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SATELLITE CALIBRATION DATA ANNUAL DATA REPORT - 1977

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Louis I. Murillo
L. Edwin Williamson

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US Army Electronics Research and Development Command
ATMOSPHERIC SCIENCES LABORATORY
White Sands Missile Range, NM 88002

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This report contains data from observations of meteorological and radiative parameters at selected satellite calibration target sites. These sites include the highly reflective gypsum field in southcentral New Mexico, a dark lava surface, a nearby fresh water reservoir and over desert terrain. The report also contains narrative descriptions of the instruments in use at the target sites.

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PREFACE

The data presented herein were collected for application to satellite calibration. However, the data represent a meticulous effort of simultaneous mesoscale observations of surface meteorological and radiative parameters, and as such, may be directly applicable to other, nonsatellite applications. Persons or organizations requiring these data on a week-by-week time schedule or for special observations in conjunction with specific satellite observations may write to:

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Atmospheric Sciences Laboratory
US Army Electronics Research and Development Command
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White Sands Missile Range, NM 88002

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INTRODUCTION

The Atmospheric Sciences Laboratory (ASL) has broad objectives in the utilization of meteorological satellite data as applied to Army needs. A principal effort in the utilization of such data involves the development of techniques for quality assurance of the data collected by satellites. An example of the necessity of such assurance can be found in Taylor and Williamson.* Most satellite sensors cannot be manually manipulated or visually examined in orbit; therefore, methods of evaluating their output must be found to determine the performance of the instruments. To accomplish this, surface parameters which can form a catalog of ground truth data for comparison with satellite data must be collected at prescribed target sites.

A systematic effort has been underway since 1973. Sites and instrumentation were selected and acquired the first year, and data were collected the second and subsequent years. Data collection facilities are now in operation at four instrumentation sites (one on the lava flow, two on the white sands, and one on a fresh water surface). Measurements are made in adherence to a coordinated satellite overpass schedule and the Meteorological Rocket Network. The data published consist of information on several atmospheric and radiative parameters. All measurements are performed by qualified Army meteorological observers and civilian staff members. The data collected during 1977 constitute the bulk of this report and are preceded by a brief description of the instruments and technology used.

SITE DATA

Several target sites have been selected within and near White Sands Missile Range (WSMR), NM (Figure 1). These sites display a wide range of albedo and emissivity characteristics for empirical comparisons with satellite-derived data. Two of the target sites are on white gypsum sand for high albedo data and one is on a dark lava bed for low albedo data. One site on a water surface and one over desert terrain were also operated. Data from these sites are included in this report. A significant feature of the geography of these sites is that they underlie nearly the same atmosphere column when viewed from a satellite, all being located within approximately a 40-mile (64-km) radius.

WHITE SANDS SITE (METSAT I)

The White Sands site actually consists of three physical instrument locations (Figure 2). The White Sands area consists of a flat plain and an area of white gypsum and dunes. The demarcation between these areas is distinct, although this distinction is not always apparent in satellite data. The data site was selected so that from a centrally

*S. E. Taylor and L. E. Williamson, 1973, "Satellite Calibration Target Has Brightness Equivalent to Clouds," Bull. Am. Met. Soc., 54(6):551

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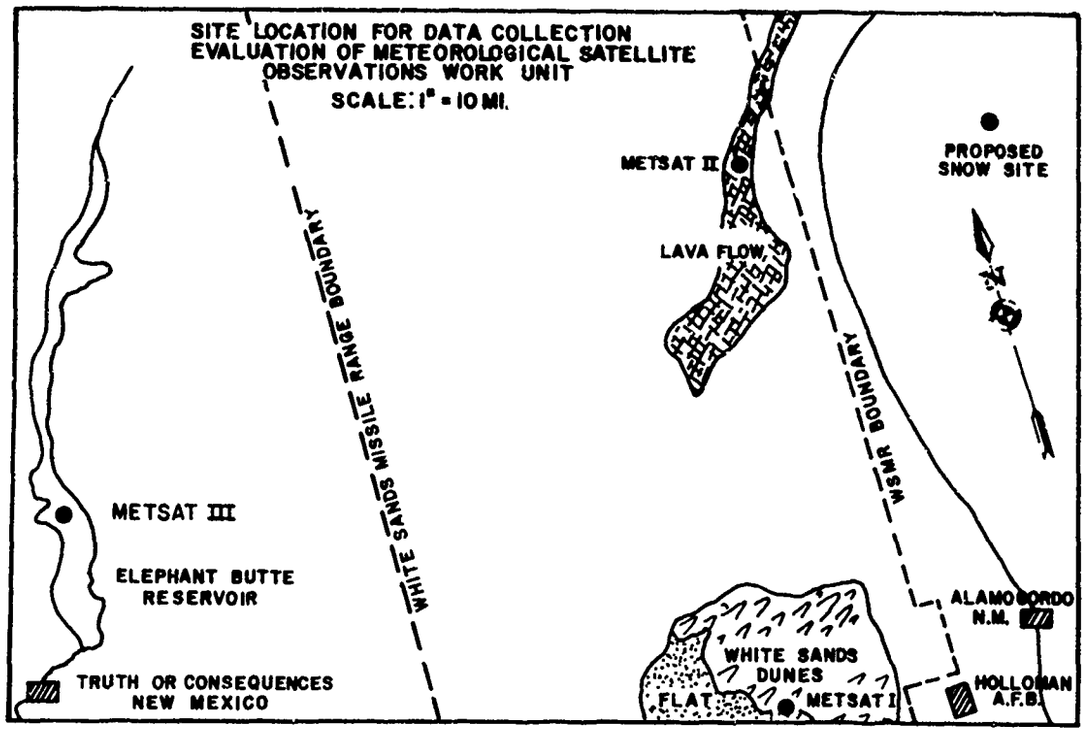

Fig. 1. General map of the WSMR Meteorological Satellite Evaluation System Target Sites in relation to each other and the WSMR boundaries.

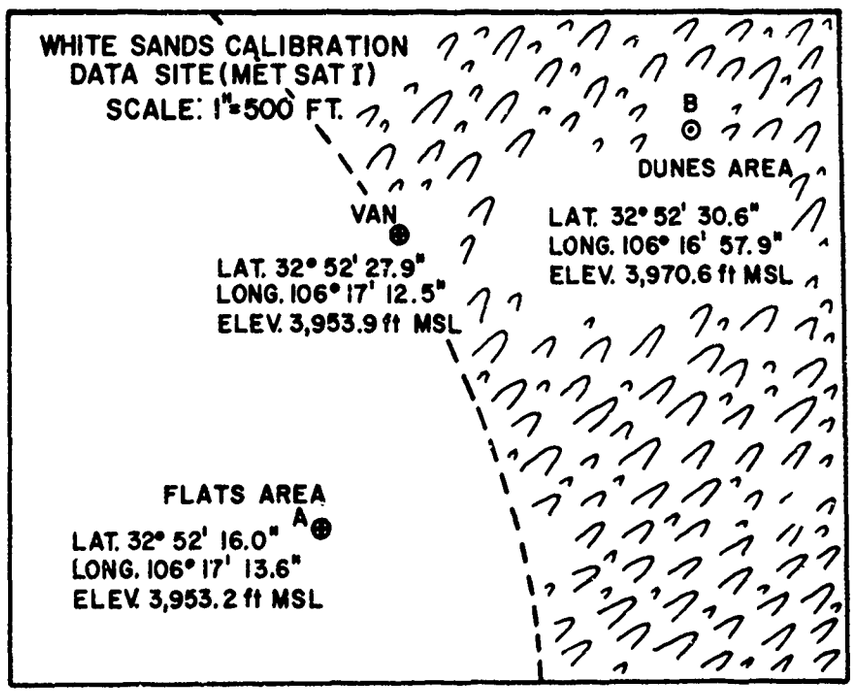

Fig. 2. Detail map of the METSAT I site showing the actual data collection points in relation to the terrain features.

instrumented location data could be collected from both the flat and the dunes areas. Locations A and B are the flats and dunes areas, respectively. Each of these locations contains an instrument mast from which outgoing spectral reflectance and surface radiant temperature data are collected. Soil temperature and soil moisture data are also acquired at each of these points. At the instrumented van, dynamic, thermodynamic, and incoming spectral radiation data are collected. Figure 2 also shows geodetic coordinates of the White Sands site.

LAVA BED SITE (METSAT II)

The lava bed site is located within the narrow portion of the lava bed which is approximately 40 miles (64-km) north of the METSAT I site. Spectral reflectance tests conducted via helicopter verified that the site was, generally, representative of the lava flow before it was qualified as a permanent site. The site is equipped with a complete set of instruments similar to those at METSAT I. Geodetic coordinates of the lava site are: latitude 33° 28' 42.8" N, longitude 106° 09' 17.3" W, and elevation 4,519.4 feet (1400 m) MSL.

WATER SITE (METSAT III)

The water site is located on the Elephant Butte Reservoir at latitude 33° 13' 13.78" N, longitude 107° 10' 48.89" W, and nominal elevation 4300 feet (1310 m) MSL.

DESERT SITE (METSAT IV)

The desert site is located approximately 7 miles (11.2 km) east southeast of the main post area of White Sands Missile Range at latitude 32° 21' 11.0" N, longitude 106° 22' 59.24" W, and an elevation of 3991 feet (1220 m) MSL. The area is typified by small sandy dunes with shrubs and desert vegetation.

INSTRUMENTATION

Since instrumentation systems installed at each site are as identical as possible, interpretative differences or implications are minimal. Each instrumentation system used on the calibration sites is described below to give the user a clearer understanding of the data. The order of discussion follows the listing on the data publication form (Figure 3) and is presented in two categories: meteorological (surface and upper air) and radiative.

METEOROLOGICAL

Surface

T_a - Air Temperature. These data are collected by a mercury-in-glass thermometer. Temperature is recorded on the standard form in degrees Celsius.

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION _____

DATE OF OBSERVATION _____ TIME _____(Local) _____(GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a T_{dp} W_d, W_s P C M T_{a25} T_{dp25}					
I I_a I_d N N_a N_b N_c N_d i i_a i_d					
$T_{g/w}$ T_s Ψ ε El, Az					
REMARKS:					

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
[Units: Milliwatts per square centimeter (mW cm^{-2})]

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

Figure 3. Format for Meteorological Satellite Calibration Data--1977.

T_{dp} - Dew Point. Dew point is evaluated from measurements of dry bulb and wet bulb temperatures.
Thermal data, T_a and T_{dp}, are collected approximately 2 m above ground.

W_dW_s - Wind Direction and Speed. Wind direction and speed data are collected with a USWB F-420C airport wind indicator located 4 m above the surface. The direction is recorded in degrees and the speed in meters per second.

P - Pressure. Atmospheric pressure is determined by means of an H. E. Sostman and Company pressure transducer. The electrical output is observed on a digital voltmeter. The voltage value is modified by certain instrument constants provided by the manufacturer, and the resulting station pressure is entered on the data form in inches Hg.

C-Sky Condition (Sky Cover). This parameter is entered in typical meteorological format, and all cloud heights and amounts are visually estimated by qualified meteorological observers. The entry is made with conventional meteorological symbols.

M - Precipitation. The entry on the data form is "yes" or "no" to indicate whether precipitation has fallen on the site within the preceding 48 hours. This information is drawn from an examination of records from manned observation stations nearby.

T_{a25} and T_{dp25}. Air temperature and dew point of air sample drawn from the 25 m level. Data acquired at METSAT II only.

Upper Air

Rocketsonde Data. The upper atmospheric data acquired by rocketsondes which are included with the ground level are from the Meteorological Rocket Network Sounding Station at WSMR, NM. The rocket sounding is scheduled as nearly coincident with the satellite overpass as is compatible with the WSMR operational schedule. Generally, the time of rocket sounding will be within 1 hour. The coordinates of the rocket station are latitude 32° 29' 07.78" N, longitude 106° 24' 49.14" W. The launch direction of the rocketsondes is to the NNW and deployment at altitudes of the rocketsonde instrumentation is generally in the vicinity of latitude 32° 45' N, longitude 106° 31' W.

Balloonsonde Data. The upper air data acquired by balloonsonde, which is included with the calibration data, are generally provided from the ASL Holloman Upper Air Section, Meteorological Station (within WSMR) and located at latitude 32° 53' N, longitude 106° 05' W.

RADIATIVE

I - Incoming Global Radiant Flux between 0.285 and 2.800 microns. An Eppley Precision Spectral Pyranometer (PSP) is used to collect these data. The data are collected in the form of millivoltage readings, which are then converted via manufacturer-supplied instrument constants to milliwatts per square centimeter (mW cm^{-2}). An Eppley White Glass Filter Dome (WG285) is used for this spectral band.

I_a - Incoming Global Radiant Flux between 0.500 and 2.800 microns. This measurement is identical to that of I, except that a yellow filter dome (GG495) is used on the PSP to permit only that radiation in the specified bandwidth.

I_d - Incoming Global Radiant Flux between 0.700 and 2.800 microns. A PSP with a red (RG695) filter dome is used. Data reduction and processing are identical to those of I and I_a.

N - Normal Radiant Flux between 0.285 and 4.000 microns. An Eppley Model 15 pyrheliometer with a fused silica filter is used to measure these data. After direct manual observation of millivoltage output plus the application of the instrument and conversion constants, the flux is recorded in milliwatts per square centimeter (mW cm^{-2}).

N_a - Normal Radiant Flux between 0.500 and 4.000 microns. Data are collected with a yellow (GG495) filter on the pyrheliometer.

N_b - Normal Radiant Flux between 0.530 and 4.000 microns. Data are collected with an OG530 filter on the pyrheliometer.

N_c - Normal Radiant Flux between 0.630 and 4.000 microns. Filter RG630 is used.

N_d - Normal Radiant Flux between 0.700 and 4.000 microns. Filter RG695 is used.

N_a, N_b, N_c, and N_d are collected as per N.

i - Outgoing Radiant Flux between 0.285 and 2.800 microns.

i_a - Outgoing Radiant Flux between 0.500 and 2.800 microns.

i_d - Outgoing Radiant Flux between 0.700 and 2.800 microns. Outgoing flux data are collected with a set of Eppley PSP identical to those used to collect the incoming flux data. These instruments are mounted similarly to those used for I data, but are inverted and tower-mounted approximately 4 m above the ground surface.

The above set of radiative data includes flux values for 10 directly measured bands, each of which includes a portion of the visible and infrared bands (Figure 4). Arithmetic combinations of these values render additional spectral discriminations within several narrower bands. Additional data that are pertinent to radiation analysis are as follows:

$T_{g/w}$ - Soil/Water Temperature. This temperature is collected with a copper constantan thermocouple which is located from 1 to 4 mm below the ground or water surface. Its voltage value is observed on a meter and manually converted to temperature via references to the manufacturer's calibration chart. It is recorded on the standard data form in degrees Celsius.

T_s - Surface Temperature. The apparent radiant surface temperature is determined by a precision radiation thermometer [Barnes PRT-5 (9.5 - 11.5 micron)]. The temperatures are read directly from the instrument meters and recorded in degrees Celsius.

ψ - Soil Moisture. This parameter is currently determined gravimetrically for the White Sands sites. It is recorded in percent moisture of a soil sample taken from the upper 1 cm of the surface.

