.9	-38.0	-37.3	-36.5	-34.8	-33.1	-32.3	-31.6	-30.7	-29.8	-29.0
250	35771	-50.0	-49.1	-48.2	-47.2	-46.5	-45.6	-43.9	-42.2	-41.3	-40.6	-39.6	-38.7	-37.8
200	40584	-58.5	-57.8	-57.0	-56.2	-55.6	-54.9	-53.4	-51.9	-51.2	-50.6	-49.8	-49.0	-48.3
175	43373	-63.4	-62.7	-61.9	-61.1	-60.5	-59.8	-58.3	-56.8	-56.1	-55.5	-54.7	-53.9	-53.2
150	46512	-68.9	-68.1	-67.2	-66.3	-65.6	-64.8	-63.1	-61.4	-60.6	-59.9	-59.0	-58.1	-57.3
125	50154	-74.2	-73.1	-71.9	-70.8	-69.9	-68.8	-66.7	-64.6	-63.5	-62.6	-61.5	-60.3	-59.2
100	54570	-74.7	-73.6	-72.4	-71.2	-70.2	-69.1	-66.8	-64.5	-63.4	-62.4	-61.2	-60.0	-58.9
80	59026	-70.0	-69.0	-68.0	-66.9	-66.1	-65.1	-63.2	-61.3	-60.3	-59.5	-58.4	-57.4	-56.4
70	61729	-66.3	-65.5	-64.6	-63.8	-63.1	-62.3	-60.7	-59.1	-58.3	-57.6	-56.8	-55.9	-55.1
60	64985	-63.1	-62.4	-61.6	-60.8	-60.2	-59.5	-58.0	-56.5	-55.8	-55.2	-54.4	-53.6	-52.9
50	68694	-60.4	-59.7	-58.9	-58.2	-57.6	-56.9	-55.5	-54.1	-53.4	-52.8	-52.1	-51.3	-50.6
40	73349	-57.5	-56.8	-56.1	-55.4	-54.8	-54.1	-52.8	-51.5	-50.8	-50.2	-49.5	-48.8	-48.1
30	79518	-54.8	-54.1	-53.3	-52.5	-51.9	-51.2	-49.7	-48.2	-47.5	-46.9	-46.1	-45.3	-44.6
25	83432	-52.9	-52.2	-51.4	-50.7	-50.1	-49.4	-48.0	-46.6	-45.9	-45.3	-44.6	-43.8	-43.1
20	88244	-51.4	-50.6	-49.7	-48.9	-48.2	-47.4	-45.8	-44.2	-43.4	-42.7	-41.9	-41.0	-40.2
15	94577	-48.6	-47.8	-46.9	-46.0	-45.3	-44.5	-42.8	-41.1	-40.3	-39.6	-38.7	-37.8	-37.0
10	103576	-44.6	-43.7	-42.8	-41.8	-41.1	-40.2	-38.5	-36.8	-35.9	-35.2	-34.2	-33.3	-32.4

Table 134. Cumulative Frequency Distribution of Upper Air Temperatures at Standard Pressure Levels for Point Mugu, California: September

NO. OBSERVATIONS -- SURFACE = 358, TOP = 132

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	[illegible] -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	9.1	10.4	11.8	13.1	14.2	15.5	18.0	20.5	21.8	22.9	24.2	25.6	26.9
1000	358	10.7	11.7	12.8	13.9	14.7	15.7	17.7	19.7	20.7	21.5	22.6	23.7	24.7
950	1811	8.2	9.8	11.6	13.3	14.7	16.3	19.6	22.9	24.5	25.9	27.6	29.4	31.0
900	3337	9.5	11.1	12.8	14.6	15.9	17.5	20.7	23.9	25.5	26.8	28.6	30.3	31.9
850	4951	9.6	11.0	12.5	14.0	15.1	16.5	19.2	21.9	23.3	24.4	25.9	27.4	28.8
800	6647	8.0	9.2	10.5	11.7	12.7	13.9	16.2	18.5	19.7	20.7	21.9	23.2	24.4
750	8438	5.6	6.6	7.7	8.8	9.6	10.6	12.6	14.6	15.6	16.4	17.5	18.6	19.6
700	10322	2.4	3.3	4.3	5.3	6.1	7.0	8.9	10.8	11.7	12.5	13.5	14.5	15.4
650	12303	-1.1	-0.2	.8	1.7	2.5	3.4	5.2	7.0	7.9	8.7	9.6	10.6	11.5
600	14444	-5.4	-4.5	-3.5	-2.5	-1.7	-0.8	1.1	3.0	3.9	4.7	5.7	6.7	7.6
550	16726	-9.2	-8.4	-7.5	-6.6	-5.9	-5.1	-3.4	-1.7	-0.9	-0.2	.7	1.6	2.4
500	19173	-13.8	-13.0	-12.2	-11.3	-10.7	-9.9	-8.4	-6.9	-6.1	-5.5	-4.6	-3.8	-3.0
450	21821	-19.3	-18.6	-17.8	-17.0	-16.4	-15.7	-14.2	-12.7	-12.0	-11.4	-10.6	-9.8	-9.1
400	24718	-25.6	-24.9	-24.1	-23.3	-22.7	-22.0	-20.6	-19.0	-18.3	-17.7	-16.9	-16.1	-15.4
350	27894	-33.7	-32.9	-32.0	-31.2	-30.5	-29.7	-28.1	-26.5	-25.7	-25.0	-24.2	-23.3	-22.5
300	31440	-42.1	-41.3	-40.4	-39.5	-38.8	-38.0	-36.3	-34.6	-33.8	-33.1	-32.2	-31.3	-30.5
250	35531	-51.0	-50.1	-49.1	-48.2	-47.4	-46.5	-44.7	-42.9	-42.0	-41.2	-40.3	-39.3	-38.4
200	40331	-60.1	-59.2	-58.2	-57.2	-56.4	-55.5	-53.6	-51.7	-50.8	-50.0	-49.0	-48.0	-47.1
175	43117	-64.2	-63.3	-62.3	-61.4	-60.6	-59.7	-57.9	-56.1	-55.2	-54.4	-53.5	-52.5	-51.6
150	46266	-69.1	-68.1	-67.1	-66.0	-65.2	-64.2	-62.3	-60.4	-59.4	-58.6	-57.5	-56.5	-55.5
125	49921	-73.2	-72.2	-71.1	-70.0	-69.1	-68.1	-66.0	-63.9	-62.9	-62.0	-60.9	-59.8	-58.8
100	54344	-74.1	-73.1	-72.0	-70.9	-70.0	-69.0	-66.9	-64.8	-63.8	-62.9	-61.8	-60.7	-59.7
80	58788	-70.8	-69.8	-68.9	-68.0	-67.2	-66.3	-64.5	-62.7	-61.8	-61.0	-60.1	-59.1	-58.2
70	61463	-68.2	-67.3	-66.4	-65.4	-64.7	-63.8	-62.1	-60.4	-59.5	-58.8	-57.8	-56.9	-56.0
60	64610	-65.7	-64.8	-63.9	-62.9	-62.2	-61.3	-59.6	-57.9	-57.0	-56.3	-55.3	-54.4	-53.5
50	68373	-62.7	-61.9	-61.1	-60.2	-59.6	-58.8	-57.3	-55.8	-55.0	-54.4	-53.5	-52.7	-51.9
40	73022	-59.8	-59.0	-58.1	-57.3	-56.6	-55.8	-54.2	-52.6	-51.8	-51.1	-50.3	-49.4	-48.6
30	79098	-56.7	-55.9	-55.0	-54.2	-53.5	-52.7	-51.1	-49.5	-48.7	-48.0	-47.2	-46.3	-45.5
25	82982	-54.9	-54.1	-53.2	-52.4	-51.7	-50.9	-49.3	-47.7	-46.9	-46.2	-45.4	-44.5	-43.7
20	87812	-53.0	-52.2	-51.3	-50.4	-49.7	-48.9	-47.2	-45.5	-44.7	-44.0	-43.1	-42.2	-41.4
15	94098	-50.8	-49.9	-49.0	-48.0	-47.3	-46.4	-44.7	-43.0	-42.1	-41.4	-40.4	-39.5	-38.6
10	103072	-47.6	-46.6	-45.6	-44.5	-43.7	-42.7	-40.8	-38.9	-37.9	-37.1	-36.0	-35.0	-34.0

Table 135. Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for Point Mugu, California: October

NO. OBSERVATIONS -- SURFACE = 398, TOP = 142

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	7.7	9.0	10.4	11.8	12.9	14.2	16.8	19.4	20.7	21.8	23.2	24.6	25.9
1000	430	8.0	9.3	10.7	12.1	13.2	14.5	17.1	19.7	21.0	22.1	23.5	24.9	26.2
950	1877	5.7	7.4	9.3	11.2	12.7	14.4	18.0	21.6	23.3	24.8	26.7	28.6	30.3
900	3396	5.8	7.5	9.4	11.2	12.7	14.4	17.9	21.4	23.1	24.6	26.4	28.3	30.0
850	4987	4.8	6.4	8.1	9.9	11.2	12.8	16.0	19.2	20.8	22.1	23.9	25.6	27.2
800	6663	2.9	4.4	6.0	7.6	8.8	10.3	13.2	16.1	17.6	18.8	20.4	22.0	23.5
750	8435	.1	1.5	3.0	4.5	5.7	7.1	9.9	12.7	14.1	15.3	16.8	18.3	19.7
700	10299	3.8	-2.3	-0.7	.9	2.1	3.6	6.5	9.4	10.9	12.1	13.7	15.3	16.8
650	12283	-5.7	-4.5	-3.2	-1.8	-0.7	.4	2.9	5.4	6.6	7.6	9.0	10.3	11.5
600	14393	-10.2	-8.9	-7.5	-6.2	-5.1	-3.8	-1.3	1.2	2.5	3.6	4.9	6.3	7.6
550	16647	-14.5	-13.3	-12.0	-10.6	-9.6	-8.4	-5.9	-3.4	-2.2	-1.2	.2	1.5	2.7
500	19075	-19.3	-18.1	-16.8	-15.6	-14.6	-13.4	-11.1	-8.8	-7.6	-6.6	-5.4	-4.1	-2.9
450	21709	-24.2	-23.2	-22.1	-21.0	-20.1	-19.1	-17.0	-14.9	-13.9	-13.0	-11.9	-10.8	-9.8
400	24570	-30.2	-29.2	-28.2	-27.1	-26.3	-25.3	-23.4	-21.5	-20.5	-19.7	-18.6	-17.6	-16.6
350	27733	-37.5	-36.6	-35.6	-34.6	-33.8	-32.9	-31.0	-29.1	-28.2	-27.4	-26.4	-25.4	-24.5
300	31257	-44.8	-44.0	-43.1	-42.3	-41.6	-40.8	-39.2	-37.6	-36.8	-36.1	-35.3	-34.4	-33.6
250	35279	-54.1	-53.2	-52.2	-51.2	-50.4	-49.5	-47.6	-45.7	-44.8	-44.0	-43.0	-42.0	-41.1
200	40023	-64.3	-63.1	-61.8	-60.4	-59.4	-58.2	-55.7	-53.2	-52.0	-51.0	-49.6	-48.3	-47.1
175	42792	-67.7	-66.6	-65.2	-63.9	-62.9	-61.7	-59.3	-56.9	-55.7	-54.7	-53.4	-52.1	-50.9
150	45935	-70.5	-69.4	-68.2	-67.0	-66.0	-64.9	-62.6	-60.3	-59.2	-58.2	-57.0	-55.8	-54.7
125	49600	-73.2	-72.1	-70.9	-69.7	-68.8	-67.7	-65.5	-63.3	-62.2	-61.3	-60.1	-58.9	-57.8
100	54026	-75.8	-74.6	-73.3	-72.1	-71.1	-69.9	-67.6	-65.3	-64.1	-63.1	-61.9	-60.6	-59.4
80	58442	-73.1	-72.0	-70.9	-69.8	-69.0	-68.0	-66.0	-64.0	-63.0	-62.2	-61.1	-60.0	-59.0
70	61106	-70.3	-69.4	-68.5	-67.5	-66.8	-65.9	-64.2	-62.5	-61.6	-60.9	-59.9	-59.0	-58.1
60	64219	-67.3	-66.5	-65.7	-64.8	-64.2	-63.4	-61.9	-60.4	-59.6	-59.0	-58.1	-57.3	-56.5
50	67940	-64.7	-63.9	-63.1	-62.2	-61.6	-60.8	-59.3	-57.8	-57.0	-56.4	-55.5	-54.7	-53.9
40	72552	-61.8	-61.0	-60.2	-59.3	-58.7	-57.9	-56.4	-54.9	-54.1	-53.5	-52.6	-51.8	-51.0
30	78586	-59.1	-58.2	-57.3	-56.3	-55.6	-54.7	-53.0	-51.3	-50.4	-49.7	-48.7	-47.8	-46.9
25	82444	-57.5	-56.6	-55.6	-54.7	-53.9	-53.0	-51.2	-49.4	-48.5	-47.7	-46.8	-45.8	-44.9
20	87221	-56.5	-55.5	-54.4	-53.3	-52.4	-51.4	-49.3	-47.2	-46.2	-45.3	-44.2	-43.1	-42.1
15	93406	-55.2	-54.1	-52.9	-51.7	-50.7	-49.6	-47.3	-45.0	-43.9	-42.9	-41.7	-40.5	-39.4
10	102221	-51.8	-50.7	-49.5	-48.3	-47.3	-46.2	-43.9	-41.6	-40.5	-39.5	-38.3	-37.1	-36.0

Table 136 Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for Point Mugu, California: November

NO. OBSERVATIONS -- SURFACE = 326, TOP = 114

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	3.6	5.2	7.0	8.8	10.2	11.8	15.2	18.5	20.2	21.6	23.4	25.2	26.8
1000	492	6.1	7.6	9.0	10.6	11.8	13.2	16.1	19.0	20.4	21.6	23.2	24.7	26.1
950	1926	3.5	5.2	7.1	9.0	10.5	12.2	15.8	19.4	21.1	22.6	24.5	26.4	28.1
900	3425	1.3	3.1	5.0	7.0	8.5	10.3	13.9	17.5	19.3	20.8	22.8	24.7	26.5
850	4997	-0.8	.9	2.8	4.7	6.2	7.9	11.5	15.1	16.8	18.3	20.2	22.1	23.8
800	6650	-2.8	-1.2	.6	2.4	3.8	5.4	8.8	12.2	13.8	15.2	17.0	18.8	20.4
750	8396	-4.9	-3.3	-1.6	.1	1.4	3.0	6.1	9.2	10.8	12.1	13.8	15.5	17.1
700	10236	-7.5	-6.0	-4.4	-2.8	-1.5	-0.0	3.0	6.0	7.5	8.8	10.4	12.0	13.5
650	12142	-11.2	-9.7	-8.0	-6.4	-5.1	-3.6	-0.5	2.6	4.1	5.4	7.0	8.7	10.2
600	14272	-14.9	-13.4	-11.8	-10.2	-9.0	-7.5	-4.4	-1.7	-0.2	1.0	2.6	4.2	5.7
550	16436	-19.3	-17.8	-16.2	-14.6	-13.4	-11.9	-9.0	-6.1	-4.6	-3.4	-1.8	-0.2	1.3
500	18848	-23.9	-22.5	-21.0	-19.5	-18.3	-16.9	-14.1	-11.3	-9.9	-8.7	-7.2	-5.7	-4.3
450	21490	-29.4	-28.0	-26.5	-25.0	-23.9	-22.5	-19.8	-17.1	-15.7	-14.6	-13.1	-11.6	-10.2
400	24318	-35.3	-34.0	-32.6	-31.2	-30.1	-28.8	-26.2	-23.6	-22.3	-21.2	-19.8	-18.4	-17.1
350	27345	-41.6	-40.5	-39.3	-38.1	-37.1	-36.0	-33.7	-31.4	-30.3	-29.3	-28.1	-26.9	-25.8
300	30873	-48.7	-47.7	-46.6	-45.5	-44.7	-43.7	-41.7	-39.7	-38.7	-37.9	-36.8	-35.7	-34.7
250	34856	-57.3	-56.2	-55.0	-53.9	-53.0	-51.9	-49.8	-47.7	-46.6	-45.7	-44.6	-43.4	-42.3
200	39547	-67.0	-65.8	-64.1	-62.5	-61.3	-59.9	-57.0	-54.1	-52.7	-51.5	-49.9	-48.4	-47.0
175	42326	-70.1	-68.8	-67.0	-65.4	-64.2	-62.7	-59.8	-56.9	-55.4	-54.2	-52.6	-51.0	-49.5
150	45469	-71.3	-70.0	-68.6	-67.1	-66.0	-64.7	-62.0	-59.3	-58.0	-56.9	-55.4	-54.0	-52.7
125	49147	-73.4	-72.3	-70.9	-69.5	-68.4	-67.1	-64.5	-61.9	-60.6	-59.5	-58.1	-56.7	-55.4
100	53546	-75.1	-73.8	-72.4	-71.1	-70.0	-68.7	-66.2	-63.7	-62.4	-61.3	-60.0	-58.6	-57.3
80	56061	-74.2	-73.0	-71.7	-70.4	-69.4	-68.2	-65.8	-63.4	-62.2	-61.2	-59.9	-58.6	-57.4
70	60779	-71.9	-70.8	-69.6	-68.5	-67.6	-66.5	-64.4	-62.3	-61.2	-60.3	-59.2	-58.0	-56.9
60	63859	-69.1	-68.2	-67.3	-66.3	-65.6	-64.7	-63.0	-61.3	-60.4	-59.7	-58.7	-57.8	-56.9
50	67510	-66.5	-65.7	-64.9	-64.0	-63.4	-62.6	-61.1	-59.6	-58.8	-58.2	-57.3	-56.5	-55.7
40	72077	-64.9	-64.1	-63.2	-62.3	-61.6	-60.8	-59.1	-57.4	-56.6	-55.9	-55.0	-54.1	-53.3
30	78031	-62.9	-61.9	-60.9	-59.8	-59.0	-58.0	-56.1	-54.2	-53.2	-52.4	-51.3	-50.3	-49.3
25	81814	-61.8	-60.8	-59.7	-58.6	-57.8	-56.8	-54.8	-52.8	-51.8	-51.0	-49.9	-48.8	-47.8
20	86514	-60.7	-59.6	-58.4	-57.2	-56.2	-55.1	-52.8	-50.5	-49.4	-48.4	-47.2	-46.0	-44.9
15	92621	-57.8	-56.7	-55.5	-54.4	-53.5	-52.4	-50.3	-48.2	-47.1	-46.2	-45.1	-43.9	-42.8
10	101329	-54.6	-53.5	-52.3	-51.1	-50.2	-49.1	-46.9	-44.7	-43.6	-42.7	-41.5	-40.3	-39.2

Table 137. Cumulative Frequency Distribution of Upper-Air Temperatures at Standard Pressure Levels for Point Mugu, California: December

NO. OBSERVATIONS -- SURFACE = 447, TOP = 142

PRESSURE LEVEL (MBS)	MEAN HEIGHT (FT)	TEMPERATURE (DEGREES CELSIUS)												
		1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC	13	.8	2.4	4.2	5.9	7.3	8.9	12.2	15.5	17.1	18.5	20.2	22.0	23.6
1000	499	4.3	5.6	7.0	8.3	9.4	10.7	13.2	15.7	17.0	18.1	19.	20.8	22.1
950	1913	1.3	2.9	4.6	6.3	7.6	9.2	12.3	15.4	17.0	18.3	20.0	21.7	23.3
900	3392	-1.4	.2	2.0	3.8	5.2	6.8	10.2	13.6	15.2	16.6	18.4	20.2	21.8
850	4944	-4.2	-2.5	-0.6	1.3	2.8	4.5	8.1	11.7	13.4	14.9	16.8	18.7	20.4
800	6578	-7.1	-5.3	-3.3	-1.3	.2	2.0	5.7	9.4	11.2	12.7	14.7	16.7	18.5
750	8317	-8.9	-7.2	-5.3	-3.5	-2.0	-0.3	3.2	6.7	8.4	9.9	11.7	13.6	15.3
700	10128	-11.8	-10.1	-8.2	-6.4	-4.9	-3.2	.3	3.8	5.5	7.0	8.8	10.7	12.4
650	12067	-15.1	-13.4	-11.6	-9.7	-8.3	-6.6	-3.2	.2	1.9	3.3	5.2	7.0	8.7
600	14124	-18.5	-16.9	-15.1	-13.4	-12.0	-10.4	-7.1	-3.8	-2.2	-0.8	.9	2.7	4.3
550	16335	-22.3	-20.8	-19.1	-17.5	-16.2	-14.7	-11.6	-8.5	-7.0	-5.7	-4.1	-2.4	-0.9
500	18714	-26.5	-25.1	-23.6	-22.0	-20.8	-19.4	-16.5	-13.6	-12.2	-11.0	-9.4	-7.9	-6.5
450	21296	-31.2	-29.9	-28.5	-27.0	-25.9	-24.6	-21.9	-19.2	-17.9	-16.8	-15.3	-13.9	-12.6
400	24101	-37.2	-35.9	-34.5	-33.1	-32.0	-30.7	-28.1	-25.5	-24.2	-23.1	-21.7	-20.3	-19.0
350	27185	-44.0	-42.8	-41.5	-40.1	-39.1	-37.9	-35.4	-32.9	-31.7	-30.7	-29.3	-28.0	-26.8
300	30646	-50.9	-49.8	-48.6	-47.4	-46.5	-45.3	-43.2	-41.0	-39.9	-39.0	-37.8	-36.6	-35.5
250	34596	-59.8	-58.6	-57.3	-56.0	-55.0	-53.8	-51.4	-49.0	-47.8	-46.8	-45.5	-44.2	-43.0
200	39248	-69.4	-67.8	-66.0	-64.2	-62.8	-61.1	-57.8	-54.5	-52.8	-51.4	-49.6	-47.8	-46.1
175	42024	-71.3	-69.6	-67.7	-65.9	-64.4	-62.7	-59.2	-55.7	-54.0	-52.5	-50.7	-48.8	-47.1
150	45140	-71.8	-70.2	-68.5	-66.8	-65.5	-63.9	-60.8	-57.7	-56.1	-54.8	-53.1	-51.4	-49.8
125	48875	-73.8	-72.3	-70.6	-69.0	-67.7	-66.2	-63.1	-60.0	-58.5	-57.2	-55.6	-53.9	-52.4
100	53353	-76.4	-74.8	-73.1	-71.3	-70.0	-68.4	-65.2	-62.0	-60.4	-59.1	-57.3	-55.6	-54.0
80	57802	-76.2	-74.6	-72.9	-71.2	-69.9	-68.3	-65.2	-62.1	-60.5	-59.2	-57.5	-55.8	-54.2
70	60469	-73.7	-72.4	-71.0	-69.5	-68.4	-67.1	-64.4	-61.7	-60.4	-59.3	-57.8	-56.4	-55.1
60	63566	-71.1	-70.0	-68.8	-67.6	-66.6	-65.5	-63.2	-60.9	-59.8	-58.8	-57.6	-56.4	-55.3
50	67204	-68.7	-67.7	-66.6	-65.5	-64.7	-63.7	-61.7	-59.7	-58.7	-57.9	-56.8	-55.7	-54.7
40	71804	-66.3	-65.4	-64.4	-63.4	-62.6	-61.7	-59.8	-57.9	-57.0	-56.2	-55.2	-54.2	-53.3
30	77720	-64.7	-63.6	-62.4	-61.3	-60.4	-59.3	-57.2	-55.1	-54.0	-53.1	-52.0	-50.8	-49.7
25	81457	-63.6	-62.5	-61.3	-60.2	-59.3	-58.2	-56.1	-54.0	-52.9	-52.0	-50.9	-49.7	-48.6
20	86115	-63.2	-61.9	-60.5	-59.2	-58.1	-56.8	-54.3	-51.8	-50.5	-49.5	-48.1	-46.7	-45.4
15	92159	-62.0	-60.6	-59.1	-57.6	-56.5	-55.1	-52.4	-49.7	-48.3	-47.2	-45.7	-44.2	-42.8
10	100814	-59.5	-58.0	-56.4	-54.8	-53.5	-52.0	-49.0	-46.0	-44.5	-43.2	-41.6	-40.0	-38.5

Mean Temperature Time Section

San Nicolas Island mean temperature data from tables 109 to 120 have been used in preparing a time-section of the vertical temperature distribution over the Sea Test Range between the surface and 100,000 feet (figure 33). The summertime inversion is quite apparent from the closed 20° C isotherm near the surface.

The mean freezing level is near 11,000 feet in the winter months, rising to about 15,000 feet in summer. The tropopause is found near 41,000 feet at a temperature of about -58° C in winter and spring and rises to about 51,000 feet and a temperature of -67° C in summer and autumn. (These height determinations are based on the criteria for defining the tropopause height in data from a radiosonde ascent (see reference 8).)

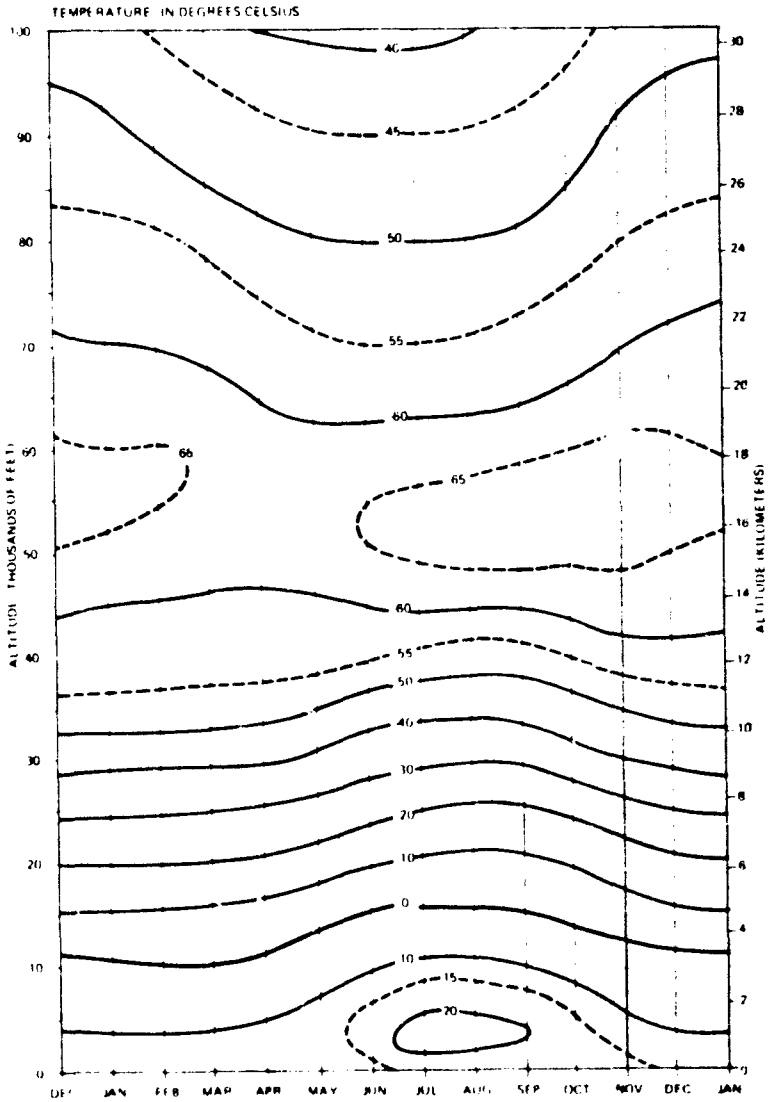


Figure 33 Mean Monthly Upper-Air Temperatures, San Nicolas Island.

Mean Seasonal Temperature Profiles

The January and July temperature data for San Nicolas Island were used in preparing mean profiles (figure 34) for those months to compare with both the U.S. Standard Atmosphere profile, and the January and July temperature profiles of the 30° N Supplemental Atmospheres (references 10 and 11). Note that the mean San Nicolas Island profiles do more closely approximate the Supplemental Atmosphere curves than that of the Standard Atmosphere.

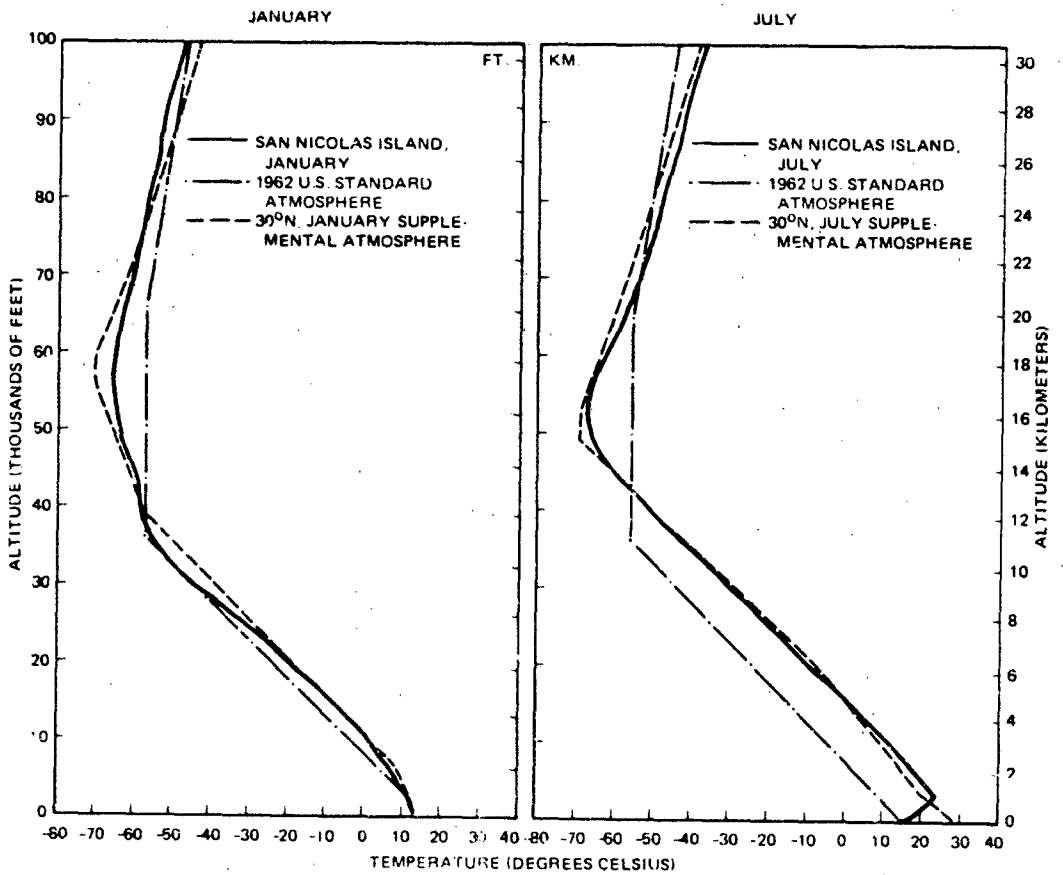


Figure 34. Mean Temperature Profile Comparison, Point Mugu, California.

Upper Air Density

Tables 109 to 120 do not include mean values of density, but density can be computed if one assumes that the mean temperature occurs simultaneously with the pressure value of the standard level, by using the following equation.

$$\rho = 348.38 \left(\frac{P}{T_v} \right)$$

where

ρ = density in grams per cubic meter
P = pressure in millibars
T_v = virtual temperature in Kelvin (K = degrees Celsius +273.15)

Because the density varies with the amount of moisture in the air as well as with temperature and pressure, it is necessary to include a correction for this moisture content. This is done through the use of the virtual temperature, T_v, a figure that is always greater than the temperature, T. The difference between T_v and T increases with increasing relative humidity at a given temperature and pressure, and also increases with increasing temperature and decreasing pressure at a given humidity. Full data concerning this temperature increment may be found in table 72 of the Smithsonian Meteorological Tables (reference 12). A large value of the temperature increment would be, for example, 3.6 Celsius degrees at 25° C (77° F) and 1000-millibar pressure with 100-percent humidity. Through most of the Standard Atmosphere temperature-pressure curve, the increment is less than 1.5° C, and it decreases to zero at temperatures colder than -40° C.

PRESSURE-HEIGHT DATA

Tables 138 through 142 and 143 through 147 list the cumulative frequency distribution of the heights of the standard pressure levels for each season for the entire year for San Nicolas Island and Point Mugu, respectively.

