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HIGH ALTITUDE DAYTIME SKY BACKGROUND RADIATION  
MEASUREMENT PROGRAM  
PART I. SKY LUMINANCE, POLARIZATION, AND ALBEDO  
DATA  
FROM RESEARCH VEHICLE NO. 1

TECHNICAL DOCUMENTARY NOTE  
NO. AL TDR 64-134, PART I

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Part I

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HIGH ALTITUDE DAYTIME SKY BACKGROUND RADIATION  
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FROM RESEARCH VEHICLE NO. 1

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May 1964

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AF Avionics Laboratory  
Research and Technology Division  
Air Force Systems Command  
Wright-Patterson Air Force Base, Ohio

Project No. 4200, Task No. 420011

(Prepared under Contract AF33(657)-11081 by  
Nortronics, A Division of Northrop Corporation  
1 Research Park  
Palos Verdes Peninsula, California)

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## FOREWORD

This Technical Documentary Note was prepared by Nortronics, a Division of Northrop Corporation, Palos Verdes Peninsula, California, on Contract AF33(657)-11081, "High Altitude Daytime Sky Background Radiation Measurement Program." The information contained in this document covers the phase of the program schedule which involves sky measurements during flights of Research Vehicle #1. The program is being administered under the direction of the AF Avionics Laboratory, Aeronautical Systems Division. Mr. K. J. Gilkey is Project Engineer for the Laboratory.

The Nortronics technical effort is being accomplished in the Astrotacker Systems Engineering Group under the direction of Mr. D. E. Conklin. Mr. W. M. Clark is Project Engineer at Nortronics. The contractor's report number for this document is NORT 64-74.

ABSTRACT

✓ The radiation characteristics of the daytime sky background are a primary factor in establishing the performance characteristics of star tracking components for stellar-inertial guidance systems. Under ~~Contract AF33(657)-11001~~, ~~Northrop~~ has developed a high resolution Spectrophotometer, which has been operated during high altitude flights of Research Vehicle #1 to measure the radiance, polarization, luminance, spectral distribution, and luminance ratios (albedo) of the daytime sky. The spectral range of investigation is from the near ultraviolet to the near infrared.

Data were recorded from 20,000 to 70,000 feet altitude during six flights covering all daytime conditions from sunrise to sunset. The terrain over which data were taken included the California desert, the ocean, and a mountain range. ↗

This document has been reviewed and is approved.



F. C. Corey  
Director of Engineering  
Electronic Systems and Equipment

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## 1. INTRODUCTION

Under Contract AF 33(657)-11081, Nortronics is conducting a program to measure the radiance, polarization, and spectral distribution of the daytime sky at altitudes from 20,000 to 200,000 feet. The program involves the operation of a high resolution Spectrophotometer\* on two high altitude aircraft:

Research Vehicle #1 for measurements from 20,000 to 70,000 feet,

Research Vehicle #2 (X-15) for measurements up to 200,000 feet.

This Technical Documentary Note covers the flight program for Research Vehicle #1.

The document is submitted in two volumes, designated as Part 1 and Part 2. This volume (Part 1) contains a description of the Research Vehicle #1 flight program plus the reduced data for sky brightness, sky polarization, infrared radiance, and albedo. The luminous data are also presented in this volume as isolume plots for each altitude and each flight.

Part 2 contains photocopies of the raw data obtained during the flight program.

Manuscript released by Northrop Nortronics 15 May 1964 for publication as an RTD Technical Documentary Report.

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\* Design, fabrication, and testing of the Spectrophotometer are described in the Technical Documentary Note submitted to ASD in October 1963.

## 2. FLIGHT PROGRAM

On 20 January 1964, the Spectrophotometer and associated instrumentation were transferred from Nortronics Research Laboratories to Edwards Air Force Base (EAFB), California, for installation in the pod and connection to the instrumentation of Research Vehicle #1, Ship #682 (Figure 1).

The basic objective of the flight program was to obtain spectral and luminous measurements of the daytime sky radiation at altitudes from 20,000 to 70,000 feet. Six flights were scheduled over various types of terrain at various times of the day. Two of the six contract flights were made over Edwards Air Force Base, three flights were made over the Sierra Nevada mountain range, and one flight was made over the Pacific Ocean. The Sierra Nevada flights included one flight at sunrise and one at sunset. Data for these six flights were reduced and are included in this document.

A seventh flight was accomplished at the request of Mr. K. J. Gilkey of the Air Force Avionics Laboratory to obtain measurements at 5,000 feet and above. This flight was made over Edwards Air Force Base. Data for the seventh flight were not reduced, but photocopies of the raw data are included in Book 2 along with the data from the six contract flights.

The program for each flight required measurements at six altitude plateaus: 20,000, 30,000, 40,000, 50,000, 60,000, and 70,000 feet. Eight headings were scanned at each altitude: N, NE, E, SE, S, SW, W, NW. Since the Spectrophotometer line of sight scans in a vertical plane which is 90 degrees to the direction of flight (Figure 2), the pilot directed the vehicle so that the cardinal data headings were scanned by the instrument.

The pilot was able to control the vehicle so it flew in a horizontal plane parallel within 1 degree to the earth's surface. The vehicle's magnetic heading was accurate to better than 1 degree, and its altitude position was accurate to better than 1 percent.

Table 1 contains information related to the seven completed flights. Data taken below 20,000 feet were not reduced since these measurements were not within the scope of the contract. However, raw data for all measurements are included in Book 2.

Comprehensive flight logs were maintained during the sky measurement program. Samples of these logs are given in Appendix A.

Spectrophotometer calibration was performed before and after each flight. Specific steps of the calibration procedure are given in Appendix B.

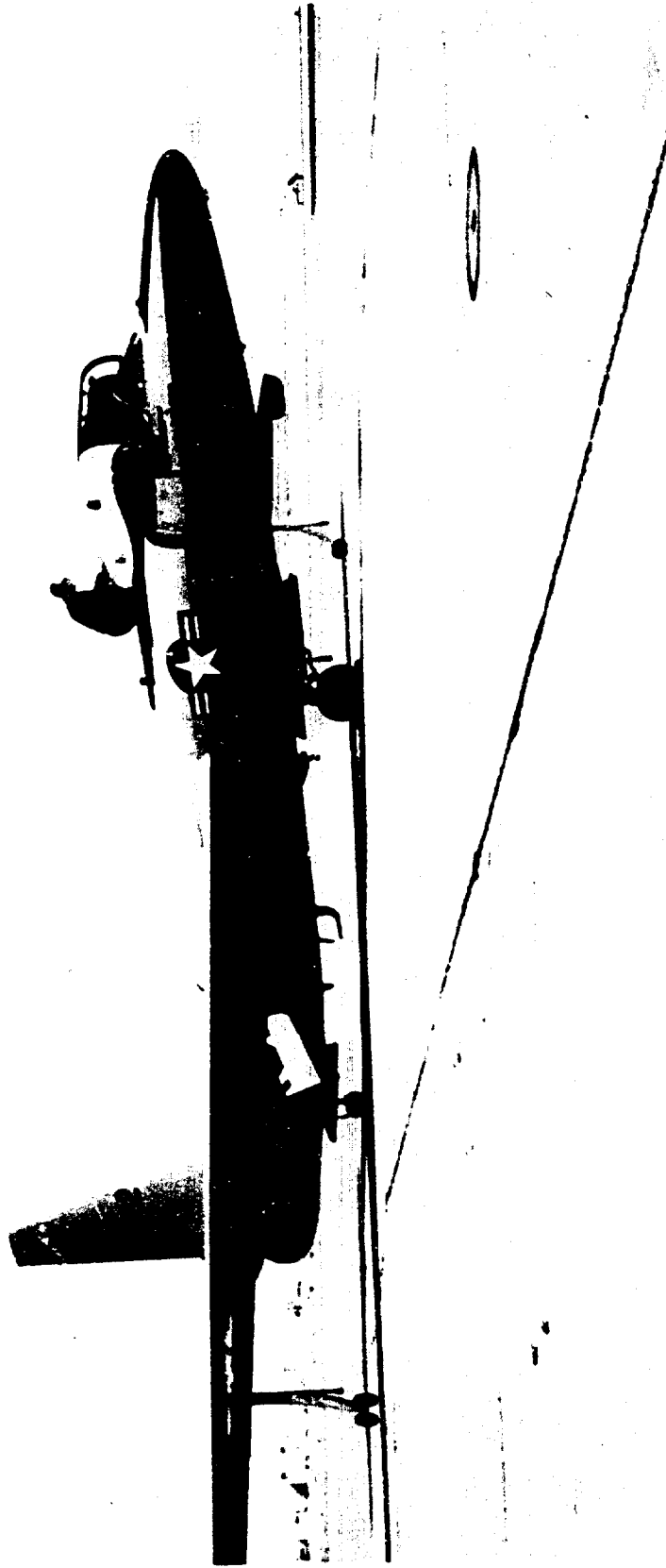


FIGURE 1 SPECTROPHOTOMETER INSTALLED ON SHIP #682



FIGURE 2 VIEW SHOWING INSTRUMENT LINE OF SIGHT RELATIVE TO AIRCRAFT HEADING

TABLE 1 INFORMATION RELATED TO MEASUREMENTS OBTAINED DURING FLIGHT PROGRAM IN RESEARCH VEHICLE #1, SHIP #682

Date & Flight No.	Area of Flight	Time of Flight Start	Time of Flight Finish	Weather Observed At EAFB During Flight	Data Recorded & Reduced Every 10,000 Feet Altitude	External Temp.	Clouds Observed By Pilot	Remarks
1/23/64 #1	EAFB	11:45	1:55	Clouds: 3000 ft scat. cumulus in West solid. Temp: 42°F Dew Point: 27°F Rel. Hum: 55% Barom: 27.71	10,000 (1) 8 (2) 20,000 8 30,000 8 40,000 8 50,000 8 60,000 8	-45°C	Some below  9000 ft ceiling over EAFB No high cirrus	1) Ten-mile radius flight path, low altitude 2) 25-30 mile radius flight path, high altitude 3) No Post Flight Calibration
1/24/64 #1	EAFB	10:30	12:36	Clouds: High, thin overcast, with cirrus Temp: 41°F Dew Point: 24°F Rel. Hum: 67%	10,000 (1) 8 20,000 8 30,000 8 40,000 8 50,000 8 60,000 8 69,000 8	-33°C	Cirrus tops Sharp horiz. line Cirrus clearing	
1/27/64 #1	EAFB(10,000 ft High Sierra (other alts.))	10:28	12:50	Clouds: Clear skies	10,000 (1) 8 20,000 8 30,000 8 40,000 8 50,000 8 60,000 8 70,000 8	-48°C	No clouds Top cirrus  Clouds low E.	1) At 10,000 ft, flight over EAFB. 2) At 20,000 ft and above, flight over snow-covered High Sierra. Snow extended to horizon North and partially South. Desert observed to East and land and ocean to West. Nadir of High Sierra spiral was Mt. Whitney.
1/27/64 #2	High Sierra	3:25	6:05	Clouds: High scattered Temp: 58°F Dew Point: 27°F Rel. Hum: 30%	20,000 8 30,000 8 40,000 8 50,000 8 60,000 8 70,000 8 70,000(aft. sunset) 8	-10°C -40°C -42°C -48°C -40°C -38°C	No clouds Wispy cirrus above	1) Sunset at altitude: 5:25 P.M. 2) After sunset only N and NE headings have reducible data. 3) At NW heading ten minutes after sunset, pilot reported too dark

TABLE 1 INFORMATION RELATED TO MEASUREMENTS OBTAINED DURING FLIGHT IN RESEARCH VEHICLE #1, SHIP #682

Date & Flight No.	Area of Flight	Time of Flight		Weather Observed At EAFB During Flight	Data Recorded & Reduced Every 10,000 Feet		External Temp.	Clouds Observed By Pilot	Remarks
		Start	Finish		Altitude	Headings			
1/28/64 #1	High Sierra	6:23 (A.M.)	8:45	Clouds: clear skies Temp: 41°F Dew Point: 28°F Rel. Hum. 57%	20,000	8	-50°C		1) Sunrise at altitude: 6:48 A.M.
					30,000	8			
					40,000	8			
					50,000	8			
1/28/64 #2	Ocean	11:30 (A.M.)	2:15	No local weather report	20,000	8	-45°C	No clouds	1) Nadir of flight spiral was San Clemente Island. 2) Low clouds and water. 3) Water and land North. 4) Clouds East. 5) Water, scattered clouds West to 5,000 ft. 6) No cirrus clouds apparent.
					30,000	8			
					40,000	8			
					50,000	8			
1/29/64 #1	EAFB	9:40 (A.M.)	11:50	Clouds: scattered with breaking cirrus Temp: 36°F Dew Point: 27°F Rel. Hum: 69%	5,000 <sup>(1)</sup>	8	+15°C	High cirrus 1) Very small cirrus above	
					10,000 <sup>(1)</sup>	8			
					20,000 <sup>(1)</sup>	8			
					30,000 <sup>(1)</sup>	8			
					40,000 <sup>(1)</sup>	8	-40°C	Tops cirrus	
					40,000 <sup>(1)</sup>	8 <sup>(3)</sup>	-55°C		

(1) DATA NOT BEING REDUCED.

(2) INDICATES THE 8 HEADINGS: N, NE, E, SE, S, SW, W, NW.

(3) 8 HEADINGS TAKEN INTERSPERSED BETWEEN REGULAR HEADINGS: NNE, ENE, ESE, SSE, SSW, WSW, MNW, NNW.

### 3. SKY RADIATION DATA

#### 3.1 Data Recording and Presentation

Recording of the sky radiance measurements was performed on a Consolidated Engineering Corporation Type 5119 oscillograph which produced photographic recordings suitable for photo-reproduction. The Spectrophotometer and oscillograph system were turned on before takeoff. When the vehicle was at the proper altitude and heading, the pilot actuated the recording paper drive in the oscillograph magazine. The pilot also actuated a switch to provide identifying blips on the oscillogram for each altitude plateau.

Part 2 contains photocopies of oscillograms representing all data flights of the research vehicle. Part 2 also contains detailed instructions for interpretation of the recordings. Reduced tabular data for the six contract flights are given in Section 3.2 below, and isolume plots of sky brightness are included in Section 3.3.

The three types of data presentation (oscillograms, tabular data, and isolumes) can be correlated by reference to the date of the flight and the flight code number for altitude and heading.

#### 3.2 IBM 7090 Tabular Data

Luminous and infrared recordings, sun position information, and scatter angles were processed on the IBM 7090 computer to obtain reduced tabular data for the sky measurements. Photo-reproductions of these tabular data are given in the following pages. Inputs to the computer included the following:

- o Inches of deflection for each point of interest
- o Luminance factor per inch of deflection in the luminous recording
- o Corrections for sensitivity, glare, channel gain, and gain correction
- o Sun position in the celestial sphere and change of position with time
- o Line of sight of the telescope (elevation and azimuth angles)
- o Vehicle altitude and position on earth
- o Time of recording

The computer was programmed so that all data which were computed to be below 1 foot-lambert would print out as zero. The second decimal place in the infrared deflection was rounded off.

The computer data were used to construct isolume plots showing sky brightness in foot-lamberts. These isolumes are included in Section 3.3.

The zero elevation angle of the Spectrophotometer does not correspond to the true horizon at altitude; therefore, the tabular data include a "Horizon Correction Angle" which represents the angle between the zero elevation angle and the true horizon.

Appendix C describes the correction for glare used to reduce the sky data. A discussion of the infrared channel data is given in Appendix D.

Since the data for the non-contract seventh flight were not reduced, Appendix E gives the procedure for reducing these data.

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 1  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....11.983  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....178.7  
 SUN ELEVATION (DEGREES).....35.7  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LDS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
209	38	0.06	77.0	67.3
194	44	0.06	67.0	77.3
198	47	0.06	57.0	87.3
217	46	0.06	48.0	96.3
277	36	0.07	39.0	105.3
388	30	0.07	30.0	114.3
602	22	0.10	20.0	124.3
1166	9	0.16	10.0	134.3
4126	5	0.35	0.0	144.3

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 2  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....12.000  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
 SUN AZIMUTH (DEGREES).....179.0  
 SUN ELEVATION (DEGREES).....35.7  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LDS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
218	30	0.06	77.0	63.8
211	36	0.07	67.0	71.6
195	40	0.06	57.0	79.6
218	43	0.06	48.0	86.8
252	41	0.07	39.0	94.1
310	30	0.07	30.0	101.4
485	24	0.09	20.0	109.4
925	19	0.13	10.0	117.1
2929	17	0.26	0.0	124.4



DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 3  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....12.017  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....179.3  
 SUN ELEVATION (DEGREES).....35.7  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
281	18	0.08	77.0	55.2
276	21	0.08	67.0	57.3
278	23	0.08	57.0	60.4
294	23	0.08	48.0	63.9
308	26	0.08	39.0	68.0
387	26	0.09	30.0	72.6
537	27	0.11	20.0	78.0
878	30	0.15	10.0	83.7
2500	40	0.29	0.0	89.5

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 4  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....12.033  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....179.6  
 SUN ELEVATION (DEGREES).....35.7  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
342	15	0.09	77.0	45.7
443	9	0.12	67.0	40.3
523	13	0.15	57.0	36.5
724	9	0.19	48.0	34.9
844	8	0.25	39.0	35.3
920	5	0.25	30.0	37.6
1032	16	0.29	20.0	42.0
1807	10	0.34	10.0	47.9
3652	14	0.64	0.0	54.7

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 5  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....12.050  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....179.9  
 SUN ELEVATION (DEGREES).....35.7  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
401	6	0.08	77.0	41.3
616	9	0.15	67.0	31.3
991	6	0.26	57.0	21.3
1539	3	0.36	48.0	12.3
0	0	1.79	39.0	3.3
0	0	1.67	30.0	5.7
3234	2	1.06	20.0	15.7
3382	6	1.16	10.0	25.7
4864	3	1.45	0.0	35.7

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 6  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....12.067  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....180.2  
 SUN ELEVATION (DEGREES).....35.7  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
346	9	0.08	77.0	45.8
459	5	0.12	67.0	40.4
566	5	0.15	57.0	36.6
701	9	0.19	48.0	35.0
744	12	0.20	39.0	35.4
875	11	0.21	30.0	37.7
1032	16	0.24	20.0	42.2
1573	15	0.30	10.0	48.0
3427	18	0.46	0.0	54.8

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 7  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....12.083  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....180.5  
 SUN ELEVATION (DEGREES).....35.7  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
281	21	0.07	77.0	55.3
264	25	0.08	67.0	57.4
270	31	0.08	57.0	60.5
291	37	0.08	48.0	64.0
317	40	0.08	39.0	68.1
398	38	0.09	30.0	72.7
560	37	0.11	20.0	78.1
1003	35	0.15	10.0	83.8
2822	38	0.29	0.0	89.6

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 8  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....12.100  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....180.8  
 SUN ELEVATION (DEGREES).....35.7  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
214	36	0.06	77.0	63.9
204	44	0.07	67.0	71.6
208	47	0.07	57.0	79.6
229	44	0.07	48.0	86.9
277	39	0.07	39.0	94.2
380	29	0.08	30.0	101.5
593	27	0.10	20.0	109.5
1222	19	0.17	10.0	117.2
4092	15	0.37	0.0	124.5

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....3.0 - 1  
ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS).....12.167  
LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
SUN AZIMUTH (DEGREES).....181.9  
SUN ELEVATION (DEGREES).....35.6  
HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
150	37	0.06	77.0	67.4
137	42	0.06	67.0	77.3
136	44	0.05	57.0	87.3
151	47	0.05	48.0	96.3
187	40	0.06	39.0	105.3
253	27	0.06	30.0	114.3
428	19	0.08	20.0	124.3
869	12	0.13	10.0	134.3
3176	5	0.29	0.0	144.3

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....3.0 - 2  
ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS).....12.183  
LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
SUN AZIMUTH (DEGREES).....182.2  
SUN ELEVATION (DEGREES).....35.6  
HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
156	29	0.06	77.0	64.3
146	38	0.06	67.0	72.4
142	45	0.06	57.0	80.6
150	42	0.06	48.0	88.1
187	36	0.06	39.0	95.6
244	32	0.07	30.0	103.0
363	22	0.08	20.0	111.2
742	16	0.12	10.0	119.1
2815	19	0.25	0.0	126.6

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....3.0 - 3

ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS).....12.200

LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0

SUN AZIMUTH (DEGREES).....142.4

SUN ELEVATION (DEGREES).....35.6

HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
237	19	0.07	77.0	56.0
223	19	0.08	67.0	58.5
215	21	0.08	57.0	62.0
228	24	0.07	48.0	65.9
255	23	0.08	39.0	70.2
297	25	0.08	30.0	74.9
430	26	0.09	20.0	80.5
809	26	0.14	10.0	86.2
2699	42	0.29	0.0	92.1

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....3.0 - 4

ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS).....12.217

LINE OF SIGHT AZIMUTH (DEGREES).....135.0

SUN AZIMUTH (DEGREES).....182.8

SUN ELEVATION (DEGREES).....35.6

HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
285	12	0.08	77.0	46.4
373	11	0.11	67.0	41.5
490	8	0.14	57.0	38.2
647	10	0.18	48.0	37.1
670	10	0.21	39.0	37.7
788	9	0.22	30.0	40.2
949	6	0.25	20.0	44.6
1484	11	0.32	10.0	50.3
3822	19	0.65	0.0	56.9

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 5  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....12.233  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....183.1  
 SUN ELEVATION (DEGREES).....35.6  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
382	8	0.09	77.0	41.4
627	3	0.16	67.0	31.4
1028	6	0.28	57.0	21.5
1736	6	0.46	48.0	12.6
0	0	2.33	39.0	4.7
0	0	1.78	30.0	6.2
3029	6	1.12	20.0	15.8
3511	2	1.05	10.0	25.8
5595	5	1.56	0.0	35.7

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 6  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....12.250  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....183.4  
 SUN ELEVATION (DEGREES).....35.6  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
286	14	0.08	77.0	45.3
389	5	0.12	67.0	39.3
479	4	0.15	57.0	35.0
671	4	0.19	48.0	32.9
663	10	0.21	39.0	33.0
765	8	0.22	30.0	35.2
918	9	0.24	20.0	39.6
1356	16	0.31	10.0	45.6
3212	16	0.45	0.0	52.6

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 7  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....12.267  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....183.7  
 SUN ELEVATION (DEGREES).....35.6  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOCTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
214	21	0.07	77.0	54.6
217	21	0.08	67.0	56.2
194	37	0.07	57.0	58.9
220	31	0.08	48.0	62.1
254	33	0.08	39.0	66.0
297	38	0.08	30.0	70.4
411	36	0.10	20.0	75.6
761	31	0.14	10.0	81.2
2264	41	0.31	0.0	87.0

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 8  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....12.283  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....184.0  
 SUN ELEVATION (DEGREES).....35.6  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOCTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
136	51	0.06	77.0	63.5
147	41	0.06	67.0	70.9
143	48	0.06	57.0	78.6
152	46	0.06	48.0	85.7
179	42	0.06	39.0	92.8
299	47	0.07	30.0	99.9
377	21	0.08	20.0	107.6
817	22	0.14	10.0	115.1
3007	19	0.31	0.0	122.3

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 1

ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....12.400

LINE OF SIGHT AZIMUTH (DEGREES).....360.0

SUN AZIMUTH (DEGREES).....186.0

SUN ELEVATION (DEGREES).....35.4

HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
122	27	0.05	77.0	67.5
107	37	0.06	67.0	77.5
103	34	0.05	57.0	87.4
117	36	0.05	48.0	96.4
138	34	0.05	39.0	105.4
176	24	0.06	30.0	114.3
279	16	0.07	20.0	124.3
562	13	0.10	10.0	134.2
2060	6	0.22	0.0	144.1

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 2

ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....12.417

LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0

SUN AZIMUTH (DEGREES).....186.3

SUN ELEVATION (DEGREES).....35.4

HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
122	24	0.05	77.0	65.1
109	34	0.05	67.0	73.4
112	35	0.06	57.0	82.0
122	35	0.05	48.0	89.7
136	30	0.06	39.0	97.4
186	25	0.06	30.0	105.1
295	19	0.07	20.0	113.5
565	12	0.12	10.0	121.7
2389	14	0.24	0.0	129.5



DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 3  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....12.433  
LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
SUN AZIMUTH (DEGREES).....186.6  
SUN ELEVATION (DEGREES).....35.4  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
182	14	0.06	77.0	57.1
179	16	0.07	67.0	60.2
172	12	0.07	57.0	64.2
178	18	0.07	48.0	68.4
196	20	0.07	39.0	73.0
231	19	0.08	30.0	77.9
299	22	0.09	20.0	83.6
564	25	0.12	10.0	89.5
2135	30	0.25	0.0	95.3

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 4  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....12.450  
LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
SUN AZIMUTH (DEGREES).....186.9  
SUN ELEVATION (DEGREES).....35.4  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
256	5	0.08	77.0	47.4
327	8	0.12	67.0	43.1
440	7	0.15	57.0	40.6
609	6	0.19	48.0	39.9
589	4	0.21	39.0	40.9
620	9	0.22	30.0	43.5
747	7	0.23	20.0	47.8
1139	5	0.30	10.0	53.4
3255	15	0.41	0.0	59.8

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 5  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....12.467  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....187.1  
 SUN ELEVATION (DEGREES).....35.3  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
293	9	0.09	77.0	41.8
549	4	0.16	67.0	31.9
1148	2	0.30	57.0	22.2
2186	8	0.55	48.0	13.7
0	0	1.82	39.0	6.8
0	0	1.90	30.0	8.0
3073	6	1.30	20.0	16.6
3206	5	1.10	10.0	26.2
5971	6	1.68	0.0	36.0

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 6  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....12.483  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....187.4  
 SUN ELEVATION (DEGREES).....35.3  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
273	5	0.07	77.0	44.9
378	6	0.13	67.0	38.3
515	5	0.17	57.0	33.2
768	7	0.23	48.0	30.4
801	3	0.28	39.0	30.0
796	9	0.27	30.0	31.9
913	9	0.28	20.0	36.4
1414	6	0.33	10.0	42.5
3603	16	0.56	0.0	49.7

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 7  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....12.500  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....187.7  
 SUN ELEVATION (DEGREES).....39.3  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
195	14	0.07	77.0	54.0
197	14	0.08	67.0	54.9
204	15	0.08	57.0	57.0
199	24	0.08	48.0	59.8
216	25	0.08	39.0	63.3
255	31	0.09	30.0	67.4
351	24	0.10	20.0	72.5
633	27	0.13	10.0	78.0
2064	29	0.27	0.0	83.7

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 8  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....12.517  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....188.0  
 SUN ELEVATION (DEGREES).....35.3  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
128	28	0.06	77.0	63.1
121	29	0.05	67.0	70.2
115	36	0.05	57.0	77.5
121	39	0.05	48.0	84.2
146	33	0.05	39.0	91.1
187	32	0.06	30.0	97.9
300	24	0.08	20.0	105.3
658	17	0.12	10.0	112.6
2899	16	0.29	0.0	119.4

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 1  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....12.633  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....190.0  
 SUN ELEVATION (DEGREES).....35.0  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
71	28	0.04	77.0	67.8
68	32	0.05	67.0	77.7
64	36	0.04	57.0	87.6
73	32	0.05	48.0	96.5
81	27	0.05	39.0	105.4
115	21	0.05	30.0	114.3
179	17	0.06	20.0	124.1
364	7	0.08	10.0	134.0
1578	3	0.18	0.0	143.7

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 2  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....12.667  
 LINE OF SIGHT AZIMUTH (DEGREES).....45.0  
 SUN AZIMUTH (DEGREES).....190.6  
 SUN ELEVATION (DEGREES).....35.0  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
83	24	0.05	77.0	66.0
74	29	0.05	67.0	74.7
72	31	0.05	57.0	83.5
85	31	0.04	48.0	91.5
90	33	0.04	39.0	99.5
121	25	0.05	30.0	107.4
182	15	0.06	20.0	116.0
385	12	0.09	10.0	124.5
1868	8	0.17	0.0	132.5

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 3  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....12.683  
LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
SUN AZIMUTH (DEGREES).....190.8  
SUN ELEVATION (DEGREES).....34.9  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
109	17	0.06	77.0	58.4
100	14	0.06	67.0	62.2
108	15	0.06	57.0	66.7
107	19	0.06	48.0	71.2
110	19	0.06	39.0	76.1
142	20	0.06	30.0	81.2
208	25	0.08	20.0	87.1
455	21	0.10	10.0	93.0
2495	39	0.28	0.0	98.9

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 4  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....12.700  
LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
SUN AZIMUTH (DEGREES).....191.1  
SUN ELEVATION (DEGREES).....34.9  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
168	10	0.07	77.0	48.7
227	10	0.08	67.0	45.2
324	5	0.09	57.0	43.2
427	8	0.15	48.0	43.0
402	9	0.16	39.0	44.3
435	7	0.16	30.0	47.0
479	9	0.17	20.0	51.3
747	8	0.21	10.0	56.7
2974	12	0.38	0.0	62.8

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 5  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....12.717  
LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
SUN AZIMUTH (DEGREES).....191.4  
SUN ELEVATION (DEGREES).....34.9  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
207	6	0.06	77.0	42.5
382	2	0.13	67.0	32.8
750	5	0.22	57.0	23.5
1569	6	0.43	48.0	15.7
3115	16	1.38	39.0	10.0
1081	77	2.15	30.0	10.8
2359	4	1.08	20.0	18.0
2467	1	0.78	10.0	27.0
5693	5	1.28	0.0	36.5

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 6  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....12.733  
LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
SUN AZIMUTH (DEGREES).....191.7  
SUN ELEVATION (DEGREES).....34.8  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
177	8	0.06	77.0	44.7
251	3	0.10	67.0	37.5
395	3	0.14	57.0	31.5
622	2	0.20	48.0	27.9
612	6	0.26	39.0	26.8
632	8	0.25	30.0	28.4
756	5	0.25	20.0	32.9
1160	11	0.33	10.0	39.2
3682	12	0.66	0.0	46.7

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 7  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....12.750  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....192.0  
 SUN ELEVATION (DEGREES).....34.8  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
126	15	0.06	77.0	53.6
132	17	0.07	67.0	53.7
132	12	0.07	57.0	55.2
141	19	0.06	48.0	57.5
153	23	0.07	39.0	60.6
174	33	0.07	30.0	64.4
256	28	0.08	20.0	69.2
514	23	0.12	10.0	74.5
2251	28	0.28	0.0	80.2

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 8  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....12.767  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....192.3  
 SUN ELEVATION (DEGREES).....34.7  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
83	28	0.05	77.0	62.9
75	33	0.04	67.0	69.5
76	36	0.04	57.0	76.4
81	35	0.04	48.0	82.8
90	32	0.05	39.0	89.2
121	32	0.05	30.0	95.7
203	23	0.06	20.0	102.9
514	16	0.10	10.0	109.8
2043	25	0.30	0.0	116.4

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CLDE NUMBER.....6.0 - 1  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....12.917  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....194.8  
 SUN ELEVATION (DEGREES).....34.3  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

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SKY LUMINANCE (FCCTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LCS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
39	34	0.03	77.0	68.3
36	39	0.03	67.0	78.1
37	44	0.04	57.0	87.8
40	40	0.03	48.0	96.6
51	31	0.03	39.0	105.4
67	33	0.04	30.0	114.2
106	18	0.05	20.0	123.9
210	9	0.06	10.0	133.5
1121	1	0.11	0.0	143.0

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CLDE NUMBER.....6.0 - 2  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....12.750  
 LINE OF SIGHT AZIMUTH (DEGREES).....45.0  
 SUN AZIMUTH (DEGREES).....195.3  
 SUN ELEVATION (DEGREES).....34.2  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FCCTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LCS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
40	32	0.04	77.0	67.3
39	45	0.04	67.0	76.3
36	45	0.03	57.0	85.4
40	42	0.03	48.0	93.6
50	39	0.03	39.0	101.8
71	31	0.04	30.0	110.0
112	17	0.05	20.0	118.9
260	14	0.07	10.0	127.6
1873	6	0.13	0.0	136.0



DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....6.0 - 3  
ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....12.967  
LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
SUN AZIMUTH (DEGREES).....195.6  
SUN ELEVATION (DEGREES).....34.1  
HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
53	24	0.04	77.0	60.2
51	26	0.04	67.0	64.6
47	25	0.04	57.0	69.6
53	27	0.04	48.0	74.5
64	27	0.04	39.0	79.6
76	26	0.04	30.0	85.0
124	14	0.05	20.0	91.0
229	30	0.06	10.0	97.0
1662	31	0.13	0.0	102.9

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....6.0 - 4  
ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....12.983  
LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
SUN AZIMUTH (DEGREES).....195.9  
SUN ELEVATION (DEGREES).....34.1  
HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
83	11	0.06	77.0	50.5
93	15	0.05	67.0	47.7
147	15	0.07	57.0	46.4
177	14	0.08	48.0	46.7
199	15	0.07	39.0	48.3
173	14	0.07	30.0	51.0
220	14	0.08	20.0	55.2
405	10	0.10	10.0	60.4
2886	17	0.30	0.0	66.2

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 5  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....13.017  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....196.4  
 SUN ELEVATION (DEGREES).....34.0  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
91	14	0.05	77.0	43.7
149	9	0.07	67.0	34.4
236	3	0.09	57.0	25.6
405	11	0.12	48.0	18.7
2613	10	0.44	39.0	14.1
1950	5	0.69	30.0	14.5
1000	3	0.22	20.0	20.2
1163	2	0.24	10.0	28.3
5747	3	0.44	0.0	37.3

DATE AND FLIGHT NUMBER..... 1/23/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 6  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....13.033  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....196.7  
 SUN ELEVATION (DEGREES).....33.9  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
95	7	0.05	77.0	44.9
132	9	0.07	67.0	37.0
176	3	0.10	57.0	30.0
247	5	0.12	48.0	25.4
294	6	0.17	39.0	23.7
268	10	0.13	30.0	24.2
358	9	0.13	20.0	28.7
659	7	0.16	10.0	35.3
3993	0	0.34	0.0	43.0

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECCRD CODE NUMBER.....6.0 - 7  
ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....13.050  
LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
SUN AZIMUTH (DEGREES).....197.0  
SUN ELEVATION (DEGREES).....33.9  
HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LLMINANCE (FOCTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
85	18	0.05	77.0	53.3
80	19	0.05	67.0	52.6
73	23	0.05	57.0	53.2
73	23	0.05	48.0	54.8
75	29	0.04	39.0	57.4
91	30	0.05	30.0	60.7
129	29	0.06	20.0	65.3
253	29	0.07	10.0	70.4
1694	20	0.13	0.0	76.0

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECCRD CODE NUMBER.....6.0 - 8  
ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....13.067  
LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
SUN AZIMUTH (DEGREES).....197.3  
SUN ELEVATION (DEGREES).....33.8  
HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LLMINANCE (FOCTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
45	31	0.04	77.0	62.9
42	37	0.04	67.0	68.8
43	38	0.05	57.0	75.2
45	43	0.04	48.0	81.1
55	41	0.04	39.0	87.2
72	33	0.04	30.0	93.3
112	30	0.05	20.0	100.0
272	22	0.07	10.0	106.5
2344	20	0.14	0.0	112.7

FLIGHT RECORD CODE NUMBER.....6.9 - 1  
 ALTITUDE (FEET).....69000

PACIFIC STANDARD TIME (HOURS).....13.350  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....201.8  
 SUN ELEVATION (DEGREES).....32.6  
 HORIZON CORRECTION ANGLE (DEGREES).....4.6

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
21	45	0.04	77.0	69.5
20	45	0.02	67.0	79.0
21	50	0.03	57.0	88.5
22	41	0.00	48.0	97.0
25	36	0.03	39.0	105.6
36	32	0.03	30.0	114.0
58	22	0.04	20.0	123.4
108	13	0.05	10.0	132.6
526	5	0.08	0.0	141.4

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....6.9 - 2  
 ALTITUDE (FEET).....69000

PACIFIC STANDARD TIME (HOURS).....13.383  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
 SUN AZIMUTH (DEGREES).....202.4  
 SUN ELEVATION (DEGREES).....32.5  
 HORIZON CORRECTION ANGLE (DEGREES).....4.6

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
21	42	0.00	77.0	69.6
19	50	0.00	67.0	79.1
27	59	0.02	57.0	88.5
22	51	0.02	48.0	97.0
28	43	0.02	39.0	105.5
40	36	0.00	30.0	113.9
68	24	0.03	20.0	123.2
142	11	0.05	10.0	132.3
1676	10	0.07	0.0	141.1

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....6.9 - 3

ALTITUDE (FEET).....69000

PACIFIC STANDARD TIME (HOURS).....13.417

LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0

SUN AZIMUTH (DEGREES).....207.9

SUN ELEVATION (DEGREES).....32.3

HORIZON CORRECTION ANGLE (DEGREES).....4.6

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
27	35	0.03	77.0	63.5
25	35	0.03	67.0	68.7
24	40	0.03	57.0	74.4
26	35	0.04	48.0	79.8
32	34	0.03	39.0	85.4
44	33	0.03	30.0	91.0
64	31	0.04	20.0	97.3
157	30	0.05	10.0	103.4
2356	28	0.11	0.0	109.2

DATE AND FLIGHT NUMBER..... 1/23/64 - 1

FLIGHT RECORD CODE NUMBER.....6.9 - 4

ALTITUDE (FEET).....69000

PACIFIC STANDARD TIME (HOURS).....13.433

LINE OF SIGHT AZIMUTH (DEGREES).....135.0

SUN AZIMUTH (DEGREES).....203.2

SUN ELEVATION (DEGREES).....32.2

HORIZON CORRECTION ANGLE (DEGREES).....4.6

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
0	0	0.	77.0	53.8
0	0	0.	67.0	52.1
0	0	0.	57.0	51.8
0	0	0.	48.0	52.6
0	0	0.	39.0	54.5
0	0	0.	30.0	57.4
0	0	0.	20.0	61.4
0	0	0.	10.0	66.3
0	0	0.	0.0	71.7

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....2.0 - 1

ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....10.600

LINE OF SIGHT AZIMUTH (DEGREES).....360.0

SUN AZIMUTH (DEGREES).....159.5

SUN ELEVATION (DEGREES).....32.0

HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
192	44	0.05	77.0	69.9
185	47	0.06	67.0	79.2
193	51	0.06	57.0	88.6
216	50	0.06	48.0	97.0
268	40	0.06	39.0	105.4
394	29	0.08	30.0	113.8
587	21	0.09	20.0	122.9
1131	10	0.14	10.0	131.9
3806	8	0.37	0.0	140.5

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....2.0 - 2

ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....10.617

LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0

SUN AZIMUTH (DEGREES).....155.7

SUN ELEVATION (DEGREES).....32.1

HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
238	30	0.05	77.0	63.2
229	35	0.07	67.0	68.2
223	33	0.07	57.0	73.6
237	36	0.07	48.0	78.8
292	36	0.07	39.0	84.2
360	28	0.08	30.0	89.7
486	32	0.11	20.0	95.7
919	31	0.13	10.0	101.7
2756	33	0.28	0.0	107.5

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....2.0 - 3

ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....10.633

LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0

SUN AZIMUTH (DEGREES).....156.0

SUN ELEVATION (DEGREES).....32.2

HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
309	14	0.05	77.0	53.4
350	16	0.10	67.0	51.3
432	19	0.11	57.0	50.6
462	12	0.13	48.0	51.2
511	17	0.13	39.0	52.9
608	18	0.15	30.0	55.6
769	19	0.18	20.0	59.6
1247	29	0.22	10.0	64.4
3471	23	0.38	0.0	69.9

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....2.0 - 4

ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....10.650

LINE OF SIGHT AZIMUTH (DEGREES).....135.0

SUN AZIMUTH (DEGREES).....156.3

SUN ELEVATION (DEGREES).....32.3

HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
365	13	0.05	77.0	45.8
556	8	0.13	67.0	36.9
847	3	0.20	57.0	28.7
1274	8	0.33	48.0	22.5
2291	8	0.55	39.0	18.5
2696	3	0.99	30.0	18.3
2647	5	0.88	20.0	22.6
3418	4	1.04	10.0	29.7
4351	4	1.84	0.0	38.0

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....2.0 - 5  
ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....10.667  
LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
SUN AZIMUTH (DEGREES).....156.5  
SUN ELEVATION (DEGREES).....32.4  
HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
388	11	0.05	77.0	45.9
528	7	0.12	67.0	37.3
596	28	0.19	57.0	29.4
1119	2	0.29	48.0	23.6
1866	2	0.38	39.0	20.1
1757	8	0.58	30.0	20.2
2195	5	0.56	20.0	24.3
2996	4	0.67	10.0	31.1
4843	11	1.19	0.0	39.2

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....2.0 - 6  
ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....10.683  
LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
SUN AZIMUTH (DEGREES).....156.8  
SUN ELEVATION (DEGREES).....32.4  
HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
279	18	0.05	77.0	53.6
322	21	0.09	67.0	52.0
343	17	0.09	57.0	51.7
397	23	0.09	48.0	52.5
426	28	0.11	39.0	54.5
500	28	0.11	30.0	57.4
670	34	0.12	20.0	61.5
1068	38	0.18	10.0	66.3
2648	38	0.38	0.0	71.8



DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 7  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....10.700  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....157.0  
 SUN ELEVATION (DEGREES).....32.5  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
237	31	0.05	77.0	63.3
232	34	0.07	67.0	68.5
230	43	0.07	57.0	74.2
254	44	0.07	48.0	79.7
289	42	0.07	39.0	85.2
337	44	0.08	30.0	90.9
495	39	0.09	20.0	97.2
879	31	0.12	10.0	103.3
2457	40	0.30	0.0	109.2

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 8  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....10.717  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....157.3  
 SUN ELEVATION (DEGREES).....32.6  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
190	44	0.05	77.0	69.5
186	47	0.06	67.0	79.0
192	47	0.06	57.0	88.4
215	47	0.06	48.0	97.0
260	36	0.06	39.0	105.5
364	25	0.07	30.0	113.9
554	22	0.09	20.0	123.2
1056	10	0.14	10.0	132.4
3348	8	0.34	0.0	141.2

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 1  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....10.783  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....158.4  
 SUN ELEVATION (DEGREES).....32.9  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
144	37	0.04	77.0	69.3
130	45	0.06	67.0	78.7
126	48	0.05	57.0	88.2
143	47	0.05	48.0	96.8
176	42	0.06	39.0	105.3
229	29	0.06	30.0	113.8
383	18	0.08	20.0	123.2
746	12	0.12	10.0	132.4
2723	8	0.25	0.0	141.3

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 2  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....10.800  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
 SUN AZIMUTH (DEGREES).....158.6  
 SUN ELEVATION (DEGREES).....33.0  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
162	27	0.05	77.0	62.9
153	29	0.06	67.0	68.3
157	36	0.06	57.0	74.1
156	31	0.06	48.0	79.7
180	32	0.06	39.0	85.3
237	32	0.07	30.0	91.1
354	23	0.08	20.0	97.5
675	28	0.12	10.0	103.7
2583	33	0.26	0.0	109.6

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....3.0 - 3  
ALTITUDE (FEET)..... 30000

PACIFIC STANDARD TIME (HOURS).....10.817  
LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
SUN AZIMUTH (DEGREES).....158.9  
SUN ELEVATION (DEGREES).....33.1  
HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
247	17	0.05	77.0	53.2
289	11	0.09	67.0	51.7
323	15	0.11	57.0	51.5
349	17	0.11	48.0	52.6
385	15	0.11	39.0	56.7
442	13	0.12	30.0	57.7
583	16	0.14	20.0	62.0
1094	27	0.19	10.0	66.9
3401	19	0.39	0.0	72.4

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....3.0 - 4  
ALTITUDE (FEET)..... 30000

PACIFIC STANDARD TIME (HOURS).....10.833  
LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
SUN AZIMUTH (DEGREES).....159.2  
SUN ELEVATION (DEGREES).....33.1  
HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
314	10	0.05	77.0	45.2
458	10	0.12	67.0	36.7
726	8	0.19	57.0	29.0
1073	12	0.29	48.0	23.4
1955	5	0.39	39.0	20.3
2088	7	0.39	30.0	20.8
2327	4	0.62	20.0	25.2
2910	1	0.79	10.0	32.1
5656	7	1.52	0.0	40.2

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 5  
 ALTITUDE (FEET).....30000  
 PACIFIC STANCRD TIME (HOURS).....10.850  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....159.4  
 SUN ELEVATION (DEGREES).....32.2  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
307	9	0.05	77.0	44.8
471	3	0.12	67.0	35.9
720	1	0.19	57.0	27.6
1017	6	0.30	48.0	21.4
1728	6	0.42	39.0	17.5
1820	3	0.67	30.0	17.8
1953	7	0.62	20.0	22.6
2510	8	0.66	10.0	29.9
4649	8	1.16	0.0	38.4

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 6  
 ALTITUDE (FEET).....30000  
 PACIFIC STANCRD TIME (HOURS).....10.867  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....159.7  
 SUN ELEVATION (DEGREES).....33.3  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
269	14	0.05	77.0	52.2
315	11	0.10	67.0	50.1
359	16	0.11	57.0	49.4
364	16	0.11	48.0	50.1
365	23	0.11	39.0	51.9
435	26	0.11	30.0	54.8
591	26	0.13	20.0	58.9
1021	26	0.17	10.0	63.9
2626	41	0.36	0.0	69.5

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 7  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....10.883  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....160.0  
 SUN ELEVATION (DEGREES).....33.4  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
167	28	0.05	77.0	61.9
168	32	0.07	67.0	66.8
160	35	0.06	57.0	72.2
174	43	0.06	48.0	77.5
202	43	0.06	39.0	82.9
255	40	0.07	30.0	88.4
380	39	0.09	20.0	94.6
749	33	0.12	10.0	100.7
2711	36	0.28	0.0	106.6

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 8  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....10.900  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....160.2  
 SUN ELEVATION (DEGREES).....33.4  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
142	35	0.05	77.0	68.5
135	43	0.05	67.0	77.8
139	44	0.05	57.0	87.1
154	39	0.05	48.0	95.5
182	34	0.06	39.0	103.9
246	26	0.06	30.0	112.2
391	15	0.08	20.0	121.4
832	15	0.13	10.0	130.4
3296	8	0.31	0.0	139.0

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 1  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....10.983  
LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
SUN AZIMUTH (DEGREES).....161.6  
SUN ELEVATION (DEGREES).....33.8  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
121	26	0.05	77.0	68.7
100	33	0.06	67.0	78.3
101	37	0.05	57.0	87.9
110	42	0.05	48.0	96.6
129	37	0.05	39.0	105.3
158	29	0.06	30.0	113.9
252	24	0.07	20.0	123.5
468	7	0.09	10.0	132.9
1618	6	0.17	0.0	142.1