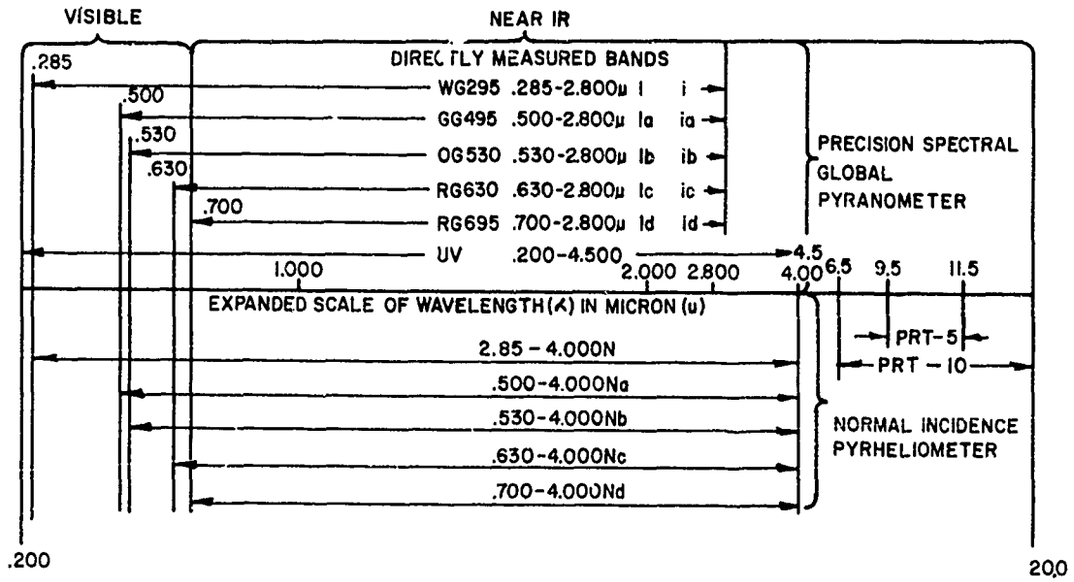

FIG. 4 MEASURED RADIATION BANDS REPORTED ON OBSERVATION FORM.

ε - Emissivity. This parameter is not routinely measured at each site. Measurements are being made of the entire area. The measurements technique involves the change in apparent radiant temperature of the test surface when the background radiation is artificially altered. When the emissivity map is completed, it will be published with the annual data report.

Special Instrumentation Data. Occasionally special requirements may exist for data from other sites, altitudes, or for other parameters. These data, when available, are included on the standard form and are individually identified.

Instrumentation Calibration. All primary instrumentation (sensors) are calibrated semiannually, and all secondary (sensors, recorders, meters, etc.) annually. An additional complete set of instruments is available for rotational service, and all instruments undergo additional calibration service if relocated and/or modified, e.g., filters changed.

DATA PROCESSING

Data Form. When the data are collected and reduced as described above, they are entered on a data sheet which includes certain radiosonde and rocketsonde data collected from nearby sites on WSMR. Radiosonde* and rocketsonde** data are presented in accordance with national standards. The current format for ground truth calibration data consists of the satellite identifier and a list of the data parameters and their units and the site locations.

Data Dissemination. Two primary distributions are used. Mailings are made weekly to those users who have requested to be placed on the mailing list. Special observations are made occasionally and the data are relayed via telephone or special mailings.

Data Publications. All data are cataloged for assembly and binding on an annual basis. A collection of a year's data is published in the form of an ERADCOM Technical Data Report. Special data collections will be assembled and published as special data reports, or included in the annual report, as appropriate.

*Federal Meteorological Handbook No. 4, Radiosonde Code, January 1972

**Federal Meteorological Handbook No. 10, Rocketsonde Observations, July 1975

Changes and Corrections. This report represents the fourth year of routine data collection under this program, and some changes in techniques and processes have been made. Where significant, these changes have been brought to the attention of the data users. The weekly observational schedule is made to coincide with specific satellite schedules. An observation coincident with NOAA series satellites will continue to be made on a weekly basis, and observations coincident with other satellites, i.e., NIMBUS, DMSP, as required.

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

DATE OF OBSERVATION 4 January 1977 TIME 0906 (Local) 1606 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	5.7	5.7	5.8		9.9
T_{dp}	0.3	0.3	-8.1		2.4
W_d, W_s	060 2.7	060 2.7	050 3.6		315 3.1
P	25.90	25.90	25.28		25.93
C	80 ◐ 150 ◐ 210-◐	80 ○ 150 ◐ 210-◐	230-◐		○
M	no	no	no		no
T_{a25}			8.1		
T_{dp25}			-7.0		
I	36.24	36.24	31.71		33.95
I_a	25.94	25.94	27.01		26.98
I_d	16.74	16.74	17.53		20.45
N	89.14	89.14	85.64		84.55
N_a	71.14	71.14	69.18		64.88
N_b	66.79	66.79	64.97		59.77
N_c	55.17	55.17	54.82		52.11
N_d	48.91	48.91	47.29		44.70
i	16.46	20.48	4.14		6.76
i_a	14.71	17.38	3.72		6.53
i_d	9.65	10.81	3.13		5.08
$T_{g/w}$	5.0	7.0	5.5		6.7
T_s	11.0	10.0	6.5		10.2
Ψ	21.6	20.2			0.9
ε					
El, Az	19.1 135.5	19.1 135.5	18.8 135.7		19.4 135.3

REMARKS: METSAT I temperatures at 25 meter height will not be measured until further notice. METSAT III - not operated this date. METSAT IV - commenced operations this date.
Units of measurement for Radiant Flux are reported in milliwatts per square centimeter effective this date.

LEGEND

T_a = Air Temperature (^oC); T_{dp} = Dew Point Temperature (^oC); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (^oC), Dew Point Temperature (^oC) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (^oC); T_s = Surface Temperature (^oC); Ψ = Soil Moisture (%)
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 4 January 1977

RADIOSONDE: (0800 MST) TTAA 54154 72HMS 99871 01456 00000 00112 ///// /////
85146 05058 11003 70300 07107 28541 50560 17158 27089 40724 25745 35088 30821
38162 25052 485// 20195 599// 15375 597// 10622 671// 88178 617// 77357 26121
41929

TTBB 5415/ 72HMS 00871 01456 11850 05058 22832 03662 33769 01911 44748 02731
55710 06502 66700 07107 77680 02369 88670 02368 99556 14167 11489 17756 22406
26721 33400 25745 44391 24560 55348 28764 66217 565// 77200 599// 88178 617//
99172 611// 11168 571// 22124 661// 33118 645// 44107 675// 55100 671// 51515
10186 11691 05743 11687 02557

TTCC 54151 72HMS 70837 661// ///// 50046 589// ///// 30370 531// 24011 20633
517// 29033 10090 441// 23047 88999 77999

TTDD 54151 72HMS 11896 731// 22838 645// 33700 661// 44464 567// 55392 607//
66370 563/ 77286 505// 88256 529// 99241 503// 11200 517// 22156 491// 33124
50911 44100 441// 55088 453//

ROCKETSONDE: (0930 MST) RRXX 04163 72269 81010 11101 25550 23010 26550 21005
30551 22011 32547 25019 33546 26016 35537 30015 36529 32018 32521 32019 39523
36018 40523 02019 41524 06014 42526 07013 44514 09026 45517 12026 46515 13019
50512 08023 51510 07023 53514 07028 55520 09023 56518 09027 57521 11030 58526
12017 59530 05006 60/// 01026 61/// 01050 JJJ

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 5 January 1977 TIME 0911 (Local) 1611 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	3.7	3.7	5.2		6.8
T_{dp}	-2.7	-2.7	-6.2		-4.1
W_d, W_s	CALM	CALM	CALM		CALM
P	25.88	25.88	25.24		26.01
C	E40 ⊕	E40 ⊕	E30 ⊕		E100 ◐ 180 ⊕
T_M	no	no	no		no
T_{a25}			6.8		
T_{dp25}			-4.0		
I	8.82	8.82	4.12		7.18
I_a	6.54	6.54	3.56		6.07
I_d	4.24	4.24	2.01		3.66
N					
N_a					
N_b					
N_c					
N_d					
i	3.47	4.55	0.71		1.56
i_a	3.09	3.78	0.60		1.45
i_d	1.79	2.12	0.51		1.09
$T_{g/w}$	missing	missing	4.8		6.5
T_s	7.5	6.5	5.0		7.2
Ψ	22.0	19.6			1.0
ε					
El, Az	19.9 136.3	19.9 136.3	19.5 136.5		20.2 136.1

REMARKS: METSAT III - not operated this date.
METSAT I, II IV - Normal Incoming measurements not made due to overcast sky conditions.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 5 January 1977 TIME 1105 (Local) 1805 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	3.6	3.6	5.3		8.4
T_{dp}	-2.0	-2.0	-4.3		-5.6
W_d, W_s	030 2.7	030 2.7	010 5.4		110 1.3
P	25.86	25.86	25.22		25.93
C	E40 ⊕	E40 ⊕	E30 ⊕		E120 ⊕
M	NO	NO	NO		NO
T_{a25}			8.1		
T_{dp25}			-3.4		
I	11.87	11.87	8.72		14.15
I_a	9.11	9.11	6.98		11.48
I_d	5.72	5.72	4.02		6.69
N					
N_a					
N_b					
N_c					
N_d					
i	4.70	6.37	1.18		2.81
i_a	4.08	5.16	1.01		2.54
i_d	2.39	2.86	0.91		1.81
$T_{g/w}$	4.7	4.0	5.4		8.9
T_s	7.0	6.0	6.5		8.2
Ψ	22.0	19.6			1.0
ε					
El, Az	32.3 162.1	32.3 162.1	31.7 162.4		32.7 161.9

REMARKS: METSAT I, II, IV - Normal Incoming measurements not made due to overcast sky conditions.
METSAT III not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 5 January 1977 TIME 1200 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	4.9	4.9	6.0		8.4
T_{dp}	-1.9	-1.9	-3.3		-6.9
W_d, W_s	020 2.7	020 2.7	010 3.1		090 3.1
P	25.83	25.83	25.21		25.91
C	E40 ⊕	E40 ⊕	E25 ⊕		E70 ⦶120⊕
M	NO	NO	NO		NO
T_{a25}			8.0		
T_{dp25}			-2.0		
I	15.65	15.65	10.92		18.06
I_a	11.68	11.68	8.70		14.63
I_d	7.10	7.10	4.98		8.59
N					
N_a					
N_b					
N_c					
N_d					
i	6.83	9.22	1.30		3.75
i_a	5.93	7.56	1.11		3.14
i_d	3.58	4.24	0.91		2.30
$T_{g/w}$	5.8	5.3	6.3		11.7
T_s	10.5	9.5	7.5		12.0
Ψ	22.0	19.6			1.0
ε					
El, Az	34.4 177.1	34.4 177.1	33.8 177.3		34.9 177.0

REMARKS: METSAT III - not operated this date.
METSAT I, II, IV - Normal Incoming measurements not made due to overcast sky conditions.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 5 January 1977

RADIOSONDE: (0800 MST) TTAA 55153 72HMS 99873 02051 00000 00143 ///// /////
85174 06462 16506 70304 02558 21020 50563 18701 23078 40726 25901 24103 30931
37157 24125 25054 497// 20197 591// 15376 599// 10625 621// 88169 621// /////
77280 24140 407//

TTBB 5515/ 72HMS 00873 02051 11862 06663 22820 03860 33803 05461 44594 12713
55585 11701 66473 20301 77461 19301 88404 24501 99400 25901 11383 22701 22377
26520 33323 33545 44263 45153 55250 497// 66200 591// 77169 621// 88159 599//
99150 599// 11132 641// 22115 641// 33107 667// 44104 621// 55100 621// 51515
10190 11700 02558 11567 11301 11301 SUPER 40-40 26-25

TTCC 55151 72HMS 70844 683// ///// 50053 583// ///// 30380 525// 23031 20640
567// 18017 10091 487// 05010 88999 77999

TTDD 5515/ 72HMS 11882 605// 22700 683// 33650 589// 44535 621// 55446 545//
66344 563// 77266 519// 88200 567// 99143 515// 22100 487// 33091 487//

ROCKETSONDE: (1010 MST) RRXX 05171 72269 81010 11101 25553 14003 27555 12011
30549 12007 31551 14005 32550 18002 35543 34012 36533 36019 37529 01020 38529
03015 40528 04021 42526 10022 43527 10020 44526 10020 45516 11013 46510 07006
47514 01010 50513 05007 51512 06008 55522 20009 56522 16005 57523 14002 60532
30019 61529 30036 64536 31037 65539 32030 66547 34030 67/// 35035 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 6 January 1977 TIME 1317 (Local) 2017 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	8.0	8.0	8.4		10.1
T_{dp}	-2.3	-2.3	-3.5		-1.6
W_d	360	360	360		120
W_s	1.3	1.3	1.8		3.1
P	25.98	25.98	25.40		26.14
C	60 (I) 200 (I)	60 (I) 200 (I)	70 (I) 210- (II)		50 (I) 150- (II)
M	NO	NO	NO		NO
T_{a25}			10.9		
T_{dp25}			-2.7		
I	60.71	60.71	59.20		61.15
I_a	46.52	46.52	52.95		52.98
I_d	30.19	30.19	33.24		31.57
N	94.60	94.60	97.72		99.36
N_a	72.99	72.99	78.81		75.86
N_b	68.07	68.07	74.43		69.22
N_c	55.82	55.82	61.82		58.75
N_d	49.22	49.22	54.12		49.55
i	27.88	38.79	8.88		12.49
i_a	24.35	32.49	7.44		11.00
i_d	16.02	20.23	6.47		8.22
$T_{g/w}$	14.5	18.5	15.0		10.0
T_s	15.0	15.0	10.5		17.0
Ψ	21.8	19.4			10.9
ε					
El, Az	32.3 198.2	32.3 198.2	31.7 198.2		32.8 198.2

REMARKS: METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 6 January 1977

RADIOSONDE: (0800 MST) TTAA 56154 72HMS 99878 05139 00000 00197 ///// /////
85515 01402 36009 70050 09925 29525 50559 19566 26582 40724 24165 26126 30927
405// 25049 479// 20193 587// 15373 625// 10622 629// 88150 625// ///// 77386
26130 41559

TTBB 5615/ 72HMS 00878 05139 11868 00634 22863 01417 33856 02026 44804 01356
55700 09925 66670 11519 77661 11364 88566 16166 99525 20365 11433 21167 22400
24165 33366 28765 44271 467// 55230 501// 66200 587// 77171 599// 88166 585//
99150 625// 11129 641// 22120 625// 33107 647// 44105 621// 55100 629// 51515
10186 11456 21167 11322 36763

TTCC 56151 72HMS 70761 609// ///// 50055 555// ///// 30382 537// ///// 20643
551// 06013 10088 503// 22013 07321 495// ///// 88999 77999

TTDD 5615/ 72HMS 11760 589// 22625 637// 33562 557// 44447 537// 55367 555//
66274 521// 77181 563// 88100 503// 99070 495//

ROCKETSONDE: (1200 MST) RRXX 06190 72269 81010 11101 25554 11006 27557 10011
30552 07013 31549 08015 32552 10013 33551 08006 35533 04013 36527 05011 40526
07015 43523 13017 45515 06011 46510 05017 47506 08014 48502 12015 49000 14014
50504 17008 51508 32001 55513 10008 56516 11005 58526 14016 59531 13008 60///
34010 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 13 January 1977 TIME 1248 (Local) 1948 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	4.8	4.8	9.0		
T_{dp}	1.1	1.1	-2.5		
W_d, W_s	110 3.6	110 3.6	CALM		
P	25.89	25.89	25.26		
C	○	○	70 ◐		
M	YES	YES	YES		
T_{a25}			10.3		
T_{dp25}			-3.0		
I	64.81	64.81	61.30		
I_a	49.95	49.95	50.99		
I_d	32.10	32.10	32.85		
N	93.88	93.88	96.15		
N_a	71.43	71.43	75.83		
N_b	66.87	66.87	71.10		
N_c	54.74	54.74	59.02		
N_d	48.62	48.62	50.96		
i	30.35	39.59	6.63		
i_a	26.58	33.25	5.63		
i_d	16.92	18.22	4.55		
$T_{g/w}$	12.7	13.1	14.7		
T_s	15.3	15.0	24.5		
Ψ	22.3	21.8			
ε					
El, Az	34.9 189.8	34.9 189.8	34.3 189.9		

REMARKS: METSAT III, IV - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%)
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 13 January 1977

RADIOSONDE: (0800 MST) TTAA 63151 72HMS 99874 07710 14504 00178 ///// /////
85479 00401 01505 70032 05060 30023 50559 22373 24549 40189 34567 24055 30160
437// 24043 25037 505// 25039 20181 547// 25568 15368 50311 24086 10626 625//
26027 88220 547// 25568 77152 24091 43253

TTBB 63151 72HMS 00874 07710 11864 05301 22850 00401 33826 01858 44795 02663
55713 04362 66673 07358 77661 07976 88625 10734 99614 12339 11605 12960 22582
15157 33565 16175 44400 34567 55300 437// 66250 505// 77222 529// 88212 529//
99200 547// 11178 515// 22174 523// 33158 501// 44122 549// 55100 625// 51515
SUPER 63-61