Table 138. Cumulative Frequency Distribution of Standard Pressure Level Heights for San Nicolas Island: Annual

NO. OBSERVATIONS -- SURFACE = 8853, TOP = 3709

PRESSURE LEVEL (MBS)	HEIGHT (FEET) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC							571						
950	1631	1663	1699	1734	1762	1794	1860	1926	1959	1986	2022	2057	2090
900	3137	3169	3205	3240	3268	3300	3366	3432	3465	3492	3528	3563	3595
850	4691	4728	4768	4808	4839	4876	4951	5026	5062	5094	5134	5174	5211
800	6304	6348	6397	6445	6483	6527	6617	6708	6752	6790	6838	6886	6931
750	7994	8048	8107	8166	8212	8266	8376	8486	8540	8586	8645	8704	8758
700	9785	9849	9919	9988	10043	10107	10236	10366	10430	10484	10554	10623	10687
650	11671	11749	11830	11912	11975	12050	12201	12353	12428	12491	12573	12654	12729
600	13693	13780	13874	13969	14042	14129	14304	14480	14567	14640	14735	14829	14916
550	15832	15932	16040	16149	16234	16333	16535	16738	16837	16922	17030	17139	17239
500	18162	18274	18397	18520	18615	18728	18957	19185	19298	19393	19516	19639	19752
450	20643	20778	20918	21059	21168	21297	21558	21820	21949	22058	22199	22339	22468
400	23392	23537	23695	23853	23976	24121	24416	24711	24856	24979	25137	25295	25440
350	26401	26565	26743	26922	27060	27224	27556	27888	28051	28190	28368	28547	28710
300	29767	29951	30152	30352	30509	30693	31066	31440	31624	31780	31981	32182	32366
250	33624	33829	34052	34275	34449	34653	35069	35484	35689	35863	36086	36309	36514
200	38231	38451	38692	38933	39121	39342	39790	40238	40459	40647	40888	41129	41349
175	40985	41207	41449	41692	41880	42102	42552	43003	43225	43413	43656	43898	44120
150	44195	44409	44643	44877	45059	45273	45709	46144	46358	46540	46774	47008	47222
125	47986	48196	48403	48620	48789	48989	49393	49798	49997	50166	50383	50600	50800
100	52573	52759	52956	53154	53307	53488	53855	54222	54403	54556	54754	54951	55132
80	57091	57264	57453	57642	57789	5796_	58314	58665	58839	58986	59175	59364	59537
70	59771	59944	60134	60325	60472	60647	61001	61355	61529	61677	61867	62057	62231
60	62863	63041	63236	63431	63583	63761	64124	64487	64665	64817	65012	65207	65385
50	66524	66713	66918	67124	67283	67472	67854	68237	68425	68585	68791	68996	69184
40	71026	71230	71454	71677	71850	72055	72470	72885	73091	73264	73487	73711	73915
30	76883	77116	77364	77612	77803	78032	78494	78956	79183	79376	79624	79872	80099
25	80659	80892	81157	81422	81627	81870	82362	82855	83097	83303	83567	83832	84075
20	85267	85531	85820	86108	86336	86596	87133	87669	87943	88157	88445	88734	88998
15	91305	91598	91917	92236	92484	92776	93369	93963	94255	94503	94822	95141	95433
10	99893	100233	100604	100975	101263	101603	102293	102984	103323	103612	103983	104354	104694

Table 139. Cumulative Frequency Distribution of Standard Pressure Level Heights for San Nicolas Island: Winter

NO. OBSERVATIONS -- SURFACE = 1962, TOP = 778

PRESSURE LEVEL (MBS)	HEIGHT (FEET) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC							571						
950	1644	1686	1728	1769	1801	1839	1916	1993	2031	2063	2104	2146	2184
900	3112	3153	3198	3243	3278	3319	3402	3486	3527	3561	3607	3652	3693
850	4643	4685	4715	4786	4823	4868	4961	5053	5098	5137	5187	5236	5282
800	6231	6283	6340	6396	6440	6492	6598	6703	6755	6799	6856	6913	6965
750	7903	7963	8028	8093	8143	8203	8323	8444	8504	8554	8619	8684	8744
700	9684	9754	9836	9898	9954	10020	10156	10288	10354	10410	10482	10554	10621
650	11554	11631	11712	11794	11857	11932	12083	12235	12310	12373	12455	12535	12611
600	13565	13648	13739	13830	13901	13986	14156	14323	14406	14477	14568	14659	14742
550	15693	15791	15891	15991	16070	16162	16348	16535	16627	16705	16806	16906	16998
500	18015	18117	18228	18339	18425	18527	18734	18940	19042	19128	19239	19350	19452
450	20494	20607	20730	20853	20944	21061	21289	21518	21631	21726	21849	21972	22084
400	23233	23356	23491	23626	23730	23856	24104	24355	24478	24583	24718	24852	24976
350	26246	26371	26524	26671	26785	26919	27192	27464	27598	27712	27859	28005	28140
300	29615	29760	29919	30077	30200	30345	30640	30934	31079	31202	31361	31519	31664
250	33491	33645	33813	33980	34111	34265	34577	34889	35043	35173	35341	35509	35662
200	38153	38307	38475	38643	38773	38927	39239	39551	39705	39835	40003	40171	40324
175	40947	41096	41258	41419	41545	41694	41995	42296	42444	42570	42732	42894	43042
150	44170	44311	44465	44618	44738	44878	45164	45450	45591	45710	45864	46017	46158
125	47973	48100	48260	48379	48488	48615	48875	49134	49262	49370	49510	49649	49777
100	-2580	52690	52911	52931	53025	53135	53360	53584	53694	53788	53908	54029	54139
80	57143	57238	57340	57443	57523	57617	57808	58000	58094	58174	58277	58379	58473
70	59857	59944	60040	60136	60210	60298	60476	60654	60741	60816	60912	61007	61095
60	62853	62936	63027	63118	63189	63272	63442	63611	63696	63765	63856	63947	64030
50	66672	66755	66846	66937	67008	67091	67261	67430	67513	67584	67675	67766	67849
40	71203	71289	71384	71478	71552	71638	71814	71990	72077	72150	72245	72339	72426
30	77057	77156	77263	77370	77456	77553	77753	77953	78051	78135	78242	78350	78448
25	80803	80915	81031	81147	81237	81343	81558	81774	81880	81970	82086	82201	82308
20	85413	85531	85660	85789	85889	86007	86247	86486	86604	86704	86833	86962	87080
15	91417	91552	91699	91847	91962	92097	92372	92647	92782	92897	93045	93192	93328
10	99928	100095	100277	100459	100600	100767	101106	101444	101611	101752	101934	102116	102283

Table 140. Cumulative Frequency Distribution of Standard Pressure Level Heights for San Nicolas Island Spring

NO. OBSERVATIONS -- SURFACE = 2144, TOP = 887

PRESSURE LEVEL (MBS)	1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
	HEIGHT (FEET)												
SFC							571						
950	1635	1667	1701	1735	1762	1793	1857	1921	1952	1979	2013	2047	2079
900	3121	3153	3187	3221	3248	3279	3343	3407	3438	3465	3499	3533	3565
850	4654	4692	4731	4770	4800	4836	4904	4971	5016	5047	5086	5125	5160
800	6261	6302	6347	6392	6427	6468	6552	6635	6677	6711	6756	6801	6842
750	7932	7982	8037	8091	8133	8183	8286	8385	8435	8477	8532	8586	8636
700	9726	9777	9840	9902	9951	10008	10125	10241	10299	10347	10410	10472	10530
650	11597	11663	11735	11807	11864	11930	12064	12198	12264	12320	12392	12464	12530
600	13609	13684	13767	13850	13914	13990	14144	14298	14373	14438	14520	14603	14679
550	15751	15837	15929	16021	16093	16177	16349	16520	16604	16676	16769	16860	16945
500	18067	18163	18267	18371	18451	18547	18740	18934	19029	19110	19214	19318	19413
450	20560	20666	20782	20898	20988	21094	21309	21524	21631	21721	21836	21952	22058
400	23301	23419	23547	23676	23776	23894	24134	24373	24491	24592	24720	24849	24967
350	26314	26444	26585	26727	26837	26967	27231	27495	27625	27735	27877	28018	28148
300	29698	29839	29993	30146	30266	30406	30692	30978	31119	31238	31392	31545	31686
250	33592	33740	33902	34064	34190	34338	34639	34940	35089	35214	35376	35538	35686
200	38280	38425	38593	38742	38865	39010	39304	39599	39744	39867	40025	40184	40329
175	41083	41220	41370	41520	41637	41775	42054	42333	42470	42587	42737	42887	43025
150	44332	44459	44597	44735	44843	44969	45226	45484	45610	45718	45856	45994	46121
125	48139	48248	48377	48506	48606	48724	48963	49203	49321	49421	49550	49678	49796
100	52714	52828	52969	53069	53163	53273	53497	53722	53832	53928	54046	54167	54277
80	57267	57372	57487	57601	57690	57795	58009	58222	58327	58416	58530	58645	58750
70	59986	60089	60201	60313	60400	60503	60712	60921	61024	61111	61223	61335	61438
60	63118	63222	63335	63449	63537	63641	63852	64063	64167	64255	64368	64482	64586
50	66832	66939	67056	67173	67264	67371	67589	67806	67913	68004	68121	68238	68345
40	71386	71503	71630	71758	71857	71974	72211	72449	72566	72665	72792	72920	73037
30	77329	77434	77598	77742	77854	77986	78255	78523	78655	78767	78911	79055	79187
25	81131	81273	81428	81582	81703	81845	82133	82421	82562	82683	82837	82992	83134
20	85801	85958	86129	86301	86434	86591	86909	87228	87345	87518	87690	87861	88018
15	91904	92083	92277	92471	92621	92799	93159	93520	93698	93848	94042	94236	94413
10	100705	100909	101131	101353	101526	101729	102142	102556	102759	102932	103154	103376	103580

Table 141 Cumulative Frequency Distribution of Standard Pressure Level Heights for San Nicolas Island: Summer

NO. OBSERVATIONS -- SURFACE = 2382, TOP = 999

PRESSURE LEVEL (MBS)	HEIGHT (FEET) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC							571						
950	1667	1690	1714	1739	1759	1781	1827	1874	1896	1916	1940	1965	1988
900	3195	3204	3235	3261	3281	3305	3353	3401	3425	3445	3471	3497	3521
850	4772	4800	4831	4861	4885	4911	4970	5028	5056	5080	5110	5141	5169
800	6444	6473	6510	6546	6575	6608	6677	6745	6778	6807	6843	6880	6913
750	8193	8232	8274	8317	8350	8389	8468	8547	8586	8619	8662	8704	8743
700	10055	10098	10147	10195	10233	10277	10367	10458	10507	10540	10588	10636	10681
650	12017	12067	12121	12176	12218	12268	12367	12470	12520	12562	12616	12671	12720
600	14123	14183	14242	14301	14347	14401	14511	14621	14675	14721	14780	14839	14893
550	16361	16421	16486	16551	16601	16661	16781	16902	16962	17012	17077	17142	17202
500	18787	18852	18921	18993	19049	19114	19245	19377	19442	19497	19568	19639	19704
450	21394	21467	21544	21622	21683	21755	21900	22045	22116	22177	22255	22333	22404
400	24244	24327	24414	24503	24567	24666	24806	24967	25046	25113	25199	25285	25364
350	27383	27477	27573	27668	27743	27830	28009	28187	28274	28349	28444	28540	28626
300	30894	30994	31102	31209	31293	31391	31591	31791	31890	31973	32081	32188	32267
250	34893	35003	35124	35244	35338	35448	35671	35897	36007	36101	36221	36342	36452
200	39613	39734	39867	39999	40102	40223	40469	40715	40837	40960	41072	41204	41325
175	42384	42507	42663	42773	42877	43000	43248	43496	43619	43723	43856	43990	44112
150	45554	45676	45805	45933	46033	46151	46391	46631	46749	46849	46978	47106	47224
125	49293	49396	49512	49628	49718	49826	50039	50255	50361	50451	50567	50682	50789
100	53417	53907	54007	54106	54183	54274	54459	54643	54734	54811	54911	55010	55101
80	58333	58412	58502	58592	58661	58744	58911	59078	59160	59230	59320	59409	59492
70	61041	61122	61211	61249	61368	61449	61614	61779	61860	61929	62018	62106	62188
60	64184	64265	64355	64445	64514	64597	64764	64931	65013	65083	65173	65262	65345
50	67931	68014	68113	68205	68278	68363	68537	68710	68796	68869	68962	69055	69141
40	72584	72677	72776	72871	72946	73035	73215	73395	73484	73560	73656	73753	73842
30	78674	78770	78870	78970	79049	79141	79327	79514	79606	79686	79785	79885	79977
25	82572	82667	82771	82875	82956	83051	83245	83438	83513	83614	83718	83822	83917
20	87376	87477	87587	87697	87782	87883	88087	88292	88392	88478	88588	88698	88798
15	93637	93747	93846	93945	94078	94187	94403	94631	94741	94836	94953	95072	95182
10	[illegible]	102723	102859	102975	103100	103225	103478	103730	103855	103961	104096	104232	104357

Table 142 Cumulative Frequency Distribution of Standard Pressure Level Heights for San Nicolas Island Autumn

NO. OBSERVATIONS -- SURFACE = 2365. TOP = 1045

PRESSURE LEVEL (MBS)	HEIGHT (FEET) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC							571						
950	[illegible]	[illegible]	[illegible]	[illegible]	1759	[illegible]	[illegible]	1917	1949	1975	2010	2044	2075
900	[illegible]	[illegible]	3210	[illegible]	[illegible]	[illegible]	[illegible]	3430	3461	3438	3522	3556	3588
850	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5029	5062	5041	5127	5164	5198
800	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6710	6759	6772	6836	6877	6916
750	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8648	8543	8662	8631	8681	8727
700	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10167	[illegible]	10378	10430	10474	10531	10587	10639
650	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12372	12441	12462	12547	12612	12671
600	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14502	14570	14628	14702	14777	14845
550	[illegible]	[illegible]	[illegible]	16313	[illegible]	16455	[illegible]	16767	16844	16909	16993	17077	17156
500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19224	19311	19385	19479	19573	19660
450	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21471	[illegible]	21562	21959	22040	22146	22251	22347
400	[illegible]	[illegible]	[illegible]	[illegible]	24213	24321	[illegible]	24760	24869	24961	25019	25197	25305
350	[illegible]	[illegible]	27103	[illegible]	[illegible]	[illegible]	[illegible]	27744	28066	28166	28297	28428	28549
300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31201	31634	31747	31892	32037	32171
250	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	35552	35696	35818	35975	36132	36276
200	[illegible]	[illegible]	39253	[illegible]	[illegible]	[illegible]	[illegible]	40314	40466	40594	40760	40925	41077
175	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	43080	43212	43360	43526	43691	43863
150	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	46217	46365	46641	46652	46814	46963
125	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	49659	50000	50112	50273	50427	50567
100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	54257	54386	54447	54636	54780	54910
80	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	58780	58960	59112	59309	59505	59664
70	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	61246	61473	61581	61719	61857	61984
60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	63935	[illegible]	64471	64603	64715	64659	65003	65135
50	[illegible]	[illegible]	[illegible]	67381	[illegible]	[illegible]	[illegible]	68212	68353	68472	68626	68780	68920
40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	72264	72939	73110	73299	73408	73623
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	78187	[illegible]	78699	79075	79224	79415	79606	79782
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	83011	[illegible]	82785	82976	83117	83745	83553	83744
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	87574	87762	87959	88185	88412	88620
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	93626	94058	94626	94510	94764	94997
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	102755	103025	103254	103558	103942	104111

Table 145 Cumulative Frequency Distribution of Standard Pressure Level Heights for Point Mugu, California. Annual

NO. OBSERVATIONS = SURFACE = 46176 TOP = 1618

PRESSURE (MB)	1.0	2.5	5.0	10.0	15.87	25.0	50.0 MEAN	75.0	84.13	90.0	95.0	97.73	99.0
1000							119						
1000	[illegible]	240	277	315	366	379	449	520	556	596	622	659	696
950	[illegible]	1871	1910	1946	1975	1998	2037	2085	2107	2127	2143	2160	2174
900	[illegible]	3454	3496	3542	3571	3604	3678	3766	3801	3830	3848	3866	3921
850	[illegible]	5021	5064	5106	5138	5178	5257	5336	5375	5404	5424	5444	5483
800	[illegible]	6591	6634	6676	6708	6748	6821	6915	6962	6991	7012	7032	7064
750	[illegible]	8159	8201	8243	8276	8319	8394	8492	8550	8589	8611	8628	8681
700	[illegible]	9813	9857	9902	10020	10088	10228	10365	10433	10491	10565	10600	10704
650	[illegible]	11508	11553	11598	11669	12029	12192	12354	12434	12502	12590	12677	12757
600	[illegible]	13220	13322	13324	14003	14094	14285	14547	14646	14724	14864	14962	15042
550	[illegible]	15079	15125	15171	15201	15307	15522	15738	15866	15939	16050	17165	17271
500	[illegible]	16974	17019	17063	17566	17688	17936	18180	18301	18416	18536	18664	18790
450	[illegible]	18957	18965	20005	21015	21132	21264	21563	21828	21965	22042	22232	22519
400	[illegible]	23051	23120	23189	23921	24075	24390	24764	24859	24990	25159	25428	25683
350	[illegible]	28063	28092	28141	28284	27161	27511	27865	28018	28185	28374	28563	28736
300	[illegible]	33038	33084	33261	33427	33621	31017	31413	31608	31773	31986	32194	32393
250	[illegible]	38302	38177	34360	34574	35013	35451	35868	35969	36084	36219	36534	
200	[illegible]	43337	38563	38842	39039	39278	39761	40211	40443	40640	40892	41145	41377
175	[illegible]	41396	41350	41500	41401	42036	42507	42979	43212	43409	43663	43917	44150
150	[illegible]	44031	44567	44743	44984	45209	45466	45731	45838	45960	46785	47031	47256
125	[illegible]	47077	48315	48565	48726	48936	49360	49787	49997	50175	50404	50633	50843
100	[illegible]	52933	53043	53034	53281	53652	53939	54225	54416	54578	54793	55184	
80	[illegible]	57611	57610	57604	57762	57944	58314	58683	58865	59019	59218	59415	59598
70	[illegible]	60425	60103	60302	60456	60638	61007	61377	61558	61713	61911	62110	62291
60	[illegible]	63109	63210	63420	63574	63768	64150	64533	64721	64881	65086	65292	65480
50	[illegible]	66934	66912	67124	67297	67495	67897	68299	68497	66665	68882	69094	69296
40	[illegible]	71121	71452	71587	71870	72086	72523	72960	73176	73354	73596	73764	74044
30	[illegible]	77114	77374	77615	77930	78077	78563	79049	79288	79491	79752	80013	80252
25	[illegible]	80753	81133	81413	81431	81887	82430	82929	83186	83404	83683	83963	84220
20	[illegible]	85212	85472	85730	86106	86342	86822	87192	87361	88061	88279	88585	88891	89171
15	[illegible]	91143	91316	91847	92149	92656	92787	93402	93638	93858	94041	94257	95299	95611
10	[illegible]	100726	100972	101474	101875	101188	101564	102103	102351	102619	102[illegible]	104133	104536	104962

Table 144. Cumulative Frequency Distribution of Standard Pressure Level Heights for Point Mugu, California: Winter

NO. OBSERVATIONS -- SURFACE = 1161, TOP = 318

PRESSURE LEVEL (MBS)	HEIGHT (FEET)												
	1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC							13						
1000	243	282	325	367	400	439	518	598	636	670	712	755	794
950	1633	1680	1725	1770	1804	1846	1929	2013	2054	2089	2134	2178	2220
900	3103	3146	3194	3241	3278	3321	3409	3497	3540	3577	3624	3671	3715
850	4613	4662	4715	4768	4810	4858	4957	5056	5105	5146	5199	5253	5301
800	6198	6253	6314	6374	6421	6476	6588	6700	6755	6802	6862	6923	6978
750	7883	7927	7996	8066	8120	8184	8314	8443	8507	8561	8631	8701	8765
700	9623	9695	9773	9851	9911	9983	10128	10273	10344	10405	10483	10561	10632
650	11490	11572	11660	11749	11818	11899	12064	12229	12310	12379	12467	12556	12637
600	13475	13566	13665	13765	13842	13933	14117	14302	14393	14470	14569	14669	14760
550	15611	15712	15822	15932	16017	16118	16322	16527	16627	16713	16823	16932	17033
500	17911	18022	18142	18263	18356	18467	18691	18915	19026	19119	19240	19360	19471
450	20407	20528	20660	20793	20896	21017	21263	21509	21631	21733	21866	21998	22119
400	23103	23238	23386	23533	23648	23784	24058	24333	24469	24583	24731	24879	25014
350	26098	26247	26409	26570	26696	26845	27146	27447	27595	27721	27883	28045	28193
300	29462	29623	29798	29972	30108	30269	30594	30919	31079	31215	31390	31565	31725
250	33336	33504	33687	33870	34012	34180	34521	34862	35030	35172	35355	35538	35706
200	38007	38173	38353	38534	38675	38840	39177	39513	39678	39819	40000	40180	40346
175	40804	40965	41139	41314	41450	41610	41936	42261	42421	42557	42732	42907	43067
150	44044	44193	44356	44519	44646	44795	45098	45402	45551	45678	45841	46004	46153
125	47863	47999	48146	48294	48409	48544	48819	49094	49229	49344	49491	49639	49774
100	52476	52595	52725	52855	52956	53075	53317	53559	53678	53779	53909	54039	54158
80	57044	57149	57264	57378	57467	57572	57785	57999	58104	58193	58307	58422	58527
70	59760	59859	59966	60074	60157	60256	60456	60656	60755	60838	60946	61053	61152
60	62873	62974	63081	63186	63268	63364	63560	63755	63852	63933	64039	64144	64240
50	66577	66673	66778	66883	66965	67062	67257	67453	67549	67631	67736	67841	67938
40	71099	71201	71312	71423	71509	71611	71818	72024	72124	72212	72323	72434	72536
30	76965	77077	77198	77320	77415	77526	77753	77979	78091	78185	78307	78428	78540
25	80707	80823	80951	81079	81178	81295	81532	81770	81896	81986	82113	82241	82358
20	85285	85417	85561	85705	85817	85949	86217	86485	86617	86730	86874	87018	87150
15	91235	91385	91548	91711	91837	91987	92290	92593	92743	92870	93033	93196	93345
10	99671	99846	100036	100226	100374	100548	100902	101256	101430	101578	101769	101959	102133

Table 145. Cumulative Frequency Distribution of Standard Pressure Level Heights for Point Mugu, California: Spring

NO. OBSERVATIONS -- SURFACE = 1222. TOP = 332

PRESSURE LEVEL (MBS)	1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
							HEIGHT (FEET)						
SFC							13						
1000	246	276	307	339	364	393	453	512	561	596	698	830	859
950	1653	1690	1723	1756	1781	1813	1873	1935	1985	1991	2024	2057	2087
900	3127	3159	3195	3233	3258	3290	3350	3422	3485	3492	3518	3553	3586
850	4658	4695	4735	4775	4806	4843	4918	4993	5030	5061	5101	5141	5178
800	6234	6279	6328	6376	6430	6476	6562	6650	6693	6730	6777	6824	6867
750	7934	7986	8042	8099	8143	8195	8301	8406	8454	8502	8559	8615	8667
700	9704	9767	9832	9897	9948	10007	10124	10249	10304	10359	10424	10489	10548
650	11584	11654	11729	11805	11864	11933	12073	12218	12283	12342	12418	12493	12563
600	13575	13655	13742	13830	13898	13979	14140	14303	14383	14451	14539	14626	14706
550	15721	15810	15908	16006	16083	16173	16355	16537	16627	16704	16802	16900	16989
500	18011	18114	18228	18338	18425	18528	18737	18946	19049	19136	19248	19360	19463
450	20501	20617	20743	20876	20984	21084	21319	21554	21670	21768	21895	22021	22137
400	23217	23346	23487	23638	23737	23866	24127	24389	24518	24627	24768	24908	25037
350	26194	26342	26498	26656	26775	26918	27208	27498	27641	27762	27918	28074	28217
300	29569	29724	29888	30065	30197	30351	30669	30986	31142	31276	31444	31614	31770
250	33445	33612	33786	33975	34117	34284	34623	34961	35128	35269	35451	35633	35800
200	38139	38301	38478	38655	38793	38955	39285	39615	39777	39915	40092	40269	40431
175	40952	41106	41273	41441	41572	41725	42037	42350	42503	42636	42801	42969	43123
150	44205	44350	44505	44660	44780	44922	45210	45498	45640	45760	45915	46070	46211
125	48021	48153	48297	48441	48553	48685	48953	49222	49354	49466	49610	49754	49886
100	52644	52766	52905	53030	53133	53254	53501	53747	53868	53971	54103	54236	54357
80	57202	57320	57468	57577	57677	57795	58035	58274	58392	58493	58621	58750	58868
70	59912	60030	60158	60247	60387	60505	60745	60984	61102	61202	61331	61460	61578
60	63056	63176	63307	63438	63540	63660	63904	64148	64268	64370	64501	64633	64753
50	66777	66903	67040	67177	67283	67409	67666	67919	68045	68151	68288	68425	68551
40	71368	71483	71631	71778	71893	72028	72303	72578	72713	72829	72976	73123	73259
30	77320	77467	77628	77788	77913	78061	78360	78659	78806	78931	79091	79252	79394
25	81115	81270	81439	81607	81739	81896	82204	82522	82677	82809	82977	83146	83301
20	85798	85971	86160	86349	86496	86669	87021	87373	87546	87693	87882	88071	88244
15	91931	92123	92332	92541	92703	92895	93284	93673	93865	94027	94236	94446	94637
10	100854	100988	101136	101287	101581	10.811	102277	102743	102972	103167	103416	103668	103898

Table 146. Cumulative Frequency Distribution of Standard Pressure Level Heights for Point Mugu, California: Summer

NO. OBSERVATIONS -- SURFACE = 1152. TOP = 379

PRESSURE LEVEL (MBS)	HEIGHT (FEET)												
	1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC							[illegible]						
1000	241	262	286	310	328	350	394	438	459	478	501	525	547
950	1672	1696	1722	1748	1768	1792	1841	1889	1913	1933	1959	1985	2009
900	3185	3205	3233	3260	3281	3306	3356	3407	3432	3453	3480	3507	3532
850	4767	4797	4828	4860	4885	4914	4974	5033	5062	5087	5119	5151	5180
800	6432	6467	6504	6542	6572	6606	[illegible]	6747	6781	6811	6849	6886	6921
750	8192	8232	8275	8319	8353	8393	8474	8556	8596	8630	8673	8717	8757
700	10045	10092	10141	10191	10230	10275	10367	10460	10505	10544	10593	10643	10689
650	12013	12070	12126	12181	12224	12275	12379	12482	12533	12576	12631	12687	12738
600	14121	14177	14237	14297	14344	14399	14511	14623	14678	14725	14786	14846	14901
550	16363	16424	16490	16556	16608	16668	16791	16914	16975	17027	17093	17159	17219
500	18782	18848	18920	18993	19049	19115	19249	19383	19449	19505	19577	19649	19715
450	21396	21470	21550	21630	21693	21767	21916	22065	22139	22202	22282	22362	22436
400	24243	24324	24413	24501	24570	24651	24816	24981	25062	25131	25220	25308	25390
350	27360	27451	27550	27649	27726	27817	28002	28187	28278	28355	28454	28553	28644
300	30877	30978	31088	31197	31283	31383	31588	31792	31893	31978	32088	32198	32299
250	34856	34970	35096	35221	35318	35433	35666	35899	36014	36111	36236	36362	36476
200	39568	39695	39833	39971	40079	40205	40463	40720	40846	40954	41092	41230	41357
175	42343	42470	42610	42749	42858	42985	43245	43504	43632	43740	43880	44019	44147
150	45503	45633	45769	45905	46011	46135	46388	46641	46765	46871	47007	47142	47267
125	49224	49344	49469	49594	49692	49806	50039	50272	50387	50485	50610	50735	50850
100	53750	53852	53963	54074	54160	54262	54469	54675	54777	54863	54974	55085	55187
80	58250	58346	58452	58557	58638	58735	58930	59126	59222	59304	59409	59514	59611
70	60943	61040	61145	61253	61335	61433	61631	61828	61926	62009	62115	62221	62319
60	64103	64199	64308	64417	64501	64601	64803	65005	65105	65190	65298	65407	65506
50	67964	67966	68078	68190	68278	68386	68589	68798	68901	68988	69100	69213	69315
40	72505	72615	72734	72853	72946	73056	73274	73500	73609	73702	73821	73940	74050
30	78555	78675	78804	78934	79035	79155	79396	79638	79757	79858	79988	80118	80237
25	82412	82536	82672	82808	82913	83038	83291	83543	83668	83774	83909	84045	84170
20	87194	87329	87476	87622	87736	87870	88143	88416	88550	88664	88810	88957	89091
15	93415	93563	93724	93886	94009	94156	94455	94754	94902	95027	95187	95348	95495
10	102332	102500	102683	102866	103009	103176	103517	103858	104026	104168	104351	104534	104702

Table 147. Cumulative Frequency Distribution of Standard Pressure Level Heights for Point Mugu, California: Autumn

NO. OBSERVATIONS -- SURFACE = 1082. TOP = 349

PRESSURE LEVEL (MBS)	HEIGHT (FEET) 1.0	2.28 -2SD	5.0	10.0	15.87 -1SD	25.0	50.0 MEAN	75.0	84.13 +1SD	90.0	95.0	97.73 +2SD	99.0
SFC							13						
1000	202	233	267	301	328	359	423	487	518	545	579	614	645
950	1641	1673	1709	1744	1772	1804	1870	1936	1969	1998	2031	2067	2099
900	3147	3179	3216	3252	3281	3314	3383	3451	3484	3513	3549	3586	3620
850	4717	4754	4794	4834	4865	4902	4977	5052	5089	5120	5160	5200	5237
800	6356	6398	6444	6490	6526	6568	6654	6739	6781	6817	6863	6909	6952
750	8081	8130	8183	8236	8278	8326	8425	8524	8573	8616	8667	8720	8769
700	9898	9951	10011	10071	10118	10173	10285	10398	10453	10500	10560	10620	10675
650	11824	11886	11955	12023	12077	12140	12267	12395	12457	12511	12579	12648	12710
600	13872	13944	14022	14099	14160	14232	14377	14522	14593	14654	14732	14810	14881
550	16054	16135	16224	16312	16381	16462	16627	16792	16873	16942	17031	17119	17201
500	18411	18501	18600	18699	18776	18867	19052	19236	19327	19405	19504	19603	19694
450	20945	21046	21177	21288	21375	21476	21683	21890	21991	22078	22189	22300	22402
400	23741	23855	23979	24103	24199	24313	24544	24775	24888	24985	25109	25233	25347
350	26797	26923	27060	27197	27303	27429	27684	27939	28066	28175	28308	28445	28570
300	30235	30374	30525	30676	30794	30933	31214	31495	31634	31751	31903	32054	32192
250	34177	34327	34492	34656	34783	34934	35240	35545	35696	35823	35987	36152	36302
200	38284	38445	38617	38788	38921	39078	39397	39715	39872	40006	40177	40348	40505
175	41064	41221	41392	41563	41697	41854	42172	42491	42648	42781	42952	43124	43281
150	44033	44184	44351	44519	44649	44803	45115	45427	45581	45712	45879	46047	46201
125	47051	47198	47357	47516	47640	47787	48083	48380	48526	48650	48810	48969	49115
100	50064	50182	50331	50480	50596	50732	51009	51286	51423	51538	51687	51836	51972
80	52526	52654	52796	52938	53048	53178	53442	53705	53835	53946	54087	54229	54359
70	54191	54322	54464	54607	54719	54850	55115	55381	55512	55624	55767	55909	56040
60	56264	56406	56554	56703	56819	56955	57232	57509	57646	57761	57910	58059	58195
50	58935	59080	59238	59397	59520	59665	59959	60254	60399	60522	60680	60839	60986
40	61453	61611	61783	61956	62090	62248	62569	62890	63048	63182	63354	63527	63685
30	67321	67500	67695	67890	68041	68220	68583	68945	69124	69276	69470	69665	69844
25	71033	71227	71442	71657	71824	72021	72421	72821	73018	73186	73401	73615	73813
20	75637	75851	76090	76330	76522	76742	77184	77625	77845	78041	78281	78520	78740
15	91641	91890	92159	92428	92638	92885	93386	93887	94136	94343	94613	94882	95129
10	100211	100495	100807	101119	101362	101647	102228	102808	103094	103336	103648	103960	104246

STANDARD AND MONTHLY MEAN ATMOSPHERIC VALUES

Table 148 lists the Standard Atmosphere values of height, temperature, and density at the pressure levels designated as "standard" for meteorological purposes (from reference 10). It is these values that are used most often as the reference in determining the departure of observed or mean upper-air data from a standard value.

Table 148. Standard Pressure Levels—Height, Pressure, and Density

(From 1962 U S Standard Atmosphere)

Pressure (Millibars)	Height (Meters) (Geopotential)	Height (Feet) (Geopotential)	Temperature (Degrees Celsius)	Temperature (Degrees Kelvin)	Density (Grams Meter^{3})
1013.2	0	0	+15.0	288.2	1225.0
1000	111	364	+14.4	287.5	1213.3
950	540	1,772	+11.4	284.6	1161.6
900	988	3,241	+8.5	281.7	1111.7
850	1,457	4,780	+5.6	278.7	1063.4
800	1,949	6,394	+2.3	275.5	1011.6
750	2,466	8,091	-0.9	272.2	961.8
700	3,012	9,882	-4.5	268.7	909.3
650	3,591	11,781	-8.4	264.8	854.5
600	4,206	13,799	-12.3	260.9	802.2
550	4,865	15,961	-16.5	256.6	748.4
500	5,574	18,287	-21.0	252.1	693.7
450	6,344	20,814	-26.2	246.9	634.9
400	7,185	23,573	-31.4	241.7	580.0
350	8,117	26,631	-37.5	235.6	519.7
300	9,164	30,066	-44.4	228.8	458.7
250	10,363	33,999	-52.2	221.0	395 9
200	11,784	38,661	-56.5	216.7	321 9
175	12,631	41,440	-56 5	216 7	279 1
150	13,608	44,646	-56.5	216 7	242.6
125	14,765	48,442	-56 5	216 7	200 9
100	16,180	53,084	-56 5	216 7	161.3
80	17,595	57,726	-56.5	216 7	128 6
70	18,442	60,505	-56 5	216 7	112 5
60	19,419	63,711	-56.5	216.7	96 4
50	20,576	67,507	-55 9	217.3	80 7
40	22,000	72,178	-54 5	218 7	63 7
30	23,849	78,245	-52 7	220 5	47 4
25	25,029	82,116	-51 5	221 7	39 1
20	26,481	86,880	-50.0	223.1	31 ?
15	28,368	93,071	-48.1	225.0	23.2
10	31,055	101,886	-45 5	227 7	15 6
7	33 453	109,753	-40 4	232 6	10 5
5	35,776	117,377	-33 8	239 0	7 3
4	37,535	12..551	-29 5	243 7	5 7
3	39,429	129,362	-23 7	249 4	4 2
2	42,440	139,239	-15 2	258 0	2 7
1	47,820	156,890	-2 5	270 7	1 3

Annual, seasonal, and monthly listings of temperature, pressure-height, and relative humidity at these levels to 10 mb for San Nicolas Island and Point Mugu are given in tables 149 through 165 and 166 through 182, respectively. In these two sets of tables, the mean height and temperature and their standard deviations are listed at each level, along with the median value of the relative humidity. These median values of humidity are given to the nearest 5 percent and are not listed once the mean temperature at a level is less than -40° C.

Table 149. Mean Upper Air Height and Temperature Data for San Nicolas Island: Annual

NO. OBSERVATIONS -- SURFACE = 8853 TOP = 3709

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	571	0	15.1	3.9	75
950	1860	93	15.6	5.9	45
900	3366	98	13.7	6.8	25
850	4951	112	13.9	6.8	25
800	6617	135	11.4	6.4	25
750	8376	164	8.4	6.0	25
700	10236	194	5.1	5.7	25
650	12201	226	1.3	5.4	25
600	14304	262	-2.8	5.2	25
550	16535	302	-7.4	5.1	25
500	18957	341	-12.6	5.0	20
450	21558	390	-18.4	5.0	15
400	24416	440	-24.8	4.9	15
350	27556	495	-32.1	4.9	15
300	31066	559	-40.3	4.7	15
250	35069	620	-48.4	4.6	0
200	39790	669	-56.3	4.4	0
175	42552	673	-58.3	4.0	0
150	45709	650	-61.4	3.9	0
125	49393	607	-64.1	4.2	0
100	53855	548	-65.7	3.9	0
80	58314	525	-64.6	3.4	0
70	61001	528	-63.0	3.1	0
60	64124	541	-61.2	3.0	0
50	67854	571	-59.1	3.1	0
40	72470	620	-56.6	3.2	0
30	78494	689	-53.6	3.5	0
25	82362	735	-51.7	3.7	0
20	87133	801	-49.4	4.0	0
15	93369	886	-46.4	4.4	0
10	102293	1030	-42.0	5.0	0

Table 150. Mean Upper-Air Height and Temperature Data for San Nicolas Island: Winter

NO. OBSERVATIONS -- SURFACE = 1962 TOP = 778

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	571	0	13.1	3.3	75
950	1916	115	12.8	4.6	45
900	3402	125	10.9	4.8	25
850	4961	138	8.7	4.7	25
800	6598	157	6.4	4.6	25
750	8323	180	3.7	4.4	25
700	10154	200	.6	4.2	25
650	12083	226	-3.0	4.1	25
600	14154	253	-7.1	4.0	25
550	16348	279	-11.7	3.9	25
500	18734	308	-16.8	3.8	25
450	21289	341	-22.5	3.7	25
400	24104	374	-28.9	3.7	25
350	27192	407	-36.3	3.4	25
300	30640	440	-44.3	3.3	0
250	34577	466	-52.5	3.7	0
200	39239	466	-57.9	5.2	0
175	41995	449	-58.8	5.1	0
150	45164	427	-60.0	4.2	0
125	48875	387	-62.6	3.8	0
100	53360	335	-65.2	4.0	0
80	57808	285	-65.7	3.8	0
70	60476	266	-64.8	3.4	0
60	63442	253	-63.5	3.1	0
50	67261	253	-61.7	2.8	0
40	71814	262	-59.7	2.8	0
30	77753	299	-57.1	2.9	0
25	81558	322	-55.4	3.2	0
20	86247	358	-53.4	3.5	0
15	92372	410	-50.6	4.2	0
10	101106	505	-46.6	4.7	0

Table 151. Mean Upper Air Height and Temperature Data for San Nicolas Island: Spring

NO. OBSERVATIONS -- SURFACE = 2144 TOP = 887

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	571	0	13.5	3.4	75
950	1857	95	12.9	5.1	55
900	3343	95	11.9	5.6	35
850	4908	108	10.1	5.6	25
800	6552	125	7.7	5.3	25
750	8284	151	4.9	5.1	25
700	10125	174	1.8	4.8	25
650	12064	200	-1.8	4.5	20
600	14144	230	-5.9	4.3	20
550	16348	256	-10.6	4.1	15
500	18740	289	-15.7	3.9	15
450	21309	322	-21.5	3.7	15
400	24134	358	-28.0	3.6	15
350	27231	394	-35.4	3.3	15
300	30692	427	-43.5	3.0	0
250	34639	449	-51.9	3.0	0
200	39304	440	-58.2	4.5	0
175	42054	417	-59.0	4.9	0
150	45226	384	-59.3	3.9	0
125	48963	358	-60.7	3.1	0
100	53497	335	-62.6	3.2	0
80	58009	318	-62.7	3.1	0
70	60712	312	-61.9	2.9	0
60	63852	315	-60.7	2.7	0
50	67589	325	-58.9	2.7	0
40	72211	354	-56.3	2.7	0
30	78255	400	-53.2	2.8	0
25	82137	430	-51.3	3.0	0
20	86909	476	-48.7	3.4	0
15	93159	538	-45.2	3.6	0
10	102142	617	-40.1	3.8	0

Table 152. Mean Upper-Air Height and Temperature Data for San Nicolas Island: Summer

NO. OBSERVATIONS -- SURFACE = 2382 TOP = 999

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	571	0	16.3	3.5	85
950	1827	69	18.8	5.8	45
900	3353	72	21.4	5.1	25
850	4970	85	20.1	4.5	25
800	6677	102	17.4	3.9	25
750	8468	118	14.0	3.4	25
700	10367	135	10.3	3.0	25
650	12369	151	6.2	2.7	25
600	14511	164	1.9	2.6	25
550	16781	180	-2.8	2.6	25
500	19245	197	-7.9	2.5	15
450	21900	217	-13.7	2.5	15
400	24806	240	-20.0	2.6	15
350	28009	266	-27.2	2.8	15
300	31591	299	-35.5	2.8	15
250	35673	335	-44.5	2.7	0
200	40469	367	-54.1	2.5	0
175	43248	371	-58.8	2.5	0
150	46391	358	-63.1	3.0	0
125	50039	322	-66.6	3.5	0
100	54459	276	-66.9	3.2	0
80	58911	249	-64.0	2.4	0
70	61614	246	-61.6	2.0	0
60	64764	249	-59.1	1.8	0
50	68537	259	-56.6	1.6	0
40	73215	269	-53.8	1.5	0
30	79327	279	-50.5	1.6	0
25	83245	289	-48.5	1.7	0
20	88087	305	-46.0	1.9	0
15	94409	331	-42.8	2.2	0
10	103478	377	-38.0	2.7	0