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 2  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.000  
LINE OF SIGHT AZIMUTH (DEGREES).....45.0  
SUN AZIMUTH (DEGREES).....161.9  
SUN ELEVATION (DEGREES).....33.8  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
139	20	0.05	77.0	62.7
122	22	0.06	67.0	68.6
123	24	0.06	57.0	74.8
126	29	0.06	48.0	80.7
134	25	0.05	39.0	86.6
176	31	0.06	30.0	92.7
266	25	0.07	20.0	99.4
499	26	0.09	10.0	105.9
268	14	0.20	0.0	112.1

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 3

ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.017

LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0

SUN AZIMUTH (DEGREES).....162.2

SUN ELEVATION (DEGREES).....33.9

HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
204	12	0.05	77.0	53.1
253	14	0.09	67.0	52.2
288	10	0.10	57.0	52.7
284	12	0.11	48.0	54.2
305	14	0.10	39.0	56.7
357	15	0.11	30.0	60.1
430	17	0.12	20.0	64.5
718	19	0.15	10.0	69.7
2275	25	0.29	0.0	75.3

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 4

ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.033

LINE OF SIGHT AZIMUTH (DEGREES).....135.0

SUN AZIMUTH (DEGREES).....162.4

SUN ELEVATION (DEGREES).....33.9

HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
267	8	0.05	77.0	44.8
417	4	0.12	67.0	36.7
672	5	0.19	57.0	29.6
1084	5	0.33	48.0	24.8
2040	6	0.46	39.0	22.5
1735	7	0.64	30.0	23.5
1695	6	0.60	20.0	28.0
2199	2	0.64	10.0	34.7
5062	2	1.16	0.0	42.6

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 5  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.050  
LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
SUN AZIMUTH (DEGREES).....162.7  
SUN ELEVATION (DEGREES).....34.0  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
269	11	0.05	77.0	43.7
408	6	0.12	67.0	34.5
705	4	0.21	57.0	25.8
1040	10	0.35	48.0	19.0
1708	9	0.53	39.0	14.7
1772	3	0.84	30.0	15.2
1935	2	0.70	20.0	20.8
2285	7	0.68	10.0	28.8
4909	3	1.07	0.0	37.7

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 6  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.067  
LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
SUN AZIMUTH (DEGREES).....163.0  
SUN ELEVATION (DEGREES).....34.1  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
205	10	0.05	77.0	50.7
261	10	0.09	67.0	48.1
277	10	0.10	57.0	47.0
294	14	0.11	48.0	47.4
326	14	0.10	39.0	49.1
362	16	0.11	30.0	51.9
448	21	0.12	20.0	56.2
769	21	0.15	10.0	61.3
2411	26	0.30	0.0	67.1



DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 7

ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.083

LINE OF SIGHT AZIMUTH (DEGREES).....270.0

SUN AZIMUTH (DEGREES).....163.2

SUN ELEVATION (DEGREES).....34.1

HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
137	16	0.05	77.0	60.5
128	25	0.06	67.0	65.0
128	29	0.06	57.0	70.1
128	32	0.06	48.0	75.1
142	38	0.06	39.0	80.3
177	39	0.07	30.0	85.8
257	35	0.08	20.0	91.9
491	34	0.10	10.0	97.9
1767	37	0.20	0.0	103.8

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 8

ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.100

LINE OF SIGHT AZIMUTH (DEGREES).....315.0

SUN AZIMUTH (DEGREES).....163.9

SUN ELEVATION (DEGREES).....34.2

HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
114	31	0.05	77.0	67.4
108	30	0.06	67.0	76.5
102	35	0.06	57.0	85.7
107	35	0.05	48.0	93.9
133	28	0.05	39.0	102.2
180	26	0.06	30.0	110.4
267	18	0.07	20.0	119.4
578	10	0.10	10.0	128.2
2455	8	0.24	0.0	136.6

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 1  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....11.200  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....165.2  
 SUN ELEVATION (DEGREES).....34.5  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
72	27	0.05	77.0	68.1
67	32	0.05	67.0	77.8
67	36	0.05	57.0	87.6
74	39	0.04	48.0	96.4
83	33	0.05	39.0	105.2
109	23	0.06	30.0	114.0
174	21	0.06	20.0	123.7
346	6	0.08	10.0	133.3
1520	4	0.16	0.0	142.8

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 2  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....11.217  
 LINE OF SIGHT AZIMUTH (DEGREES).....45.0  
 SUN AZIMUTH (DEGREES).....165.5  
 SUN ELEVATION (DEGREES).....34.6  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
91	20	0.06	77.0	62.7
85	25	0.06	67.0	68.9
83	29	0.06	57.0	75.6
82	28	0.06	48.0	81.8
99	29	0.06	39.0	88.1
131	19	0.06	30.0	94.5
188	19	0.07	20.0	101.4
427	22	0.09	10.0	108.7
2513	24	0.23	0.0	114.7

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 3  
 ALTITUDE (FEET).....50000  
 PACIFIC STANCARD TIME (HOURS).....11.233  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....165.7  
 SUN ELEVATION (DEGREES).....34.6  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
148	13	0.06	77.0	53.2
175	10	0.08	67.0	53.0
162	11	0.09	57.0	54.1
183	13	0.09	48.0	56.1
189	10	0.09	39.0	59.0
212	13	0.09	30.0	62.6
204	17	0.10	20.0	67.4
521	14	0.12	10.0	72.6
2359	31	0.28	0.0	78.3

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 4  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....11.250  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....166.0  
 SUN ELEVATION (DEGREES).....34.7  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
102	11	0.06	77.0	44.5
305	6	0.10	67.0	37.0
547	3	0.16	57.0	30.6
887	3	0.28	48.0	26.6
1563	8	0.37	39.0	25.1
1297	10	0.39	30.0	26.5
1239	2	0.39	20.0	31.0
1521	6	0.41	10.0	37.6
4725	6	0.85	0.0	45.2

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 5  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....11.267  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....166.3  
 SUN ELEVATION (DEGREES).....34.7  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
187	6	0.05	77.0	42.7
323	2	0.11	67.0	33.2
568	7	0.19	57.0	24.1
907	6	0.35	48.0	16.7
1307	5	0.64	39.0	11.7
1341	5	0.86	30.0	12.5
1555	6	0.61	20.0	19.1
1889	4	0.55	10.0	27.7
4882	9	0.88	0.0	37.0

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 6  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....11.300  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....166.9  
 SUN ELEVATION (DEGREES).....34.8  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
153	8	0.05	77.0	49.2
202	7	0.08	67.0	46.0
240	8	0.09	57.0	44.4
242	8	0.10	48.0	44.4
238	15	0.10	39.0	45.9
266	16	0.10	30.0	48.6
340	15	0.10	20.0	52.9
552	22	0.13	10.0	58.3
2209	22	0.26	0.0	64.3

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 7  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....11.317  
LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
SUN AZIMUTH (DEGREES).....167.2  
SUN ELEVATION (DEGREES).....34.9  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
101	15	0.04	77.0	58.9
97	21	0.06	67.0	62.9
94	30	0.06	57.0	67.7
97	29	0.05	48.0	72.4
103	35	0.06	39.0	77.4
123	35	0.06	30.0	82.6
168	35	0.06	20.0	88.6
322	32	0.08	10.0	94.6
1334	28	0.16	0.0	100.5

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 8  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....11.333  
LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
SUN AZIMUTH (DEGREES).....167.4  
SUN ELEVATION (DEGREES).....34.9  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
79	31	0.05	77.0	66.3
72	34	0.05	67.0	75.1
70	40	0.04	57.0	84.1
72	36	0.05	48.0	92.2
89	31	0.05	39.0	100.2
115	26	0.05	30.0	108.3
173	18	0.06	20.0	117.0
378	12	0.08	10.0	125.6
1796	7	0.18	0.0	133.8

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 1  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.467  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....169.7  
 SUN ELEVATION (DEGREES).....35.2  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
40	35	0.03	77.0	67.6
37	45	0.03	67.0	77.5
36	47	0.03	57.0	87.3
43	43	0.03	48.0	96.3
49	44	0.03	39.0	105.2
65	30	0.04	30.0	114.0
107	20	0.05	20.0	123.9
223	14	0.06	10.0	133.7
1566	12	0.11	0.0	143.5

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 2  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.483  
 LINE OF SIGHT AZIMUTH (DEGREES).....45.0  
 SUN AZIMUTH (DEGREES).....170.0  
 SUN ELEVATION (DEGREES).....35.3  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
48	31	0.03	77.0	62.8
39	32	0.04	67.0	69.6
40	34	0.03	57.0	76.7
43	40	0.03	48.0	83.3
47	36	0.04	39.0	90.0
64	33	0.04	30.0	96.7
98	30	0.05	20.0	104.0
177	25	0.06	10.0	111.1
1320	28	0.10	0.0	117.9

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....6.0 - 3

ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....11.500

LINE OF SIGHT AZIMUTH (DEGREES)..... 20.0

SUN AZIMUTH (DEGREES).....170.3

SUN ELEVATION (DEGREES).....35.3

HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
88	19	0.05	77.0	53.5
100	19	0.06	67.0	54.1
95	18	0.05	57.0	56.0
87	14	0.05	48.0	58.6
92	18	0.05	39.0	61.9
121	3	0.05	30.0	65.9
130	18	0.06	20.0	70.9
256	25	0.08	10.0	76.3
2068	28	0.16	0.0	82.1

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....6.0 - 4

ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....11.533

LINE OF SIGHT AZIMUTH (DEGREES).....135.0

SUN AZIMUTH (DEGREES).....170.8

SUN ELEVATION (DEGREES).....35.4

HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
99	11	0.05	77.0	44.5
151	7	0.06	67.0	37.7
252	8	0.08	57.0	32.3
423	10	0.11	48.0	29.2
605	9	0.17	39.0	28.6
568	6	0.15	30.0	30.5
533	7	0.15	20.0	35.0
734	6	0.17	10.0	41.3
4377	4	0.37	0.0	48.6

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 5  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.550  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....171.1  
 SUN ELEVATION (DEGREES).....35.4  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
100	8	0.05	77.0	41.8
163	6	0.07	67.0	32.0
265	7	0.11	57.0	22.4
323	5	0.20	48.0	14.2
0	0	0.74	39.0	7.9
143	10	1.23	30.0	9.2
680	6	0.33	20.0	17.3
1034	2	0.26	10.0	26.7
5405	0	0.41	0.0	36.4

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 6  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.583  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....171.7  
 SUN ELEVATION (DEGREES).....35.5  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
76	13	0.05	77.0	47.6
98	5	0.06	67.0	43.6
132	11	0.08	57.0	41.3
129	11	0.08	48.0	40.8
123	11	0.07	39.0	42.0
130	20	0.07	30.0	44.6
176	19	0.08	20.0	49.0
315	17	0.09	10.0	54.5
2014	14	0.18	0.0	60.9



DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 7  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.600  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....172.0  
 SUN ELEVATION (DEGREES).....35.5  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
55	19	0.04	77.0	57.3
50	27	0.05	67.0	60.6
51	31	0.04	57.0	64.8
51	32	0.04	48.0	69.2
54	40	0.05	39.0	73.9
66	40	0.04	30.0	78.9
91	35	0.05	20.0	84.7
174	32	0.06	10.0	90.6
879	22	0.09	0.0	96.5

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 8  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.617  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....172.3  
 SUN ELEVATION (DEGREES).....35.5  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
42	36	0.04	77.0	65.1
38	38	0.04	67.0	73.6
36	41	0.04	57.0	82.3
39	48	0.04	48.0	90.1
45	39	0.04	39.0	97.9
60	26	0.04	30.0	105.7
99	26	0.05	20.0	114.2
191	17	0.06	10.0	122.5
1347	20	0.11	0.0	130.3

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....6.9 - 1  
ALTITUDE (FEET).....69000

PACIFIC STANDARD TIME (HOURS).....11.933  
LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
SUN AZIMUTH (DEGREES).....177.8  
SUN ELEVATION (DEGREES).....33.9  
HORIZON CORRECTION ANGLE (DEGREES).....4.6

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
19	43	0.04	77.0	67.1
18	48	0.03	67.0	77.1
17	53	0.03	57.0	87.1
20	57	0.03	48.0	96.1
24	46	0.03	39.0	105.1
34	38	0.03	30.0	114.1
55	31	0.03	20.0	124.1
122	5	0.06	10.0	134.1
797	4	0.08	0.0	144.1

DATE AND FLIGHT NUMBER..... 1/24/64 - 1

FLIGHT RECORD CODE NUMBER.....5.9 - 2  
ALTITUDE (FEET).....69000

PACIFIC STANDARD TIME (HOURS).....11.967  
LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
SUN AZIMUTH (DEGREES).....178.4  
SUN ELEVATION (DEGREES).....35.9  
HORIZON CORRECTION ANGLE (DEGREES).....4.6

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
24	40	0.03	77.0	63.5
19	48	0.03	67.0	71.2
18	52	0.03	57.0	79.1
20	51	0.03	48.0	86.4
24	47	0.03	39.0	93.6
33	41	0.03	30.0	100.9
51	25	0.04	20.0	108.8
105	20	0.05	10.0	116.5
944	18	0.08	0.0	123.8

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.9 - 3  
 ALTITUDE (FEET).....69000  
 PACIFIC STANDARD TIME (HOURS).....11.983  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....178.7  
 SUN ELEVATION (DEGREES).....35.9  
 HORIZON CORRECTION ANGLE (DEGREES).....4.6

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
47	22	0.04	77.0	54.9
38	31	0.04	67.0	56.8
32	28	0.04	57.0	59.9
31	28	0.04	48.0	63.4
36	33	0.05	39.0	67.4
39	26	0.05	30.0	72.0
58	30	0.05	20.0	77.4
123	31	0.07	10.0	83.1
1512	35	0.09	0.0	88.9

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.5 - 4  
 ALTITUDE (FEET).....69000  
 PACIFIC STANDARD TIME (HOURS).....12.017  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....179.3  
 SUN ELEVATION (DEGREES).....35.9  
 HORIZON CORRECTION ANGLE (DEGREES).....4.6

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
45	17	0.04	77.0	45.4
63	11	0.05	67.0	40.0
89	14	0.06	57.0	36.1
243	17	0.07	48.0	34.5
155	20	0.09	39.0	34.9
147	19	0.06	30.0	37.3
162	15	0.06	20.0	41.8
261	13	0.07	10.0	47.7
327	6	0.15	0.0	54.5

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.9 - 5  
 ALTITUDE (FEET).....69000  
 PACIFIC STANCARD TIME (HOURS).....12.033  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....179.5  
 SUN ELEVATION (DEGREES).....35.9  
 HORIZON CORRECTION ANGLE (DEGREES).....4.6

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
58	12	0.03	77.0	41.1
69	13	0.05	67.0	31.1
24	7	0.07	57.0	21.1
0	0	0.13	48.0	12.1
0	0	2.07	39.0	3.1
0	0	1.91	30.0	5.9
121	6	0.22	20.0	15.9
395	9	0.11	10.0	25.9
2394	16	0.16	0.0	35.9

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.9 - 6  
 ALTITUDE (FEET).....69000  
 PACIFIC STANCARD TIME (HOURS).....12.050  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....179.8  
 SUN ELEVATION (DEGREES).....35.9  
 HORIZON CORRECTION ANGLE (DEGREES).....4.6

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
46	15	0.02	77.0	45.6
52	9	0.05	67.0	40.3
85	8	0.06	57.0	36.6
144	12	0.09	48.0	35.1
87	12	0.07	39.0	35.6
95	14	0.07	30.0	38.0
128	16	0.07	20.0	42.5
245	21	0.08	10.0	48.4
2704	13	0.16	0.0	55.2

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.9 - 7  
 ALTITUDE (FEET).....69000  
 PACIFIC STANDARD TIME (HOURS).....12.083  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....180.4  
 SUN ELEVATION (DEGREES).....35.9  
 HORIZON CORRECTION ANGLE (DEGREES).....4.6

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
35	25	0.03	77.0	55.1
32	31	0.03	67.0	57.2
30	37	0.03	57.0	60.3
27	42	0.04	48.0	63.9
33	43	0.03	39.0	68.1
40	46	0.04	30.0	72.7
55	45	0.04	20.0	78.1
117	38	0.06	10.0	83.8
1289	37	0.09	0.0	89.7

DATE AND FLIGHT NUMBER..... 1/24/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.9 - 8  
 ALTITUDE (FEET).....69000  
 PACIFIC STANDARD TIME (HOURS).....12.117  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....181.0  
 SUN ELEVATION (DEGREES).....35.9  
 HORIZON CORRECTION ANGLE (DEGREES).....4.6

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
20	44	0.03	77.0	63.6
20	51	0.03	67.0	71.3
19	56	0.00	57.0	79.3
21	54	0.02	48.0	86.6
25	47	0.00	39.0	93.9
37	37	0.02	30.0	101.2
60	31	0.02	20.0	109.2
145	24	0.05	10.0	116.9
2370	13	0.13	0.0	124.2

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 1  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....10.783  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....157.9  
 SUN ELEVATION (DEGREES).....31.8  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
159	52	0.05	77.0	70.3
160	45	0.06	67.0	79.8
157	53	0.06	57.0	89.2
207	45	0.06	48.0	97.8
206	45	0.06	39.0	106.3
286	34	0.07	30.0	114.7
459	26	0.09	20.0	124.0
882	9	0.15	10.0	133.2
2964	9	0.32	0.0	142.0

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 2  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....10.800  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
 SUN AZIMUTH (DEGREES).....158.2  
 SUN ELEVATION (DEGREES).....31.9  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
201	31	0.06	77.0	63.9
194	36	0.07	67.0	69.2
187	37	0.07	57.0	74.9
195	38	0.07	48.0	80.3
238	37	0.07	39.0	85.8
299	35	0.08	30.0	91.5
416	32	0.09	20.0	97.7
817	31	0.14	10.0	103.8
2554	35	0.27	0.0	109.6

FLIGHT RECORD CODE NUMBER.....2.0 - 3  
 ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....10.817  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....158.5  
 SUN ELEVATION (DEGREES).....32.0  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
269	17	0.06	77.0	54.1
308	13	0.10	67.0	52.5
332	13	0.12	57.0	52.2
387	16	0.12	48.0	53.0
397	9	0.13	39.0	54.9
488	19	0.13	30.0	57.7
674	21	0.16	20.0	61.7
1136	21	0.23	10.0	66.5
2007	31	0.44	0.0	71.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....2.0 - 4  
 ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....10.833  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....158.7  
 SUN ELEVATION (DEGREES).....32.0  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
352	13	0.07	77.0	46.3
536	7	0.15	67.0	37.7
832	3	0.25	57.0	29.8
1317	8	0.35	48.0	24.0
2201	6	0.64	39.0	20.5
2517	4	0.95	30.0	20.4
2368	6	0.99	20.0	24.4
2890	5	1.09	10.0	31.1
4501	7	1.51	0.0	39.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 5  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....10.850  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....159.0  
 SUN ELEVATION (DEGREES).....32.1  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
348	8	0.07	77.0	45.9
486	8	0.15	67.0	37.0
709	5	0.24	57.0	28.8
1107	4	0.36	48.0	22.5
1788	4	0.56	39.0	18.4
1674	8	0.75	30.0	18.1
1856	5	0.73	20.0	22.3
2450	4	0.80	10.0	29.4
3846	12	1.14	0.0	37.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 6  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....10.883  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....159.5  
 SUN ELEVATION (DEGREES).....32.3  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
275	14	0.06	77.0	53.2
316	16	0.10	67.0	51.1
348	19	0.11	57.0	50.3
359	17	0.11	48.0	50.8
389	27	0.11	39.0	52.5
468	29	0.12	30.0	55.2
617	27	0.14	20.0	59.2
1030	36	0.20	10.0	64.0
2568	39	0.35	0.0	69.4



DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 7  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....10.900  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....159.8  
 SUN ELEVATION (DEGREES).....32.3  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
196	24	0.06	77.0	62.9
191	30	0.07	67.0	67.8
182	38	0.07	57.0	73.2
208	49	0.07	48.0	78.3
241	48	0.07	39.0	83.7
297	46	0.07	30.0	89.1
411	43	0.09	20.0	95.2
737	37	0.13	10.0	101.2
2375	34	0.24	0.0	107.0

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 8  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....10.917  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....160.1  
 SUN ELEVATION (DEGREES).....32.4  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
176	39	0.06	77.0	69.5
163	49	0.06	67.0	78.8
167	50	0.06	57.0	98.1
180	47	0.06	48.0	96.5
221	42	0.06	39.0	104.9
296	27	0.07	30.0	113.2
468	20	0.09	20.0	122.4
885	17	0.14	10.0	131.3
3108	7	0.30	0.0	139.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....3.0 - 1  
ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS).....11.000  
LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
SUN AZIMUTH (DEGREES).....161.4  
SUN ELEVATION (DEGREES).....32.7  
HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
129	34	0.05	77.0	69.7
122	43	0.06	67.0	79.3
117	51	0.05	57.0	88.9
130	46	0.05	48.0	97.6
158	41	0.06	39.0	106.2
222	33	0.06	30.0	114.9
337	19	0.08	20.0	124.4
745	9	0.13	10.0	133.7
3063	9	0.31	0.0	142.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....3.0 - 2  
ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS).....11.033  
LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
SUN AZIMUTH (DEGREES).....162.0  
SUN ELEVATION (DEGREES).....32.9  
HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
146	29	0.06	77.0	63.7
130	27	0.07	67.0	69.5
127	35	0.06	57.0	75.7
143	33	0.06	48.0	81.5
156	37	0.06	39.0	87.4
197	32	0.07	30.0	93.4
307	30	0.08	20.0	99.9
589	24	0.12	10.0	106.3
2103	38	0.24	0.0	112.4

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 3  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....11.050  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....162.2  
 SUN ELEVATION (DEGREES).....32.9  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LDS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
215	13	0.08	77.0	54.1
255	14	0.10	67.0	53.1
288	14	0.11	57.0	53.5
296	9	0.11	48.0	54.9
308	14	0.11	39.0	57.3
370	17	0.12	30.0	60.4
483	14	0.14	20.0	64.8
795	22	0.20	10.0	69.7
2319	31	0.35	0.0	75.2

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 4  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....11.067  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....162.5  
 SUN ELEVATION (DEGREES).....33.0  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LDS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
299	9	0.09	77.0	45.8
451	3	0.15	67.0	37.7
705	6	0.25	57.0	30.5
1119	5	0.33	48.0	25.5
2099	6	0.56	39.0	23.0
1950	8	0.73	30.0	23.6
2039	5	0.87	20.0	27.7
2668	5	0.97	10.0	34.2
4345	5	1.54	0.0	41.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 5  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....11.083  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....162.8  
 SUN ELEVATION (DEGREES).....33.0  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
276	11	0.09	77.0	44.7
411	4	0.15	67.0	35.4
681	3	0.25	57.0	26.7
1029	9	0.38	48.0	19.8
1680	7	0.68	39.0	15.1
1785	4	0.94	30.0	15.0
1968	2	0.90	20.0	20.1
2287	7	0.88	10.0	28.0
3844	4	1.23	0.0	36.8

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 6  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....11.100  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....163.1  
 SUN ELEVATION (DEGREES).....33.1  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
222	10	0.07	77.0	51.6
273	11	0.10	67.0	49.0
289	9	0.11	57.0	47.7
288	16	0.11	48.0	48.0
323	19	0.11	39.0	49.5
370	19	0.12	30.0	52.0
464	26	0.13	20.0	56.1
774	26	0.17	10.0	61.1
2210	30	0.30	0.0	66.8

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 7  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....11.117  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....163.3  
 SUN ELEVATION (DEGREES).....33.2  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
160	20	0.06	77.0	61.4
146	32	0.07	67.0	65.8
149	37	0.07	57.0	70.9
156	41	0.06	48.0	75.8
169	48	0.06	39.0	80.9
213	43	0.07	30.0	86.2
317	39	0.08	20.0	92.2
598	34	0.12	10.0	98.1
2250	33	0.24	0.0	103.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 8  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....11.133  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....163.6  
 SUN ELEVATION (DEGREES).....33.2  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
129	35	0.05	77.0	68.4
123	41	0.06	67.0	77.5
116	47	0.06	57.0	86.6
121	47	0.06	48.0	94.8
149	38	0.06	39.0	103.1
203	30	0.07	30.0	111.2
305	19	0.08	20.0	120.2
613	14	0.12	10.0	128.9
2454	8	0.24	0.0	137.3

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 1  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.217  
LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
SUN AZIMUTH (DEGREES).....165.0  
SUN ELEVATION (DEGREES).....33.5  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
97	27	0.05	77.0	69.1
92	33	0.05	67.0	78.9
88	39	0.05	57.0	88.6
93	39	0.05	48.0	97.4
113	32	0.05	39.0	106.2
156	29	0.06	30.0	115.0
257	19	0.07	20.0	124.6
548	7	0.11	10.0	134.2
2348	5	0.27	0.0	143.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 2  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.233  
LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
SUN AZIMUTH (DEGREES).....165.3  
SUN ELEVATION (DEGREES).....33.5  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
128	16	0.05	77.0	63.7
113	27	0.07	67.0	69.9
101	24	0.06	57.0	76.4
111	25	0.06	48.0	82.6
131	28	0.06	39.0	88.8
154	24	0.06	30.0	95.0
247	24	0.08	20.0	101.9
543	26	0.11	10.0	108.5
2359	28	0.25	0.0	114.8

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 3  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....11.250  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....165.6  
 SUN ELEVATION (DEGREES).....33.6  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
184	8	0.06	77.0	54.1
220	11	0.09	67.0	53.8
237	14	0.11	57.0	54.8
241	11	0.10	48.0	56.6
242	11	0.10	39.0	59.4
287	15	0.10	30.0	62.8
389	16	0.12	20.0	67.4
671	15	0.16	10.0	72.5
2201	29	0.32	0.0	78.0

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 4  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....11.267  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....165.8  
 SUN ELEVATION (DEGREES).....33.6  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
266	8	0.06	77.0	45.5
435	3	0.15	67.0	37.9
675	7	0.24	57.0	31.4
1073	6	0.37	48.0	27.1
1794	5	0.52	39.0	25.3
1684	3	0.63	30.0	26.4
1655	6	0.68	20.0	30.5
2217	5	0.77	10.0	36.9
4600	8	1.49	0.0	44.4

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 5  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....11.283  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....166.1  
 SUN ELEVATION (DEGREES).....33.7  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
270	5	0.06	77.0	43.8
412	7	0.15	67.0	34.3
682	5	0.26	57.0	25.2
1110	5	0.41	48.0	17.7
1866	1	0.71	39.0	12.4
1399	6	0.96	30.0	12.4
1892	4	0.89	20.0	18.4
2298	3	0.87	10.0	26.9
3952	3	1.23	0.0	36.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 6  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....11.317  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....166.7  
 SUN ELEVATION (DEGREES).....33.8  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
187	5	0.06	77.0	50.2
239	9	0.09	67.0	47.0
272	10	0.10	57.0	45.3
271	8	0.11	48.0	45.2
291	16	0.11	39.0	46.4
332	17	0.11	30.0	49.0
408	22	0.13	20.0	53.1
699	21	0.17	10.0	58.2
2344	27	0.33	0.0	64.1



DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 7  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....11.333  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....166.9  
 SUN ELEVATION (DEGREES).....33.8  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
129	22	0.05	77.0	60.0
118	22	0.07	67.0	64.0
110	33	0.06	57.0	68.6
117	37	0.06	48.0	73.3
127	37	0.06	39.0	78.2
155	39	0.06	30.0	83.4
223	37	0.07	20.0	89.2
406	29	0.10	10.0	95.1
0	0	0.19	0.0	100.8

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 8  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....11.350  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....167.2  
 SUN ELEVATION (DEGREES).....33.9  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
105	26	0.05	77.0	67.4
92	32	0.06	67.0	76.2
93	36	0.06	57.0	85.1
96	34	0.05	48.0	93.2
114	31	0.05	39.0	101.3
148	25	0.06	30.0	109.2
231	12	0.07	20.0	118.0
509	15	0.10	10.0	126.5
2097	9	0.23	0.0	134.6

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 1  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....11.433  
LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
SUN AZIMUTH (DEGREES).....169.6  
SUN ELEVATION (DEGREES).....34.1  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
89	25	0.05	77.0	68.7
74	34	0.05	67.0	78.5
68	34	0.05	57.0	88.4
76	34	0.05	48.0	97.3
93	34	0.05	39.0	106.2
116	17	0.05	30.0	115.0
198	13	0.07	20.0	124.8
452	9	0.10	10.0	134.6
2179	7	0.25	0.0	144.3

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 2  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....11.450  
LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
SUN AZIMUTH (DEGREES).....168.9  
SUN ELEVATION (DEGREES).....34.1  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
99	13	0.05	77.0	63.7
87	20	0.06	67.0	70.4
85	26	0.06	57.0	77.4
88	29	0.05	48.0	83.8
95	25	0.06	39.0	90.3
123	25	0.06	30.0	96.9
201	21	0.07	20.0	104.0
399	19	0.10	10.0	110.9
1638	23	0.20	0.0	117.5

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 3  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....11.467  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....169.2  
 SUN ELEVATION (DEGREES).....34.2  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
167	10	0.06	77.0	54.4
191	14	0.09	67.0	54.7
186	6	0.09	57.0	56.3
178	9	0.09	48.0	58.6
191	13	0.09	39.0	61.7
227	12	0.09	30.0	65.5
284	15	0.10	20.0	70.3
539	16	0.14	10.0	75.5
2192	26	0.29	0.0	81.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 4  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....11.483  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....169.5  
 SUN ELEVATION (DEGREES).....34.2  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
228	4	0.07	77.0	45.5
343	8	0.13	67.0	38.4
554	5	0.20	57.0	32.6
942	4	0.31	48.0	29.1
1497	4	0.42	39.0	27.9
1381	6	0.48	30.0	29.4
1398	6	0.52	20.0	33.6
1863	2	0.60	10.0	39.7
4013	6	1.18	0.0	47.0

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 5  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....11.500  
LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
SUN AZIMUTH (DEGREES).....150.0  
SUN ELEVATION (DEGREES).....34.2  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
214	9	0.06	77.0	43.0
368	6	0.13	67.0	33.3
714	4	0.24	57.0	23.8
1187	2	0.41	48.0	15.7
936	7	0.81	39.0	9.5
1210	3	1.22	30.0	9.6
2207	2	0.98	20.0	16.9
2489	8	0.96	10.0	26.0
5019	5	1.37	0.0	35.5

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 6  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....11.517  
LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
SUN AZIMUTH (DEGREES).....170.1  
SUN ELEVATION (DEGREES).....34.3  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
164	3	0.06	77.0	49.1
206	8	0.09	67.0	45.3
260	4	0.11	57.0	43.1
247	3	0.12	48.0	42.6
279	13	0.12	39.0	43.7
326	9	0.12	30.0	46.2
418	16	0.13	20.0	50.3
732	15	0.18	10.0	55.6
2424	17	0.36	0.0	61.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 7  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....11.550  
LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
SUN AZIMUTH (DEGREES).....170.6  
SUN ELEVATION (DEGREES).....34.3  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
116	11	0.06	77.0	58.7
107	15	0.06	67.0	62.2
105	25	0.06	57.0	66.4
105	25	0.06	48.0	70.8
116	26	0.06	39.0	75.5
138	30	0.07	30.0	80.5
205	31	0.07	20.0	86.2
411	25	0.10	10.0	92.0
2159	32	0.21	0.0	97.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 8  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....11.567  
LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
SUN AZIMUTH (DEGREES).....170.9  
SUN ELEVATION (DEGREES).....34.4  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
90	21	0.06	77.0	66.4
76	32	0.06	67.0	75.0
76	33	0.05	57.0	83.7
82	30	0.05	48.0	91.6
91	28	0.06	39.0	99.5
122	16	0.06	30.0	107.3
198	15	0.07	20.0	115.8
447	16	0.10	10.0	124.1
2428	9	0.25	0.0	132.0

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....6.0 - 1  
ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....11.700  
LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
SUN AZIMUTH (DEGREES).....173.2  
SUN ELEVATION (DEGREES).....34.6  
HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
54	22	0.04	77.0	68.3
46	27	0.05	67.0	78.3
44	38	0.05	57.0	88.2
46	34	0.05	48.0	97.2
57	30	0.05	39.0	106.1
85	26	0.05	30.0	115.1
124	12	0.06	20.0	125.0
329	4	0.08	10.0	134.9
2094	5	0.20	0.0	144.8

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....6.0 - 2  
ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....11.717  
LINE OF SIGHT AZIMUTH (DEGREES).....45.0  
SUN AZIMUTH (DEGREES).....173.5  
SUN ELEVATION (DEGREES).....34.6  
HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
59	19	0.05	77.0	64.0
51	23	0.05	67.0	71.2
46	24	0.04	57.0	78.6
51	28	0.05	48.0	85.4
60	27	0.05	39.0	92.3
79	23	0.06	30.0	99.2
118	15	0.06	20.0	106.7
271	17	0.08	10.0	113.9
1736	21	0.18	0.0	120.8

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 3  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.733  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....173.8  
 SUN ELEVATION (DEGREES).....34.6  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
96	27	0.06	77.0	55.0
111	7	0.07	67.0	56.1
104	9	0.07	57.0	58.3
106	13	0.07	48.0	61.2
105	7	0.06	39.0	64.7
122	12	0.08	30.0	68.8
166	19	0.08	20.0	73.8
341	15	0.10	10.0	79.2
1953	28	0.24	0.0	84.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 4  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.750  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....174.0  
 SUN ELEVATION (DEGREES).....34.7  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
133	9	0.06	77.0	45.7
240	6	0.10	67.0	39.4
354	4	0.14	57.0	34.4
585	5	0.19	48.0	31.8
661	8	0.32	39.0	31.3
697	7	0.28	30.0	33.1
771	3	0.29	20.0	37.4
1138	6	0.35	10.0	43.3
3968	9	1.07	0.0	50.3

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 5  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.767  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....174.3  
 SUN ELEVATION (DEGREES).....34.7  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
161	8	0.06	77.0	42.4
292	5	0.12	67.0	32.5
580	2	0.21	57.0	22.6
963	8	0.38	48.0	14.0
0	0	1.62	39.0	6.3
0	0	1.60	30.0	6.7
1416	8	0.67	20.0	15.5
1913	7	0.64	10.0	25.2
0	0	1.32	0.0	35.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 6  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.783  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....174.6  
 SUN ELEVATION (DEGREES).....34.7  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
118	4	0.06	77.0	47.7
154	4	0.09	67.0	43.2
216	3	0.11	57.0	40.3
212	7	0.11	48.0	39.3
216	8	0.11	39.0	40.0
235	6	0.11	30.0	42.4
291	12	0.12	20.0	46.6
542	10	0.16	10.0	52.0
2494	10	0.31	0.0	58.4



DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....6.0 - 7

ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....11.817

LINE OF SIGHT AZIMUTH (DEGREES).....270.0

SUN AZIMUTH (DEGREES).....175.2

SUN ELEVATION (DEGREES).....34.7

HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
86	15	0.05	77.0	57.3
75	14	0.06	67.0	60.2
70	20	0.05	57.0	63.9
74	23	0.06	48.0	67.8
80	23	0.06	39.0	72.2
93	32	0.06	30.0	77.0
135	26	0.06	20.0	82.5
262	24	0.08	10.0	88.2
1434	7	0.15	0.0	93.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....6.0 - 8

ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....11.850

LINE OF SIGHT AZIMUTH (DEGREES).....315.0

SUN AZIMUTH (DEGREES).....175.8

SUN ELEVATION (DEGREES).....34.8

HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
59	21	0.05	77.0	65.4
50	27	0.05	67.0	73.6
49	32	0.04	57.0	82.0
53	31	0.04	48.0	89.6
60	35	0.04	39.0	97.2
84	22	0.05	30.0	104.7
132	19	0.06	20.0	112.9
317	18	0.08	10.0	120.9
2075	7	0.22	0.0	128.5

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....7.0 - 1

ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....12.150

LINE OF SIGHT AZIMUTH (DEGREES).....360.0

SUN AZIMUTH (DEGREES).....181.0

SUN ELEVATION (DEGREES).....34.9

HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
21	39	0.03	77.0	68.1
19	53	0.04	67.0	78.1
18	50	0.02	57.0	88.1
19	54	0.02	48.0	97.1
25	48	0.02	39.0	106.1
31	48	0.03	30.0	115.1
56	24	0.03	20.0	125.1
118	15	0.06	10.0	135.1
659	9	0.08	0.0	145.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....7.0 - 2

ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....12.167

LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0

SUN AZIMUTH (DEGREES).....181.3

SUN ELEVATION (DEGREES).....34.9

HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
24	43	0.03	77.0	64.9
18	45	0.03	67.0	72.9
18	45	0.03	57.0	81.0
20	54	0.00	48.0	88.4
24	49	0.03	39.0	95.8
29	37	0.00	30.0	103.1
49	29	0.04	20.0	111.2
103	15	0.06	10.0	119.0
902	5	0.08	0.0	126.4

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....7.0 - 3  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....12.200  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....181.8  
 SUN ELEVATION (DEGREES).....34.9  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
46	23	0.05	77.0	56.6
37	31	0.05	67.0	58.9
33	30	0.04	57.0	62.3
31	32	0.03	48.0	66.0
32	26	0.04	39.0	70.2
37	26	0.05	30.0	74.7
55	33	0.04	20.0	80.2
100	26	0.05	10.0	85.8
786	24	0.08	0.0	91.5

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....7.0 - 4  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....12.217  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....182.1  
 SUN ELEVATION (DEGREES).....34.9  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
41	21	0.04	77.0	47.0
57	14	0.05	67.0	41.9
0	0	0.05	57.0	38.4
220	13	0.06	48.0	37.0
131	20	0.08	39.0	37.5
136	21	0.06	30.0	39.7
147	10	0.06	20.0	43.9
238	14	0.07	10.0	49.5
360	8	0.15	0.0	56.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....7.0 - 5  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....12.250  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....182.7  
 SUN ELEVATION (DEGREES).....34.8  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
51	14	0.04	77.0	42.2
65	10	0.06	67.0	32.2
43	5	0.07	57.0	22.2
0	0	0.12	48.0	13.3
0	0	1.43	39.0	4.7
0	0	1.72	30.0	5.3
63	9	0.29	20.0	15.0
369	3	0.11	10.0	25.0
2593	20	0.16	0.0	34.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....7.0 - 6  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....12.267  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....183.0  
 SUN ELEVATION (DEGREES).....34.8  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
38	14	0.05	77.0	46.1
47	9	0.05	67.0	40.2
64	9	0.06	57.0	35.8
155	11	0.07	48.0	33.6
90	11	0.09	39.0	33.6
90	8	0.07	30.0	35.5
108	13	0.07	20.0	39.8
183	14	0.07	10.0	45.6
1397	21	0.11	0.0	52.4

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....7.0 - 7

ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....12.300

LINE OF SIGHT AZIMUTH (DEGREES).....270.0

SUN AZIMUTH (DEGREES).....183.6

SUN ELEVATION (DEGREES).....34.8

HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
40	27	0.04	77.0	55.4
34	29	0.04	67.0	57.0
31	30	0.04	57.0	59.6
30	36	0.04	48.0	62.7
32	40	0.04	39.0	66.5
41	39	0.04	30.0	70.8
56	37	0.04	20.0	75.9
101	39	0.05	10.0	81.4
1152	32	0.10	0.0	87.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....7.0 - 8

ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....12.333

LINE OF SIGHT AZIMUTH (DEGREES).....315.0

SUN AZIMUTH (DEGREES).....184.1

SUN ELEVATION (DEGREES).....34.8

HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
21	38	0.04	77.0	64.2
22	48	0.02	67.0	71.6
20	53	0.02	57.0	79.3
22	50	0.00	48.0	86.3
28	42	0.02	39.0	93.4
37	30	0.03	30.0	100.4
61	31	0.04	20.0	108.1
120	26	0.05	10.0	115.5
1997	9	0.09	0.0	122.5

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 1  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....10.783  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....157.9  
 SUN ELEVATION (DEGREES).....31.8  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
159	52	0.05	77.0	70.3
160	45	0.06	67.0	79.8
157	53	0.06	57.0	89.2
207	45	0.06	48.0	97.8
206	45	0.06	39.0	106.3
286	34	0.07	30.0	114.7
459	26	0.09	20.0	124.0
882	9	0.15	10.0	133.2
296	9	0.32	0.0	142.0

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 2  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....10.800  
 LINE OF SIGHT AZIMUTH (DEGREES).....45.0  
 SUN AZIMUTH (DEGREES).....158.2  
 SUN ELEVATION (DEGREES).....31.9  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
201	31	0.06	77.0	63.9
194	36	0.07	67.0	69.2
187	37	0.07	57.0	74.9
195	38	0.07	48.0	80.3
238	37	0.07	39.0	85.8
299	35	0.08	30.0	91.5
416	32	0.09	20.0	97.7
817	31	0.14	10.0	103.8
2554	35	0.27	0.0	109.6

FLIGHT RECORD CODE NUMBER.....2.0 - 3  
ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....10.817  
LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
SUN AZIMUTH (DEGREES).....158.5  
SUN ELEVATION (DEGREES).....32.0  
HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
269	17	0.06	77.0	54.1
308	13	0.10	67.0	52.5
332	13	0.12	57.0	52.2
387	16	0.12	48.0	53.0
397	9	0.13	39.0	54.9
488	19	0.13	30.0	57.7
674	21	0.16	20.0	61.7
1136	21	0.23	10.0	66.5
2007	31	0.44	0.0	71.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....2.0 - 4  
ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....10.833  
LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
SUN AZIMUTH (DEGREES).....158.7  
SUN ELEVATION (DEGREES).....32.0  
HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
352	13	0.07	77.0	46.3
536	7	0.15	67.0	37.7
832	3	0.25	57.0	29.8
1317	8	0.35	48.0	24.0
2201	6	0.64	39.0	20.5
2517	4	0.95	30.0	20.4
2368	6	0.99	20.0	24.4
2890	5	1.09	10.0	31.1
4501	7	1.51	0.0	39.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 5  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....10.850  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....159.0  
 SUN ELEVATION (DEGREES).....32.1  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
348	8	0.07	77.0	45.9
486	8	0.15	67.0	37.0
709	5	0.24	57.0	28.8
1107	4	0.36	48.0	22.5
1788	4	0.56	39.0	18.4
1674	8	0.75	30.0	18.1
1856	5	0.73	20.0	22.3
2450	4	0.80	10.0	29.4
3846	12	1.14	0.0	37.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 6  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....10.883  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....159.5  
 SUN ELEVATION (DEGREES).....32.3  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
275	14	0.06	77.0	53.2
316	16	0.10	67.0	51.1
348	19	0.11	57.0	50.3
359	17	0.11	48.0	50.8
389	27	0.11	39.0	52.5
468	29	0.12	30.0	55.2
617	27	0.14	20.0	59.2
1030	36	0.20	10.0	64.0
2568	39	0.35	0.0	69.4



DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 7  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....10.900  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....159.8  
 SUN ELEVATION (DEGREES).....32.3  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
196	24	0.06	77.0	62.9
191	30	0.07	67.0	67.8
182	38	0.07	57.0	73.2
208	49	0.07	48.0	78.3
241	48	0.07	39.0	83.7
297	46	0.07	30.0	89.1
411	43	0.09	20.0	95.2
737	37	0.13	10.0	101.2
2375	34	0.24	0.0	107.0

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 8  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....10.917  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....160.1  
 SUN ELEVATION (DEGREES).....32.4  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
176	39	0.06	77.0	69.5
163	49	0.06	67.0	78.8
167	50	0.06	57.0	88.1
180	47	0.06	48.0	96.5
221	42	0.06	39.0	104.9
296	27	0.07	30.0	113.2
468	20	0.09	20.0	122.4
885	17	0.14	10.0	131.3
3108	7	0.30	0.0	139.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 1  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....11.000  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....161.4  
 SUN ELEVATION (DEGREES).....32.7  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
129	34	0.05	77.0	69.7
122	43	0.06	67.0	79.3
117	51	0.05	57.0	88.9
130	46	0.05	48.0	97.6
158	41	0.06	39.0	106.2
222	33	0.06	30.0	114.9
337	19	0.08	20.0	124.4
745	9	0.13	10.0	133.7
3063	9	0.31	0.0	142.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 2  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....11.033  
 LINE OF SIGHT AZIMUTH (DEGREES).....45.0  
 SUN AZIMUTH (DEGREES).....162.0  
 SUN ELEVATION (DEGREES).....32.9  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
146	29	0.06	77.0	63.7
130	27	0.07	67.0	69.5
127	35	0.06	57.0	75.7
143	33	0.06	48.0	81.5
156	37	0.06	39.0	87.4
197	32	0.07	30.0	93.4
307	30	0.08	20.0	99.9
589	24	0.12	10.0	106.3
2103	38	0.24	0.0	112.4

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 3  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....11.050  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....162.2  
 SUN ELEVATION (DEGREES).....32.9  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
215	13	0.08	77.0	54.1
255	14	0.10	67.0	53.1
288	14	0.11	57.0	53.5
296	9	0.11	48.0	54.9
308	14	0.11	39.0	57.3
370	17	0.12	30.0	60.4
483	14	0.14	20.0	64.8
795	22	0.20	10.0	69.7
2319	31	0.35	0.0	75.2

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 4  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....11.067  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....162.5  
 SUN ELEVATION (DEGREES).....33.0  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
299	9	0.09	77.0	45.8
451	3	0.15	67.0	37.7
705	6	0.25	57.0	30.5
1119	5	0.38	48.0	25.5
2099	6	0.56	39.0	23.0
1950	8	0.78	30.0	23.6
2039	5	0.97	20.0	27.7
2668	5	0.97	10.0	34.2
4345	5	1.54	0.0	41.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 5  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....11.083  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....142.8  
 SUN ELEVATION (DEGREES).....33.0  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
276	11	0.09	77.0	44.7
411	4	0.15	67.0	35.4
681	3	0.25	57.0	26.7
1029	9	0.38	48.0	19.8
1680	7	0.68	39.0	15.1
1785	4	0.94	30.0	15.0
1968	2	0.90	20.0	20.1
2287	7	0.88	10.0	28.0
3844	4	1.23	0.0	36.8