TTCC 65152 72HMS 70841 648// 26514 50048 599// 26519 30374 535// 24502 20637
499// 30528 88999 77999

TTDD 6515/ 72HMS 11853 703// 22780 695// 33666 613// 44562 653// 55416 565//
66412 525// 77338 547// 88168 485//

ROCKETSONDE: (0945 MST) RRXX 13165 72269 81010 11101 25551 16003 30549 16010
33544 17011 35540 23001 37527 32005 40522 35011 42519 36006 43512 20003 45505
26014 46000 28022 47505 28018 48510 28015 50504 31012 52512 02008 55521 04007
58531 13005 60533 09015 61533 10014 62/// 13013 63/// 22004 65/// 31006 /////
///// JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

DATE OF OBSERVATION 18 January 1977 TIME 0903 (Local) 1603 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	-1.4	-1.4	5.0		5.2
T_{dp}	-5.2	-5.2	1.0		-2.6
W_d, W_s	360 2.2	360 2.2	030 1.3		220 1.3
P	26.37	26.37	25.72		26.35
C	210- ⊕	210- ⊕	E220 ◐		200- ⊕
M	NO	NO	NO		NO
T_{a25}			7.5		
T_{dp25}			-1.2		
I	32.14	32.14	31.23		35.69
I_a	23.26	23.26	26.22		27.95
I_d	15.36	15.36	16.86		18.56
N	39.38	39.38	69.35		39.21
N_a	31.69	31.69	56.57		29.25
N_b	29.29	29.29	53.59		26.44
N_c	23.65	23.65	44.31		21.07
N_d	21.37	21.37	39.75		15.71
i	14.45	18.43	3.55		8.22
i_a	12.61	15.99	3.12		6.29
i_d	8.36	8.90	2.53		4.23
$T_{g/w}$	2.9	2.3	3.8		5.5
T_s	3.0	2.0	1.0		12.0
Ψ	19.6	19.2			3.3
ε					
El, Az	19.5 132.5	19.5 132.5	19.1 132.7		19.8 132.3

REMARKS:

METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

DATE OF OBSERVATION 18 January 1977 TIME 0903 (Local) 1603 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	-1.4	-1.4	5.0		5.2
T_{dp}	-5.2	-5.2	1.0		-2.6
W_d, W_s	360 2.2	360 2.2	030 1.3		220 1.3
P	26.37	26.37	25.72		26.35
C	210- ⊕	210- ⊕	E220 ⦶		200- ⊕
M	NO	NO	NO		NO
T_{a25}			7.5		
T_{dp25}			-1.2		
I	32.14	32.14	31.23		35.69
I_a	23.26	23.26	26.22		27.95
I_d	15.36	15.36	16.86		18.56
N	39.38	39.38	69.35		39.21
N_a	31.69	31.69	56.57		29.25
N_b	29.29	29.29	53.59		26.44
N_c	23.65	23.65	44.31		21.07
N_d	21.37	21.37	39.75		15.71
i	14.45	18.43	3.55		8.22
i_a	12.61	15.99	3.12		6.29
i_d	8.36	8.90	2.53		4.23
$T_{g/w}$	2.9	2.3	3.8		5.5
T_s	3.0	2.0	1.0		12.0
Ψ	19.6	19.2			3.3
ε					
El, Az	19.5 132.5	19.5 132.5	19.1 132.7		19.8 132.3

REMARKS: METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 18 January 1977 TIME 0923 (Local) 1623 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	-1.4	-1.4	5.0		5.6
T_{dp}	-5.2	-5.2	-4.8		-3.0
W_d, W_s	060 0.4	060 0.4	CALM		220 2.2
P	26.37	26.37	25.71		26.34
C	210-	210-	E220		200-
M	NO	NO	NO		NO
T_{a25}			7.9		
T_{dp25}			-1.4		
I	39.92	29.92	38.70		40.37
I_a	28.62	28.62	32.41		31.74
I_d	19.49	19.49	21.17		22.47
N	51.26	51.26	81.96		54.92
N_a	42.02	42.02	65.15		41.00
N_b	39.26	39.26	60.77		31.16
N_c	31.81	31.81	50.79		30.14
N_d	28.33	28.33	43.26		26.05
i	17.58	23.32	3.69		9.68
i_a	15.45	20.03	3.02		7.26
i_d	10.35	11.12	2.53		5.08
$T_{g/w}$	2.9	2.3	5.6		5.8
T_s	8.0	2.0	1.0		12.0
Ψ	19.6	19.2			3.3
ε					
El, Az	22.5 136.3	22.5 136.3	22.1 136.6		22.8 136.1

REMARKS: METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW \cdot cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%)
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 18 January 1977 TIME 1100 (Local) 1800 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	2.9	2.9	8.9		10.2
T_{dp}	-3.7	-3.7	-6.4		-1.3
W_d, W_s	290 0.4	290 0.4	220 2.7		120 2.7
P	26.37	26.37	25.72		26.33
C	210- (⊕)	210- (⊕)	E220 (⊕)		200- (⊕)
M	NO	NO	NO		NO
T_{a25}			10.3		
T_{dp25}			-4.0		
I	60.08	60.08	53.93		70.08
I_a	45.87	45.87	41.14		59.48
I_d	29.66	29.66	27.49		37.25
N	73.71	73.71	81.09		74.46
N_a	53.42	53.42	63.40		54.66
N_b	49.82	49.82	60.42		50.83
N_c	42.02	42.02	50.44		41.38
N_d	36.49	36.49	43.43		35.76
i	28.22	37.43	5.09		13.84
i_a	24.35	31.23	4.32		12.09
i_d	15.62	17.06	3.24		9.79
$T_{g/w}$	16.1	14.7	10.3		10.5
T_s	14.5	11.0	19.0		19.0
Ψ	19.6	19.2			3.3
ε					
El, Az	33.5 158.8	33.5 158.8	33.0 159.1		33.9 158.6

REMARKS: MET SAT III - not operated this date.

LEGEND

T_a - Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%)
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 18 January 1977

RADIOSONDE: (0800 MST) TTAA 68151 72HMS 99887 00759 09002 00298 ///// /////
85601 02460 16521 70174 01064 32010 50583 10172 33535 40750 25168 32541 30953
397// 31046 25075 499// 29546 20218 591// 30096 15392 739// 29578 10633 733//
21059 88146 747// 29577 77168 30107 41134

TTBB 6815/ 72HMS 00887 00759 11875 00160 22864 02661 33850 02460 44842 02060
55826 05262 66785 02663 77752 03064 88712 01064 99700 01064 11692 01265 22668
00964 33658 00665 44624 00969 55536 07371 66509 08772 77500 10172 88400 25168
99353 32367 11340 331// 22300 397// 33250 499// 44211 559// 55146 747// 66144
709// 77136 695// 88133 711// 99130 11107 699// 22100 733//

TTCC 68151 72HMS 70841 735// 31539 50039 709// 32542 30349 591// 29547 20610
495// 28048 10073 439// 25028 88999 77999

TTDD 6815/ 72HMS 11946 759// 22766 729// 33700 735// 44576 729// 55500 709//
66402 675// 77300 591// 88254 529// 99214 525// 11200 495// 22141 431// 33100
439// 44074 439// 51515 10190 07313

ROCKETSONDE: (0945 MST) RRXX 18165 72265 81010 11101 25555 28023 27545 27024
28546 26024 30542 23016 32544 24019 33538 26010 35534 35009 37533 05006 38532
06010 40517 06012 42506 06022 43505 05030 45505 04033 47504 04048 48508 03055
50505 03042 51504 02044 52507 02044 55518 02021 56522 01037 57526 01041 58530
01029 59534 36022 60539 35029 61541 35036 62541 34045 63/// 34048 64/// 33035
65/// 29038 66/// 29058 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 19 January 1977 TIME 1200 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	8.3	8.3	11.6	11.0	10.3
T_{dp}	-1.5	-1.5	-4.2	0.4	-1.8
W_d, W_s	240 3.1	240 3.1	010 0.4	210 0.9	CALM
P	26.11	26.11	25.48	25.77	26.09
C	E220 ⊕	E220 ⊕	E210 ⊕	220- ⊕	220- ⊕
M	No	No	No	No	No
T_{a25}			9.8		
T_{dp25}			1.3		
I	48.74	48.74	34.87	59.22	59.41
I_a	36.01	36.01	27.80	45.07	46.48
I_d	26.59	26.59	17.91	32.10	33.20
N	34.81	34.81	28.02	37.09	20.18
N_a	29.77	29.77	21.02	28.93	17.11
N_b	20.29	20.29	19.26	25.05	15.33
N_c	16.57	16.57	17.51	16.31	12.77
N_d	15.61	15.61	12.26	13.20	12.90
i	29.45	30.60	2.72	3.20	10.82
i_a	23.86	26.32	2.31	2.88	8.83
i_d	14.63	15.06	1.92	1.41	6.77
$T_{g/w}$	15.0	13.4	13.5	5.5	12.3
T_s	9.0	10.0	17.0	5.9	12.0
Ψ	19.3	18.9			1.9
ϵ					
El, Az	36.5 175.5	36.5 175.5	35.9 175.7	36.1 174.5	37.0 175.3

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ϵ = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 19 January 1977 TIME 1238 (Local) 1938 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	8.3	8.3	12.8	11.0	11.5
T_{dp}	-1.5	-1.5	-5.5	0.6	-2.9
W_d, W_s	240 5.8	240 5.8	010 0.4	210 0.4	CALM
P	26.10	26.10	25.48	25.74	26.06
C	E220 ⊕	E220 ⊕	E210 ⊕	E220 ⊕	220-⦶
M	No	No	No	No	No
T_{a25}			9.5		
T_{dp25}			-3.3		
I	54.94	54.94	40.23	48.88	81.39
I_a	44.48	44.48	31.49	37.31	69.34
I_d	28.92	28.92	20.21	26.44	45.95
N	9.12	9.12	9.81	27.18	87.36
N_a	6.64	6.64	8.06	21.94	65.26
N_b	5.52	5.52	7.38	18.45	59.90
N_c	3.36	3.36	6.65	14.95	48.91
N_d	2.52	2.52	5.33	10.10	39.72
i	25.76	32.42	3.43	2.72	16.02
i_a	22.50	27.33	3.12	2.40	13.06
i_d	14.63	16.08	2.33	1.31	10.16
$T_{g/w}$	15.0	13.4	15.0	5.7	15.5
T_s	9.0	10.0	17.0	6.0	16.0
Ψ	19.3	18.9			1.9
ε					
El, Az	36.3 186.5	36.3 186.5	35.7 186.6	36.1 185.5	36.9 186.5

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 19 January 1977

RADIOSONDE: (0800 MST) TTAA 69151 72HMS 99880 03161 00000 00237 ///// /////
85541 05263 25008 70133 06074 34015 50580 12572 30011 40746 24569 29030 30949
407// 28537 25071 497// 28570 20213 617// 29077 15385 739// 28567 10625 721//
29545 88152 747// 29068 77309 28586 43915

TTBB 6915/ 72HMS 00880 03161 11870 00358 22864 03861 33850 05263 44835 04665
55800 07872 66676 05475 77643 02476 88500 12572 99400 24569 11352 31768 22302
411// 33250 497// 44200 617// 55162 737// 66152 747// 77135 681// 88119 715//
99100 721//

TTCC 69151 72HMS 70836 773// 30534 50033 721// 32032 30341 639// 30535 20598
507// 26543 10061 453// 23066 88999 77999

TTDD 6915/ 72HMS 11700 773// 22606 747// 33572 689// 44500 721// 55478 699//
66426 711// 77392 655// 88300 639// 99270 655// 11200 507// 22150 543// 33137
409// 44100 453// 55086 463// 51515 10190 07297

ROCKETSONDE: (1315 MST) RRXX 19202 72269 81010 63101 25554 28025 28544 25017
30540 21023 31543 22021 33539 31005 35538 11003 37529 08005 38525 11008 40506
13007 43501 04016 45003 03015 46002 02014 47501 02010 48502 01006 50503 29009
51506 30018 53514 28021 55521 30015 56522 30011 58522 ///// 60528 ///// 61533
///// JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

DATE OF OBSERVATION 21 January 1977 TIME 0904 (Local) 1604 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	5.4	5.4	7.2		
T_{dp}	-2.7	-2.7	-5.6		
W_d, W_s	310 2.7	310 2.7	360 6.3		
P	26.13	26.13	25.52		
C	50⦶ E140⦷ 230⊕	50⦶ E140⦷ 230⊕	E150⦷ 220⦷		
T_M	NO	NO	NO		
T_{a25}			8.9		
T_{dp25}			-0.7		
I	24.89	24.89	19.25		
I_a	18.65	18.65	14.76		
I_d	11.76	11.76	9.29		
N					
N_a					
N_b					
N_c					
N_d					
i	10.75	14.68	1.78		
i_a	9.27	12.22	1.61		
i_d	5.87	7.02	1.21		
$T_{g/w}$	5.0	5.3	8.0		
T_s	8.9	8.0	8.0		
Ψ	21.2	20.6			
ε					
El, Az	19.9 132.0	19.9 132.0	19.6 132.3		

REMARKS:
METSAT III, IV - not operated this date.
METSAT I, II - Normal Incoming measurements not made due to overcast sky conditions.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 21 January 1977

RADIOSONDE: (0800 MST) TTAA 71151 72HMS 99881 00256 00000 00216 ///// /////
85550 07463 09005 70121 01659 18508 50575 13561 23517 40742 25728 22035 30944
423// 23540 25064 537// 23058 20205 651// 23576 15381 627// 24541 10627 693//
25543 88200 651// 23576 77202 23578 41528

TTBB 7115/ 72HMS 00881 00256 11871 04259 22862 04660 33850 07463 44829 07263
55788 04662 66746 04466 77707 02464 88700 01659 99688 00644 11659 02505 22601
07301 33587 05960 44559 08746 55543 10150 66533 10961 77520 12159 88518 12146
99517 12155 11500 13561 22487 14756 33480 15759 44458 18158 55427 22540 66407
24930 77400 25728 88370 30516 99346 33159 11311 39961 22300 423// 33250 537//
44200 651// 55173 659// 66161 623// 77150 627// 88146 617// 99129 651// 11100
693//

TTCC 71152 72HMS 70840 673// 34029 50041 695// 27531 30350 645// 29027 20608
519// 25543 88999 77999

TTDD 7115/ 72HMS 11888 711// 22700 673// 33500 695// 44300 645// 55258 547//
66218 539// 77200 519// 88162 485// 99147 439// 11124 437// 51515 10190 10070

ROCKETSONDE: (0900 MST) RRXX 21160 72269 81010 11101 25559 26020 28545 25019
30544 21016 31544 21017 32542 23014 33536 31005 34541 02007 35535 02005 36533
06004 40513 30004 41512 32002 42514 31003 45507 30023 50510 28038 54518 28025
55521 28029 60533 26034 61537 25037 62541 25050 63545 26061 65553 27047 66///
26059 67/// 26085 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 25 January 1977 TIME 1130 (Local) 1830 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	5.8	5.8	10.2		10.1
T_{dp}	-0.3	-0.3	-0.8		-1.2
W_d, W_s	CALM	CALM	230 1.3		CALM
P	25.94	25.94	25.42		26.06
C	210-⊕	210-⊕	250-◐		250-◐
M	NO	NO	NO		NO
T_{a25}			10.5		
T_{dp25}			-5.3		
I	67.12	67.12	62.94		72.91
I_a	50.91	50.91	55.34		61.43
I_d	33.58	33.58	35.25		37.88
N	91.84	91.84	97.20		96.81
N_a	70.23	70.23	76.18		72.54
N_b	65.55	65.55	70.40		66.92
N_c	53.90	53.90	59.02		55.04
N_d	47.54	47.54	51.66		48.15
i	28.22	35.49	7.81		13.94
i_a	26.70	29.85	6.03		12.33
i_d	15.92	17.33	4.95		9.31
$T_{g/w}$	19.0	12.5	21.0		20.0
T_s	17.0	12.0	23.0		15.0
Ψ	20.5	19.7			1.7
ε					
El, Az	36.7 166.1	36.7 166.1	36.2 166.3		37.2 165.9

REMARKS: METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c - RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C), Ψ = Soil Moisture (%)
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 1.1, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 25 January 1977 TIME 1228 (Local) 1928 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	7.4	7.4	10.8		12.2
T_{dp}	1.0	1.0	-0.2		-0.4
W_d, W_s	030 1.8	030 1.8	250 2.2		CALM
P	26.02	26.02	25.42		26.02
C	210-⊕	210-⊕	E250⊕		200◐250-◐
M	NO	NO	NO		NO
T_{a25}			11.5		
T_{dp25}			-3.7		
I	72.16	72.16	65.87		72.14
I_a	53.16	53.16	55.73		62.62
I_d	33.05	33.05	36.11		37.25
N	78.51	78.51	96.50		97.06
N_a	60.62	60.62	76.01		71.26
N_b	57.50	57.50	68.83		65.13
N_c	48.50	48.50	57.09		53.64
N_d	44.30	44.30	50.26		45.85
i	31.24	39.14	8.52		14.78
i_a	28.68	32.87	6.13		12.21
i_d	17.71	19.14	5.26		9.43
$T_{g/w}$	21.0	14.5	17.0		20.0
T_s	18.0	13.0	25.0		17.0
Ψ	20.5	19.7			1.7
ε					
El, Az	37.9 183.2	37.9 183.2	37.3 183.4		38.4 183.2

REMARKS: METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 25 January 1977

RADIOSONDE: (0800 MST) TTAA 75152 72HMS 99880 03516 00000 00222 ///// /////
85535 03056 16505 70094 03172 25513 50571 18168 28035 40735 26563 28564 30937
417// 27582 25058 509// 27612 20200 623// 27616 15374 625// 10623 665// 88165
695// 27123 77263 27126 42416

TTBB 7515/ 72HMS 00880 03516 11869 00236 22850 03056 33830 04059 44767 00756
55761 00762 66751 00768 77700 03172 88656 02373 99609 05970 11500 18168 22455
23368 33433 23568 44400 26566 55365 30764 66321 38361 77200 623// 88165 695//
99158 699// 11149 615// 22100 665//

TTCC 7515/ 72HMS 70839 641// 50044 645// 88999 77999

TTDD 7515/ 72HMS 11866 673// 22808 655// 33700 669// 44570 641// 55500 645//
66354 633// 77344 613// 10190 30359

ROCKETSONDE: No observation this date.