Table 153 Mean Upper-Air Height and Temperature Data for San Nicolas Island: Autumn

NO. OBSERVATIONS -- SURFACE = 2365 TOP = 1045

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	571	0	16.7	3.8	75
950	1854	95	17.4	5.5	45
900	3366	95	17.4	5.7	25
850	4961	102	15.5	5.4	25
800	6640	118	12.8	5.1	25
750	8406	134	9.8	4.7	25
700	10272	157	6.4	4.5	25
650	12251	180	2.8	4.3	25
600	14364	207	-1.2	4.1	25
550	16611	233	-5.7	4.0	15
500	19049	262	-10.9	3.9	15
450	21667	292	-16.8	3.7	15
400	24541	328	-23.2	3.6	15
350	27700	364	-30.6	3.5	15
300	31230	404	-38.9	3.2	15
250	35259	436	-47.4	3.4	0
200	40007	459	-55.6	3.6	0
175	42772	459	-59.2	3.4	0
150	45915	449	-62.8	3.2	0
125	49573	427	-66.0	3.3	0
100	53993	394	-67.6	3.3	0
80	58415	545	-65.9	3.0	0
70	61089	384	-64.0	2.8	0
60	64203	400	-61.9	2.7	0
50	67927	427	-59.7	2.7	0
40	72530	469	-57.1	2.8	0
30	78543	531	-54.0	2.9	0
25	82398	577	-52.2	3.2	0
20	87152	636	-50.0	3.3	0
15	93353	705	-47.4	3.6	0
10	102208	817	-43.8	4.0	0

Table 154. Mean Upper-Air Height and Temperature Data for San Nicolas Island: January

NO. OBSERVATIONS -- SURFACE = 675 TOP = 252

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	571	0	12.7	3.2	75
950	1929	104	12.1	4.4	35
900	3425	115	10.0	4.6	30
850	4970	124	8.0	4.4	25
800	6604	144	5.8	4.2	25
750	8323	167	3.2	4.1	25
700	10151	187	.1	4.0	25
650	12077	213	-3.5	3.9	25
600	14147	236	-7.2	3.9	25
550	16335	262	-12.0	3.8	25
500	18720	295	-17.2	3.8	25
450	21276	325	-22.9	3.8	25
400	24085	361	-29.3	3.7	25
350	27165	400	-36.6	3.4	25
300	30610	433	-44.7	3.1	0
250	34541	459	-52.9	3.5	0
200	39193	459	-58.2	5.2	0
175	41949	446	-58.9	5.2	0
150	45118	423	-59.9	4.2	0
125	48835	387	-62.3	3.7	0
100	53323	334	-65.0	3.9	0
80	57776	289	-65.2	3.6	0
70	60446	269	-64.3	3.2	0
60	63550	259	-62.9	2.8	0
50	67247	266	-61.1	2.6	0
0	71814	279	-59.2	2.6	0
30	77759	315	-56.9	2.9	0
25	81565	338	-55.3	3.2	0
20	86253	367	-53.5	3.3	0
15	92375	407	-51.2	3.9	0
10	101109	482	-46.9	4.9	0

Table 155 Mean Upper Air Height and Temperature Data for San Nicolas Island February

NO. OBSERVATIONS -- SURFACE = 624 TOP = 248

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	571	0	13.3	3.5	75
950	1916	108	13.1	4.6	35
900	3406	115	11.2	4.7	25
850	4964	128	8.9	4.5	25
800	6601	144	6.4	4.3	25
750	8327	167	3.8	4.0	25
700	10157	184	.5	3.7	25
650	12087	207	-3.2	3.5	20
600	14157	226	-7.4	3.4	15
550	16348	249	-12.1	3.3	15
500	18727	272	-17.3	3.3	25
450	21280	302	-23.1	3.3	25
400	24085	331	-29.6	3.3	25
350	27162	361	-37.0	3.2	35
300	30600	394	-45.0	3.3	0
250	34524	423	-53.1	4.0	0
200	39180	433	-57.7	5.6	0
175	41946	427	-57.8	4.9	0
150	45131	410	-59.1	3.8	0
125	48858	377	-61.9	3.4	0
100	53356	325	-64.9	3.8	0
80	57812	279	-65.8	3.7	0
70	60476	262	-65.0	3.3	0
60	63570	253	-63.9	3.2	0
50	67251	256	-62.1	3.2	0
40	71804	272	-59.7	3.4	0
30	77746	328	-56.9	3.0	0
25	81575	344	-55.7	2.8	0
20	86280	384	-52.4	2.9	0
15	92457	413	-48.8	3.5	0
10	101266	476	-42.4	3.9	0

Table 156. Mean Upper-Air Height and Temperature Data for San Nicolas Island: March

NO. OBSERVATIONS -- SURFACE = 756 TOP = 241

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	571	0	12.9	3.1	75
950	1880	102	12.2	4.5	45
900	3363	105	10.5	4.8	35
850	4918	118	8.3	4.7	25
800	6552	135	5.7	4.6	25
750	8271	157	2.9	4.4	25
700	10095	177	-0.2	4.1	25
650	12021	203	-3.7	3.9	25
600	14088	226	-7.8	3.8	25
550	16276	249	-12.5	3.6	25
500	18652	279	-17.7	3.5	25
450	21201	308	-23.4	3.3	25
400	24003	338	-29.9	3.3	25
350	27077	367	-37.2	2.9	25
300	30512	394	-45.0	2.6	0
250	34432	407	-53.2	3.0	0
200	39081	381	-58.2	5.2	0
175	41837	354	-58.1	5.2	0
150	45020	328	-58.8	3.7	0
125	48757	305	-61.0	3.2	0
100	53284	272	-63.3	3.2	0
80	57782	240	-63.6	3.0	0
70	60476	233	-62.8	2.7	0
60	63602	230	-61.7	2.6	0
50	67320	230	-60.1	2.6	0
40	71916	249	-57.8	2.6	0
30	77913	282	-54.9	2.7	0
25	81762	302	-53.1	3.1	0
20	86506	335	-50.6	3.7	0
15	92707	400	-47.2	4.3	0
10	101608	489	-41.8	4.3	0

Table 157. Mean Upper-Air Height and Temperature Data for San Nicolas Island: April

NO. OBSERVATIONS -- SURFACE - 679 TOP = 321

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	571	0	13.5	3.7	75
950	1850	95	12.7	5.6	50
900	3337	98	11.4	6.1	35
850	4898	115	9.4	6.1	25
800	6539	135	7.1	5.6	25
750	8264	161	4.3	5.4	25
700	10102	187	1.1	5.1	20
650	12034	217	-2.4	4.7	15
600	14111	249	-6.6	4.5	15
550	16312	272	-11.0	4.1	15
500	18701	312	-16.1	3.7	15
450	21263	338	-21.8	3.5	15
400	24085	374	-28.4	3.2	15
350	27178	404	-35.7	2.8	15
300	30636	427	-43.8	2.6	0
250	34577	440	-52.2	2.7	0
200	39236	417	-58.5	4.6	0
175	41982	381	-59.1	5.1	0
150	45154	344	-59.2	4.1	0
125	48891	308	-60.5	3.1	0
100	53432	262	-62.3	3.4	0
80	57949	220	-62.4	3.5	0
70	60653	200	-61.6	3.2	0
60	63796	190	-60.6	3.0	0
50	67536	194	-58.7	2.7	0
40	72162	213	-56.2	2.6	0
30	78205	249	-53.1	2.6	0
25	82080	276	-51.2	2.8	0
20	86860	308	-48.8	2.8	0
15	93119	351	-45.0	2.9	0
10	102106	410	-39.8	3.3	0

Table 158. Mean Upper-Air Height and Temperature Data for San Nicolas Island: May

NO. OBSERVATIONS -- SURFACE = 709 TOP = 325

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	571	0	14.0	3.4	75
950	1841	82	13.7	5.0	65
900	3333	79	13.8	5.4	35
850	4908	89	12.5	5.0	25
800	6568	102	10.3	4.6	25
750	8317	125	7.6	4.2	25
700	10174	141	4.5	3.9	20
650	12136	161	.8	3.6	15
600	14232	180	-3.4	3.5	15
550	16460	203	-8.1	3.3	15
500	18875	226	-13.3	3.1	15
450	21470	253	-19.1	2.9	15
400	24318	279	-25.6	3.0	15
350	27444	308	-33.2	2.8	15
300	30935	335	-41.4	2.4	0
250	34918	354	-50.1	2.3	0
200	39606	344	-57.9	3.6	0
175	42356	325	-59.7	4.2	0
150	45515	292	-59.8	3.7	0
125	49245	266	-60.7	3.0	0
100	53783	246	-62.1	2.9	0
80	58304	226	-62.3	2.7	0
70	61014	217	-61.3	2.4	0
60	64160	210	-59.8	2.2	0
50	67917	213	-57.7	2.2	0
40	72566	226	-54.9	2.1	0
30	78652	253	-51.5	2.1	0
25	82552	276	-49.5	2.1	0
20	87369	305	-46.7	2.2	0
15	93665	351	-43.5	2.3	0
10	102687	404	-38.6	2.8	0

Table 159. Mean Upper-Air Height and Temperature Data for San Nicolas Island: June

NO. OBSERVATIONS -- SURFACE = 755 TOP = 310

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	HEIGHT S.D. (FEET)	TEMPERATURE MEAN (DEG. CELSIUS)	TEMPERATURE S.D. (DEG. CELSIUS)	MEDIAN REL.HUM. (PERCENT)
SFC	57.	0	14.7	3.0	85
950	1801	75	15.6	5.6	65
900	3310	75	18.0	6.0	30
850	4915	92	17.1	5.6	25
800	6601	112	14.8	4.9	25
750	8379	135	11.9	4.3	25
700	10262	151	8.6	3.8	20
650	12251	174	4.8	3.6	15
600	14380	194	.7	3.4	15
550	16647	217	-3.9	3.3	15
500	18970	240	-9.3	3.2	15
450	21732	266	-15.3	2.9	15
400	24619	289	-21.8	2.9	15
350	27799	318	-29.3	2.8	15
300	31345	348	-37.7	2.5	15
250	35390	374	-46.7	2.4	0
200	40148	387	-55.5	2.9	0
175	42917	384	-59.0	3.4	0
150	46086	364	-61.6	3.6	0
125	49747	325	-64.2	3.7	0
100	54209	272	-65.2	3.5	0
80	58615	233	-63.5	2.9	0
70	61388	220	-61.6	2.3	0
60	64537	217	-59.3	1.9	0
50	68304	220	-56.8	1.7	0
40	72976	233	-53.9	1.6	0
30	79094	256	-50.5	1.8	0
25	83012	249	-48.4	1.6	0
20	87858	269	-45.8	1.8	0
15	94186	294	-42.2	2.1	0
10	103281	351	-37.4	2.5	0

Table 160. Mean Upper-Air Height and Temperature Data for San Nicolas Island: July

NO. OBSERVATIONS -- SURFACE = 795 TOP = 351

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	571	0	16.5	3.4	85
950	1837	59	20.2	5.1	40
900	3369	59	23.1	3.1	25
850	5000	62	21.7	2.7	25
800	6713	69	18.8	2.3	25
750	8514	75	15.3	2.0	25
700	10420	82	11.4	1.8	25
650	12431	89	7.0	1.8	25
600	14577	92	2.5	1.8	25
550	16854	98	-2.3	1.8	25
500	19321	105	-7.3	1.8	25
450	21982	118	-12.9	1.9	15
400	24898	131	-19.1	1.9	15
350	28114	148	-26.0	2.2	15
300	31713	175	-34.3	2.3	15
250	35817	200	-43.3	2.1	0
200	40640	217	-53.2	1.9	0
175	43428	217	-58.5	2.0	0
150	46568	203	-63.8	2.4	0
125	50197	190	-67.8	2.6	0
100	54593	167	-67.9	2.4	0
80	59032	167	-64.3	2.1	0
70	61726	171	-61.8	1.9	0
60	64879	180	-59.7	1.7	0
50	68652	194	-56.4	1.5	0
40	73333	207	-53.6	1.5	0
30	79452	207	-50.3	1.6	0
25	83373	223	-48.3	1.7	0
20	88222	246	-45.8	1.9	0
15	94554	272	-42.5	2.1	0
10	103629	325	-37.6	2.6	0

Table 161. Mean Upper-Air Height and Temperature Data for San Nicolas Island: August

N. OBSERVATIONS -- SURFACE = 830 TOP = 338

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	571	0	17.5	3.4	85
950	1837	62	20.4	5.2	45
900	3373	64	22.9	4.1	25
850	5000	72	21.3	3.4	25
800	6709	82	18.4	2.8	25
750	8507	92	14.8	2.4	25
700	10413	102	10.9	2.1	25
650	12418	112	6.7	2.0	25
600	14564	118	2.3	2.0	25
550	16841	125	-2.2	2.0	25
500	19311	131	-7.2	2.0	15
450	21969	141	-12.9	1.9	15
400	24888	157	-19.1	1.9	15
350	28100	174	-26.3	2.2	15
300	31696	197	-34.7	2.3	15
250	35791	226	-43.8	2.3	0
200	40600	253	-53.7	1.9	0
175	43383	256	-58.8	1.8	0
150	46522	243	-63.8	2.3	0
125	50157	220	-67.6	3.0	0
100	54557	194	-67.6	2.9	0
80	59003	187	-64.1	2.2	0
70	61706	187	-61.5	1.8	0
60	64862	194	-58.9	1.6	0
50	68638	200	-56.5	1.4	0
40	73314	213	-53.9	1.5	0
30	79419	230	-50.7	1.5	0
25	83333	244	-48.9	1.8	0
20	88163	272	-46.5	2.0	0
15	94472	308	-43.5	2.2	0
10	103504	371	-39.0	2.6	0

Table 162. Mean Upper-Air Height and Temperature Data for San Nicolas Island: September

NO. OBSERVATIONS -- SURFACE = 800 TOP = 736

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	571	0	17.7	3.6	75
950	1804	79	18.8	5.5	55
900	3330	79	20.3	4.8	25
850	4941	89	18.8	4.0	25
800	6637	98	16.1	3.3	25
750	8422	112	12.8	2.8	25
700	10315	125	9.3	2.6	25
650	12310	135	5.5	2.6	25
600	14446	148	1.5	2.5	25
550	16716	157	-3.1	2.3	15
500	19177	171	-8.2	2.2	15
450	21824	184	-14.1	2.0	15
400	24728	200	-20.5	2.0	15
350	27920	217	-27.9	2.1	15
300	31493	236	-36.2	2.3	15
250	35564	253	-44.9	2.5	0
200	40358	262	-53.9	2.5	0
175	43140	262	-58.4	2.3	0
150	46283	253	-62.3	2.5	0
125	49931	233	-66.6	2.9	0
100	54337	213	-67.7	2.8	0
80	58766	213	-65.3	2.4	0
70	61453	217	-62.6	2.2	0
60	64593	220	-60.0	2.2	0
50	68350	233	-57.5	2.0	0
40	73002	253	-54.9	1.9	0
30	79085	272	-51.7	1.9	0
25	82992	276	-49.7	2.0	0
20	87795	299	-47.6	2.1	0
15	94068	338	-44.9	2.3	0
10	103018	413	-41.3	2.7	0

Table 163. Mean Upper-Air Height and Temperature Dat. for San Nicolas Island: October

NO. OBSERVATIONS -- SURFACE = 806 TOP = 383

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	571	0	17.6	4.0	75
950	1857	85	13.5	5.3	45
900	3376	92	11.1	5.0	30
850	4974	105	16.1	4.4	25
800	6654	115	13.3	4.0	25
750	8422	131	10.1	3.8	25
700	10295	148	6.8	3.7	25
650	12274	167	3.2	3.6	25
600	14390	184	-0.8	3.4	20
550	16640	207	-5.5	3.3	15
500	19078	226	-10.9	3.1	15
450	21699	249	-16.8	3.0	15
400	24570	272	-23.2	2.9	15
350	27730	302	-30.9	2.8	15
300	31257	328	-39.1	2.4	15
250	35282	338	-47.6	2.8	0
200	40026	331	-55.6	3.4	0
175	42792	322	-59.1	3.2	0
150	45938	305	-62.6	3.0	0
125	49596	279	-65.9	2.9	0
100	54016	243	-67.9	3.2	0
80	58425	223	-66.4	2.8	0
70	61096	213	-64.5	2.5	0
60	64199	217	-62.3	2.3	0
50	67920	226	-59.8	2.1	0
40	72523	246	-57.0	2.1	0
30	78547	276	-53.7	2.0	0
25	82415	289	-51.9	2.2	0
20	87178	322	-49.6	2.4	0
15	93376	374	-47.4	2.9	0
10	102215	456	-44.0	3.3	0

Table 164. Mean Upper-Air Height and Temperature Data for San Nicolas Island: November

NO. OBSERVATIONS -- SURFACE = 752 TOP = 326

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	HEIGHT S.D. (FEET)	TEMPERATURE MEAN (DEG. CELSIUS)	TEMPERATURE S.D. (DEG. CELSIUS)	MEDIAN REL. HUM. (PERCENT)
SFC	571	0	15.3	3.4	75
950	1900	95	14.9	4.7	45
900	3399	98	13.4	4.9	35
850	4970	112	11.2	4.9	25
800	6624	131	8.7	4.8	25
750	8366	154	6.1	4.7	25
700	10210	177	3.0	4.5	25
650	12162	203	-0.5	4.3	25
600	14249	233	-4.4	4.1	25
550	16470	258	-8.9	3.9	25
500	18878	289	-14.0	3.8	25
450	21467	318	-19.6	3.6	25
400	24308	348	-26.0	3.5	25
350	27434	381	-33.3	3.2	25
300	30925	410	-41.4	2.7	0
250	34911	430	-49.8	3.0	0
200	39810	427	-57.4	4.0	0
175	42356	410	-60.2	4.2	0
150	45492	384	-62.7	4.0	0
125	49157	348	-65.3	3.9	0
100	53593	299	-67.0	3.8	0
80	58028	253	-66.5	3.5	0
70	60676	233	-65.1	3.0	0
60	63770	223	-63.5	2.5	0
50	67457	223	-61.8	2.1	0
40	72011	230	-59.7	2.0	0
30	77949	259	-56.8	2.3	0
25	81745	282	-55.1	2.7	0
20	86444	318	-53.0	2.9	0
15	92566	367	-50.2	3.3	0
10	101319	463	-46.5	3.9	0

Table 185. Mean Upper-Air Height and Temperature Data for San Nicolas Island: December

NO. OBSERVATIONS -- SURFACE = 663 TOP = 278

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL. HUM. (PERCENT)
SFC	571	0	13.2	3.2	75
950	1900	128	13.?	4.6	35
900	3366	138	11.5	5.0	30
850	4948	154	9.2	5.1	30
800	6588	174	6.9	5.1	25
750	8317	203	4.2	4.9	25
700	10151	226	1.2	4.8	25
650	12087	256	-2.3	4.6	25
600	14160	285	-6.4	4.5	25
550	16365	318	-10.9	4.3	25
500	18757	351	-15.9	4.0	25
450	21322	384	-21.5	3.8	25
400	24147	420	-27.9	3.7	25
350	27244	453	-35.2	3.4	25
300	30712	479	-43.1	3.2	0
250	34662	495	-51.5	3.5	0
200	39337	436	-57.8	4.3	0
175	42087	463	-59.5	5.0	0
150	45240	433	-61.0	4.3	0
125	48934	394	-63.4	4.1	0
100	53402	338	-65.7	4.4	0
80	57844	282	-66.0	4.2	0
70	60505	262	-65.1	3.7	0
60	63596	246	-63.8	3.1	0
50	67280	240	-62.0	2.6	0
40	71824	233	-60.2	2.4	0
30	77749	253	-57.4	2.8	0
25	81535	279	-56.0	3.3	0
20	86207	325	-54.2	3.9	0
15	92297	400	-51.7	4.4	0
10	100958	505	-48.?	4.6	0

Table 166. Mean Upper-Air Height and Temperature Data for Point Mugu, California: Annual

NO. OBSERVATIONS -- SURFACE = 4617 TOP = 1418

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	14.9	4.6	75
1000	449	105	14.8	3.9	75
950	1877	102	15.0	5.7	55
900	3376	105	14.1	7.0	35
850	4957	118	13.2	7.2	35
800	6621	141	10.8	6.9	25
750	8376	174	7.7	6.5	25
700	10226	207	4.3	6.1	25
650	12192	243	.7	5.8	25
600	14285	282	-3.4	5.7	25
550	16522	322	-7.9	5.5	25
500	18934	367	-12.9	5.4	25
450	21549	417	-18.6	5.3	20
400	24390	469	-24.9	5.3	25
350	27513	525	-32.4	5.1	15
300	31017	591	-40.4	4.8	0
250	35013	653	-49.0	4.7	0
200	39741	702	-56.3	4.6	0
175	42507	705	-58.6	4.3	0
150	45666	682	-60.9	4.2	0
125	49360	636	-63.3	4.5	0
100	53834	577	-64.7	4.3	0
80	58314	551	-63.5	3.8	0
70	61007	551	-62.1	3.4	0
60	64150	571	-60.3	3.3	0
50	67897	606	-58.2	3.4	0
40	72523	653	-55.7	3.6	0
30	78563	725	-52.7	4.0	0
25	82408	778	-51.1	4.0	0
20	87192	850	-48.8	4.5	0
15	93402	948	-46.2	4.9	0
10	102303	1115	-41.9	5.4	0

Table 167. Mean Upper-Air Height and Temperature Data for Point Mugu, California: Winter

NO. OBSERVATIONS -- SURFACE = 1161 TOP = 318

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	11.7	4.8	75
1000	518	118	12.7	3.9	55
950	1929	125	11.8	4.7	45
900	3409	131	9.8	5.1	35
850	4957	148	7.5	5.2	35
800	6588	167	5.1	5.2	25
750	8314	194	2.6	5.0	25
700	10128	217	-0.4	4.8	25
650	12064	246	-3.9	4.6	25
600	14117	276	-7.8	4.4	25
550	16322	305	-12.3	4.3	25
500	18691	335	-17.3	4.1	25
450	21263	367	-22.8	4.1	25
400	24058	410	-29.0	4.0	25
350	27146	449	-36.3	3.7	25
300	30594	486	-44.3	3.4	0
250	34521	509	-52.6	3.7	0
200	39177	502	-58.0	5.2	0
175	41936	486	-58.6	5.2	0
150	45098	453	-59.7	4.6	0
125	48819	410	-61.9	4.4	0
100	53317	361	-64.3	4.5	0
80	57785	318	-64.6	4.3	0
70	60456	299	-63.9	3.7	0
60	63560	292	-62.6	3.3	0
50	67257	292	-61.4	2.9	0
40	71818	304	-59.2	2.8	0
30	77753	338	-56.8	3.0	0
25	81532	354	-55.3	3.1	0
20	86217	400	-53.5	3.6	0
15	92290	453	-51.4	3.9	0
10	100902	529	-47.5	4.7	0

Table 163. Mean Upper-Air Height and Temperature Data for Point Mugu, California: Spring

NO. OBSERVATIONS -- SURFACE = 1222 TOP = 332

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	14.0	3.8	75
1000	453	89	13.4	3.3	75
950	1873	92	12.5	4.8	65
900	3356	98	11.5	5.6	45
850	4918	112	9.9	5.8	35
800	6562	131	7.5	5.6	30
750	8301	157	4.7	5.3	25
700	10128	180	1.5	5.1	25
650	12073	210	-2.1	4.9	25
600	14140	244	-6.0	4.8	20
550	16355	272	-10.5	4.6	20
500	18737	312	-15.6	4.5	15
450	21319	351	-21.3	4.3	15
400	24127	390	-27.8	4.1	15
350	27208	433	-35.3	3.9	15
300	30669	472	-43.3	3.5	0
250	34623	505	-51.6	3.5	0
200	39285	492	-57.8	4.9	0
175	42037	465	-58.4	5.1	0
150	45210	430	-58.7	4.2	0
125	48953	400	-59.9	3.4	0
100	53501	367	-61.3	3.4	0
80	58035	358	-61.2	3.2	0
70	60745	358	-60.4	2.9	0
60	63904	364	-59.2	2.9	0
50	67664	381	-57.4	3.1	0
40	72303	410	-54.9	3.3	0
30	78360	448	-51.9	3.4	0
25	82208	469	-50.3	3.3	0
20	87021	525	-47.6	3.7	0
15	93284	581	-44.4	4.0	0
10	102277	696	-39.4	4.0	0

Table 169. Mean Upper Air Height and Temperature Data for Point Mugu, California: Summer

NO. OBSERVATIONS -- SURFACE = 1152 TOP = 379

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	17.4	2.9	85
1000	394	66	16.3	2.5	85
950	1841	72	18.1	4.8	65
900	3356	75	20.4	5.3	35
850	4974	89	19.9	4.7	25
800	6677	105	17.5	3.9	25
750	8474	121	14.1	3.5	25
700	10367	138	10.4	3.1	25
650	12379	154	6.3	2.[illegible]	25
600	14511	167	2.0	2.8	30
550	16791	184	-2.6	2.7	25
500	19249	200	-7.7	2.7	25
450	21916	223	-13.4	2.8	20
400	24816	246	-19.7	2.8	20
350	28002	276	-27.1	3.0	15
300	31588	305	-35.5	3.0	15
250	35666	344	-44.6	3.0	0
200	40463	384	-54.0	2.6	0
175	43245	387	-58.6	2.6	0
150	46388	377	-62.9	3.1	0
125	50039	348	-64.0	3.7	0
100	54464	304	-66.3	3.5	0
80	58930	292	-63.0	2.9	0
70	61631	295	-60.7	2.4	0
60	64803	302	-58.2	2.2	0
50	68584	312	-55.5	2.1	0
40	73278	331	-52.9	2.0	0
30	79396	361	-49.6	2.3	0
25	83291	377	-47.9	2.1	-
20	88143	407	-45.3	2.4	0
15	94455	446	-42.4	2.4	0
10	103517	509	-37.6	2.8	0

Table 110. Mean Upper-Air Height and Temperature Data for Point Mugu, California: Autumn

NO. OBSERVATIONS -- SURFACE = 1082 TOP = 389

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	16.7	4.4	85
1000	423	95	17.0	3.8	75
950	1870	98	17.8	5.4	45
900	3383	102	17.6	5.8	35
850	4977	112	15.7	5.6	25
800	6654	128	12.6	5.2	25
750	8425	148	9.6	4.8	25
700	10285	167	6.2	4.6	25
650	12267	190	2.6	4.4	25
600	14377	217	-1.5	4.3	25
550	16627	246	-6.0	4.2	25
500	19052	276	-11.1	4.1	20
450	21683	308	-16.9	3.9	15
400	24544	344	-23.3	3.8	15
350	27684	381	-30.8	3.6	15
300	31214	420	-39.0	3.4	15
250	35240	456	-47.3	3.6	0
200	39997	476	-55.4	3.9	0
175	42772	476	-59.0	3.7	0
150	45915	466	-62.3	3.4	0
125	49583	443	-65.4	3.5	0
100	54009	413	-66.9	3.5	0
80	58442	394	-65.4	3.2	0
70	61115	397	-63.6	3.0	0
60	64232	413	-61.4	2.9	0
50	67959	440	-59.2	2.8	0
40	72569	479	-56.5	3.0	0
30	78583	541	-53.3	3.3	0
25	82421	597	-51.7	3.5	0
20	87188	666	-49.7	3.8	0
15	93386	748	-47.4	3.8	0
10	102228	866	-43.7	4.0	0

Table 171. Mean Upper Air Height and Temperature Data for Point Mugu, California: January

NO. OBSERVATIONS -- SURFACE = 383 TOP = 102

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	11.1	4.9	75
1000	531	112	12.2	4.2	65
950	1942	121	11.1	5.0	45
900	3412	128	9.1	5.4	35
850	4961	144	6.8	5.4	35
800	6585	167	4.4	5.3	30
750	8310	194	2.0	5.1	25
700	10118	220	-1.0	4.9	25
650	12047	249	-4.4	4.7	25
600	14101	279	-8.3	4.6	25
550	16306	308	-12.8	4.4	25
500	18668	335	-17.7	4.4	25
450	21234	367	-23.4	4.4	25
400	24019	417	-29.6	4.2	25
350	27116	433	-36.9	3.8	15
300	30554	472	-44.9	3.3	0
250	34472	492	-53.3	3.6	0
200	39111	479	-58.4	5.4	0
175	41870	453	-58.6	5.3	0
150	45036	420	-59.1	4.5	0
125	48773	381	-61.2	4.2	0
100	53284	331	-63.7	4.4	0
80	57762	289	-64.0	4.0	0
70	60443	279	-63.2	3.5	0
60	63560	269	-61.7	3.1	0
50	67270	266	-60.2	2.8	0
40	71837	279	-58.7	2.6	0
30	77779	285	-56.5	2.8	0
25	81572	315	-55.1	3.1	0
20	86260	358	-53.6	3.2	0
15	92352	433	-51.4	3.7	0
10	101083	538	-47.2	4.7	0

Table 172. Mean Upper-Air Height and Temperature Data for Point Mugu, California: February

NO. OBSERVATIONS -- SURFACE = 331 TOP = 74

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	11.9	4.5	75
1000	531	108	12.8	3.5	65
950	1939	112	11.9	4.4	45
900	3422	118	10.0	4.7	35
850	4970	131	7.7	4.7	35
800	6601	144	5.2	4.6	25
750	8323	164	2.6	4.3	25
700	10141	187	-0.6	4.0	25
650	12070	207	-4.2	3.7	25
600	14127	230	-8.3	3.4	25
550	16322	253	-12.8	3.3	25
500	18684	276	-17.8	3.2	15
450	21250	299	-23.3	3.4	25
400	24039	331	-29.7	3.4	25
350	27116	371	-37.1	3.4	25
300	30554	413	-45.1	3.3	0
250	34462	449	-53.5	3.6	0
200	39111	463	-57.8	5.4	0
175	41877	459	-57.4	4.9	0
150	45046	436	-58.5	4.0	0
125	48783	400	-60.8	3.7	0
100	53304	361	-63.5	4.0	0
80	57785	331	-64.2	3.9	0
70	60446	292	-63.7	3.2	0
60	63553	282	-62.8	2.9	0
50	67251	285	-61.1	2.8	0
40	71847	302	-59.0	2.9	0
30	77772	341	-56.4	2.7	0
25	81608	367	-54.3	2.6	0
20	86319	404	-52.0	3.1	0
15	92434	440	-49.5	3.2	0
10	101106	440	-45.2	4.2	0

Table 173. Mean Upper-Air Height and Temperature Data for Point Mugu, California: March

NO. OBSERVATIONS -- SURFACE = 393 TOP = 92

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	HEIGHT S.D. (FEET)	TEMPERATURE MEAN (DEG. CELSIUS)	TEMPERATURE S.D. (DEG. CELSIUS)	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	12.8	3.9	75
1000	482	95	12.6	3.0	75
950	1893	98	11.6	4.4	55
900	3373	105	9.8	5.0	45
850	4925	118	7.7	4.8	35
800	6555	135	5.0	4.6	35
750	8278	157	2.3	4.4	25
700	10089	177	-0.8	4.3	25
650	12018	200	-4.4	4.2	25
600	14072	230	-8.2	4.1	25
550	16266	256	-12.7	3.9	25
500	18629	289	-17.8	3.9	15
450	21191	322	-23.5	3.7	15
400	23973	351	-30.0	3.5	15
350	27041	390	-37.4	3.4	15
300	30472	423	-45.0	3.2	0
250	34393	443	-52.9	3.2	0
200	39049	417	-57.6	5.5	0
175	41808	384	-57.6	5.3	0
150	44997	354	-58.2	3.8	0
125	48740	328	-60.0	3.1	0
100	53291	305	-61.9	3.2	0
80	57805	292	-62.1	2.8	0
70	60505	292	-61.5	2.6	0
60	63648	299	-60.4	2.7	0
50	67388	315	-58.8	2.9	0
40	71995	348	-56.6	3.2	0
30	78031	394	-53.6	3.2	0
25	81880	440	-51.8	3.3	0
20	86654	495	-49.3	4.1	0
15	92854	558	-46.0	5.4	0
10	101755	771	-41.5	5.3	0

Table 174. Mean Upper-Air Height and Temperature Data for Point Mugu, California: April

NO. OBSERVATIONS -- SURFACE = 413 TOP = 112

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	13.8	3.5	75
1000	453	89	13.2	3.1	75
950	1870	95	12.2	4.9	65
900	3350	105	10.9	5.6	45
850	4908	121	9.0	5.6	35
800	6545	144	6.6	5.4	35
750	8278	171	3.7	5.1	25
700	10102	194	.5	4.9	25
650	12034	217	-3.0	4.7	25
600	14098	253	-6.9	4.5	25
550	16302	279	-11.4	4.3	25
500	18675	318	-16.5	4.1	15
450	21243	351	-22.1	3.9	15
400	24042	387	-28.6	3.6	15
350	27096	417	-36.1	3.1	15
300	30551	443	-43.9	2.9	0
250	34495	453	-52.2	3.5	0
200	39144	420	-58.0	5.4	0
175	41900	384	-58.2	5.6	0
150	45079	344	-58.2	4.4	0
125	48737	322	-59.3	3.3	0
100	53406	299	-60.6	3.4	0
80	57956	279	-60.4	3.3	0
70	60669	266	-59.8	2.9	0
60	63839	269	-58.8	2.9	0
50	67608	282	-57.1	2.9	0
40	72251	289	-54.5	3.0	0
30	78323	338	-51.6	3.5	0
25	82149	335	-50.3	3.2	0
20	86959	381	-47.5	3.4	0
15	93202	443	-44.5	3.3	0
10	102175	486	-39.3	3.5	0

Table 175 Mean Upper-Air Height and Temperature Data for Point Mugu, California: May

NO. OBSERVATIONS -- SURFACE = 416 TOP = 128

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	15.4	3.6	75
1000	430	72	14.4	3.4	75
950	1854	75	13.7	4.8	75
900	3343	79	13.7	5.6	55
850	4921	92	13.0	5.6	35
800	6585	108	10.7	5.2	25
750	8343	131	7.9	4.7	25
700	10194	154	4.6	4.4	25
650	12159	177	1.0	4.2	15
600	14249	200	-3.1	4.1	15
550	16490	223	-7.6	3.9	15
500	18901	256	-12.7	3.7	15
450	21516	292	-18.5	3.6	15
400	24354	325	-25.1	3.6	15
350	27470	354	-32.7	3.5	15
300	30968	394	-41.0	3.2	0
250	34954	430	-49.8	3.1	0
200	39642	423	-57.6	3.7	0
175	42388	410	-59.3	4.3	0
150	45538	374	-59.9	4.1	0
125	49265	348	-60.6	3.6	0
100	53789	302	-61.6	3.6	0
80	58323	285	-61.1	3.1	0
70	61040	282	-60.0	2.9	0
60	64206	282	-58.6	2.9	0
50	67972	292	-56.5	3.1	0
40	72638	315	-53.7	3.2	0
30	78698	341	-50.7	2.8	0
25	82569	351	-48.9	2.8	0
20	87411	390	-46.1	3.0	0
15	93701	404	-43.0	2.5	0
10	102740	459	-37.0	2.4	0

Table 176. Mean Upper-Air Height and Temperature Data for Point Mugu, California: June

NO. OBSERVATIONS -- SURFACE = 359 TOP = 119

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	16.2	2.8	85
1000	384	66	15.1	2.4	85
950	1821	72	15.3	4.4	75
900	3320	75	17.0	5.8	45
850	4921	89	17.3	5.6	25
800	6608	108	15.2	4.8	25
750	8396	131	12.1	4.3	25
700	10272	151	8.7	3.9	25
650	12270	171	4.9	3.6	25
600	14393	190	.8	3.5	25
550	16663	210	-3.6	3.4	25
500	19114	236	-8.8	3.4	25
450	21768	266	-14.7	3.2	15
400	24652	289	-21.3	3.1	15
350	27802	325	-29.3	3.2	15
300	31358	351	-37.6	2.9	15
250	35400	384	-46.7	2.9	0
200	40148	407	-55.5	3.1	0
175	42917	404	-58.8	3.4	0
150	46063	384	-61.5	3.7	0
125	49747	348	-63.5	3.8	0
100	54226	302	-64.4	3.6	0
80	58717	266	-62.2	3.0	0
70	61430	253	-60.2	2.5	0
60	64603	253	-58.1	2.2	0
50	68389	256	-55.5	2.2	0
40	73077	276	-52.6	2.0	0
30	79206	312	-49.1	2.6	0
25	83094	302	-47.5	2.1	0
20	87966	331	-44.6	2.4	0
15	94304	351	-41.4	2.1	0
10	103438	381	-36.2	2.3	0

Table 177. Mean Upper-Air Height and Temperature Data for Point Mugu, California: July