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 6  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....11.100  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....163.1  
 SUN ELEVATION (DEGREES).....33.1  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
222	10	0.07	77.0	51.6
273	11	0.10	67.0	49.0
289	9	0.11	57.0	47.7
288	16	0.11	48.0	48.0
323	19	0.11	39.0	49.5
370	19	0.12	30.0	52.1
464	26	0.13	20.0	56.1
774	26	0.17	10.0	61.1
2210	30	0.30	0.0	66.8

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 7  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....11.117  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....163.3  
 SUN ELEVATION (DEGREES).....33.2  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
160	20	0.06	77.0	61.4
146	32	0.07	67.0	65.8
149	37	0.07	57.0	70.9
156	41	0.06	48.0	75.8
169	48	0.06	39.0	80.9
213	43	0.07	30.0	86.2
317	39	0.08	20.0	92.2
598	34	0.12	10.0	98.1
2250	33	0.24	0.0	103.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 8  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....11.133  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....163.6  
 SUN ELEVATION (DEGREES).....33.2  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
129	35	0.05	77.0	68.4
123	41	0.06	67.0	77.5
116	47	0.06	57.0	86.6
121	47	0.06	48.0	94.8
149	38	0.06	39.0	103.1
203	30	0.07	30.0	111.2
305	19	0.08	20.0	120.2
613	14	0.12	10.0	128.9
2454	8	0.24	0.0	137.3

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 1  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.217  
LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
SUN AZIMUTH (DEGREES).....165.0  
SUN ELEVATION (DEGREES).....33.5  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
97	27	0.05	77.0	69.1
92	33	0.05	67.0	78.9
88	39	0.05	57.0	88.6
93	39	0.05	48.0	97.4
113	32	0.05	39.0	106.2
156	29	0.06	30.0	115.0
257	19	0.07	20.0	124.6
548	7	0.11	10.0	134.2
2348	5	0.27	0.0	143.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 2  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.233  
LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
SUN AZIMUTH (DEGREES).....165.3  
SUN ELEVATION (DEGREES).....33.5  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
128	16	0.05	77.0	63.7
113	27	0.07	67.0	69.9
101	24	0.06	57.0	76.4
111	25	0.06	48.0	82.6
131	28	0.06	39.0	88.8
154	24	0.06	30.0	95.0
247	24	0.08	20.0	101.9
543	26	0.11	10.0	108.5
2359	28	0.25	0.0	114.8

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 3  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.250  
LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
SUN AZIMUTH (DEGREES).....165.6  
SUN ELEVATION (DEGREES).....33.6  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
184	8	0.06	77.0	54.1
220	11	0.09	67.0	53.8
237	14	0.11	57.0	54.8
241	11	0.10	48.0	56.6
242	11	0.10	39.0	59.4
287	15	0.10	30.0	62.8
389	16	0.12	20.0	67.4
671	15	0.16	10.0	72.5
2201	29	0.32	0.0	78.0

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 4  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.267  
LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
SUN AZIMUTH (DEGREES).....165.8  
SUN ELEVATION (DEGREES).....33.6  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
266	8	0.06	77.0	45.5
435	3	0.15	67.0	37.9
675	7	0.24	57.0	31.4
1073	6	0.37	48.0	27.1
1794	5	0.52	39.0	25.3
1684	3	0.63	30.0	26.4
1655	6	0.68	20.0	30.5
2217	5	0.77	10.0	36.9
4600	8	1.49	0.0	44.4

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 5  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.283  
LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
SUN AZIMUTH (DEGREES).....166.1  
SUN ELEVATION (DEGREES).....33.7  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
270	5	0.06	77.0	43.8
412	7	0.15	67.0	34.3
682	5	0.26	57.0	25.2
1110	5	0.41	48.0	17.7
1866	1	0.71	39.0	12.4
1399	6	0.96	30.0	12.4
1892	4	0.89	20.0	18.4
2298	3	0.87	10.0	26.9
3952	3	1.23	0.0	36.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 6  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.317  
LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
SUN AZIMUTH (DEGREES).....166.7  
SUN ELEVATION (DEGREES).....33.8  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
187	5	0.06	77.0	50.2
239	9	0.09	67.0	47.0
272	10	0.10	57.0	45.3
271	8	0.11	48.0	45.2
281	16	0.11	39.0	46.4
332	17	0.11	30.0	49.0
408	22	0.13	20.0	53.1
699	21	0.17	10.0	58.2
2344	27	0.33	0.0	64.1



DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 7  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.333  
LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
SUN AZIMUTH (DEGREES).....166.9  
SUN ELEVATION (DEGREES).....33.8  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
129	22	0.05	77.0	60.0
110	22	0.07	67.0	64.0
110	33	0.06	57.0	68.6
117	37	0.06	48.0	73.3
127	37	0.06	39.0	78.2
155	39	0.06	30.0	83.4
223	37	0.07	20.0	89.2
406	29	0.10	10.0	95.1
0	0	0.19	0.0	100.8

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....4.0 - 8  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....11.350  
LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
SUN AZIMUTH (DEGREES).....167.2  
SUN ELEVATION (DEGREES).....33.9  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
105	26	0.05	77.0	67.4
92	32	0.06	67.0	76.2
93	36	0.06	57.0	85.1
96	34	0.05	48.0	93.2
114	31	0.05	39.0	101.3
148	25	0.06	30.0	109.2
231	12	0.07	20.0	118.0
509	15	0.10	10.0	126.5
2097	9	0.23	0.0	134.6

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 1

ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....11.433

LINE OF SIGHT AZIMUTH (DEGREES).....360.0

SUN AZIMUTH (DEGREES).....169.6

SUN ELEVATION (DEGREES).....34.1

HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
89	25	0.05	77.0	68.7
74	34	0.05	67.0	78.5
68	34	0.05	57.0	88.4
76	34	0.05	48.0	97.3
93	34	0.05	39.0	106.2
116	17	0.05	30.0	115.0
198	13	0.07	20.0	124.8
452	9	0.10	10.0	134.6
2179	7	0.25	0.0	144.3

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 2

ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....11.450

LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0

SUN AZIMUTH (DEGREES).....168.9

SUN ELEVATION (DEGREES).....34.1

HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
99	13	0.05	77.0	63.7
87	20	0.06	67.0	70.4
85	26	0.06	57.0	77.4
88	29	0.05	48.0	83.8
95	25	0.06	39.0	90.3
123	25	0.06	30.0	96.9
201	21	0.07	20.0	104.0
399	19	0.10	10.0	110.9
1638	23	0.20	0.0	117.5

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 3  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....11.467  
LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
SUN AZIMUTH (DEGREES).....169.2  
SUN ELEVATION (DEGREES).....34.2  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
167	10	0.06	77.0	54.4
191	14	0.09	67.0	54.7
186	6	0.09	57.0	56.3
178	9	0.09	48.0	58.6
191	13	0.09	39.0	61.7
227	12	0.09	30.0	65.5
284	15	0.10	20.0	70.3
539	16	0.14	10.0	75.5
2192	26	0.29	0.0	81.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 4  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....11.483  
LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
SUN AZIMUTH (DEGREES).....169.5  
SUN ELEVATION (DEGREES).....34.2  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
228	4	0.07	77.0	45.5
343	8	0.13	67.0	38.4
554	5	0.20	57.0	32.6
942	4	0.31	48.0	29.1
1497	4	0.42	39.0	27.9
1381	6	0.48	30.0	29.4
1398	6	0.52	20.0	33.6
1863	2	0.60	10.0	39.7
4013	6	1.18	0.0	47.0

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 5  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....11.500  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....169.8  
 SUN ELEVATION (DEGREES).....34.2  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
214	9	0.06	77.0	43.0
368	6	0.13	67.0	33.3
714	4	0.24	57.0	23.8
1187	2	0.41	48.0	15.7
936	7	0.81	39.0	9.5
1210	3	1.22	30.0	9.6
2207	2	0.98	20.0	16.9
2489	8	0.96	10.0	26.0
5019	5	1.37	0.0	35.5

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 6  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....11.517  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....170.1  
 SUN ELEVATION (DEGREES).....34.3  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
164	3	0.06	77.0	49.1
206	8	0.09	67.0	45.3
260	4	0.11	57.0	43.1
247	3	0.12	48.0	42.6
279	13	0.12	39.0	43.7
326	9	0.12	30.0	46.2
418	16	0.13	20.0	50.3
732	15	0.18	10.0	55.6
2424	17	0.36	0.0	61.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 7  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....11.550  
LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
SUN AZIMUTH (DEGREES).....170.6  
SUN ELEVATION (DEGREES).....34.3  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
116	11	0.06	77.0	58.7
107	15	0.06	67.0	62.2
105	25	0.06	57.0	66.4
105	25	0.06	48.0	70.8
116	26	0.06	39.0	75.5
138	30	0.07	30.0	80.5
205	31	0.07	20.0	86.2
411	25	0.10	10.0	92.0
2159	32	0.21	0.0	97.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 8  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....11.567  
LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
SUN AZIMUTH (DEGREES).....170.9  
SUN ELEVATION (DEGREES).....34.4  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
90	21	0.06	77.0	66.4
76	32	0.06	67.0	75.0
76	33	0.05	57.0	83.7
82	30	0.05	48.0	91.6
91	28	0.06	39.0	99.5
122	16	0.06	30.0	107.3
198	15	0.07	20.0	115.8
447	16	0.10	10.0	124.1
2428	9	0.25	0.0	132.0

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....6.0 - 1  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....10.700  
LINE OF SIGHT AZIMUTH (DEGREES).....380.0  
SUN AZIMUTH (DEGREES).....173.2  
SUN ELEVATION (DEGREES).....34.6  
HORIZON CORRECTION ANGLE (DEGREES).....4.2

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
54	22	0.04	77.0	68.3
46	27		57.0	78.3
44	38	0.05	57.0	85.2
46	34	0.05	48.0	97.2
57	30	0.05	39.0	106.1
85	26	0.05	30.0	115.1
124	12	0.06	20.0	125.0
329	4	0.08	10.0	134.9
2094	5	0.20	0.0	144.8

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....6.0 - 2  
ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....11.717  
LINE OF SIGHT AZIMUTH (DEGREES).....45.0  
SUN AZIMUTH (DEGREES).....173.5  
SUN ELEVATION (DEGREES).....34.6  
HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
59	19	0.05	77.0	64.0
51	23	0.05	67.0	71.2
46	24	0.04	57.0	78.6
51	28	0.05	48.0	85.4
60	27	0.05	39.0	92.3
79	23	0.06	30.0	99.2
118	15	0.06	20.0	106.7
271	17	0.08	10.0	113.9
1736	21	0.18	0.0	120.8

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 3  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.733  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....173.8  
 SUN ELEVATION (DEGREES).....34.6  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
96	27	0.06	77.0	55.0
111	7	0.07	67.0	56.1
104	9	0.07	57.0	58.3
106	13	0.07	48.0	61.2
105	7	0.06	39.0	64.7
122	12	0.08	30.0	68.8
166	19	0.08	20.0	73.8
341	15	0.10	10.0	79.2
1953	28	0.24	0.0	84.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 4  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.750  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....174.0  
 SUN ELEVATION (DEGREES).....34.7  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
133	9	0.06	77.0	45.7
240	6	0.10	67.0	39.4
354	4	0.14	57.0	34.4
585	5	0.19	48.0	31.8
661	8	0.32	39.0	31.3
697	7	0.28	30.0	33.1
771	3	0.29	20.0	37.4
1138	6	0.35	10.0	43.3
3968	9	1.07	0.0	50.3

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 5  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.767  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....174.3  
 SUN ELEVATION (DEGREES).....34.7  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
161	8	0.06	77.0	42.4
292	5	0.12	67.0	32.5
580	2	0.21	57.0	22.6
963	8	0.38	48.0	14.0
0	0	1.62	39.0	6.3
0	0	1.60	30.0	6.7
1416	8	0.67	20.0	15.5
1913	7	0.64	10.0	25.2
0	0	1.32	0.0	35.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 6  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.783  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....174.6  
 SUN ELEVATION (DEGREES).....34.7  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
118	4	0.06	77.0	47.7
154	4	0.09	67.0	43.2
216	3	0.11	57.0	40.3
212	7	0.11	48.0	39.3
216	8	0.11	39.0	40.0
235	6	0.11	30.0	42.4
291	12	0.12	20.0	46.6
542	10	0.16	10.0	52.0
2494	10	0.31	0.0	58.4



DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 7  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.817  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....175.2  
 SUN ELEVATION (DEGREES).....34.7  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
86	15	0.05	77.0	57.3
75	14	0.06	67.0	60.2
70	20	0.05	57.0	63.9
74	23	0.06	48.0	67.8
80	23	0.06	39.0	72.2
93	32	0.06	30.0	77.0
135	26	0.06	20.0	82.5
262	24	0.08	10.0	88.2
1434	7	0.15	0.0	93.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 8  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....11.850  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....175.8  
 SUN ELEVATION (DEGREES).....34.8  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
59	21	0.05	77.0	65.4
50	27	0.05	67.0	73.6
49	32	0.04	57.0	82.0
53	31	0.04	48.0	89.6
60	35	0.04	39.0	97.2
84	22	0.05	30.0	104.7
132	19	0.06	20.0	112.9
317	18	0.08	10.0	120.9
2075	7	0.22	0.0	128.5

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....7.0 - 1  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....12.150  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....181.0  
 SUN ELEVATION (DEGREES).....34.9  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
21	39	0.03	77.0	68.1
19	53	0.04	67.0	78.1
18	50	0.02	57.0	88.1
19	54	0.02	48.0	97.1
25	48	0.02	39.0	106.1
31	48	0.03	30.0	115.1
56	24	0.03	20.0	125.1
118	15	0.06	10.0	135.1
659	9	0.08	0.0	145.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....7.0 - 2  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....12.167  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
 SUN AZIMUTH (DEGREES).....181.3  
 SUN ELEVATION (DEGREES).....34.9  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
24	43	0.03	77.0	64.9
18	45	0.03	67.0	72.9
18	45	0.03	57.0	81.0
20	54	0.00	48.0	88.4
24	49	0.03	39.0	95.8
29	37	0.00	30.0	103.1
49	29	0.04	20.0	111.2
103	15	0.06	10.0	119.0
902	5	0.08	0.0	126.4

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....7.0 - 3  
ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....12.200  
LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
SUN AZIMUTH (DEGREES).....181.8  
SUN ELEVATION (DEGREES).....34.9  
HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
46	23	0.05	77.0	56.6
37	31	0.05	67.0	58.9
33	30	0.04	57.0	62.3
31	32	0.03	48.0	66.0
32	26	0.04	39.0	70.2
37	26	0.05	30.0	74.7
55	33	0.04	20.0	80.2
100	26	0.05	10.0	85.8
786	24	0.08	0.0	91.5

DATE AND FLIGHT NUMBER..... 1/27/64 - 1

FLIGHT RECORD CODE NUMBER.....7.0 - 4  
ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....12.217  
LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
SUN AZIMUTH (DEGREES).....182.1  
SUN ELEVATION (DEGREES).....34.9  
HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
41	21	0.04	77.0	47.0
57	14	0.05	67.0	41.9
0	0	0.05	57.0	38.4
220	13	0.06	48.0	37.0
131	20	0.08	39.0	37.5
136	21	0.06	30.0	39.7
147	10	0.06	20.0	43.9
238	14	0.07	10.0	49.5
360	8	0.15	0.0	56.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....7.0 - 5  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....12.250  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....182.7  
 SUN ELEVATION (DEGREES).....34.8  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
51	14	0.04	77.0	42.2
65	10	0.06	67.0	32.2
43	5	0.07	57.0	22.2
0	0	0.12	48.0	13.3
0	0	1.43	39.0	4.7
0	0	1.72	30.0	5.3
63	9	0.29	20.0	15.0
369	3	0.11	10.0	25.0
2593	20	0.16	0.0	34.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....7.0 - 6  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....12.267  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....183.0  
 SUN ELEVATION (DEGREES).....34.8  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
38	14	0.05	77.0	46.1
67	9	0.05	67.0	40.2
64	9	0.06	57.0	35.8
155	11	0.07	48.0	33.6
90	11	0.09	39.0	33.6
90	8	0.07	30.0	35.5
108	13	0.07	20.0	39.8
183	14	0.07	10.0	45.6
1397	21	0.11	0.0	52.4

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....7.0 - 7  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....12.300  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....103.6  
 SUN ELEVATION (DEGREES).....34.8  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
40	27	0.04	77.0	55.4
34	29	0.04	67.0	57.0
31	30	0.04	57.0	59.6
30	36	0.04	48.0	62.7
32	40	0.04	39.0	66.5
41	39	0.04	30.0	70.8
56	37	0.04	20.0	75.9
101	39	0.05	10.0	81.4
1152	32	0.10	0.0	87.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 1  
 FLIGHT RECORD CODE NUMBER.....7.0 - 8  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....12.333  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....104.1  
 SUN ELEVATION (DEGREES).....34.8  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
21	38	0.04	77.0	64.2
22	48	0.02	67.0	71.6
20	53	0.02	57.0	79.3
22	50	0.00	48.0	86.3
28	42	0.02	39.0	93.4
37	30	0.03	30.0	100.4
61	31	0.04	20.0	108.1
120	26	0.05	10.0	115.5
1997	9	0.09	0.0	122.5

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....2.0 - 1  
ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....15.633  
LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
SUN AZIMUTH (DEGREES).....231.9  
SUN ELEVATION (DEGREES).....15.6  
HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
117	59	0.05	77.0	82.7
114	61	0.06	67.0	89.2
125	59	0.06	57.0	95.7
145	56	0.06	48.0	101.4
184	47	0.06	39.0	107.0
236	46	0.07	30.0	112.4
368	41	0.09	20.0	117.8
690	33	0.13	10.0	122.6
2027	33	0.25	0.0	126.5

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....2.0 - 2  
ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....15.650  
LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
SUN AZIMUTH (DEGREES).....232.1  
SUN ELEVATION (DEGREES).....15.4  
HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
110	59	0.05	77.0	87.3
113	57	0.05	67.0	97.4
124	46	0.06	57.0	107.4
150	39	0.06	48.0	116.3
201	29	0.06	39.0	125.2
285	14	0.08	30.0	134.1
462	5	0.10	20.0	143.9
829	11	0.15	10.0	153.6
2439	8	0.29	0.0	163.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....2.0 - 3

ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....15.667

LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0

SUN AZIMUTH (DEGREES).....232.3

SUN ELEVATION (DEGREES).....15.2

HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
108	53	0.05	77.0	85.2
113	98	0.05	67.0	93.2
124	54	0.06	57.0	101.3
142	41	0.06	48.0	108.4
185	33	0.06	39.0	115.3
260	23	0.07	30.0	122.0
371	18	0.09	20.0	128.8
719	19	0.13	10.0	134.9
2200	20	0.26	0.0	139.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....2.0 - 4

ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....15.683

LINE OF SIGHT AZIMUTH (DEGREES).....135.0

SUN AZIMUTH (DEGREES).....232.4

SUN ELEVATION (DEGREES).....15.1

HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
123	49	0.06	77.0	77.0
129	47	0.06	67.0	79.0
143	49	0.07	57.0	81.4
164	45	0.07	48.0	83.7
183	45	0.07	39.0	86.2
247	47	0.08	30.0	88.8
377	49	0.09	20.0	91.6
698	53	0.14	10.0	94.5
1881	62	0.30	0.0	97.2

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....2.0 - 5  
ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....15.700  
LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
SUN AZIMUTH (DEGREES).....232.6  
SUN ELEVATION (DEGREES).....14.9  
HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
149	39	0.06	77.0	67.5
181	28	0.07	67.0	62.2
210	27	0.07	57.0	57.6
273	23	0.10	48.0	54.3
373	20	0.12	39.0	51.8
485	23	0.16	30.0	50.5
698	22	0.22	20.0	50.3
1170	22	0.33	10.0	51.5
2547	31	0.54	0.0	54.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....2.0 - 6  
ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....15.717  
LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
SUN AZIMUTH (DEGREES).....232.8  
SUN ELEVATION (DEGREES).....14.8  
HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
151	33	0.06	77.0	62.4
217	19	0.09	67.0	52.5
326	10	0.11	57.0	42.6
553	4	0.19	48.0	33.9
1014	8	0.35	39.0	25.2
2200	6	0.80	30.0	16.8
0	0	1.90	20.0	9.1
0	0	2.33	10.0	9.0
0	0	2.33	0.0	16.7



DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....2.0 - 7  
ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....15.733  
LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
SUN AZIMUTH (DEGREES).....233.0  
SUN ELEVATION (DEGREES).....14.6  
HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
175	25	0.05	77.0	65.2
225	19	0.08	67.0	57.7
300	9	0.10	57.0	50.8
401	6	0.14	48.0	45.2
562	7	0.18	39.0	40.6
819	6	0.25	30.0	37.3
1101	12	0.35	20.0	35.7
2137	13	0.54	10.0	36.4
2195	29	1.77	0.0	39.4

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....2.0 - 8  
ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....15.750  
LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
SUN AZIMUTH (DEGREES).....233.2  
SUN ELEVATION (DEGREES).....14.4  
HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
143	40	0.05	77.0	74.1
130	55	0.06	67.0	73.5
166	43	0.07	57.0	73.5
197	42	0.07	48.0	73.9
221	47	0.08	39.0	74.7
286	50	0.09	30.0	75.9
585	11	0.11	20.0	77.6
768	53	0.16	10.0	79.7
1681	55	0.47	0.0	82.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....3.0 - 1  
ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS).....15.817  
LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
SUN AZIMUTH (DEGREES).....233.9  
SUN ELEVATION (DEGREES).....13.8  
HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
83	47	0.05	77.0	84.0
86	53	0.05	67.0	90.2
89	52	0.05	57.0	96.4
105	52	0.05	48.0	101.9
127	47	0.06	39.0	107.1
177	42	0.06	30.0	112.1
249	42	0.08	20.0	117.1
487	34	0.11	10.0	121.5
1972	25	0.21	0.0	124.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....3.0 - 2  
ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS).....15.833  
LINE OF SIGHT AZIMUTH (DEGREES).....45.0  
SUN AZIMUTH (DEGREES).....234.1  
SUN ELEVATION (DEGREES).....13.6  
HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
78	52	0.05	77.0	89.2
78	51	0.05	67.0	99.1
89	41	0.05	57.0	109.0
107	29	0.05	48.0	117.8
141	20	0.06	39.0	126.7
204	15	0.07	30.0	135.5
339	6	0.09	20.0	145.2
737	6	0.14	10.0	154.7
2414	11	0.29	0.0	163.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....3.0 - 3  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....15.850  
 LINE OF SIGHT AZIMUTH (DEGREES).....90.0  
 SUN AZIMUTH (DEGREES).....234.2  
 SUN ELEVATION (DEGREES).....13.5  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
78	51	0.04	77.0	87.2
80	48	0.04	67.0	95.4
87	44	0.05	57.0	103.6
92	29	0.05	48.0	110.8
137	26	0.05	39.0	117.8
182	19	0.06	30.0	124.5
305	16	0.08	20.0	131.4
610	21	0.15	10.0	137.5
2186	24	0.28	0.0	142.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....3.0 - 4  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....15.867  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....234.4  
 SUN ELEVATION (DEGREES).....13.3  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
90	40	0.05	77.0	79.1
99	44	0.06	67.0	81.4
108	42	0.06	57.0	83.9
113	41	0.05	48.0	86.3
140	43	0.06	39.0	88.8
220	39	0.07	30.0	91.3
346	45	0.12	20.0	94.1
539	53	0.12	10.0	96.7
1839	57	0.27	0.0	99.2

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....3.0 - 5  
ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS).....15.883  
LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
SUN AZIMUTH (DEGREES).....234.6  
SUN ELEVATION (DEGREES).....13.2  
HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
105	32	0.05	77.0	69.6
121	27	0.06	67.0	64.5
147	26	0.07	57.0	60.1
197	23	0.08	48.0	56.9
254	18	0.10	39.0	54.4
348	22	0.13	30.0	53.0
500	20	0.17	20.0	52.6
887	17	0.27	10.0	53.5
2101	33	0.43	0.0	55.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....3.0 - 6  
ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS).....15.917  
LINE OF SIGHT AZIMUTH (DEGREES).....229.0  
SUN AZIMUTH (DEGREES).....235.0  
SUN ELEVATION (DEGREES).....12.8  
HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
105	33	0.05	77.0	64.4
146	18	0.07	67.0	54.6
230	8	0.10	57.0	44.8
389	3	0.16	48.0	36.1
697	7	0.29	39.0	27.6
1486	6	0.58	30.0	19.5
3221	4	1.43	20.0	11.9
0	0	2.32	10.0	10.2
0	0	2.38	0.0	16.2

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....3.0 - 7  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....15.933  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....235.1  
 SUN ELEVATION (DEGREES).....12.7  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
114	23	0.05	77.0	66.8
154	17	0.07	67.0	59.0
202	10	0.09	57.0	51.7
278	3	0.10	48.0	45.7
416	7	0.15	39.0	40.5
620	4	0.22	30.0	36.6
988	10	0.32	20.0	34.2
1728	8	0.47	10.0	34.3
3143	9	1.19	0.0	36.8

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....3.0 - 8  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....15.950  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....235.3  
 SUN ELEVATION (DEGREES).....12.5  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
102	37	0.05	77.0	75.5
105	35	0.06	67.0	74.5
118	37	0.06	57.0	73.9
140	36	0.06	48.0	73.9
157	42	0.07	39.0	74.2
209	45	0.08	30.0	75.0
313	46	0.09	20.0	76.2
567	48	0.14	10.0	77.9
1842	47	0.30	0.0	79.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....4.0 - 1  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....16.033  
LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
SUN AZIMUTH (DEGREES).....236.2  
SUN ELEVATION (DEGREES).....11.7  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
75	53	0.04	77.0	85.7
63	47	0.04	67.0	91.5
68	50	0.04	57.0	97.3
76	44	0.04	48.0	102.4
93	43	0.05	39.0	107.2
121	40	0.05	30.0	111.8
100	31	0.06	20.0	116.3
337	34	0.09	10.0	120.1
1133	31	0.16	0.0	123.0

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....4.0 - 2  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....16.050  
LINE OF SIGHT AZIMUTH (DEGREES).....45.0  
SUN AZIMUTH (DEGREES).....236.3  
SUN ELEVATION (DEGREES).....11.5  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
56	50	0.04	77.0	91.3
60	45	0.04	67.0	101.1
70	47	0.04	57.0	110.9
77	34	0.04	48.0	119.7
100	17	0.05	39.0	128.4
140	9	0.06	30.0	137.1
221	10	0.07	20.0	146.6
452	8	0.11	10.0	155.7
1574	9	0.20	0.0	163.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....4.0 - 3  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....16.067  
LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
SUN AZIMUTH (DEGREES).....236.5  
SUN ELEVATION (DEGREES).....11.3  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
57	45	0.04	77.0	89.6
60	46	0.04	67.0	98.0
68	41	0.04	57.0	106.3
76	31	0.04	48.0	113.7
103	22	0.05	39.0	120.8
142	17	0.06	30.0	127.6
225	13	0.07	20.0	134.5
485	20	0.11	10.0	140.5
1847	28	0.25	0.0	144.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....4.0 - 4  
ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS).....16.083  
LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
SUN AZIMUTH (DEGREES).....236.7  
SUN ELEVATION (DEGREES).....11.2  
HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
71	40	0.04	77.0	81.7
67	39	0.04	67.0	84.2
76	40	0.04	57.0	86.9
85	40	0.04	48.0	89.4
89	38	0.06	39.0	91.9
122	38	0.06	30.0	94.3
182	45	0.07	20.0	96.9
350	46	0.10	10.0	99.3
1266	62	0.19	0.0	101.5

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....4.0 - 5  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....16.100  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....236.9  
 SUN ELEVATION (DEGREES).....11.0  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
79	31	0.04	77.0	72.1
95	23	0.06	67.0	67.3
126	17	0.07	57.0	63.1
156	18	0.08	48.0	59.9
213	17	0.10	39.0	57.5
J	16	0.04	30.0	55.9
457	19	0.18	20.0	55.3
844	16	0.30	10.0	55.8
2478	27	0.55	0.0	57.8

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....4.0 - 6  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....16.133  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....237.2  
 SUN ELEVATION (DEGREES).....10.7  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
85	23	0.05	77.0	66.6
121	11	0.07	67.0	56.9
183	12	0.10	57.0	47.3
324	6	0.15	48.0	38.7
685	5	0.28	39.0	30.3
1453	9	0.56	30.0	22.4
75	7	0.19	20.0	15.0
0	0	2.39	10.0	12.0
0	0	2.46	0.0	16.1



DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....4.0 - 7  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....16.167  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....237.9  
 SUN ELEVATION (DEGREES).....10.3  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
82	28	0.05	77.0	68.8
111	13	0.06	67.0	60.7
148	6	0.08	57.0	53.0
222	3	0.10	48.0	46.5
348	4	0.14	39.0	40.7
503	6	0.22	30.0	36.1
915	6	0.34	20.0	32.7
1753	4	0.54	10.0	31.9
4238	11	1.35	0.0	33.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....4.0 - 8  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....16.183  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....237.7  
 SUN ELEVATION (DEGREES).....10.2  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
71	34	0.03	77.0	77.3
84	30	0.05	67.0	75.7
95	33	0.05	57.0	74.6
98	31	0.06	48.0	74.0
121	32	0.07	39.0	73.8
164	34	0.07	30.0	74.0
228	41	0.07	20.0	74.7
452	39	0.12	10.0	75.9
1866	49	0.27	0.0	77.5

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....5.0 - 1  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....16.267  
LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
SUN AZIMUTH (DEGREES).....238.5  
SUN ELEVATION (DEGREES)..... 9.3  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
40	41	0.03	77.0	87.6
42	44	0.03	67.0	93.0
45	44	0.03	57.0	98.3
53	40	0.03	48.0	103.0
52	42	0.03	39.0	107.4
86	36	0.04	30.0	111.4
132	34	0.05	20.0	115.4
269	33	0.08	10.0	118.6
1250	37	0.17	0.0	121.0

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....5.0 - 2  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....16.283  
LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
SUN AZIMUTH (DEGREES).....238.7  
SUN ELEVATION (DEGREES)..... 9.1  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
38	45	0.03	77.0	93.5
39	44	0.03	67.0	103.2
43	32	0.03	57.0	112.9
54	27	0.04	48.0	121.6
73	17	0.05	39.0	130.2
109	6	0.05	30.0	138.7
170	10	0.07	20.0	147.9
345	10	0.09	10.0	156.5
1435	9	0.17	0.0	163.6

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....5.0 - 3  
ALTITUDE (FEET).....5000

PACIFIC STANDARD TIME (HOURS).....16.300  
LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
SUN AZIMUTH (DEGREES).....238.9  
SUN ELEVATION (DEGREES)..... 9.0  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
39	42	0.03	77.0	92.2
37	48	0.03	67.0	100.8
44	32	0.03	57.0	109.3
52	25	0.03	48.0	116.7
70	19	0.04	39.0	124.0
105	10	0.05	30.0	130.9
159	10	0.06	20.0	137.8
372	12	0.10	10.0	143.7
1695	15	0.21	0.0	147.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....5.0 - 4  
ALTITUDE (FEET).....5000

PACIFIC STANDARD TIME (HOURS).....16.333  
LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
SUN AZIMUTH (DEGREES).....239.2  
SUN ELEVATION (DEGREES)..... 8.6  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
47	35	0.03	77.0	84.8
48	29	0.04	67.0	87.5
50	37	0.04	57.0	90.4
72	11	0.04	48.0	92.9
64	34	0.05	39.0	95.4
89	36	0.05	30.0	97.8
136	41	0.06	20.0	100.2
271	39	0.09	10.0	102.3
1292	59	0.18	0.0	104.0

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....5.0 - 5  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....16.350  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....239.4  
 SUN ELEVATION (DEGREES)..... 8.4  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
53	26	0.03	77.0	75.1
63	25	0.05	67.0	70.6
81	24	0.06	57.0	66.6
105	17	0.06	48.0	63.5
130	19	0.07	39.0	61.0
193	19	0.09	30.0	59.3
292	16	0.13	20.0	58.4
541	20	0.19	10.0	58.5
1884	26	0.40	0.0	59.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....5.0 - 6  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....16.367  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....239.5  
 SUN ELEVATION (DEGREES)..... 8.3  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
51	26	0.04	77.0	69.2
77	16	0.05	67.0	59.6
114	8	0.07	57.0	50.0
190	10	0.11	48.0	41.6
371	5	0.19	39.0	33.4
847	4	0.36	30.0	25.6
1902	9	0.78	20.0	18.3
4884	6	1.91	10.0	14.4
0	0	2.48	0.0	16.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....5.0 - 7  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....16.383  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....239.7  
 SUN ELEVATION (DEGREES)..... 8.1  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
57	24	0.04	77.0	70.8
77	13	0.05	67.0	62.4
107	10	0.07	57.0	54.3
160	3	0.09	48.0	47.4
254	5	0.12	39.0	41.2
435	2	0.19	30.0	35.8
734	9	0.32	20.0	31.6
1639	5	0.51	10.0	30.0
4760	4	1.41	0.0	31.3

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....5.0 - 8  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....16.400  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....239.9  
 SUN ELEVATION (DEGREES)..... 7.9  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
81	31	0.04	77.0	79.0
55	26	0.05	67.0	76.9
60	28	0.05	57.0	75.3
73	31	0.05	48.0	74.2
92	29	0.06	39.0	73.5
109	33	0.07	30.0	73.2
169	32	0.08	20.0	73.4
332	29	0.11	10.0	74.1

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....6.0 - 1  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....16.533  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....241.1  
 SUN ELEVATION (DEGREES)..... 6.5  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
22	41	0.03	77.0	89.8
24	43	0.04	67.0	94.7
24	44	0.03	57.0	99.5
28	46	0.03	48.0	103.7
35	44	0.04	39.0	107.5
47	41	0.04	30.0	111.0
69	40	0.05	20.0	114.3
132	36	0.07	10.0	116.9
600	25	0.11	0.0	118.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....6.0 - 2  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....16.550  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
 SUN AZIMUTH (DEGREES).....241.3  
 SUN ELEVATION (DEGREES)..... 6.4  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
21	48	0.02	77.0	96.1
22	43	0.03	67.0	105.7
26	33	0.03	57.0	115.3
32	24	0.03	48.0	123.8
43	12	0.03	39.0	132.2
63	5	0.03	30.0	140.4
102	9	0.05	20.0	149.1
205	6	0.07	10.0	157.0
971	7	0.13	0.0	162.5

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....6.0 - 3

ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....16.567

LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0

SUN AZIMUTH (DEGREES).....241.2

SUN ELEVATION (DEGREES).....6.2

HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
21	45	0.02	77.0	95.3
22	44	0.03	67.0	104.0
23	37	0.02	57.0	112.7
29	24	0.03	48.0	120.3
39	16	0.03	39.0	127.7
54	9	0.04	30.0	134.6
89	8	0.05	20.0	141.6
184	9	0.06	10.0	147.3
843	5	0.12	0.0	150.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....6.0 - 4

ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....16.583

LINE OF SIGHT AZIMUTH (DEGREES).....135.0

SUN AZIMUTH (DEGREES).....241.6

SUN ELEVATION (DEGREES).....4.0

HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
21	43	0.04	77.0	87.8
21	39	0.04	67.0	90.9
23	39	0.04	57.0	93.9
29	39	0.04	48.0	96.5
31	41	0.04	39.0	98.9
45	38	0.04	30.0	101.2
70	42	0.05	20.0	103.4
130	43	0.06	10.0	105.2
657	39	0.11	0.0	106.5

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....6.0 - 5  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....16.600  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....241.8  
 SUN ELEVATION (DEGREES)..... 5.8  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
26	36	0.03	77.0	76.2
32	32	0.03	67.0	73.9
39	23	0.04	57.0	70.0
49	25	0.04	48.0	67.0
66	25	0.05	39.0	64.6
93	22	0.06	30.0	62.7
143	22	0.08	20.0	61.5
277	22	0.12	10.0	61.3
1396	15	0.25	0.0	61.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....6.0 - 6  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....16.633  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....242.1  
 SUN ELEVATION (DEGREES)..... 5.5  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
28	30	0.04	77.0	72.1
39	17	0.04	67.0	62.6
50	14	0.05	57.0	53.3
95	9	0.07	48.0	45.0
184	5	0.11	39.0	36.9
373	8	0.21	30.0	29.3
842	7	0.35	20.0	22.1
2361	7	0.77	10.0	17.5
0	0	2.27	0.0	17.9



DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....6.0 - 7  
ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....16.650  
LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
SUN AZIMUTH (DEGREES).....242.3  
SUN ELEVATION (DEGREES)..... 3.3  
HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
30	27	0.03	77.0	73.3
41	15	0.04	67.0	64.6
61	7	0.05	57.0	56.1
99	3	0.07	48.0	48.8
142	7	0.10	39.0	42.0
254	5	0.15	30.0	36.0
505	5	0.27	20.0	30.7
1131	9	0.42	10.0	27.9
5195	4	1.18	0.0	28.2

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....6.0 - 8  
ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....16.667  
LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
SUN AZIMUTH (DEGREES).....242.4  
SUN ELEVATION (DEGREES)..... 5.1  
HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
27	34	0.04	77.0	81.1
32	32	0.04	67.0	78.6
37	31	0.04	57.0	76.3
43	26	0.04	48.0	74.6
54	30	0.04	39.0	73.3
74	31	0.04	30.0	72.4
101	32	0.06	20.0	71.9
195	34	0.09	10.0	72.0
997	24	0.16	0.0	72.7

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....7.0 - 1  
ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....16.950  
LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
SUN AZIMUTH (DEGREES).....245.0  
SUN ELEVATION (DEGREES)..... 2.1  
HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
7	75	0.02	77.0	93.4
8	66	0.02	67.0	97.6
8	67	0.02	57.0	101.5
10	69	0.02	48.0	104.8
12	63	0.02	39.0	107.8
16	67	0.02	30.0	110.3
21	78	0.02	20.0	112.6
45	62	0.02	10.0	114.1
162	61	0.05	0.0	114.9

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....7.0 - 2  
ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....16.983  
LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
SUN AZIMUTH (DEGREES).....245.3  
SUN ELEVATION (DEGREES)..... 1.7  
HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
7	75	0.02	77.0	100.5
9	63	0.02	67.0	109.8
11	52	0.02	57.0	119.1
13	33	0.02	48.0	127.2
17	24	0.02	39.0	135.2
25	16	0.02	30.0	142.8
36	15	0.04	20.0	150.5
76	10	0.04	10.0	156.6
361	6	0.06	0.0	159.6

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....7.0 - 3  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....17.017  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....245.7  
 SUN ELEVATION (DEGREES)..... 1.3  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
7	84	0.00	77.0	100.5
8	54	0.00	67.0	109.6
10	40	0.02	57.0	118.5
13	34	0.02	48.0	126.3
15	14	0.00	39.0	133.9
22	18	0.00	30.0	141.0
37	8	0.02	20.0	148.0
76	14	0.03	10.0	153.3
322	6	0.06	0.0	155.6

DATE AND FLIGHT NUMBER..... 1/27/64 - 2  
 FLIGHT RECORD CODE NUMBER.....7.0 - 4  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....17.050  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....246.0  
 SUN ELEVATION (DEGREES)..... 1.0  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
6	78	0.00	77.0	93.7
7	74	0.00	67.0	97.1
8	64	0.00	57.0	100.4
10	49	0.00	48.0	103.1
11	55	0.00	39.0	105.5
16	65	0.00	30.0	107.5
25	64	0.00	20.0	109.3
51	65	0.04	10.0	110.4
316	36	0.06	0.0	111.0

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....7.0 - 5

ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....17.083

LINE OF SIGHT AZIMUTH (DEGREES).....180.0

SUN AZIMUTH (DEGREES).....246.3

SUN ELEVATION (DEGREES).....0.6

HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
7	65	0.04	77.0	84.2
9	58	0.04	67.0	80.4
10	51	0.04	57.0	76.8
14	61	0.04	48.0	73.9
16	52	0.04	39.0	71.4
22	46	0.02	30.0	69.3
37	48	0.04	20.0	67.5
70	45	0.04	10.0	66.5
452	37	0.07	0.0	66.3

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....7.0 - 6

ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....17.100

LINE OF SIGHT AZIMUTH (DEGREES).....225.0

SUN AZIMUTH (DEGREES).....246.4

SUN ELEVATION (DEGREES).....0.4

HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
7	60	0.02	77.0	77.5
9	43	0.02	67.0	68.3
13	31	0.02	57.0	59.1
18	18	0.03	48.0	51.1
29	10	0.03	39.0	43.3
51	8	0.04	30.0	35.9
85	14	0.06	20.0	28.7
252	15	0.09	10.0	23.4
1866	10	0.19	0.0	21.4

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....7.0 - 7

ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....17.117

LINE OF SIGHT AZIMUTH (DEGREES).....270.0

SUN AZIMUTH (DEGREES).....246.6

SUN ELEVATION (DEGREES)..... 0.2

HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
6	50	0.00	77.0	77.9
9	37	0.00	67.0	68.8
12	31	0.02	57.0	59.8
16	17	0.03	48.0	51.9
24	11	0.04	39.0	44.3
40	5	0.05	30.0	37.2
65	8	0.08	20.0	30.3
199	11	0.13	10.0	25.3
2919	5	0.31	0.0	23.4

DATE AND FLIGHT NUMBER..... 1/27/64 - 2

FLIGHT RECORD CODE NUMBER.....7.0 - 8

ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....17.133

LINE OF SIGHT AZIMUTH (DEGREES).....315.0

SUN AZIMUTH (DEGREES).....246.7

SUN ELEVATION (DEGREES)..... 0.0

HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
6	67	0.00	77.0	85.2
6	64	0.00	67.0	81.7
8	51	0.02	57.0	78.3
9	46	0.03	48.0	75.6
13	50	0.02	39.0	73.3
17	50	0.00	30.0	71.3
27	51	0.02	20.0	69.7
65	52	0.04	10.0	68.6
379	24	0.07	0.0	68.3

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 1  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS)..... 6.650  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....109.6  
 SUN ELEVATION (DEGREES).....-4.5  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
0	0	0.00	77.0	98.7
0	33	0.00	67.0	101.7
0	33	0.00	57.0	104.3
1	50	0.00	48.0	106.4
1	20	0.00	39.0	108.0
1	40	0.00	30.0	109.2
1	50	0.00	20.0	109.9
2	43	0.00	10.0	110.0
3	60	0.00	0.0	109.5

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 2  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS)..... 6.667  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
 SUN AZIMUTH (DEGREES).....109.7  
 SUN ELEVATION (DEGREES).....-4.3  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
0	0	0.02	77.0	88.7
0	0	0.02	67.0	84.4
0	0	0.00	57.0	80.3
0	0	0.02	48.0	76.7
0	0	0.00	39.0	73.5
0	50	0.02	30.0	70.6
1	45	0.00	20.0	68.0
7	38	0.02	10.0	66.0
26	37	0.03	0.0	64.8

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 3  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS)..... 6.700  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....110.0  
 SUN ELEVATION (DEGREES).....-3.9  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
0	0	0.00	77.0	81.7
0	0	0.00	67.0	72.3
0	0	0.02	57.0	63.0
0	0	0.00	48.0	54.8
0	0	0.03	39.0	46.7
0	0	0.03	30.0	38.9
0	0	0.05	20.0	31.0
43	5	0.10	10.0	24.3
388	5	0.48	0.0	20.4

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 4  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS)..... 6.717  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....110.2  
 SUN ELEVATION (DEGREES).....-3.7  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

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SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
0	67	0.00	77.0	81.9
0	0	0.00	67.0	72.9
0	0	0.03	57.0	64.0
0	0	0.00	48.0	56.1
0	0	0.00	39.0	48.5
0	8	0.02	30.0	41.2
5	7	0.04	20.0	34.0
36	16	0.09	10.0	28.3
187	7	0.30	0.0	25.1

DATE AND FLIGHT NUMBER..... 1/28/64 - 1

FLIGHT RECORD CODE NUMBER.....2.0 - 5  
ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS)..... 6.733  
LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
SUN AZIMUTH (DEGREES).....110.3  
SUN ELEVATION (DEGREES).....-3.5  
HORIZON CORRECTION ANGLE (DEGREES).....2.8

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
0	100	0.00	77.0	89.0
1	50	0.00	67.0	85.5
1	53	0.00	57.0	82.1
1	47	0.02	48.0	79.3
3	50	0.00	39.0	76.7
3	40	0.00	30.0	74.4
7	42	0.00	20.0	72.3
15	45	0.03	10.0	70.7
27	57	0.03	0.0	69.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 1

FLIGHT RECORD CODE NUMBER.....2.0 - 6  
ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS)..... 6.750  
LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
SUN AZIMUTH (DEGREES).....110.4  
SUN ELEVATION (DEGREES).....-3.3  
HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
2	56	0.03	77.0	98.6
2	65	0.00	67.0	102.5
2	68	0.00	57.0	105.9
3	64	0.00	48.0	108.7
4	57	0.02	39.0	111.0
4	55	0.00	30.0	112.9
7	47	0.00	20.0	114.2
10	45	0.02	10.0	114.7
10	51	0.00	0.0	114.5



DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 7  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS)..... 6.767  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....110.6  
 SUN ELEVATION (DEGREES).....-3.1  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
2	70	0.00	77.0	105.3
3	64	0.00	67.0	114.6
4	36	0.00	57.0	123.7
4	33	0.00	48.0	131.8
6	20	0.02	39.0	139.5
8	18	0.03	30.0	146.8
11	13	0.03	20.0	153.8
12	6	0.03	10.0	158.4
12	21	0.02	0.0	159.2

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....2.0 - 8  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS)..... 6.783  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....110.7  
 SUN ELEVATION (DEGREES).....-3.0  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
3	60	0.00	77.0	104.8
4	59	0.00	67.0	113.8
5	39	0.00	57.0	122.6
6	26	0.00	48.0	130.4
8	18	0.00	39.0	137.7
10	8	0.00	30.0	144.5
13	15	0.00	20.0	150.8
17	12	0.03	10.0	154.9
14	21	0.00	0.0	155.6

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 1  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS)..... 6.850  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....111.3  
 SUN ELEVATION (DEGREES).....-2.2  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
5	50	0.00	77.0	96.9
6	56	0.00	67.0	100.2
7	47	0.00	57.0	103.3
7	45	0.02	48.0	105.0
10	49	0.03	39.0	107.9
13	49	0.00	30.0	109.5
17	54	0.02	20.0	110.8
28	54	0.03	10.0	111.4
53	57	0.04	0.0	111.3