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 26 January 1977 TIME 0920 (Local) 1620 (GMT)

PARA-METER	METSAT 1-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	3.1	3.1	7.9	3.0	7.1
T_{dp}	-1.5	-1.5	-5.6	-3.6	-2.6
W_d, W_s	350 2.7	350 2.7	040 1.3	030 2.7	CALM
P	25.99	25.99	25.35	25.64	25.95
C	220-◐	220-◐	150-◐	220◐	○
M	NO	NO	NO	NO	NO
T_{a25}			9.8		
T_{dp25}			-4.8		
I	43.38	43.38	37.16	41.34	42.22
I_a	31.83	31.83	32.94	31.94	33.37
I_d	20.97	20.97	21.36	23.33	22.73
N	87.88	87.88	86.69	82.52	89.40
N_a	69.27	69.27	70.05	64.27	67.69
N_b	65.19	65.19	65.67	59.42	63.73
N_c	54.62	54.62	54.99	50.10	51.85
N_d	47.90	47.90	47.46	42.14	45.85
i	18.48	22.98	4.85	4.56	8.64
i_a	16.44	19.77	3.62	3.74	8.10
i_d	10.65	11.66	3.24	2.41	6.29
$T_{g/w}$	6.0	8.5	9.0	5.3	Missing
T_s	5.5	3.5	9.0		Missing
Ψ	23.4	19.9			
ε					
El, Az	23.1 134.1	23.1 134.1	22.7 134.3	22.3 133.5	23.4 133.8

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 26 January 1977 TIME 1200 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	11.0	11.0	12.4	9.2	11.6
T_{dp}	-3.5	-3.5	-5.6	0.1	-1.3
W_d, W_s	360 2.2	360 2.2	210 2.2	220 1.3	CALM
P	25.95	25.95	25.35	25.59	25.91
C	220-Ⓓ	220-Ⓓ	150Ⓓ	220Ⓓ	300-Ⓓ
M	NO	NO	NO	NO	NO
T_{a25}			12.2		
T_{dp25}			-5.9		
I	70.17	70.17	66.33	67.60	71.27
I_a	54.02	54.02	55.99	49.55	59.70
I_d	35.06	35.06	35.34	35.80	36.74
N	97.60	97.60	98.25	89.71	84.16
N_a	74.79	74.79	77.23	67.18	63.86
N_b	67.75	67.75	72.33	61.75	59.00
N_c	57.86	57.86	59.89	50.68	53.51
N_d	50.54	50.54	52.54	42.14	47.25
i	30.57	39.02	7.93	3.78	14.26
i_a	27.19	33.00	6.13	3.35	12.58
i_d	17.31	19.48	5.06	1.61	9.19
$T_{g/w}$	18.1	19.9	25.0		27.3
T_s	16.7	18.0	23.0		15.2
Ψ	23.4	19.9			1.8
ε					
El, Az	38.0 174.8	38.0 174.8	37.4 175.0	37.6 173.7	38.5 174.6

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 26 January 1977

RADIOSONDE: (1000 MST) TTAA 76171 72HMS 99876 09464 34009 00154 ///// /////
85505 07064 36017 70074 02172 30020 50568 17159 29034 40731 30758 29037 30825
449// 27545 25049 495// 27572 20195 491// 27095 15381 585// 28118 10629 683//
26580 88268 511// 28057 77186 27124 44215

TTBB 7617/ 72HMS 00876 09464 11850 07064 22753 00260 33740 00465 44700 02172
55693 02173 66675 01968 77673 02172 88664 02965 99657 03375 11586 09758 22543
11959 33500 17159 44429 26556 55400 30758 66330 40959 77300 463// 88268 511//
99258 495// 11250 495// 22229 525// 33224 483// 44200 491// 55184 495// 66150
585// 77125 645// 88113 651// 99104 687// 11100 683// 51515 SUPER 68-67

TTCC 76171 72HMS 70842 711// 29540 50043 639// 28554 30360 561// 27035 20627
465// 25543 10090 455// 22012 07330 409// 88999 77999

TTDD 7617/ 72HMS 11954 667// 22764 715// 33560 685// 44500 639// 55444 637//
66421 583// 77317 637// 88300 561// 99220 435// 11200 465// 22268 427// 33131
471// 44124 445// 55109 479// 66100 455// 77081 419// 88075 433// 99070 409//

ROCKETSONDE: (1347 MST) RRXX 26205 72269 81010 63101 25548 26024 26545 25022
28543 26010 29546 23005 30549 23008 31549 25010 32542 26011 34534 31013 35535
30010 40526 26018 41517 25026 42514 26034 43516 27037 45508 26044 46505 25048
47501 26051 48001 25053 50509 25061 55517 27056 57522 27063 58522 27065 60521
27089 61522 28091 62526 29081 63531 28081 65/// 27103 70/// 26122 71/// 26121
JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 3 February 1977 TIME 0916 (Local) 1616 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	0.7	0.7	1.4		4.0
T_{dp}	-0.6	-0.6	-2.7		-2.5
W_d, W_s	360 3.6	360 3.6	040 3.6		340 2.2
P	26.18	26.18	25.52		26.10
C	○	○	○		○
M	YES	YES	YES		YES
T_{a25}					
T_{dp25}					
I	45.17	45.17	39.82		50.49
I_a	33.33	33.33	36.50		41.82
I_d	21.72	21.72	24.23		27.53
N	86.07	86.07			86.46
N_a	68.19	68.19			65.77
N_b	64.11	64.11			61.17
N_c	54.14	54.14			52.36
N_d	47.66	47.66			44.06
i	18.59	22.41	7.22		9.89
i_a	17.43	19.02	5.63		9.07
i_d	10.65	10.49	5.26		7.13
$T_{g/w}$	6.0	5.0	4.5		0.4
T_s	4.1	2.0	4.0		3.8
Ψ	23.8	25.6			2.0
ε					
El, Az	23.9 131.5	23.9 131.5	23.6 131.8		24.2 131.2

REMARKS:
METSAT III - not operated this date.
METSAT II - no Normal Incoming data available this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT B

DATE OF OBSERVATION 3 February 1977 TIME 0945 (Local) 1645 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	2.0	2.0	2.2		4.8
T_{dp}	-0.3	-0.3	-2.7		-2.4
W_d, W_s	010 3.1	010 3.1	040 3.1		330 1.8
P	26.19	26.19	25.53		26.10
C	O	O	O		O
M	YES	YES	YES		YES
T_{a25}					
T_{dp25}					
I	53.78	53.78	48.62		59.74
I_a	40.09	40.09	43.48		48.86
I_d	25.85	25.85	28.83		32.20
N	89.56	89.56			91.70
N_a	70.23	70.23			69.48
N_b	66.03	66.03			64.37
N_c	55.58	55.58			54.79
N_d	49.10	49.10			46.49
i	21.72	26.51	8.28		11.79
i_a	19.90	22.42	6.63		10.64
i_d	12.34	12.39	6.07		8.22
$T_{g/w}$	6.0	5.0	7.4		0.4
T_s	4.1	2.0	5.0		8.7
Ψ	23.8	25.6			2.0
ε					
El, Az	28.2 137.5	28.2 137.5	27.9 137.8		28.6 137.2

REMARKS:
METSAT III - not operated this date.
METSAT II - no Normal Incoming data available this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 3 February 1977

RADIOSONDE: (0800 MST) TTAA 53151 72HMS 99882 01502 00000 00241 ///// /////
85549 01117 12506 70084 06558 30511 50563 22169 29041 40725 26168 28071 30927
425// 28091 25048 521// 27592 20191 565// 27595 15374 603// 28081 10622 633//
27555 88227 27600 555// 77224 27601 41111

TTBB 53151 72HMS 00882 01502 11834 01127 22771 02957 33700 06558 44671 08567
55623 12769 66588 14370 77420 30967 88400 26168 99320 38911 11300 425// 22274
481// 33227 555// 44193 567// 55189 545// 66169 555// 77130 641// 88100 633//
51515 10186 11536 181//

TTCC 53155 72HMS 70840 661// 29528 50043 667// 30516 88999 77999

TTDD 5315/ 72HMS 11886 655// 22454 659// 33388 601// 44343 611// 51515 10186
//554 675// 10190 30359

ROCKETSONDE: (1000 MST) RRXX 03170 72269 81010 13101 25558 27019 30541 26031
35536 27039 37521 27030 39507 25019 40507 23015 41511 24013 44502 27012 45505
26010 46509 28014 47506 27015 48510 24012 49515 20027 50516 22029 52516 24030
54522 24040 55517 25045 58521 26048 59524 26048 60522 27062 61522 27074 62526
27075 63526 27095 64/// 27111 65/// 27114 66/// 27118 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

DATE OF OBSERVATION 8 February 1977 TIME 0805 (Local) 1605 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	-1.0	-1.0			3.6
T_{dp}	-3.9	-3.9			-0.9
W_d, W_s	220 1.8	220 1.8			CALM
P	26.19	26.19			26.12
C	○	○			○
M	YES	YES			YES
T_{a25}					
T_{dp25}					
I	44.33	44.33			39.83
I_a	33.23	33.23			32.39
I_d	21.08	21.08			22.10
N	83.19	83.19			83.01
N_a	65.19	65.19			63.73
N_b	61.58	61.58			59.77
N_c	51.98	51.98			51.34
N_d	45.98	45.98			43.81
i	19.00	22.64			8.22
i_a	16.44	19.27			7.50
i_d	10.85	10.91			5.93
$T_{g/w}$	4.0	4.5			10.2
T_s	3.8	2.5			9.0
Ψ	21.9	16.3			1.8
ε					
El, Az	23.1 128.1	23.1 128.1			23.4 127.9

REMARKS:
METSAT II, III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%)
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

DATE OF OBSERVATION 8 February 1977 TIME 0908 (Local) 1608 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	-1.0	-1.0			3.6
T_{dp}	-3.9	-3.9			-0.9
W_d, W_s	220 1.8	220 1.8			CALM
P	26.19	26.19			26.12
C	( )	○			○
M	YES	YES			YES
T_{a25}					
T_{dp25}					
I	46.64	46.64			41.46
I_a	35.48	35.48			33.69
I_d	23.41	23.41			22.60
N	84.51	84.51			85.44
N_a	66.03	66.03			66.28
N_b	62.06	62.06			62.07
N_c	52.46	52.46			53.00
N_d	45.98	45.98			45.47
i	19.91	23.66			8.64
i_a	17.31	20.16			7.74
i_d	11.14	11.12			6.05
$T_{g/w}$	4.0	4.5			10.2
T_s	3.8	2.5			9.0
Ψ	21.9	16.3			1.8
ε					
El, Az	23.6 128.7	23.6 128.7			23.9 128.5

REMARKS: METSAT II, III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 8 February 1977 TIME 0929 (Local) 1629 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	-0.1	-0.1			4.5
T_{dp}	-3.0	-3.0			-0.7
W_d	210	210			CALM
W_s	1.3	1.3			
P	26.20	26.20			26.11
C	○	○			○
M	YES	YES			YES
T_{a25}					47.66
T_{dp25}					38.14
					25.76
I	51.89	51.89			
I_a	37.41	37.41			88.89
I_d	25.85	25.85			69.60
N	87.39	87.39			63.86
N_a	67.71	67.71			54.15
N_b	63.99	63.99			47.51
N_c	53.78	53.78			
N_d	47.30	47.30			9.99
i	21.84	25.94			8.83
i_a	18.91	22.04			6.77
i_d	12.34	12.29			
$T_{g/w}$	4.0	4.5			16.4
T_s	3.8	2.5			9.8
Ψ	21.9	16.3			1.8
ε					
El, Az	27.0 132.9	27.0 132.9			27.3 128.5

REMARKS: METSAT II, III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%)
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 8 February 1977

RADIOSONDE: (0800 MST) TTAA 58151 72HMS 99882 01356 00000 00245 ///// /////
85555 04257 00502 70144 03968 02006 50571 22767 04518 40730 355// 05017 30926
455// 29048 25045 531// 29060 20187 569// 28055 15370 565// 28046 10624 665//
27027 88226 571// 29049 77255 28062 41312

TTBB 5815/ 72HMS 00882 01356 11872 02256 22864 05457 33820 04259 44788 01459
55769 01265 66704 04566 77658 05574 88572 15570 99428 32967 11400 355// 22235
563// 33212 547// 44191 489// 55174 551// 66127 565// 77100 665// 51515 10186
//226 571//

TTCC 58155 72HMS 70838 679// 28023 50042 635// 28010 88999 77999

TTDD 5815/ 72HMS 11838 685// 22404 619//

ROCKETSONDE: (1110 MST) RRXX 08181 72269 81010 13101 25555 27013 26555 26017
30542 25027 32540 26031 35530 26021 37522 26013 39508 24010 40508 26008 45506
24004 47507 27005 50516 25012 51519 22015 55514 23036 57522 27035 58526 26038
60521 26046 61518 26068 62515 25084 65/// 26090 66/// 27091 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 9 February 1977 TIME 1137 (Local) 1837 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	8.0	8.0	12.6	10.0	13.5
T_{dp}	-1.1	-1.1	-7.1	-2.0	-3.9
W_d, W_s	320 1.3	320 1.3	210 1.8	220 0.4	230 1.8
P	25.97	25.97	25.42	25.67	26.00
C	○	○	◡	250- ◐	150- ◐
M	NO	NO	NO	NO	NO
T_{a25}			12.0		
T_{dp25}			-4.5		
I	75.11	75.11	71.19	70.67	74.76
I_a	58.20	58.20	59.55	53.28	62.84
I_d	39.94	39.94	38.03	37.64	40.03
N	97.96	97.96		90.68	98.08
N_a	75.03	75.03		67.57	75.22
N_b	70.11	70.11		62.14	69.22
N_c	58.46	58.46		52.04	57.98
N_d	51.14	51.14		43.88	51.09
i	32.47	41.64	7.34	4.27	15.61
i_a	28.55	35.01	5.63	3.65	13.78
i_d	18.01	19.49	4.55	1.91	10.52
$T_{g/w}$	missing	missing	23.0	6.4	18.0
T_s	missing	missing	32.0		21.0
Ψ	16.8	16.2			3.0
ε					
El, Az	41.1 166.4	41.1 166.4	40.5 166.7	40.6 165.3	41.6 166.1