NO. OBSERVATIONS -- SURFACE = 370 TOP = 122

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	17.3	2.8	85
1000	397	62	16.3	2.4	85
950	1847	69	19.3	4.2	55
900	3369	69	22.3	3.5	35
850	4997	75	21.5	2.9	25
800	6709	85	18.8	2.5	25
750	8517	95	15.3	2.2	25
700	10413	102	11.3	2.0	35
650	12431	112	7.1	2.0	35
600	14570	118	2.6	2.3	35
550	16854	131	-2.2	2.3	35
500	19318	141	-7.2	2.3	25
450	21991	164	-12.7	2.5	25
400	24895	180	-18.8	2.4	15
350	28100	194	-26.0	2.4	15
300	31699	220	-34.2	2.5	15
250	35804	249	-43.3	2.2	0
200	40623	272	-53.3	2.0	0
175	43409	279	-58.6	2.3	0
150	46542	272	-63.9	2.5	0
125	50174	266	-67.6	3.1	0
100	54567	262	-67.3	2.7	0
80	59012	276	-63.5	2.4	0
70	61709	285	-61.1	2.3	0
60	64872	302	-58.5	2.2	0
50	68645	315	-55.6	2.1	0
40	73323	338	-53.1	2.0	0
30	79423	364	-49.9	2.2	0
25	83314	377	-48.0	2.2	0
20	88166	420	-45.5	2.4	0
15	94459	469	-42.7	2.4	0
10	103530	545	-37.7	2.9	0

Table 178. Mean Upper-Air Height and Temperature Data for Point Mugu, California: August

NO. OBSERVATIONS -- SURFACE = 423 TOP = 154

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	HEIGHT S.D. (FEET)	TEMPERATURE MEAN (DEG. CELSIUS)	TEMPERATURE S.D. (DEG. CELSIUS)	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	18.4	2.8	85
1000	397	66	17.5	2.1	85
950	1854	69	19.4	4.7	65
900	3376	66	21.5	4.9	35
850	5000	72	20.8	4.1	25
800	6709	85	18.2	3.3	25
750	8507	98	14.7	2.8	25
700	10407	108	10.9	2.4	25
650	12421	121	6.8	2.2	25
600	14560	128	2.4	2.2	25
550	16844	144	-2.2	2.1	25
500	19304	151	-7.3	2.1	25
450	21978	164	-12.9	2.1	25
400	24882	180	-19.1	2.2	20
350	28084	187	-26.3	2.4	15
300	31680	213	-34.8	2.5	15
250	35771	249	-43.9	2.6	0
200	40584	279	-53.4	2.2	0
175	43373	282	-58.3	2.2	0
150	46512	276	-63.1	2.5	0
125	50154	259	-66.7	3.2	0
100	54570	233	-66.8	3.4	0
80	59026	233	-63.2	2.9	0
70	61729	249	-60.7	2.4	0
60	64905	256	-58.0	2.2	0
50	68698	276	-55.5	2.1	0
40	73389	302	-52.8	2.0	0
30	79518	338	-49.7	2.2	0
25	83422	364	-48.0	2.1	0
20	88264	397	-45.8	2.4	0
15	94577	456	-42.8	2.5	0
10	103576	564	-38.5	2.6	0

Table 179. Mean Upper-Air Height and Temperature Data for Point Mugu, California: September

NO. OBSERVATIONS -- SURFACE = 358 TOP = 132

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	18.0	3.8	80
1000	358	69	17.7	3.0	75
950	1811	79	19.6	4.9	55
900	3337	79	20.7	4.8	35
850	4951	89	19.2	4.1	25
800	6647	105	16.2	3.5	25
750	8438	121	12.6	3.0	25
700	10322	131	8.9	2.8	35
650	12323	148	5.2	2.7	25
600	14449	154	1.1	2.8	25
550	16726	174	-3.4	2.5	25
500	19173	184	-8.4	2.3	15
450	21831	203	-14.2	2.2	15
400	24718	217	-20.5	2.2	15
350	27894	220	-28.1	2.4	15
300	31460	240	-36.3	2.5	15
250	35531	256	-44.7	2.7	0
200	40331	269	-53.6	2.8	0
175	43117	272	-57.9	2.7	0
150	46266	265	-62.3	2.9	0
125	49921	256	-66.0	3.1	0
100	54344	240	-66.9	3.1	0
80	58780	236	-64.5	2.7	0
70	61463	243	-62.1	2.6	0
60	64610	259	-59.6	2.6	0
50	68373	279	-57.3	2.3	0
40	73022	305	-54.2	2.5	0
30	79098	344	-51.1	2.4	0
25	82982	381	-49.3	2.4	0
20	87812	417	-47.2	2.5	0
15	94098	482	-44.7	2.6	0
10	103022	551	-40.8	2.9	0

Table 180. Mean Upper-Air Height and Temperature Data for Point Mugu, California: October

NO. OBSERVATIONS -- SURFACE = 398 TOP = 142

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	HEIGHT S.D. (FEET)	TEMPERATURE MEAN (DEG. CELSIUS)	TEMPERATURE S.D. (DEG. CELSIUS)	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	16.8	3.9	75
1000	430	75	17.1	3.9	75
950	1877	82	18.0	5.3	60
900	3336	92	17.9	5.2	35
850	4987	105	16.0	4.8	25
800	6663	121	13.2	4.4	25
750	8435	135	9.9	4.2	25
700	10299	154	6.5	4.4	25
650	12283	171	2.9	3.7	25
600	14393	190	-1.3	3.8	25
550	16647	213	-5.9	3.7	25
500	19075	236	-11.1	3.5	25
450	21709	253	-17.0	3.1	15
400	24570	279	-23.4	2.9	15
350	27733	299	-31.0	2.8	15
300	31257	328	-39.2	2.4	15
250	35279	348	-47.6	2.8	0
200	40023	341	-55.7	3.7	0
175	42792	338	-59.3	3.6	0
150	45935	322	-62.6	3.4	0
125	49600	295	-65.5	3.3	0
100	54026	269	-67.6	3.5	0
80	58442	249	-66.0	3.0	0
70	61106	246	-64.2	2.6	0
60	64219	253	-61.9	2.3	0
50	67940	262	-59.3	2.3	0
40	72552	289	-56.4	2.3	0
30	78586	328	-53.0	2.6	0
25	82444	367	-51.2	2.7	0
20	87221	417	-49.3	3.1	0
15	93406	459	-47.3	3.4	0
10	102221	548	-43.9	3.4	0

Table 181. Mean Upper-Air Height and Temperature Data for Point Mugu, California: November

NO. OBSERVATIONS -- SURFACE = 326 TOP = 114

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	HEIGHT S.D. (FEET)	TEMPERATURE MEAN (DEG. CELSIUS)	TEMPERATURE S.D. (DEG. CELSIUS)	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	15.2	5.0	75
1000	492	92	16.1	4.3	65
950	1926	98	15.8	5.3	45
900	3425	112	13.9	5.4	35
850	4997	131	11.5	5.3	35
800	6650	154	8.8	5.0	25
750	8396	177	6.1	4.7	25
700	10236	203	3.0	4.5	25
650	12192	230	-0.5	4.6	25
600	14272	259	-4.6	4.4	25
550	16496	289	-9.0	4.4	25
500	18888	325	-14.1	4.2	25
450	21490	364	-19.8	4.1	25
400	24318	400	-26.2	3.9	25
350	27385	427	-33.7	3.[illegible]	25
300	30873	463	-41.7	3.0	0
250	34856	482	-49.8	3.2	0
200	39567	482	-57.0	4.3	0
175	42326	472	-59.8	4.4	0
150	45469	443	-62.0	4.0	0
125	49147	407	-64.5	3.9	0
100	53596	354	-66.2	3.8	0
80	58041	308	-65.8	3.6	0
70	60709	292	-64.4	3.2	0
60	63809	285	-63.0	2.6	0
50	67510	289	-61.1	2.3	0
40	72077	308	-59.1	2.5	0
30	78031	358	-56.1	2.9	0
25	81814	394	-54.8	3.0	0
20	86516	449	-52.8	3.4	0
15	92621	469	-50.3	3.2	0
10	101329	528	-46.9	3.3	0

Table 182. Mean Upper-Air Height and Temperature Data for Point Mugu, California: December

NO. OBSERVATIONS -- SURFACE = 447 TOP = 142

PRESSURE LEVEL (MBS)	HEIGHT MEAN (FEET)	S.D.	TEMPERATURE MEAN (DEG. CELSIUS)	S.D.	MEDIAN REL.HUM. (PERCENT)
SFC	13	0	12.2	4.9	65
1000	499	128	13.2	3.8	55
950	1913	135	12.3	4.7	30
900	3392	144	10.2	5.0	35
850	4944	161	8.1	5.3	30
800	6578	180	5.7	5.5	25
750	8307	210	3.2	5.2	25
700	10128	233	.3	5.2	25
650	12067	265	-3.2	5.1	25
600	14124	302	-7.1	4.9	25
550	16335	335	-11.6	4.6	25
500	18714	371	-16.5	4.3	25
450	21296	410	-21.9	4.0	25
400	24101	449	-28.1	3.9	25
350	27185	499	-35.4	3.7	25
300	30646	528	-43.2	3.3	0
250	34596	548	-51.4	3.6	0
200	39268	531	-57.8	5.0	0
175	42024	509	-59.2	5.2	0
150	45180	476	-60.8	4.7	0
125	48875	433	-63.1	4.6	0
100	53353	377	-65.2	4.8	0
80	57802	328	-65.2	4.7	0
70	60469	322	-64.4	4.0	0
60	63566	315	-63.2	3.4	0
50	67254	315	-61.7	3.0	0
40	71804	331	-59.8	2.8	0
30	77720	367	-57.2	3.2	0
25	81457	351	-56.1	3.2	0
20	86125	407	-54.3	3.8	0
15	92159	436	-52.4	4.1	0
10	100314	525	-49.0	4.5	0

UPPER-AIR DATA ABOVE 100,000 FEET

Descriptions of the wind and temperature fields above 100,000 feet (31 kilometers) as measured by the payloads of meteorological rockets fired from Point Mugu during the eight years 1961 through 1968 are presented in this section.

The payloads, carried by rockets of the ARCAS and HASP type, routinely reach altitudes of 200,000 feet (61 kilometers) or higher. From these peak altitudes, temperature and wind sensors descend and provide data to suitably equipped ground stations. Descriptions of the rockets, their various payloads, the Meteorological Rocket Network (MRN) operations (of which the Point Mugu firings are an integral part), and the data reduction methods may be found in reference 13).

MEAN MONTHLY WIND AND TEMPERATURE TABLES

Listings of mean wind components and temperature data for altitudes from 30 kilometers (98,000 feet) to as high as data are available are presented in tables 183 through 194. These tables have been extracted from the monthly publications of reference 14. Derived data pressure, density, and speed of sound are also included in the tables, as are values of the standard deviation and the number of observations for each item at each level. A preliminary summary of data obtained from 35 to 90 kilometers using the falling sphere sensor of the Viper-Dart firings at Point Mugu, is presented in appendix B.

Table 183. Wind Components and Thermodynamic Data, Point Mugu, California: January

HEIGHT IS IN KILOMETERS ABOVE SEA LEVEL
THE WIND COMPONENTS AND SPEED OF SOUND ARE IN M/SEC
TEMPERATURE IS IN DEGREES CELSIUS
DENSITY IS IN GRAMS PER CU METER
THE M COLUMN IS THE MEAN COLUMN, THE S COLUMN IS THE STANDARD DEVIATION COLUMN
AND THE N COLUMN IS THE NUMBER OF VALUES FOR THE M AND S.

1961 THROUGH 1968

HT	-N-S		-E-W			TEMP			PRESSURE			DENSITY			SPEED OF SOUND		
	M	S	M	S	N	M	S	N	M	S	N	M	S	N	M	S	N
69	28	.0	79	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
68	25	.0	90	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
67	15	6.0	111	10.3	2	0	0	0	0	0	0	0	0	0	0	0	0
66	14	9.5	107	10.9	3	0	0	0	0	0	0	0	0	0	0	0	0
65	11	26.8	109	16.2	8	0	0	0	0	0	0	0	0	0	0	0	0
64	13	23.4	102	19.4	12	-15.2	2.4	2	.126	.000	2	.176	.002	2	323	1.5	2
63	16	22.4	99	22.7	14	-14.9	1.4	2	.144	.001	2	.195	.002	2	322	.9	2
62	14	20.2	97	27.2	17	-7.4	8.5	10	.168	.009	10	.222	.008	10	327	5.2	10
61	17	18.9	92	36.2	22	-7.6	8.9	15	.191	.011	15	.252	.012	15	327	5.5	15
60	18	16.6	93	33.3	25	-8.6	8.5	19	.218	.012	19	.288	.013	19	326	5.3	19
59	15	17.1	82	37.1	34	-8.2	8.2	20	.247	.012	20	.327	.014	20	326	5.1	20
58	14	17.7	75	36.0	38	-8.7	8.1	21	.280	.012	21	.371	.014	21	326	4.9	21
57	11	20.2	65	37.1	48	-8.8	7.4	23	.317	.014	23	.420	.017	23	326	4.6	23
56	13	19.1	65	35.3	55	-9.4	5.4	24	.358	.014	24	.476	.022	24	326	3.9	24
55	11	19.5	61	35.4	63	-9.7	5.8	25	.407	.018	25	.541	.027	25	325	3.6	25
54	11	20.2	61	35.6	67	-8.1	4.7	27	.465	.025	27	.613	.034	27	326	2.8	27
53	12	20.0	61	37.4	72	-7.5	3.9	31	.525	.032	31	.701	.065	31	327	2.9	31
52	12	19.2	60	37.8	78	-5.7	4.2	32	.599	.036	32	.791	.064	32	328	2.9	32
51	12	19.8	56	39.2	82	-4.3	4.2	33	.680	.039	33	.891	.063	33	329	2.8	33
50	13	20.0	55	38.6	83	-3.6	4.3	33	.770	.040	33	1.003	.060	33	329	2.7	33
49	12	20.0	53	38.1	85	-2.6	4.8	34	.868	.040	33	1.128	.056	33	330	2.8	33
48	11	18.6	49	37.7	88	-2.5	5.2	34	.978	.038	33	1.269	.052	33	330	3.2	33
47	10	17.8	47	37.8	88	-2.4	6.1	37	1.111	.045	35	1.440	.066	35	330	3.5	35
46	9	17.5	45	38.1	89	-4.2	6.8	38	1.259	.051	36	1.644	.080	36	328	3.7	36
45	9	17.0	42	37.4	90	-6.2	6.7	38	1.429	.057	36	1.881	.089	36	327	3.6	36
44	7	15.7	39	37.1	90	-8.6	7.5	38	1.627	.065	36	2.162	.108	36	326	4.0	36
43	7	15.5	37	36.0	90	-11.0	7.7	39	1.853	.073	37	2.487	.112	37	324	4.0	37
42	6	15.7	33	34.7	90	-14.2	7.7	39	2.114	.082	37	2.870	.132	37	322	4.1	37
41	5	15.7	28	33.5	90	-17.5	7.7	39	2.416	.097	37	3.329	.167	37	320	4.2	37
40	3	15.9	24	31.8	89	-20.5	8.1	39	2.768	.112	37	3.848	.201	37	318	4.7	37
39	2	15.0	21	30.2	88	-23.9	8.0	39	3.171	.127	37	4.468	.231	37	316	4.8	37
38	2	14.5	18	28.0	88	-27.3	8.2	40	3.635	.146	37	5.194	.273	37	314	5.1	37
37	2	14.2	16	26.0	88	-30.9	7.1	42	4.174	.165	37	6.043	.285	37	312	4.0	37
36	2	13.9	13	23.9	87	-34.3	6.3	42	4.787	.165	37	7.041	.271	37	309	3.4	37
35	2	13.4	12	22.0	87	-37.4	5.7	42	5.525	.184	37	8.241	.287	37	307	2.9	37
34	2	12.7	10	20.5	86	-39.1	5.9	41	6.398	.212	36	9.617	.364	36	306	3.1	36
33	1	11.9	8	19.2	86	-41.6	5.4	42	7.408	.233	37	11.266	.408	37	304	3.1	37
32	-0	10.9	7	18.2	85	-43.3	5.1	42	8.593	.252	37	13.157	.492	37	304	3.3	37
31	-1	9.8	5	17.7	85	-45.6	5.0	43	9.974	.278	37	15.395	.559	37	302	3.3	37
30	-1	8.8	4	17.3	84	-47.5	4.7	43	11.610	.349	37	18.074	.738	37	301	3.2	37

Table 18-1 Wind Components and Thermodynamic Data, Point Mugu, California: February

HEIGHT IS IN KILOMETERS ABOVE SEA LEVEL
THE WIND COMPONENTS AND SPEED OF SOUND ARE IN M/SEC
TEMPERATURE IS IN DEGREES CELSIUS
DENSITY IS IN GRAMS PER CU METER
THE M COLUMN IS THE MEAN COLUMN, THE S COLUMN IS THE STANDARD DEVIATION COLUMN
AND THE N COLUMN IS THE NUMBER OF VALUES FOR THE M AND S.

1961 THROUGH 1968

HT	-N-S		-E-W			TEMP			PRESSURE			DENSITY			SPEED OF SOUND		
	M	S	M	S	N	M	S	N	M	S	N	M	S	N	M	S	N
65	13	.0	64	.0	1	-22.1	0	1	.104	0	1	.145	0	1	318	0	1
64	11	3.0	70	14.5	3	-12.6	6.1	4	.125	.004	4	.169	.004	4	324	3.7	4
63	8	5.5	70	17.8	6	-13.9	5.6	6	.140	.009	6	.188	.011	6	323	3.5	6
62	10	12.5	66	18.4	13	-12.4	5.5	8	.160	.010	8	.214	.012	8	324	3.4	8
61	9	14.5	63	19.0	15	-12.8	7.5	15	.156	.013	15	.249	.012	15	323	4.6	15
60	7	15.8	63	22.8	22	-10.6	9.1	22	.211	.014	22	.281	.014	22	325	5.6	22
59	6	13.9	65	24.9	28	-9.4	7.7	23	.240	.014	28	.318	.013	28	326	4.8	28
58	7	13.3	64	25.4	33	-9.0	7.4	30	.273	.014	30	.361	.014	30	326	4.6	30
57	7	13.0	60	24.5	49	-8.5	8.1	32	.310	.015	31	.409	.016	31	326	4.4	31
56	9	14.0	59	28.2	54	-8.3	7.7	34	.353	.016	32	.466	.018	32	326	4.3	32
55	9	13.1	58	27.0	60	-7.1	9.1	38	.402	.018	36	.528	.023	36	327	4.3	35
54	8	12.5	57	30.0	68	-7.2	7.5	38	.457	.021	36	.601	.026	36	327	4.2	35
53	8	12.4	57	30.1	72	-7.5	6.2	38	.520	.025	36	.684	.033	36	327	3.3	36
52	8	14.2	56	30.0	75	-6.6	5.8	41	.588	.029	36	.772	.039	38	327	3.1	33
51	7	14.4	55	29.6	76	-5.6	6.3	43	.666	.032	39	.871	.044	39	327	3.2	39
50	7	14.7	53	29.5	79	-5.7	5.2	44	.750	.036	40	.991	.048	40	327	2.6	40
49	6	14.1	52	29.8	82	-5.6	5.4	45	.852	.077	41	1.125	.053	41	329	2.7	41
48	6	13.3	51	30.2	82	-6.2	5.5	46	.979	.045	42	1.282	.055	42	327	2.7	42
47	5	12.5	50	30.9	83	-6.4	6.2	47	1.115	.056	43	1.469	.065	43	327	3.2	43
46	4	13.2	47	30.9	86	-7.6	6.8	47	1.269	.061	43	1.671	.072	43	324	3.9	43
45	3	13.1	45	30.1	87	-9.7	6.4	48	1.448	.069	44	1.922	.081	44	325	3.6	44
44	2	12.0	42	29.2	89	-11.3	6.1	48	1.650	.079	44	2.201	.096	44	324	3.5	44
43	1	11.3	39	28.7	89	-13.7	6.0	48	1.876	.088	44	2.525	.101	44	323	3.5	44
42	0	10.4	35	28.6	89	-15.7	7.3	51	2.148	.097	46	2.923	.125	46	321	3.8	46
41	-1	9.6	33	27.8	88	-18.0	6.8	52	2.450	.108	46	3.361	.131	46	320	3.8	46
40	-2	8.9	30	27.1	89	-20.9	6.3	52	2.803	.115	46	3.882	.145	46	318	3.9	46
39	-2	8.7	27	26.3	89	-23.5	6.3	52	3.212	.128	46	4.487	.165	46	317	4.0	46
38	-1	8.5	25	25.4	89	-26.7	6.2	52	3.684	.136	46	5.207	.170	46	315	4.0	46
37	-1	7.9	23	24.4	89	-29.5	6.1	53	4.223	.162	47	6.043	.187	47	313	4.0	47
36	-0	7.3	20	23.1	89	-31.6	5.8	53	4.856	.205	47	7.023	.215	47	312	3.8	47
35	-0	6.5	18	21.4	89	-33.2	5.7	53	5.604	.198	47	8.148	.239	47	311	3.5	47
34	-0	5.2	15	20.2	88	-35.5	5.5	52	6.452	.206	46	9.478	.262	46	309	3.4	46
33	-0	5.0	12	18.7	88	-37.0	5.5	52	7.461	.215	46	11.003	.290	46	308	3.5	46
32	-1	4.5	9	17.4	88	-40.1	5.1	51	8.638	.257	45	12.916	.355	45	306	3.2	45
31	-1	4.6	8	16.5	87	-42.4	5.1	51	10.027	.337	45	15.141	.549	45	305	3.3	45
30	-1	3.7	7	15.3	85	-45.5	4.9	52	11.656	.427	44	17.843	.714	44	303	3.3	44

Table 185. Wind Components and Thermodynamic Data, Point Mugu, California: March

HEIGHT IS IN KILOMETERS ABOVE SEA LEVEL
THE WIND COMPONENTS AND SPEED OF SOUND ARE IN M/SEC
TEMPERATURE IS IN DEGREES CELSIUS
DENSITY IS IN GRAMS PER CU METER
THE M COLUMN IS THE MEAN COLUMN, THE S COLUMN IS THE STANDARD DEVIATION COLUMN
AND THE N COLUMN IS THE NUMBER OF VALUES FOR THE M AND S.

1961 THROUGH 1968

HT	-N+S		-E+W			TEMP			PRESSURE			DENSITY			SPEED OF SOUND		
	M	S	M	S	N	M	S	N	M	S	N	M	S	N	M	S	N
64	0	0	0	0	0	-13.5	0	1	.131	0	1	.176	0	1	322	0	1
63	3	.0	57	.0	1	-12.6	0	1	.149	0	1	.199	0	1	324	0	1
62	3	3.3	68	10.1	5	-7.8	4.2	4	.173	.005	4	.228	.007	4	327	2.4	4
61	1	6.2	66	19.2	8	-8.0	4.5	9	.198	.006	9	.260	.007	9	326	2.7	9
60	5	8.4	58	23.5	12	-7.5	5.2	14	.226	.007	14	.296	.010	14	327	3.3	14
59	4	9.6	54	20.3	19	-7.8	5.7	17	.257	.008	17	.338	.012	17	327	3.4	17
58	4	10.3	52	19.6	24	-7.8	5.3	24	.292	.011	24	.383	.014	24	327	3.3	24
57	5	10.2	44	21.6	37	-7.7	6.0	25	.332	.011	25	.435	.017	25	327	3.7	25
56	4	9.3	41	23.5	48	-7.1	5.0	31	.377	.017	31	.494	.023	31	327	3.9	31
55	4	9.0	42	21.9	59	-6.9	5.4	34	.429	.020	34	.562	.026	34	327	3.9	34
54	5	8.5	42	20.3	70	-6.6	4.8	34	.488	.021	34	.638	.027	34	327	2.9	34
53	5	8.1	42	19.5	78	-6.0	4.2	37	.555	.022	37	.724	.027	37	328	2.5	37
52	5	8.5	41	18.6	86	-4.8	3.7	39	.631	.024	39	.820	.030	39	328	2.2	39
51	6	8.8	40	18.3	89	-4.5	3.5	39	.715	.028	39	.928	.035	39	329	2.1	39
50	6	8.5	40	18.2	89	-4.7	3.9	41	.811	.032	41	1.053	.042	41	329	2.3	41
49	6	8.2	38	18.2	91	-3.9	6.7	42	.921	.037	41	1.197	.050	41	329	2.4	41
48	6	7.7	37	17.6	93	-4.4	6.1	43	1.044	.039	42	1.359	.052	42	328	2.6	42
47	5	7.7	36	17.6	93	-5.0	5.5	46	1.184	.046	45	1.544	.063	45	328	2.8	45
46	4	7.9	35	18.4	93	-6.8	5.4	46	1.345	.051	45	1.765	.072	45	327	2.9	45
45	3	8.1	34	19.4	94	-8.5	5.6	46	1.529	.058	45	2.025	.094	45	326	3.2	45
44	2	8.1	33	19.9	95	-10.6	5.7	47	1.737	.068	46	2.317	.109	46	325	3.4	46
43	1	7.7	32	20.9	95	-12.4	5.7	48	1.974	.075	47	2.650	.123	47	324	3.5	47
42	-0	7.6	31	22.0	96	-14.7	5.2	48	2.249	.086	47	3.045	.136	47	322	3.2	47
41	-1	7.2	31	22.5	96	-17.8	5.2	47	2.569	.097	46	3.513	.142	46	320	3.1	46
40	-2	7.2	30	22.7	96	-20.2	5.0	48	2.938	.112	47	4.052	.157	47	319	3.2	47
39	-1	7.6	29	23.8	97	-22.8	4.9	48	3.365	.127	47	4.691	.179	47	317	3.1	47
38	-1	8.2	27	23.3	97	-24.9	4.7	48	3.858	.147	47	5.422	.205	47	316	2.9	47
37	0	8.2	25	22.7	97	-26.7	4.1	48	4.432	.165	47	6.271	.212	47	315	2.6	47
36	2	7.8	22	22.0	97	-28.7	4.4	48	5.080	.173	47	7.246	.223	47	313	2.8	47
35	3	7.3	20	21.0	97	-30.2	4.0	48	5.844	.192	47	8.389	.247	47	312	2.6	47
34	3	7.0	17	20.4	97	-32.0	4.6	49	6.721	.222	48	9.750	.264	48	311	3.0	48
33	3	6.9	15	19.1	97	-35.0	4.9	48	7.739	.228	46	11.335	.246	46	309	3.2	46
32	2	7.4	12	17.6	97	-37.5	4.8	48	8.930	.244	46	13.215	.278	46	308	3.2	46
31	1	6.4	11	16.6	97	-39.1	4.6	47	10.345	.270	45	15.411	.324	45	307	3.0	45
30	1	5.6	10	15.8	97	-42.2	4.8	46	11.978	.300	44	18.081	.363	44	305	3.2	44

Table 186 Wind Components and Thermodynamic Data, Point Mugu, California: April

HEIGHT IS IN KILOMETERS ABOVE SEA LEVEL
THE WIND COMPONENTS AND SPEED OF SOUND ARE IN M/SEC
TEMPERATURE IS IN DEGREES CELSIUS
DENSITY IS IN GRAMS PER CU METER
THE M COLUMN IS THE MEAN COLUMN, THE S COLUMN IS THE STANDARD DEVIATION COLUMN
AND THE N COLUMN IS THE NUMBER OF VALUES FOR THE M AND S.

1961 THROUGH 1968

HT	-N•S		-E•W			TEMP			PRESSURE			DENSITY			SPEED OF SOUND		
	M	S	M	S	N	M	S	N	M	S	N	M	S	N	M	S	N
72	-76	.0	44	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
71	-64	.0	37	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
70	-53	.0	30	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
69	-41	.0	24	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
68	-30	.0	17	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
67	-22	.0	14	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
66	-17	.0	15	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
65	-12	.0	16	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
64	-3	4.1	10	7.2	2	-18.3	4.9	2	.125	.006	2	.170	.004	2	320	3.2	2
63	-2	.3	9	2.3	2	-14.7	4.7	7	.152	.010	7	.205	.011	7	322	2.9	7
62	0	4.9	8	3.8	2	-12.1	6.9	15	.175	.009	15	.235	.011	15	324	4.3	15
61	5	8.3	-4	15.9	3	-10.8	5.0	18	.201	.010	18	.267	.012	18	325	3.2	18
60	8	4.3	-3	19.4	5	-10.0	4.2	23	.228	.012	23	.303	.014	23	325	2.7	23
59	4	6.0	2	19.1	11	-9.0	4.7	25	.261	.013	25	.345	.015	25	326	2.9	25
58	1	10.6	5	18.0	25	-8.0	4.5	26	.296	.014	26	.390	.017	26	326	2.8	26
57	1	7.8	8	18.4	37	-7.5	3.8	27	.337	.015	27	.442	.019	27	327	2.3	27
56	0	6.7	11	17.3	44	-6.8	3.9	27	.382	.016	27	.500	.021	27	327	2.4	27
55	1	5.5	14	17.8	52	-5.6	3.9	29	.436	.020	29	.569	.025	29	328	2.3	29
54	2	5.1	17	16.7	61	-5.1	3.0	32	.498	.025	32	.648	.031	32	328	1.7	32
53	3	5.6	17	16.4	73	-5.2	3.1	33	.564	.026	33	.734	.034	33	328	1.9	33
52	4	6.0	18	15.8	85	-4.0	3.-	36	.640	.029	36	.830	.034	36	329	2.1	36
51	6	5.6	19	15.8	91	-4.3	3.1	37	.727	.032	37	.943	.039	37	329	1.9	37
50	6	5.7	19	15.4	93	-4.2	3.2	37	.826	.038	37	1.071	.045	37	329	2.0	37
49	6	5.9	19	14.4	94	-4.1	3.5	39	.936	.044	39	1.212	.050	39	329	2.3	39
48	6	6.0	18	13.2	96	-3.8	3.5	39	1.062	.050	39	1.376	.057	39	329	2.1	39
47	5	5.5	19	12.7	97	-3.6	3.1	39	1.206	.053	39	1.559	.060	39	329	1.9	39
46	4	6.4	18	12.1	97	-5.0	3.8	40	1.370	.060	40	1.781	.066	40	328	2.3	40
45	4	7.0	18	11.8	97	-6.5	4.1	40	1.556	.066	40	2.034	.072	40	327	2.6	40
44	3	6.9	19	11.7	97	-8.2	4.2	40	1.766	.070	40	2.324	.081	40	326	2.7	40
43	2	6.4	19	11.7	97	-10.4	4.5	40	2.010	.077	40	2.669	.089	40	325	2.8	40
42	0	5.8	20	12.2	99	-13.0	4.9	40	2.286	.085	40	3.066	.095	40	323	3.1	40
41	-1	5.1	21	12.7	101	-16.1	5.0	40	2.608	.091	40	3.537	.105	40	321	3.2	40
40	-1	4.9	22	13.1	101	-18.8	4.9	40	2.976	.100	40	4.080	.123	40	320	3.2	40
39	-0	5.0	22	12.8	101	-21.4	4.4	40	3.406	.112	40	4.717	.130	40	318	2.8	40
38	1	5.4	22	12.0	102	-24.0	4.1	40	3.877	.172	40	5.457	.155	40	316	2.6	40
37	2	5.3	21	10.9	102	-26.0	4.2	41	4.473	.131	40	6.315	.196	40	315	2.6	40
36	3	4.7	19	10.2	102	-28.3	4.9	42	5.140	.146	40	7.334	.205	40	313	2.7	40
35	3	4.3	17	9.3	102	-30.6	4.4	42	5.913	.166	40	8.513	.239	40	312	2.6	40
34	3	4.5	15	8.2	102	-32.6	3.8	42	6.811	.193	40	9.882	.273	40	311	2.4	40
33	3	4.2	13	8.0	102	-34.7	3.9	42	7.845	.213	40	11.473	.327	40	309	2.5	40
32	2	4.1	11	7.9	102	-36.3	4.1	42	9.053	.236	40	13.319	.372	40	309	2.7	40
31	2	4.0	10	7.4	101	-39.0	3.9	43	10.470	.258	41	15.585	.421	41	307	2.6	41
30	2	3.7	8	7.3	100	-41.5	3.8	43	12.141	.295	41	18.264	.517	41	305	2.5	41

Table 187. Wind Components and Thermodynamic Data, Point Mugu, California: May

HEIGHT IS IN KILOMETERS ABOVE SEA LEVEL
THE WIND COMPONENTS AND SPEED OF SOUND ARE IN M/SEC
TEMPERATURE IS IN DEGREES CELSIUS
DENSITY IS IN GRAMS PER CU METER
THE M COLUMN IS THE MEAN COLUMN, THE S COLUMN IS THE STANDARD DEVIATION COLUMN
AND THE N COLUMN IS THE NUMBER OF VALUES FOR THE M AND S.

1961 THROUGH 1968

HT	-N+S		-E+W			TEMP			PRESSURE			DENSITY			SPEED OF SOUND		
	M	S	M	S	N	M	S	N	M	S	N	M	S	N	M	S	N
69	3	.0	-35	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
68	-3	7.2	-30	3.4	2	0	0	0	0	0	0	0	0	0	0	0	0
67	-6	11.6	-31	3.7	3	-12.5	.0	1	.099	.000	1	.135	.000	1	323	.0	1
66	-1	9.0	-27	4.3	3	-11.2	.0	1	.115	.000	1	.155	.000	1	324	.1	1
65	1	5.5	-28	16.5	6	-10.3	.4	2	.129	.001	2	.172	.002	2	325	.1	2
64	2	3.2	-27	15.9	6	-13.6	5.7	4	.144	.006	4	.195	.010	4	323	3.2	4
63	4	4.1	-28	14.2	6	-8.5	7.4	7	.169	.008	7	.226	.011	7	326	4.2	7
62	4	6.9	-26	12.2	8	-9.0	5.3	12	.191	.010	12	.254	.012	12	326	3.0	12
61	1	7.3	-22	13.3	10	-8.0	4.9	16	.218	.010	16	.287	.012	16	326	2.9	16
60	-0	7.2	-31	14.3	17	-7.3	5.2	28	.247	.015	28	.325	.018	28	327	3.1	28
59	1	5.7	-30	11.4	29	-7.0	5.1	31	.283	.027	31	.372	.033	31	327	3.1	31
58	3	5.5	-30	13.9	39	-6.8	4.9	36	.321	.037	36	.420	.047	36	327	3.0	36
57	3	5.1	-28	14.5	48	-5.6	4.5	41	.366	.044	41	.477	.057	41	328	2.7	41
56	3	5.7	-26	12.5	64	-5.0	4.5	45	.414	.052	45	.539	.067	45	328	2.6	45
55	3	5.1	-24	11.2	84	-3.7	4.6	48	.471	.058	48	.610	.076	48	329	2.7	48
54	3	5.3	-22	10.8	92	-2.8	4.1	49	.534	.065	49	.690	.085	49	330	2.4	49
53	4	4.9	-21	10.6	100	-2.2	4.0	51	.605	.070	51	.780	.092	51	330	2.4	51
52	5	5.3	-20	11.0	106	-1.5	3.7	56	.683	.072	56	.877	.096	56	330	2.3	56
51	5	5.3	-18	10.9	110	-1.0	3.6	57	.772	.075	57	.990	.101	57	331	2.2	57
50	5	5.5	-17	10.5	113	-0.9	3.0	58	.874	.076	58	1.120	.102	58	331	1.8	58
49	5	5.0	-16	10.4	117	-0.8	2.9	58	.989	.078	58	1.268	.104	58	331	1.7	58
48	5	4.6	-15	10.2	119	-0.6	4.9	60	1.121	.079	59	1.436	.106	59	331	2.8	59
47	4	4.4	-13	10.2	122	-1.2	4.0	60	1.268	.078	59	1.628	.104	59	330	2.3	59
46	4	4.5	-13	9.6	122	-1.8	3.3	60	1.436	.076	59	1.848	.100	59	330	1.9	59
45	3	4.6	-12	9.2	123	-3.2	3.4	60	1.626	.070	59	2.103	.090	59	329	2.1	59
44	2	4.4	-11	8.9	123	-5.0	3.6	61	1.837	.063	60	2.391	.077	60	328	2.2	60
43	1	4.1	-10	9.3	123	-6.7	3.6	62	2.081	.062	61	2.725	.070	61	327	2.2	61
42	0	3.8	-8	9.2	123	-9.3	4.0	64	2.359	.073	62	3.120	.079	62	326	2.3	62
41	-0	3.6	-6	8.9	123	-12.5	3.3	64	2.684	.075	62	3.594	.082	62	324	2.0	62
40	-0	3.4	-4	9.0	123	-14.8	3.2	64	3.062	.084	62	4.137	.096	62	322	2.0	62
39	0	3.9	-2	9.4	123	-17.8	3.6	64	3.502	.103	62	4.787	.122	62	320	2.3	62
38	1	4.2	-1	9.6	123	-20.5	4.3	64	4.000	.123	62	5.523	.154	62	319	2.7	62
37	1	3.8	-0	9.6	123	-23.2	4.2	64	4.579	.134	62	6.389	.169	62	317	2.8	62
36	1	3.4	0	9.7	123	-26.1	4.4	65	5.252	.138	63	7.414	.165	63	315	2.9	63
35	1	3.4	0	9.2	123	-28.8	4.5	65	6.036	.125	62	8.611	.192	62	313	2.9	62
34	1	3.4	1	8.5	123	-31.0	4.6	55	6.949	.143	62	10.013	.235	62	312	2.8	62
33	1	3.2	0	7.8	122	-33.7	4.3	65	8.020	.177	62	11.682	.289	62	310	2.7	62
32	1	3.4	0	7.4	120	-36.1	4.4	65	9.256	.209	62	13.608	.338	62	309	2.4	62
31	0	3.3	-0	6.9	118	-38.3	4.3	65	10.675	.228	62	15.832	.359	62	307	2.5	62
30	0	3.2	-1	7.0	113	-40.6	3.8	65	12.347	.229	62	18.503	.378	62	306	2.4	62

Table 188. Wind Components and Thermodynamic Data, Point Mugu, California: June

HEIGHT IS IN KILOMETERS ABOVE SEA LEVEL
THE WIND COMPONENTS AND SPEED OF SOUND ARE IN M/SEC
TEMPERATURE IS IN DEGREES CELSIUS
DENSITY IS IN GRAMS PER CUBIC METER
THE M COLUMN IS THE MEAN COLUMN, THE S COLUMN IS THE STANDARD DEVIATION COLUMN
AND THE N COLUMN IS THE NUMBER OF VALUES FOR THE M AND S.