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 2  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS)..... 6.867  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
 SUN AZIMUTH (DEGREES).....111.5  
 SUN ELEVATION (DEGREES).....-2.0  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
6	59	0.02	77.0	86.0
7	52	0.03	67.0	82.9
9	54	0.03	57.0	79.2
12	47	0.03	48.0	76.1
15	38	0.03	39.0	73.3
20	37	0.03	30.0	70.9
34	37	0.04	20.0	68.7
66	35	0.05	10.0	67.2
165	41	0.11	0.0	66.5

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 3  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS)..... 6.883  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....111.6  
 SUN ELEVATION (DEGREES).....-1.8  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
9	47	0.02	77.0	79.8
9	37	0.03	67.0	70.5
14	28	0.03	57.0	61.4
20	18	0.03	48.0	53.3
38	10	0.05	39.0	45.4
62	8	0.07	30.0	37.9
128	5	0.13	20.0	30.4
385	3	0.31	10.0	24.6
2000	7	1.17	0.0	21.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 4  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS)..... 6.900  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....111.8  
 SUN ELEVATION (DEGREES).....-1.7  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
10	47	0.02	77.0	79.7
12	37	0.02	67.0	70.6
15	26	0.03	57.0	61.6
24	16	0.03	48.0	53.6
37	5	0.04	39.0	45.9
64	4	0.07	30.0	38.6
117	4	0.11	20.0	31.4
302	9	0.21	10.0	25.9
1043	6	0.62	0.0	23.3

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 5  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS)..... 6.917  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....111.9  
 SUN ELEVATION (DEGREES).....-1.5  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
9	60	0.02	77.0	86.6
11	56	0.02	67.0	83.0
11	48	0.02	57.0	79.5
14	47	0.02	48.0	76.7
20	42	0.03	39.0	74.1
25	50	0.03	30.0	71.9
41	41	0.04	20.0	70.0
81	42	0.06	10.0	68.7
213	52	0.10	0.0	68.1

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....3.0 - 6  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS)..... 6.933  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....112.1  
 SUN ELEVATION (DEGREES).....-1.3  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
10	61	0.00	77.0	96.3
12	60	0.00	67.0	100.0
13	58	0.00	57.0	103.4
16	53	0.00	48.0	106.1
20	51	0.02	39.0	108.5
23	70	0.03	30.0	110.4
36	50	0.02	20.0	112.0
57	51	0.04	10.0	112.8
116	56	0.06	0.0	112.9

DATE AND FLIGHT NUMBER..... 1/28/64 - 1

FLIGHT RECORD CODE NUMBER.....3.0 - 7

ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS)..... 6.950

LINE OF SIGHT AZIMUTH (DEGREES).....270.0

SUN AZIMUTH (DEGREES).....112.2

SUN ELEVATION (DEGREES).....-1.1

HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
13	62	0.02	77.0	103.1
19	55	0.02	67.0	112.3
17	40	0.02	57.0	121.3
21	29	0.03	48.0	129.3
26	15	0.03	39.0	137.0
37	11	0.03	30.0	144.2
52	14	0.04	20.0	151.2
83	11	0.07	10.0	156.2
139	9	0.08	0.0	157.8

DATE AND FLIGHT NUMBER..... 1/28/64 - 1

FLIGHT RECORD CODE NUMBER.....3.0 - 8

ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS)..... 6.967

LINE OF SIGHT AZIMUTH (DEGREES).....315.0

SUN AZIMUTH (DEGREES).....112.4

SUN ELEVATION (DEGREES).....-0.9

HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
14	66	0.02	77.0	102.9
16	49	0.02	67.0	112.0
17	36	0.02	57.0	121.1
23	24	0.02	48.0	129.0
30	17	0.03	39.0	136.6
38	8	0.03	30.0	143.8
55	9	0.04	20.0	150.8
94	8	0.07	10.0	155.7
152	20	0.08	0.0	157.3

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 1  
 ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS)..... 7.033  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....112.9  
 SUN ELEVATION (DEGREES).....-0.2  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
17	49	0.03	77.0	95.2
18	50	0.03	67.0	98.9
20	51	0.03	57.0	102.4
21	45	0.03	48.0	105.2
26	43	0.03	39.0	107.7
35	41	0.02	30.0	109.8
48	48	0.04	20.0	111.5
80	47	0.05	10.0	112.6
168	49	0.07	0.0	112.9

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 2  
 ALTITUDE (FEET).....40000

PACIFIC STANDARD TIME (HOURS)..... 7.067  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
 SUN AZIMUTH (DEGREES).....113.2  
 SUN ELEVATION (DEGREES)..... 0.2  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
20	48	0.02	77.0	85.0
23	46	0.03	67.0	81.5
27	41	0.03	57.0	78.2
35	38	0.04	48.0	75.5
47	32	0.05	39.0	73.1
64	35	0.06	30.0	71.2
94	32	0.07	20.0	69.5
193	29	0.10	10.0	68.6
535	39	0.21	0.0	68.2

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBR.....4.0 - 3  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS)..... 7.083  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....113.4  
 SUN ELEVATION (DEGREES)..... 0.4  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
24	41	0.02	77.0	77.7
33	26	0.04	67.0	68.6
50	18	0.04	57.0	59.6
83	8	0.06	48.0	51.7
131	10	0.10	39.0	44.2
274	5	0.18	30.0	37.0
659	5	0.38	20.0	30.1
1904	2	0.96	10.0	25.2
3341	11	2.39	0.0	23.4

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 4  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS)..... 7.100  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....113.5  
 SUN ELEVATION (DEGREES)..... 0.6  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
25	33	0.02	77.0	77.3
35	22	0.04	67.0	68.1
47	16	0.04	57.0	59.0
77	9	0.06	48.0	50.9
117	1	0.08	39.0	43.2
223	4	0.13	30.0	35.8
418	10	0.25	20.0	28.6
13	5	0.42	10.0	23.3
2692	6	1.57	0.0	21.5

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 5  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS)..... 7.117  
 LINE OF SIGHT AZIMUTH (DEGREES).....80.0  
 SUN AZIMUTH (DEGREES).....113.7  
 SUN ELEVATION (DEGREES)..... 0.0  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
24	43	0.02	77.0	84.1
28	43	0.03	67.0	80.3
31	33	0.03	57.0	76.7
39	32	0.04	48.0	73.8
93	31	0.04	39.0	71.3
70	36	0.05	30.0	69.2
100	36	0.06	20.0	67.5
204	35	0.09	10.0	66.5
563	48	0.18	0.0	66.3

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 6  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS)..... 7.133  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....113.8  
 SUN ELEVATION (DEGREES)..... 0.9  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
23	45	0.03	77.0	93.7
24	50	0.03	67.0	97.2
28	49	0.03	57.0	100.5
31	49	0.03	48.0	103.3
37	50	0.04	39.0	105.7
50	46	0.04	30.0	107.7
79	46	0.05	20.0	109.5
132	43	0.06	10.0	110.7
329	51	0.11	0.0	111.2



DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 7  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS)..... 7.150  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....114.0  
 SUN ELEVATION (DEGREES)..... 1.1  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
24	51	0.03	77.0	100.7
27	47	0.03	67.0	109.8
29	39	0.03	57.0	118.8
36	25	0.03	48.0	126.6
47	18	0.04	39.0	134.2
66	9	0.04	30.0	141.4
92	12	0.05	20.0	148.4
167	7	0.07	10.0	153.7
354	6	0.11	0.0	156.0

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....4.0 - 8  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS)..... 7.183  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....114.3  
 SUN ELEVATION (DEGREES)..... 1.5  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
27	52	0.03	77.0	100.7
29	46	0.03	67.0	110.0
31	32	0.03	57.0	119.2
41	20	0.04	48.0	127.3
55	13	0.04	39.0	135.3
78	4	0.04	30.0	142.8
124	7	0.05	20.0	150.4
219	5	0.07	10.0	156.4
414	16	0.13	0.0	159.2

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 1  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS)..... 7.283  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....115.2  
 SUN ELEVATION (DEGREES)..... 2.6  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
26	42	0.03	77.0	93.0
27	43	0.03	67.0	97.2
28	35	0.03	57.0	101.2
32	33	0.03	48.0	104.5
40	36	0.03	39.0	107.6
52	30	0.04	30.0	110.2
74	36	0.05	20.0	112.6
143	40	0.06	10.0	114.3
428	36	0.11	0.0	115.2

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 2  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS)..... 7.300  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
 SUN AZIMUTH (DEGREES).....115.4  
 SUN ELEVATION (DEGREES)..... 2.8  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
32	34	0.03	77.0	83.0
37	28	0.03	67.0	79.9
45	30	0.04	57.0	77.1
57	27	0.05	48.0	74.9
78	27	0.06	39.0	73.1
103	22	0.07	30.0	71.6
166	25	0.09	20.0	70.6
269	24	0.14	10.0	70.2
1032	44	0.36	0.0	70.4

DATE AND FLIGHT NUMBER..... 1/28/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 3

ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS)..... 7.317

LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0

SUN AZIMUTH (DEGREES).....115.5

SUN ELEVATION (DEGREES)..... 3.0

HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
37	27	0.03	77.0	75.4
49	23	0.04	67.0	66.4
76	15	0.06	57.0	57.7
127	7	0.08	48.0	50.1
203	7	0.13	39.0	42.9
422	7	0.22	30.0	36.3
964	5	0.43	20.0	30.2
2631	2	1.25	10.0	26.3
5821	10	2.45	0.0	25.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 1

FLIGHT RECORD CODE NUMBER.....5.0 - 4

ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS)..... 7.333

LINE OF SIGHT AZIMUTH (DEGREES).....135.0

SUN AZIMUTH (DEGREES).....115.7

SUN ELEVATION (DEGREES)..... 3.1

HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
40	27	0.03	77.0	74.6
50	19	0.04	67.0	65.3
80	7	0.06	57.0	56.0
113	7	0.08	48.0	47.9
198	6	0.11	39.0	40.0
383	5	0.21	30.0	32.5
800	3	0.37	20.0	25.3
1935	7	0.77	10.0	20.4
4744	3	2.27	0.0	19.6

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 5  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS)..... 7.350  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....115.8  
 SUN ELEVATION (DEGREES)..... 3.3  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
34	32	0.03	77.0	81.1
39	28	0.04	67.0	77.1
49	26	0.04	57.0	73.4
56	22	0.05	48.0	70.5
71	24	0.05	39.0	68.0
97	24	0.06	30.0	66.1
141	27	0.08	20.0	64.6
272	26	0.11	10.0	64.0
948	29	0.21	0.0	64.2

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 6  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS)..... 7.383  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....116.1  
 SUN ELEVATION (DEGREES)..... 3.7  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
29	42	0.03	77.0	90.6
29	37	0.04	67.0	93.9
32	44	0.03	57.0	97.0
37	44	0.03	48.0	99.7
46	42	0.04	39.0	102.2
60	46	0.04	30.0	104.3
87	42	0.05	20.0	106.4
175	42	0.07	10.0	107.9
557	47	0.12	0.0	108.8

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 7  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS)..... 7.400  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....116.3  
 SUN ELEVATION (DEGREES)..... 3.7  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
30	43	0.00	77.0	97.8
31	42	0.02	67.0	106.7
35	33	0.03	57.0	115.5
44	26	0.03	48.0	123.3
56	13	0.03	39.0	130.8
80	14	0.04	30.0	137.8
126	10	0.06	20.0	144.9
268	4	0.08	10.0	150.4
826	10	0.15	0.0	153.5

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....5.0 - 8  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS)..... 7.417  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....116.4  
 SUN ELEVATION (DEGREES)..... 4.0  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
29	46	0.03	77.0	98.3
31	50	0.04	67.0	107.7
36	29	0.04	57.0	117.1
45	24	0.03	48.0	125.5
61	10	0.03	39.0	133.7
88	5	0.05	30.0	141.6
142	7	0.07	20.0	149.8
287	10	0.08	10.0	156.8
868	8	0.16	0.0	161.0

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 1  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS)..... 7.567  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....117.8  
 SUN ELEVATION (DEGREES)..... 5.6  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LDS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
21	39	0.02	77.0	90.5
22	39	0.02	67.0	95.2
23	37	0.03	57.0	99.8
24	34	0.03	48.0	103.8
31	36	0.04	39.0	107.4
43	34	0.04	30.0	110.7
63	36	0.04	20.0	113.8
112	39	0.05	10.0	116.1
529	29	0.09	0.0	117.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 2  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS)..... 7.583  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
 SUN AZIMUTH (DEGREES).....118.0  
 SUN ELEVATION (DEGREES)..... 5.8  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LDS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
28	38	0.03	77.0	80.6
34	32	0.04	67.0	78.1
37	32	0.04	57.0	75.9
47	32	0.04	48.0	74.3
64	29	0.05	39.0	73.2
81	30	0.06	30.0	72.4
117	27	0.07	20.0	72.1
252	26	0.10	10.0	72.3
1110	27	0.22	0.0	73.1

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 3  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS)..... 7.600  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....118.2  
 SUN ELEVATION (DEGREES)..... 6.0  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
34	25	0.03	77.0	72.6
47	20	0.05	67.0	64.0
73	12	0.05	57.0	55.6
118	6	0.08	48.0	48.4
219	2	0.12	39.0	41.7
427	8	0.21	30.0	35.8
936	7	0.30	20.0	30.7
2550	4	0.82	10.0	28.2
0	0	2.39	0.0	28.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....6.0 - 4  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS)..... 7.617  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....118.3  
 SUN ELEVATION (DEGREES)..... 6.2  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
35	25	0.04	77.0	71.4
50	11	0.05	67.0	61.9
75	5	0.07	57.0	52.5
126	2	0.09	48.0	44.2
219	8	0.13	39.0	36.1
434	5	0.24	30.0	28.5
932	3	0.42	20.0	21.3
2420	9	1.00	10.0	16.9
0	0	2.46	0.0	17.8

DATE AND FLIGHT NUMBER..... 1/20/64 - 1

FLIGHT RECORD CODE NUMBER.....6.0 - 5  
ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS)..... 7.650  
LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
SUN AZIMUTH (DEGREES).....118.6  
SUN ELEVATION (DEGREES)..... 6.5  
HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
30	29	0.04	77.0	77.4
37	19	0.04	67.0	73.1
43	20	0.04	57.0	69.2
57	17	0.05	48.0	66.2
79	15	0.06	39.0	63.8
96	20	0.07	30.0	62.0
154	20	0.08	20.0	60.9
299	17	0.11	10.0	60.7
1337	12	0.21	0.0	61.6

DATE AND FLIGHT NUMBER..... 1/20/64 - 1

FLIGHT RECORD CODE NUMBER.....6.0 - 6  
ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS)..... 7.667  
LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
SUN AZIMUTH (DEGREES).....118.8  
SUN ELEVATION (DEGREES)..... 6.7  
HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
24	33	0.03	77.0	87.1
25	38	0.03	67.0	90.0
28	41	0.03	57.0	93.0
32	38	0.03	48.0	95.7
40	46	0.04	39.0	98.2
55	44	0.04	30.0	100.5
82	40	0.05	20.0	102.7
197	42	0.07	10.0	104.6
1071	49	0.17	0.0	106.1



DATE AND FLIGHT NUMBER..... 1/28/64 - 1

FLIGHT RECORD CODE NUMBER.....6.0 - 7  
ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS)..... 7.663  
LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
SUN AZIMUTH (DEGREES).....119.0  
SUN ELEVATION (DEGREES)..... 6.9  
HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
22	43	0.03	77.0	94.5
25	38	0.04	67.0	103.3
27	33	0.04	57.0	111.9
32	28	0.03	48.0	119.5
41	19	0.03	39.0	126.9
59	10	0.05	30.0	133.8
98	13	0.06	20.0	140.8
197	8	0.07	10.0	146.6
985	8	0.13	0.0	150.3

DATE AND FLIGHT NUMBER..... 1/28/64 - 1

FLIGHT RECORD CODE NUMBER.....6.0 - 8  
ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS)..... 7.700  
LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
SUN AZIMUTH (DEGREES).....119.1  
SUN ELEVATION (DEGREES)..... 7.1  
HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
22	42	0.03	77.0	95.5
24	37	0.03	67.0	105.1
27	36	0.03	57.0	114.6
32	22	0.03	48.0	123.2
46	11	0.04	39.0	131.6
70	5	0.05	30.0	139.9
111	8	0.05	20.0	148.8
241	8	0.07	10.0	156.7
1135	10	0.15	0.0	162.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 1

FLIGHT RECORD CODE NUMBER.....7.0 - 1  
ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS)..... 8.017  
LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
SUN AZIMUTH (DEGREES).....122.2  
SUN ELEVATION (DEGREES).....10.3  
HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LDS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
9	64	0.02	77.0	86.7
9	64	0.02	67.0	92.3
11	61	0.03	57.0	97.8
11	49	0.03	48.0	102.6
15	39	0.02	39.0	107.2
21	37	0.02	30.0	111.4
32	36	0.03	20.0	115.6
64	38	0.04	10.0	119.1
305	41	0.06	0.0	121.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 1

FLIGHT RECORD CODE NUMBER.....7.0 - 2  
ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS)..... 8.033  
LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
SUN AZIMUTH (DEGREES).....122.4  
SUN ELEVATION (DEGREES).....10.5  
HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LDS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
15	52	0.02	77.0	77.0
17	51	0.03	67.0	75.4
22	49	0.02	57.0	74.4
22	48	0.03	48.0	73.8
26	53	0.02	39.0	73.7
31	47	0.04	30.0	73.9
45	53	0.02	20.0	74.7
83	56	0.05	10.0	76.0
1124	28	0.07	0.0	77.6

DATE AND FLIGHT NUMBER..... 1/28/64 - 1

FLIGHT RECORD CODE NUMBER.....7.0 - 3  
ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS)..... 8.067  
LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
SUN AZIMUTH (DEGREES).....122.8  
SUN ELEVATION (DEGREES).....10.8  
HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
16	43	0.03	77.0	68.3
23	29	0.04	67.0	60.3
30	26	0.04	57.0	52.6
43	19	0.04	48.0	46.2
72	19	0.05	39.0	40.5
129	20	0.07	30.0	36.0
264	23	0.08	20.0	32.8
423	20	0.12	10.0	32.2
5811	3	0.23	0.0	34.3

DATE AND FLIGHT NUMBER..... 1/28/64 - 1

FLIGHT RECORD CODE NUMBER.....7.0 - 4  
ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS)..... 8.100  
LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
SUN AZIMUTH (DEGREES).....123.1  
SUN ELEVATION (DEGREES).....11.2  
HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
15	37	0.04	77.0	66.1
20	27	0.03	67.0	56.4
30	12	0.05	57.0	46.7
43	9	0.06	48.0	38.2
56	3	0.09	39.0	29.8
50	0	0.14	30.0	21.8
0	0	0.26	20.0	14.5
0	0	0.43	10.0	11.8
0	0	0.39	0.0	16.3

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....7.0 - 5  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS)..... 8.117  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....123.3  
 SUN ELEVATION (DEGREES).....11.4  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
13	45	0.04	77.0	71.0
15	27	0.02	67.0	67.0
18	31	0.03	57.0	62.7
27	27	0.04	48.0	59.6
43	28	0.04	39.0	57.2
51	34	0.06	30.0	55.7
70	35	0.06	20.0	55.1
126	30	0.07	10.0	55.7
212	18	0.11	0.0	57.5

DATE AND FLIGHT NUMBER..... 1/28/64 - 1  
 FLIGHT RECORD CODE NUMBER.....7.0 - 6  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS)..... 8.150  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....123.6  
 SUN ELEVATION (DEGREES).....11.7  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
11	60	0.04	77.0	81.2
11	65	0.00	67.0	83.6
12	65	0.03	57.0	86.3
12	66	0.00	48.0	88.8
16	65	0.02	39.0	91.3
21	67	0.03	30.0	93.8
35	64	0.03	20.0	96.5
71	58	0.04	10.0	98.9
854	28	0.07	0.0	101.2

DATE AND FLIGHT NUMBER..... 1/28/64 - 1

FLIGHT RECORD CODE NUMBER.....7.0 - 7

ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS)..... 8.167

LINE OF SIGHT AZIMUTH (DEGREES).....270.0

SUN AZIMUTH (DEGREES).....123.8

SUN ELEVATION (DEGREES).....11.9

HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
10	65	0.02	77.0	69.0
11	61	0.00	67.0	97.4
12	51	0.00	57.0	105.7
15	42	0.00	48.0	113.1
18	35	0.00	39.0	120.2
26	25	0.00	30.0	127.0
41	13	0.02	20.0	134.0
67	20	0.04	10.0	139.9
707	3	0.06	0.0	144.4

DATE AND FLIGHT NUMBER..... 1/28/64 - 1

FLIGHT RECORD CODE NUMBER.....7.0 - 8

ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS)..... 8.183

LINE OF SIGHT AZIMUTH (DEGREES).....315.0

SUN AZIMUTH (DEGREES).....123.9

SUN ELEVATION (DEGREES).....12.0

HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
11	62	0.02	77.0	90.8
11	61	0.02	67.0	100.6
13	48	0.02	57.0	110.4
16	42	0.04	48.0	119.2
20	28	0.03	39.0	128.0
31	14	0.03	30.0	136.7
55	4	0.04	20.0	146.2
109	7	0.05	10.0	155.4
1257	6	0.08	0.0	163.7

DATE AND FLIGHT NUMBER..... 1/23/64 - 2  
 FLIGHT RECORD CODE NUMBER.....2.0 - 1  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....11.967  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....177.1  
 SUN ELEVATION (DEGREES).....39.8  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
144	36	0.07	77.0	64.2
125	45	0.07	67.0	74.2
125	49	0.07	57.0	84.1
134	51	0.07	48.0	93.1
159	45	0.07	39.0	102.1
220	35	0.08	30.0	111.1
342	29	0.08	20.0	121.1
646	15	0.15	10.0	131.1
2107	9	0.33	0.0	141.1

DATE AND FLIGHT NUMBER..... 1/23/64 - 2  
 FLIGHT RECORD CODE NUMBER.....2.0 - 2  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....11.983  
 LINE OF SIGHT AZIMUTH (DEGREES).....45.0  
 SUN AZIMUTH (DEGREES).....177.4  
 SUN ELEVATION (DEGREES).....39.8  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

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SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
149	27	0.07	77.0	60.5
138	38	0.08	67.0	69.2
133	44	0.07	57.0	76.1
134	47	0.07	48.0	83.4
161	46	0.07	39.0	90.8
210	41	0.08	30.0	99.1
304	27	0.09	20.0	106.2
611	22	0.14	10.0	114.1
2029	21	0.33	0.0	121.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....2.0 - 3  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....12.000  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....177.7  
 SUN ELEVATION (DEGREES).....38.9  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
218	19	0.09	77.0	51.8
213	21	0.10	67.0	53.9
211	20	0.10	57.0	57.1
212	23	0.10	48.0	60.8
234	27	0.11	39.0	65.2
287	25	0.11	30.0	70.1
374	28	0.13	20.0	75.9
681	32	0.19	10.0	81.9
2000	38	0.36	0.0	92.2

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....2.0 - 4  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....12.167  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....180.7  
 SUN ELEVATION (DEGREES).....39.9  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
304	9	0.12	77.0	42.8
372	9	0.19	67.0	37.8
481	8	0.23	57.0	34.7
698	7	0.31	48.0	33.9
661	4	0.33	39.0	35.2
703	7	0.34	30.0	38.3
846	6	0.35	20.0	43.5
1259	8	0.41	10.0	49.9
2284	18	0.69	0.0	57.1

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....2.0 - 5  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....12.033  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....178.3  
 SUN ELEVATION (DEGREES).....38.9  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
332	11	0.13	77.0	38.1
527	4	0.24	67.0	28.2
872	3	0.41	57.0	18.2
426	12	0.91	48.0	9.2
0	0	2.55	39.0	1.3
1635	0	2.18	30.0	9.0
2000	7	1.50	20.0	18.9
2189	4	1.28	10.0	28.9
3473	6	1.62	0.0	38.9

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....2.0 - 6  
 ALTITUDE (FEET).....20000  
 PACIFIC STANDARD TIME (HOURS).....12.067  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....178.9  
 SUN ELEVATION (DEGREES).....38.9  
 HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
275	7	0.11	77.0	42.9
360	3	0.16	67.0	37.9
450	3	0.21	57.0	34.9
544	7	0.27	48.0	34.1
566	8	0.27	39.0	35.5
628	9	0.28	30.0	38.6
756	15	0.30	20.0	43.8
1205	12	0.38	10.0	50.2
2979	15	0.71	0.0	57.3



DATE AND FLIGHT NUMBER..... 1/28/64 - 2

FLIGHT RECORD CODE NUMBER.....2.0 - 7

ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....12.083

LINE OF SIGHT AZIMUTH (DEGREES).....270.0

SUN AZIMUTH (DEGREES).....179.2

SUN ELEVATION (DEGREES).....38.9

HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
212	16	0.09	77.0	52.5
195	21	0.10	67.0	55.0
199	20	0.10	57.0	58.6
206	31	0.09	48.0	62.7
222	36	0.09	39.0	67.3
261	41	0.10	30.0	72.3
361	38	0.12	20.0	78.2
635	35	0.16	10.0	84.4
1714	44	0.31	0.0	90.6

DATE AND FLIGHT NUMBER..... 1/28/64 - 2

FLIGHT RECORD CODE NUMBER.....2.0 - 8

ALTITUDE (FEET).....20000

PACIFIC STANDARD TIME (HOURS).....12.100

LINE OF SIGHT AZIMUTH (DEGREES).....315.0

SUN AZIMUTH (DEGREES).....179.5

SUN ELEVATION (DEGREES).....38.9

HORIZON CORRECTION ANGLE (DEGREES).....2.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
156	33	0.06	77.0	60.9
146	39	0.08	67.0	68.9
138	46	0.07	57.0	77.1
144	48	0.07	48.0	84.6
169	42	0.07	39.0	92.1
220	36	0.08	30.0	99.6
392	32	0.10	20.0	107.9
623	22	0.14	10.0	116.0
2042	21	0.30	0.0	123.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....3.0 - 1  
 ALTITUDE (FEET)..... 30000  
 PACIFIC STANDARD TIME (HOURS).....12.150  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....180.4  
 SUN ELEVATION (DEGREES).....39.9  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
105	34	0.06	77.0	64.1
93	44	0.06	67.0	74.1
92	46	0.06	57.0	84.1
97	45	0.06	48.0	93.1
110	43	0.06	39.0	102.1
161	36	0.07	30.0	111.1
252	24	0.08	20.0	121.1
529	15	0.13	10.0	131.1
2108	13	0.31	0.0	141.1

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....3.0 - 2  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....12.167  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
 SUN AZIMUTH (DEGREES).....180.7  
 SUN ELEVATION (DEGREES).....38.9  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
119	29	0.07	77.0	60.9
99	41	0.07	67.0	68.9
99	43	0.07	57.0	77.1
99	46	0.06	48.0	84.6
110	47	0.06	39.0	92.2
141	36	0.07	30.0	99.7
221	29	0.08	20.0	108.0
433	20	0.11	10.0	116.1
1427	21	0.23	0.0	123.9

DATE AND FLIGHT NUMBER..... 1/28/64 - 2

FLIGHT RECORD CODE NUMBER.....3.0 - 3  
ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS).....12.183  
LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
SUN AZIMUTH (DEGREES).....181.0  
SUN ELEVATION (DEGREES).....38.9  
HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
157	18	0.08	77.0	52.5
148	18	0.09	67.0	55.1
147	23	0.09	57.0	58.7
147	24	0.08	48.0	62.8
152	25	0.08	39.0	67.4
185	28	0.09	30.0	72.4
262	29	0.10	20.0	78.4
463	30	0.13	10.0	84.5
1670	41	0.29	0.0	90.8

DATE AND FLIGHT NUMBER..... 1/28/64 - 2

FLIGHT RECORD CODE NUMBER.....3.0 - 4  
ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS).....12.200  
LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
SUN AZIMUTH (DEGREES).....181.3  
SUN ELEVATION (DEGREES).....38.9  
HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
228	10	0.10	77.0	42.9
310	6	0.15	67.0	38.0
377	8	0.20	57.0	35.0
511	9	0.25	48.0	34.3
510	6	0.28	39.0	35.6
548	4	0.28	30.0	38.8
624	7	0.29	20.0	44.0
947	9	0.35	10.0	50.3
2286	17	0.63	0.0	57.5

DATE AND FLIGHT NUMBER..... 1/28/64 - 2

FLIGHT RECORD CODE NUMBER.....3.0 - 5  
ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS).....12.233  
LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
SUN AZIMUTH (DEGREES).....181.9  
SUN ELEVATION (DEGREES).....38.9  
HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
272	7	0.12	77.0	38.2
420	7	0.20	67.0	28.2
695	6	0.35	57.0	18.2
712	2	0.76	48.0	9.3
0	0	2.39	39.0	1.5
753	6	2.16	30.0	9.0
1622	3	1.32	20.0	18.9
1936	1	1.14	10.0	28.9
3455	5	1.63	0.0	38.9

DATE AND FLIGHT NUMBER..... 1/28/64 - 2

FLIGHT RECORD CODE NUMBER.....3.0 - 6  
ALTITUDE (FEET).....30000

PACIFIC STANDARD TIME (HOURS).....12.250  
LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
SUN AZIMUTH (DEGREES).....182.2  
SUN ELEVATION (DEGREES).....38.8  
HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
234	8	0.09	77.0	42.3
301	2	0.15	67.0	36.8
397	3	0.20	57.0	33.1
520	7	0.25	48.0	31.9
502	8	0.28	39.0	33.0
563	10	0.28	30.0	36.0
671	14	0.29	20.0	41.2
1181	19	0.36	10.0	47.8
2809	11	0.70	0.0	55.1

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....3.0 - 7  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....12.267  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....182.6  
 SUN ELEVATION (DEGREES).....38.8  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
171	15	0.06	77.0	51.8
163	19	0.10	67.0	53.8
150	22	0.09	57.0	57.0
156	28	0.09	48.0	60.7
149	31	0.09	39.0	65.1
201	30	0.09	30.0	69.9
271	35	0.11	20.0	75.7
493	29	0.14	10.0	81.8
1589	33	0.28	0.0	88.0

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....3.0 - 8  
 ALTITUDE (FEET).....30000  
 PACIFIC STANDARD TIME (HOURS).....12.283  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....182.8  
 SUN ELEVATION (DEGREES).....38.8  
 HORIZON CORRECTION ANGLE (DEGREES).....3.1

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
125	22	0.06	77.0	60.4
107	37	0.07	67.0	68.1
105	41	0.07	57.0	76.0
106	44	0.06	48.0	83.3
131	50	0.06	39.0	90.7
149	37	0.07	30.0	98.0
228	28	0.08	20.0	106.1
446	22	0.11	10.0	114.0
1455	21	0.21	0.0	121.5

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....4.0 - 1  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....12.383  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....104.7  
 SUN ELEVATION (DEGREES).....38.7  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
83	26	0.05	77.0	64.2
73	35	0.06	67.0	74.2
68	43	0.05	57.0	84.2
72	38	0.05	48.0	93.2
87	38	0.05	39.0	102.1
111	28	0.06	30.0	111.1
164	20	0.07	20.0	121.1
359	14	0.10	10.0	131.1
1418	12	0.21	0.0	141.0

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....4.0 - 2  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....12.400  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 45.0  
 SUN AZIMUTH (DEGREES).....105.0  
 SUN ELEVATION (DEGREES).....38.7  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
92	26	0.05	77.0	61.6
76	29	0.06	67.0	70.0
72	36	0.05	57.0	78.5
78	40	0.05	48.0	86.3
85	34	0.05	39.0	94.0
91	47	0.06	30.0	101.8
166	25	0.07	20.0	110.3
319	14	0.09	10.0	118.7
1235	19	0.20	0.0	124.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....4.0 - 3  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....12.417  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....185.3  
 SUN ELEVATION (DEGREES).....38.7  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
112	13	0.06	77.0	53.6
107	19	0.08	67.0	56.8
102	20	0.08	57.0	61.0
94	19	0.07	48.0	65.4
101	26	0.07	39.0	70.3
123	24	0.07	30.0	75.5
160	25	0.08	20.0	81.6
202	28	0.10	10.0	87.8
900	30	0.19	0.0	94.1

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....4.0 - 4  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....12.433  
 LINE OF SIGHT AZIMUTH (DEGREES).....139.0  
 SUN AZIMUTH (DEGREES).....185.6  
 SUN ELEVATION (DEGREES).....38.7  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
157	11	0.05	77.0	43.9
195	5	0.12	67.0	39.7
255	8	0.15	57.0	37.4
309	10	0.19	48.0	37.2
310	6	0.18	39.0	38.9
337	6	0.19	30.0	42.1
398	9	0.20	20.0	47.2
649	8	0.26	10.0	53.4
1704	13	0.45	0.0	60.3

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....4.0 - 5  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....12.450  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....18.9  
 SUN ELEVATION (DEGREES).....38.7  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
200	6	0.05	77.0	38.4
317	7	0.17	67.0	28.5
510	5	0.26	57.0	18.7
323	3	0.45	48.0	10.3
0	0	1.52	39.0	4.6
1249	4	2.06	30.0	9.9
1496	1	1.14	20.0	19.4
1584	7	1.01	10.0	29.2
3294	2	1.37	0.0	39.0

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....4.0 - 6  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....12.467  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....184.2  
 SUN ELEVATION (DEGREES).....38.6  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
185	5	0.06	77.0	41.8
247	9	0.15	67.0	35.6
369	2	0.19	57.0	31.2
595	6	0.27	48.0	29.4
519	6	0.34	39.0	30.0
580	5	0.33	30.0	32.9
641	9	0.33	20.0	38.2
957	7	0.86	10.0	44.9
2598	2	0.66	0.0	52.5



DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....6.0 - 7  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....12.500  
 LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
 SUN AZIMUTH (DEGREES).....186.8  
 SUN ELEVATION (DEGREES).....38.6  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
153	11	0.06	77.0	51.0
145	14	0.10	67.0	52.4
136	12	0.09	57.0	55.0
133	19	0.09	48.0	58.3
147	22	0.09	39.0	62.3
160	24	0.09	30.0	66.9
233	25	0.10	20.0	72.5
408	24	0.12	10.0	78.5
1511	30	0.26	0.0	84.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....4.0 - 8  
 ALTITUDE (FEET).....40000  
 PACIFIC STANDARD TIME (HOURS).....12.517  
 LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
 SUN AZIMUTH (DEGREES).....187.1  
 SUN ELEVATION (DEGREES).....38.6  
 HORIZON CORRECTION ANGLE (DEGREES).....3.5

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
97	16	0.05	77.0	60.0
87	25	0.07	67.0	67.3
80	34	0.06	57.0	74.8
81	35	0.06	48.0	81.8
88	32	0.06	39.0	88.9
107	30	0.07	30.0	96.0
156	24	0.07	20.0	103.8
301	21	0.09	10.0	111.4
1164	31	0.17	0.0	118.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....5.0 - 1  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....12.633  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....189.2  
 SUN ELEVATION (DEGREES).....38.4  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
63	23	0.05	77.0	64.5
52	32	0.06	67.0	74.4
46	33	0.06	57.0	84.3
47	31	0.05	48.0	93.2
58	33	0.05	39.0	102.2
71	26	0.06	30.0	111.1
109	14	0.06	20.0	121.0
229	12	0.07	10.0	130.9
978	9	0.15	0.0	140.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....5.0 - 2  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....12.650  
 LINE OF SIGHT AZIMUTH (DEGREE).....45.0  
 SUN AZIMUTH (DEGREES).....189.5  
 SUN ELEVATION (DEGREES).....38.3  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
62	21	0.04	77.0	62.6
63	2	0.05	67.0	71.2
49	32	0.05	57.0	80.1
50	37	0.05	48.0	88.1
55	31	0.05	39.0	96.1
0	0	0.05	30.0	104.1
109	18	0.06	20.0	112.8
211	11	0.08	10.0	121.4
34	28	0.14	0.0	129.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....5.0 - 3  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....12.667  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....189.8  
 SUN ELEVATION (DEGREES).....38.3  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
81	12	0.05	77.0	55.0
78	16	0.07	67.0	58.8
72	17	0.06	57.0	63.4
68	17	0.07	48.0	68.2
72	23	0.06	39.0	73.4
87	21	0.06	30.0	78.8
113	14	0.01	20.0	85.0
209	24	0.09	10.0	91.4
814	26	0.15	0.0	97.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....5.0 - 4  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....12.683  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....190.1  
 SUN ELEVATION (DEGREES).....38.3  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
129	9	0.06	77.0	45.2
153	6	0.10	67.0	41.8
209	10	0.12	57.0	40.2
231	11	0.15	48.0	40.5
233	8	0.14	39.0	42.4
258	5	0.15	30.0	45.7
305	9	0.16	20.0	50.7
525	9	0.21	10.0	56.6
1942	12	0.40	0.0	63.3

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....5.0 - 5  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....12.700  
 LINE OF SIGHT AZIMUTH (DEGREES).....189.0  
 SUN AZIMUTH (DEGREES).....190.4  
 SUN ELEVATION (DEGREES).....38.2  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
162	6	0.06	77.0	39.0
261	6	0.14	67.0	29.4
462	3	0.25	57.0	20.0
616	4	0.43	48.0	12.4
1579	10	1.09	39.0	8.2
1375	5	1.31	30.0	11.9
1310	2	0.84	20.0	20.3
1373	7	0.76	10.0	29.7
3520	3	1.15	0.0	39.4

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....5.0 - 6  
 ALTITUDE (FEET).....50000  
 PACIFIC STANDARD TIME (HOURS).....12.733  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....191.0  
 SUN ELEVATION (DEGREES).....38.2  
 HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
140	7	0.06	77.0	41.5
213	3	0.13	67.0	34.6
313	3	0.19	57.0	29.2
455	7	0.28	48.0	26.5
504	7	0.39	39.0	26.4
526	2	0.35	30.0	29.1
563	6	0.33	20.0	34.5
660	31	0.35	10.0	41.5
2808	4	0.55	0.0	69.3

DATE AND FLIGHT NUMBER..... 1/28/64 - 2

FLIGHT RECORD CODE NUMBER.....5.0 - 7  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....12.750  
LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
SUN AZIMUTH (DEGREES).....191.3  
SUN ELEVATION (DEGREES).....38.1  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
132	9	0.06	77.0	50.5
118	11	0.09	67.0	51.1
103	13	0.09	57.0	53.0
106	17	0.08	48.0	55.8
110	17	0.08	39.0	59.5
125	23	0.08	30.0	63.8
165	22	0.09	20.0	69.2
296	18	0.11	10.0	75.0
1246	31	1.35	0.0	81.1

DATE AND FLIGHT NUMBER..... 1/28/64 - 2

FLIGHT RECORD CODE NUMBER.....5.0 - 8  
ALTITUDE (FEET).....50000

PACIFIC STANDARD TIME (HOURS).....12.767  
LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
SUN AZIMUTH (DEGREES).....191.6  
SUN ELEVATION (DEGREES).....38.1  
HORIZON CORRECTION ANGLE (DEGREES).....4.0

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
74	19	0.05	77.0	59.8
63	25	0.06	67.0	55.5
57	31	0.06	57.0	73.7
57	32	0.05	48.0	80.3
63	32	0.06	39.0	87.1
77	31	0.06	30.0	93.0
114	24	0.06	20.0	101.3
212	28	0.08	10.0	108.7
883	16	0.15	0.0	115.7

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....6.0 - 1  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....12.933  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....194.5  
 SUN ELEVATION (DEGREES).....37.6  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
35	28	0.04	77.0	65.0
28	37	0.04	67.0	74.8
28	33	0.04	57.0	84.6
29	40	0.04	48.0	93.4
32	34	0.04	39.0	102.2
44	25	0.04	30.0	111.1
77	19	0.06	20.0	120.8
139	12	0.07	10.0	130.5
950	2	0.11	0.0	140.1

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....6.0 - 2  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....12.967  
 LINE OF SIGHT AZIMUTH (DEGREES).....45.0  
 SUN AZIMUTH (DEGREES).....175.1  
 SUN ELEVATION (DEGREES).....37.5  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
35	27	0.04	77.0	64.0
30	28	0.04	67.0	73.1
28	30	0.04	57.0	82.2
28	44	0.04	48.0	90.5
33	39	0.03	39.0	98.7
44	30	0.05	30.0	107.0
62	19	0.06	20.0	116.0
124	10	0.06	10.0	124.9
604	5	0.10	0.0	133.5

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....6.0 - 3  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....12.983  
 LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
 SUN AZIMUTH (DEGREES).....195.4  
 SUN ELEVATION (DEGREES)..... 37.4  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
44	16	0.06	77.0	57.0
41	20	0.06	67.0	61.5
39	26	0.05	57.0	66.7
35	22	0.05	48.0	71.9
38	25	0.05	39.0	77.4
46	27	0.05	30.0	83.0
63	25	0.06	20.0	89.4
114	25	0.07	10.0	95.9
538	26	0.08	0.0	102.2

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....6.0 - 4  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....13.000  
 LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
 SUN AZIMUTH (DEGREES).....195.7  
 SUN ELEVATION (DEGREES)..... 37.4  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
68	12	0.05	77.0	47.2
87	7	0.07	67.0	44.7
121	9	0.08	57.0	43.9
109	10	0.09	48.0	44.7
105	13	0.09	39.0	46.8
115	11	0.09	30.0	50.2
144	11	0.09	20.0	55.0
257	14	0.12	10.0	60.8
1521	11	0.23	0.0	67.1

DATE AND FLIGHT NUMBER..... 1/20/64 - 2  
 FLIGHT RECORD CODE NUMBER.....6.0 - 5  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....13.033  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....196.3  
 SUN ELEVATION (DEGREES).....37.3  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
94	7	0.04	77.0	40.4
139	3	0.09	67.0	31.1
205	8	0.15	57.0	22.5
284	8	0.23	48.0	16.0
1345	5	0.36	39.0	12.9
737	2	0.41	30.0	15.3
706	4	0.40	20.0	22.3
832	1	0.40	10.0	31.0
3767	0	0.59	0.0	40.2

DATE AND FLIGHT NUMBER..... 1/20/64 - 2  
 FLIGHT RECORD CODE NUMBER.....6.0 - 6  
 ALTITUDE (FEET).....60000  
 PACIFIC STANDARD TIME (HOURS).....13.050  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....196.6  
 SUN ELEVATION (DEGREES).....37.2  
 HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
96	4	0.05	77.0	41.7
131	8	0.09	67.0	33.9
193	3	0.15	57.0	27.3
301	4	0.23	48.0	23.4
391	3	0.39	39.0	22.4
354	5	0.29	30.0	24.6
407	7	0.26	20.0	30.1
854	2	0.28	10.0	37.4
0	0	0.44	0.0	45.5



DATE AND FLIGHT NUMBER..... 1/28/64 - 2

FLIGHT RECORD CODE NUMBER.....6.0 - 7  
ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....13.083  
LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
SUN AZIMUTH (DEGREES).....197.1  
SUN ELEVATION (DEGREES).....37.1  
HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
85	12	0.05	77.0	50.2
101	11	0.08	67.0	49.7
88	14	0.08	57.0	50.7
81	11	0.06	48.0	52.7
83	15	0.06	39.0	55.8
87	21	0.07	30.0	59.7
105	16	0.07	20.0	64.7
174	18	0.08	10.0	70.4
602	10	0.13	0.0	76.4

DATE AND FLIGHT NUMBER..... 1/28/64 - 2

FLIGHT RECORD CODE NUMBER.....6.0 - 8  
ALTITUDE (FEET).....60000

PACIFIC STANDARD TIME (HOURS).....13.100  
LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
SUN AZIMUTH (DEGREES).....197.4  
SUN ELEVATION (DEGREES).....37.0  
HORIZON CORRECTION ANGLE (DEGREES).....4.3

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
41	18	0.05	77.0	59.8
35	28	0.05	67.0	65.8
34	31	0.05	57.0	72.3
32	34	0.04	48.0	78.5
35	39	0.03	39.0	84.7
44	35	0.05	30.0	91.1
66	29	0.05	20.0	98.1
127	25	0.06	10.0	105.0
79	15	0.11	0.0	111.7

DATE AND FLIGHT NUMBER..... 1/20/64 - 2  
 FLIGHT RECORD CODE NUMBER.....7.0 - 1  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....13.303  
 LINE OF SIGHT AZIMUTH (DEGREES).....360.0  
 SUN AZIMUTH (DEGREES).....202.2  
 SUN ELEVATION (DEGREES).....35.0  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
14	38	0.03	77.0	66.3
13	49	0.02	67.0	75.0
12	48	0.02	57.0	85.3
13	52	0.03	48.0	93.9
15	44	0.02	39.0	102.4
21	39	0.03	30.0	111.0
32	24	0.03	20.0	120.4
69	16	0.04	10.0	129.6
401	6	0.07	0.0	138.7

DATE AND FLIGHT NUMBER..... 1/20/64 - 2  
 FLIGHT RECORD CODE NUMBER.....7.0 - 2  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....13.417  
 LINE OF SIGHT AZIMUTH (DEGREES).....45.0  
 SUN AZIMUTH (DEGREES).....202.0  
 SUN ELEVATION (DEGREES).....35.0  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
14	40	0.03	77.0	66.5
11	49	0.02	67.0	76.0
12	53	0.04	57.0	85.5
13	53	0.03	48.0	94.0
16	52	0.03	39.0	102.6
20	36	0.03	30.0	111.1
33	26	0.04	20.0	120.5
69	19	0.06	10.0	129.0
344	13	0.07	0.0	138.0

DATE AND FLIGHT NUMBER..... 1/28/64 - 2

FLIGHT RECORD CODE NUMBER.....7.0 - 3  
ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....13.450  
LINE OF SIGHT AZIMUTH (DEGREES)..... 90.0  
SUN AZIMUTH (DEGREES).....203.3  
SUN ELEVATION (DEGREES).....35.5  
HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
16	36	0.04	77.0	60.5
14	38	0.03	67.0	65.9
12	37	0.02	57.0	71.9
13	50	0.02	48.0	77.5
15	41	0.02	39.0	83.4
17	31	0.02	30.0	89.4
28	37	0.04	20.0	96.0
53	31	0.05	10.0	102.5
297	40	0.06	0.0	108.0

DATE AND FLIGHT NUMBER..... 1/28/64 - 2

FLIGHT RECORD CODE NUMBER.....7.0 - 4  
ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....13.483  
LINE OF SIGHT AZIMUTH (DEGREES).....135.0  
SUN AZIMUTH (DEGREES).....203.9  
SUN ELEVATION (DEGREES).....35.3  
HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
31	16	0.05	77.0	51.0
49	19	0.06	67.0	49.7
53	24	0.07	57.0	49.8
41	22	0.06	48.0	51.2
37	19	0.05	39.0	53.7
41	24	0.05	30.0	57.0
54	24	0.06	20.0	61.7
96	20	0.06	10.0	67.0
1101	31	0.10	0.0	72.9