REMARKS: METSAT II - no Normal Incoming data available this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 9 February 1977 TIME 1200 (Local) 1900 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	8.0	8.0	12.8	11.0	14.6
T_{dp}	-1.1	-1.1	-5.4	-0.5	-2.2
W_d	330	330	200	220	CALM
W_s	1.3	1.3	2.7	0.4	
P	25.97	25.97	25.42	25.64	25.98
C	○	○	◐	250-◐	150-◐
M	NO	NO	NO	NO	NO
T_{a25}			12.4		
T_{dp25}			-4.1		
I	76.37	76.37	73.30	72.07	76.61
I_a	59.38	59.38	61.13	54.48	64.90
I_d	40.15	40.15	38.98	38.80	39.90
N	98.32	98.32		90.29	99.23
N_a	75.27	75.27		67.18	75.22
N_b	70.23	70.23		61.75	70.11
N_c	58.34	58.34		51.46	58.24
N_d	51.02	51.02		43.30	51.09
i	32.92	42.43	7.69	2.33	15.71
i_a	28.92	35.64	5.83	2.12	13.66
i_d	18.91	19.60	4.75	1.51	10.40
$T_{g/w}$	MISSING	MISSING	24.0	6.4	18.0
T_s	MISSING	MISSING	33.0		24.0
Ψ	16.8	16.2			3.0
ε					
El, Az	41.9 173.7	41.9 173.7	41.4 173.9	41.5 172.6	42.4 173.5

REMARKS: METSAT II - no Normal Incoming data available this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%)
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 9 February 1977 TIME 1250 (Local) 1950 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	9.5	9.5	14.4	12.5	16.7
T_{dp}	-0.4	-0.4	-5.4	1.6	-1.0
W_d W_s	060 1.8	060 1.8	180 4.5	270 1.3	150 3.6
P	25.97	25.97	25.35	25.61	25.93
C	210	210	C	250-	150-
M	NO	NO	NO	NO	NO
T_{a25}			13.0		
T_{dp25}			-4.8		
I	76.16	76.16	72.94	66.48	76.39
I_a	57.34	57.34	60.61	51.04	65.66
I_d	38.67	38.67	38.79	36.84	40.15
N	97.36	97.36		88.54	98.08
N_a	74.31	74.31		65.63	74.84
N_b	69.51	69.51		60.19	68.71
N_c	57.62	57.62		49.32	57.73
N_d	50.54	50.54		41.75	50.70
i	32.92	42.43	7.69	3.69	16.13
i_a	28.92	35.01	5.83	2.98	14.51
i_d	18.21	19.60	4.85	1.51	11.00
$T_{g/w}$	MISSING	MISSING	26.0	6.6	19.0
T_s	MISSING	MISSING	37.0		26.0
Ψ	16.8	16.2			3.0
ε					
El, Az	41.6 189.9	41.6 189.9	41.0 190.0	41.4 188.7	42.1 189.9

REMARKS; METSAT II - no Normal Incoming data available this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 9 February 1977

RADIOSONDE: (0800 MST) TTAA 59151 72HMS 99878 05762 07002 00187 ///// /////
85519 05064 16506 70086 01575 16002 50567 21965 11013 40728 33566 09523 30924
483// 22512 25042 559// 30520 20182 583// 29534 15362 585// 28027 10617 601//
28022 88208 607// 30021 77;72 29047 41911

TTBB 5915/ 72HMS 00878 05762 11868 01458 22850 05064 33831 06465 44749 00764
55720 00773 66607 08371 77500 21965 88400 33566 99300 483// 11227 595// 22208
607// 33200 583// 44159 609// 55150 585// 66100 601// 51515 10186 //700 01575

TTCC 59152 72HMS 70837 635// 30015 50045 615// 29509 30365 555// 28511 20625
521// 28033 88999 77999

TTDD 72HMS 11846 639// 22744 615// 33436 615// 44238 547// 55160 467// 66108
437// 51515 10190 10086

ROCKETSONDE: (1213 MST) RRXX 09191 72269 81010 13101 24/// 28008 25553 27012
30545 26026 31542 26031 32539 26034 35527 28020 36518 27012 40510 19010 42506
09003 45510 12002 50512 24021 55519 27025 56523 26024 57520 24027 58520 25030
59523 27040 60/// 29059 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 15 February 1977 TIME 1102 (Local) 1802 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	6.0	6.0	9.0		8.4
T_{dp}	-0.8	-0.8	-2.9		-2.5
W_d, W_s	140 2.7	140 2.7	220 1.8		CALM
P	26.25	26.25	25.59		26.18
C	○	○	220-(J)		
M	NO	NO	NO		NO
T_{a25}			11.5		
T_{dp25}			-2.3		
I	74.05	74.05	69.45		68.55
I_a	56.16	56.16	58.10		55.58
I_d	36.12	36.12	36.78		35.61
N	94.36	94.36	98.87		97.06
N_a	71.55	71.55	76.36		73.82
N_b	66.99	66.99	71.48		67.69
N_c	55.34	55.34	58.72		57.09
N_d	48.26	48.26	50.28		49.94
i	34.60	44.71	7.22		16.23
i_a	29.91	37.03	5.23		14.39
i_d	19.20	20.23	4.04		11.25
$T_{g/w}$	16.1	14.5	20.3		16.7
T_s	16.1	14.1	22.0		21.0
Ψ	19.8	19.7			0.9
ε					
El, Az	40.6 154.8	40.6 154.8	40.0 155.2		41.0 154.5

REMARKS: METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%)
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 15 February 1977 TIME 1240 (Local) 1940 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	9.1	9.1	11.3		12.8
T_{dp}	-5.7	-5.7	-2.1		-2.4
W_d, W_s	120 3.1	120 3.1	220 4.9		210 2.7
P	26.21	26.21	25.55		26.14
C	210-(]	210-(]	220-(]		210-(]
M	NO	NO	NO		NO
T_{a25}			12.7		
T_{dp25}			-1.6		
I	79.94	79.94	75.87		73.23
I_a	61.03	61.03	63.37		62.62
I_d	39.62	39.62	40.52		38.01
N	96.88	96.88	99.81		99.62
N_a	73.23	73.23	77.11		75.35
N_b	68.31	68.31	71.48		69.22
N_c	56.30	56.30	58.72		58.11
N_d	48.98	48.98	50.28		50.83
i	39.53	49.72	8.05		17.27
i_a	34.24	41.18	6.23		15.36
i_d	22.09	22.35	5.16		11.97
$T_{g/w}$	17.1	19.9	24.5		22.7
T_s	23.0	18.7	28.0		26.5
Ψ	19.8	19.7			0.9
ε					
El, Az	43.9 186.9	43.9 186.9	43.3 187.1		44.4 186.9

REMARKS:

METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 15 February 1977

RADIOSONDE: (0800 MST) TTAA 65151 72HMS 99883 03356 19004 00254 ///// /////
85570 02657 27004 70115 05763 35031 50569 19563 35554 40731 32163 35566 30927
481// 36071 25045 575// 02589 20183 649// 00580 15360 611// 31528 10612 613//
29034 88179 671// 35070 77264 02593 44226

TTBB 6515/ 72HMS 00883 03356 11873 00256 22850 02657 33814 00750 44751 03723 [illegible]38
55738 04126 66721 04550 77712 04759 88700 05763 99672 06366 11585 13166 22572
11966 33537 14569 44500 19563 55400 32163 66353 40160 77250 575// 88214 639//
99179 671// 11171 591// 22109 631// 33100 613//

TTCC 65151 72HMS 70832 647// 30022 50040 619// 28507 30362 563// 29019 20622
497// 26541 10087 361// 25023 88999 77999

TTDD 6515/ 72HMS 11756 611// 22700 647// 33628 645// 44590 587// 55500 619//
66462 589// 77432 607// 88348 547// 99250 561// 11214 485// 22156 485// 33108
365// 44100 361// 55079 351// 51515 10190 07335

ROCKETSONDE: (1200 MST) RRXX 15190 72269 81010 13101 24556 26011 25552 26015
29546 26019 30540 26017 33539 24016 35532 27013 37519 23014 38519 22016 40514
26013 41514 29007 42509 00004 43509 08002 45508 19020 47503 23024 50504 21023
51502 21022 52500 21022 53501 25017 55511 28026 56516 27031 57/// 26037 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 16 February 1977 TIME 0928 (Local) 1628 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	2.5	2.5	10.1	4.8	6.7
T_{dp}	-4.0	-4.0	-4.8	-1.8	-3.9
W_d, W_s	080 2.2	080 2.2	170 0.9	CALM	CALM
P	26.23	26.23	25.55	25.85	26.16
C	220-◐	220-◐	220-◐	230-◐	250-◐
M	NO	NO	NO	NO	NO
T_{a25}			11.2		
T_{dp25}			-5.9		
I	58.19	58.19	50.73	50.14	48.97
I_a	42.34	42.34	41.63	37.16	38.68
I_d	27.97	27.97	27.39	27.14	26.14
N	90.04	90.04	90.99	87.77	94.76
N_a	67.71	67.71	71.29	66.80	73.18
N_b	63.75	63.75	67.17	61.17	67.18
N_c	53.30	53.30	55.91	50.87	58.83
N_d	46.46	46.46	48.03	42.52	49.81
i	25.64	33.11	4.97	3.59	11.97
i_a	22.50	27.83	3.72	2.98	10.88
i_d	14.03	15.47	3.13	1.21	8.46
$T_{g/w}$	6.2	9.8	12.0	7.0	10.0
T_s	6.8	6.4	18.0		10.2
Ψ	19.3	20.4			0.7
ε					
El, Az	28.8 130.8	28.8 130.8	28.5 131.1	28.0 130.2	29.1 130.5

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%)
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 16 February 1977 TIME 1200 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	9.5	9.5	15.7	12.3	14.1
T_{dp}	-1.8	-1.8	-5.9	1.5	-2.1
W_d W_s	290 2.2	290 2.2	270 1.3	CALM	050 1.8
P	26.20	26.20	25.55	25.84	26.14
C	220-◐	220-◐	220-◐	230-◐	250-◐
T_{a25}	NO	NO	NO	NO	NO
T_{dp25}			14.3		
			-1.5		
I	80.67	80.67	75.78	75.84	73.88
I_a	63.67	63.67	63.64	56.72	61.76
I_d	40.68	40.68	40.61	40.42	38.38
N	99.04	99.04	102.44	88.16	102.04
N_a	73.47	73.47	79.17	65.05	77.01
N_b	68.79	68.79	72.98	59.81	70.37
N_c	57.02	57.02	61.54	48.54	59.00
N_d	49.46	49.46	52.16	41.75	51.60
i	38.97	49.37	7.69	3.01	17.27
i_a	33.87	41.18	5.93	2.40	15.24
i_d	21.69	22.67	4.75	2.04	11.49
$T_{g/w}$	18.6	21.3	30.0	7.9	32.0
T_s	20.5	20.1	36.0		27.8
Ψ	19.3	20.4			0.7
ε					
El, Az	44.3 173.4	44.3 173.4	43.7 173.6	43.8 172.2	44.8 173.2

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); ◐ = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 16 February 1977

RADIOSONDE: (0900 MST) TTAA 66161 72HMS 99883 06261 00000 00234 ///// /////
85573 06662 15003 70158 02867 35011 50580 14969 36036 40745 28367 00542 30944
445// 00547 25063 553// 35050 20203 631// 34025 15379 585// 32530 10629 623//
31526 88172 687// 30019 77220 35566 41851

TTBB 6616/ 72HMS 00883 06261 11862 04060 22850 06662 33822 07464 44746 03264
55726 03866 66563 06372 77400 28367 88359 33766 99212 639// 11209 623// 22172
687// 33166 621// 44155 585// 55123 645// 66100 623//

TTCC 66162 72HMS 70847 643// 31522 50053 629// 31026 30374 563// 28516 20636
477// 27026 88999 77999

TTDD 6616/ 72HMS 11838 663// 22500 629// 33390 579// 44284 563// 55256 521// 6621u
66218 517// 77200 477// 88164 503// 99120 429// 51515 10190 10101

ROCKETSONDE: No observation this date.

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 23 February 1977 TIME 1051 (Local) 1751 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	10.9	10.9	9.6		11.0
T_{dp}	-7.0	-7.0	-7.1		-10.8
W_d, W_s	320 6.7	320 6.7	320 4.5		320 6.3
P	MISSING	MISSING	25.28		25.93
C	O	O	O		O
M	NO	NO	NO		NO
T_{a25}			13.2		
T_{dp25}			-10.8		
I	78.26	78.26	73.03		74.21
I_a	62.06	62.06	61.53		55.47
I_d	39.83	39.83	39.85		38.26
N	97.84	97.84	99.44		83.78
N_a	72.75	72.75	78.24		63.47
N_b	67.83	67.83	72.61		58.75
N_c	56.54	56.54	60.23		49.30
N_d	48.02	48.02	51.59		43.17
i		50.85	7.10		21.33
i_a		42.44	5.43		19.23
i_d		23.20	4.35		14.51
$T_{g/w}$	MISSING	MISSING	18.8		18.0
T_s	MISSING	MISSING	21.0		18.0
ψ	19.2	19.5			0.8
c					
El, Az	42.1 150.2	42.1 150.2	41.7 150.7		42.5 149.9

REMARKS: METSAT IA - Global outgoing data not available

METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); ψ = Soil Moisture (%) c = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 23 February 1977 TIME 1200 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	12.0	12.0	11.2		13.0
T_{dp}	-7.5	-7.5	-16.3		-8.8
W_d, W_s	MISSING	MISSING	320 3.6		350 4.5
P	MISSING	MISSING	25.28		25.89
C	○	◠	○		◠
M	NO	NO	NO		NO
T_{a25}			14.5		
T_{dp25}			-11.2		
I	85.50	85.50	79.91		78.24
I_a	66.56	66.56	67.19		61.97
I_d	42.77	42.77	42.91		39.02
N	99.64	99.64	102.06		86.46
N_a	73.35	73.35	79.17		65.26
N_b	68.55	68.55	72.80		60.15
N_c	57.50	57.50	60.60		51.47
N_d	50.18	50.18	51.22		45.12
i		53.92	7.46		23.00
i_a		44.84	5.73		20.56
i_d		24.68	4.65		15.60
$T_{g/w}$	MISSING	MISSING	22.0		22.7
T_s	23.0	21.0	25.0		16.0
Ψ	19.2	19.5			0.8
ε					
El, Az	46.7 173.2	46.7 173.2	46.1 173.5		47.2 173.0

REMARKS:

METSAT IA - **Global outgoing data not available this date.**
METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 23 February 1977

RADIOSONDE: (0800 MST) TTAA 73154 72HMS 99873 04866 33010 00116 ///// /////
85474 04070 34020 70015 08973 32545 50560 17962 10609 40724 25168 30931 31967
25059 383// 20209 479// 15393 ///// 10634 249// 88100 749// ///// 77500 30609
414//

TTBB 7315/ 72HMS 00873 04866 11850 04070 22700 08973 33668 10369 44646 08772
55572 10770 66500 17962 77469 21166 88446 19968 99400 25168 11373 23769 22333
29767 33290 33167 44279 331// 55182 511// 66150 593// 77/// ///// 88130 679//
99100 749//

TTCC 7315/ 72HMS 70845 719// 50048 659//

TTDD 7315/ 72HMS 11824 693// 22700 719// 33614 695// 44590 629// 55518 663//
66440 601// 77308 591// 51515 10190 30366

ROCKETSONDE: (1040 MST) RRXX 23174 72269 81010 13101 25556 20005 29551 26014
30551 25022 34552 24048 35551 25047 40534 24049 42527 23056 43525 23050 44523
23050 45521 24058 48518 23054 49518 23052 50517 24072 52516 23077 53513 24088
55515 25086 56515 25079 57516 24069 60521 26084 62519 29048 63522 29038 65///
27017 67/// 25035 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 24 February 1977 TIME 0926 (Local) 1626 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a			13.1		15.1
T_{dp}			-2.5		-1.4
W_d, W_s			190 5.4		130 7.7
P			25.22		25.89
C			E120 ⦶		60 ⦶ 120 ⦶
M			No		No
T_{a25}			12.9		
T_{dp25}			-5.7		
I			37.25		54.52
I_a			36.89		39.54
I_d			16.25		27.27
N			32.70		88.63
N_a			28.33		69.09
N_b			24.39		61.81
N_c			21.01		54.02
N_d			6.38		46.49
i			2.96		16.34
i_a			2.31		15.11
i_d			1.62		11.37
$T_{g/w}$			14.0		20.5
T_s			14.0		missing
Ψ					1.0
c					
El, Az			30.4 128.7		31.0 128.0