1961 THROUGH 1968

HT	-N-S			-E-W			TEMP			PRESSURE			DENSITY			SPEED OF SOUND		
	M	S	N	M	S	N	M	S	N	M	S	N	M	S	N	M	S	N
68	0	0	0	0	0	0	-33.0	.0	1	.085	.000	1	.125	.000	1	310	.0	1
67	0	0	0	0	0	0	-29.1	.0	1	.100	.000	1	.144	.000	1	312	.0	1
66	23	13.4	-70	14.8	2		-14.8	8.1	3	.118	.003	3	.160	.002	3	322	5.3	3
65	8	11.6	-61	15.6	7		-16.8	9.2	5	.131	.005	5	.178	.003	5	321	5.9	5
64	7	11.6	-63	12.6	15		-17.0	7.9	10	.148	.007	10	.203	.006	10	321	5.0	10
63	6	10.4	-60	11.9	19		-15.7	7.5	13	.171	.008	13	.233	.010	13	321	4.7	13
62	4	11.4	-59	11.7	20		-14.7	5.5	21	.197	.009	21	.266	.011	21	322	3.4	21
61	3	11.1	-57	13.1	25		-13.1	4.8	28	.225	.010	28	.301	.013	28	323	2.8	28
60	2	9.7	-56	12.8	31		-12.1	4.4	32	.254	.011	32	.339	.014	32	324	2.7	32
59	1	8.3	-52	10.8	35		-10.4	3.9	38	.290	.011	38	.384	.014	38	325	2.4	38
58	3	7.5	-51	9.4	46		-8.5	3.6	39	.330	.012	39	.435	.015	39	326	2.2	39
57	3	6.7	-49	10.7	59		-6.4	3.5	43	.376	.015	43	.491	.018	43	327	2.1	43
56	4	5.3	-47	12.2	77		-5.0	4.0	45	.427	.016	45	.555	.018	45	328	2.4	45
55	5	5.8	-45	13.0	92		-4.1	4.4	48	.484	.017	48	.627	.020	48	329	2.6	48
54	6	5.1	-44	12.8	100		-3.0	4.4	50	.550	.021	50	.709	.024	50	330	2.7	50
53	7	4.9	-43	13.1	108		-1.6	3.8	51	.624	.024	51	.801	.025	51	330	2.2	51
52	7	4.7	-42	12.1	111		-1.0	3.8	51	.706	.028	51	.905	.027	51	331	2.3	51
51	5	4.6	-40	10.8	112		-0.4	3.9	53	.798	.026	53	1.021	.027	53	331	2.3	53
50	5	4.6	-38	9.8	119		-0.1	4.0	53	.904	.027	53	1.154	.032	53	331	2.4	53
49	5	4.9	-37	8.6	119		.2	3.5	53	1.026	.032	53	1.309	.039	53	331	2.1	53
48	5	4.9	-36	8.1	120		.1	3.8	54	1.163	.037	54	1.484	.039	54	331	2.3	54
47	4	4.6	-35	7.9	120		-0.2	3.7	55	1.317	.041	54	1.683	.050	54	331	2.3	54
46	3	4.8	-34	8.1	120		-0.8	3.8	56	1.492	.051	54	1.912	.070	54	331	2.3	54
45	2	4.3	-33	8.4	121		-2.5	3.5	56	1.690	.062	54	2.180	.091	54	330	2.1	54
44	1	4.0	-31	8.0	121		-3.3	5.2	59	1.921	.070	57	2.484	.101	57	329	3.1	57
43	1	3.7	-28	7.5	121		-5.4	5.1	59	2.176	.075	57	2.836	.110	57	328	3.1	57
42	1	3.9	-27	8.0	121		-7.4	4.8	59	2.471	.079	57	3.246	.118	57	327	3.0	57
41	1	3.5	-25	7.0	122		-10.6	4.2	58	2.815	.084	56	3.743	.122	56	325	2.6	56
40	1	3.2	-23	6.5	122		-13.1	3.9	58	3.204	.094	56	4.301	.139	56	323	2.4	56
39	1	3.3	-21	6.0	121		-16.1	3.6	58	3.653	.116	56	4.961	.182	56	321	2.2	56
38	0	3.1	-19	7.2	121		-19.1	3.9	58	4.171	.146	56	5.730	.228	56	320	2.4	56
37	0	2.7	-18	6.8	120		-21.5	3.8	58	4.772	.165	56	6.619	.262	56	318	2.5	56
36	0	2.9	-16	6.6	120		-24.4	3.4	57	5.459	.186	55	7.653	.300	55	316	2.2	55
35	1	2.7	-15	6.6	120		-26.8	2.8	56	6.255	.196	54	8.847	.312	54	315	1.7	54
34	1	2.7	-13	6.2	119		-28.8	3.2	56	7.190	.205	54	10.255	.340	54	313	2.0	54
33	1	2.5	-13	6.2	119		-31.0	2.9	56	8.267	.219	54	11.903	.359	54	312	1.9	54
32	1	2.4	-12	6.2	117		-33.5	2.9	56	9.513	.230	53	13.844	.361	53	310	1.8	53
31	1	2.1	-12	6.1	116		-35.7	2.9	57	10.956	.224	54	16.083	.354	54	309	1.8	54
30	1	2.3	-12	6.1	114		-37.9	2.4	57	12.653	.242	54	18.748	.375	54	307	1.6	54

Table 189. Wind Components and Thermodynamic Data, Point Mugu, California: July

HEIGHT IS IN KILOMETERS ABOVE SEA LEVEL
THE WIND COMPONENTS AND SPEED OF SOUND ARE IN M/SEC
TEMPERATURE IS IN DEGREES CELSIUS
DENSITY IS IN GRAMS PER CU METER
THE M COLUMN IS THE MEAN COLUMN, THE S COLUMN IS THE STANDARD DEVIATION COLUMN
AND THE N COLUMN IS THE NUMBER OF VALUES FOR THE M AND S.

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HT	-N-S		-E-W			TEMP			PRESSURE			DENSITY			SPEED OF SOUND		
	M	S	M	S	N	M	S	N	M	S	N	M	S	N	M	S	N
67	24	.0	-7	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
66	18	63.9	-25	6.2	2	0	0	0	0	0	0	0	0	0	0	0	0
65	16	9.7	-41	12.2	5	0	0	0	0	0	0	0	0	0	0	0	0
64	16	11.4	-53	18.0	6	-12.0	.0	1	.153	.000	1	.191	.000	1	324	0	1
63	9	11.9	-59	13.3	12	-12.6	1.1	2	.172	.002	2	.217	.002	2	323	1.0	2
62	5	12.4	-61	12.3	17	-15.9	3.8	9	.193	.006	9	.254	.011	9	321	2.1	9
61	5	11.5	-63	13.7	19	-14.4	4.1	13	.226	.010	13	.296	.018	13	322	2.2	13
60	3	11.7	-62	12.5	24	-12.2	3.5	14	.258	.013	14	.334	.024	14	324	1.9	14
59	3	11.1	-63	12.4	34	-11.7	3.7	23	.288	.016	23	.376	.023	23	324	2.1	23
58	5	9.4	-62	9.5	43	-10.3	3.0	29	.332	.019	28	.434	.027	28	325	1.8	28
57	5	7.6	-62	10.5	55	-8.5	3.1	32	.380	.022	31	.493	.029	31	326	2.0	31
56	6	7.6	-59	9.7	69	-6.9	3.3	38	.430	.023	37	.557	.029	37	327	2.1	37
55	6	7.1	-57	8.5	82	-4.8	6.6	42	.488	.030	41	.628	.032	41	328	4.0	41
54	6	6.5	-56	6.1	93	-4.2	5.6	44	.555	.033	43	.714	.038	43	329	3.4	43
53	6	6.4	-54	7.6	99	-3.8	4.7	44	.629	.038	43	.806	.045	43	329	2.9	43
52	6	6.5	-53	7.4	104	-3.1	4.9	46	.712	.044	45	.912	.049	45	329	3.0	45
51	6	5.9	-51	6.7	104	-1.9	4.6	48	.808	.049	46	1.031	.055	46	330	2.7	46
50	6	5.2	-49	6.3	108	-1.3	4.2	50	.917	.051	47	1.168	.059	47	330	2.4	47
49	6	5.0	-48	5.2	111	-1.4	4.2	51	1.035	.055	48	1.321	.062	48	330	2.4	48
48	6	5.0	-46	5.0	112	-1.8	4.2	51	1.173	.058	48	1.499	.069	48	330	2.5	48
47	5	4.9	-45	5.3	112	-1.6	3.9	51	1.326	.062	48	1.695	.080	48	330	2.4	48
46	4	4.8	-43	6.1	113	-2.5	4.1	50	1.502	.063	48	1.926	.079	48	330	2.4	48
45	3	4.8	-42	6.1	115	-4.4	4.2	50	1.703	.072	48	2.200	.088	48	329	2.5	48
44	2	4.3	-40	5.8	115	-6.4	4.0	50	1.929	.078	48	2.511	.095	48	327	2.4	48
43	0	4.2	-38	5.4	115	-8.8	3.6	50	2.188	.088	48	2.876	.106	48	325	2.2	48
42	-0	4.3	-35	4.7	115	-10.6	3.4	50	2.485	.100	48	3.288	.121	48	325	2.1	48
41	0	3.9	-33	4.1	116	-13.2	3.6	50	2.831	.107	48	3.780	.126	48	323	2.3	48
40	1	3.6	-31	4.0	116	-15.9	3.7	50	3.235	.109	48	4.357	.127	48	323	8.4	48
39	2	3.8	-29	4.3	116	-18.8	4.4	51	3.686	.117	49	5.038	.124	49	320	2.8	49
38	1	4.0	-28	4.5	116	-20.8	4.7	52	4.209	.125	50	5.797	.147	50	318	3.0	50
37	0	3.8	-26	4.2	116	-23.7	4.2	51	4.804	.128	49	6.696	.142	49	317	2.7	49
36	0	3.7	-25	3.9	116	-25.9	5.2	52	5.508	.138	49	7.760	.166	49	315	2.8	49
35	1	3.5	-23	4.3	115	-27.3	6.5	53	6.333	.155	49	8.999	.201	49	314	2.7	49
34	1	2.8	-22	4.2	115	-29.0	6.4	54	7.318	.344	50	10.479	.516	50	313	2.7	50
33	2	2.9	-21	3.8	115	-31.2	6.4	54	8.416	.370	50	12.157	.567	50	311	2.6	50
32	2	3.2	-21	3.6	112	-33.4	5.4	54	9.684	.371	50	14.110	.577	50	310	2.6	50
31	1	2.6	-20	3.3	107	-35.8	4.5	54	11.159	.350	50	16.416	.543	50	308	2.1	50
30	0	2.5	-20	3.8	104	-38.2	4.3	54	12.872	.318	50	19.123	.525	50	307	2.0	50

Table 190. Wind Components and Thermodynamic Data, Point Mugu, California: August

HEIGHT IS IN KILOMETERS ABOVE SEA LEVEL
THE WIND COMPONENTS AND SPEED OF SOUND ARE IN M/SEC
TEMPERATURE IS IN DEGREES CELSIUS
DENSITY IS IN GRAMS PER CU METER
THE M COLUMN IS THE MEAN COLUMN, THE S COLUMN IS THE STANDARD DEVIATION COLUMN
AND THE N COLUMN IS THE NUMBER OF VALUES FOR THE M AND S.

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H	-N-S		-E-W			TEMP			PRESSURE			DENSITY			SPEED OF SOUND		
	M	S	M	S	N	M	S	N	M	S	N	M	S	N	M	S	N
70	17	16.9	-4	20.9	2	0	0	0	0	0	0	0	0	0	0	0	0
69	20	14.9	-10	16.5	2	0	0	0	0	0	0	0	0	0	0	0	0
68	22	12.8	-15	12.1	2	0	0	0	0	0	0	0	0	0	0	0	0
67	25	10.7	-21	7.7	2	0	0	0	0	0	0	0	0	0	0	0	0
66	13	16.5	-28	17.0	4	0	0	0	0	0	0	0	0	0	0	0	0
65	14	14.8	-21	24.7	5	0	0	0	0	0	0	0	0	0	0	0	0
64	10	13.1	-26	24.1	6	-11.7	11.5	2	.152	.010	2	.204	.006	2	324	7.0	2
63	4	13.1	-25	27.1	10	-8.7	10.6	3	.179	.013	3	.237	.010	3	326	6.4	3
62	0	9.8	-30	25.2	13	-11.4	8.5	7	.201	.010	7	.270	.007	7	324	5.3	7
61	-2	8.5	-33	21.6	15	-11.1	6.8	9	.228	.010	9	.306	.008	9	324	4.2	9
60	1	8.3	-34	18.3	19	-10.7	5.4	14	.255	.014	14	.340	.016	14	325	3.3	14
59	2	8.8	-37	15.9	25	-12.2	6.0	25	.287	.017	23	.385	.021	23	324	3.9	23
58	3	8.8	-37	14.6	31	-11.5	5.9	31	.327	.018	27	.438	.024	27	324	3.7	27
57	4	9.9	-40	13.8	39	-9.4	6.7	35	.373	.024	31	.496	.028	31	326	4.3	31
56	5	9.4	-41	14.4	56	-8.9	5.3	42	.425	.028	39	.563	.032	39	326	3.3	39
55	6	8.5	-41	13.8	72	-7.6	5.9	47	.485	.033	43	.638	.036	43	327	3.6	43
54	7	7.7	-40	13.7	92	-5.7	5.7	52	.552	.038	47	.722	.039	47	328	3.6	47
53	7	7.4	-39	12.2	99	-4.9	5.5	57	.624	.046	50	.818	.043	50	328	3.5	50
52	7	7.2	-39	11.5	108	-4.2	5.4	59	.705	.059	52	.924	.048	52	329	3.4	55
51	7	6.7	-38	10.8	117	-3.6	4.9	62	.795	.066	54	1.042	.049	54	329	3.2	54
50	6	6.9	-38	10.4	119	-2.9	4.8	62	.903	.049	54	1.174	.050	54	330	3.1	54
49	5	6.6	-37	10.1	122	-2.7	4.6	64	1.024	.045	56	1.326	.052	56	330	3.0	54
48	4	6.3	-36	10.3	123	-2.5	4.8	64	1.160	.047	56	1.501	.059	56	330	3.1	56
47	3	5.4	-36	10.0	124	-3.1	4.6	66	1.313	.051	57	1.704	.067	57	330	3.0	57
46	3	5.0	-35	9.9	126	-4.1	4.1	66	1.488	.056	57	1.939	.075	57	329	2.7	57
45	2	4.5	-33	9.5	129	-5.6	3.4	66	1.687	.061	57	2.209	.081	57	328	2.3	57
44	1	4.3	-32	8.6	129	-7.4	3.3	66	1.914	.064	58	2.523	.089	58	327	2.1	58
43	-0	4.2	-31	7.7	131	-9.8	3.5	65	2.172	.064	58	2.890	.093	58	325	2.2	58
42	-1	3.9	-29	6.7	131	-13.1	3.3	65	2.471	.072	58	3.332	.098	58	323	2.1	58
41	-0	3.6	-27	6.2	131	-16.2	3.2	65	2.815	.079	59	3.840	.107	59	321	2.0	59
40	0	3.8	-25	5.9	133	-18.5	3.7	66	3.212	.089	59	4.437	.156	59	320	2.1	59
39	0	3.5	-24	5.9	133	-20.9	3.8	67	3.667	.097	59	5.101	.140	59	318	2.3	59
38	0	3.2	-23	5.9	133	-23.1	3.6	69	4.199	.110	60	5.889	.156	60	317	2.1	60
37	1	3.0	-21	5.7	132	-25.3	3.9	67	4.814	.122	59	6.809	.174	59	316	2.4	59
36	1	2.9	-20	5.3	132	-27.7	4.0	67	5.521	.131	59	7.885	.192	59	314	2.5	59
35	1	3.1	-19	4.8	132	-29.8	3.8	67	6.343	.145	59	9.136	.212	59	313	2.4	59
34	2	3.0	-19	5.0	132	-31.7	3.8	67	7.293	.156	59	10.589	.233	59	312	2.5	59
33	2	2.6	-19	4.8	131	-33.3	3.7	68	8.384	.160	60	12.249	.259	60	310	2.4	60
32	1	2.5	-19	4.3	131	-35.4	3.8	68	9.678	.173	60	14.265	.307	60	309	2.5	60
31	1	2.8	-19	4.0	129	-37.6	3.4	67	11.178	.198	60	16.648	.371	60	308	2.3	60
30	0	2.7	-18	3.5	125	-39.7	3.6	67	12.915	.217	60	19.387	.441	60	306	2.3	60

Table 191. Wind Components and Thermodynamic Data, Point Mugu, California: September

HEIGHT IS IN KILOMETERS ABOVE SEA LEVEL
THE WIND COMPONENTS AND SPEED OF SOUND ARE IN M/SEC
TEMPERATURE IS IN DEGREES CELSIUS
DENSITY IS IN GRAMS PER CU METER
THE M COLUMN IS THE MEAN COLUMN, THE S COLUMN IS THE STANDARD DEVIATION COLUMN
AND THE N COLUMN IS THE NUMBER OF VALUES FOR THE M AND S.

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HT	-N-S		-E-W			TEMP			PRESSURE			DENSITY			SPEED OF SOUND		
	M	S	M	S	N	M	S	N	M	S	N	M	S	N	M	S	N
69	-19	2.1	11	3.1	2	0	0	0	0	0	0	0	0	0	0	0	0
68	-13	1.3	12	2.4	2	0	0	0	0	0	0	0	0	0	0	0	0
67	-7	.5	13	1.7	2	-47.0	.0	1	.097	.000	1	.153	.000	1	302	0	1
66	-0	5.5	16	3.7	6	-46.0	.0	1	.113	0	1	.177	.000	1	302	0	1
65	-2	[illegible]	16	7.7	9	-13.6	13.3	4	.134	.005	4	.183	.012	4	323	8.3	4
64	1	8.4	14	13.1	10	-13.3	9.3	6	.152	.009	6	.207	.013	6	323	6.1	6
63	3	7.0	9	18.1	10	-11.5	6.6	9	.172	.010	9	.233	.015	9	324	4.3	9
62	5	7.5	5	21.1	12	-10.6	5.3	15	.194	.013	15	.261	.018	15	325	3.4	15
61	5	5.8	6	21.9	13	-9.7	5.3	19	.220	.015	19	.294	.020	19	325	3.3	19
60	5	6.6	8	21.8	15	-8.1	4.1	24	.248	.016	23	.330	.021	23	327	2.5	23
59	5	8.8	6	18.0	20	-7.6	4.2	29	.283	.016	28	.375	.022	28	327	2.6	28
58	3	8.0	1	16.4	32	-6.6	4.1	35	.318	.019	33	.420	.024	33	327	2.5	33
57	4	7.1	-3	15.3	51	-5.4	4.0	38	.361	.022	36	.474	.030	36	328	2.5	34
56	5	6.7	-3	15.6	61	-5.3	4.0	43	.408	.024	41	.535	.033	41	328	2.5	41
55	6	6.8	-3	14.6	67	-5.4	3.8	50	.464	.025	47	.609	.036	47	328	2.3	47
54	6	6.2	-4	14.3	79	-4.6	5.4	54	.525	.032	51	.685	.041	51	329	3.3	51
53	6	5.5	-6	14.3	89	-3.8	5.1	55	.595	.035	53	.775	.048	53	329	3.1	53
52	6	6.2	-7	14.3	97	-3.6	4.7	55	.674	.038	53	.878	.052	53	329	2.9	53
51	5	5.6	-7	14.0	100	-2.8	4.6	55	.763	.041	54	.991	.056	54	330	2.8	54
50	4	5.6	-8	13.9	102	-2.7	4.7	58	.863	.044	57	1.121	.061	57	330	2.9	57
49	4	5.9	-8	13.3	102	-2.7	4.8	59	.980	.050	58	1.273	.068	58	330	3.0	58
48	4	5.0	-9	12.4	104	-3.7	5.0	58	1.109	.054	57	1.446	.073	57	329	3.1	57
47	3	4.5	-9	11.7	104	-4.7	5.2	60	1.258	.059	59	1.639	.087	59	329	3.4	59
46	2	4.4	-10	11.2	105	-5.7	5.0	60	1.426	.065	59	1.865	.096	59	328	3.1	59
45	1	4.4	-10	11.1	107	-6.8	4.5	59	1.620	.070	58	2.128	.111	58	327	2.6	58
44	1	4.6	-10	10.7	110	-8.4	4.4	60	1.840	.079	59	2.431	.129	59	326	2.6	59
43	0	4.3	-9	11.0	111	-10.6	4.4	60	2.092	.086	59	2.765	.144	59	325	2.6	59
42	-0	4.1	-8	11.1	111	-13.6	4.3	61	2.381	.093	60	3.206	.169	60	323	2.7	60
41	0	4.3	-8	10.2	111	-16.3	4.9	61	2.713	.103	60	3.692	.185	60	321	3.1	60
40	1	4.1	-8	9.4	111	-18.8	5.1	62	3.098	.110	61	4.258	.211	61	320	3.3	61
39	0	4.0	-8	9.1	111	-22.0	5.0	63	3.543	.119	61	4.931	.246	61	318	3.3	61
38	0	3.9	-7	8.7	111	-25.2	4.3	63	4.058	.136	61	5.716	.296	61	316	2.9	61
37	0	3.5	-6	8.4	111	-27.6	4.0	64	4.660	.149	62	6.628	.345	62	314	2.6	62
36	1	3.0	-6	8.1	111	-30.0	3.9	64	5.357	.164	62	7.696	.393	62	313	2.6	62
35	2	3.0	-6	8.0	111	-31.7	3.9	64	6.163	.192	62	8.912	.475	62	312	2.6	62
34	2	3.0	-7	7.7	111	-33.7	4.0	64	7.094	.217	62	10.345	.549	62	310	2.7	62
33	2	2.8	-7	7.3	111	-36.0	3.5	63	8.182	.250	61	12.116	.425	61	309	2.5	61
32	1	2.9	-8	7.1	111	-37.5	4.2	64	9.455	.288	62	14.105	.480	62	308	2.3	62
31	0	3.2	-8	7.0	111	-39.5	4.0	64	10.930	.310	62	16.435	.519	62	306	2.5	62
30	-0	3.1	-8	6.7	110	-41.7	4.2	64	12.628	.338	62	19.145	.503	62	305	2.9	62

Table 192. Wind Components and Thermodynamic Data, Point Mugu, California: October

HEIGHT IS IN KILOMETERS ABOVE SEA LEVEL
THE WIND COMPONENTS AND SPEED OF SOUND ARE IN M/SEC
TEMPERATURE IS IN DEGREES CELSIUS
DENSITY IS IN GRAMS PER CU METER
THE M COLUMN IS THE MEAN COLUMN. THE S COLUMN IS THE STANDARD DEVIATION COLUMN
AND THE N COLUMN IS THE NUMBER OF VALUES FOR THE M AND S

1961 THROUGH 1968

	-N-S		-E-W			TEMP			PRESSURE			DENSITY			SPEED OF SOUND		
	M	S	M	S	N	M	S	N	M	S	N	M	S	N	M	S	N
67	-2	3.5	53	12.9	2	0	0	0	0	0	0	0	0	0	0	0	0
66	2	8.3	47	9.6	6	0	0	0	0	0	0	0	0	0	0	0	0
65	5	8.6	50	20.3	9	-5.0	2.3	2	.129	.016	2	.167	.019	2	328	1.1	2
64	10	9.4	57	16.7	13	-7.2	3.5	3	.143	.018	3	.187	.023	3	327	2.0	3
63	10	11.2	57	17.5	17	-8.6	2.7	4	.158	.020	4	.208	.025	4	326	1.5	4
62	12	10.2	55	17.5	14	-8.9	2.2	9	.178	.016	9	.235	.019	9	326	1.2	9
61	12	10.4	54	18.7	25	-9.2	3.3	18	.203	.014	17	.267	.017	17	326	2.1	17
60	10	10.7	50	19.8	29	-8.2	3.8	26	.230	.013	25	.302	.016	25	327	2.5	25
59	9	10.1	49	19.6	36	-6.8	4.4	32	.259	.013	30	.339	.017	30	327	2.5	30
58	6	9.6	48	18.7	52	-6.0	6.5	34	.294	.016	31	.384	.019	31	327	2.3	31
57	6	8.9	48	18.1	66	-5.6	6.1	39	.336	.018	36	.439	.021	36	327	2.0	36
56	6	8.5	46	17.8	75	-5.4	5.6	41	.381	.019	38	.497	.023	38	328	1.9	38
55	7	8.8	44	16.8	84	-4.7	5.1	47	.433	.022	43	.564	.028	43	328	2.0	43
54	7	9.5	43	16.1	95	-4.0	5.0	49	.492	.024	45	.637	.029	45	329	2.0	45
53	7	9.7	41	15.7	103	-3.4	5.7	50	.560	.029	46	.725	.032	46	329	2.7	46
52	7	9.4	40	15.3	107	-3.3	5.6	51	.635	.032	47	.821	.035	47	329	2.6	47
51	7	8.5	38	15.5	110	-3.2	5.1	51	.719	.035	48	.930	.040	48	329	2.4	48
50	7	7.8	37	15.6	117	-3.5	5.0	51	.816	.044	48	1.056	.049	48	329	2.5	48
49	7	7.3	36	16.2	119	-4.1	5.1	52	.928	.050	48	1.202	.054	48	329	2.5	48
48	6	7.4	34	16.3	121	-4.7	5.6	52	1.052	.055	48	1.365	.061	48	329	2.6	48
47	5	7.5	32	15.7	121	-6.0	6.0	52	1.192	.061	48	1.555	.070	48	328	2.8	48
46	4	7.3	31	15.6	123	-7.4	6.2	53	1.353	.066	48	1.776	.078	48	327	2.8	48
45	2	7.0	30	15.7	123	-9.1	6.4	54	1.539	.069	50	2.034	.084	50	326	2.9	50
44	1	6.6	28	15.5	123	-11.0	6.4	54	1.751	.073	50	2.333	.089	50	325	3.0	50
43	0	6.4	27	15.2	123	-13.1	6.4	55	1.995	.078	50	2.682	.093	50	323	3.0	50
42	-0	5.7	25	15.2	125	-15.8	6.5	55	2.269	.085	50	3.081	.102	50	321	3.4	50
41	-0	5.0	25	15.4	125	-18.7	6.6	55	2.590	.095	50	3.557	.117	50	320	3.3	50
40	-0	4.6	24	15.5	125	-21.4	6.4	55	2.964	.098	50	4.115	.119	50	318	2.9	50
39	0	4.3	22	14.8	125	-24.5	6.0	56	3.394	.107	51	4.775	.128	51	316	2.5	51
38	1	4.6	21	13.9	124	-27.0	5.9	58	3.883	.125	52	5.518	.164	52	314	2.9	52
37	2	4.7	20	13.5	123	-29.2	5.7	59	4.462	.139	53	6.392	.183	53	313	3.1	53
36	3	5.1	18	11.9	123	-31.6	5.2	59	5.140	.153	53	7.432	.183	53	311	3.0	53
35	4	4.8	15	11.1	123	-33.4	5.1	59	5.915	.167	53	8.604	.204	53	310	3.1	53
34	3	4.6	13	10.7	120	-35.6	5.3	59	6.820	.183	53	10.012	.236	53	309	3.2	53
33	3	4.1	10	9.8	120	-37.9	4.5	58	7.879	.197	52	11.685	.252	52	307	2.5	52
32	2	3.7	9	9.0	119	-40.2	4.3	58	9.111	.206	52	13.644	.273	52	306	2.6	52
31	1	3.4	7	8.4	117	-42.6	4.0	58	10.559	.224	52	15.983	.246	52	304	2.4	52
30	0	3.0	6	7.9	115	-44.2	4.0	57	12.244	.245	52	18.568	.303	52	303	2.4	52

Table 193. Wind Components and Thermodynamic Data, Point Mugu, California: November

HEIGHT IS IN KILOMETERS ABOVE SEA LEVEL
THE WIND COMPONENTS AND SPEED OF SOUND ARE IN M/SEC
TEMPERATURE IS IN DEGREES CELSIUS
DENSITY IS IN GRAMS PER CU METER
THE M COLUMN IS THE MEAN COLUMN, THE S COLUMN IS THE STANDARD DEVIATION COLUMN
AND THE N COLUMN IS THE NUMBER OF VALUES FOR THE M AND S.

1961 THROUGH 1968

HT	-N+S		-E+W			TEMP			PRESSURE			DENSITY			SPEED OF SOUND		
	M	S	M	S	N	M	S	N	M	S	N	M	S	N	M	S	N
68	1	.0	65	.0	1	-5.5	0	1	.069	0	1	.091	0	1	328	0	1
67	3	.0	65	.0	1	-3.0	0	1	.079	0	1	.102	0	1	330	0	1
66	1	3.2	65	.6	2	-3.6	0	1	.090	0	1	.116	0	1	329	0	1
65	8	7.7	58	12.3	4	-2.7	2.6	3	.108	.005	3	.139	.005	3	330	1.5	3
64	2	8.5	52	18.1	6	-4.2	3.7	3	.124	.006	3	.161	.006	3	329	2.3	3
63	-2	9.5	57	24.6	12	-5.3	3.0	7	.144	.008	7	.187	.010	7	328	1.9	7
62	0	9.8	58	22.1	17	-5.9	3.3	12	.164	.007	12	.215	.010	12	328	2.0	12
61	4	15.5	61	22.4	19	-6.6	4.5	17	.186	.009	17	.246	.013	17	327	2.9	17
60	6	18.7	63	22.4	22	-7.6	4.3	22	.211	.011	22	.279	.015	22	327	2.7	22
59	6	17.5	65	22.4	24	-7.6	4.4	26	.241	.012	26	.319	.017	26	327	2.7	26
58	9	15.5	68	21.5	33	-7.0	4.1	28	.276	.014	28	.363	.020	28	327	2.6	28
57	9	14.6	67	22.5	43	-7.5	4.7	32	.316	.034	32	.418	.049	32	327	2.9	32
56	9	12.8	66	21.3	56	-7.6	4.6	36	.362	.057	36	.479	.083	36	327	2.9	36
55	10	12.3	66	20.7	65	-7.7	6.2	42	.411	.076	41	.546	.113	41	326	3.1	41
54	10	11.3	64	20.5	71	-7.8	5.7	45	.466	.096	44	.622	.142	44	326	2.8	44
53	9	11.1	63	20.8	77	-6.7	5.9	48	.536	.113	47	.708	.167	47	327	3.0	47
52	7	9.9	61	19.6	81	-6.8	5.5	50	.608	.129	49	.804	.192	49	327	2.9	49
51	7	10.4	60	19.6	87	-6.6	5.6	52	.689	.143	51	.911	.214	51	327	3.1	51
50	7	10.4	58	19.8	88	-6.7	5.6	52	.781	.159	51	1.033	.238	51	327	3.1	51
49	5	10.3	56	20.0	89	-7.0	5.7	55	.884	.168	54	1.170	.253	54	327	3.3	54
48	5	10.8	55	20.8	93	-7.5	5.6	55	1.002	.180	54	1.329	.271	54	327	3.3	54
47	3	10.5	52	20.3	93	-9.1	5.6	55	1.139	.189	54	1.519	.286	54	326	3.3	54
46	2	10.2	51	19.8	94	-11.1	5.9	55	1.294	.196	54	1.733	.297	54	324	3.5	54
45	2	9.7	48	19.5	94	-13.4	6.2	56	1.468	.201	54	1.988	.305	54	323	3.7	54
44	1	9.5	46	19.6	94	-15.1	6.1	56	1.667	.202	54	2.270	.307	54	322	3.7	54
43	1	9.4	44	19.9	93	-18.1	5.7	56	1.901	.201	54	2.621	.301	54	320	3.4	54
42	0	9.1	41	20.2	93	-21.0	5.1	57	2.144	.197	55	3.017	.294	55	318	3.1	55
41	1	8.8	39	19.9	93	-23.6	4.5	57	2.470	.188	55	3.476	.286	55	317	2.7	55
40	1	8.9	36	19.6	93	-26.7	4.5	57	2.822	.175	55	4.019	.270	55	315	2.7	55
39	1	8.6	33	19.2	93	-29.2	5.0	57	3.235	.161	55	4.653	.245	55	313	3.2	55
38	2	8.2	30	18.3	92	-31.4	4.7	57	3.707	.145	55	5.377	.219	55	312	3.0	55
37	2	7.5	27	17.6	92	-33.0	4.9	58	4.263	.143	56	6.227	.205	56	311	3.2	56
36	2	7.2	24	17.6	92	-35.1	4.8	58	4.911	.159	56	7.233	.231	56	309	3.1	56
35	2	7.1	21	17.3	92	-37.1	4.7	58	5.671	.175	56	8.424	.278	56	308	3.0	56
34	2	6.7	18	16.4	91	-39.2	4.2	58	6.557	.192	56	9.825	.306	56	307	2.7	56
33	2	6.5	16	15.8	91	-40.7	4.1	57	7.585	.201	55	11.435	.311	55	306	2.7	55
32	1	5.2	14	15.0	91	-42.4	4.2	57	8.781	.218	55	13.339	.327	55	305	2.8	55
31	-0	4.3	12	14.3	90	-44.2	4.0	56	10.190	.233	54	15.602	.351	54	303	2.7	54
30	-1	4.1	10	13.5	86	-46.1	2.9	56	11.825	.258	54	18.256	.356	54	302	2.0	54

Table 194. Wind Components and Thermodynamic Data, Point Mugu, California: December

HEIGHT IS IN KILOMETERS ABOVE SEA LEVEL
THE WIND COMPONENTS AND SPEED OF SOUND ARE IN M/SEC
TEMPERATURE IS IN DEGREES CELSIUS
DENSITY IS IN GRAMS PER CU METER
THE M COLUMN IS THE MEAN COLUMN, THE S COLUMN IS THE STANDARD DEVIATION COLUMN
AND THE N COLUMN IS THE NUMBER OF VALUES FOR THE M AND S