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....7.0 - 5  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....13.500  
 LINE OF SIGHT AZIMUTH (DEGREES).....180.0  
 SUN AZIMUTH (DEGREES).....204.1  
 SUN ELEVATION (DEGREES).....35.2  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
28	16	0.05	77.0	43.1
34	15	0.06	67.0	34.7
52	3	0.07	57.0	27.1
48	11	0.08	48.0	21.9
368	18	0.10	39.0	19.5
258	15	0.17	30.0	20.9
244	10	0.11	20.0	24.1
254	7	0.11	10.0	33.5
1023	6	0.16	0.0	41.8

DATE AND FLIGHT NUMBER..... 1/28/64 - 2  
 FLIGHT RECORD CODE NUMBER.....7.0 - 6  
 ALTITUDE (FEET).....70000  
 PACIFIC STANDARD TIME (HOURS).....13.533  
 LINE OF SIGHT AZIMUTH (DEGREES).....225.0  
 SUN AZIMUTH (DEGREES).....204.7  
 SUN ELEVATION (DEGREES).....35.1  
 HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
34	17	0.05	77.0	42.9
41	3	0.06	67.0	34.0
46	3	0.09	57.0	25.9
0	0	0.14	48.0	19.9
0	0	0.25	39.0	16.7
7	6	0.26	30.0	17.8
107	9	0.17	20.0	23.4
247	5	0.13	10.0	31.2
2169	14	1.24	0.0	39.9

DATE AND FLIGHT NUMBER..... 1/29/64 - 2

FLIGHT RECORD CODE NUMBER.....7.0 - 7  
ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....13.950  
LINE OF SIGHT AZIMUTH (DEGREES).....270.0  
SUN AZIMUTH (DEGREES).....204.9  
SUN ELEVATION (DEGREES).....35.0  
HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
33	14	0.05	77.0	50.5
50	17	0.06	67.0	48.5
59	15	0.07	57.0	48.0
40	20	0.06	48.0	48.9
38	23	0.05	39.0	51.0
43	26	0.06	30.0	54.1
55	20	0.06	20.0	58.6
100	22	0.06	10.0	63.9
1265	25	0.09	0.0	69.8

DATE AND FLIGHT NUMBER..... 1/29/64 - 2

FLIGHT RECORD CODE NUMBER.....7.0 - 8  
ALTITUDE (FEET).....70000

PACIFIC STANDARD TIME (HOURS).....13.583  
LINE OF SIGHT AZIMUTH (DEGREES).....315.0  
SUN AZIMUTH (DEGREES).....205.5  
SUN ELEVATION (DEGREES).....34.8  
HORIZON CORRECTION ANGLE (DEGREES).....4.7

SKY LUMINANCE (FOOTLAMBERTS)	SKY POLARIZATION (PERCENT)	INFRARED RADIANCE (RELATIVE)	LOS ELEVATION (DEGREES)	SCATTER ANGLE (DEGREES)
19	29	0.03	77.0	60.4
17	39	0.04	67.0	65.3
15	38	0.02	57.0	70.8
15	50	0.03	48.0	76.1
18	50	0.02	39.0	81.6
21	50	0.03	30.0	87.3
31	41	0.04	20.0	93.6
60	38	0.06	10.0	99.9
354	29	0.07	0.0	105.9

JOB NUMBER 3879  
229 CARDS READ.  
COMPASS TIME WAS

1261 LINES PRINTED,  
. 0 HRS., EXECUTION TIME WAS

1 CARDS PUNCHED,  
. 11 HRS.

### 3.3 Isolume Plots

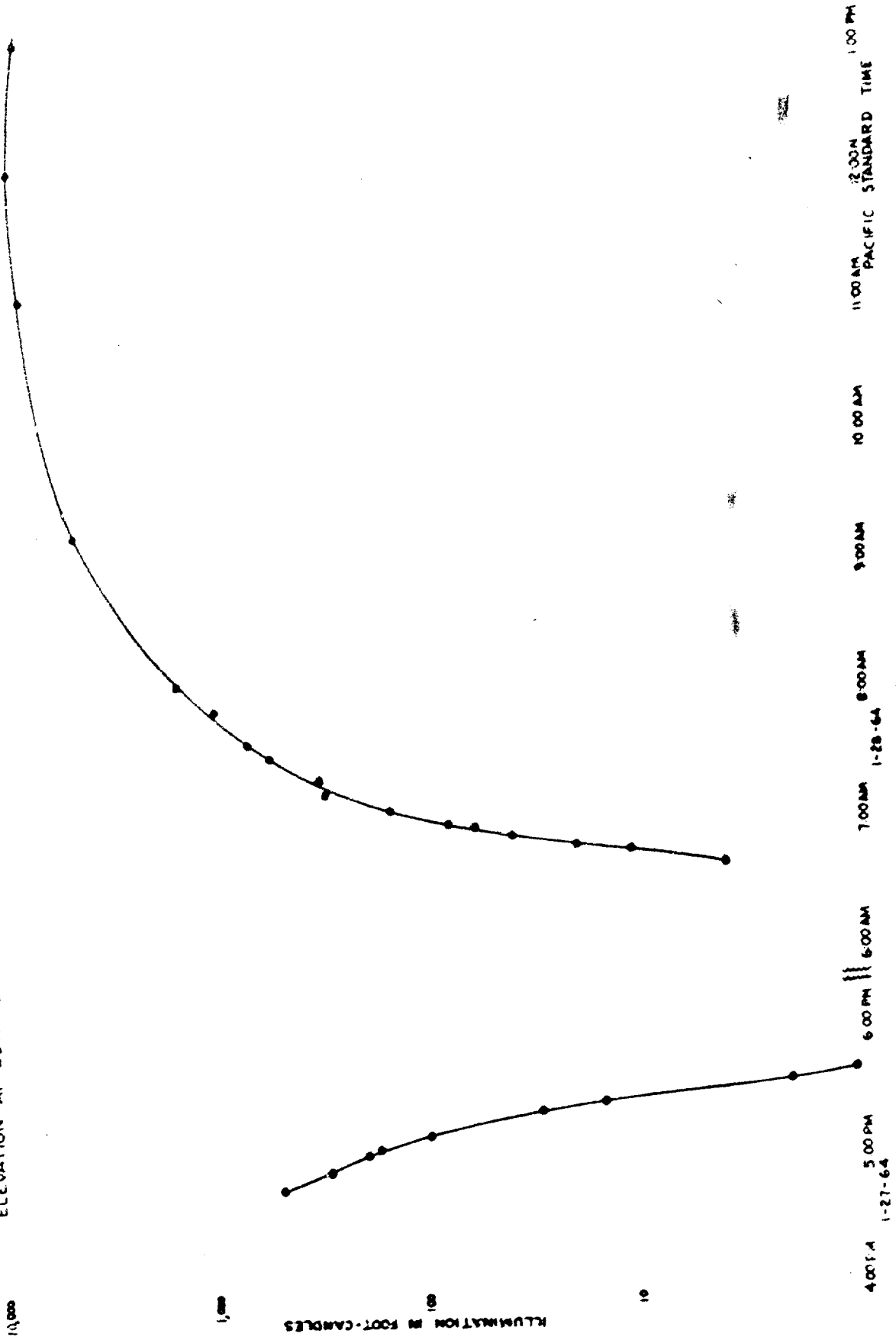
The following pages contain isolumes, or luminous contours, of the sky which are plotted from the reduced data given in Section 3.2.

The isolumes give a two-dimensional representation of the sky luminance as though the instrument were at the center of a transparent hemisphere with the elevation angles of the instantaneous line of sight intersecting the hemisphere and forming concentric circles. Thus, the plots are not a vertical projection of this hemisphere onto a two-dimensional plane.

Changes in sky brightness with time during the period of each flight tend to create distortions of the isolumes. Most of the flights were made during the time of day when the sky characteristics are not subject to rapid change. However, during the sunrise and sunset flights, the sky brightness changed rapidly, and the isolume distortion is particularly evident. Figure 3 shows a plot of the illumination at EAFB ground level as a function of time during the sunrise and sunset flights.

The Spectrophotometer is designed to cut off its sensitivity in the UV-Visual channel when the sun sensor field of view approaches the sun. Therefore, no data are recorded closer than approximately 10 degrees from the sun's edge. The position of the sun, as read from the tabular data, is indicated on the isolumes.

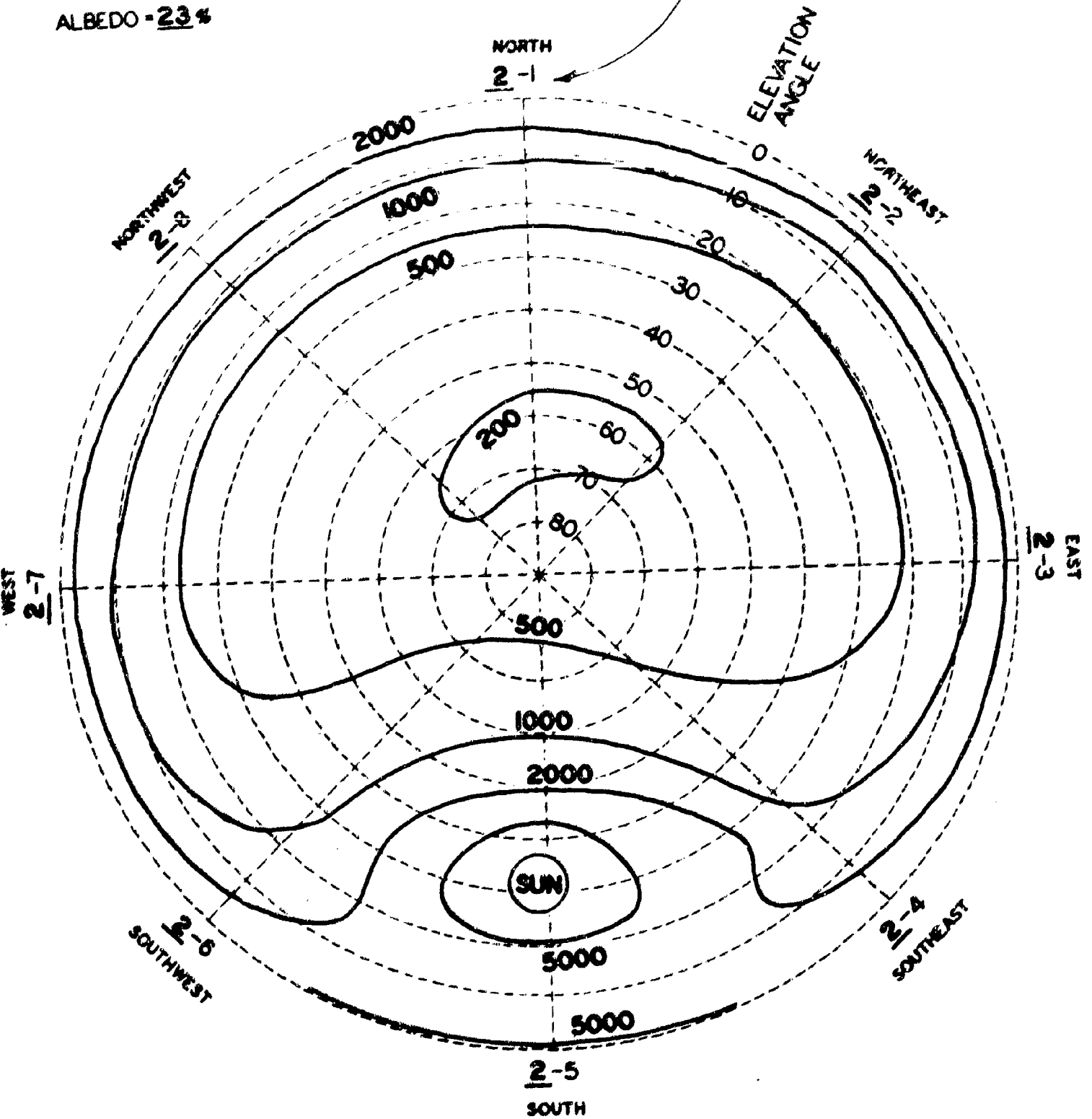
FIGURE 3  
 ILLUMINATION AT GROUND LEVEL AT EDWARDS AIR FORCE BASE THROUGH SUNSET AND SUNRISE  
 ELEVATION AT EDWARDS AIR FORCE BASE = 2,302 FEET



ISOLUMES IN FT.-LAMBERTS

REFERENCE TO DATA SHEET

ALBEDO = 23%



ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 20,000 FT. ALTITUDE

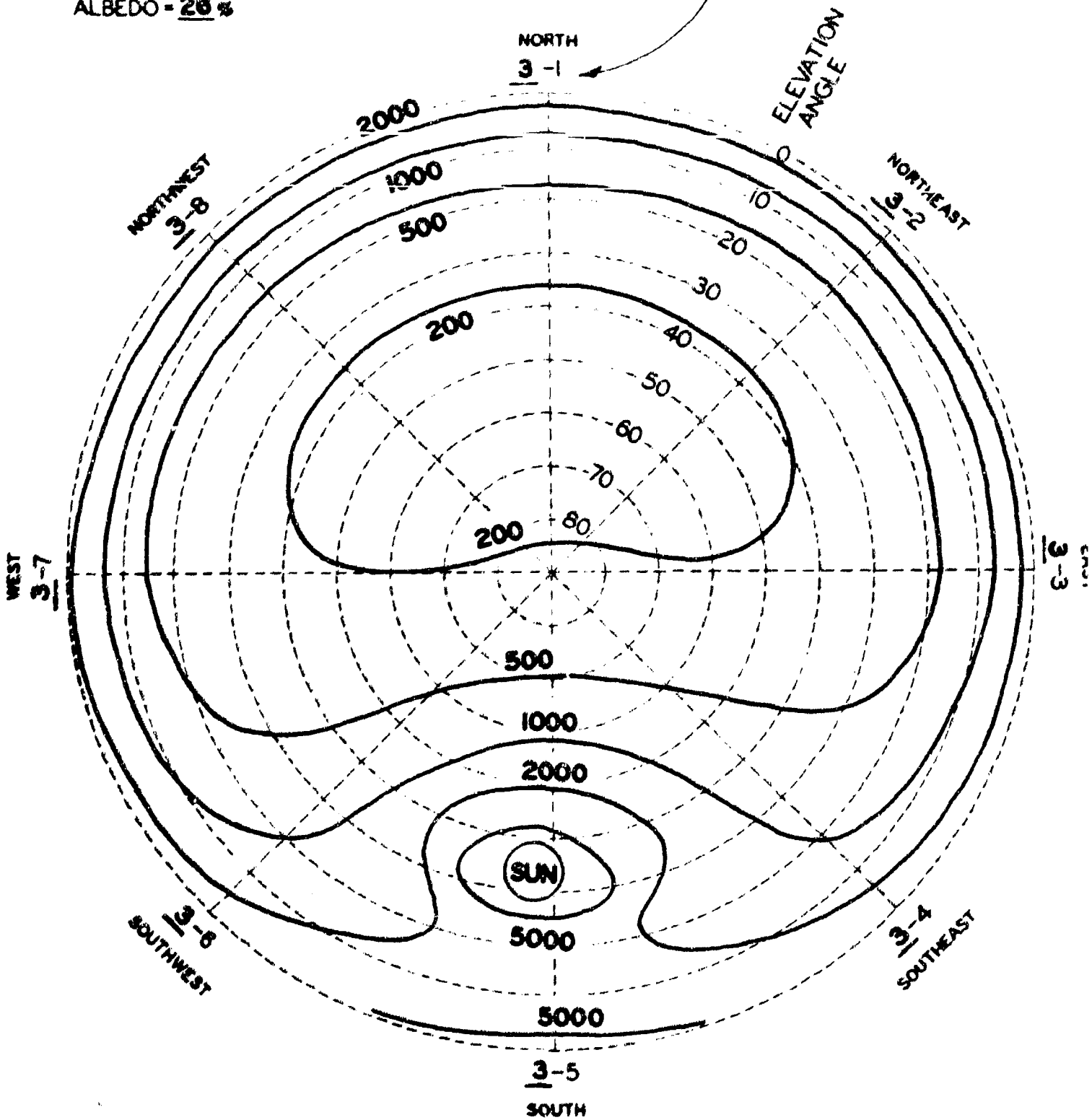
FLIGHT NUMBER 1-23-64-1



ISOLUMES IN FT.-LAMBERTS

REFERENCE TO DATA SHEET

ALBEDO = 28 %



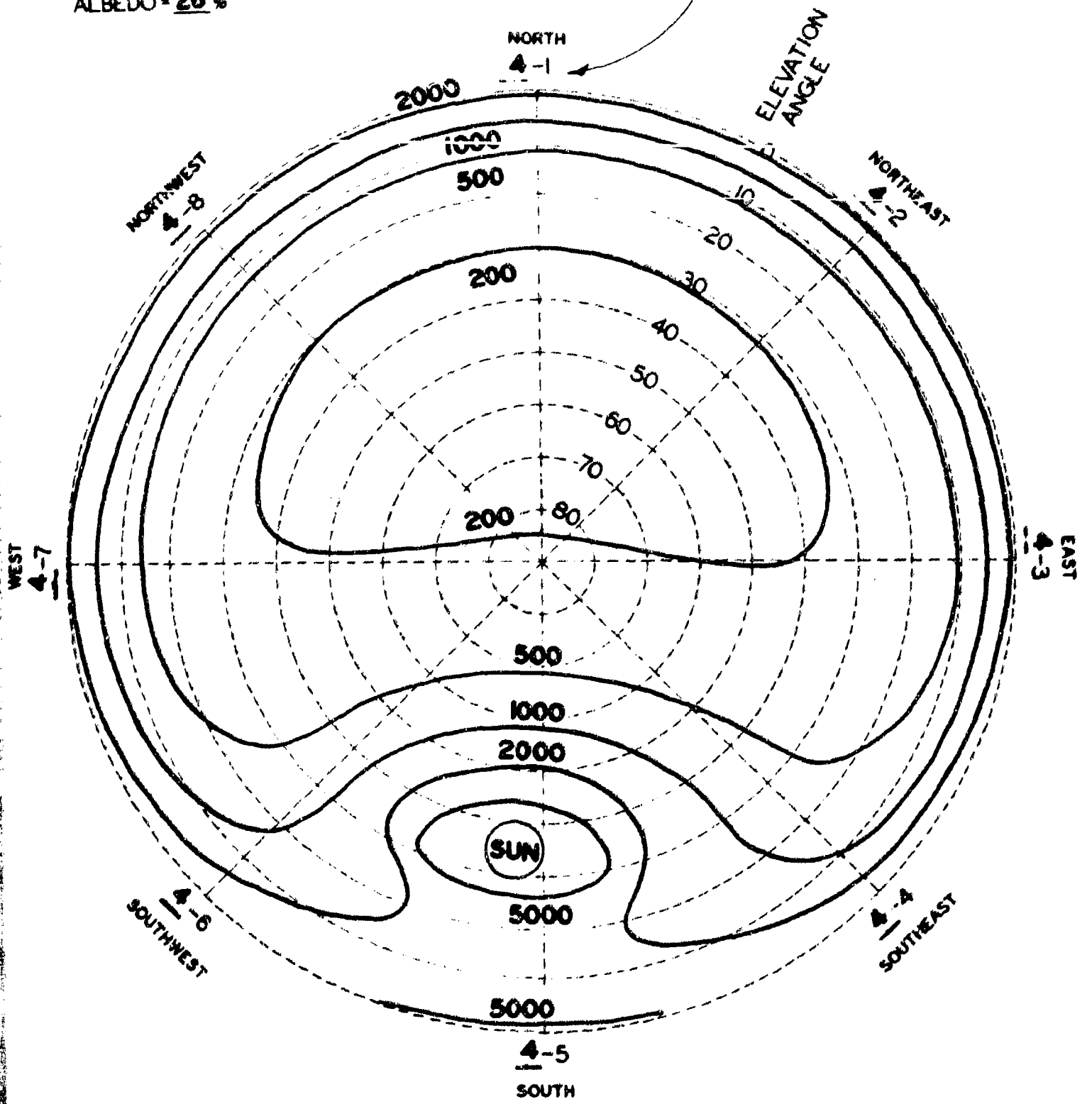
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 30,000 FT. ALTITUDE

FLIGHT NUMBER 1-23-64-1

ISOLUMES IN FT.-LAMBERTS

ALBEDO = 26 %

REFERENCE TO DATA SHEET



ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 40,000 FT. ALTITUDE

FLIGHT NUMBER 1-23-64-1

ISOLUMES IN FT.-LAMBERTS

REFERENCE TO DATA SHEET

ALBEDO = 23%

NORTH

5-1

ELEVATION  
ANGLE

2000

1000

500

200

100

100

80

200

500

1000

2000

5000

SUN

2000

5000

5-5

SOUTH

NORTHWEST  
5-8

NORTHEAST  
5-2

WEST  
5-7

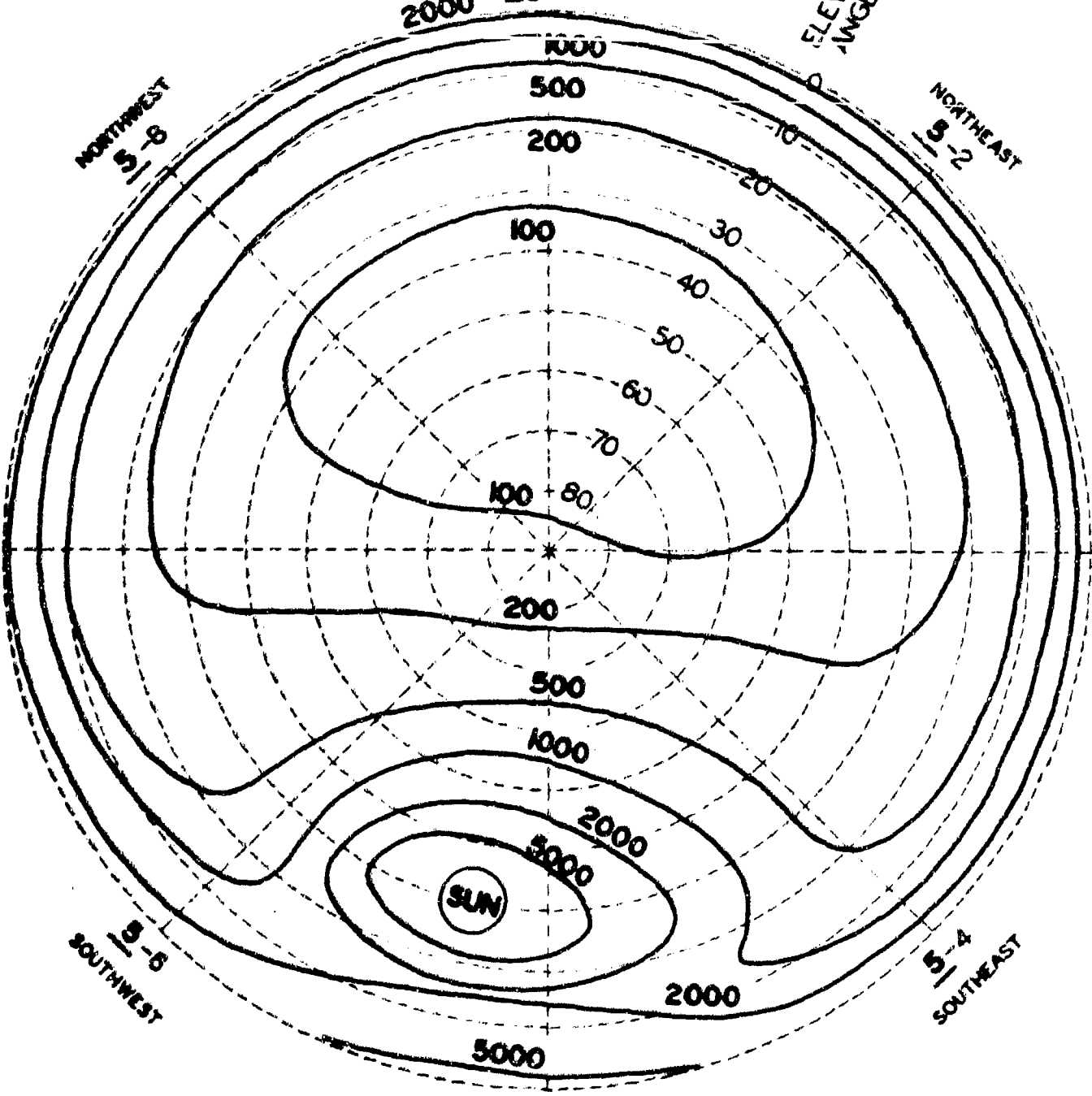
5-3

5-6  
SOUTHWEST

5-4  
SOUTHEAST

ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 50,000 FT. ALTITUDE

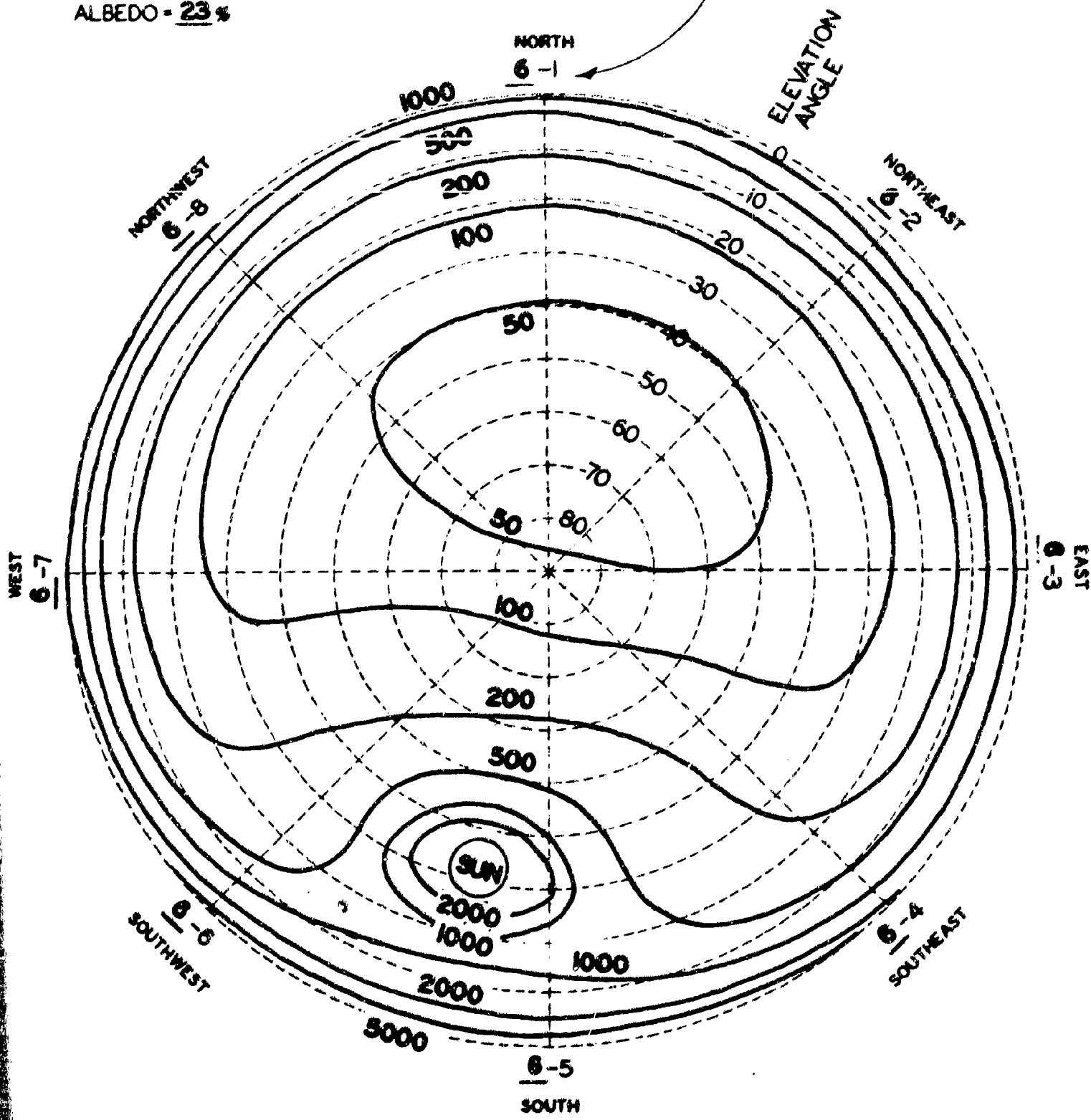
FLIGHT NUMBER 1-23-64-1



ISOLUMES IN FT.-LAMBERTS

REFERENCE TO DATA SHEET

ALBEDO = 23%



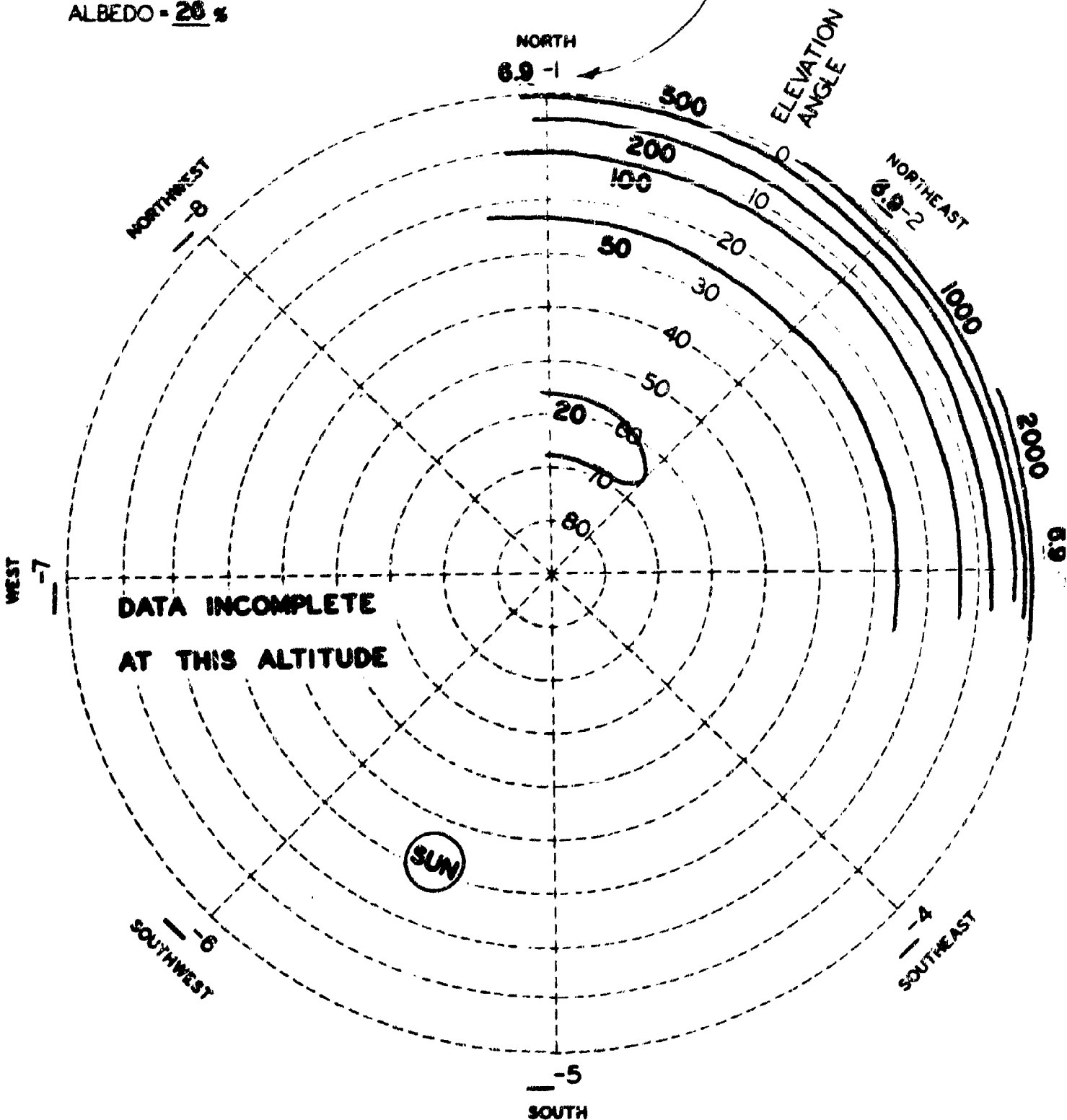
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 60,000 FT. ALTITUDE

FLIGHT NUMBER 1-23-64-1

ISOLUMES IN FT.-LAMBERTS

REFERENCE TO DATA SHEET

ALBEDO - 20 %



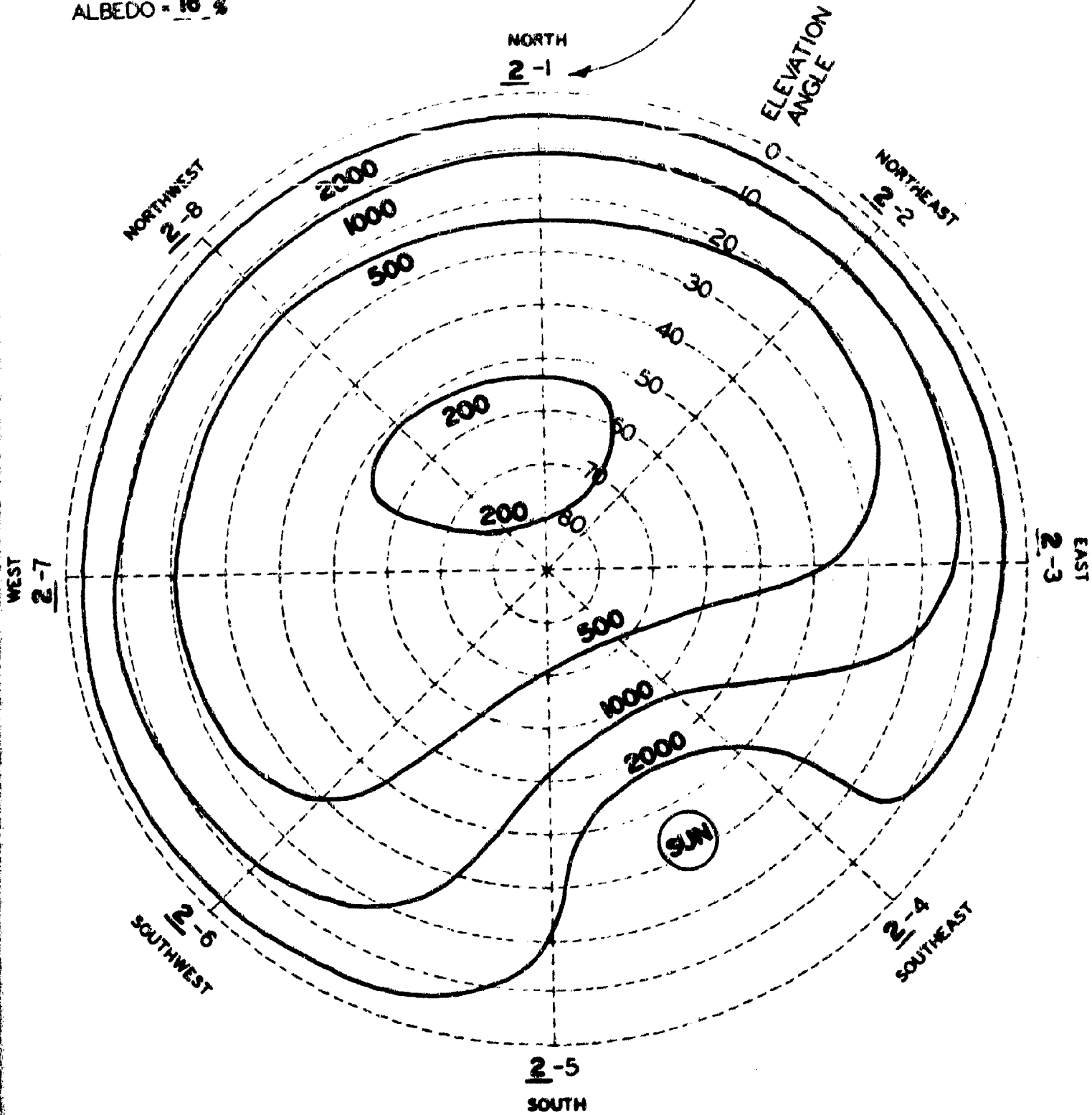
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 69,000 FT. ALTITUDE

FLIGHT NUMBER 1-23-64-1

ISOLUMES IN FT.-LAMBERTS

ALBEDO = 16 %

REFERENCE TO DATA SHEET



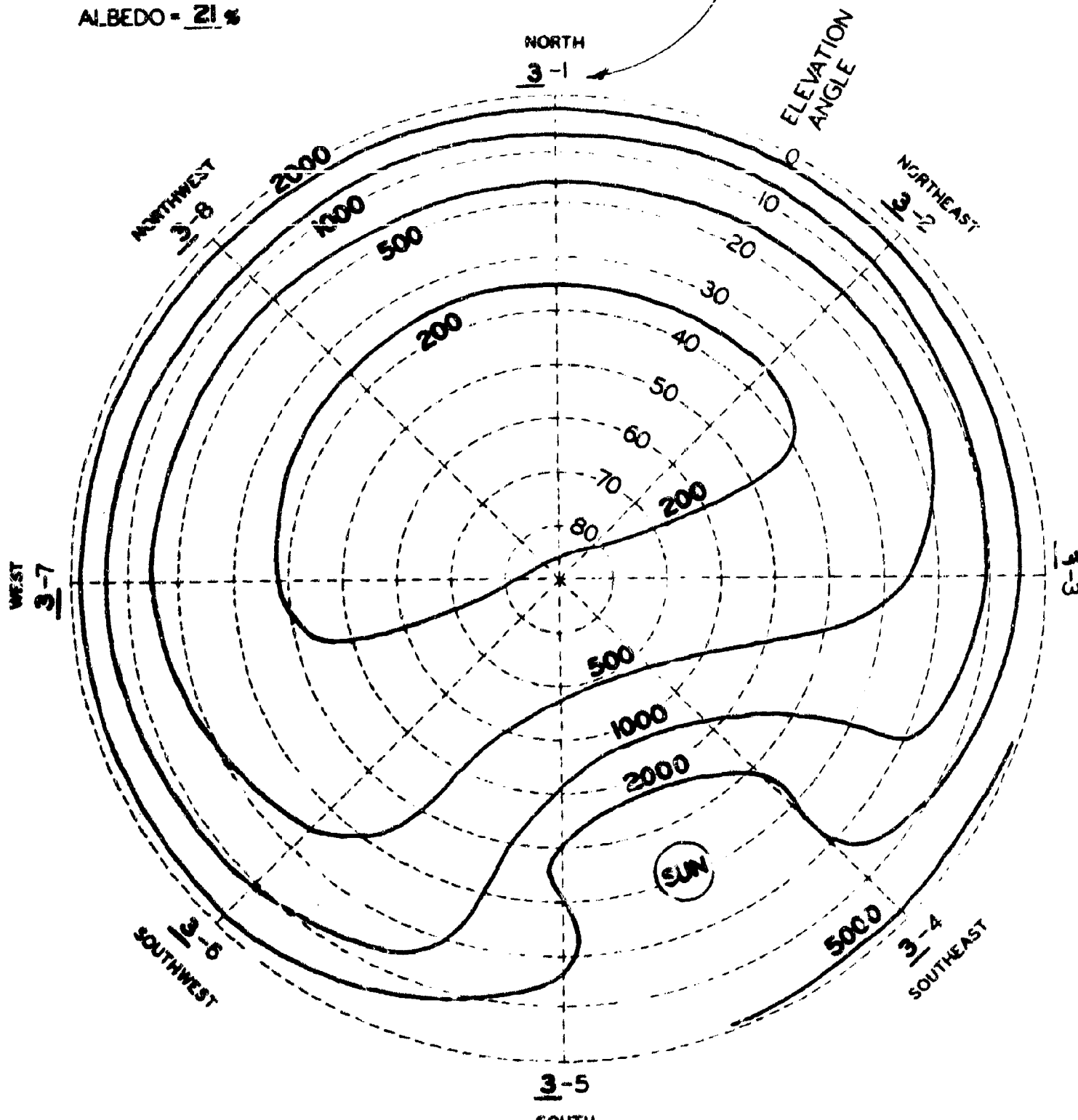
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 20,000 FT. ALTITUDE