REMARKS: MET SAT I, III - Not Operated This Day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) c = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATIONS DATA

DATE: 24 February 1977

RADIOSONDE: (0800 MST) TTAA 74164 72HMS 99873 14470 17010 00104 ///// /////
85482 09465 22008 70059 01269 28552 50567 19541 07580 40731 27364 28087 30934
365// 25057 459// 20205 527// 15387 625// 10632 739// 88999 77324 27121 412//

TTBB 7416/ 72HMS 00873 14470 11850 09465 22840 09465 33754 01257 44735 00058
55716 02264 66700 01269 77650 01771 88527 15559 99500 19541 11493 20741 22458
22561 33437 24561 44400 27364 55378 29362 66372 30132 77359 30758 88318 36158
99307 35564 11250 459// 22233 447// 33192 549// 44184 541// 55139 653// 66119
667// 77100 739// 51515 SUPER 53-49

TTCC 74161 72HMS 70838 667// 50043 615// 25510 30363 575// 20622 525// 10072
505// 88851 795// ///// 77999

TTDD 7416/ 72HMS 11851 795// 22825 767// 33756 769// 44700 667// 55624 703//
66574 611// 77500 615// 88446 589// 99387 607// 11352 575// 22256 591// 33230
535// 44100 505// 55078 473// 51515 10190 07306

ROCKETSONDE: (0925 MST) RRXX 24163 72269 81010 13101 25555 23008 27551 26013
28550 25011 30553 24026 33547 24040 35548 25043 37540 24047 40537 24055 41535
24064 45519 23055 48509 23058 50505 23070 51503 23069 52508 23072 53507 23083
54503 24086 55503 25077 56509 26068 57509 26071 59503 27096 60506 27100 62515
27083 65*** 25075 66*** 26077 JJJ

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

DATE OF OBSERVATION 25 February 1977 TIME 0903 (Local) 1603 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	10.2	10.2	10.2		
T_{dp}	-0.6	-0.6	-0.8		
W_d, W_s	240 8.0	240 8.0	240 3.1		
P	25.73	25.73	25.08		
C	50 E220	50 E220	E40 200		
M	No	No	No		
T_{a25}			12.1		
T_{dp25}			-1.1		
I	26.58	26.58	23.58		
I_a	18.33	18.33	18.18		
I_d	11.55	11.55	11.40		
N					
N_a					
N_b					
N_c					
N_d					
i		14.33	2.01		
i_a		9.70	1.51		
i_d		5.72	1.21		
$T_{g/w}$	missing	missing	13.8		
T_s	9.1	8.7	13.0		
Ψ	19.6	19.7			
c					
El, Az	27.1 123.4	27.1 123.4	26.9 123.7		

REMARKS: Met Sat I-A- no global outgoing data
Met Sat II - No normal incoming due to clouds
Met Sat III - Not operated this day
Met Sat IV - Not Operated this run

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) c = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 25 February 1977 TIME 1255 (Local) 1955 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a			14.6		11.2
T_{dp}			-13.9		-3.2
W_d W_s			240 5.8		300 5.1
P			25.01		25.73
C			45		50% E 60%
M			No		Yes
T_{a25}			17.2		
T_{dp25}			-11.2		
I			81.65		25.46
I_a			68.38		21.24
I_d			43.87		12.75
N			103.38		
N_a			80.68		
N_b			73.73		
N_c			61.16		
N_d			52.06		
i			7.93		7.70
i_a			6.03		7.01
i_d			4.75		5.08
$T_{g/w}$			24.5		13.2
T_s			29.0		11.8
Ψ					2.2
ε					
El, Az			46.2 193.2		47.3 193.2

REMARKS: MET SAT I - Not Operated This Run
MET SAT III - Not Operated This Day
MET SAT IV - Light rain occuring at time of observation, no normal incoming to clouds

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 25 February 1977

RADIOSONDE: (0800 MST) TTAA 75154 72HMS 99866 10864 22006 00133 ///// /////
85413 09260 23504 70983 03739 24028 50556 18563 23090 40718 31369 24128 30920
41756 25042 491// 20188 519// 15372 603// 10620 649// 88107 689// ///// 77400
24128 43012

TTBB 7515/ 72HMS 00866 10864 11850 09260 22838 07259 33783 03650 44768 00642
55721 00946 66700 03739 77668 05144 88603 12921 99564 13761 11513 18561 22500
18563 33473 20962 44400 31369 55385 26132 66364 30557 77300 41756 88295 42557
99250 491// 11247 467// 22238 475// 33200 519// 44127 643// 55121 637// 66107
689// 77100 649// 51515 SUPER 78-77 72-70 67-60 39-36

TTCC 75155 72HMS 70839 635// ///// 50048 619// 26039 30369 583// 88999 77999

TTDD 7515/ 72HMS 11799 655// 22769 595// 33638 653// 44570 595// 55456 619//
66423 565// 77300 583//

ROCKETSONDE: (1145 MST) RRXX 25185 72269 81010 13101 25553 25011 27552 25014
30548 25031 35552 25040 37538 25045 39531 25047 40524 24057 41516 24068 42512
24076 45504 25082 46509 25087 47511 25079 48510 24075 50504 24086 51506 24089
52508 25080 53510 24078 55508 23085 57510 24090 58511 25090 60/// 27083 62///
27068 64/// 26073 JJJ

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 2 March 1977 TIME 0852 (Local) 1552 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	6.1	6.1	5.7		6.8
T_{dp}	-12.8	-12.8	-11.0		-7.2
W_d, W_s	270 12.1G15.6	270 12.1G15.6	230 4.5		280 10.3
P	25.67	25.67	25.07		25.79
C	110 ⦶	110 ⦶	70 ⦶		E 60 ⦶
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	37.50	37.50	46.79		16.43
I_a	30.23	30.23	38.47		13.00
I_d	23.73	23.73	25.77		8.46
N	66.87	66.87	91.37		15.45
N_a	52.82	52.82	72.80		2.04
N_b	49.94	49.94	67.92		0.89
N_c	42.26	42.26	57.22		0.64
N_d	33.37	33.37	48.97		0.51
i	18.25	21.96	5.09		5.31
i_a	15.08	19.77	3.92		4.96
i_d	9.65	9.75	3.34		3.87
$T_{g/w}$	missing	missing	7.5		7.7
T_s	8.8	9.2	9.0		5.3
W	20.0	19.5			0.7
ε					
El, Az	26.6 119.9	26.6 119.9	26.4 120.3		26.8 119.6

REMARKS: MET SAT I - Blowing sand
MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); W = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 2 March 1977 TIME 1110 (Local) 1810 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	8.8	8.8	8.5		10.3
T_{dp}	-13.7	-13.7	-12.8		-8.4
W_d, W_s	240 9.8G13.4	240 9.8G13.4	250 4.5G6.7		280 10.3G16.5
P	25.69	25.69	25.10		25.74
C	70 ①	70 ①	60 ①		65 ①
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	86.34	86.34	80.37		81.18
I_a	67.95	67.95	68.25		62.84
I_d	43.96	43.96	44.25		41.67
N	92.08	92.08	103.75		101.79
N_a	66.03	66.03	80.48		76.50
N_b	62.06	62.06	74.30		69.99
N_c	52.34	52.34	61.91		59.64
N_d	44.06	44.06	53.47		52.62
i	45.58	52.79	7.93		23.73
i_a	39.18	43.32	6.13		21.52
i_d	25.17	23.94	4.95		16.32
$T_{g/w}$	missing	missing	15.3		17.2
T_s	18.2	19.1	18.0		15.5
Ψ	20.0	19.5			0.7
c					
El, Az	46.5 155.2	46.5 155.2	46.0 155.6		46.9 154.8

REMARKS: MET SAT I - Blowing sand
MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) c = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 2 March 1977 TIME 1200 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	10.0	10.0	9.6		13.1
T_{dp}	-18.2	-18.2	-11.0		-8.0
W_d, W_s	240 13.4G16.1	240 13.4G16.1	260 4.5G7.6		280 7.7G12.9
P	25.66	25.66	25.13		25.74
C	70 ①	70 ①	E 60 ⑪		60 ①
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	93.17	93.17	76.15		84.22
I_a	73.42	73.42	29.64		70.10
I_d	46.82	46.82	25.77		43.69
N	87.76	87.76	101.69		99.11
N_a	58.46	58.46	73.55		74.54
N_b	29.53	29.53	68.67		68.84
N_c	18.97	18.97	57.60		57.98
N_d	14.89	14.89	48.22		50.57
i	49.83	55.75	8.52		24.66
i_a	41.78	45.59	7.04		22.37
i_d	26.27	25.32	5.56		16.93
$T_{g/w}$	missing	missing	20.9		27.5
T_s	18.2	19.1	21.0		30.4
Ψ	20.0	19.5			0.7
ε					
El, Az	49.4 173.2	49.4 173.2	48.8 173.5		49.9 173.0

REMARKS: MET SAT I - Blowing sand
MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 2 March 1977 TIME 1302 (Local) 2002 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	10.4	10.4	9.4		12.0
T_{dp}	-14.0	-14.0	-11.5		-9.3
W_d, W_s	260 12.5G16.1	260 12.5G16.1	210 2.7		260 7.7
P	25.64	25.64	25.06		25.74
C	70 ⦶	70 ⦶	E 60 ⦶		60 ⦶
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	90.02	90.02	96.79		83.24
I_a	65.17	65.17	86.03		72.26
I_d	44.81	44.81	51.63		44.95
N	83.55	83.55	99.62		101.66
N_a	56.66	56.66	74.11		75.99
N_b	53.18	53.18	62.29		69.48
N_c	45.98	45.98	57.41		58.24
N_d	38.30	38.30	51.22		51.09
i	48.94	53.81	9.35		24.56
i_a	40.79	46.73	7.04		22.25
i_d	25.57	25.53	5.97		16.93
$T_{g/w}$	missing	missing	19.5		21.5
T_s	missing	missing	24.0		25.8
Ψ	20.0	19.5			0.7
ε					
El, Az	48.2 196.6	48.2 196.6	47.6 196.6		48.7 196.6

REMARKS: MET SAT I - Blowing sand .
MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

2 March 1977

RADIOSONDE: (0800 MST) TTAA 52154 72HMS 99866 05065 28010 00061 /////
///// 85/// 04465 27517 70950 09160 25536 50546 26361 25600 40706 33560
25655 30902 469// 25022 489// 20170 473// 15356 567// 10613 585// 88287
473// ///// 77400 25655 405//

TTBB 5215/ 72HMS 00866 05065 11850 04465 22813 01861 33730 06362 44700
09161 55641 14758 66602 17501 77583 19501 88557 24160 99500 26361 11475
25561 22400 33560 33366 37560 44353 40159 55340 419// 66316 455// 77287
463// 88280 455// 99250 489// 11212 463// 22200 473// 33150 567// 44125
573// 55113 541// 66100 585// 51515 SUPER 58-55

TTCC 52151 72HMS 70836 601// ///// 50044 619// ///// 31368 561// 25053
20628 559// 26535 10077 483// 25537 88999 77999

TTDD 5215/ 72HMS 11853 625// 22793 565// 33593 639// 44500 619// 55400
545// 66300 561// 77253 52311 88200 55911 99100 483// 11085 469// 51515
10190 07314

ROCKETSONDE: (1345 MST) RRXX 02205 72269 81010 13101 25555 27010 30548
27012 35539 27019 36536 27022 39521 26057 40522 26067 43522 26070 44525
26064 45520 25061 50502 25085 52505 25080 55001 25063 59500 26074 60***
24074 61*** 24073 JJJ

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

DATE OF OBSERVATION 9 March 1977 TIME 0855 (Local) 1555 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	7.0	7.0	10.0		9.7
T_{dp}	-2.5	-2.5	-3.1		-7.3
W_d, W_s	050 2.2	050 2.2	015 0.9		CALM
P	25.90	25.90	25.29		26.01
C	E180 ⊕	E180 ⊕	E80 ⊕		100C E150 ⊕
M	NO	NO	NO		NO
T_{a25}			10.8		
T_{dp25}			-5.5		
I	30.46	30.46	29.36		18.50
I_a	21.76	21.76	24.24		15.38
I_d	13.56	13.56	15.42		9.60
N					
N_a					
N_b					
N_c					
N_d					
i	12.77	15.47	2.72		5.41
i_a	10.63	12.09	2.01		4.96
i_d	6.37	6.14	1.72		3.63
$T_{g/w}$	10.3	11.2	13.5		12.8
T_s	9.1	10.4	MISSING		13.5
Y	22.8	18.3			MISSING
ε					
El, Az	29.2 118.5	29.2 118.5	29.1 118.9		29.4 118.2

REMARKS: METSAT I, II, IV - no Normal Incoming data due to clouds.
METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Y = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 9 March 1977 TIME 0934 (Local) 1634 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	8.9	8.9	14.4		11.7
T_{dp}	-1.5	-1.5	-7.9		-6.9
W_d	090	090	355		CALM
W_s	1.8	1.8	0.4		
P	25.90	25.90	25.34		26.00
C	E180 +	E180 +	E80 +		E150 +
M	NO	NO	NO		NO
T_{a25}					
T_{dp25}					
I	36.45	36.45	39.45		16.65
I_a	26.69	26.69	32.41		13.65
I_d	16.63	16.63	21.17		8.33
N					
N_a					
N_b					
N_c					
N_d					
i	16.35	20.36	3.31		4.89
i_a	13.72	16.50	2.51		4.35
i_d	8.56	8.26	2.12		3.26
$T_{g/w}$	10.3	11.2	16.0		13.2
T_s	9.1	10.4	16.0		12.8
Ψ	22.8	18.3			MISSING
ε					
El, Az	36.2 126.6	36.2 126.6	35.9 127.1		36.4 126.4

REMARKS: METSAT I, II, IV - no Normal Incoming data due to clouds.
METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 9 March 1977 TIME 1139 (Local) 1839 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	13.4	13.4	19.3		17.0
T_{dp}	-4.4	-4.4	MISSING		-2.8
W_d	110	110	210		360
W_s	2.7	2.7	4.5		2.1
P	25.85	25.85	25.32		25.96
C	E180	E180	E210-		100% E150 220
M	NO	NO	NO		NO
T_{a25}					
T_{dp25}					
I	51.47	51.47	86.33		63.44
I_a	36.44	36.44	73.52		51.46
I_d	22.46	22.46	46.84		31.06
N	6.48	6.48	94.37		15.58
N_a	3.00	3.00	73.17		12.90
N_b	2.88	2.88	67.17		15.07
N_c	1.68	1.68	54.41		13.28
N_d	.96	.96	45.97		9.83
i	24.19	28.67	7.81		14.78
i_a	19.90	22.92	5.83		13.30
i_d	12.34	11.55	4.55		9.43
$T_{g/w}$	15.9	22.0	28.2		25.0
T_s	19.0	27.2	31.0		30.0
Ψ	22.8	18.3			MISSING
ε					
El, Az	51.3 165.1	51.3 165.1	50.7 165.5		51.7 164.8