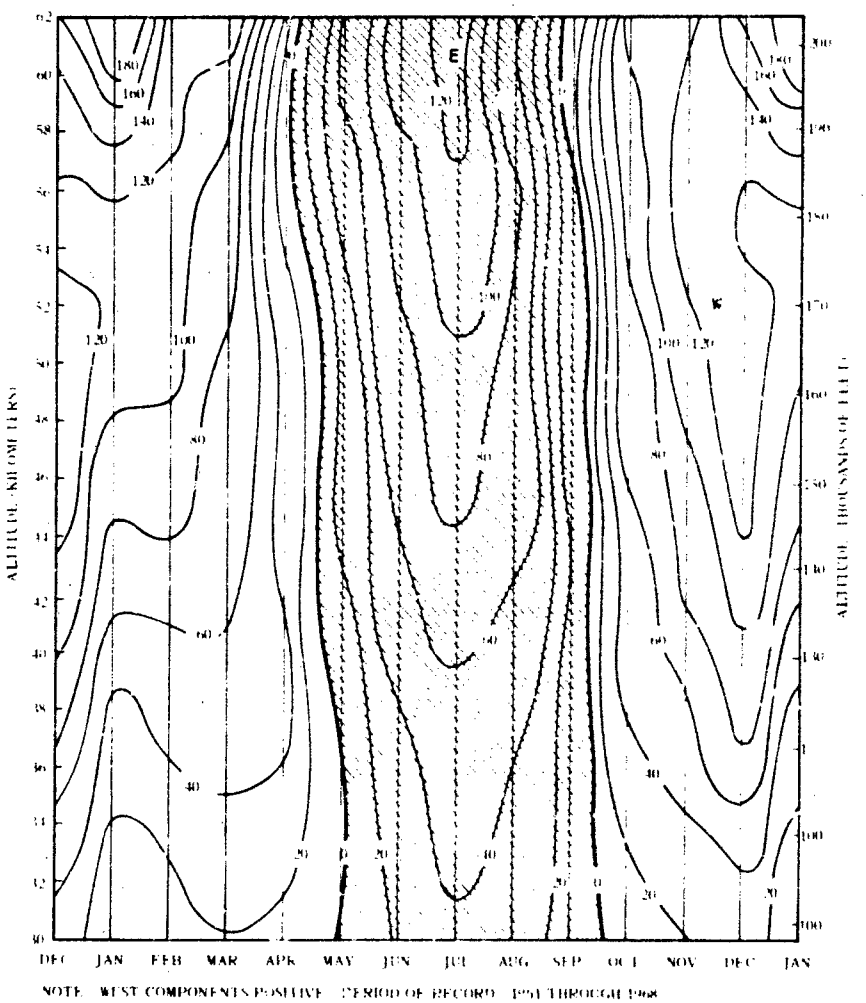
1961 THROUGH 1968

HT	-N-S			-E-W			TEMP			PRESSURE			DENSITY			SPEED OF SOUND		
	M	S		M	S	N	M	S	N	M	S	N	M	S	N	M	S	N
71	37	.0		62	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
70	36	.0		67	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
69	36	.0		72	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
68	34	.0		77	.0	1	0	0	0	0	0	0	0	0	0	0	0	0
67	6	29.5		86	3.0	2	0	0	0	0	0	0	0	0	0	0	0	0
66	5	29.3		90	2.0	2	0	0	0	0	0	0	0	0	0	0	0	0
65	3	27.9		96	.1	2	-14.0	2.7	2	.108	.009	2	.149	.010	2	323	1.5	2
64	7	23.5		99	3.9	3	-15.6	8.1	4	.125	.008	4	.171	.010	4	322	4.9	4
63	4	19.6		100	7.5	4	-13.0	6.6	6	.143	.009	6	.194	.013	6	323	3.9	6
62	12	19.8		87	22.1	6	-10.4	7.4	13	.169	.010	12	.226	.012	12	325	4.5	12
61	17	17.7		80	26.8	7	-10.3	6.2	19	.191	.013	18	.254	.014	18	325	4.0	18
60	15	21.7		73	24.1	10	-11.4	8.6	23	.216	.013	22	.289	.014	22	324	5.5	22
59	11	20.8		69	24.7	14	-10.6	7.9	29	.249	.014	28	.332	.018	28	325	5.0	28
58	16	18.6		65	22.8	22	-8.6	7.3	35	.284	.019	32	.377	.022	32	326	4.7	32
57	14	16.7		64	28.2	32	-7.4	6.5	37	.324	.021	34	.429	.025	34	327	4.2	34
56	14	18.0		60	33.3	38	-6.5	6.4	39	.369	.023	36	.487	.026	36	327	4.0	36
55	13	16.1		60	32.9	46	-5.4	5.8	40	.418	.024	37	.549	.029	37	328	3.6	37
54	15	16.5		60	32.7	53	-4.7	5.7	41	.474	.026	38	.619	.032	38	328	3.5	38
53	16	16.6		62	31.8	58	-4.0	6.0	43	.535	.029	39	.697	.038	39	329	3.7	39
52	15	17.0		64	30.6	64	-2.6	6.2	43	.605	.032	40	.786	.042	40	330	3.7	40
51	14	16.6		66	30.8	71	-1.9	6.4	43	.685	.036	40	.888	.048	40	330	3.8	40
50	12	16.1		67	30.5	74	-1.4	6.2	42	.777	.039	40	1.004	.051	40	330	3.7	40
49	11	16.5		68	30.0	77	-1.8	6.7	43	.875	.042	42	1.132	.051	42	330	5.9	42
48	11	16.0		67	28.7	79	-1.8	7.5	44	.990	.045	43	1.279	.056	43	330	6.3	43
47	10	15.9		65	27.5	79	-1.8	8.6	44	1.122	.049	43	1.450	.064	43	330	6.9	43
46	10	16.9		64	26.2	80	-1.7	9.6	45	1.272	.052	44	1.644	.077	44	330	7.2	44
45	10	16.9		63	26.2	82	-2.7	9.8	46	1.442	.059	45	1.873	.092	45	329	7.1	45
44	9	16.3		62	25.8	84	-5.1	9.0	48	1.637	.066	47	2.146	.101	47	328	6.6	47
43	8	15.2		59	25.2	84	-7.8	8.5	47	1.860	.074	47	2.464	.111	47	326	6.2	47
42	6	14.3		56	24.0	84	-11.4	7.2	48	2.114	.085	48	2.837	.121	48	324	5.1	48
41	5	13.9		53	22.8	84	-15.0	5.8	49	2.406	.086	49	3.274	.136	49	322	4.8	49
40	4	13.2		51	21.9	85	-19.3	5.6	50	2.735	.098	50	3.782	.151	50	319	4.5	50
39	3	13.1		48	20.9	85	-23.6	7.0	51	3.124	.118	51	4.411	.175	51	317	4.6	51
38	3	12.5		44	19.8	85	-27.3	7.8	51	3.583	.155	51	5.142	.216	51	314	5.2	51
37	3	11.6		41	19.1	85	-30.6	7.7	51	4.129	.132	51	5.992	.246	51	312	5.1	51
36	3	11.3		36	18.1	85	-34.5	7.3	51	4.763	.136	51	7.009	.259	51	309	4.9	51
35	2	11.1		31	18.0	85	-37.6	6.7	51	5.499	.138	51	8.193	.267	51	308	4.5	51
34	1	10.8		27	18.0	84	-40.5	6.2	51	6.351	.152	51	9.568	.312	51	306	4.2	51
33	0	10.0		22	17.3	82	-42.9	5.2	51	7.363	.161	51	11.220	.348	51	304	3.6	51
32	-0	9.0		18	16.4	81	-45.2	5.0	51	8.532	.192	51	13.129	.395	51	303	3.6	51
31	-1	8.0		15	16.0	81	-46.1	4.6	51	9.915	.223	51	15.323	.456	51	302	3.7	51
30	-2	7.0		14	15.2	80	-47.6	4.3	51	11.529	.256	51	17.923	.491	51	301	3.7	51

MEAN WIND COMPONENT TIME SECTIONS

Figure 35 presents vertical time sections of the mean zonal and meridional wind components over Point Mugu between 30 and 62 kilometers (98,000 to 203,000 feet) for each month of the year from data extracted from the tables in the preceding section.

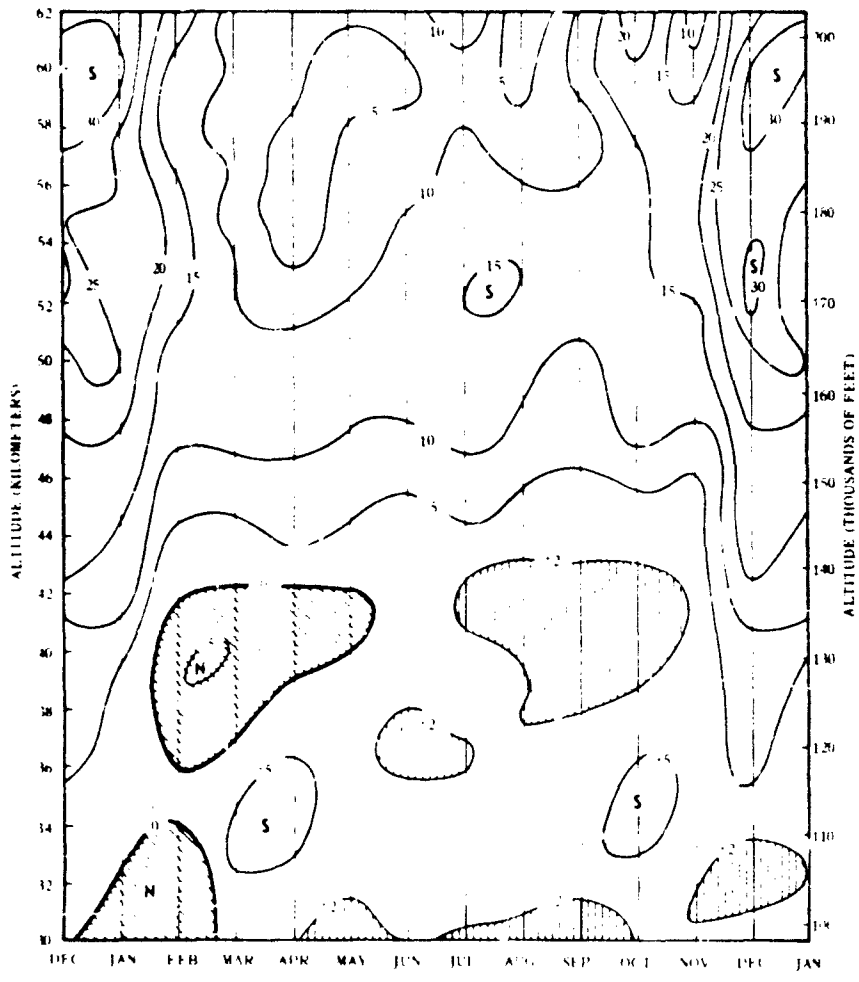
The zonal wind pattern, figure 35 (a), exhibits a striking seasonal shift from strong easterlies in the summer months to stronger westerlies in the winter months. The spring reversal, the transition from westerlies to easterlies, appears in these data first at the high altitudes in April and works its way downward to appear in the lower altitudes in May. The fall reversal, returning to the westerly flow, occurs generally in September. Both the easterlies and westerlies are stronger at the higher altitudes than in the lower regions. The meridional wind component [figure 35 (b)] is generally quite light when compared to the zonal component. Overall, the meridional component is mostly southerly at speeds of less than 10 knots.



NOTE: WEST COMPONENTS POSITIVE. PERIOD OF RECORD: 1951 THROUGH 1968

(a) Zonal Wind Component.

Figure 35. Mean Monthly Wind Components, Point Mugu, California.



(b) Meridional Wind Component

Figure 35 Concluded

A more detailed look at the mean zonal wind speeds during the transition periods is provided by figure 36. Here 5-day mean zonal speeds have been computed for the 30-, 40-, and 50-kilometer zonal components (98,000, 131,000, and 164,000 feet) at Point Mugu. The spring reversal is seen to occur at 50 kilometers very near the end of April, at 40 kilometers some 10 days later, and 5 days after that at 30 kilometers. The process is completed in about 15 days. The fall reversal at 50 kilometers tends to occur near 20 September, at 40 kilometers about 5 days later, and near 1 October at 30 kilometers. This reversal becomes complete in about 12 days.

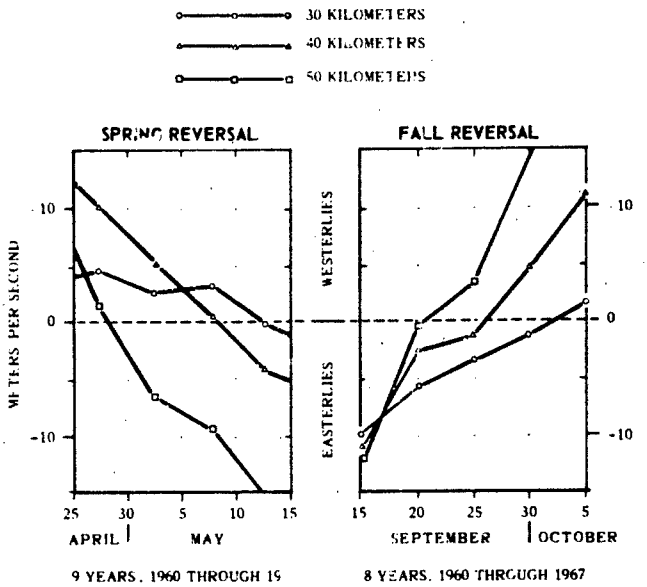


Figure 36. Five-Day Mean Values of Zonal Wind Speed for Altitudes of 30, 40, and 50 Kilometers at the Spring and Fall Transitions.

MEAN TEMPERATURE TIME SECTION

Mean temperature data from tables 183 through 194 are presented in a time section for the altitude range of 30 to 62 kilometers (figure 37). The temperatures are seen to increase with altitude through the upper portions of the stratosphere and are generally warmer at a given altitude in summer than in the other seasons. The stratopause is apparent near 48 kilometers (157,000 feet), above which the temperatures begin a slow increase in the mesosphere. Note that the data from the temperature sensors in the rocketsonde packages used in this period are of somewhat uncertain accuracy at altitudes above about 55 kilometers (180,000 feet) and so caution is advised in applications of data above that altitude.

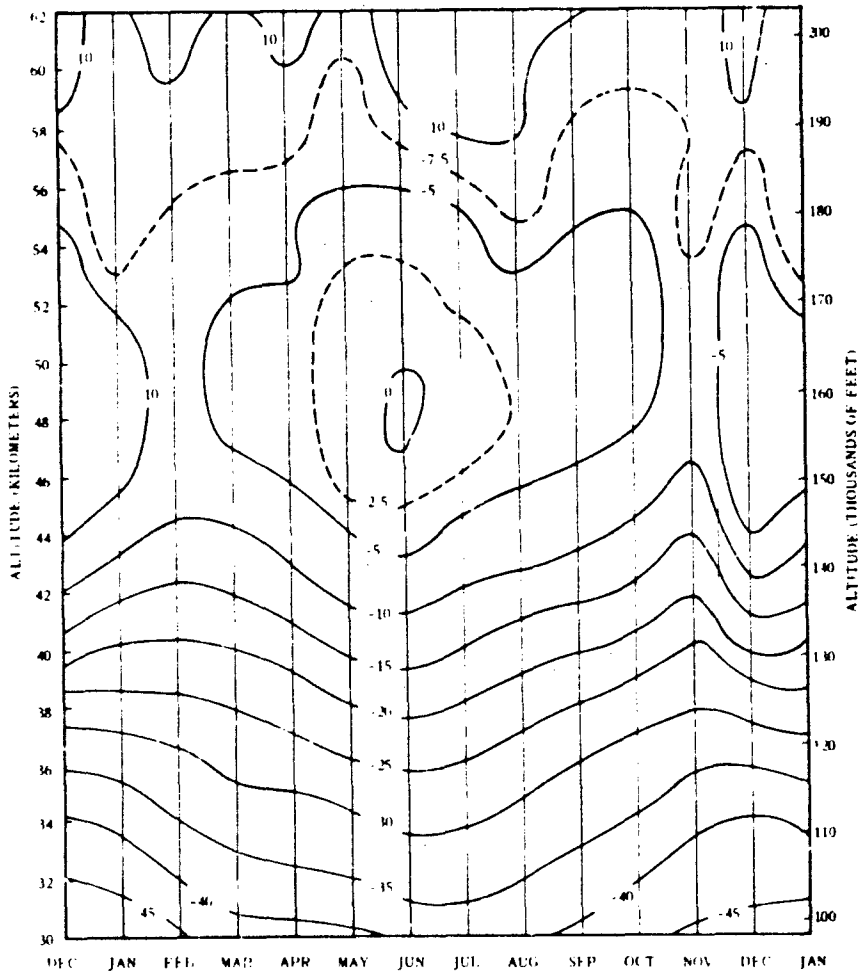


Figure 37. Mean Monthly High-Altitude Temperatures, Point Mugu, California.

MEAN TEMPERATURE PROFILES

The mean January and July temperature data were used in preparing the temperature profiles shown in figure 38. These are compared with both the Standard Atmosphere profile (reference 10) and the appropriate 30° N Supplemental Atmosphere profile (reference 12).

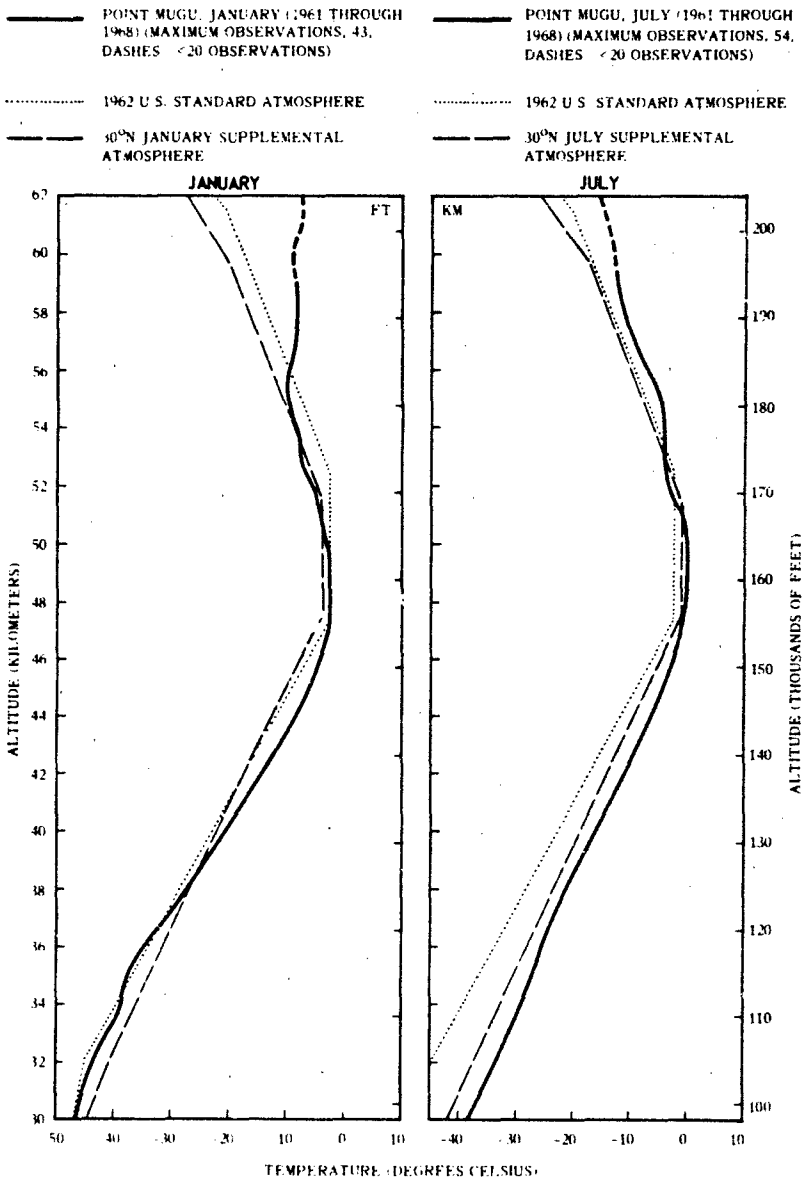


Figure 38. Mean Temperature Profile Comparison, Point Mugu, California.

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APPENDIX A

A PRELIMINARY SUMMARY OF BALLOON-BORNE OZONESONDE DATA FOR POINT MUGU

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INTRODUCTION

Measurements of atmospheric ozone at Point Mugu were made during three periods between May 1965 and February 1972. In this time span, 108 valid sets of data were obtained, using two different types of balloon-borne sensor. In the first two periods, May to December 1965 and June 1966 to September 1967, the chemiluminescent sensor of Regener (references A-1 and A-2) was used. The electrochemical concentration cell instrument developed by Komhyr (references A-3 and A-4) was used in the third period, April 1970 to February 1972.

The number of soundings by month, year, and type of sonde is given in table A-1. Discussions of the characteristics of the two types of ozonesondes may be found in references A-5, A-6, and A-7. Articles concerning ozone distributions and its variation with altitude, latitude, and season, as well as the role of ozone in the atmosphere are included in references A-8, A-9, and A-10.

Table A-1. Distribution of Ozone Sounding Data by Month at Point Mugu

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	Type of Sonde
1965						3	2		2	6	4	3	20	
1966						4	2	2	4	6	5	6	29	
1967	2	5	5	3	4			4	1				24	
													73	Regener
1970				2	3	2						4	11	
1971	6	4	4	4	2								20	
1972	2	2											4	
													35	Komhyr
Totals	10	11	9	9	9	9	4	6	7	12	9	13	108	

POINT MUGU OZONE DISTRIBUTION CHARACTERISTICS

A number of papers have been written on the vertical distribution of ozone at specific locations (e.g., references A-11, A-12, and A-13) and, in the great majority of these, the area of interest has been the primary ozone maximum that occurs between about 20 and 25 kilometers above the surface. During the series of ozone soundings made at Point Mugu, it was noted that there was often a strong peak at low altitudes, generally below 3 kilometers. As far as is known, this was one of the first series of ozonesonde observations made near a major pollution source. This low-level peak became the subject of a paper by D. A. Lea (reference A-14) which discussed the subtropical inversion as a probable reservoir of ozone generated in the Los Angeles basin.

DATA PRESENTATIONS

These 108 soundings have been summarized by month, season, and year, with values interpolated for each kilometer from the surface to 35 kilometers. The envelope of the monthly profiles of mean ozone pressure is shown in figure A-1.

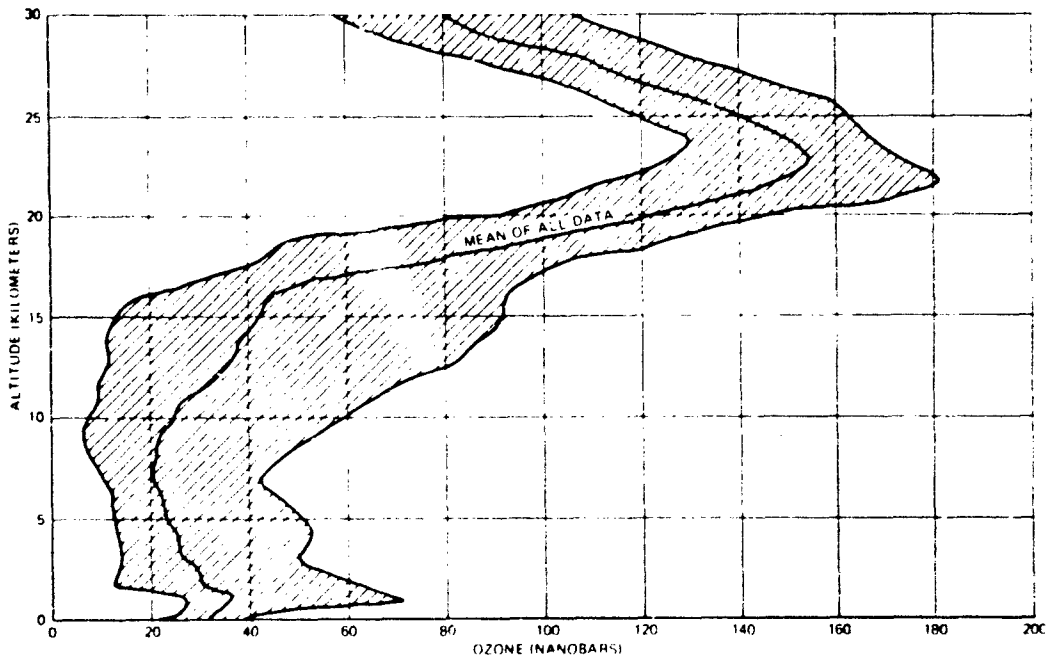


Figure A-1. Envelope of Mean Monthly Ozone Pressures at Point Mugu. Data Interpolated at 1-Kilometer Intervals (108 Soundings)

Figures A-2 and A-3 have been prepared from data interpolated at 250-meter intervals. This interval approximates the height difference between the successive 1-minute readings used as input data points for the original data reduction. The low-level ozone peak is shown in figure A-2 and the major maximum is seen in figure A-3. Table A-2 lists monthly values of ozone pressure density at the level of the principal ozone maximum. In both figures, the outer curves depict the envelope encompassing the extremes of ozone pressure at each level, based on the mean monthly data.

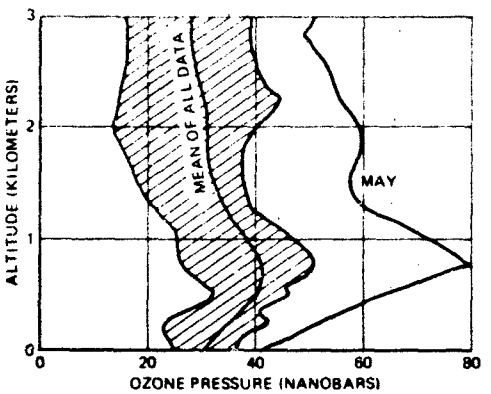


Figure A-2. Envelope of Mean Monthly Ozone Pressure at Low Levels (0 to 3 Kilometers). Data interpolated at 250-meter intervals.

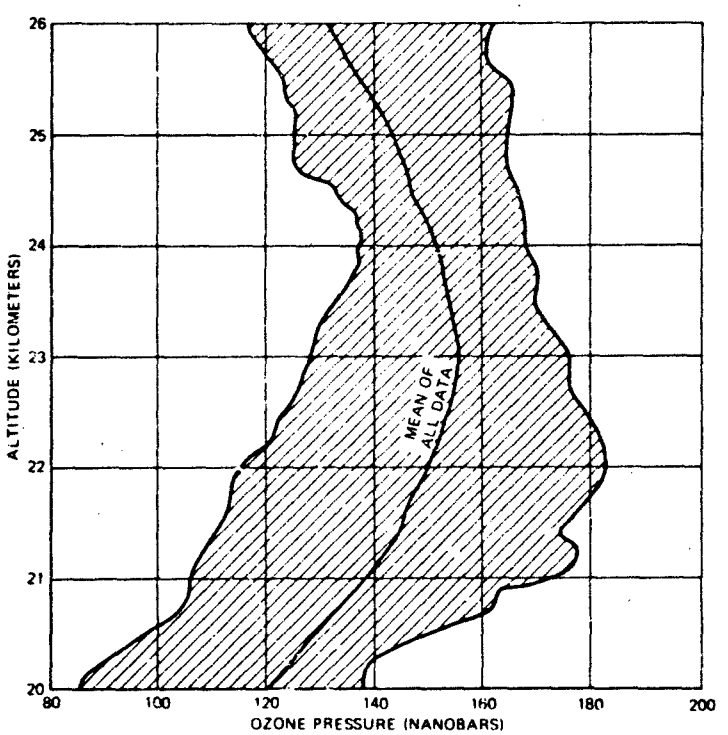


Figure A-3. Envelope of Mean Monthly Ozone Pressure in the Region of Primary Ozone Maximum (20 to 26 Kilometers). Data interpolated at 250-meter intervals.

There is one exception to this, however. The low-level mean ozone pressure for May is far greater than for any other month, and that curve is not contained within the envelope of figure A-2. The nine soundings used in computing the mean data for May have been examined and there is no discrepancy apparent in the data that would cause this extreme. Attempts to ascribe this curve to measurements from a single instrument type failed. There were four soundings from the Regener-sonde and five from the Komhyr-sonde, and high ozone values near the surface were measured by both types of sonde. At the higher levels, the May data falls well in line with the mean curves of other months, so there is no reason to consider this lower data as suspect. Thus, there appears to be a tendency for very high concentrations of ozone to occur within the lowest kilometer of the atmosphere in May at Point Mugu.

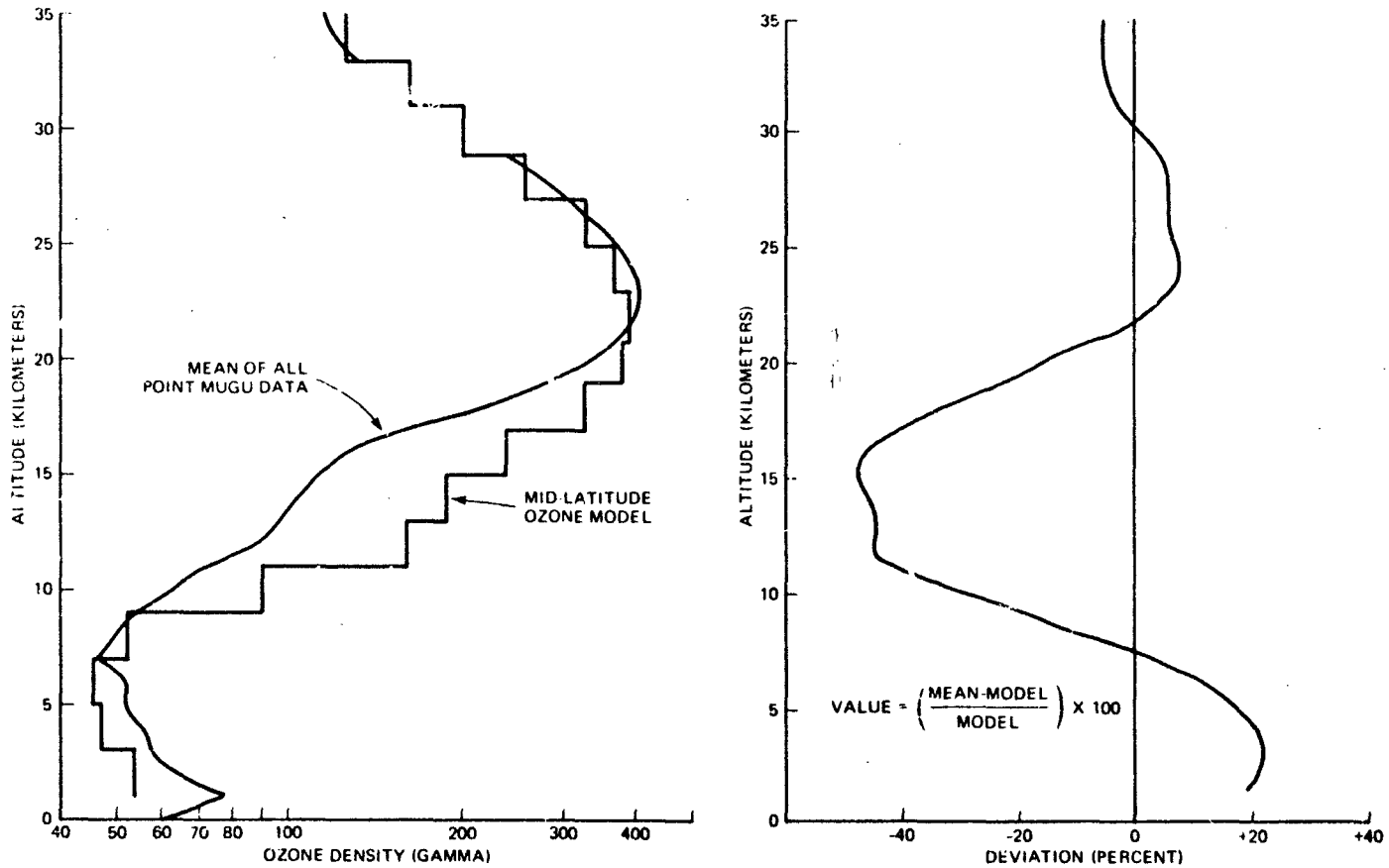
Table A-2. Monthly Average Altitude of Principal Ozone Maximum and Ozone Concentrations, Point Mugu

Month	Altitude (Kilometers)	No. OBS.	Ozone Pressure (Nanobars)	Ozone Density (Gamma)
JAN	23.0	10	167.1	448.0
FEB	21.5	11	168.0	452.1
MAR	22.0	9	181.2	486.5
APR	22.5	8	150.1	395.2
MAY	22.0	8	168.1	443.4
JUN	23.8	7	168.4	435.0
JUL	25.0	3	163.7	419.2
AUG	24.5	6	136.6	351.8
SEP	24.8	7	139.1	359.8
OCT	24.0	12	149.1	389.2
NOV	23.3	9	163.1	434.7
DEC	22.5	11	151.2	405.8
All Data	23.0	102	154.4	408.7

Units: Nanobar = Micromillibar
Gamma = Microgram per cubic meter (to convert to other units of density: 1 atm-cm/km = 0.046729 gamma; molecules/cm^3 = 0.12547 x 10^{17} gamma

OZONE DENSITY

In figure A-4(a), the overall mean ozone density for Point Mugu is plotted. As a comparison, values of ozone density from the Mid-Latitude Ozone Model (reference A-15) are also plotted. The model provides ozone density values at 2-kilometer intervals, based on means computed over 2-kilometer thick strata. Thus it is more appropriate to plot these latter means as a step-function than to draw a smooth curve through the plotted points.



(a) Mean Ozone Density Compared With Mid-Latitude Ozone Model

(b) Deviation of Mean Ozone Density From Mid-Latitude Ozone Model.

Figure A-4. Mean Ozone Density at Point Mugu, California, and the Mid-Latitude Ozone Model.

The low-level peak in the Point Mugu mean ozone density is a result of the subtropical marine inversion that tends to hold the ozone generated in the Los Angeles area. Subsidence from the eastern edge of the Pacific semipermanent high pressure cell is a possible cause of the continued high values of ozone density through the 7-kilometer level.

The large negative difference of the Point Mugu curve from the values of the model near 15 kilometers is probably a reflection of the greater mean height of the tropopause at this latitude (34° N) than at the latitude the model represents (40° N). Note also that, as a result of this latitude difference, the peak value of ozone density is slightly greater and at a higher altitude in the Point Mugu data than in the model. The difference between the Point Mugu data and the Mid-Latitude Model are shown in terms of percent deviation in figure A-4(b).

Tables A-3 through A-7 list the means of the following items as obtained by ozonesonde observations made at Point Mugu, California: ozone pressure, density, mixing, temperature, dew point, and potential temperature.