FLIGHT NUMBER 1-24-64-1

ISOLUMES IN FT.-LAMBERTS

REFERENCE TO DATA SHEET

ALBEDO = 21 %

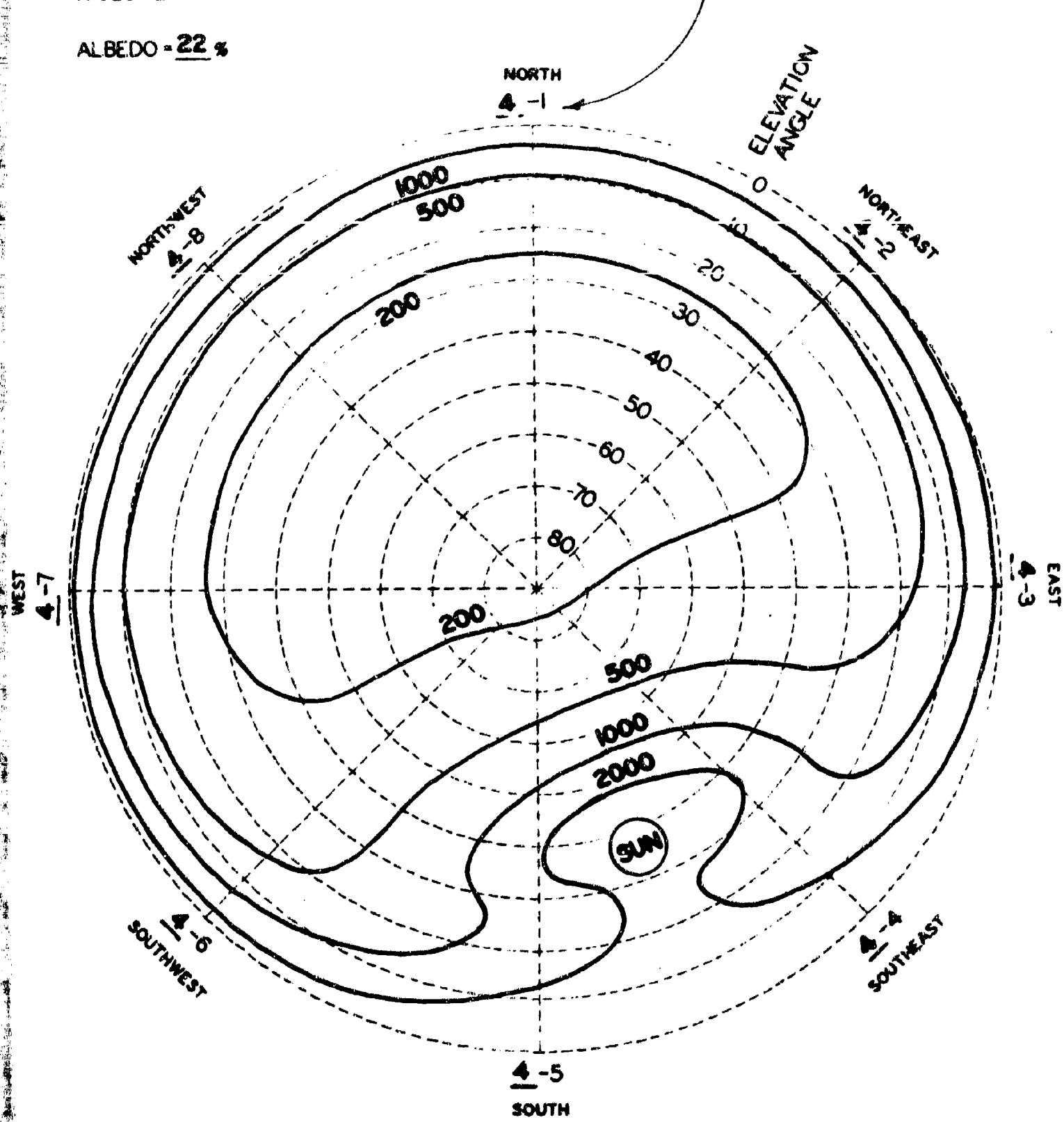


ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 30,000 FT. ALTITUDE

FLIGHT NUMBER 1-24-64-1

ISOLUMES IN FT.-LAMBERTS

ALBEDO = 22 %



ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 40,000 FT. ALTITUDE

FLIGHT NUMBER 1-24-64-1



ISOLUMES IN FT.-LAMBERTS

REFERENCE TO DATA SHEET

ALBEDO = 22%

NORTH

5

ELEVATION  
ANGLE

0

NORTHWEST  
5-8

NORTHEAST  
5-2

1000

500

200

100

10

20

30

40

50

60

70

100

200

500

1000

WEST

5-7

5-3

5-6  
SOUTHWEST

5-4  
SOUTHEAST

2000

2000

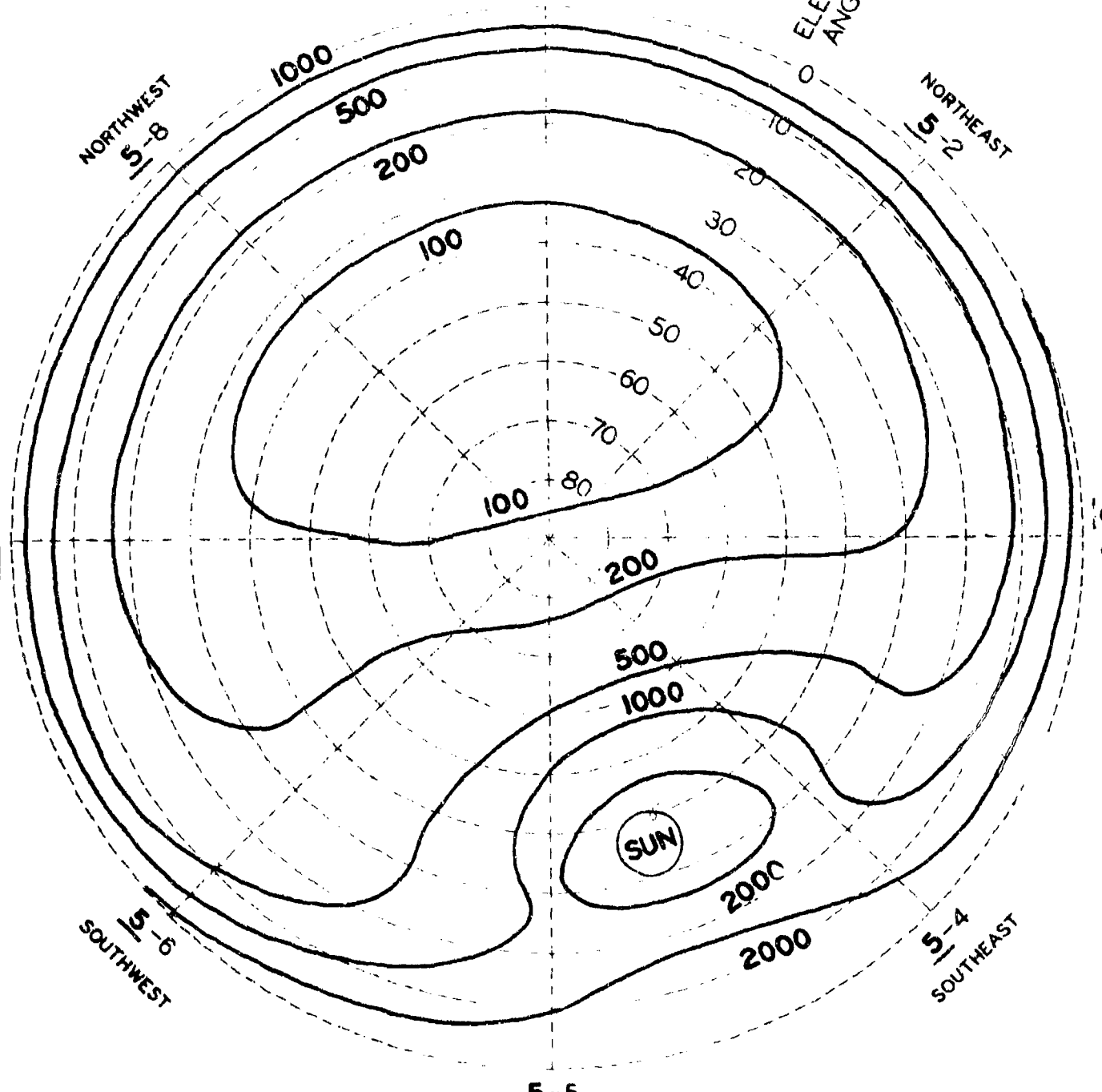
SUN

5-5

SOUTH

ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 50,000 FT. ALTITUDE

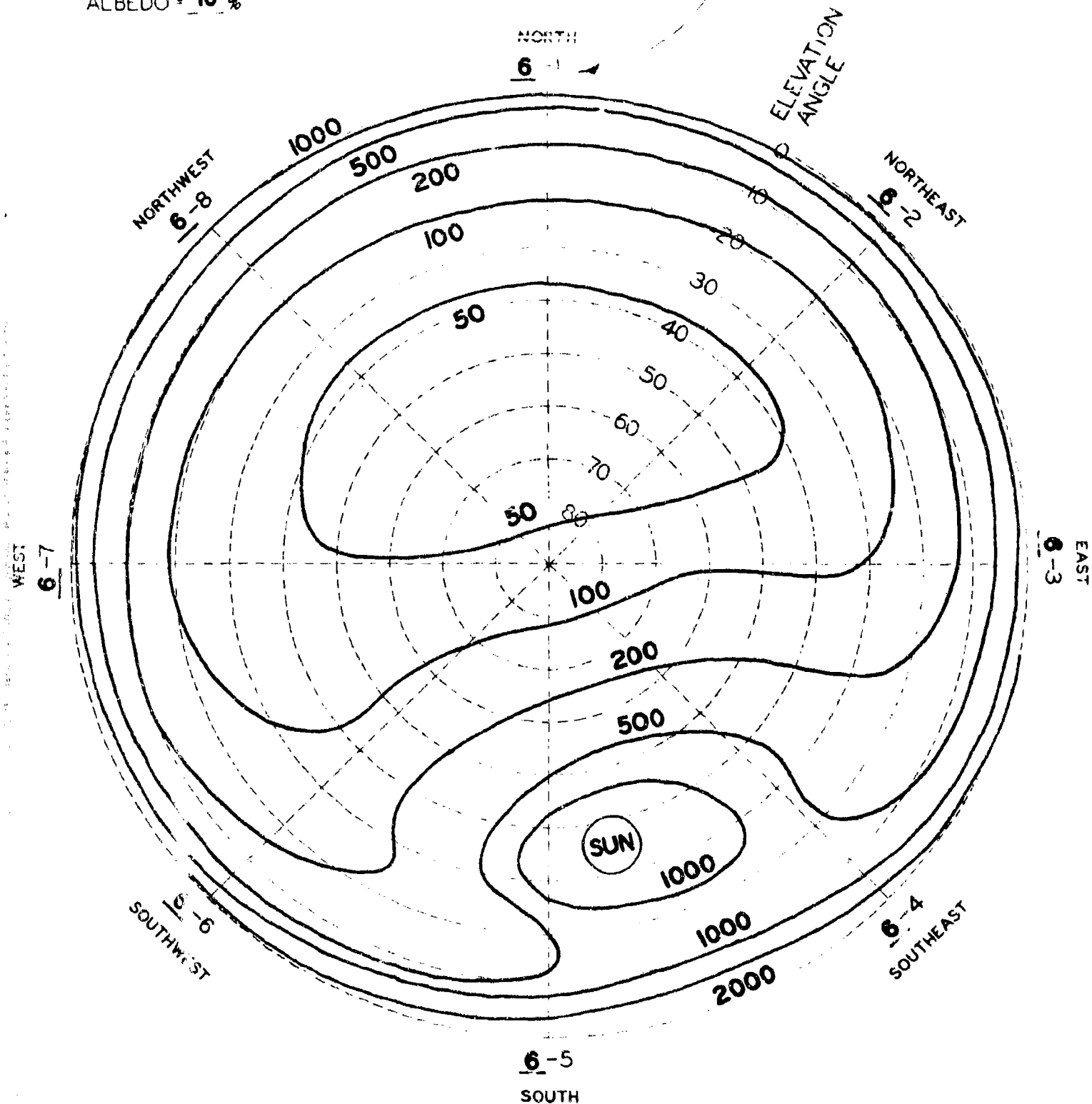
FLIGHT NUMBER 1-24-64-1



ISOLUMES IN FT.-LAMBERTS

REFERENCE TO DATA SHEET

ALBEDO = 16 %



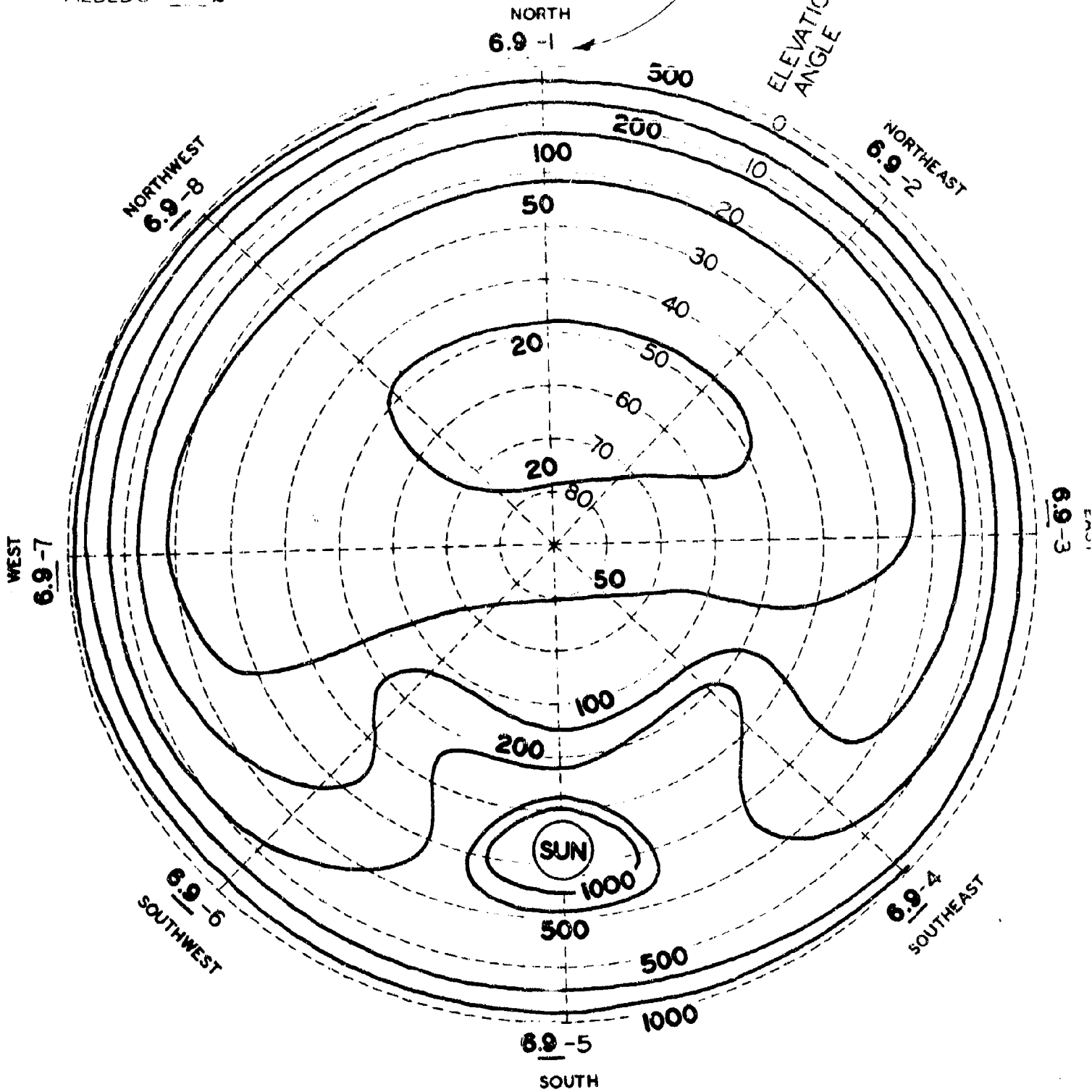
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 60,000 FT. ALTITUDE

FLIGHT NUMBER 1-24-64-1

REFERENCE TO DATA SHEET

ISOLUMES IN FT.-LAMBERTS

ALBEDO = 13 %



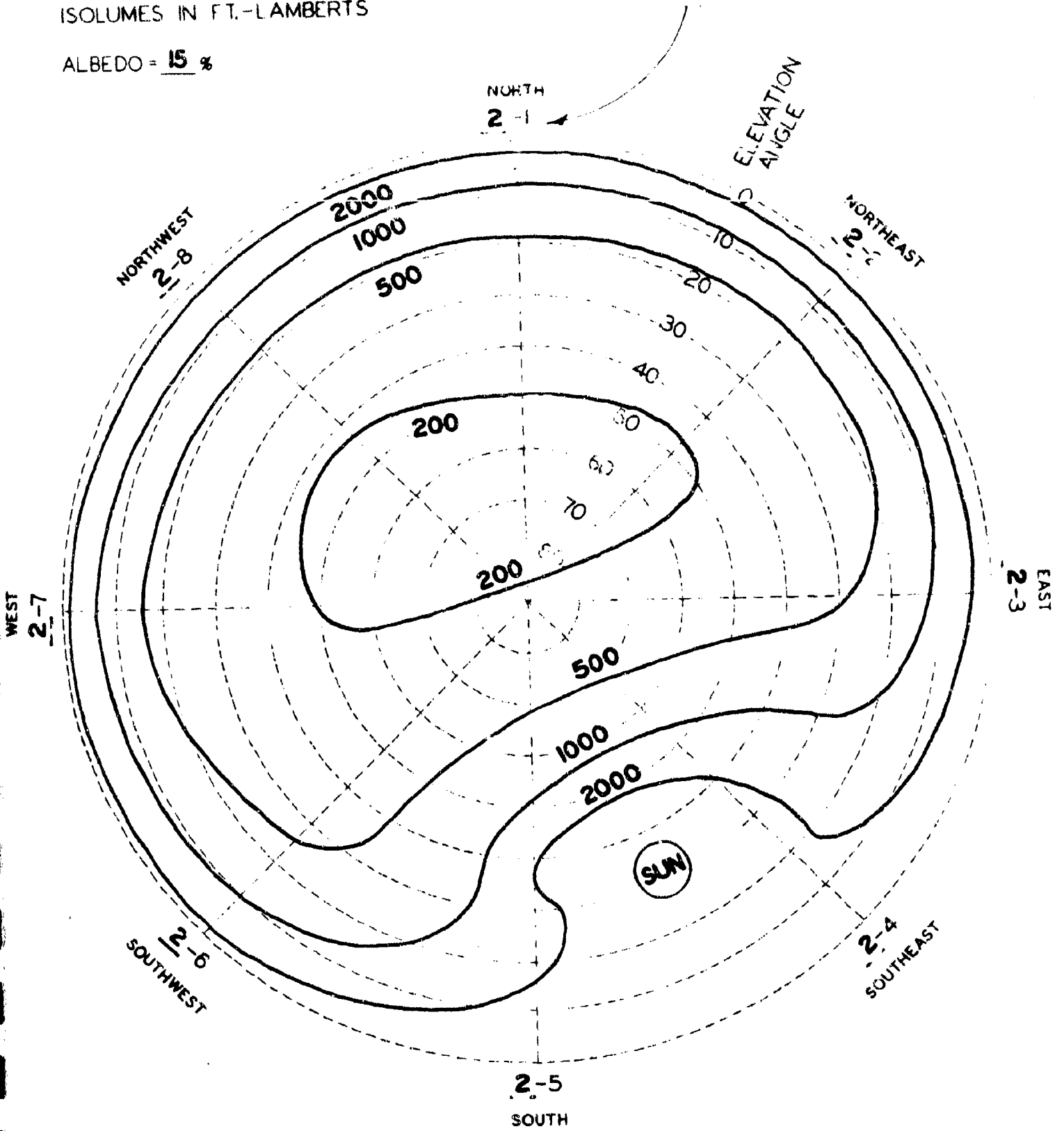
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 69,000 FT. ALTITUDE

FLIGHT NUMBER 1-24-64-1

ISOLUMES IN FT.-LAMBERTS

ALBEDO = 15 %

REFERENCE TO DATA SHEET



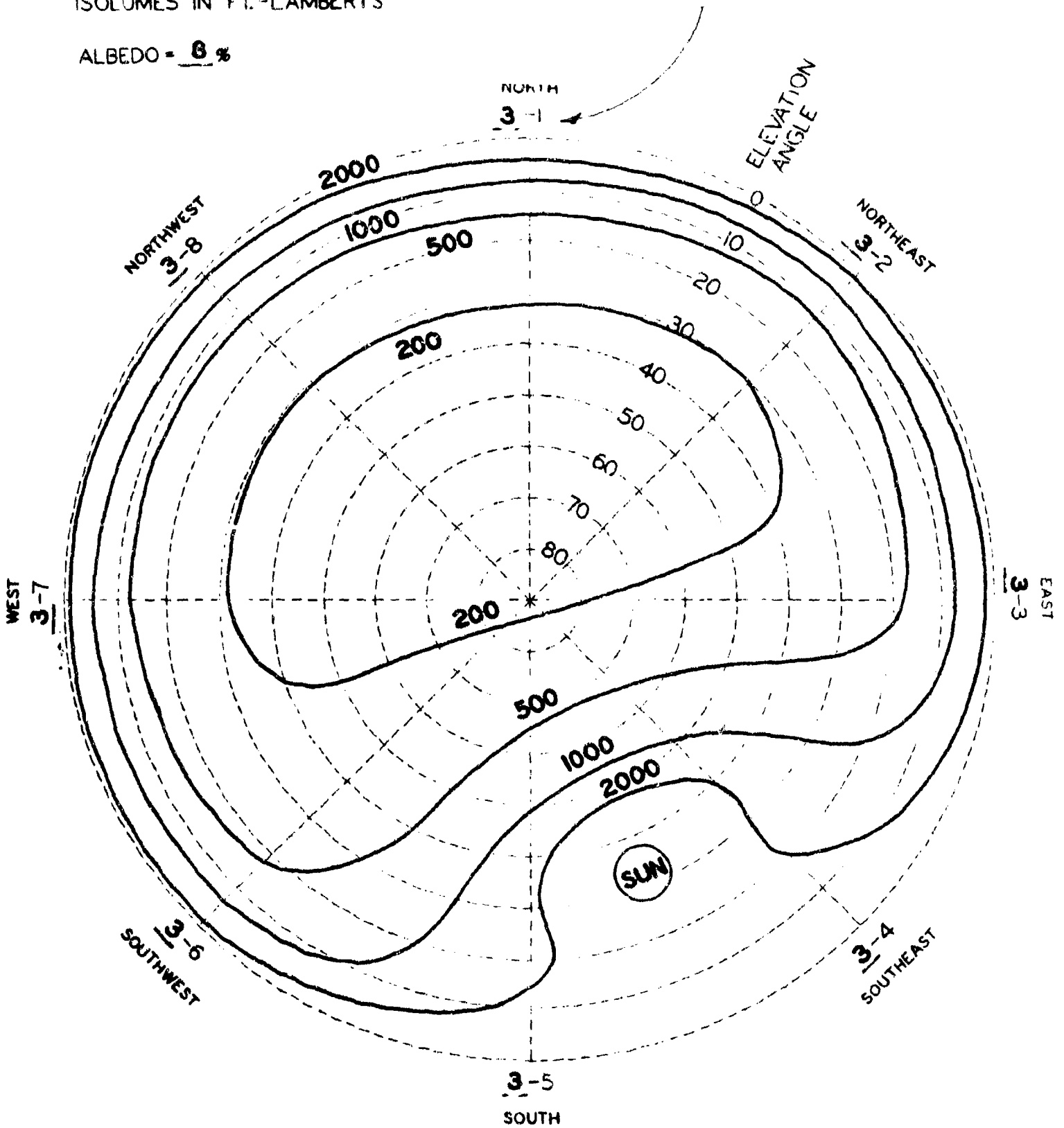
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 20,000 FT. ALTITUDE

FLIGHT NUMBER 1-27-64-1

ISOLUMES IN FT.-LAMBERTS

ALBEDO = 8 %

REFERENCE TO DATA SHEET



ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 30,000 FT. ALTITUDE

FLIGHT NUMBER 1-27-64-1

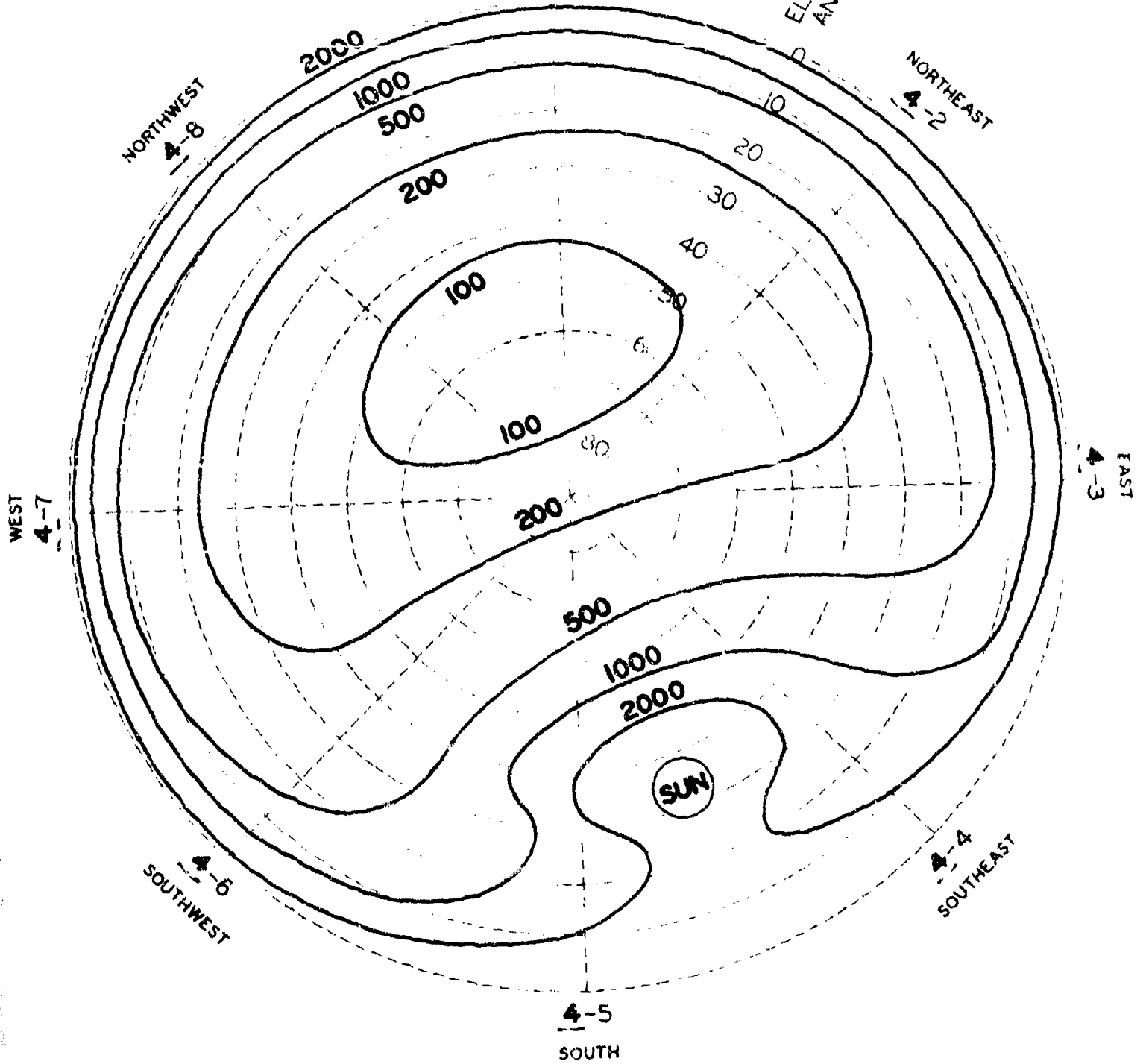
ISOLUMES IN FT.-LAMBERTS

ALBEDO = 12 %

REFERENCE TO DATA SHEET

NORTH  
4-1

ELEVATION  
ANGLE



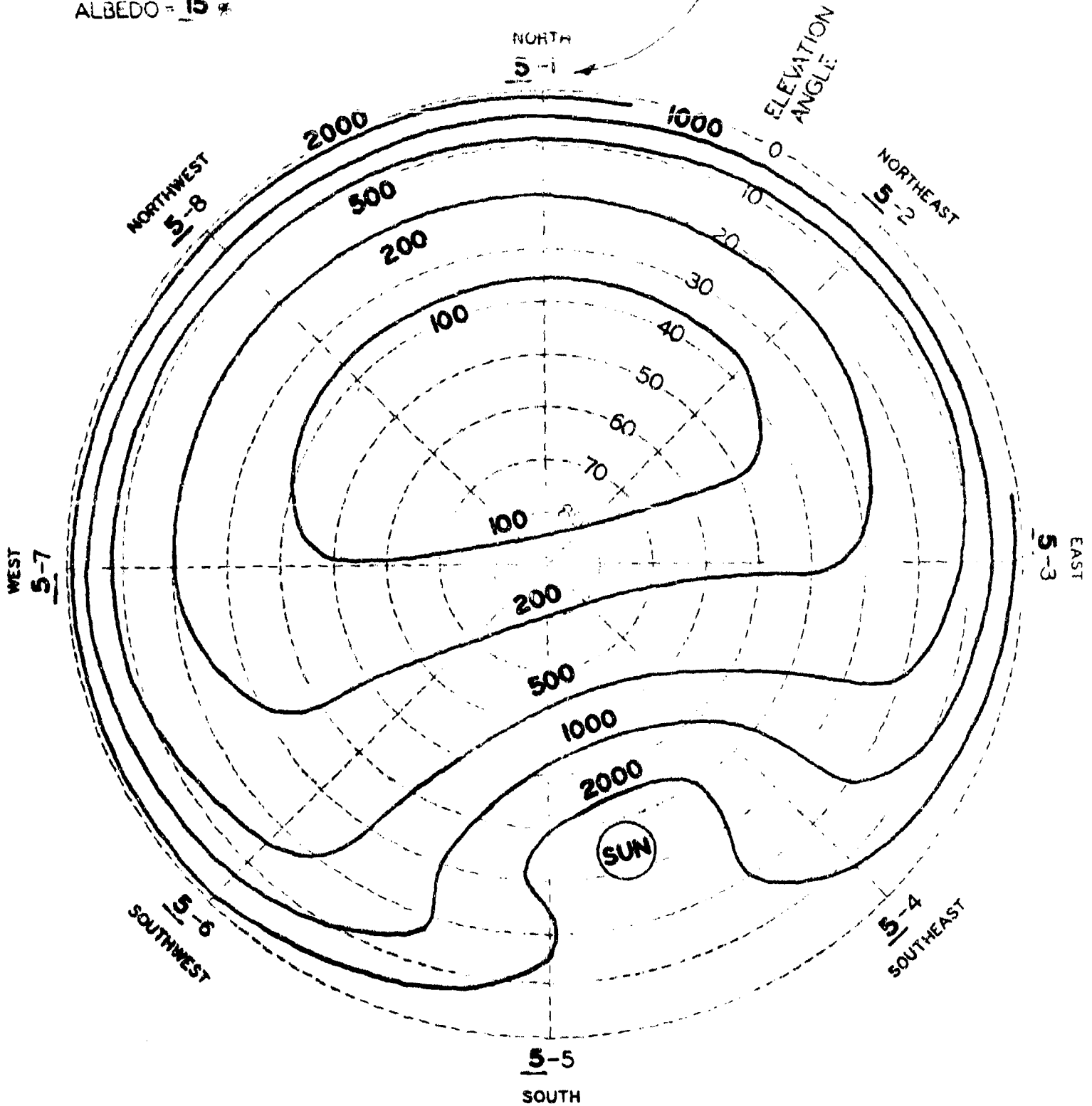
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 40,000 FT. ALTITUDE

FLIGHT NUMBER 1-27-64-1

ISOLUMES IN FT.-LAMBERTS

REFERENCE TO DATA SHEET

ALBEDO = 15 %



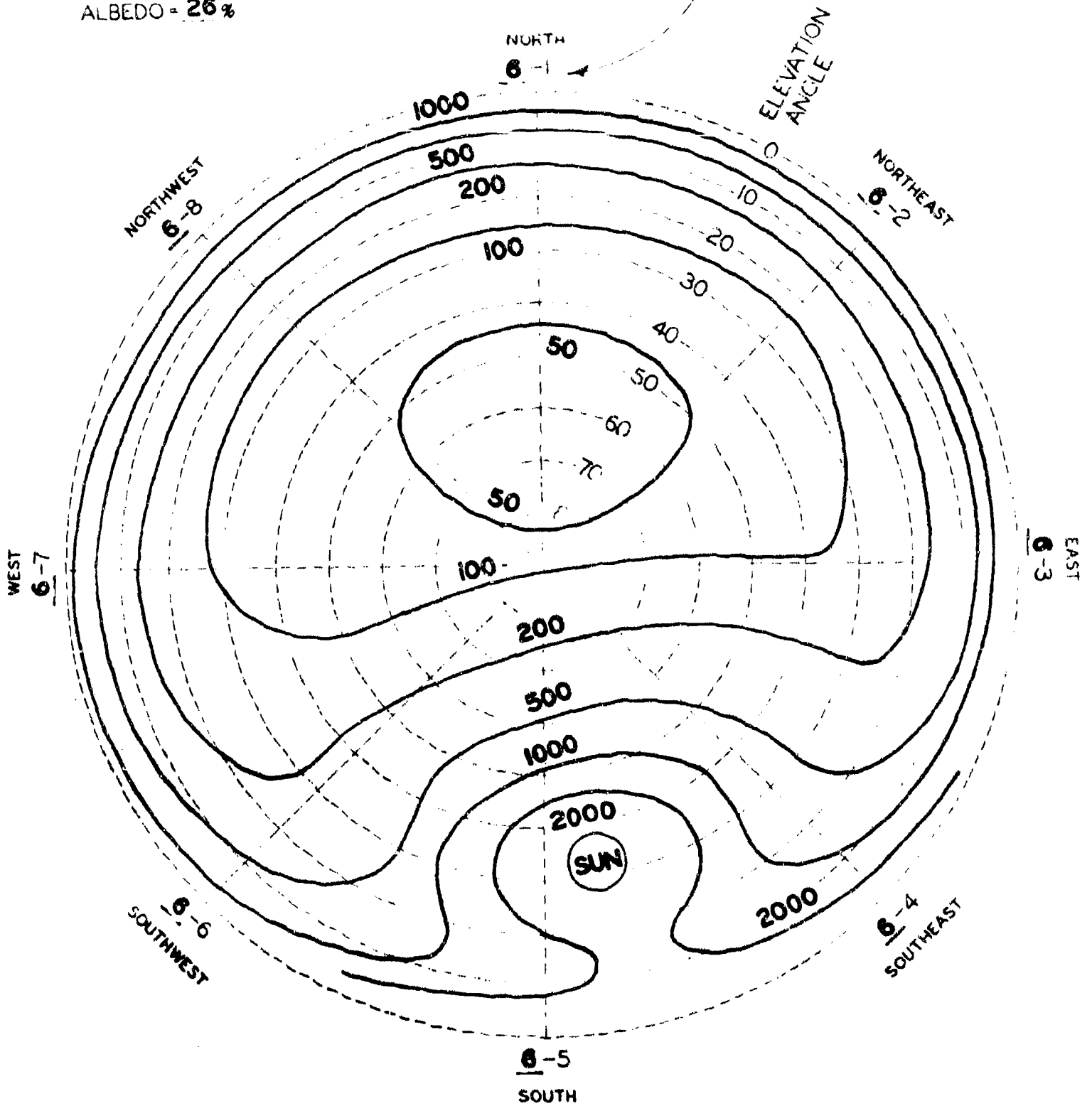
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 50,000 FT. ALTITUDE

FLIGHT NUMBER 1-27-64-1

ISOLUMES IN FT.-LAMBERTS

ALBEDO = 26%

REFERENCE TO DATA SHEET



ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 60,000 FT. ALTITUDE

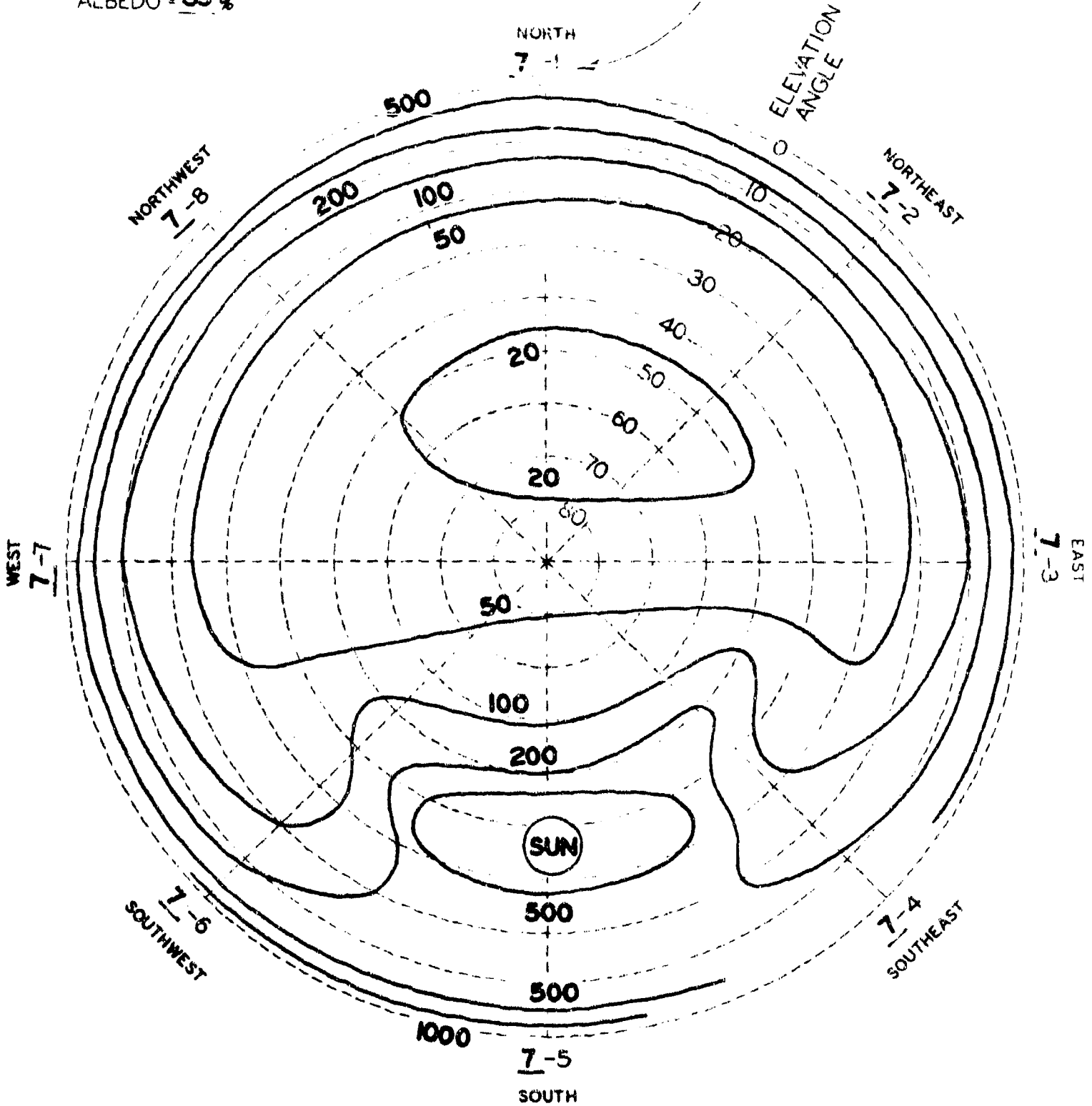
FLIGHT NUMBER 1-27-64-1



ISOLUMES IN FT.-LAMBERTS

ALBEDO = 35 %

REFERENCE TO DATA SHEET



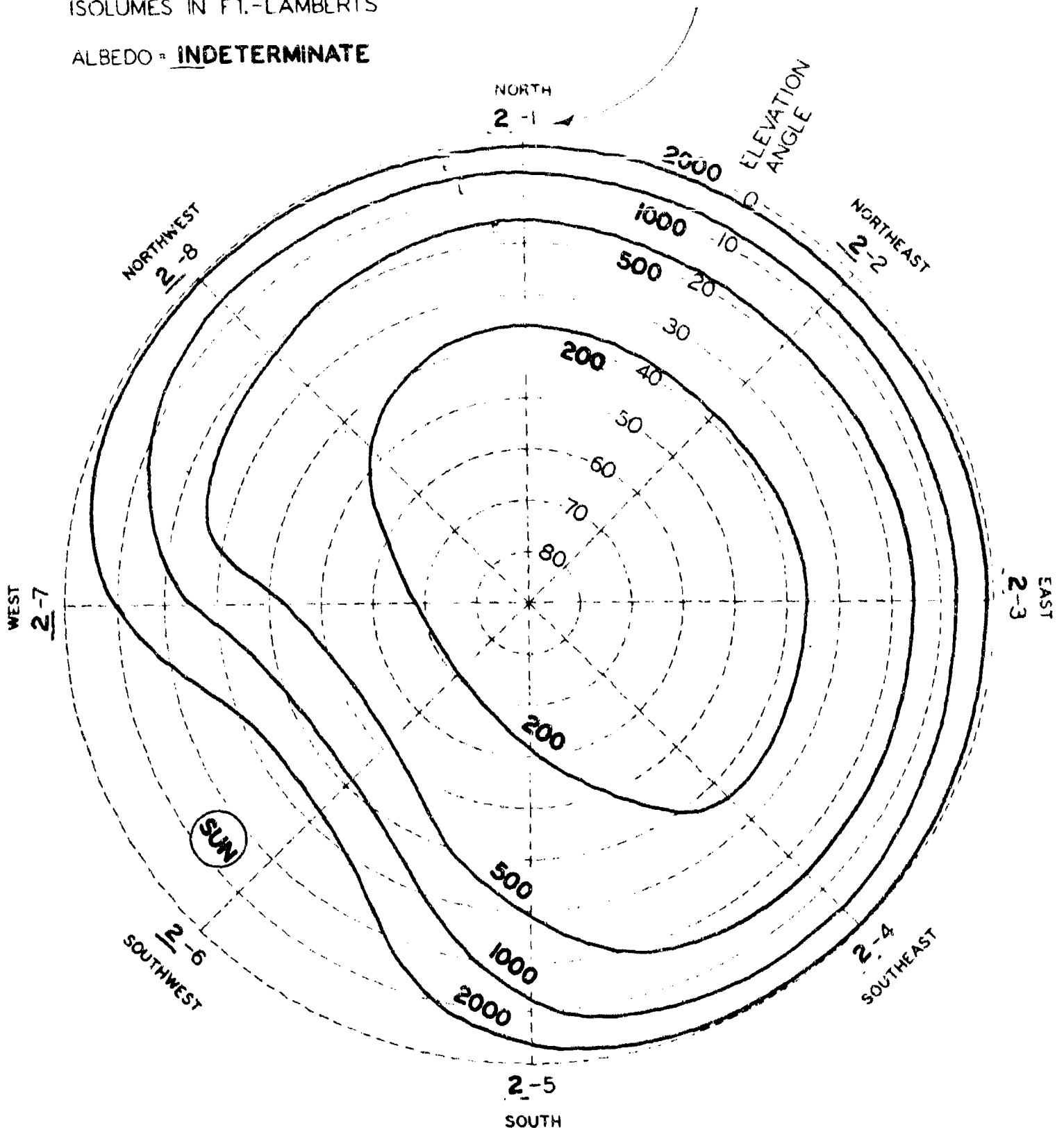
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 70,000 FT. ALTITUDE

FLIGHT NUMBER 1-27-64-1

ISOLUMES IN FT.-LAMBERTS

ALBEDO = INDETERMINATE

REFERENCE TO DATA SHEET



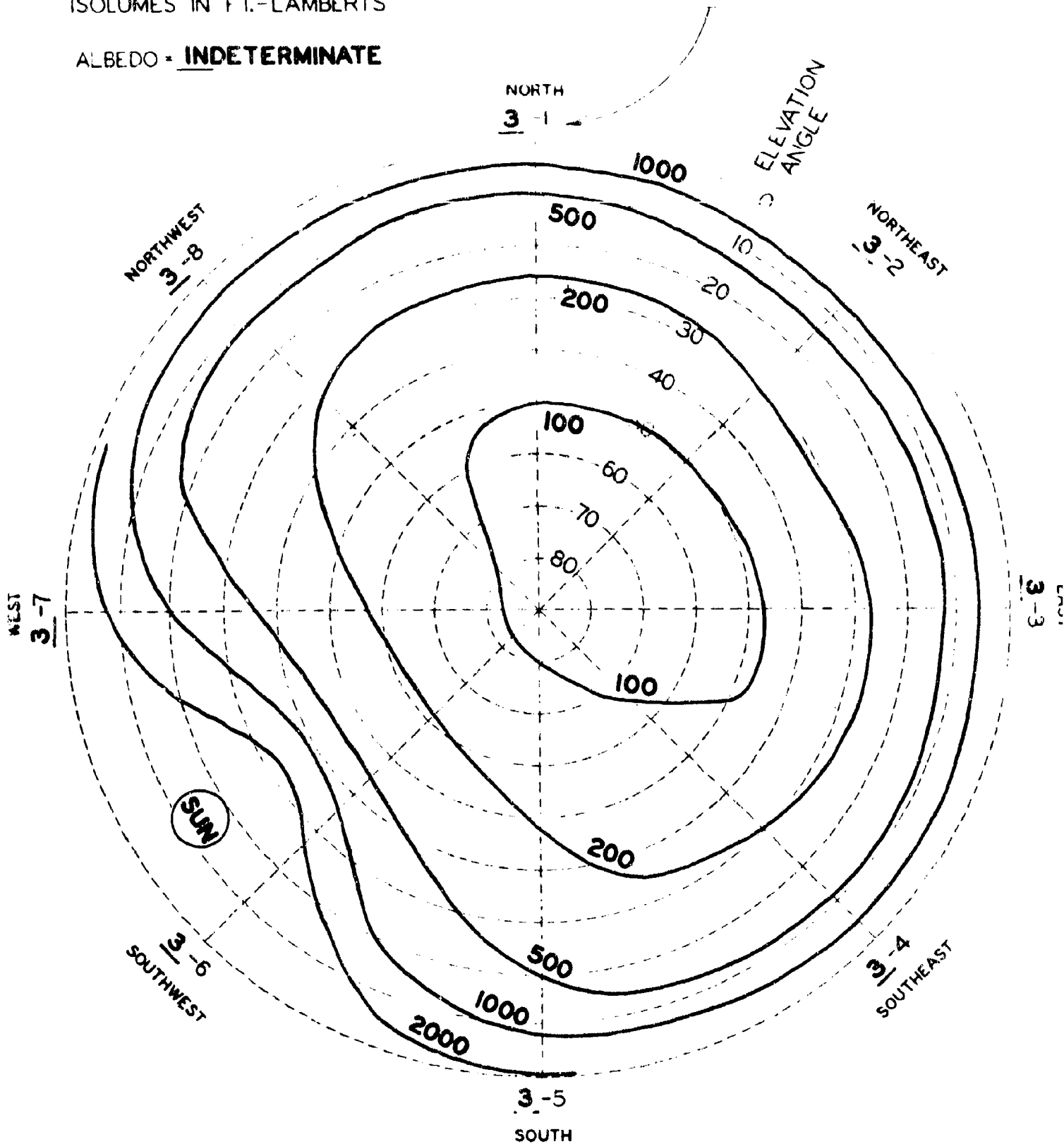
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 20,000 FT. ALTITUDE

FLIGHT NUMBER 1-27-64-2

ISOLUMES IN FT.-LAMBERTS

ALBEDO = INDETERMINATE

REFERENCE TO DATA SHEET



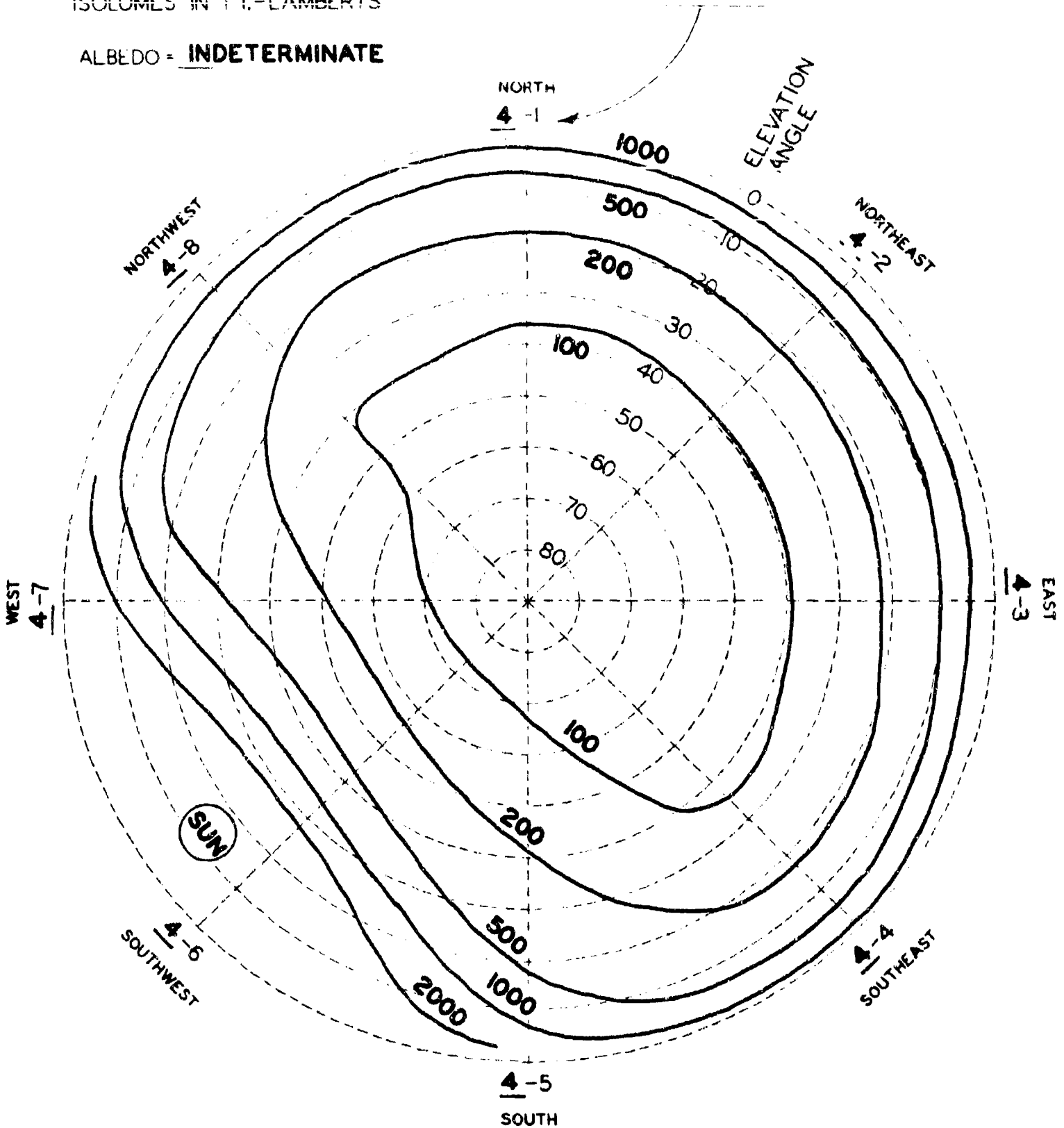
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 30,000 FT. ALTITUDE