REMARKS: METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 9 March 1977 TIME 1200 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	13.5	13.5	20.0		18.3
T_{dp}	-4.5	-4.5	MISSING		-4.2
W_d, W_s	110 3.6	110 3.6	170 5.4		020 3.1
P	25.84	25.84	25.29		25.95
C	E180	E180	180 ⦶ E210 ⦶		E150 220
M	NO	NO	NO		NO
T_{a25}					
T_{dp25}					
I	98.32	98.32	85.23		50.82
I_a	72.78	72.78	71.94		41.82
I_d	44.81	44.81	44.25		25.25
N	18.01	18.01	98.69		70.37
N_a	12.36	12.36	75.23		44.32
N_b	8.64	8.64	69.79		42.02
N_c	3.72	3.72	57.22		34.48
N_d	2.28	2.28	48.78		28.22
i	46.70	54.38	7.46		13.94
i_a	36.22	41.31	5.63		12.45
i_d	22.89	21.40	4.35		9.19
$T_{g/w}$	15.9	22.0	30.0		28.8
T_s	19.0	27.2	32.0		32.0
Ψ	22.8	18.3			MISSING
ε					
El, Az	52.1 173.4	52.1 173.4	51.5 173.7		52.6 173.6

REMARKS: METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 9 March 1977 TIME 1233 (Local) 1933 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	18.0	18.0	20.2		21.3
T_{dp}	-5.7	-5.7	MISSING		-3.0
W_d	120	120	180		130
W_s	4.9	4.9	5.4		1.0
P	25.81	25.81	25.28		25.93
C	150 ⦶ 180 ⦶	150 ⦶ 180 ⦶	E 210-[illegible]		100 E150 ⦶ 220
M	NO	NO	NO		NO
T_{a25}					
T_{dp25}					
I	89.92	89.92	84.13		92.49
I_a	69.67	69.67	70.88		81.26
I_d	43.54	43.54	44.54		49.75
N	97.00	97.00	75.23		64.88
N_a	72.27	72.27	74.30		47.25
N_b	66.63	66.63	70.36		42.66
N_c	54.98	54.98	57.60		38.44
N_d	47.66	47.66	48.78		36.27
i	44.23	52.10	7.34		28.51
i_a	37.21	42.44	5.53		24.91
i_d	23.28	22.14	4.35		18.02
$T_{g/w}$	15.9	22.0	30.7		39.5
T_s	19.0	27.2	32.0		45.0
Ψ	22.8	18.3			MISSING
ε					
El, Az	52.1 186.8	52.1 186.8	51.4 186.9		52.6 186.7

REMARKS:

METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 0 March 1977

RADIOSONDE: (0900 MST) TTAA 59161 72HMS 99876 08265 00000 00159 ///// /////
85506 11468 ///// 70110 03469 ///// 50573 15301 26531 40738 26516 26034 30940
41332 26582 25062 469// 26638 20207 573// 26140 15386 635// 28595 10635 647//
27548 88128 657// 27593 27205 25646 43063

TTBB 5916/ 72HMS 00876 08265 11850 11468 22835 13021 33798 11473 44746 06871
55726 06071 66700 03469 77596 07960 88571 11769 99560 12539 11547 10301 22514
13501 33500 15301 44400 26516 55320 38527 66300 41332 77266 45534 88254 46133
99200 573// 11164 623// 22157 617// 33128 657// 44112 619// 55100 647// 51515
SUPER 60-57

TTCC 59161 72HMS 70852 665// 27022 50057 619// 27037 30375 601// 30518 20633
547// 27004 10087 445// 27016 88999 77999

TTDD 5916/ 72HMS 11676 675// 22592 639// 33542 657// 44500 619// 55388 613//
66338 577// 77300 601// 88212 535// 99200 547// 11100 445// 22087 443// 51515
10190 07327

ROCKETSONDE: (1110 MST) RRXX 09181 77269 81010 63101 25555 30007 30548 35002
33542 23012 35538 25027 37537 26034 40518 25059 41520 25061 44513 24064 45505
23064 47500 24064 50503 24057 54501 22042 55507 21040 56505 20040 60518 17046
63526 17037 65533 22028 66/// 26018 67/// 27029 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT B

DATE OF OBSERVATION 11 March 1977 TIME 0943 (Local) 1643 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	6.9	6.9	8.3		8.1
T_{dp}	-6.6	-6.6	-12.8		-7.1
W_d, W_s	360 2.7	360 2.7	220 1.3		030 3.1
P	25.79	25.79	25.23		25.87
C		C	C		O
M	NO	NO	NO		NO
T_{a25}					
T_{dp25}					
I	66.18	66.18	59.91		62.57
I_a	50.38	50.38	50.99		52.00
I_d	32.84	32.84	34.00		34.22
N	48.38	48.38	55.72		65.01
N_a	35.77	35.77	43.15		48.66
N_b	33.61	33.61	39.59		44.19
N_c	27.61	27.61	31.89		37.68
N_d	24.01	24.01	27.02		32.95
i	32.81	38.23	5.44		18.73
i_a	27.69	31.61	3.92		14.67
i_d	17.51	17.58	3.13		11.24
$T_{g/w}$	16.5	15.8	15.3		16.5
T_s	17.0	14.5	20.2		17.0
Ψ	19.4	17.5			1.3
ε					
El, Az	38.3 128.2	38.3 128.2	38.0 128.7		38.6 127.8

REMARKS: METSAT III - not operated this date.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GC495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 11 March 1977

RADIOSONDE: No flight this date.

ROCKETSONDE: (1053 MST) RRXX 11175 72269 81010 13101 25553 20004 30549 24009
31545 23010 35541 27023 40525 25048 43505 26047 44002 26048 45002 26048 47504
2 044 49507 24041 50504 25040 55513 25039 60/// 27044 62/// 26045 64/// 28057
JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 16 March 1977 TIME 1200 (Local) 1900 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	12.1	12.1	16.7	16.2	20.0
T_{dp}	2.1	2.1	-4.8	2.4	0.1
W_d, W_s	050 3.1	050 3.1	180 4.0	180 0.4	160 2.1
P	25.88	25.88	25.35	25.59	26.08
C	E150 ⊕	E150 ⊕	E120 ⊕	E120 ⊕	E110 ⊕
M	NO	NO	NO	NO	NO
T_{a25}			15.0		
T_{dp25}			-5.0		
I	59.35	59.35	46.88	42.74	68.55
I_a	43.94	43.94	38.87	32.24	57.20
I_d	26.91	26.91	23.95	22.06	34.97
N					
N_a					
N_b					
N_c					
N_d					
i	31.13	33.45	4.26	2.13	19.77
i_a	26.21	27.08	3.22	1.73	16.32
i_d	16.02	14.09	2.53	0.70	12.09
$T_{g/w}$	25.0	24.1	21.8	9.5	25.3
T_s	26.1	26.5	21.2		31.8
Ψ	19.8	18.6			MISSING
ε					
El, Az	54.9 173.8	54.9 173.8	54.3 174.1	54.4 172.3	55.4 173.5

REMARKS: METSAT I, II, III, IV - no Normal Incoming data.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 16 March 1977

RADIOSONDE: (1000 MST) TTAA 66171 72HMS 99877 15066 00000 00153 ///// /////
85524 11065 16008 70129 06666 25024 50580 11161 24064 40747 23718 24555 30952
37748 24615 25075 487// 27095 20218 589// ///// 15396 633// ///// 10643 661//
///// 88185 635// ///// 77270 26136 41214

TTBB 6617/ 72HMS 00877 15066 11867 12665 22850 11065 33831 10462 44813 10862
55763 06861 66740 07465 77700 06666 88663 01666 99613 01368 11606 01767 22535
06366 33500 11161 44440 18322 55433 20926 66405 23116 77400 23718 88345 29535
99300 37748 11269 44550 22200 589// 33185 635// 44166 609// 55124 671// 66106
647// 77100 661// 51515 SUPER 70-66

TTCC 66175 72HMS 70861 695// ///// 50065 653// 27060 88999 77999

TTDD 6617/ 72HMS 11856 605// 22655 719// 33626 663// 44500 653// 55470 603//

ROCKETSONDE: (1140 MST) RRXX 16184 72269 81010 63101 24/// 03006 25556 05006
29547 01006 30541 34009 32535 33016 35536 35013 38535 31012 40528 29014 42522
29026 45518 27023 50510 24031 51512 25026 52507 26021 55515 28023 57514 28036
60523 27035 61525 27029 65529 26032 66532 26025 67/// 25008 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

DATE OF OBSERVATION 17 March 1977 TIME 0902 (Local) 1602 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	13.0	13.0	13.9		17.9
T_{dp}	-15.1	-15.1	-13.7		-10.2
W_d, W_s	030 2.7	030 2.7	220 4.5		250 10.3G16.5
P	25.66	25.66	25.08		25.65
C	150 ⦶	150 ⦶	E 110 ⦶		100 ⦶
M	No	No	No		No
T_{a25}			13.9		
T_{dp25}			-18.1		
I	18.49	18.49	24.22		58.54
I_a	12.86	12.86	19.24		47.56
I_d	7.84	7.84	12.16		30.56
N					92.34
N_a					69.48
N_b					61.56
N_c					53.26
N_d					45.72
i	8.85	9.78	2.37		17.69
i_a	7.29	7.43	1.91		16.08
i_d	4.17	3.50	1.52		11.97
$T_{g/w}$	11.8	12.8	14.8		21.0
T_s	10.2	11.3	15.0		21.0
Y	Missing	Missing			0.8
c					
El, Az	33.1 117.6	33.1 117.6	32.9 118.0		33.2 117.2

REMARKS: MET SAT II - No normal incoming data due to obscuration
MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Spee. (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Y = Soil Moisture (%); c = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 17 March 1977 TIME 0932 (Local) 1632 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	12.6	12.6	13.7		19.3
T_{dp}	-9.8	-9.8	-12.9		-7.3
W_d, W_s	150 0.9	150 0.9	180 4.5G6.7		260 12.4G19.6
P	25.67	25.67	25.09		25.64
C	150 ⦶	150 ⦶	E 110 ⦶		100 ⦶
M	No	No	No		No
T_{a25}			15.0		
T_{dp25}			-14.6		
I	21.74	21.74	50.64		69.64
I_a	15.54	15.54	39.83		54.93
I_d	9.75	9.75	25.57		36.74
N					91.83
N_a					60.15
N_b					57.98
N_c					49.81
N_d					44.32
i	10.75	11.60	5.33		20.29
i_a	8.90	8.94	4.02		18.38
i_d	5.27	4.34	2.83		13.78
$T_{g/w}$	11.8	12.8	16.9		24.7
T_s	10.2	11.3	15.0		23.2
Ψ	Missing	Missing			0.8
ε					
El, Az	38.5 124.0	38.5 124.0	38.2 124.5		38.7 123.6

REMARKS: MET SAT I - No normal incoming data
MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 17 March 1977 TIME 1127 (Local) 1827 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	16.4	16.4	19.6		18.2
T_{dp}	-2.9	-2.9	-7.9		-3.6
W_d, W_s	240 17.9G22.4	240 17.9G22.4	230 4.5G8.9		250 10.3G20.6
P	25.62	25.62	25.05		25.61
C	W 4 X	W 4 X	E 150 (1)		220 - (1)
M	No	No	No		No
T_{a25}			17.9		
T_{dp25}			-7.6		
I	51.47	51.47	101.01		90.10
I_a	44.91	44.91	87.88		76.71
I_d	28.39	28.39	51.34		45.83
N			88.18		90.68
N_a			67.73		59.00
N_b			67.54		59.77
N_c			59.47		48.40
N_d			47.27		43.81
i	missing	29.58	8.64		25.18
i_a	24.60	23.55	7.54		22.97
i_d	13.53	12.39	6.67		17.29
$T_{g/w}$	missing	missing	30.8		32.3
T_s	missing	missing	37.0		28.7
Ψ	missing	missing			0.8
ε					
El, Az	53.7 159.9	53.7 159.9	53.1 160.4		54.1 159.5

REMARKS: MET SAT I - Blowing sand obscuration
MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 26 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 17 March 1977 TIME 1325 (Local) 2025 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	15.8	15.8	19.7		
T_{dp}	-3.3	-3.3	-6.2		
W_d	260	260	270		
W_s	16.1G22.8	16.1G22.8	6.7G8.9		
P	25.62	25.62	25.06		
C	W 4 X	W 4 X	60◐ 150 - ◐		
M	No	No	No		
T_{a25}			19.8		
T_{dp25}			-6.4		
I	71.32	71.32	100.92		
I_a	59.91	59.91	65.74		
I_d	37.71	37.71	56.42		
N					
N_a					
N_b					
N_c					
N_d					
i	missing	58.48	8.24		
i_a	39.43	42.07	5.23		
i_d	22.49	22.88	4.25		
$T_{g/w}$	missing	missing	26.0		
T_s	missing	missing	36.0		
Ψ	missing	missing			
ε					
El, Az	51.6 209.3	51.6 209.3	51.0 209.2		

REMARKS:
MET SAT I - Blowing sand obscuration
MET SAT III - Not operated this day
MET SAT IV - Not operated this day
MET SAT II - Normal incoming data not available due to clouds

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 17 March 1977

RADIOSONDE: (0800 MST) TTAA 67155 72HMS 99867 16667 24015 00035 ///// /////
85431 13666 23516 70027 02064 23557 50568 13963 25082 40736 20357 30943 35158
25068 445// 20213 581// 15390 675// 10632 649// 88117 727// ///// 77425 24624
439//

TTBB 6715/ 72HMS 00867 16667 11850 13666 22793 08466 33737 03846 44726 04064
55700 02064 66688 02065 77675 03165 88646 00064 99630 00264 11563 06164 22500
13963 33473 16962 44451 18750 55445 19101 66439 17901 77425 18101 88413 19350
99400 20357 11390 20359 22368 21959 33329 28759 44300 35158 55265 41758 66250
445// 77200 581// 88173 643// 99168 633// 11150 675// 22[illegible] 727// 44107 667//
55100 649// 61515 SUPER 33-30

TTCC 67152 72HMS 70852 651// ///// 50059 609// ///// 30382 577// ///// 20642
523// 12515 10101 437// ///// 88999 77999

TTDD 6715/ 72HMS 11953 663// 22853 593// 33700 651// 44643 653// 55576 601//
66500 609// 77423 557// 88300 577// 99200 523// 11122 429// 22100 437// 33093
431//

ROCKETSONDE: (1120 MST) RRXX 17182 72269 81010 13101 25557 07006 30544 09011
31545 06009 35529 04010 36532 03014 37530 02016 40525 01011 41519 36010 42513
31012 44514 31013 45510 31013 50505 30022 51502 29022 55513 27008 57520 22005
58517 24014 60521 26017 62519 29029 63523 30034 64528 30037 65/// 30032 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 23 March 1977 TIME 0903 (Local) 1603 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	9.2	9.2	15.5	12.0	15.1
T_{dp}	-2.2	-2.2	-5.5	2.2	-2.3
W_d, W_s	140 0.4	140 0.4	130 1.3	CALM	160 0.9
P	25.87	25.87	25.31	25.55	25.99
C	E150 ⓫	E150 ⓫	140 ①	E120 ⓫	160 ①
M	No	No	No	No	No
T_{a25}			14.8		
T_{dp25}			-5.0		
I	66.18	66.18	58.62	58.66	54.73
I_a	50.16	50.16	48.48	52.24	46.23
I_d	32.10	32.10	32.28	22.04	26.26
N	77.65	77.65	79.36		74.31
N_a	59.51	59.51	59.66		55.10
N_b	53.51	53.51	55.53		50.18
N_c	28.35	28.35	48.03		40.70
N_d	missing	missing	41.09		35.29
i	28.78	37.66	4.85	10.73	16.75
i_a	21.48	20.40	3.72	9.31	14.75
i_d	13.03	15.89	3.03	8.05	11.37
$T_{g/w}$	23.0	20.5	20.2	10.2	17.8
T_s	18.5	19.5	24.1		
Ψ	19.5	19.4			1.0
ε					
El, Az	35.2 116.0	35.2 116.0	35.0 116.5	34.3 115.5	35.3 115.6