Table A-3. Mean Ozone Data for Point Mugu, California: Annual

NO. SOUNDINGS -- 108

HT M	OZ PRS MB	OZ DEN GAMMA	OZ MR MICG/G	PRES MB	TEMP K	DEW PT K	POT TMP K	NO. OBS
4	30.4	60.7	.05	1016.8	288.9	283.1	287.5	102
1000	38.3	76.9	.07	903.8	287.3	270.3	295.7	106
2000	31.3	63.9	.06	801.8	283.2	261.9	301.6	106
3000	27.3	57.1	.06	709.7	277.3	255.6	305.9	106
4000	26.0	55.5	.07	626.7	271.2	250.5	310.0	107
5000	23.5	51.5	.07	551.6	264.5	244.9	313.5	107
6000	23.0	51.7	.08	484.0	257.6	239.1	317.0	107
7000	20.3	47.0	.08	423.2	250.3	233.5	320.0	108
8000	21.1	50.3	.09	368.5	242.6	227.7	322.8	108
9000	21.2	52.3	.11	319.3	234.9	221.9	325.6	107
10000	25.7	65.4	.16	275.5	227.7	0	329.3	107
11000	26.8	69.8	.19	236.4	221.6	0	334.7	107
12000	33.5	88.7	.28	202.4	217.6	0	343.7	107
13000	37.2	99.2	.36	172.7	215.2	0	355.5	107
14000	38.5	103.5	.44	147.2	212.9	0	368.2	107
15000	42.6	115.5	.57	125.2	210.5	0	381.2	107
16000	44.8	122.5	.71	106.4	209.1	0	396.8	107
17000	57.1	156.7	1.06	90.3	208.9	0	415.5	107
18000	79.6	217.9	1.74	76.7	210.0	0	437.5	107
19000	101.5	276.5	2.60	65.2	211.6	0	461.8	106
20000	119.8	323.6	3.60	55.5	213.5	0	487.9	105
21000	137.8	369.8	4.85	47.3	215.0	0	514.3	104
22000	148.7	396.3	6.13	40.4	216.6	0	542.2	104
23000	154.4	408.7	7.45	34.5	218.3	0	571.5	102
24000	150.1	394.1	8.44	29.6	219.8	0	601.7	102
25000	142.1	370.6	9.33	25.3	221.4	0	633.5	97
26000	131.5	340.6	10.05	21.8	222.8	0	666.2	95
27000	119.7	307.6	10.62	18.7	224.5	0	700.9	92
28000	107.4	274.0	11.06	16.1	226.0	0	737.1	84
29000	92.7	234.6	11.10	13.8	227.7	0	775.6	74
30000	81.7	205.0	11.39	11.9	229.5	0	816.4	67
31000	70.7	176.0	11.49	10.2	231.4	0	860.2	55
32000	63.0	155.1	11.85	8.8	234.0	0	907.0	46
33000	54.4	133.3	11.90	7.6	235.3	0	951.4	31
34000	49.6	120.4	12.56	6.5	237.3	0	1000.9	22
35000	47.4	114.6	13.86	5.6	238.2	0	1047.4	15

Table A-4. Mean Ozone Data for Point Mugu, California: Winter

NO. SOUNDINGS -- 34

HT M	OZ PRS NB	OZ DEN GAMMA	OZ MR MICG/G	PRES MB	TEMP K	DEW PT K	POT TMP K	NO. OBS
4	31.0	61.8	.05	1019.1	288.0	281.1	286.4	33
1000	33.2	67.3	.06	905.2	28 .5	265.2	292.7	34
2000	29.9	61.7	.06	801.8	279.4	258.3	297.6	34
3000	26.6	56.1	.06	708.6	273.9	253.0	302.3	34
4000	26.2	56.4	.07	625.0	268.3	246.8	307.0	34
5000	23.8	52.5	.07	549.4	261.8	239.7	310.7	34
6000	21.4	48.6	.07	481.5	254.7	235.1	314.0	34
7000	20.6	48.2	.08	420.4	247.2	230.0	316.8	34
8000	19.2	46.3	.09	365.5	239.3	224.3	319.2	34
9000	18.4	45.9	.10	316.0	231.4	0	321.7	34
10000	22.2	57.1	.14	272.1	223.9	0	325.0	34
11000	22.8	60.0	.16	232.8	218.0	0	330.9	34
12000	31.8	84.6	.27	198.8	215.6	0	342.2	34
13000	35.3	94.6	.35	169.5	214.6	0	356.5	34
14000	37.8	101.9	.44	144.5	213.1	0	370.6	34
15000	44.2	119.8	.60	123.0	211.0	0	384.2	34
16000	45.2	123.5	.72	105.5	209.3	0	399.4	34
17000	58.3	160.2	1.10	88.7	208.5	0	416.9	34
18000	82.4	226.2	1.82	75.3	209.1	0	438.1	34
19000	110.2	302.1	2.87	64.0	210.0	0	461.0	33
20000	126.5	344.4	3.87	54.4	211.6	0	486.5	33
21000	145.1	392.4	5.22	46.3	213.1	0	512.9	33
22000	152.9	411.1	6.45	39.5	214.5	0	540.4	33
23000	160.7	429.6	7.94	33.7	215.9	0	569.2	32
24000	147.2	390.9	8.49	28.8	217.2	0	599.1	32
25000	134.4	355.1	9.06	24.7	218.5	0	630.6	30
26000	119.7	315.4	9.44	21.1	219.1	0	661.2	28
27000	106.9	280.7	9.82	18.0	220.0	0	694.2	27
28000	92.5	240.7	9.89	15.5	222.0	0	732.1	26
29000	76.0	195.9	9.46	13.3	224.0	0	772.1	25
30000	66.6	170.4	9.72	11.4	225.5	0	812.3	23
31000	57.0	144.6	9.68	9.8	227.2	0	854.4	22
32000	54.2	136.1	10.73	8.4	229.7	0	902.1	18
33000	46.4	115.2	10.59	7.3	232.0	0	949.8	11
34000	42.6	104.6	11.22	6.3	234.2	0	999.6	9
35000	41.6	101.7	12.03	5.4	235.3	0	1045.4	7

Table A-5. Mean Ozone Data for Point Mugu, California: Spring

NO. SOUNDINGS -- 27

HT M	OZ PRS MB	OZ DEN GAMMA	OZ MR MICG/G	PRES MB	TEMP K	DEW PT K	POT TMP K	NO. OBS
4	34.6	69.3	.06	1016.9	287.3	282.3	285.9	27
1000	48.8	99.1	.09	902.5	282.8	271.0	291.2	27
2000	45.2	92.8	.09	799.2	279.8	259.6	298.3	27
3000	40.1	84.5	.09	706.3	273.9	252.6	302.5	27
4000	39.8	85.6	.11	622.7	268.0	247.3	306.9	27
5000	36.1	79.7	.11	547.4	261.2	243.3	310.3	27
6000	36.1	81.9	.12	479.5	254.6	237.9	314.2	27
7000	31.6	73.7	.13	418.7	247.0	230.6	317.0	27
8000	37.8	91.1	.17	364.1	239.5	223.3	319.8	27
9000	42.0	104.2	.23	314.6	232.1	0	323.2	26
10000	52.0	132.7	.32	271.0	225.5	0	327.7	26
11000	56.2	146.5	.41	232.3	220.0	0	334.0	26
12000	68.8	181.9	.58	198.7	216.8	0	344.4	26
13000	74.5	198.1	.73	169.5	216.1	0	359.1	26
14000	74.1	198.3	.86	144.7	215.2	0	374.1	26
15000	80.5	217.2	1.10	123.4	213.5	0	388.4	26
16000	77.6	209.8	1.23	105.1	212.6	0	405.1	26
17000	77.0	209.5	1.43	89.4	211.7	0	422.3	26
18000	99.1	268.6	2.18	76.1	212.1	0	443.1	26
19000	117.9	319.0	3.04	64.9	212.8	0	465.5	26
20000	131.2	352.3	3.97	55.3	214.5	0	491.1	26
21000	154.0	412.0	5.46	47.1	215.6	0	516.6	26
22000	165.2	439.0	6.83	40.2	217.2	0	544.3	26
23000	160.4	423.6	7.77	34.4	218.7	0	573.4	25
24000	156.3	409.5	8.85	29.5	220.4	0	604.1	25
25000	146.2	380.0	9.66	25.3	222.1	0	636.6	25
26000	135.5	349.4	10.42	21.8	223.8	0	670.1	25
27000	124.8	318.7	11.12	18.7	225.9	0	706.5	25
28000	116.7	296.0	12.07	16.1	227.5	0	742.8	21
29000	103.2	259.8	12.42	13.9	229.3	0	781.5	19
30000	93.7	233.6	13.05	11.9	231.7	0	823.6	19
31000	85.6	210.8	13.84	10.3	235.0	0	871.8	14
32000	75.9	183.9	14.10	9.0	238.9	0	922.9	12
33000	75.2	180.2	16.22	7.7	241.3	0	974.1	7
34000	66.2	157.1	16.50	6.6	243.3	0	1023.7	6
35000	64.8	152.3	18.52	5.8	245.8	0	1077.2	4

Table A-6. Mean Ozone Data for Point Mugu, California. Summer

NO. SOUNDINGS -- 19

HT M	OZ PRS MB	OZ DEN GAMMA	OZ MR MICG/G	PRES MB	TEMP K	DEW PT K	POT TMP K	NO. OBS
4	26.7	53.0	.04	1013.0	290.8	286.9	289.8	17
1000	35.7	69.9	.06	902.2	293.9	277.8	302.7	18
2000	30.4	60.2	.06	803.1	291.0	271.0	309.9	18
3000	25.3	51.4	.06	713.2	284.1	264.4	312.9	18
4000	22.3	46.5	.06	631.3	276.7	259.6	315.6	18
5000	20.6	43.8	.06	557.2	269.6	252.6	318.7	18
6000	20.9	45.7	.07	490.0	262.9	244 0	322.4	18
7000	17.5	39.5	.06	429.4	255.7	237.9	325.6	19
8000	16.6	38.4	.07	374.8	248.6	232.8	329.1	19
9000	15.4	36.9	.08	325.9	241.1	226.6	332.1	19
10000	19.0	46.9	.11	282.2	233.7	222.7	335.5	19
11000	17.2	43.7	.11	243.4	227.2	0	340.3	19
12000	18.7	48.8	.15	209.0	221.4	0	346.4	19
13000	22.8	60.6	.21	178.7	216.2	0	353.7	19
14000	25.0	67.9	.27	152.3	211.8	0	362.8	19
15000	26.0	71.6	.33	129.3	208.1	0	373.4	19
16000	31.4	87.0	.48	109.7	206.7	0	388.8	19
17000	47.5	131.3	.85	92.9	207.9	0	410.0	19
18000	69.9	191.4	1.48	78.9	210.5	0	435.1	19
19000	85.0	229.6	2.10	67.2	213.2	0	461.3	19
20000	108.9	291.0	3.16	57.3	215.9	0	489.0	18
21000	122.8	325.3	4.17	49.9	217.9	0	516.1	17
22000	134.5	353.6	5.34	41.8	219.4	0	543.6	17
23000	144.4	376.0	6.70	35.9	221.6	0	573.8	17
24000	148.5	383.1	8.04	30.8	223.7	0	605.5	17
25000	149.8	383.8	9.43	26.4	225.2	0	636.7	15
26000	144.3	366.8	10.56	22.7	226.9	0	669.7	15
27000	134.3	339.9	11.42	19.5	228.1	0	702.9	15
28000	119.3	299.9	11.78	16.8	229.7	0	730.7	15
29000	107.1	267.8	12.27	14.5	231.0	0	775.0	13
30000	94.4	233.4	12.51	12.5	233.4	0	816.7	12
31000	81.3	198.7	12.44	10.8	236.1	0	861.7	9
32000	70.5	171.7	12.49	9.4	237.2	0	901.5	8
33000	51.4	125.9	10.46	8.1	236.1	0	933.2	4
34000	49.2	121.5	11.76	7.0	234.2	0	969.3	2
35000	43.0	105.5	11.90	6.0	235.9	0	1017.6	2

Table A-7. Mean Ozone Data for Point Mugu, California: Autumn

NO. SOUNDINGS -- 28

HT M	OZ PRS MB	OZ DEN GAMMA	OZ MR MICG/G	PRES MB	TEMP K	DEW PT K	POT TMP K	NO. OBS
4	27.8	55.0	.04	1016.0	290.4	284.0	289.1	25
1000	36.1	71.5	.06	904.5	290.8	271.5	299.3	27
2000	19.9	40.1	.04	803.6	286.1	262.7	304.5	27
3000	16.8	34.6	.04	712.3	280.6	256.6	309.1	27
4000	14.8	31.2	.04	629.6	274.2	252.4	312.9	28
5000	12.9	28.0	.04	554.9	267.6	248.4	316.6	28
6000	13.5	30.1	.04	487.5	260.7	242.4	320.1	28
7000	10.8	24.7	.04	426.8	253.4	237.5	323.1	28
8000	10.2	24.0	.04	372.1	245.5	232.3	325.6	28
9000	9.1	22.3	.04	323.0	237.6	226.3	328.2	28
10000	10.0	25.3	.06	279.1	230.3	0	331.6	28
11000	10.9	28.0	.07	240.0	223.7	0	336.3	28
12000	12.9	34.2	.10	205.5	218.3	0	343.0	28
13000	14.6	39.2	.14	175.5	214.2	0	352.2	28
14000	15.3	41.6	.17	149.4	211.2	0	363.7	28
15000	16.7	45.8	.22	126.9	208.6	0	376.3	28
16000	23.2	64.1	.36	107.7	207.0	0	391.5	28
17000	43.7	120.8	.80	91.3	207.6	0	411.5	28
18000	64.7	178.7	1.39	77.4	208.5	0	433.2	28
19000	87.3	238.6	2.21	65.8	211.1	0	459.5	28
20000	108.4	293.5	3.21	56.0	213.3	0	486.0	28
21000	123.2	331.0	4.28	47.7	215.0	0	512.8	28
22000	137.2	365.3	5.59	40.7	217.0	0	541.5	28
23000	148.0	391.1	7.06	34.8	218.7	0	570.9	28
24000	148.7	390.5	8.28	29.8	219.9	0	600.2	28
25000	142.7	371.9	9.26	25.5	221.7	0	632.1	27
26000	133.1	343.8	10.07	21.9	223.5	0	666.0	27
27000	119.6	306.1	10.50	18.9	225.6	0	701.5	25
28000	108.1	274.7	11.01	16.2	226.9	0	736.6	22
29000	94.4	238.1	11.15	14.0	228.9	0	774.8	17
30000	79.1	198.6	10.88	12.0	229.9	0	813.1	13
31000	70.3	175.6	11.30	10.3	231.3	0	855.1	10
32000	55.7	138.0	10.36	8.8	233.2	0	899.8	8
33000	51.1	125.6	10.85	7.8	235.2	0	941.0	6
34000	42.7	104.4	10.54	6.7	236.8	0	988.7	5
35000	37.8	92.9	10.80	5.7	235.4	0	1024.2	2

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APPENDIX B

A PRELIMINARY SUMMARY OF FALLING SPHERE-MEASURED WIND AND THERMODYNAMIC DATA FROM VIPER METEOROLOGICAL ROCKET FIRINGS AT POINT MUGU

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A PRELIMINARY SUMMARY OF FALLING SPHERE-MEASURED WIND AND THERMODYNAMIC DATA FROM VIPER METEOROLOGICAL ROCKET FIRINGS AT POINT MUGU

INTRODUCTION

From the autumn of 1969 through mid-1972, 45 Viper rocket firings at Point Mugu produced usable meteorological data at altitudes between 35 and 90 kilometers. These data have been summarized seasonally and are presented here as preliminary information only. The Viper rocket was supplanted in mid-1972 by the Super Loki system. As the volume of data from this system accrues and as techniques become available to improve the accuracy and reliability of all these high-altitude data, additional and updated summaries will be prepared.

The payload of the Viper rocket is a Dart containing a collapsed 1-meter-diameter mylar sphere (ML-568/AM Robin). The Dart carries this sphere to altitudes of around 120 kilometers (km), at which level the sphere is ejected and inflated by a small amount of gas carried in a capsule within the sphere. Wind data are calculated from the radar track of the falling Robin, while thermodynamic data -density, temperature and pressure -are derived from the Robin's rate of fall. Although the wind data may in some instances be valid though the sphere was not fully inflated, the thermodynamic data are not considered valid if there are indications that the sphere had collapsed or was leaking. In such instances, the thermodynamic data are discarded. Discussions of the Viper-Dart and Robin systems and some of their limitations and problems may be found in publications such as references B-1 through B-5.

FIRINGS

Of the 45 firings that provided usable wind data, 18 also provided usable thermodynamic data. In this presentation, wind data are included from 85 km downward and thermodynamic data from 90 km. The data presentations are terminated at 35 km.

Because there are two main seasons in the wind regime at high altitudes with two minor transition periods between, the individual soundings were examined to determine the temporal extent of the "winter" westerlies and the "summer" easterlies at these heights. The resulting distribution of the soundings is given in table B-1. Table B-2 describes the items listed at each kilometer in tables B-3 through B-6 for each season, the transition, and the combined data.

Table B-1. Distribution of Viper Soundings by Season at Point Mugu

Season	Period	Number Sets of Data	
		Wind	Thermodynamic
Winter	Late September to mid-April	22	8
Summer	Late April to early September	20	10
Transition Soundings	Two in April; One in September	3	0

Table B-2. Items Included in Data Summaries

Wind Data (all speed values in knots, directions in degrees True)	
U(W) and V(S)	The U (east-west) and V (north-south) components of the mean resultant wind vector. The West and South components have the positive sign.
RS	Magnitude of the mean resultant wind vector
RD	Direction of the mean resultant wind vector
WS	Mean scalar wind speed (wind speed without regard to wind direction.)
NW	Number of observations used for the computations at that level
Thermodynamic data	
TK	Mean temperature, Kelvin
*PMB	Mean atmospheric pressure, millibars
*DGM3	Mean density, grams per cubic meter
NT	Number of observations used for the computations at that level

*Although listed to five decimal places, the data should be considered good to only three significant figures.

Graphical presentations of the data for the winter and summer seasons and for the totality of the data are seen in figures B-1 through B-3. In these, the resultant wind speed and direction (RS and RD) are plotted together with the mean scalar wind speed (WS) to provide an indicator of the variability of the wind. (The closer the curves for RS and WS, the greater the constancy of the wind from the resultant direction, RD.) The mean temperature (TK) is plotted in conjunction with a "reference" temperature profile appropriate to the season concerned.

DISCUSSION OF THE DATA

In the region between about 66 and 72 km, there appears to be a "discontinuity" in the wind speed data. This is seen in the profiles as a small, sudden decrease in the wind speed. A similar "jump" appears in the temperature and density data as well. It has been indicated by Masterson, et al (reference B-6), that this may not be real, but rather may have been induced in the data as a reflection of our imperfect knowledge of the dynamics of a falling sphere as it decelerates through the transonic speed range. The Robin sphere is falling at approximately Mach 3 shortly after its ejection from the Dart at about 129 km, and the deceleration to a subsonic fall rate usually occurs near 70 km. It would appear that a smooth curve drawn through this stratum between "good" data above and below might better represent the mean wind and thermodynamic data at these altitudes.

WINTER

In the winter season (table B-3 and figure B-1), resultant wind directions are generally westerly with an indication of southwesterlies in the upper few kilometers. From mean resultant speeds of less than 40 knots in the lowest levels, the speeds increase to over 100 knots in the region of 60 to 67 km before decreasing to less than 20 knots above 80 km. The mean scalar speed is, of course, greater than the resultant speed and in the winter profile can be seen to follow a pattern similar to that of the resultant speed. At most levels in this profile, there is a moderate degree of constancy of the wind direction, but the variability increases in the upper levels.

The mean temperature profile for winter is plotted in comparison with the January 30° North Supplemental Atmosphere profile (reference B-7). Although the mean curve is based on only eight valid sets of data, it lies quite close to the reference curve through the 55-to-77-km range.

Table B-3. Viper Rocket Summary Data for Point Mugu, California: Winter (Late September Through Mid-April).

KM	U(W)	V(S)	RS	RD	WS	NW	TK	PMB	DGM3	NT
90	0	0	0	0	0	0	193	.00186	.00335	6
89	0	0	0	0	0	0	194	.00221	.00395	6
88	0	0	0	0	0	0	195	.00262	.00466	6
87	0	0	0	0	0	0	196	.00310	.00549	6
86	0	0	0	0	0	0	197	.00367	.00644	6
85	14.4	14.7	20.5	224	46	17	199	.00430	.00752	7
84	12.1	14.2	18.6	221	48	17	200	.00508	.00884	7
83	11.6	13.3	17.6	221	49	17	200	.00599	.01040	7
82	13.6	8.2	15.9	239	51	18	199	.00700	.01224	8
81	16.1	6.6	17.4	248	52	18	200	.00827	.01438	8
80	19.9	4.9	20.5	256	54	18	202	.00976	.01685	8
79	25.1	2.9	25.3	263	57	18	203	.01150	.01976	8
78	31.5	.5	31.5	269	61	18	203	.01355	.02328	8
77	38.8	-1.4	38.8	272	65	18	204	.01597	.02741	8
76	46.8	-3.3	46.9	274	70	18	204	.01881	.03224	8
75	56.6	-6.0	56.9	276	76	19	205	.02215	.03774	8
74	65.3	-8.6	65.9	278	84	19	207	.02605	.04398	8
73	73.0	-11.0	73.9	279	93	19	209	.03059	.05116	8
72	80.4	-12.5	81.3	279	100	19	211	.03587	.05936	8
71	89.2	-13.0	90.1	278	107	20	213	.04198	.06862	8
70	91.4	-11.2	92.0	277	105	20	212	.04912	.08099	8
69	91.7	-7.2	91.9	275	101	20	213	.05749	.09356	8
68	93.4	-2.8	93.4	272	100	20	220	.06701	.10547	8
67	100.5	2.6	100.5	269	107	21	225	.07780	.12017	8
66	103.7	2.6	103.7	269	111	21	228	.09012	.13741	8
65	103.7	2.5	103.7	269	110	21	230	.10424	.15705	8
64	99.8	3.9	99.9	268	105	21	237	.12018	.17579	8
63	98.8	5.3	99.0	267	104	21	242	.13807	.19762	8
62	100.0	8.0	100.3	265	105	21	248	.15814	.22104	8
61	99.8	14.8	100.8	262	106	21	251	.18068	.24943	8
60	99.4	19.0	101.2	259	108	22	253	.20626	.28332	8
59	95.8	21.6	98.1	257	104	22	257	.23506	.31761	8
58	91.5	19.5	93.6	258	98	22	254	.26776	.36585	8
57	87.7	16.4	89.2	259	93	22	255	.30524	.41486	8
56	86.0	12.1	86.9	262	91	22	257	.34771	.47026	8
55	84.6	8.3	85.0	264	89	21	256	.39610	.53769	8
54	82.5	10.4	83.2	263	88	21	257	.45106	.60938	8
53	82.3	10.5	82.9	263	90	21	255	.51391	.69998	8
52	84.8	10.0	85.4	263	92	22	255	.58630	.79838	8
51	87.1	10.4	87.8	263	96	22	257	.66743	.90114	8
50	86.5	13.1	87.5	261	96	22	259	.76015	1.01879	8
49	84.3	10.6	84.9	263	92	22	258	.86491	1.16275	8
48	83.1	12.0	84.0	262	89	22	259	.98515	1.32149	8
47	84.0	8.3	84.4	264	90	22	256	1.12133	1.51942	8
46	80.3	7.5	80.7	265	86	22	256	1.27746	1.73363	8
45	76.1	7.9	76.5	264	82	22	256	1.45616	1.97755	8
44	71.4	5.8	71.6	265	79	22	254	1.66090	2.26945	8
43	68.5	6.7	68.9	264	76	22	252	1.89602	2.61469	8
42	63.2	8.9	63.8	262	74	22	248	2.16716	3.02944	8
41	57.9	3.5	58.0	267	74	22	247	2.48336	3.48597	8
40	58.6	2.7	58.7	267	73	22	244	2.84597	4.04763	8
39	47.2	1.7	47.2	268	65	21	246	3.26625	4.61032	8
38	45.6	.5	45.6	269	63	21	241	3.75225	5.41300	8
37	42.5	2.2	42.6	267	58	21	232	4.32310	6.47306	8
36	36.0	4.8	36.3	262	50	21	234	4.92799	7.31683	6
35	34.1	2.5	34.2	266	47	21	233	5.69093	8.47401	6

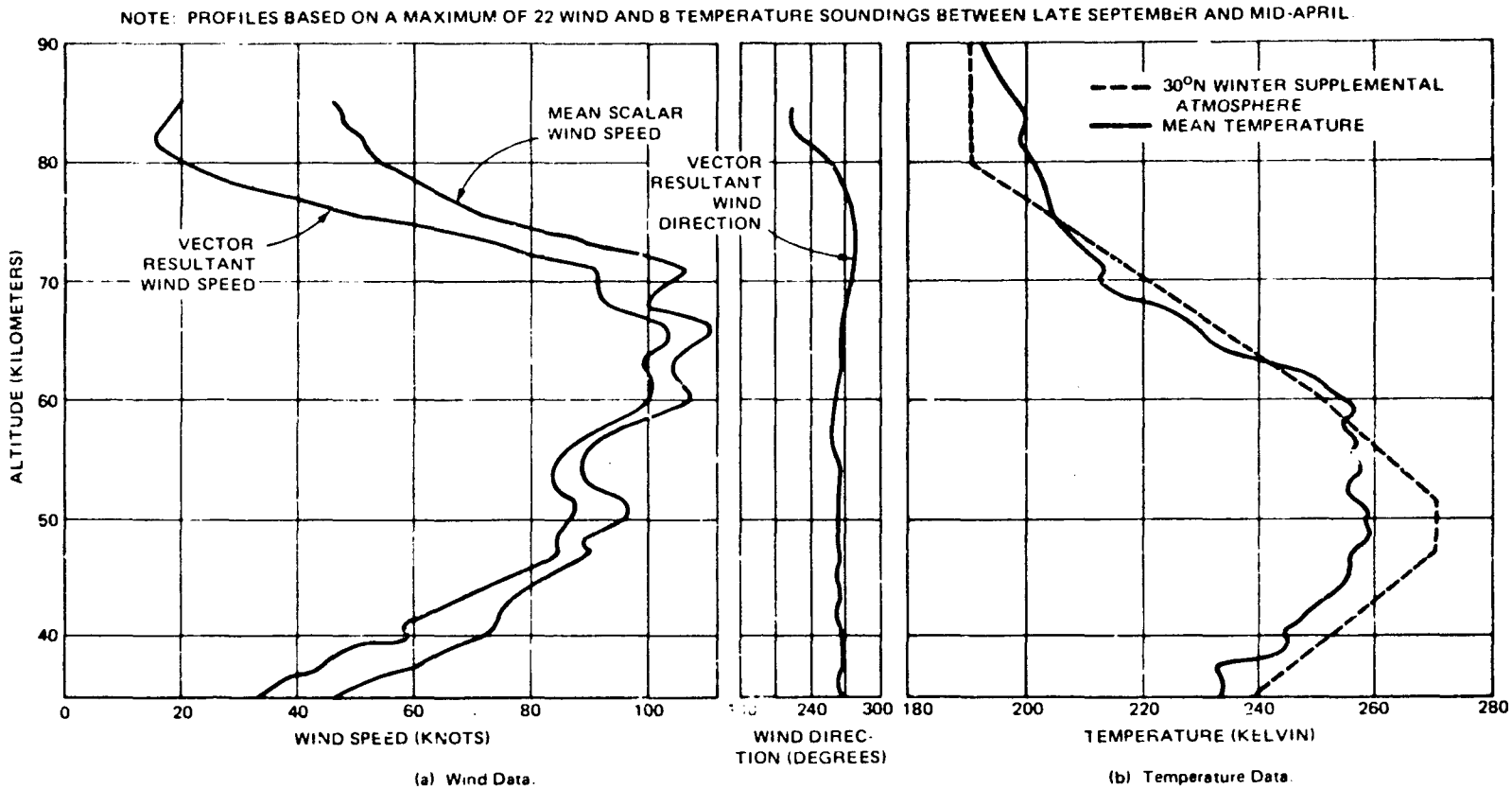

Figure B-1. Falling-Sphere-Measured High-Altitude Winds and Temperatures at Point Mugu, California: Winter.

SUMMER

The summer season easterlies (table B-4 and figure B-2) are readily apparent in the plot of resultant wind directions, with the wind showing a steady easterly direction at all altitudes. The mean wind speeds of summer are lower than in winter at all levels except the very top, and only the mean scalar speed exceeds even 90 knots. The constancy of the wind is much greater in summer than in winter up through about 66 km; above that height the variability increases greatly.

The July 30° North Supplemental Atmosphere temperature profile (reference B-7) is plotted as a comparison for the mean temperature values computed from the ten sets of thermodynamic data for this season. As in the winter temperature profile, there is generally greater agreement in those regions with a definite lapse rate than in the two isothermal regions.

Table B-4. Viper Rocket Summary Data for Point Mugu, California: Summer (Late April Through Early September).

KM	U(W)	V(S)	RS	RD	WS	NW	TK	PMB	DGM3	NT
90	0	0	0	0	0	0	191	.00178	.00323	9
89	0	0	0	0	0	0	189	.00212	.00389	9
88	0	0	0	0	0	0	187	.00253	.00467	9
87	0	0	0	0	0	0	187	.00301	.00558	9
86	0	0	0	0	0	0	188	.00359	.00664	9
85	-6.1	3.2	7.6	115	33	1A	189	.00428	.00788	9
84	-12.8	2.0	13.0	99	34	1A	189	.00510	.00935	9
83	-17.9	.7	17.9	92	35	1A	189	.00607	.01113	9
82	-21.6	-0.7	21.6	88	38	1A	189	.00723	.01324	9
81	-24.5	-2.0	24.6	85	41	1A	190	.00861	.01570	9
80	-26.5	-3.5	26.7	83	45	1A	191	.01024	.01857	9
79	-27.4	-4.7	27.8	80	49	1A	192	.01217	.02199	9
78	-28.0	-5.8	28.6	78	51	1A	192	.01446	.02606	9
77	-27.9	-6.3	28.6	77	53	1A	193	.01717	.03093	9
76	-27.0	-5.8	27.6	78	54	1A	195	.02044	.03645	9
75	-26.1	-3.9	26.4	82	53	1A	198	.02440	.04268	9
74	-25.6	.4	25.6	91	51	1A	201	.02906	.05004	9
73	-26.9	7.7	28.0	106	52	1A	202	.03430	.05892	9
72	-30.7	14.6	34.0	116	58	1A	203	.04040	.06890	9
71	-35.2	16.5	38.8	115	62	1A	202	.04756	.08162	9
70	-39.9	12.4	41.7	107	65	1A	201	.05612	.09678	9
69	-43.6	8.7	44.5	101	64	1A	212	.06592	.10781	9
68	-46.5	10.3	47.6	102	62	1A	218	.07689	.12246	9
67	-47.8	14.9	50.1	107	61	1A	218	.08954	.14229	9
66	-55.9	18.9	59.0	109	65	19	224	.10411	.16121	9
65	-68.1	16.6	70.1	104	76	19	233	.12041	.17889	9
64	-79.8	8.8	80.2	96	89	1A	238	.13763	.20126	8
63	-83.5	7.5	83.8	95	89	1A	243	.15812	.22596	8
62	-87.2	8.3	87.6	95	90	17	246	.18120	.25520	8
61	-88.0	9.1	88.5	96	92	17	251	.20717	.28633	8
60	-87.5	12.8	88.4	98	95	17	254	.23634	.32287	8
59	-87.0	10.4	87.6	97	95	1A	256	.26914	.36496	9
58	-79.5	5.5	79.7	94	86	19	258	.30764	.41431	10
57	-76.6	10.7	77.4	98	80	19	258	.35031	.47158	10
56	-74.7	14.8	76.2	101	78	19	259	.39870	.53371	10
55	-71.1	17.4	73.2	104	75	20	257	.45364	.61399	10
54	-71.4	16.5	73.3	103	76	20	262	.51542	.68269	10
53	-75.7	17.7	77.8	103	80	20	263	.58565	.77363	10
52	-80.2	12.4	81.2	99	83	20	263	.56529	.87830	10
51	-76.5	7.2	76.8	95	79	20	262	.75540	.99973	10
50	-73.0	8.2	73.4	96	76	20	262	.85824	1.13857	10
49	-72.3	7.4	72.7	95	75	20	261	.97640	1.29920	10
48	-71.2	2.5	71.2	92	73	20	262	1.11070	1.47326	10
47	-65.2	4.7	65.3	94	67	20	260	1.26385	1.68977	10
46	-57.8	4.9	58.0	95	60	20	260	1.43788	1.92348	10
45	-60.0	7.6	60.5	97	63	20	261	1.63526	2.18041	10
44	-56.6	5.1	56.8	95	60	20	262	1.86010	2.46306	10
43	-52.1	-1.9	52.2	88	56	20	259	2.11565	2.83571	10
42	-50.9	1.7	50.9	92	53	20	259	2.40861	3.22546	10
41	-44.5	4.2	44.7	95	49	20	256	2.74561	3.72241	10
40	-44.4	1.6	44.4	92	48	20	251	3.13415	4.34597	10
39	-41.5	.3	41.5	90	47	20	249	3.58766	4.99856	10
38	-35.1	-0.4	35.1	89	45	20	248	4.10912	5.75840	10
37	-32.6	-0.7	32.6	89	43	20	242	4.72761	6.78134	9
36	-32.2	1.9	32.3	93	41	20	239	5.43750	7.88837	9
35	-30.8	2.6	31.0	95	37	20	236	6.26730	9.21250	9

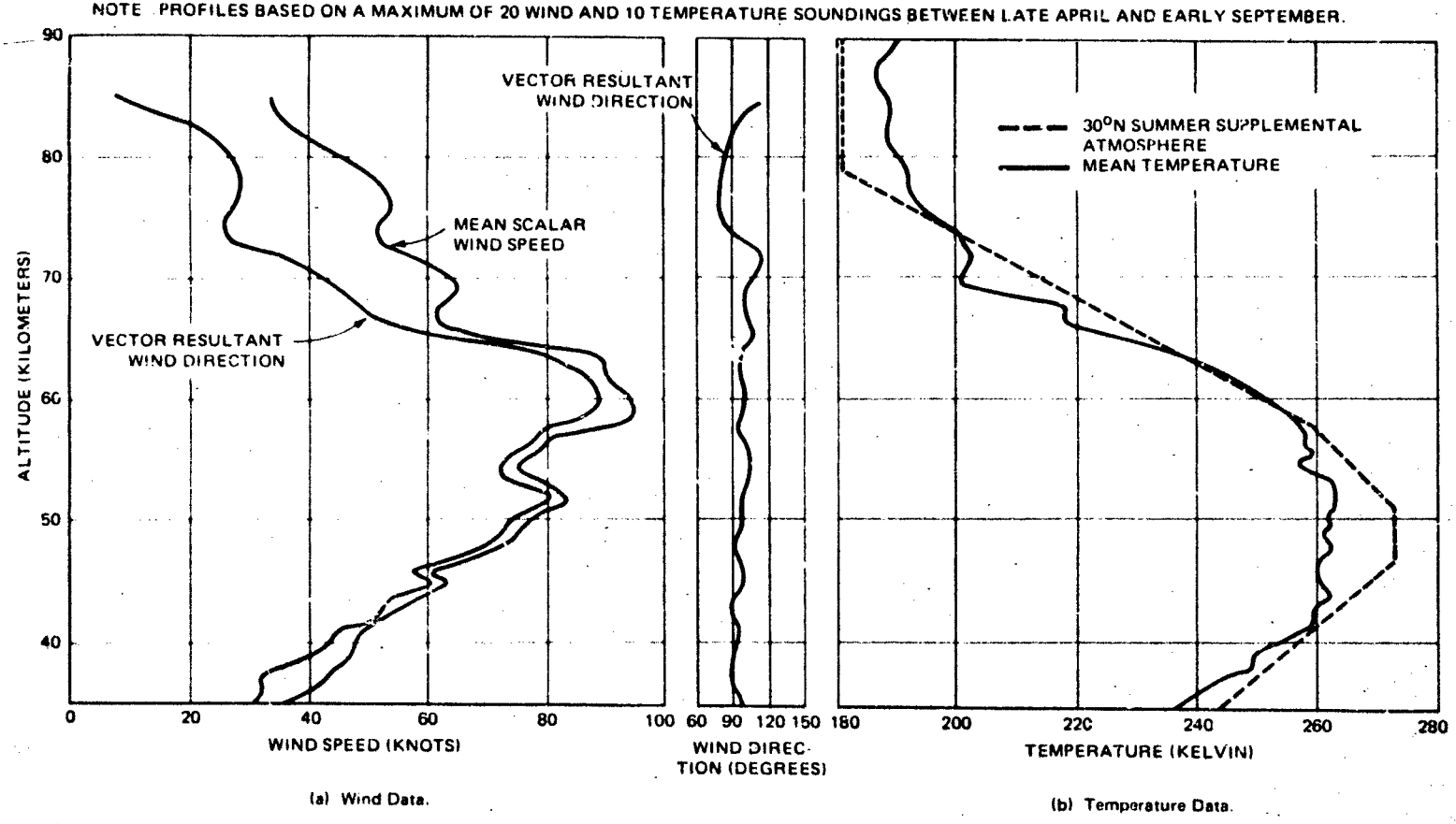

Figure B-2. Falling-Sphere-Measured High-Altitude Winds and Temperatures at Point Mugu, California: Summer.

TRANSITIONS

The three soundings that could be identified as having been made during the brief transition periods between the winter and summer provided wind data only. The means of these are listed in table B-5. The directions of these soundings were quite variable and the mean speeds are mostly under 40 knots.

Table B-5. Viper Rocket Summary Data for Point Mugu, California: Transition (Mid-September and Mid-April).

KM	U(W)	V(S)	RS	RD	WS	NW	TK	PMB	DGM3	NT
90	0	0	0	0	0	0	0	0	0	0
89	0	0	0	0	0	0	0	0	0	0
88	0	0	0	0	0	0	0	0	0	0
87	0	0	0	0	0	0	0	0	0	0
86	0	0	0	0	0	0	0	0	0	0
85	-6.0	41.8	42.2	172	51	2	0	0	0	0
84	-11.3	40.1	41.6	164	50	2	0	0	0	0
83	-16.3	38.0	41.4	157	49	2	0	0	0	0
82	-19.6	35.8	40.8	151	47	2	0	0	0	0
81	-21.4	32.5	38.9	147	44	2	0	0	0	0
80	-20.0	35.5	40.7	151	45	3	0	0	0	0
79	-19.2	31.2	36.6	148	40	3	0	0	0	0
78	-16.5	28.3	32.7	150	37	3	0	0	0	0
77	-12.4	24.9	27.8	154	36	3	0	0	0	0
76	-2.6	19.9	20.1	173	42	3	0	0	0	0
75	10.7	10.9	15.3	224	49	3	0	0	0	0
74	23.9	-1.2	23.9	273	56	3	0	0	0	0
73	37.2	-15.9	40.5	293	61	3	0	0	0	0
72	45.2	-24.8	51.5	299	62	3	0	0	0	0
71	48.7	-16.1	51.3	288	56	3	0	0	0	0
70	42.0	-4.8	42.3	277	47	3	0	0	0	0
69	32.7	10.4	34.3	252	38	3	0	0	0	0
68	23.6	4.3	24.0	260	28	3	0	0	0	0
67	26.5	-10.5	28.5	292	32	3	0	0	0	0
66	30.6	-3.0	30.8	276	41	3	0	0	0	0
65	19.7	16.4	25.7	230	34	3	0	0	0	0
64	1.8	13.4	13.5	188	15	3	0	0	0	0
63	-9.4	1.7	9.5	100	23	3	0	0	0	0
62	-7.9	-3.8	8.8	64	28	3	0	0	0	0
61	10.8	9.0	14.1	230	26	3	0	0	0	0
60	14.2	11.3	16.1	231	32	3	0	0	0	0
59	27.2	11.3	29.5	247	31	3	0	0	0	0
58	26.0	13.4	29.2	243	30	3	0	0	0	0
57	6.0	16.7	17.8	200	24	3	0	0	0	0
56	1.8	18.1	18.2	186	23	3	0	0	0	0
55	-1.8	12.5	12.6	172	17	3	0	0	0	0
54	-0.5	20.6	20.6	179	22	3	0	0	0	0
53	-5.0	9.8	11.0	153	13	3	0	0	0	0
52	-9.7	8.4	12.8	131	17	3	0	0	0	0
51	-1.3	6.4	6.5	168	18	3	0	0	0	0
50	-1.8	4.5	4.8	158	28	3	0	0	0	0
49	9.8	5.1	11.0	242	29	3	0	0	0	0
48	.4	13.2	13.2	182	29	3	0	0	0	0
47	-1.7	5.1	5.3	162	21	3	0	0	0	0
46	-5.0	7.6	9.1	147	17	3	0	0	0	0
45	-5.3	12.4	13.4	157	28	3	0	0	0	0
44	-5.4	4.6	7.1	130	24	3	0	0	0	0
43	7.4	7.2	10.3	225	10	3	0	0	0	0
42	-9.6	8.3	12.7	131	19	3	0	0	0	0
41	-14.2	-5.1	15.1	70	20	3	0	0	0	0
40	-8.2	-19.2	20.9	23	32	3	0	0	0	0
39	2.5	-20.9	21.0	353	33	3	0	0	0	0
38	7.6	-14.4	16.3	332	30	3	0	0	0	0
37	9.2	-5.3	10.6	300	36	3	0	0	0	0
36	8.3	3.4	9.0	248	25	3	0	0	0	0
35	.0	2.1	2.1	181	23	3	0	0	0	0

DATA SUMMATION

The listings of table B-6 and profiles of figure B-3 are based on the total amount of data acquired from the Point Mugu Viper firings—45 wind soundings and 18 sets of thermodynamics.