FLIGHT NUMBER 1-27-64-2

ISOLUMES IN FT.-LAMBERTS

REFERENCE TO DATA SHEET

ALBEDO = INDETERMINATE



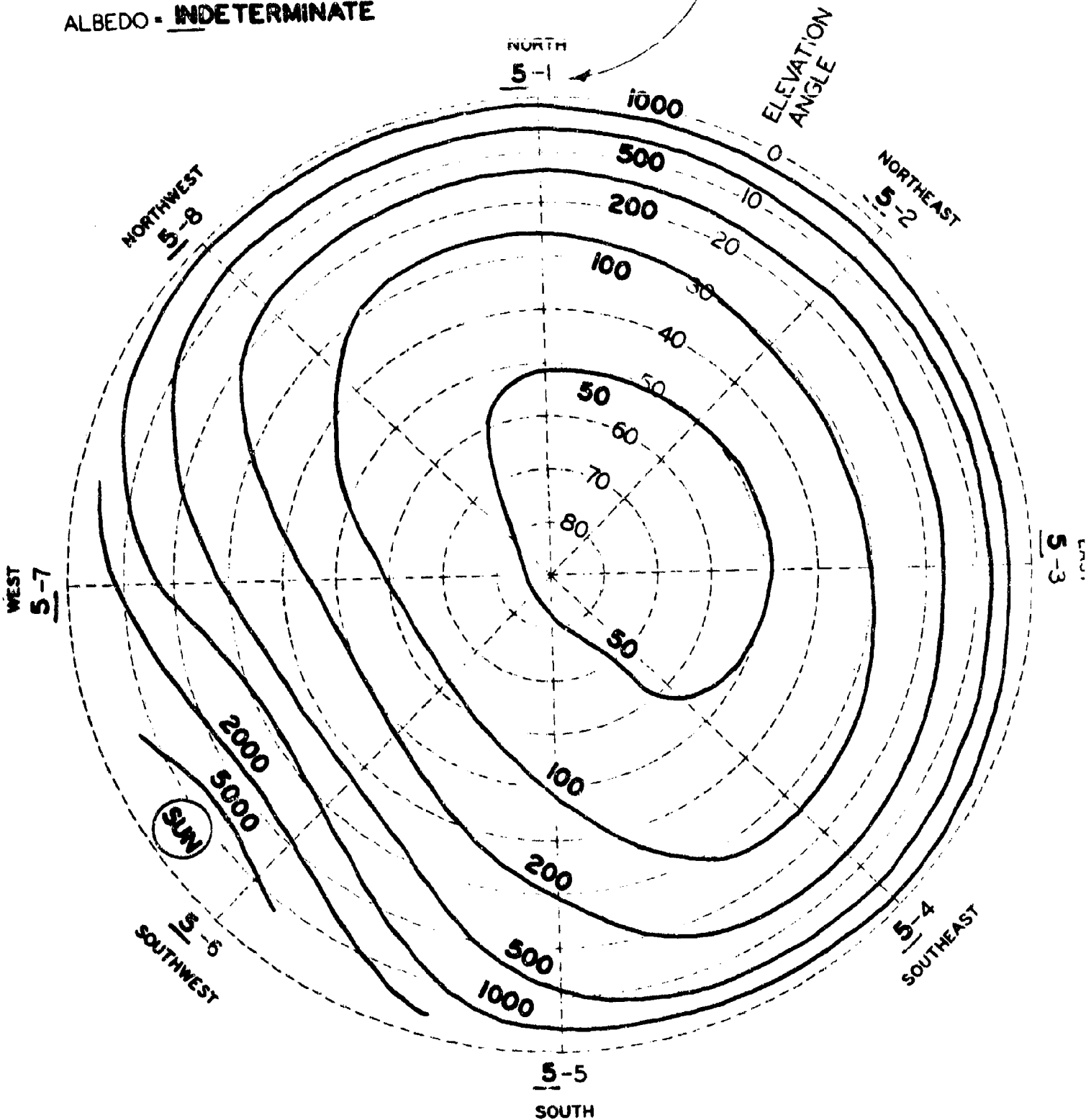
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 40,000 FT. ALTITUDE

FLIGHT NUMBER 1-27-64-2

ISOLUMES IN FT.-LAMBERTS

ALBEDO - INDETERMINATE

REFERENCE TO DATA SHEET



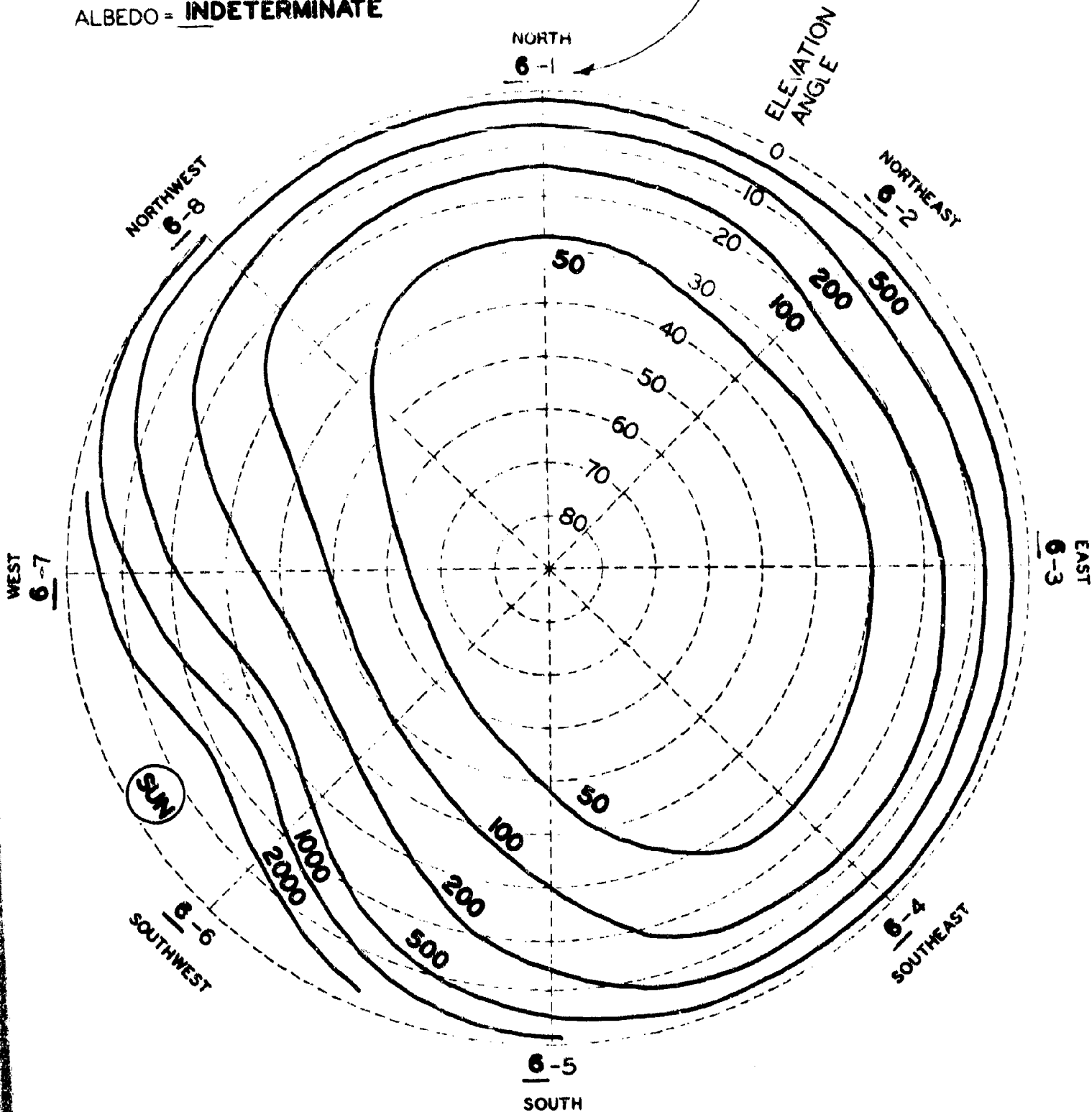
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 50,000 FT. ALTITUDE

FLIGHT NUMBER 1-27-64-2

ISOLUMES IN FT.-LAMBERTS

REFERENCE TO DATA SHEET

ALBEDO = INDETERMINATE

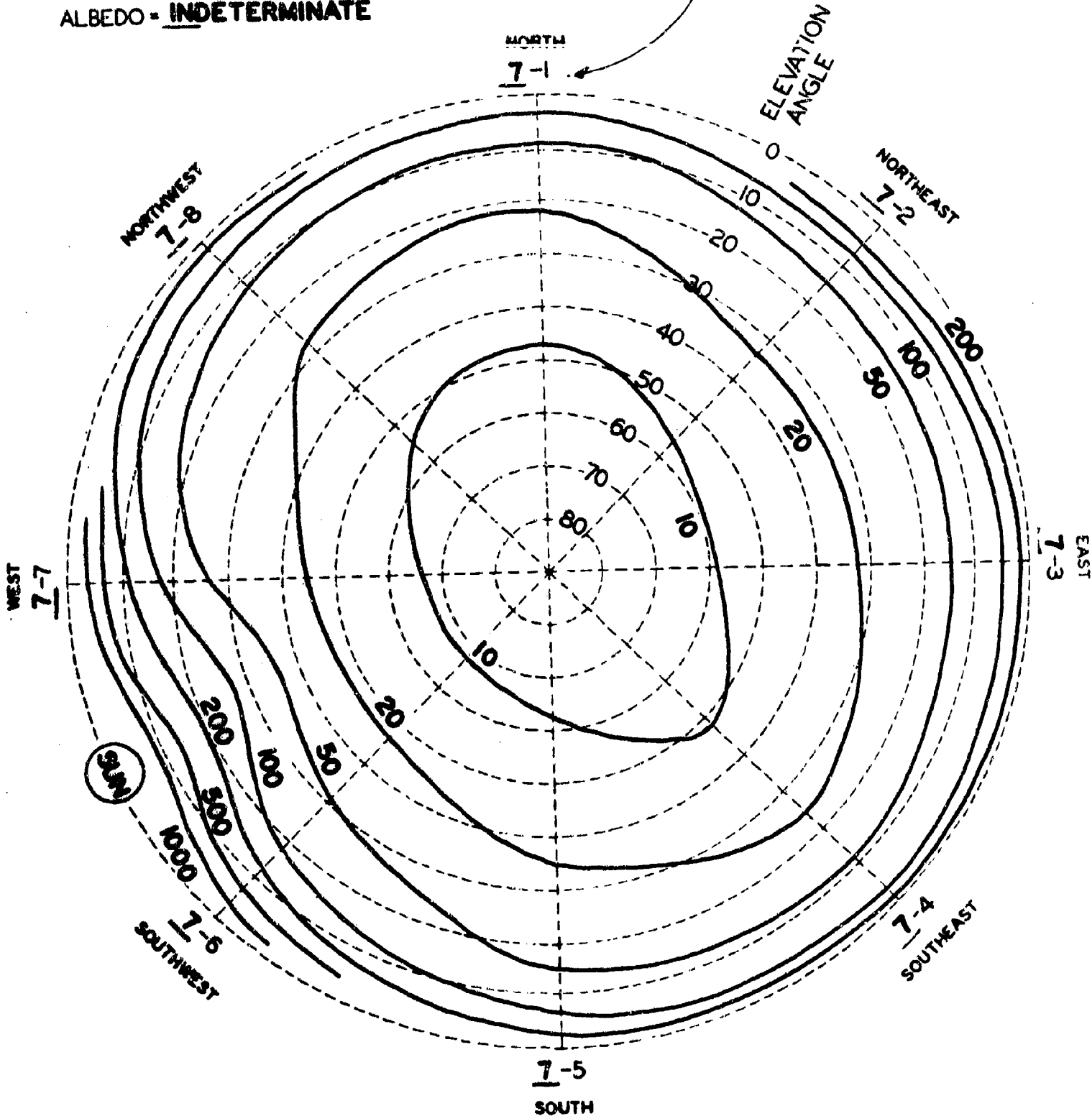


ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 60,000 FT. ALTITUDE

FLIGHT NUMBER 1-27-64-2

ISOLUMES IN FT.-LAMBERTS  
ALBEDO = INDETERMINATE

REFERENCE TO DATA SHEET



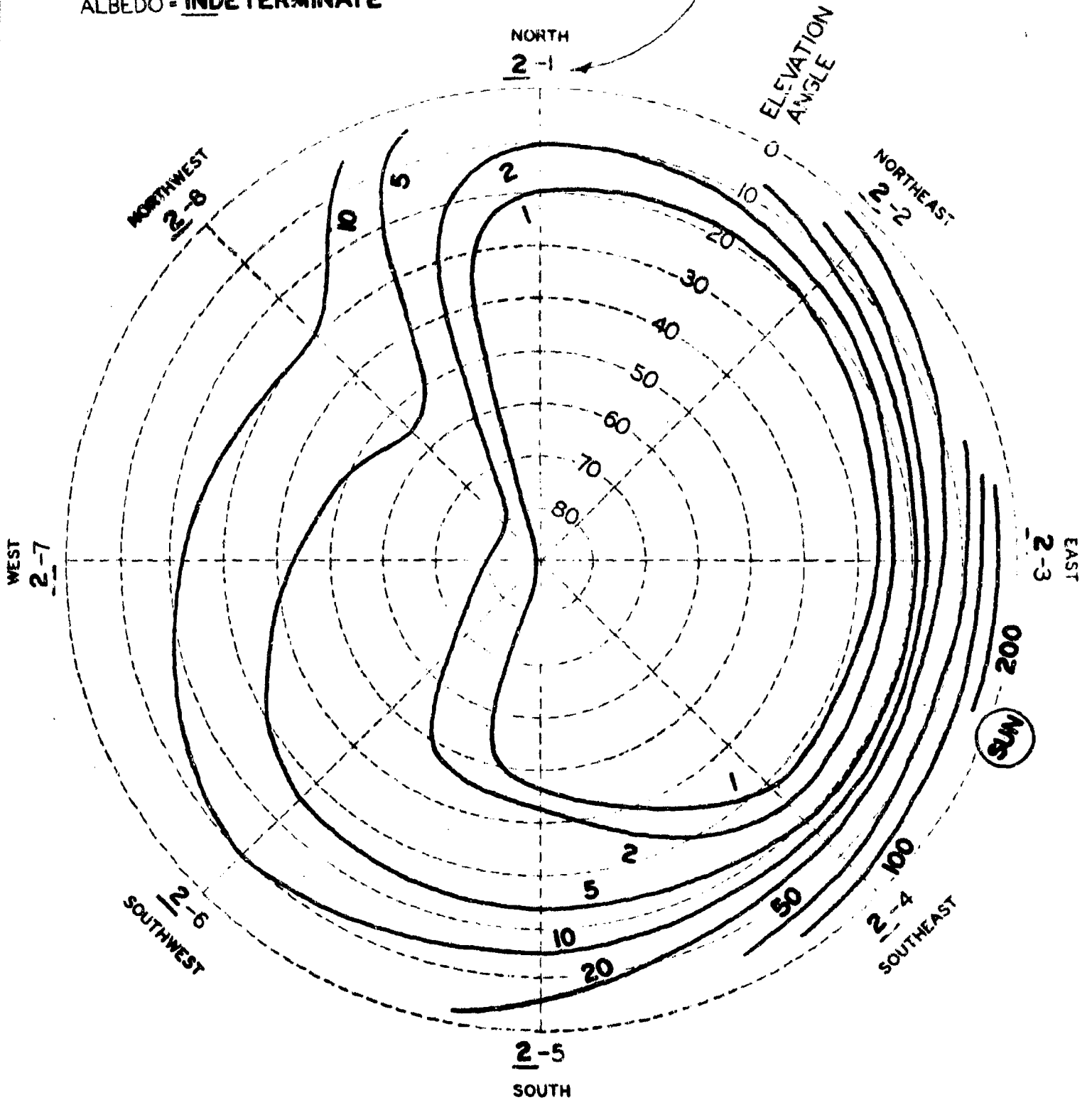
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 70,000 FT. ALTITUDE

FLIGHT NUMBER 1-27-64-2

ISOLUMES IN FT.-LAMBERTS

ALBEDO - INDETERMINATE

REFERENCE TO DATA SHEET



ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 20,000 FT. ALTITUDE

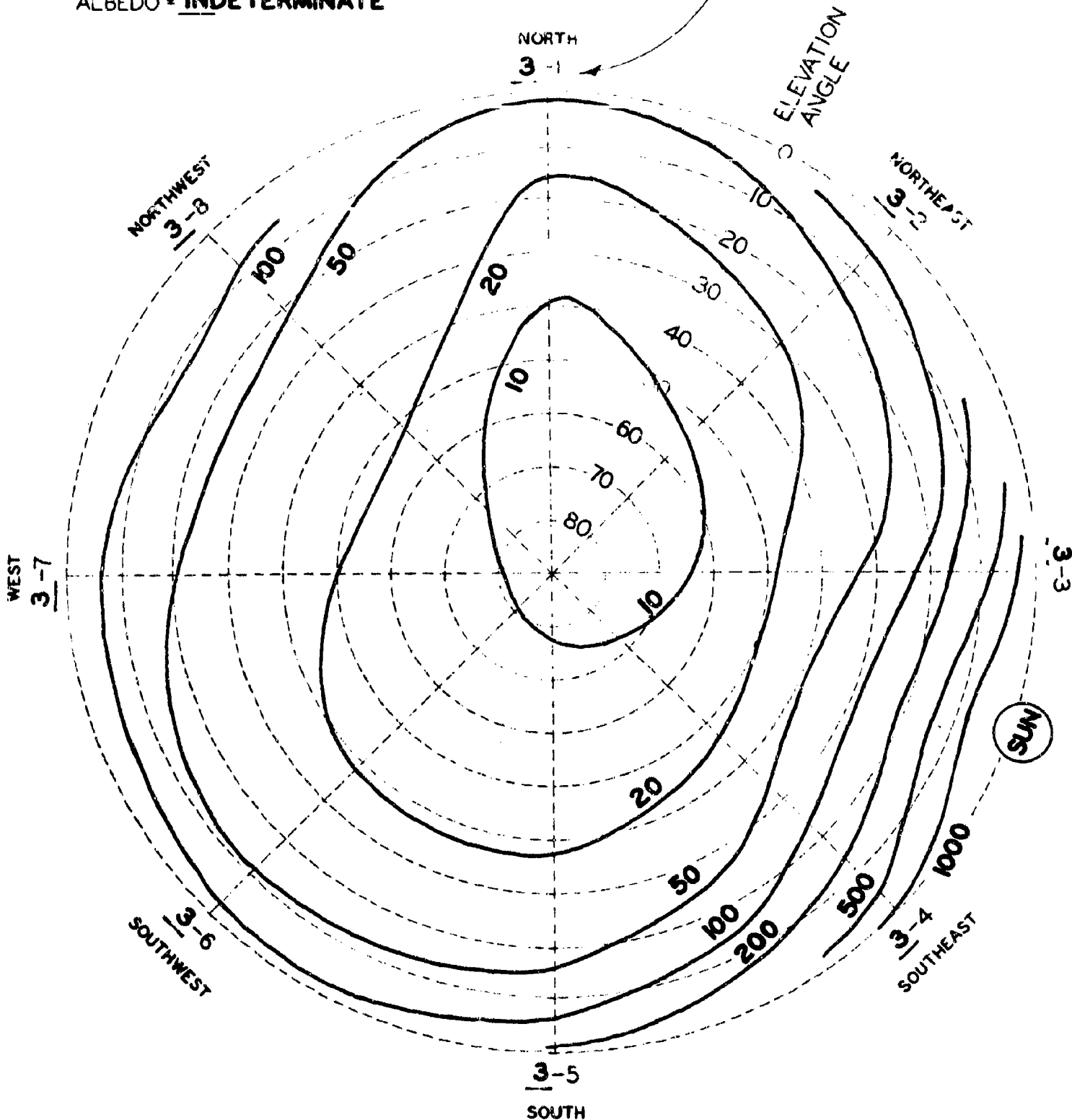
FLIGHT NUMBER 1-28-64-1



ISOLUMES IN FT.-LAMBERTS

ALBEDO = INDETERMINATE

REFERENCE TO DATA SHEET



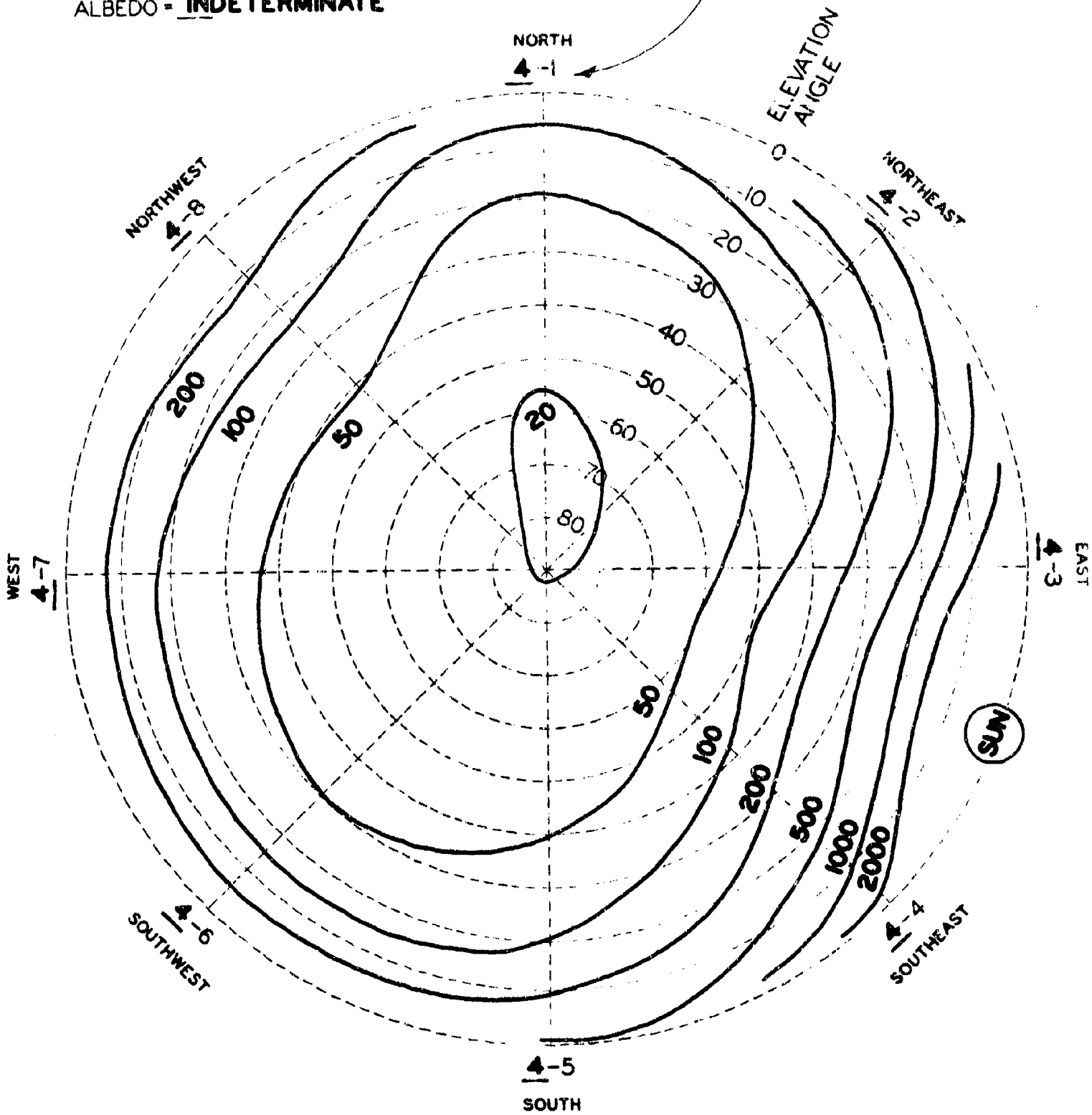
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 30,000 FT. ALTITUDE

FLIGHT NUMBER 1-28-64-1

ISOLUMES IN FT.-LAMBERTS

ALBEDO = INDETERMINATE

REFERENCE TO DATA SHEET



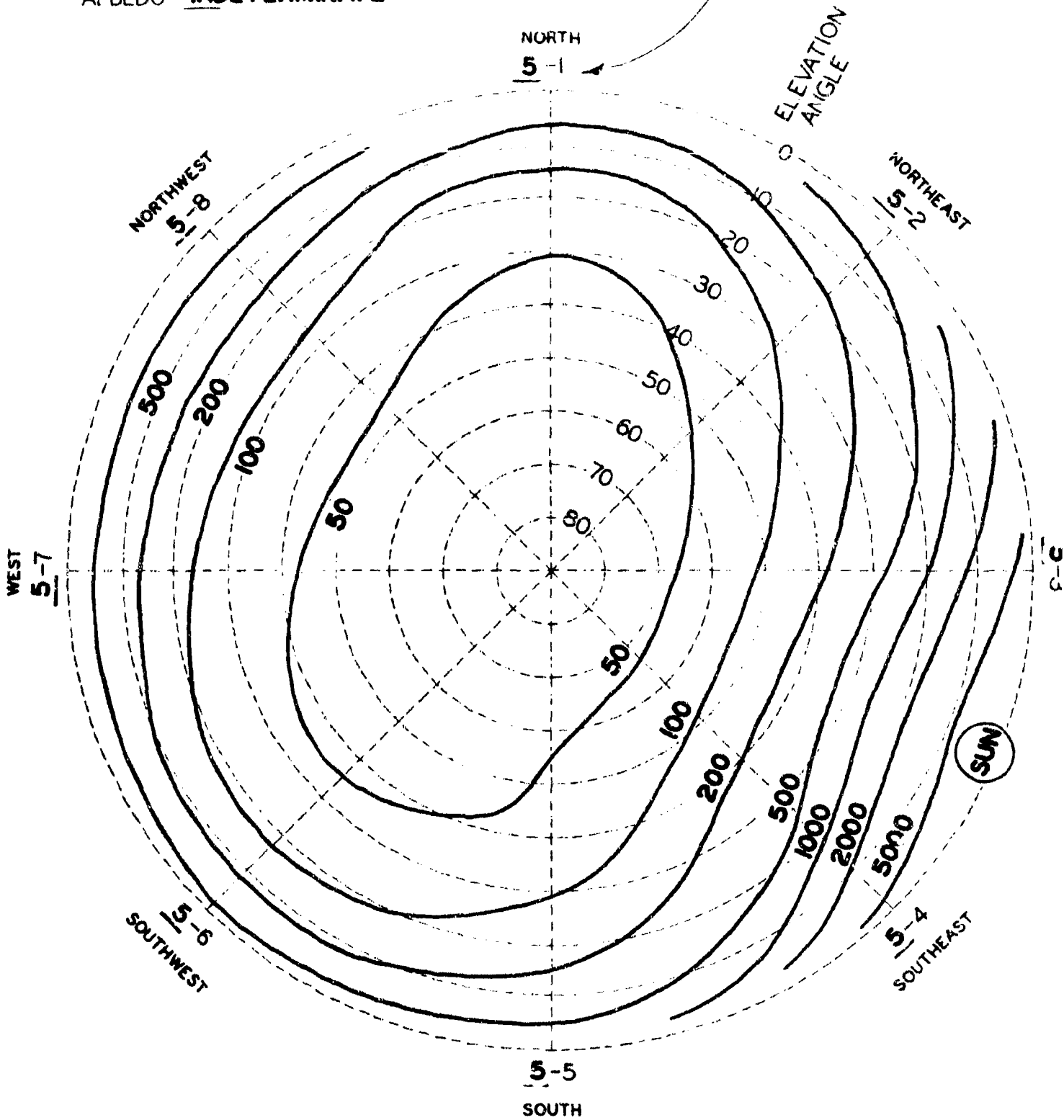
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 40,000 FT. ALTITUDE

FLIGHT NUMBER 1-28-64-1

ISOLUMES IN FT.-LAMBERTS

AI BEDO = INDETERMINATE

REFERENCE TO DATA SHEET



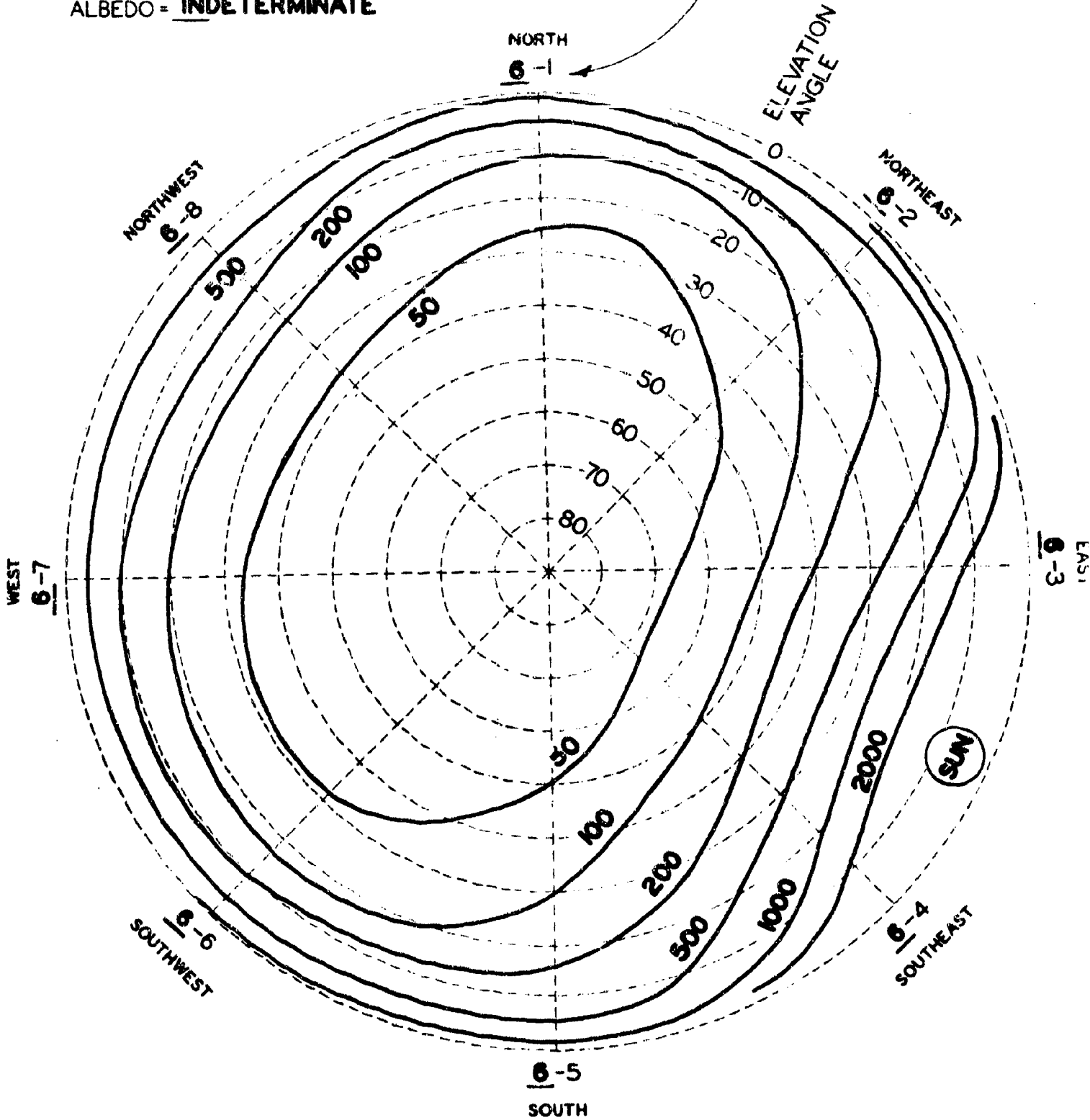
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 50,000 FT. ALTITUDE

FLIGHT NUMBER 1-28-64-1

ISOLUMES IN FT.-LAMBERTS

ALBEDO = INDETERMINATE

REFERENCE TO DATA SHEET



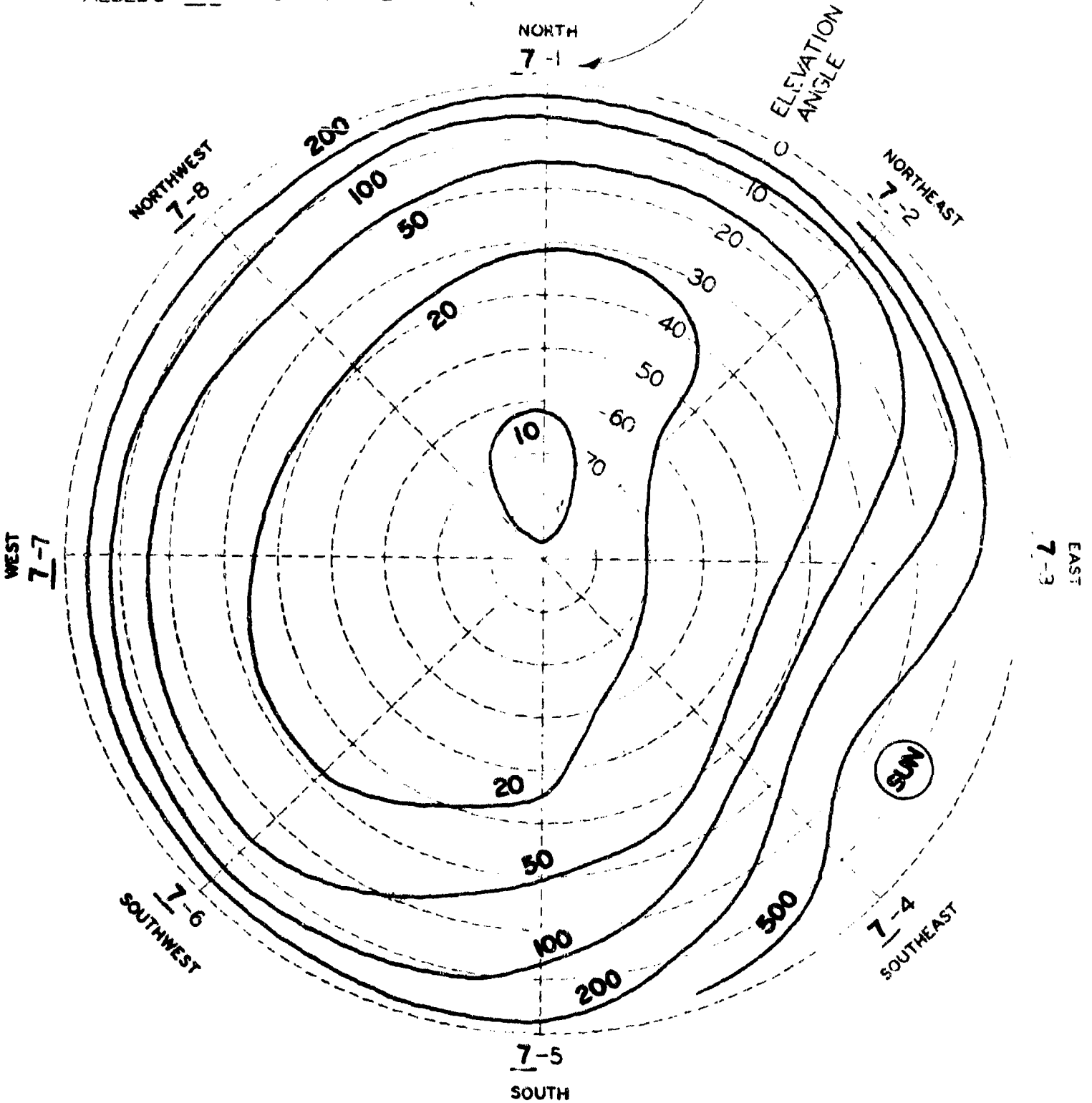
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 80,000 FT. ALTITUDE

FLIGHT NUMBER 1-28-64-1

ISOLUMES IN FT.-LAMBERTS

REFERENCE TO DATA SHEET

ALBEDO - INDETERMINATE



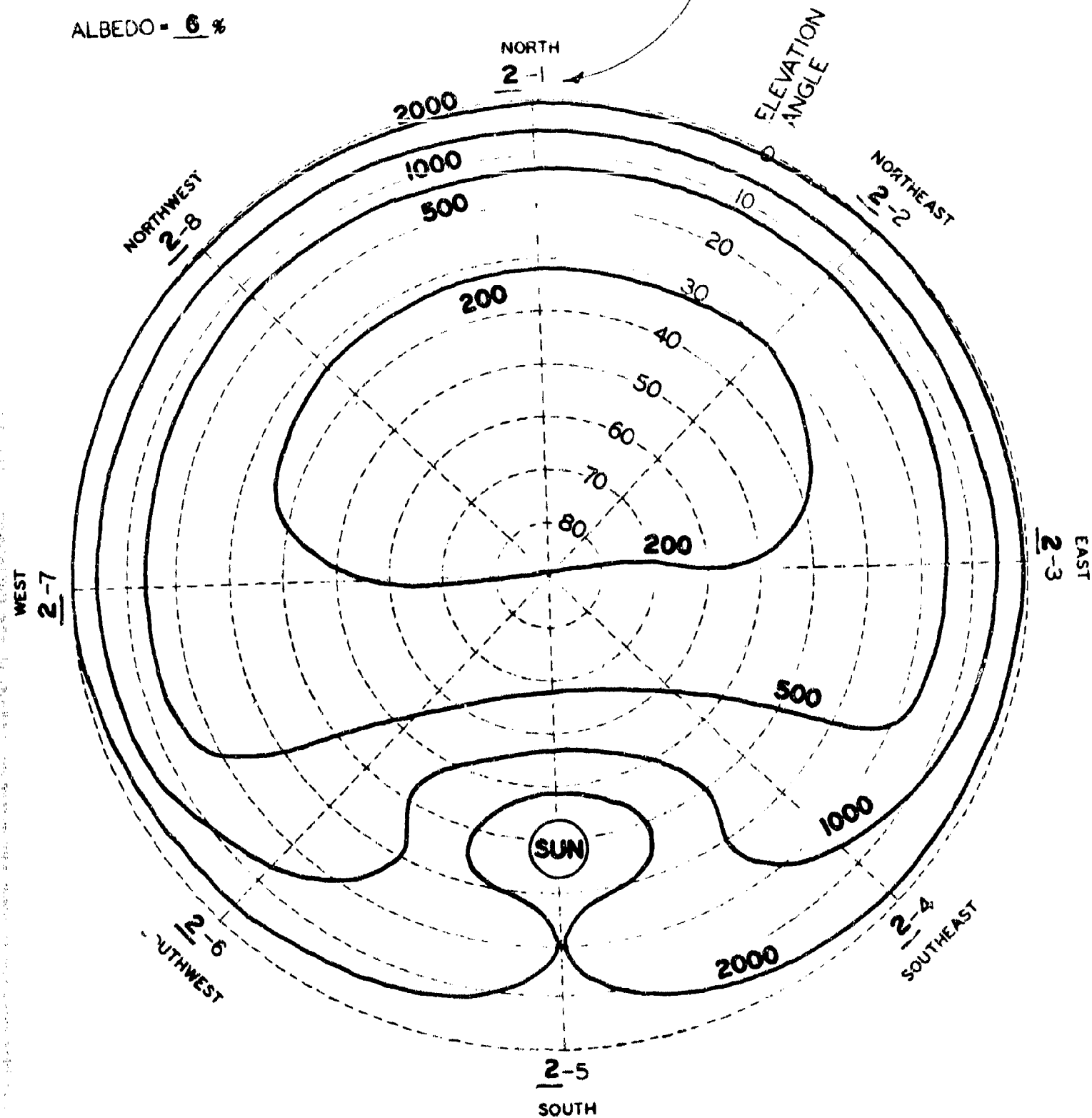
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 70,000 FT. ALTITUDE

FLIGHT NUMBER 1-28-64-1

REFERENCE TO DATA SHEET

ISOLUMES IN FT.-LAMBERTS

ALBEDO = 6 %



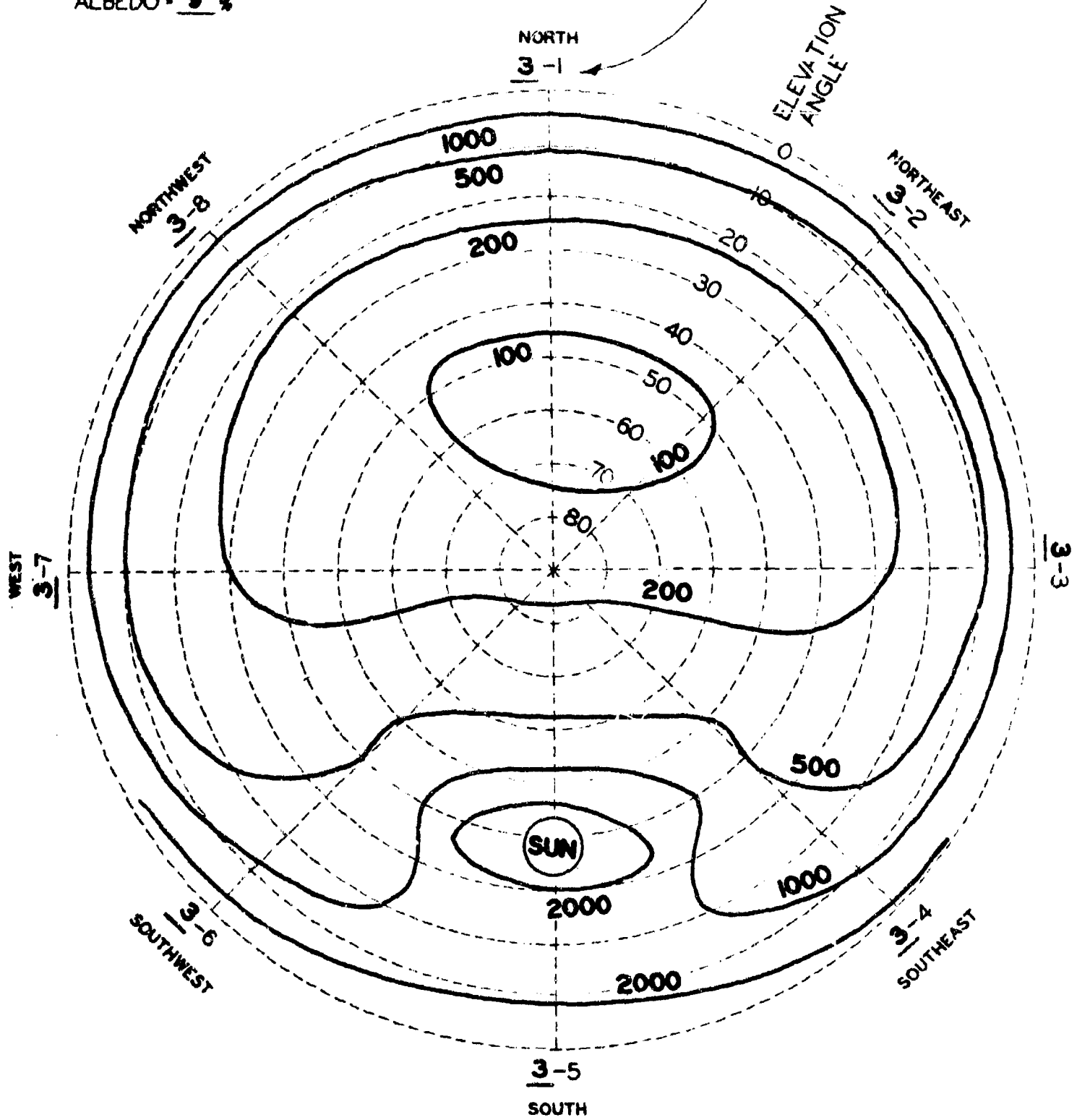
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 20,000 FT. ALTITUDE

FLIGHT NUMBER 1-28-64-2

ISOLUMES IN FT.-LAMBERTS

ALBEDO = 9 %

REFERENCE TO DATA SHEET



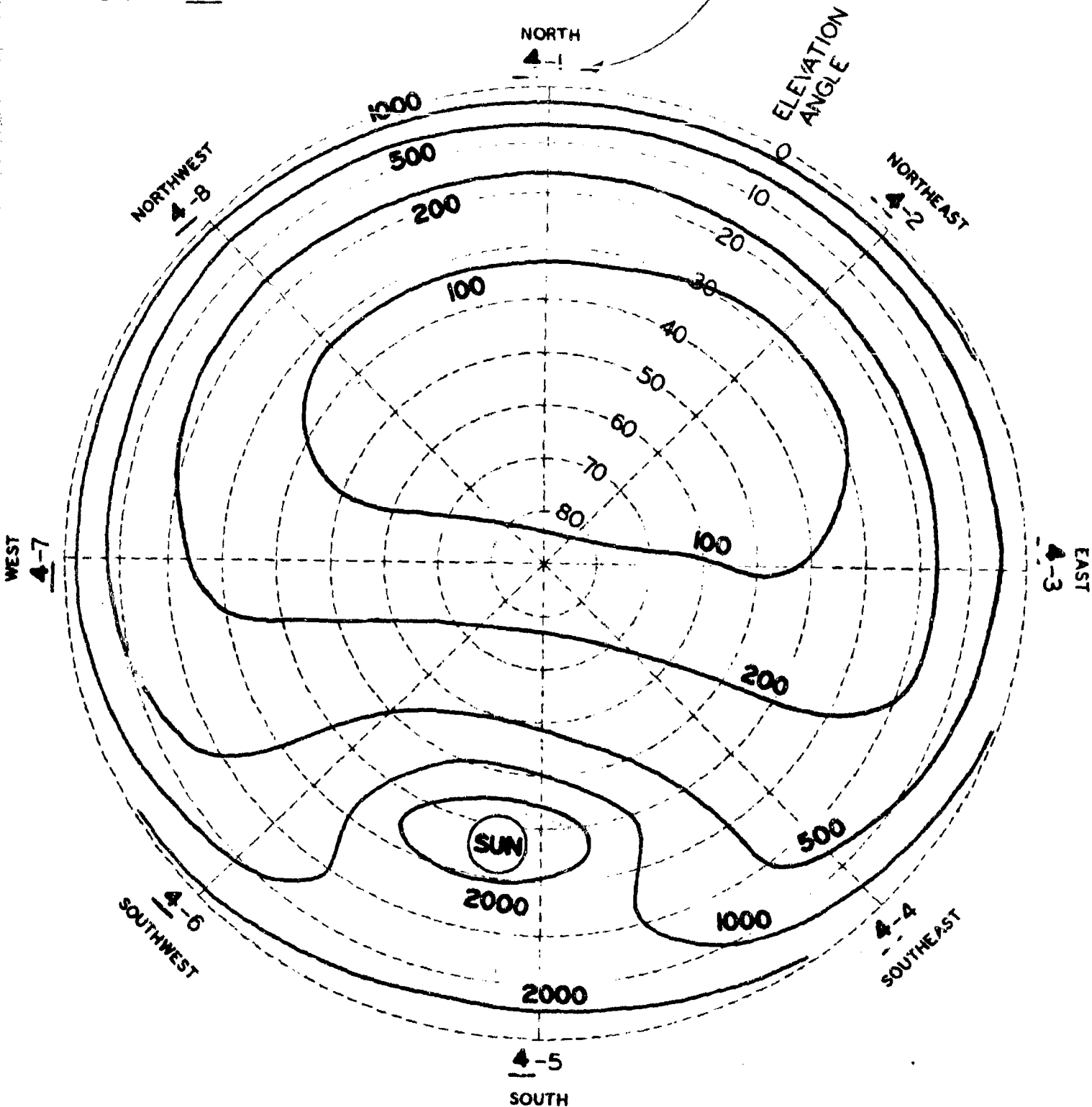
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 30,000 FT. ALTITUDE