Between 35 and 70 km, the mean resultant wind has a generally southwesterly direction and a speed that gradually increases from less than 5 knots at 35 km to over 30 knots at 70 km. Above this level, the direction becomes more westerly and northwesterly as the speed decreases to near 0 at 78 km. The highest 7 km of the wind data show a shift in resultant direction to southeasterly and an increase in the resultant speed to 10 knots. The profile of the mean scalar speed shows much higher values than that of the mean resultant speed. The former is generally above 50 knots and has a peak speed of 97 knots at 60 km.

The combined mean temperature data are plotted in comparison with both the January and July 30° North Supplemental Atmospheres. The general tendency of the mean profile is to remain somewhat cooler at most altitudes below 77 km than these reference profiles and to be warmer above that level.

Table B-6. Viper Rocket Summary Data for Point Mugu, California: All Data (October 1969 Through July 1972).

KM	U(W)	V(S)	HS	RD	WS	NW	TK	PMB	DGM3	NT
90	0	0	0	0	0	0	192	.00181	.00328	15
89	0	0	0	0	0	0	191	.00216	.00391	15
88	0	0	0	0	0	0	191	.00256	.00467	15
87	0	0	0	0	0	0	191	.00305	.00554	15
86	0	0	0	0	0	0	191	.00362	.00656	15
85	3.0	10.5	10.9	196	40	37	193	.00429	.00772	16
84	-1.3	9.6	9.7	172	41	37	194	.00509	.00913	16
83	-4.3	8.5	9.5	153	42	37	194	.00604	.01081	16
82	-4.8	5.4	7.2	138	45	38	194	.00712	.01277	17
81	-5.1	3.9	6.4	127	47	38	195	.00845	.01508	17
80	-4.6	3.4	5.7	127	49	39	196	001	.01776	17
79	-2.5	1.6	3.0	122	52	39	197	.01186	.02095	17
78	.3	-0.3	.4	310	55	39	198	.01403	.02475	17
77	4.1	-1.7	4.4	292	57	39	198	.01661	.02928	17
76	8.9	-2.6	9.3	286	61	39	199	.01967	.03447	17
75	15.9	-3.7	16.4	283	64	40	201	.02334	.04036	17
74	21.3	-4.0	21.7	281	67	40	204	.02764	.04719	17
73	25.4	-3.0	25.5	277	72	40	205	.03255	.05527	17
72	27.8	-1.2	27.8	273	78	40	207	.03827	.06441	17
71	31.6	-0.3	31.6	270	84	41	207	.04493	.07550	17
70	30.1	-0.4	30.1	271	83	41	206	.05282	.08935	17
69	28.0	1.1	28.0	268	80	41	213	.06195	.10110	17
68	26.9	3.5	27.1	263	78	41	219	.07224	.11446	17
67	31.7	6.9	32.4	258	82	42	221	.08401	.13188	17
66	28.1	9.4	29.6	251	86	43	226	.09753	.15001	17
65	21.9	9.7	24.0	246	90	43	232	.11280	.16861	17
64	15.8	6.7	17.2	247	92	42	237	.12890	.18853	16
63	13.0	6.0	14.3	245	92	42	243	.14809	.21179	16
62	14.5	7.3	16.2	243	94	41	247	.16967	.23812	16
61	15.4	12.0	19.5	232	95	41	251	.19392	.26788	16
60	17.7	16.0	23.8	228	97	42	253	.22130	.30310	16
59	14.5	16.1	21.7	222	95	43	256	.25310	.34268	17
58	13.2	13.1	18.6	225	88	44	256	.28992	.39277	18
57	11.2	13.9	17.9	219	83	44	257	.33028	.44637	18
56	10.9	13.7	17.5	218	81	44	258	.37604	.50551	18
55	7.9	12.7	15.0	212	78	44	256	.42807	.58008	18
54	6.9	13.8	15.5	207	78	44	260	.48681	.65011	18
53	4.5	13.7	14.5	198	80	44	259	.55377	.74090	18
52	5.2	10.9	12.1	205	83	45	259	.63019	.84278	18
51	8.5	8.7	12.2	224	83	45	260	.71630	.95591	18
50	9.7	10.3	14.2	223	82	45	261	.81465	1.08534	18
49	9.7	8.8	13.1	228	80	45	260	.92685	1.23855	18
48	9.0	7.9	12.0	229	78	45	260	1.05490	1.40581	18
47	12.0	6.5	13.6	242	75	45	258	1.20051	1.61406	18
46	13.2	6.3	14.7	244	70	45	258	1.36658	1.83910	18
45	10.2	8.1	13.0	232	70	45	258	1.55566	2.09025	18
44	9.4	5.4	10.8	240	67	45	259	1.77157	2.37701	18
43	11.0	2.9	11.4	255	64	44	256	2.01804	2.73748	18
42	7.6	5.7	9.5	233	61	45	254	2.30130	3.13834	18
41	7.6	3.2	8.2	247	59	45	252	2.62906	3.61733	18
40	8.4	.8	8.4	265	59	45	248	3.00607	4.21338	18
39	3.8	-0.5	3.8	277	55	44	248	3.44483	4.82601	18
38	6.3	-0.9	6.4	278	53	44	245	3.95051	5.60489	18
37	6.8	.2	6.8	268	51	44	237	4.51529	6.63627	17
36	3.1	3.4	4.6	222	44	44	237	5.23370	7.65975	15
35	2.2	2.5	3.4	222	41	44	235	6.03675	8.91711	15

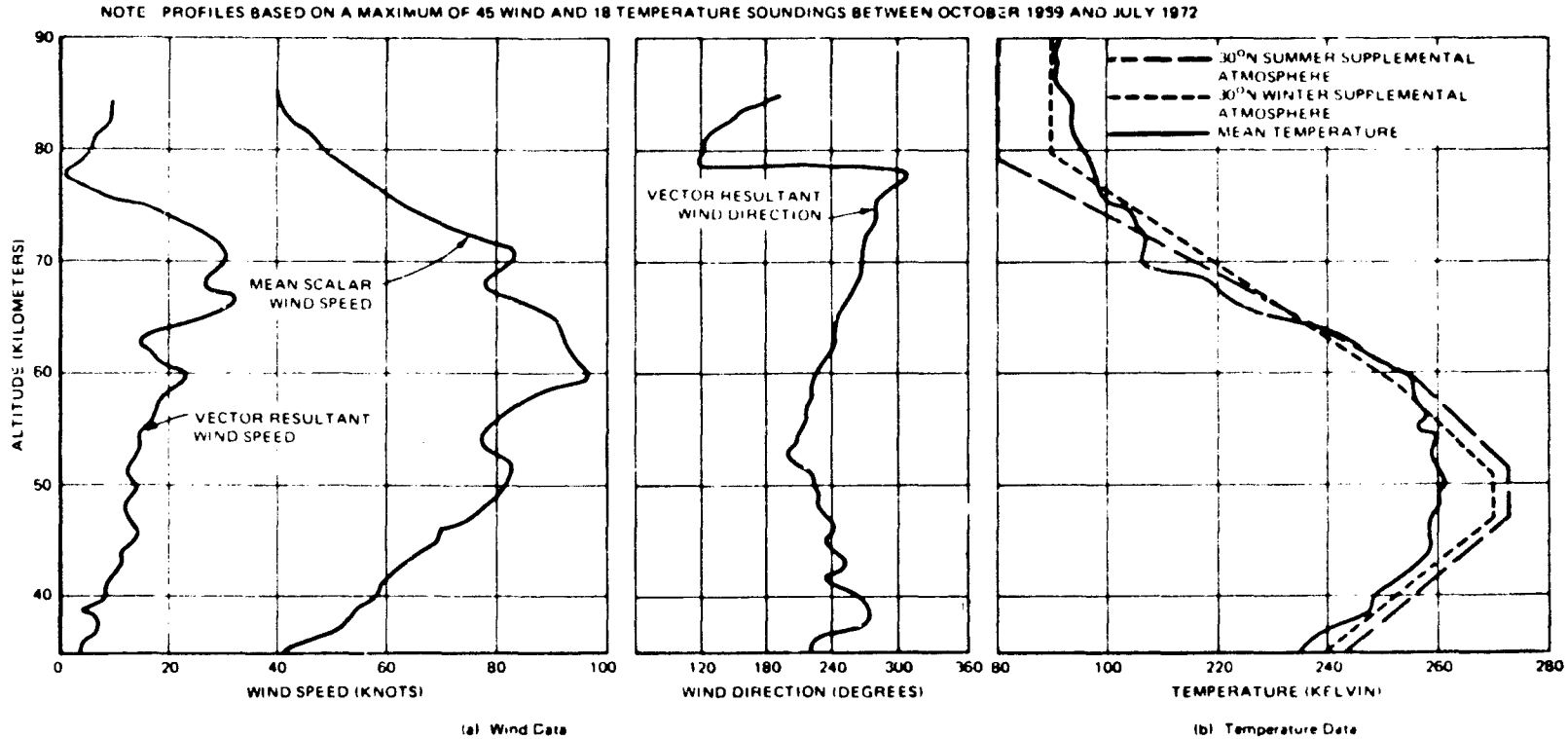

Figure 8-3. Falling-Sphere-Measured High-Altitude Winds and Temperatures at Point Mugu, California: All Data Combined

DENSITY DATA

The fall rate of the Robin sphere is used to compute the atmospheric density. Figure B-4 presents the mean winter (a), summer (b), and annual (c) density data from the Point Mugu \ .per firings. These profiles are drawn in terms of percent deviation from a "reference atmosphere" value of density. The references used are the January and July 30° North Supplemental Atmospheres for the mean winter and summer data, figure B-4(a) and (b), respectively, and the 1962 U.S. Standard Atmosphere (reference B-8) for the mean of all the data (figure B-4(c)).

To aid in the comparison with the Supplemental Atmospheres, an additional profile is provided in figure B-4, (a) and (b) - the percent deviation of the 1962 U.S. Standard Atmosphere density from the Supplemental Atmosphere density for the season concerned. In turn, the deviations of both the Supplementals from the Standard is plotted in figure B-4(c). Note that none of the "reference atmospheres" is completely satisfactory as a representation of the observed densities at *all* levels. However, the deviation of the observed data from these references is in large part less than 5 percent and is seldom greater than 10 percent.

The "zig-zag" occurring in all three data profiles in the 68-to-70-km stratum is again most likely a reflection of the transition of the sphere's fall rate to subsonic speeds. However, no attempt can be made at this time to provide an explanation of the other minor excursions of these profiles from a reasonably smooth curve.

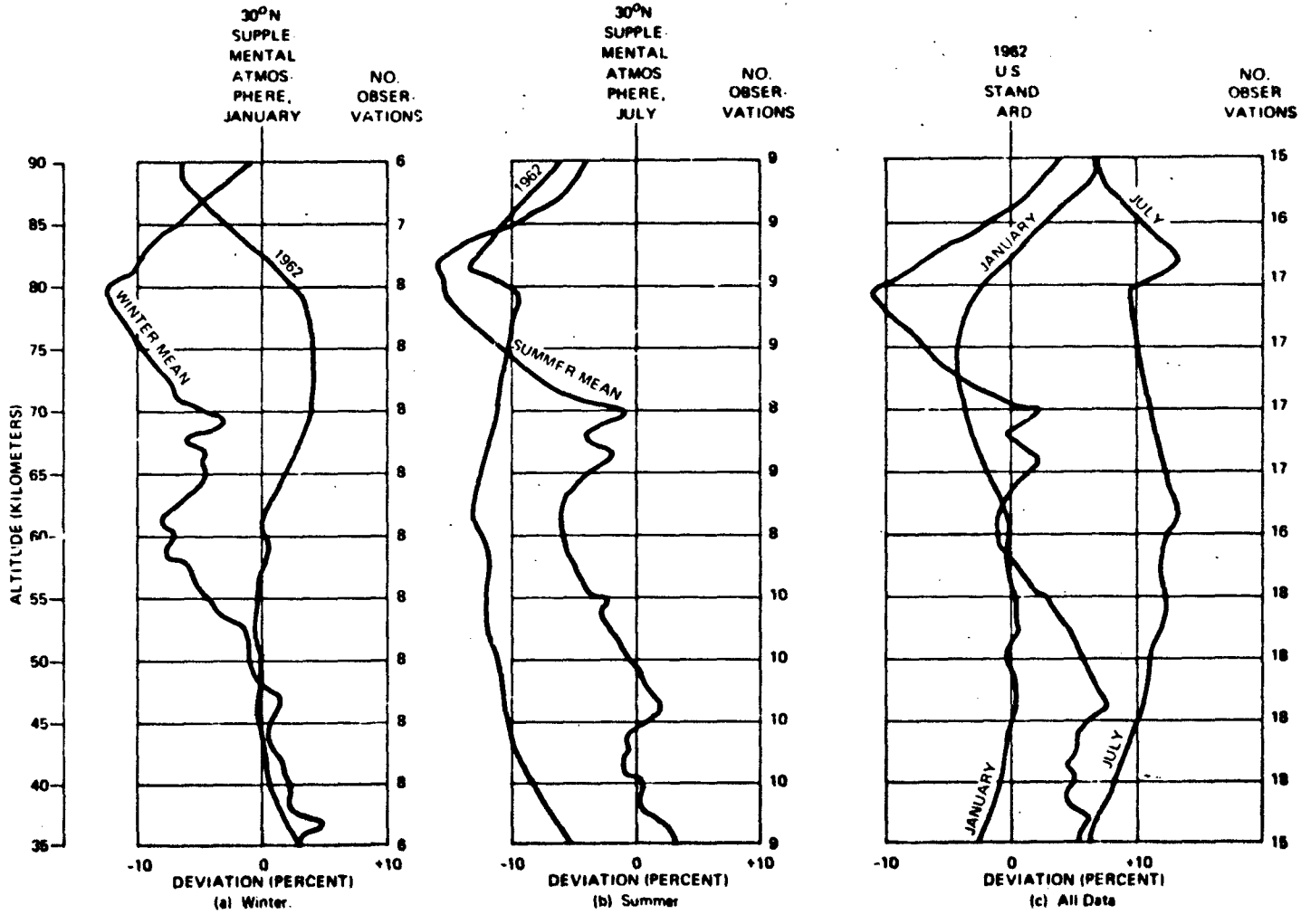

Figure B-4. Deviation From Reference Atmospheres of Density Data at Point Mugu, California.

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APPENDIX C

STANDARD AND SUPPLEMENTAL ATMOSPHERE DATA

APPENDIX C

STANDARD AND SUPPLEMENTAL ATMOSPHERE DATA

The data presented in this appendix have been compiled to provide a ready source for certain of the Standard and Supplemental Atmosphere data published in references C-1 and C-2. These publications should be consulted for details regarding the philosophies and methods used in constructing these model atmospheres.

STANDARD ATMOSPHERE DATA

Temperature, pressure, and density values from sea level to 60 kilometers and to 200,000 feet, based on the U.S. Standard Atmosphere, 1962 (reference C-1) are listed in tables C-1 and C-2, respectively. The tables also provide height conversions between kilometers and feet, and vice versa.

Table C-1. 1962 U.S. Standard Atmosphere Temperature, Pressure, and Density Data, 0 Through 60 Kilometers

Height (Kilometers)	Height (Feet)	Temperature (Degrees Celsius)	Temperature (Degrees Kelvin)	Pressure (Millibars)	Density (Grams Meter^{-3})
0	0	+15.0	288.2	1013.2	1225.0
1	3,281	+8.5	281.7	898.8	1111.7
2	6,562	+2.0	275.2	795.0	1006.6
3	9,843	-4.5	268.7	701.2	909.3
4	13,123	-11.0	262.2	616.6	819.4
5	16,404	-17.5	255.7	540.5	736.4
6	19,685	-24.0	249.2	472.2	660.1
7	22,966	-30.5	242.7	411.1	590.0
8	26,247	-36.9	236.2	356.5	525.8
9	29,528	-43.4	229.7	308.0	467.1
10	32,808	-49.9	223.2	265.0	413.5
11	36,089	-56.4	216.8	227.0	364.8
12	39,370	-56.5	216.7	194.0	311.9
13	42,651	-56.5	216.7	165.8	266.6
14	45,932	-56.5	216.7	141.7	227.9
15	49,213	-56.5	216.7	121.1	194.8
16	52,493	-56.5	216.7	103.5	166.5
17	55,774	-56.5	216.7	88.5	142.3
18	59,055	-56.5	216.7	75.7	121.7
19	62,336	-56.5	216.7	64.7	104.0
20	65,617	-56.5	216.7	55.3	88.9
21	68,898	-55.6	217.6	47.3	75.7
22	72,178	-54.6	218.6	40.5	64.5
23	75,459	-53.6	219.6	34.7	55.0
24	78,740	-52.6	220.6	29.7	46.9
25	82,021	-51.6	221.6	25.5	40.1
26	85,302	-50.6	222.5	21.9	34.3
27	88,583	-49.6	223.5	18.8	29.3
28	91,864	-48.6	224.5	16.2	25.1
29	95,144	-47.6	225.5	13.9	21.5
30	98,425	-46.6	226.5	12.0	18.4
35	114,829	-36.6	236.5	5.75	8.46
40	131,234	-22.8	250.4	2.87	3.99
45	147,638	-9.0	264.2	1.49	1.97
50	164,042	-2.5	270.7	0.798	1.03
55	180,446	-7.6	265.6	0.429	0.561
60	196,850	-17.4	255.8	0.225	0.306

Table C-2. 1962 U.S. Standard Atmosphere Temperature, Pressure, and Density Data, 0 Through 200,000 Feet

Height (Feet)	Height (Kilometers)	Temperature (Degrees Celsius)	Temperature (Degrees Kelvin)	Pressure (Millibars)	Density (Grams/Meter^3)
0	0	+15.0	288.2	1013.2	1225.0
1,000	0.3048	+13.0	286.2	977.2	1189.6
2,000	0.6096	+11.0	284.2	942.1	1154.9
3,000	0.9144	+9.1	282.3	908.1	1121.0
4,000	1.214	+7.1	280.3	875.1	1087.9
5,000	1.524	+5.1	278.3	843.1	1055.6
6,000	1.829	+3.1	276.3	812.0	1024.0
7,000	2.134	+1.1	274.3	781.9	993.1
8,000	2.438	-0.8	272.4	752.7	963.0
9,000	2.743	-2.8	270.4	724.4	933.5
10,000	3.048	-4.8	268.4	696.9	904.8
15,000	4.572	-14.7	258.5	572.1	771.1
20,000	6.096	-24.6	248.6	466.0	653.1
25,000	7.620	-34.5	238.7	376.5	549.5
30,000	9.144	-44.4	228.8	301.5	459.0
35,000	10.668	-54.2	219.0	239.1	380.5
40,000	12.192	-56.5	216.7	188.2	302.7
45,000	13.716	-56.5	216.7	148.2	238.2
50,000	15.240	-56.5	216.7	116.6	187.6
55,000	16.764	-56.5	216.7	91.8	147.7
60,000	18.288	-56.5	216.7	72.3	116.3
65,000	19.812	-56.5	216.7	56.9	92.6
70,000	21.336	-55.2	218.0	44.9	71.7
75,000	22.860	-53.7	219.5	35.4	56.2
80,000	24.384	-52.2	221.0	28.0	44.2
85,000	25.908	-50.7	222.5	22.2	34.8
90,000	27.432	-49.2	224.0	17.6	27.4
95,000	28.956	-47.7	225.5	14.0	21.6
100,000	30.480	-46.2	227.0	11.1	17.1
110,000	33.528	-40.7	232.5	7.10	10.6
120,000	36.576	-32.3	240.9	4.60	6.65
130,000	39.624	-23.8	249.4	3.02	4.22
140,000	42.672	-15.4	257.8	2.01	2.72
150,000	45.720	-7.0	266.2	1.36	1.78
160,000	48.768	-2.5	270.7	0.930	1.20
170,000	51.816	-2.5	270.7	0.637	0.819
180,000	54.864	-7.3	265.9	0.435	0.570
190,000	57.912	-13.3	259.9	0.295	0.395
200,000	60.960	-19.3	253.3	0.198	0.272

SUPPLEMENTAL ATMOSPHERE DATA

To provide depictions of atmospheric conditions at latitudes and seasons other than the mid-latitude, annual, mean conditions represented by the U.S. Standard Atmosphere, the U.S. Standard Atmosphere Supplements, 1966 (reference C-2) was prepared. From this publication, data have been extracted for the 30-degree North, or subtropical, January, and July Supplemental Atmospheres and are presented in tables C-3 and C-4. As in the Standard Atmosphere tables above, these data include temperature, pressure, and density for the same altitude ranges of sea level to 60 kilometers and to 200,000 feet, but for both January and July in each table.

Table C-3. January and July Supplemental Atmospheres, 30 Degrees North, Temperature, Pressure, and Density Data, 0 Through 30 Kilometers

Height (Kilometers)	Temperature (Degrees Celsius)		Temperature (Degrees Kelvin)		Pressure (Millibars)		Density (Grams Meter^3)	
	January	July	January	July	January	July	January	July
0	+14.0	+28.0	287.2	310.2	1021.0	1013.5	1233.0	1159.0
1	+11.0	+20.5	284.2	293.7	906.5	904.6	1107.0	1066.0
2	+8.0	+15.0	281.2	288.2	803.8	805.1	993.4	968.6
3	+1.5	+9.5	274.7	282.7	711.2	714.8	900.5	877.6
4	-5.0	+3.0	268.2	276.2	627.4	633.1	814.2	793.7
5	-11.7	-2.0	261.5	271.2	551.7	55.9	734.0	715.9
6	-18.0	-7.0	255.2	266.2	483.7	492.9	659.9	644.3
7	-24.5	-14.0	248.7	259.2	422.6	433.1	591.6	581.4
8	-31.0	-21.0	242.2	252.2	367.9	379.1	528.8	523.2
9	-37.5	-28.0	235.7	245.2	319.1	330.7	471.3	469.4
10	-44.0	-35.0	229.2	238.2	275.7	287.3	418.7	419.9
11	-50.3	-41.8	222.9	231.4	237.2	248.6	370.7	374.2
12	-56.8	-48.7	216.4	224.4	203.2	214.1	327.0	332.4
13	-59.5	-55.7	213.6	217.5	173.4	183.6	282.8	294.1
14	-62.1	-62.7	211.1	210.5	147.8	156.6	243.9	259.2
15	-64.7	-69.6	208.5	203.5	125.7	132.9	210.1	227.5
16	-67.2	-70.0	205.9	203.2	106.7	112.5	180.5	192.9
17	-69.8	-68.0	203.3	205.2	90.4	95.3	154.9	161.7
18	-70.0	-65.8	203.2	207.4	76.5	80.8	131.2	135.7
19	-67.7	-63.6	205.4	209.6	64.8	68.7	109.9	114.2
20	-65.2	-61.4	207.9	211.8	55.0	58.5	92.1	96.2
21	-62.8	-59.2	210.4	213.9	46.8	49.9	77.4	81.2
22	-60.3	-57.2	212.9	215.9	39.8	42.6	65.2	68.7
23	-58.2	-55.2	214.9	217.9	34.0	36.4	55.1	58.2
24	-56.3	-53.3	216.9	219.9	29.1	31.2	46.7	49.4
25	-54.3	-51.3	218.9	221.9	24.9	26.8	39.6	42.0
26	-52.3	-49.3	220.9	223.9	21.3	23.0	33.7	35.8
27	-50.3	-47.3	222.9	225.9	18.3	19.8	28.6	30.6
28	-48.3	-45.8	224.8	227.8	15.8	17.1	24.4	26.1
29	-46.5	-43.3	226.8	229.8	13.6	14.7	20.8	22.3
30	-44.4	-41.4	228.8	231.8	11.7	12.7	17.8	19.1
35	-33.4	-30.4	239.8	242.8	5.68	6.23	8.25	8.94
40	-21.5	-18.5	251.6	254.6	2.86	3.16	3.96	4.33
45	-9.7	-6.7	263.4	266.4	1.49	1.66	1.97	2.17
50	-4.0	1.0	269.2	272.2	0.794	0.891	1.03	1.14
55	-10.9	-7.9	262.2	265.2	0.423	0.478	0.562	0.628
60	-21.1	-18.4	252.0	254.8	0.221	0.251	0.305	0.344

Table C-4. January and July Supplemental Atmospheres, 30 Degrees North, Temperature, Pressure, and Density Data, 0 Through 200,000 Feet

Height (Thousands of Feet)	Temperature (Degrees Celsius)		Temperature (Degrees Kelvin)		Pressure (Millibars)		Density (Grams/Meter^3)	
	January	July	January	July	January	July	January	July
0	+14.0	+28.0	287.2	310.2	1021.0	1013.5	1233.0	1159.0
1	+13.1	+25.5	286.3	298.7	984.7	979.3	1193.0	1130.0
2	+12.2	+23.9	285.4	297.1	949.8	946.0	1135.0	1102.0
3	+11.3	+21.1	284.5	294.3	916.0	913.6	1117.0	1074.0
4	+10.4	+19.3	283.6	292.5	883.1	881.7	1081.0	1044.0
5	+9.5	+17.6	282.7	290.8	851.3	851.3	1046.0	1014.0
6	+8.6	+16.0	281.8	289.2	810.5	821.5	1012.0	984.8
7	+7.3	+14.3	280.5	287.5	791.0	792.4	980.7	956.0
8	+5.2	+12.6	278.4	285.8	761.9	764.3	951.9	927.8
9	+3.3	+11.0	276.5	284.2	734.1	737.1	923.8	900.3
10	+1.2	+9.2	274.4	282.4	707.0	710.8	896.3	873.3
15	-8.6	+0.9	264.6	274.1	583.1	589.9	767.5	748.4
20	-19.0	-7.7	254.2	265.5	477.4	486.9	653.1	638.1
25	-28.4	-18.2	244.8	255.0	388.1	398.9	552.0	541.8
30	-38.3	-28.7	234.9	244.5	312.5	324.1	463.4	462.0
35	-48.1	-39.4	225.1	233.8	249.4	260.9	386.2	389.0
40	-57.4	-50.1	215.8	223.1	197.1	208.0	318.3	324.9
45	-61.3	-60.7	211.9	212.5	154.7	164.0	254.4	268.8
50	-65.3	-70.0	207.9	203.2	120.9	127.7	202.7	219.0
55	-69.2	-68.4	204.0	204.8	94.0	99.0	160.7	168.5
60	-69.5	-65.2	203.7	208.0	72.9	77.1	124.7	129.1
65	-65.7	-61.8	207.5	211.4	56.7	60.2	95.2	99.3
70	-61.9	-58.6	211.3	214.6	44.3	47.3	73.1	76.7
75	-58.5	-55.5	214.7	217.7	34.8	37.2	56.4	59.6
80	-55.5	-52.5	217.7	220.7	27.4	29.4	43.8	46.4
85	-52.4	-49.4	220.8	223.8	21.6	23.3	34.2	36.3
90	-49.4	-46.4	223.8	226.8	17.1	18.5	26.7	28.5
95	-46.4	-43.4	226.8	229.8	13.6	14.8	20.9	22.4
100	-43.4	-40.4	229.8	232.8	10.9	11.8	16.5	17.7
110	-36.9	-33.9	236.3	239.3	7.00	7.66	10.3	11.1
120	-29.7	-26.7	243.5	246.5	4.62	5.01	6.52	7.08
130	-22.4	-19.4	250.8	253.8	3.01	3.23	4.18	4.56
140	-15.2	-12.2	258.0	261.0	2.00	2.23	2.71	2.98
150	-8.0	-5.0	265.2	268.2	1.36	1.51	1.78	1.97
160	-4.0	-1.0	269.2	272.2	0.926	1.04	1.20	1.33
170	-4.7	-1.7	268.5	271.5	0.633	0.712	0.822	0.914
180	-10.6	-7.6	262.6	265.6	0.431	0.487	0.572	0.638
190	-16.6	-13.6	256.6	259.6	0.290	0.330	0.395	0.442
200	-24.0	-21.9	249.2	251.3	0.194	0.221	0.272	0.307

An additional feature of the Supplemental Atmospheres is the inclusion of mean moisture properties for the first 10 kilometers (33,000 feet) of each model atmosphere of that publication (reference C-1). This listing provides values of the relative humidity and temperature at levels of change in the mean moisture content, and thus permits the compilation of "typical" values of the radar refractive index at these levels. This has been done for the 30-degree North January and July data, and table C-5 presents the resultant data.

Table C-5. Moisture Characteristics of the 30-Degree North Supplemental Atmospheres

Height (Kilometers)	Height (Feet)	Temperature (Degrees Celsius)	Relative Humidity (Percent)	Virtual Temperature (Degrees Celsius)	Pressure (Millibars)	Radar Refractive Index (N-Units)
January						
0.0	0	+14.0	80	+15.4	1021.0	334
1.002	3,287	+11.0	70	+12.1	933.9	298
2.003	6,571	+8.0	50	+8.7	833.5	247
3.006	9,852	+1.5	45	+2.9	710.7	216
4.008	13,149	-5.0	35	-4.8	626.8	189
6.014	19,731	-18.0	30	-17.9	482.8	149
8.021	26,316	-31.0	20	-31.0	366.8	118
10.030	32,907	-44.0	30	-44.0	274.4	93
July						
0.0	0	+28.0	80	+31.4	1013.5	386
1.002	3,287	+20.5	65	+22.4	904.4	307
2.003	6,571	+15.0	60	+16.4	804.8	263
3.006	9,862	+9.5	60	+10.6	714.3	229
4.008	13,149	+4.0	50	+4.7	632.5	197
6.014	19,731	-7.0	40	-6.7	492.0	151
8.021	26,316	-21.0	40	-20.9	378.1	119
10.030	32,907	-35.0	30	-35.0	386.1	94

TEMPERATURE VERSUS ALTITUDE PROFILES

Figure C-1 is a vertical profile of the temperature versus altitude as stated in the three model atmospheres listed above and extending from sea level through the mesopause to 90 kilometers (295,000 feet). A listing of the points of change in slope of the temperature profiles for these atmospheres is given in table C-6.

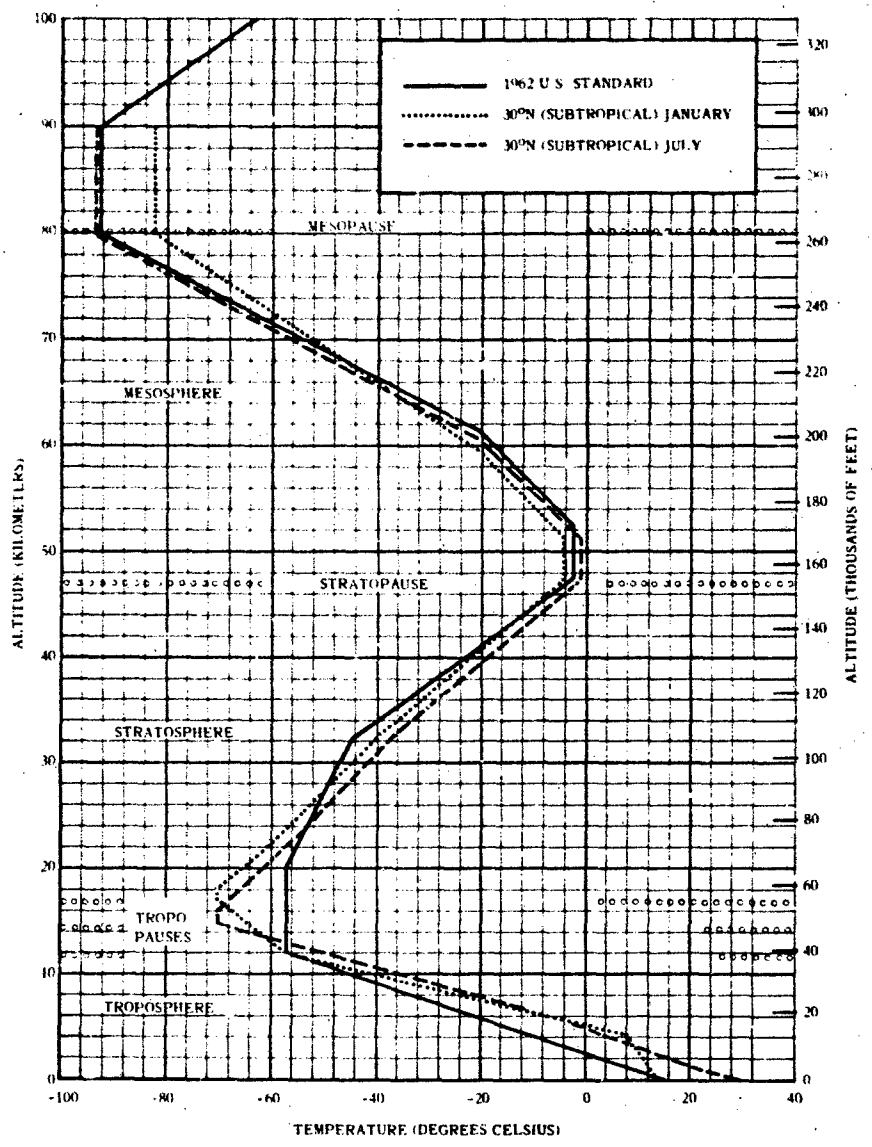

Figure C-1. Standard and Supplemental Atmospheres, Temperature Versus Altitude.

Table C-6. Significant Points of the Temperature Profiles to 90 Kilometers

U. S. Standard Atmosphere			
Height (Kilometers)	Height (Feet)	Temperature (Degrees Celsius)	Temperature (Degrees Kelvin)
0	0	+15.0	288.2
11.019	36,052	-56.5	216.7
20.063	65,823	-56.5	216.7
32.162	105,518	-44.5	228.7
47.350	155,348	-2.5	270.7
52.429	172,011	-2.5	270.7
61.591	202,070	-20.5	252.7
79.994	262,448	-92.5	180.7
90.000	295,276	-92.5	180.7
30-Degree North Supplemental Atmosphere, January			
0	0	+14.0	287.2
2.003	6,571	+8.0	281.2
12.039	39,498	-57.0	216.2
17.069	56,000	-70.0	203.2
18.076	59,304	-70.0	203.2
22.107	72,529	-60.0	213.2
32.206	105,661	-40.0	233.2
47.416	155,562	-4.0	269.2
51.484	168,909	-4.0	269.2
59.636	195,654	-20.0	253.2
80.107	262,815	-82.0	191.2
90.000	295,276	-82.0	191.2
30-Degree North Supplemental Atmosphere, July			
0	0	+28.0	301.2
1.002	3,287	+20.5	293.7
6.014	19,731	-7.0	266.2
15.056	49,396	-70.0	203.2
16.062	52,696	-70.0	203.2
21.099	69,222	-58.7	214.5
32.206	105,661	-37.0	236.2
47.416	155,562	-1.0	272.2
51.484	168,909	-1.0	272.2
59.636	195,654	-17.0	256.2
80.107	262,815	-93.0	180.2
90.000	295,276	-93.0	180.2

REFERENCES

C-1. U.S. Committee on Extension to the Standard Atmosphere. U.S. Standard Atmosphere, 1962. Washington, D.C., GPO, Dec 1962, 279 pp.

C-2. U.S. Committee on Extension to the Standard Atmosphere. U.S. Standard Atmosphere Supplements, 1966. Washington, D.C., GPO, 1967, 289 pp.