FLIGHT NUMBER 1-28-64-2

ISOLUMES IN FT.-LAMBERTS

ALBEDO = 6 %

REFERENCE TO DATA SHEET



ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 40,000 FT. ALTITUDE

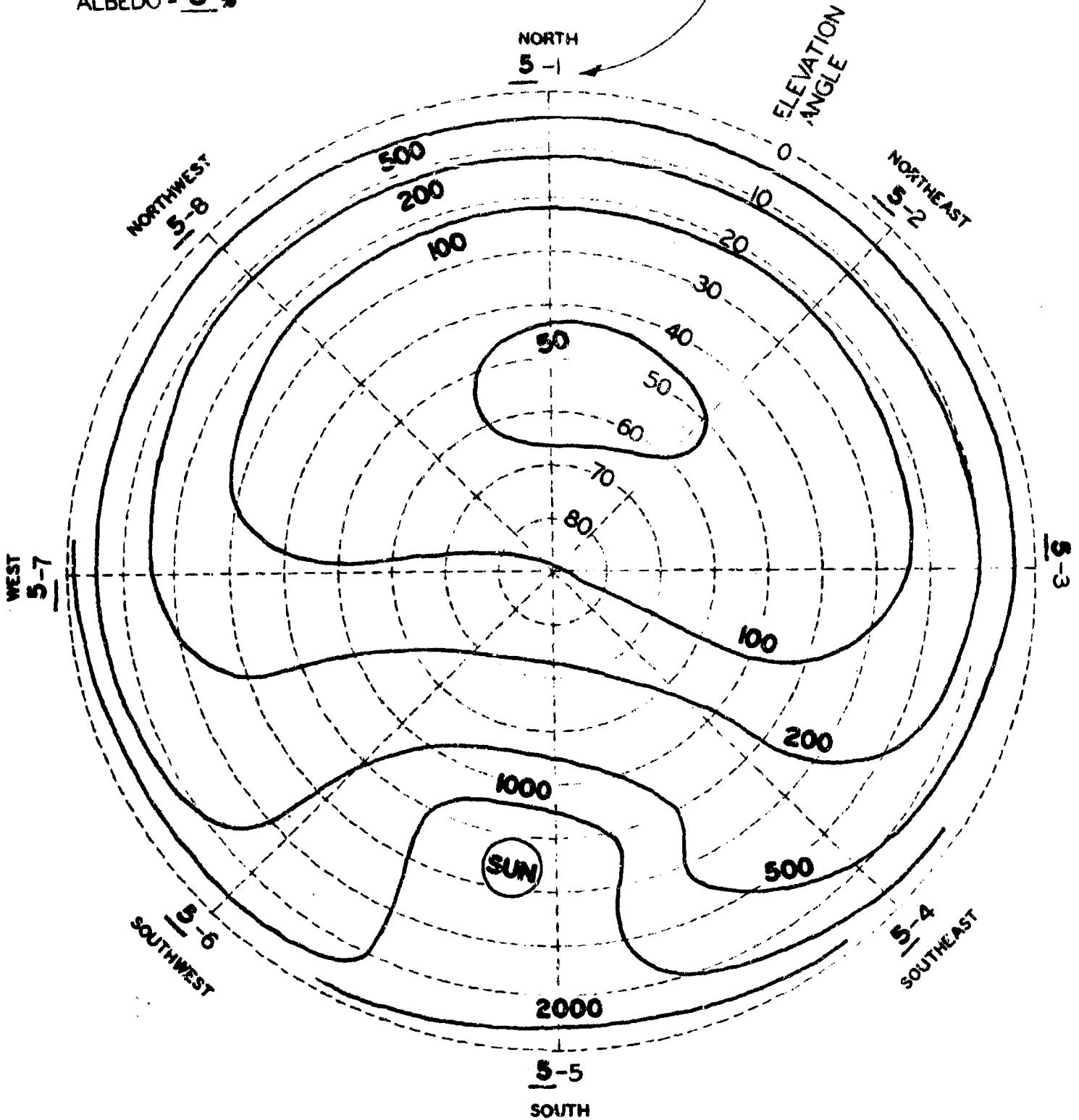
FLIGHT NUMBER 1-28-64-2



ISOLUMES IN FT.-LAMBERTS

ALBEDO = 3 %

REFERENCE TO DATA SHEET



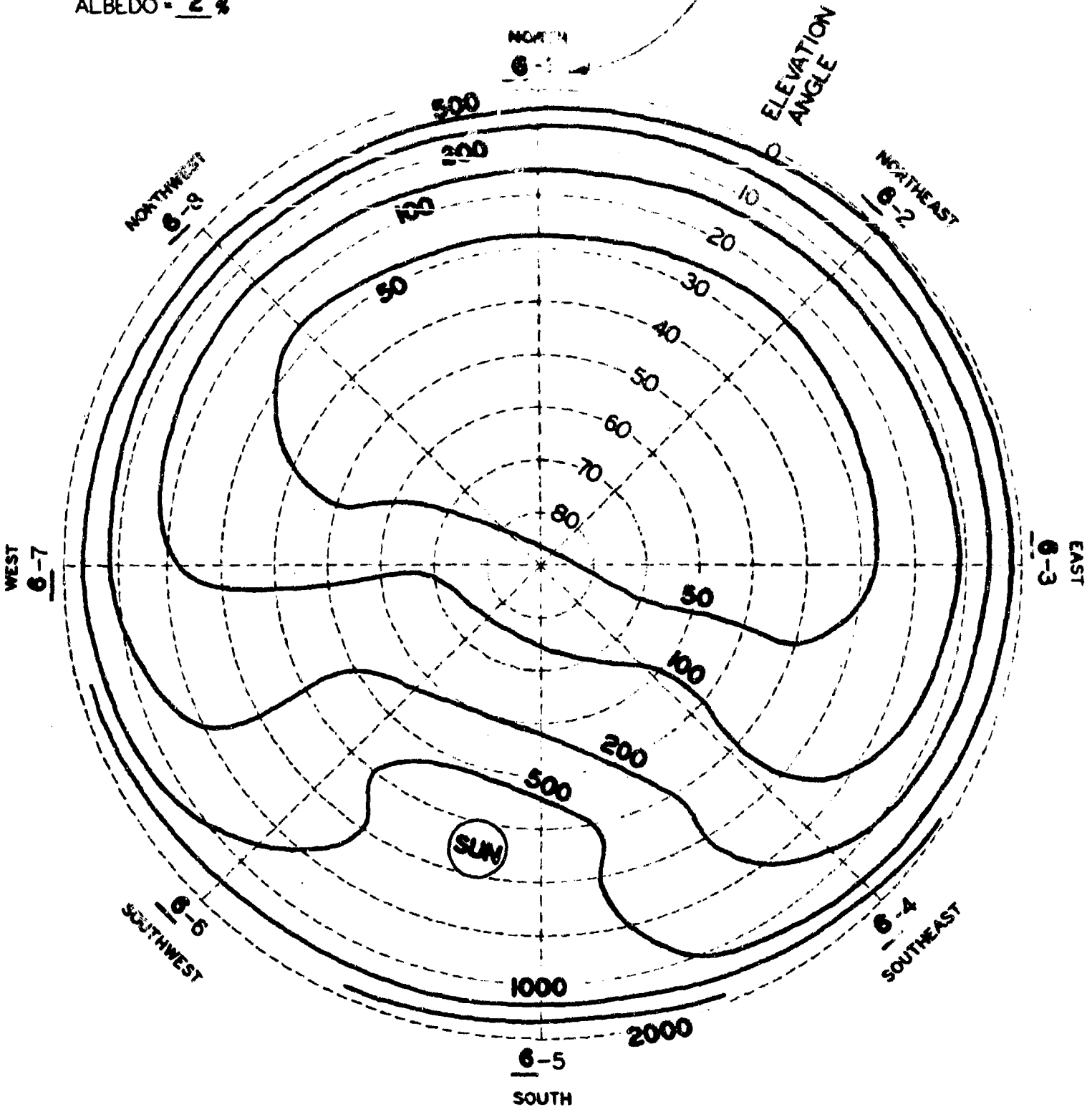
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 50,000 FT. ALTITUDE

FLIGHT NUMBER 1-28-64-2

ISOLUMES IN FT.-LAMBERTS

REFERENCE TO DATA SHEET

ALBEDO = 2 %



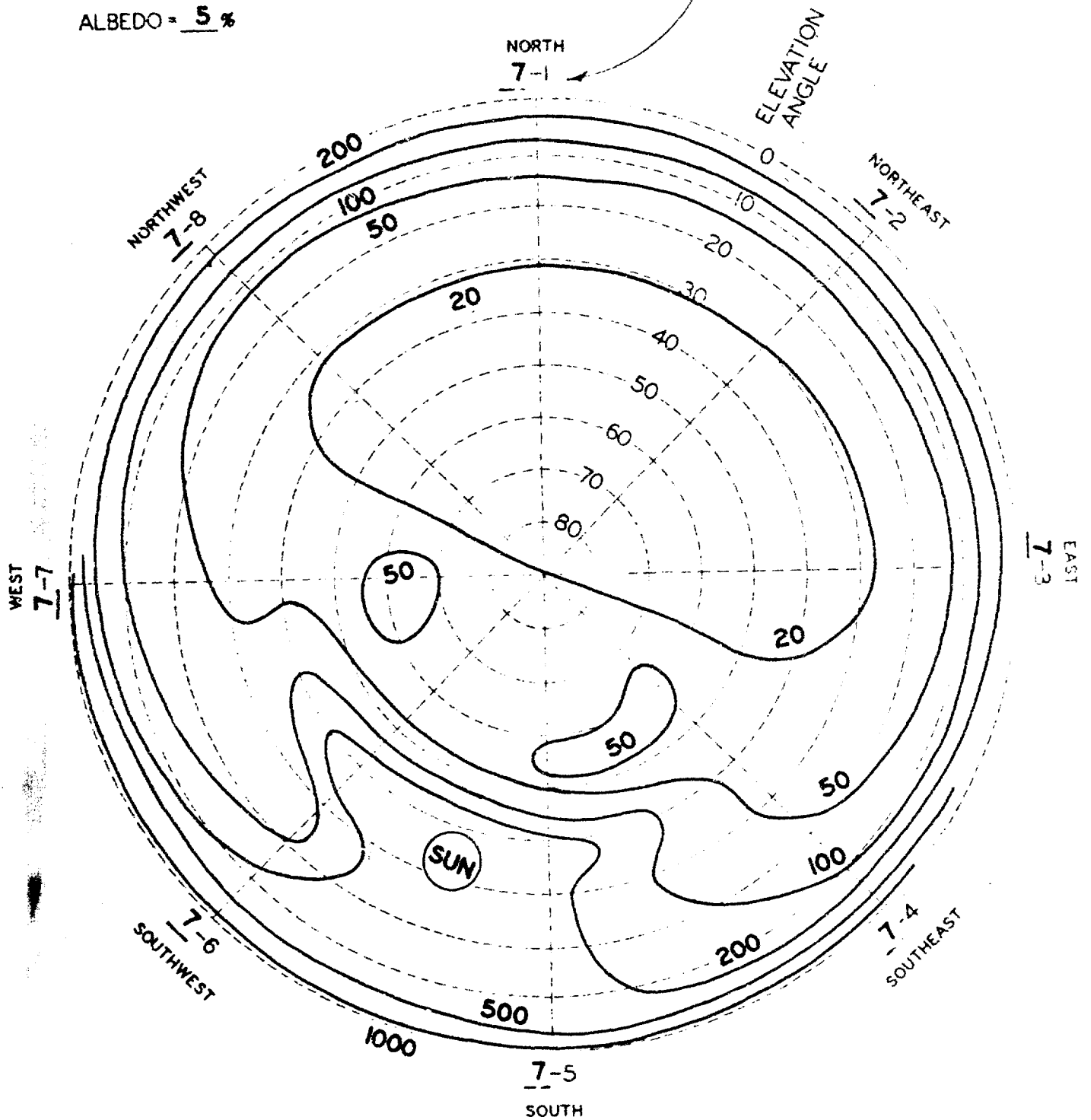
ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 60,000 FT. ALTITUDE

FLIGHT NUMBER 1-28-64-2

ISOLUMES IN FT.-LAMBERTS

ALBEDO = 5 %

REFERENCE TO DATA SHEET



ISOLUME PLOT SHOWING BRIGHTNESS OF SKY  
AT 70,000 FT. ALTITUDE

FLIGHT NUMBER 1-28-64-2

## APPENDIX A

### Flight Logs

This appendix contains the Engineer's Flight Log and the Pilot's Flight Summary Log employed during the sky measurement flight program on Research Vehicle #1.

The "Altitude Number" on the logs refers to the first digit of the actual altitude in tens of thousands of feet, i.e., the number 1 designates 10,000 feet. The column titled "Magnetic Heading Degrees" refers to the compass heading of vehicle. The column titled "Record Number" on the Engineer's Flight Log refers to a number photographically recorded on the oscillogram, which is a record of the specific heading being recorded. This number is taken from the processed recording and entered in the log. The time on the logs is Pacific Standard Time.

ENGINEER'S FLIGHT LOG  
SKY RADIANCE SPECTROPHOTOMETER

Engineer's Name \_\_\_\_\_ Flight Date \_\_\_\_\_

Pilot's Name \_\_\_\_\_ Ship # \_\_\_\_\_

Area Over Which Flight Was Made \_\_\_\_\_

Engineer's Ground Weather Comments (Note Clouds, Haze, etc.) \_\_\_\_\_

Pilot's Altitude Weather Comments (Note Top of Haze Layer, Cloud Cover, etc.) \_\_\_\_\_

Other Notes: (Ground Weather Report, etc.) \_\_\_\_\_

**1.0 Preflight Procedure and Check Off List (Vehicle with photometer inside hanger protected from sun)**

1.1 Amount of oscillograph paper in recorder (full). \_\_\_\_\_ Feet

1.2 Pressure of dry nitrogen on board aircraft (1600 lb/in<sup>2</sup> min). \_\_\_\_\_ lb/in<sup>2</sup>

1.3 All electrical connections secure (attenuator box) (check) \_\_\_\_\_

1.4 Recorder speed properly set to "High" (check). \_\_\_\_\_

1.5 Preflight calibration (see Calibration Procedure) (Local time). \_\_\_\_\_

1.6 Operating mode plug secured (check). \_\_\_\_\_

1.7 Thermistor monitoring plug secured (check). \_\_\_\_\_

1.8 Recorder event counter zeroed and lamps checked. \_\_\_\_\_

ENGINEER'S FLIGHT LOG  
 SKY RADIANCE SPECTROPHOTOMETER

- 1.9 Photometer pod protected from sun with reflecting cover (check). \_\_\_\_\_
- 1.10 Instrument hatch raised and secured. \_\_\_\_\_
- 2.0 Preflight Procedure (Towed aircraft unprotected from sun)
- 2.1 Dry nitrogen on immediately after leaving hangar (local time). \_\_\_\_\_
- 2.2 Reflecting cover removed immediately before engine start (check). \_\_\_\_\_
- 2.3 Photometer window cleaned or dusted with cotton (check). \_\_\_\_\_
- 2.4 Take-off (local time). \_\_\_\_\_
- 2.5 Dry nitrogen off at \_\_\_\_\_ feet, \_\_\_\_\_ (local time).
- 3.0 Flight Data (Each data burst \_\_\_\_\_ seconds duration).

Altitude Number	Record Number	Magnet. Heading Degrees	Photom. Scan Direction	Time		Notes
				Hrs.	Min.	
1		255°	N			1 event marker blips (check)
		300°	NE			
		345°	E			
		30°	SE			
		75°	S			
		120°	SW			
		165°	W			
		210°	NW			
2		255°	N			2 event marker blips (check)
		300°	NE			
		345°	E			
		30°	SE			
		75°	S			
		120°	SW			
		165°	W			
		210°	NW			

ENGINEER'S FLIGHT LOG  
 SKY RADIANCE SPECTROPHOTOMETER

2.0 Flight Data - Continued

Altitude Number	Record Number	Magnet. Heading Degrees	Photom. Scan Direction	Time		Notes
				Hrs.	Min.	
3		255°	N			3 event marker blips (check)
		300°	NE			
		345°	E			
		30°	SE			
		75°	S			
		120°	SW			
		165°	W			
	210°	NW				
4		255°	N			4 event marker blips (check)
		300°	NE			
		345°	E			
		30°	SE			
		75°	S			
		120°	SW			
		165°	W			
	210°	NW				
5		255°	N			5 event marker blips (check)
		300°	NE			
		345°	E			
		30°	SE			
		75°	S			
		120°	SW			
		165°	W			
	210°	NW				
6		255°	N			6 event marker blips (check)
		300°	NE			
		345°	E			
		30°	SE			
		75°	S			
		120°	SW			
		165°	W			
	210°	NW				
7		255°	N			7 event marker blips (check)
		300°	NE			
		345°	E			
		30°	SE			
		75°	S			
		120°	SW			
		165°	W			
	210°	NW				

ENGINEER'S FLIGHT LOG  
SKY RADIANCE SPECTROPHOTOMETER

- 3.1 Return to base. \_\_\_\_\_
- 3.2 Dry nitrogen on at \_\_\_\_\_ feet. (check). \_\_\_\_\_
- 3.3 Leave recorder and photometer system on until after post flight calibration (check). \_\_\_\_\_
- 3.4 Touchdown(local time). \_\_\_\_\_
- 4.0 Post Flight Procedure
- 4.1 Post flight calibration (see Calibration Procedure) (local time). \_\_\_\_\_
- 4.2 Turn off switches controlling the photometer power and the oscillogram recorder (check). \_\_\_\_\_
- 4.3 Turn off dry nitrogen (check). \_\_\_\_\_
- 4.4 Turn off ship's power (check). \_\_\_\_\_
- 4.5 Dry nitrogen pressure remaining (lb/in<sup>2</sup>). \_\_\_\_\_
- 4.6 Approximate recorder paper remaining. \_\_\_\_\_
- 4.7 Total elapsed duty time of calibration source. \_\_\_\_\_
- 4.8 Disconnect attenuator box (battery off) (check). \_\_\_\_\_
- 4.9 Process recording paper. \_\_\_\_\_
- 4.10 Reload recorder magazine with 400 feet of Linorit paper. \_\_\_\_\_
- 4.11 Record date and flight number onto processed paper. \_\_\_\_\_
- 4.12 Deliver recording to data analyst. \_\_\_\_\_
- 4.13 Condition of instrument \_\_\_\_\_



PILOT'S FLIGHT SUMMARY LOG

ALTITUDE NUMBER	MAGNETIC HEADING (DEGREES)	✓	ALTITUDE NUMBER	MAGNETIC HEADING (DEGREES)	✓
1	255		5	255	
	300			300	
	345			345	
	30			30	
	75			75	
	120			120	
	165			165	
	210			210	
2	255		6	255	
	300			300	
	345			345	
	30			30	
	75			75	
	120			120	
	165			165	
	210			210	
3	255		7	255	
	300			300	
	345			345	
	30			30	
	75			75	
	120			120	
	165			165	
	210			210	
4	255		DATE: _____		
	300		SHIP #: _____		
	345		Other Notes		
	30				
	75				
	120				
	165				
	210				

DATE: \_\_\_\_\_

SHIP #: \_\_\_\_\_

## APPENDIX B

### CALIBRATION PROCEDURE

#### SKY RADIANCE SPECTROPHOTOMETER

1. At least 30 minutes prior to the actual calibration, the Photometer System power must be switched on to allow for warm-up of the Isolite oven.
2. Attach source over photometer window in horizontal position with scribe marks aligned.
3. Hook-up necessary wiring from calibration source to the power supply and the precision voltage monitor. If in daylight, cover light source and window with black cover.
4. Completely remove and store the "calibration mode plug" located near the front of the photometer.
5. At least ten minutes prior to the actual calibration, the precision voltage monitor should be turned on and calibrated, and the power supply should be turned on and set for 28.00 volts.
6. Switch on the oscillograph recorder. ("Oscillograph" switch)
7. Allow at least 10 minutes warm-up of recorder.
8. Actuate the "Oscillo. Slow" switch for a 20 second burst.
9. Turn down power supply to 15.00 volts.
10. Actuate the "Oscillo. Slow" switch for a 10 second burst.
11. Turn power supply completely off so there will be no light put to spectrophotometer. Cover albedo sensors for photometric zero reference recording.
12. Actuate the "Oscillo. Slow" switch for a 10 second burst.
13. During recording, actuate event marker at least once.
14. Remove calibration source and store in its case.
15. Replace and secure the "calibration mode plug."

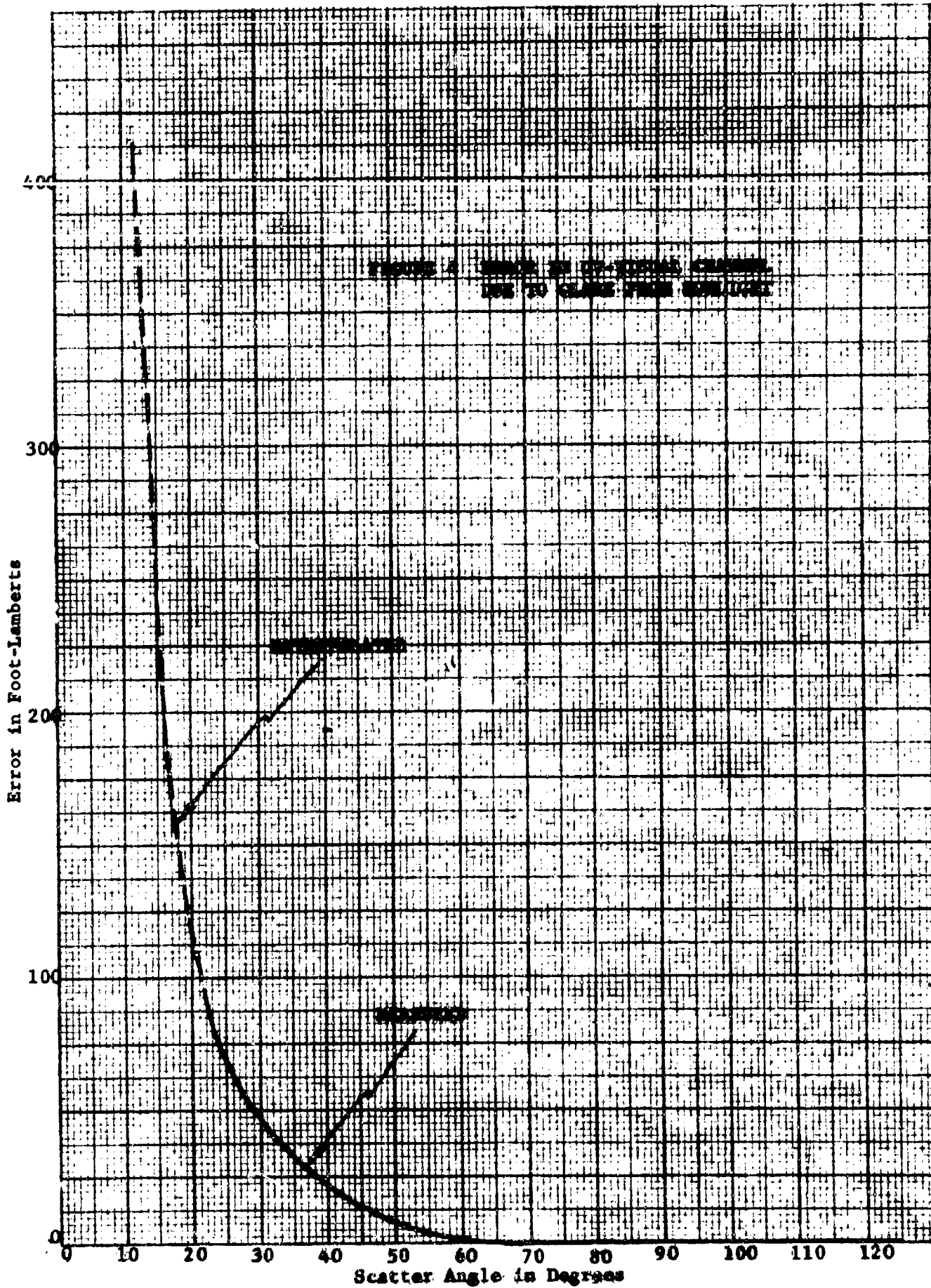
## APPENDIX C

### Glare Correction

Early tests of the Spectrophotometer showed abnormally high readings for sky brightness. The problem was traced to glare caused by the sun shining on the quartz window and on the entrance face of the quartz prism.

Reduction of this glare was accomplished for the Research Vehicle #1 flight program by substituting a plexiglas window for the quartz window and by installing blackened honeycomb over the entrance face of the prism.

Empirical tests of the modified instrument showed a significant reduction of glare. However, the contribution of glare to the Spectrophotometer output requires a correction factor in the measured data. This glare contribution is plotted in Figure 4. The tabular data of Section 3.2 includes the glare correction.



APPENDIX D

Conversion of Infrared Tabular Data

The integrated energy within the spectral sensitivity of the infrared channel of the Spectrophotometer is tabulated in inches of deflection in the IBM 7090 tabular data of Section 3.2. To convert this information into absolute spectral radiance, it is necessary to determine the relative spectral distribution of the sky within the sensitivity band of the instrument. In this appendix, a typical sky curve is developed for the Spectrophotometer by establishing the spectral sky distribution limits and assuming a curve within these limits. The assumed curve closely agrees with that obtained from Run 89 of the Wright Air Development Command (WADC) I.R. measurement program of Sept. 1956 at Colorado.

The "blue sky" data of the WADC program is used as an upper limit while the Johnson solar distribution is used as a lower limit for the development of the assumed sky spectral distribution (Figure 5). The spectral distribution of the sun was used as the lower limit since some of the sky measurements made with the Spectrophotometer were recorded near the sun and near the horizon (which has a distribution approximating that of the sun).

Since variations of the spectral radiance of the sky in the near infrared portion of the spectrum is primarily due to scattering, small changes are experienced in relative spectral distribution. Therefore, a reasonable assumption can be made regarding the sky spectral distribution within the infrared region. The integrated infrared sensitivity of Figure 5 was computed for the WADC Run 89 and for the solar spectral characteristics. These two sensitivities differed by only four percent which supports the assumed sky characteristics used in this analysis.

To convert the infrared tabular data in Section 3.2, reference should be made to the curve of Figure 6 which shows the sky spectral radiance per inch deflection as a function of wavelength. The procedure for determining the infrared spectral radiance is as follows:

- 1) From the tabular data in Section 3.2 find the region of the sky where the infrared spectral radiance is to be determined.
- 2) Multiply the ordinate of Figure 6 by the inches of displacement noted in the tabular data. This results in the sky radiance as a function of wavelength for the particular region of sky, with no additional corrections required. The units are watts/cm<sup>3</sup> steradian (watts/cm<sup>2</sup> steradian across a centimeter of spectral bandwidth).
- 3) If the integrated sky radiance across 700 to 1000 nanometers is required, multiply the infrared displacement by

$$1.128 \frac{\text{watts} \times 10^{-3}}{\text{cm}^2 \text{ steradian}}$$

The deflection of the infrared channel may be desired at intervals which do not appear in the tabular data. Since only the deflections for elevation angles of 82°, 72°, 53°, 44°, 35°, 25°, 15°, and 5° were read and then processed by the computer, other elevation angles may provide significantly different deflections. The procedure for reading other infrared deflections is as follows:

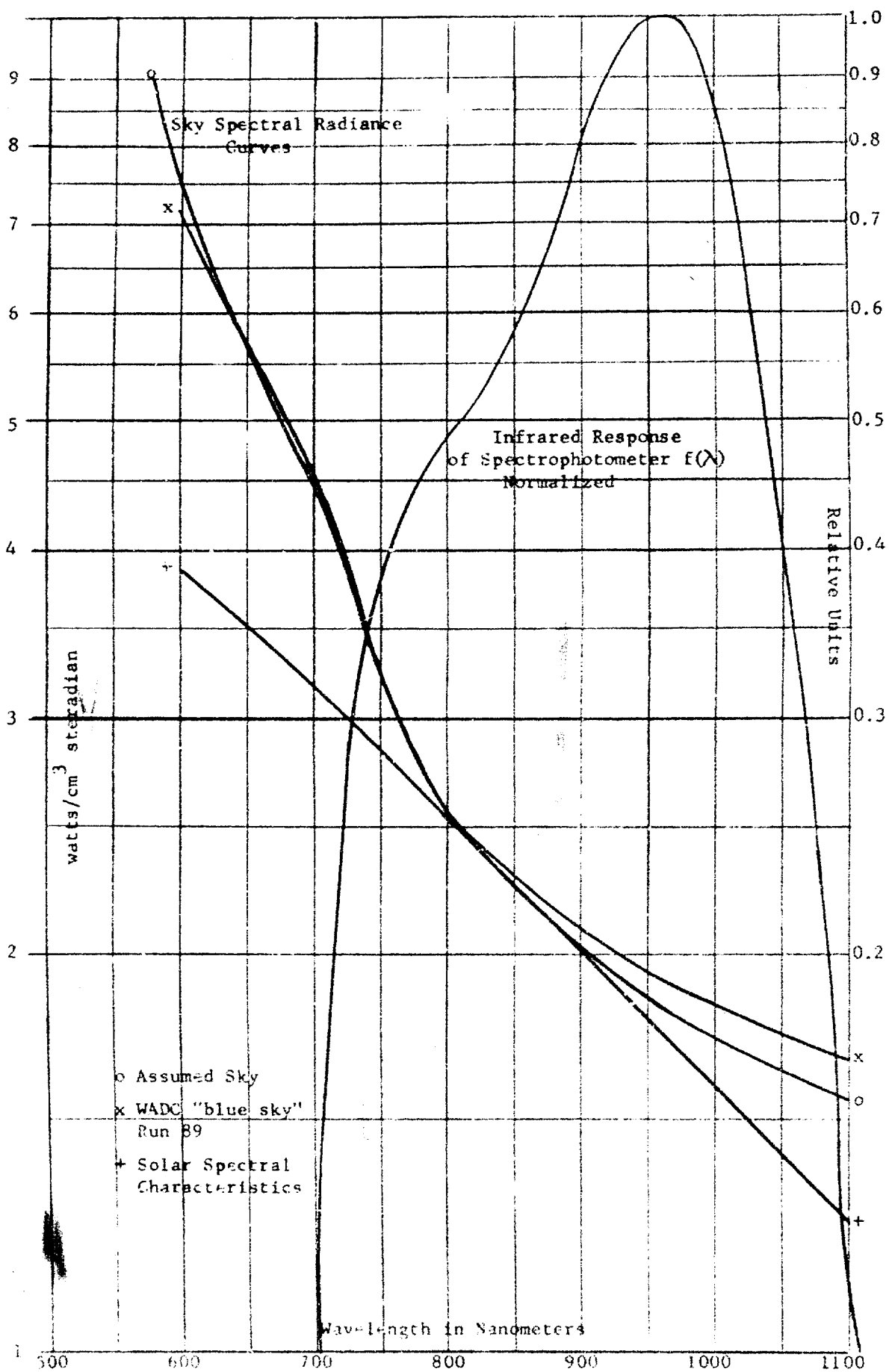


FIGURE 5 SKY SPECTRAL RADIANCE CURVES

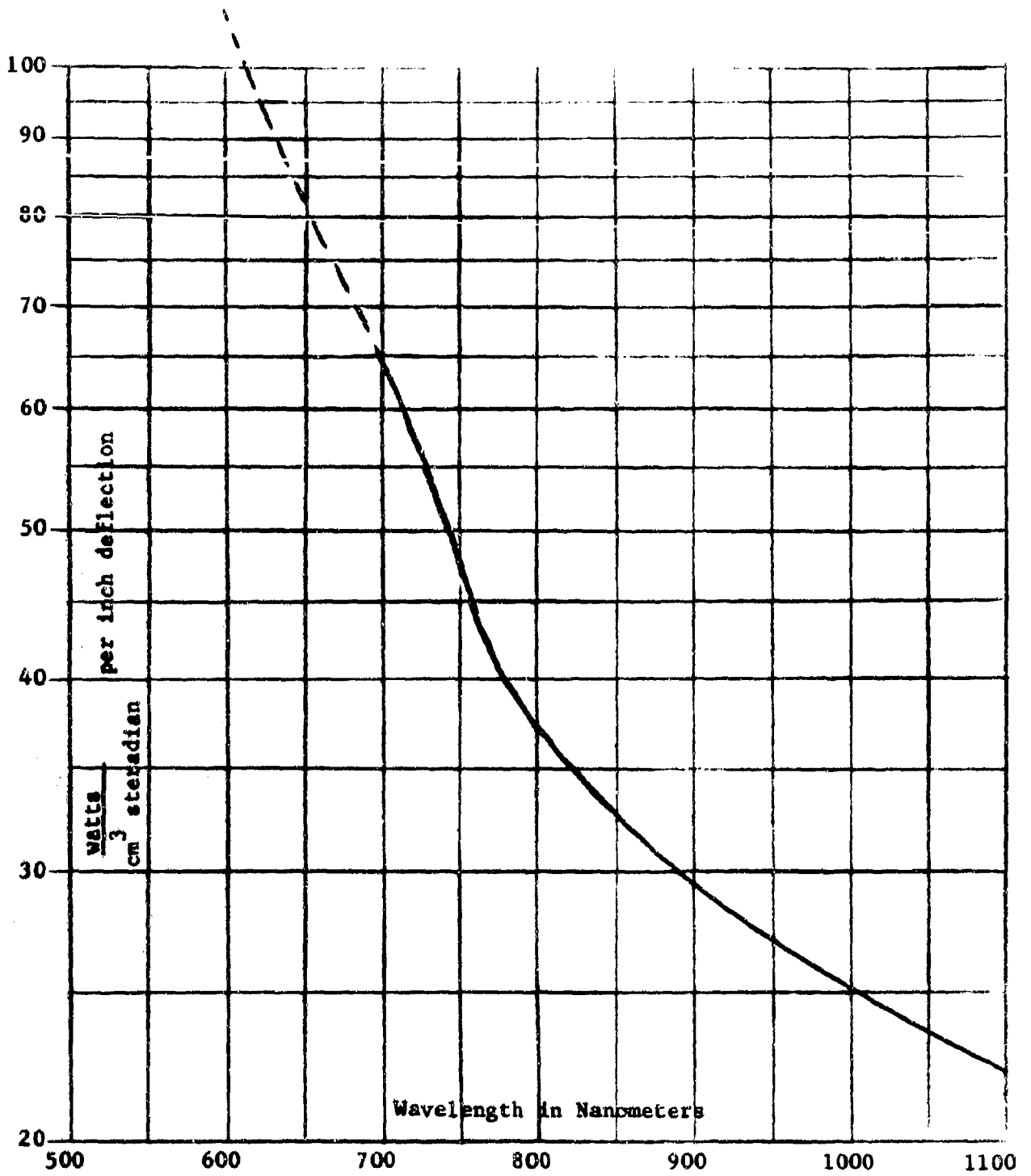


FIGURE 6 SKY SPECTRAL RADIANCE PER INCH DEFLECTION ON ORIGINAL OSCILLOGRAM AS A FUNCTION OF WAVELENGTH (1x INFRARED CHANNEL)

- 1) In Part 2 measure the deflection in inches on the deflected infrared channel for the region of interest.
- 2) Refer to Table 2 in this appendix and find the correction of the infrared channel for a change of sensitivity during flight. Add one (1) to this factor. The resulting factor is used as a multiplier for the inches scaled from the oscillogram.
- 3) Refer to Figure 7 and find the corresponding inches of deflection on the lx channel. (This figure corrects for the non-linearity of the 0.1x channel and for the photo-reduction of this oscillogram.)
- 4) Multiply the ordinate of Figure 6 by this corrected inches of deflection to obtain the spectral radiance as a function of wavelength in the infrared channel.
- 5) If the integrated radiance of this line of sight of the sky is desired, multiply the corrected inches of deflection by the integrating factor

$$1.128 \frac{\text{watts} \times 10^{-3}}{\text{cm}^2 \text{ steradian}}$$



TABLE 2 INFRARED RADIANCE CORRECTION FACTORS

FLIGHT RECORD CONE NUMBER	FLIGHT 1/23/64 #1	FLIGHT 1/24/64 #1	FLIGHT 1/27/64 #1	FLIGHT 1/27/64 #2	FLIGHT 1/28/64 #1	FLIGHT 1/28/64 #2
2-1	-0.03	-0.08	-0.03	0.03	-0.01	0.09
2-2	-0.03	-0.08	-0.03	0.03	-0.02	0.09
2-3	-0.03	-0.08	-0.02	0.03	0.	0.09
2-4	-0.02	-0.08	-0.02	0.03	0.	0.09
2-5	-0.02	-0.07	-0.02	0.04	0.01	0.09
2-6	-0.01	-0.07	-0.02	0.04	0.02	0.09
2-7	-0.02	-0.07	-0.02	0.03	0.02	0.10
2-8	-0.02	-0.07	-0.01	0.04	0.02	0.10
3-1	-0.01	-0.06	0.01	0.05	0.03	0.10
3-2	-0.00	-0.06	0.01	0.06	0.04	0.09
3-3	0.	-0.05	0.02	0.07	0.03	0.10
3-4	0.00	-0.05	0.02	0.06	0.03	0.11
3-5	0.01	-0.05	0.	0.06	0.04	0.11
3-6	0.01	-0.05	0.	0.06	0.04	0.11
3-7	0.01	-0.04	0.01	0.07	0.04	0.11
3-8	0.01	-0.03	0.00	0.07	0.05	0.12
4-1	0.01	-0.02	0.02	0.08	0.05	0.12
4-2	0.04	-0.02	0.02	0.08	0.06	0.13
4-3	0.03	-0.01	0.02	0.09	0.07	0.13
4-4	0.03	-0.01	0.03	0.09	0.07	0.14
4-5	0.03	-0.01	0.03	0.09	0.07	0.14
4-6	0.04	-0.00	0.04	0.10	0.07	0.14
4-7	0.04	0.	0.04	0.10	0.09	0.15
4-8	0.03	0.	0.03	0.11	0.08	0.15
5-1	0.07	0.07	0.05	0.12	0.09	0.16
5-2	0.07	0.07	0.06	0.12	0.11	0.16
5-3	0.07	0.03	0.05	0.12	0.10	0.17
5-4	0.07	0.02	0.07	0.11	0.10	0.16
5-5	0.07	0.03	0.06	0.12	0.11	0.16
5-6	0.08	0.02	0.06	0.13	0.11	0.17
5-7	0.08	0.04	0.07	0.14	0.11	0.17
5-8	0.08	0.04	0.07	0.14	0.11	0.18
6-1	0.09	0.06	0.06	0.14	0.13	0.19
6-2	0.09	0.06	0.06	0.15	0.14	0.19
6-3	0.10	0.07	0.10	0.14	0.14	0.19
6-4	0.10	0.07	0.11	0.15	0.14	0.19
6-5	0.09	0.07	0.11	0.14	0.14	0.20
6-6	0.10	0.07	0.11	0.16	0.14	0.20
6-7	0.10	0.09	0.11	0.16	0.15	0.19
6-8	0.10	0.09	0.11	0.16	0.15	0.20
6-9 or 7-1	0.12	0.11	0.15	0.20	0.16	0.22
6-9 or 7-2	0.11	0.11	0.14	0.20	0.16	0.22
6-9 or 7-3	0.12	0.11	0.15	0.19	0.17	0.22
6-9 or 7-4		0.11	0.14	0.20	0.17	0.23
6-9 or 7-5		0.11	0.15	0.19	0.16	0.23
6-9 or 7-6		0.11	0.15	0.20	0.17	0.24
6-9 or 7-7		0.11	0.15	0.20	0.17	0.23
6-9 or 7-8		0.12	0.16	0.20	0.17	0.23

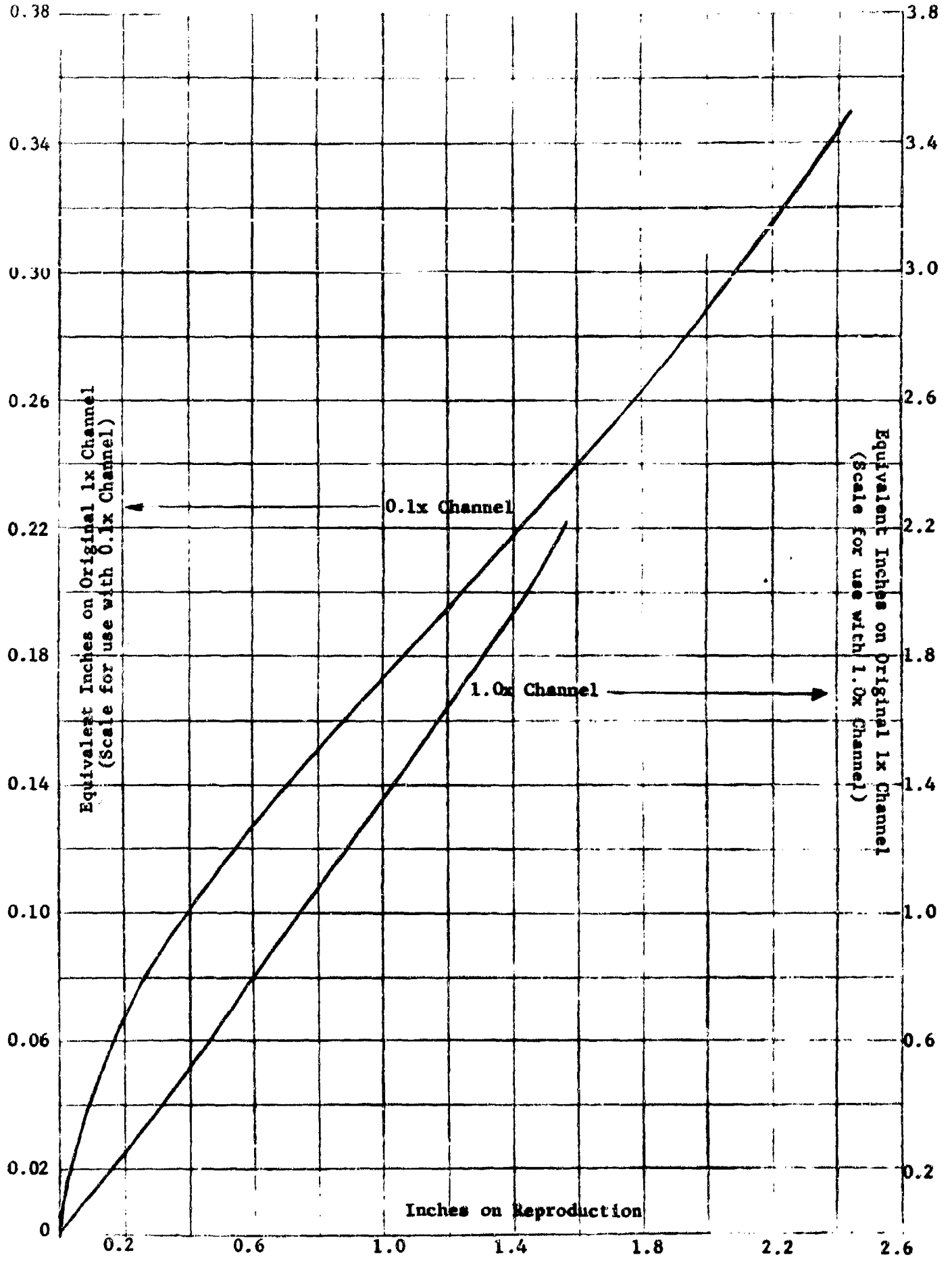


FIGURE 7 GAIN AND SCALE CORRECTION FOR INFRARED CHANNELS

## APPENDIX E

### Procedure for Data Reduction of Seventh Flight

A seventh flight of Research Vehicle #1 was made for sky measurements at 5,000 feet and above. The recorded data obtained during this flight were not reduced, but the raw data are included in Part 2 under the identifying date 1/29/64. The raw data include sky radiance, sky luminance, polarization, and infrared deflection. To facilitate reduction of this data, the following procedure is outlined:

#### E.1 Reduction of Luminous Data

- 1) Find the line of sight and the elevation of interest. Refer to the typical oscillogram at the beginning of Part 2 for assistance in identifying the elevation angle.
- 2) Measure the maximum deflection in inches of the luminance recording of interest.
- 3) Measure the maximum of the lower amplitudes of this luminance recording.
- 4) Add the maximum and minimum and divide by 2.
- 5) Find the correction for change of sensitivity during flight for this oscillogram:
  - a) Measure the deflection in inches from the photometric base line of the UV-Visual in-flight reference (identified in Figure 1, Part 2).
  - b) Use the correction factor:
$$\text{Factor} = \frac{0.64 - (\text{deflection read in inches})}{0.64} + 1$$
  - c) Multiply the deflection (obtained in 4 above) of the luminous recording by this factor.
- 6) Apply the following factors to the corrected luminous deflection:
  - a) Channel 1x: 3228 foot-lamberts per inch.
  - b) Channel 0.1x: 371.2 foot-lamberts per inch.
  - c) Channel 0.01x: 37.12 foot-lamberts per inch.

#### E.2 Polarization at Selected Line of Sight

Using the deflections obtained in 2) and 3) above, refer to the equation for Polarization given in Figure 1 of Part 2.

#### E.3 Infrared Deflection at Selected Line of Sight

- 1) Measure the inches of deflection of the infrared channel.
- 2) Find the correction for change of sensitivity during flight of this oscillogram:
  - a) Measure the deflection in inches to center of signal from the photometric zero base line of the infrared in-flight reference.

b) Use the correction factor:

$$\text{Factor} = \frac{2.296 - (\text{deflection read in inches})}{2.296} + 1$$

- c) Multiply the inches of deflection of the infrared channel by this factor.
- 3) Refer to Figure 7 and determine the deflection to be used for the 1x channel (the figure incorporates the correction for the non-linearity of the 0.1x channel and also incorporates the correction for photo-reduction of the oscillograms).
- 4) Using the corrected deflection in inches, apply the procedure for determining infrared spectral radiance which is given in Appendix D.