REMARKS: MET SAT III - No normal incoming this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 23 March 1977 TIME 1052 (Local) 1752 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	16.7	16.7	17.8	14.6	19.8
T_{dp}	-2.0	-2.0	-4.5	1.8	0.8
W_d, W_s	040 2.2	040 2.2	230 2.7	CALM	170 3.6
P	25.81	25.81	25.30	25.54	25.97
C	90 ⦶	90 ⦶	E70 ⊕	120 ⦶	140 ⦶
M	No	No	No	No	No
T_{a25}			16.2		
T_{dp25}			-5.6		
I	86.87	86.87	33.49	93.58	92.27
I_a	84.78	84.78	26.88	79.10	70.27
I_d	33.90	33.90	16.57	52.10	47.47
N	80.59	80.59			87.15
N_a	53.64	53.64			63.63
N_b	42.78	42.78			58.22
N_c	missing	missing			47.30
N_d	missing	missing			41.42
i	55.54	65.42	3.43	12.67	23.73
i_a	47.76	51.76	2.61	11.38	21.28
i_d	31.14	28.81	2.02	9.05	16.20
$T_{g/w}$	17.8	21.6	26.3	10.5	30.6
T_s	25.0	30.0	29.1		39.7
Ψ	19.5	19.4			1.0
ε					
El, Az	52.7 145.6	52.7 145.6	52.2 146.2	52.0 144.6	53.1 145.1

REMARKS: METSAT II, III No normal incoming this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 23 March 1977 TIME 1200 (Local) 1900 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	20.3	20.3	19.3	16.0	21.1
T_{dp}	-3.3	-3.3	-5.1	3.8	-0.3
W_d	170	170	180	130	210
W_s	4.0	4.0	4.5	0.4	3.1
P	25.75	25.75	25.27	25.48	25.91
C	70 ◐	70 ◐	E70 ◐	○	70 ◐
M	No	No	No	No	No
T_{a25}			17.5		
T_{dp25}			-4.8		
I	95.17	95.17	91.19	108.94	101.09
I_a	72.99	72.99	78.79	88.06	71.20
I_d	46.93	46.93	50.48	58.12	51.52
N	92.98	92.98	73.55		96.76
N_a	67.82	67.82	55.53		70.59
N_b	63.73	63.73	51.97		64.71
N_c	52.62	52.62	39.59		54.86
N_d	45.47	45.47	31.89		48.74
i	47.59	54.38	9.47	11.64	25.60
i_a	38.81	44.21	7.14	10.34	22.85
i_d	24.88	23.94	5.76	8.05	17.29
$T_{g/w}$	30.1	32.8	28.5	12.4	35.5
T_s	28.5	36.0	35.4		41.4
Ψ	19.5	19.4			1.0
ε					
El, Az	57.7 174.3	57.7 174.3	57.1 174.6	57.2 172.7	58.2 174.0

REMARKS: MET SAT III - No normal incoming this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 23 March 1977 TIME 1314 (Local) 2014 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	22.0	22.0	20.4		22.2
T_{dp}	-6.8	-6.8	-3.1		-0.8
W_d, W_s	170 5.4	170 5.4	150 4.5		140 2.6
P	25.71	25.71	25.22		25.85
C	70 ⦶	70 ⦶	70 ⦶		70 ⦶
M	No	No	No		No
T_{a25}	19.2	19.2	18.5		
T_{dp25}			-5.2		
I	92.44	92.44	87.61		95.43
I_a	71.49	71.49	74.97		73.64
I_d	45.23	45.23	47.03		49.49
N	93.74	93.74	87.24		95.08
N_a	68.20	68.20	64.92		69.39
N_b	63.86	63.86	59.10		63.39
N_c	52.87	52.87	49.53		53.66
N_d	45.85	45.85	41.09		47.90
i	47.59	54.84	9.11		25.08
i_a	39.15	44.84	6.93		22.49
i_d	25.57	25.05	5.76		16.93
$T_{g/w}$	30.1	32.8	30.5		35.5
T_s	30.5	37.5	44.5		43.5
Ψ	19.5	19.4			1.0
ε					
El, Az	54.7 207.4	54.7 207.4	54.1 207.2		55.2 207.6

REMARKS: MET SAT III - Not operated this run

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 23 March 1977

RADIOSONDE: (0900 MST) TTAA 73161 72HMS 99874 13867 00000 00126 ///// /////
85495 09666 19004 02462 15512 50570 18963 19527 40733 29767 22037 30933 427//
25577 25054 509// 24610 20199 521// 25088 15384 555// 25074 10637 675// 27560
88235 517// 25084 77250 24613 43444

TTBB 7316/ 72HMS 00874 13867 11864 10666 22804 09265 33793 08065 44781 08664
55700 02462 66575 11333 77556 13550 88531 15935 99511 18560 11483 20367 22467
23365 33425 28941 44412 28567 55400 29767 66376 33167 77360 353// 88331 377//
99269 485// 11235 517// 22210 503// 33195 507// 44144 559// 55132 577// 66100
675// 51515 SUPER 80-79

TTCC 7316/ 72HMS 70851 659// 27028 50055 649// 30017 30374 561// 14005 20634
523// 16009 88999 77999

TTDD 7316/ 72HMS 11956 693// 22886 665// 33776 675// 44700 659// 55690 637//
66602 681// 77514 637// 88500 649// 99472 645// 11448 601// 22398 587// 33361
605// 44300 561// 55180 521// 66115 443// 51515 10190 10092

TTAA - Insert after 3rd group, second line: 70309

ROCKETSONDE: (1055 MST) RRXX 23180 72269 81010 63101 25555 08003 28552 04001
30545 26002 32543 27013 35537 28014 40520 26026 41517 27033 45510 27029 47505
27029 48502 26033 50508 27035 55515 25035 56513 25044 57514 26054 60523 26053
65524 28048 70547 29039 72*** 27010 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT B

DATE OF OBSERVATION 29 March 77 TIME 0943 (Local) 1643 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	10.2	10.2			14.7
T_{dp}	-2.3	-2.3			-1.7
W_d, W_s	240 9.8	240 9.8			240 9.3
P	25.71	25.71			25.77
C	E 40 ◐	E 40 ◐			60 ◐
M	No	No			No
T_{a25}					
T_{dp25}					
I	20.27	20.27			81.39
I_a	15.43	15.43			64.46
I_d	8.47	8.47			43.06
N					79.95
N_a					59.42
N_b					53.42
N_c					46.94
N_d					40.94
i	missing	10.58			23.73
i_a	missing	7.93			21.64
i_d	4.48	3.28			16.20
$T_{g/w}$	9.3	7.5			19.5
T_s	missing	missing			25.2
Ψ	19.7	20.0			0.9
ε					
El, Az	44.4 123.1	44.4 123.1			44.6 122.5

REMARKS: MET SAT I - No normal incoming due to clouds
MET SAT II - Observations not made this date
MET SAT III - Observations not made this date

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 29 March 77

RADIOSONDE: (1000 MST) TTAA 79171 72HMS 99866 12060 26524 00057 /////
///// 85418 08464 26531 70980 06701 25029 50554 20368 25583 40717 30565
26613 30916 435// 26101 25037 497// 25101 20184 491// 24072 15370 564//
25081 10623 585// 23556 88257 503// 25601 77336 26626 43013

TTBB 79171 72HMS 00866 12060 11850 08464 22802 04060 33700 06701 44639
10915 55605 14156 66596 13761 77594 13563 88588 14561 99582 15364 11574
14768 22531 17169 33500 20368 44470 23767 55449 24767 66413 29566 77400
30565 88399 33165 99371 33561 11467 33966 22257 503// 33245 495// 44245
469// 55190 493// 66150 565// 77126 589// 88103 655// 99103 623// 11100
585// 51515 SUPER 60-59 59-58

TTCC 79175 72HMS 70846 585// 25026 50056 611// 09023 88999 77999

TTDD 7917/ 72HMS 1197/ 577// 22883 625// 33812 525// 44771 557// 55750
555// 66606 621// 77569 581// 88495 605//

ROCKETSONDE: (1000 MST) RRXX 29170 72269 81010 13101 24556 25009 25553
27009 26555 28010 30548 28012 32541 28020 35537 27021 37535 28028 38533
28029 39530 27033 40520 27037 41514 27041 45508 26040 48508 25046 50508
25061 52511 26060 53508 27049 55512 27046 57516 27051 58519 27041 59522
26037 60520 25052 61521 24063 62523 24055 64531 27062 65/// 28064 66///
29058 67/// 31034 JJJ

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 30 March 77 TIME 0945 (Local) 1645 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	8.0	8.0	11.3	7.2	13.7
T_{dp}	-1.1	-1.1	-6.9	-2.8	-4.5
W_d, W_s	320 2.2	320 2.2	360 0.9	290 1.0	CALM
P	25.97	25.97	25.43	25.68	26.11
C	210 - ◐	210 - ◐	○	220 - ◐	250 - ◐
M	No	No	Yes	No	No
T_{a25}			13.0		
T_{dp25}			-8.8		
I	80.04	80.04	74.86	71.37	78.56
I_a	69.51	69.51	63.90	50.00	60.86
I_d	40.78	40.78	43.20	31.96	40.40
N	94.76	94.76	96.44		91.12
N_a	71.90	71.90	72.42		66.87
N_b	65.52	65.52	68.48		61.46
N_c	55.04	55.04	57.41		53.30
N_d	48.28	48.28	48.78		46.82
i	missing	45.39	5.21	4.85	21.02
i_a	missing	36.40	4.02	4.03	18.14
i_d	20.40	20.02	3.24	2.11	13.91
$T_{g/w}$	7.8	10.3	23.9	9.7	30.3
T_s	16.0	17.0	15.0		31.0
Y	21.9	19.9			
ε					
El, Az	45.1 123.3	45.1 123.3	44.9 123.9	44.3 122.7	45.3 122.7

REMARKS: MET SAT III - No normal incoming data this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Y = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 30 March 77 TIME 1121 (Local) 1821 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	13.9	13.9	14.8	10.0	17.1
T_{dp}	-3.8	-3.8	-7.8	-4.2	-1.3
W_d, W_s	130 2.2	130 2.2	180 1.8	340 2.1	145 2.1
P	26.01	26.01	25.43	25.68	26.08
C	210 -	210 -	220-	220 -	250 -
M	No	No	Yes	No	No
T_{a25}			15.0		
T_{dp25}			-4.9		
I	96.53	96.53	88.35	100.56	96.84
I_a	83.43	83.43	76.28	78.06	75.26
I_d	47.99	47.99	50.67	50.60	49.87
N	96.04	96.04	90.06		94.60
N_a	71.14	71.14	67.92		69.15
N_b	64.50	64.50	63.41		61.94
N_c	53.77	53.77	52.53		53.54
N_d	46.74	46.74	45.03		46.46
i	missing	55.29	6.75	4.56	25.49
i_a	missing	44.58	5.13	3.21	22.37
i_d	24.78	24.05	4.04	1.01	17.05
$T_{B/W}$	7.3	10.5	27.7	10.5	39.5
T_s	23.0	24.0	33.6		38.8
Ψ	21.9	19.9			0.9
ε					
El, Az	58.4 156.2	58.4 156.2	57.9 156.8	57.8 154.8	58.8 155.7

REMARKS: MET SAT III - No Normal Incoming Data this Day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{B/W}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-HS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 30 March 77 TIME 1200 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	14.9	14.9	15.3	11.2	17.8
T_{dp}	-4.5	-4.5	-8.4	-4.9	-1.3
W_d, W_s	100 2.7	100 2.7	190 3.6	340 1.5	150 2.1
P	26.01	26.01	25.43	25.67	26.08
C	200 - (I)	200 - (I)	220 - (I)	220 - (II)	250 - (I)
M	No	No	Yes	No	No
T_{a25}			15.8		
T_{dp25}			-6.5		
I	99.05	99.05	93.47	104.75	100.33
I_a	86.31	86.31	80.24	75.67	77.82
I_d	49.89	49.89	50.98	49.30	50.88
N	96.55	96.55	99.44		95.68
N_a	71.52	71.52	75.80		69.63
N_b	65.13	65.13	69.61		56.90
N_c	53.90	53.90	57.97		49.70
N_d	45.98	45.98	49.72		42.38
i	missing	57.57	7.10	3.78	25.81
i_a	missing	46.10	5.53	2.69	22.37
i_d	26.07	24.68	4.25	0.60	16.93
$T_{g/w}$	7.4	10.5	29.3	10.6	41.0
T_s	23.0	25.0	34.5		40.0
Ψ	21.9	19.9			0.9
ε					
El, Az	60.4 175.0	60.4 175.0	59.8 156.8	60.0 173.2	61.0 174.7

REMARKS: MET SAT III - No normal incoming data this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (°
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 30 March 77 TIME 1245 (Local) 1945 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	17.1	17.1	16.1	12.0	19.1
T_{dp}	-2.9	-2.9	-2.5	-5.2	0.1
W_d, W_s	080 1.8	080 1.8	180 3.1	320 2.1	250 3.1
P	25.93	25.93	25.41	25.65	26.04
C	200 - ◐	200 - ◐	220 - ◐	220 - ◐	250 - ◐
M	No	No	Yes	No	No
T_{a25}			16.1		
T_{dp25}			-5.8		
I	96.64	96.64	92.48	94.83	100.11
I_a	84.51	84.51	78.79	71.34	77.35
I_d	48.83	48.83	49.62	46.89	50.38
N	96.68	96.68	98.50		95.68
N_a	71.52	71.52	72.23		70.11
N_b	64.24	64.24	68.48		62.91
N_c	54.15	54.15	50.66		54.50
N_d	46.74	46.74	48.03		47.30
i	missing	57.00	6.98	3.39	26.01
i_a	missing	45.84	5.23	2.48	22.85
i_d	25.87	24.36	4.04	0.50	17.29
$T_{g/w}$	7.5	10.5	31.7	10.6	37.2
T_s	27.0	27.0	36.5		40.8
Ψ	21.9	19.9			0.9
ε					
El, Az	59.4 197.4	59.4 197.4	58.8 197.3	59.3 195.5	59.9 197.5

REMARKS: MET SAT III - No normal incoming data this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (°
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 30 March 77

RADIOSONDE: (0900 MST) TTAA 80161 72HMS 99878 11664 00000 00168 /////
///// 85526 07465 17503 70093 02167 25030 50570 15562 25058 40734 26966
24596 30935 431// 24070 25054 545// 24097 20197 521// 24576 15380 587//
24562 10630 639// 25045 88232 565// 24600 77306 24601 41825

TTBB 8016/ 72HMS 00878 11664 11867 08664 22850 07465 33812 05864 44734
00958 55687 02970 66677 03768 77647 04964 88617 07172 99596 09371 11587
10162 22547 11769 33528 12364 44530 15562 55448 21561 66400 26966 77335
36165 88300 431// 99232 565// 11218 569// 22212 541// 33200 521// 44133
625// 55100 639//

TTCC 80167 72HMS 70848 657// 23028 88999 77999

TTDD 8016/ 72HMS 11954 651// 22816 633// 33656 665// 44612 633// 55558
581// 66530 599// 51515 10190 50056

ROCKETSONDE: (1110 MST) RRXX 30181 72269 81010 13101 25553 25009 30543
27015 34534 26019 35534 26027 37531 28033 38523 27032 40517 27034 41514
27031 45507 25050 50506 26048 52506 27051 54507 26052 55509 27042 56512
27033 57515 26049 60516 26053 62516 26060 65525 27050 66528 28043 67532
31036 68537 33044 70550 34053 71*** 35043 72*** 01030 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

DATE OF OBSERVATION 4 April 77 TIME 0900 (Local) 1600 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	4.2	4.2	8.0		
T_{dp}	-4.0	-4.0	-7.5		
W_d, W_s	350 3.6	350 3.6	360 4.5		
P	25.92	25.92	25.39		
C	○	○	250 - ◐		
M	No	No	No		
T_{a25}					
T_{dp25}					
I	70.38	70.38	65.50		
I_a	54.02	54.02	54.81		
I_d	35.91	35.91	36.59		
N	91.57	91.57	93.62		
N_a	69.73	69.73	69.42		
N_b	63.73	63.73	65.48		
N_c	53.64	53.64	55.16		
N_d	46.62	46.62	46.53		
i	missing	40.05	5.68		
i_a	32.94	32.62	4.52		
i_d	18.81	17.90	3.54		
$T_{g/w}$	13.7	13.3	16.0		
T_s	24.2	14.9	15.0		
Ψ	24.4	19.7			
ε					
El, Az	38.3 111.7	38.3 111.7	38.2 112.2		

REMARKS: MET SAT III - Not operated this day
MET SAT IV - Not operated this run

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 4 April 77 TIME 1252 (Local) 1952 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	14.2	14.2	11.8		14.8
T_{dp}	-6.2	-6.2	-6.7		-8.7
W_d, W_s	120 0.9	120 0.9	340 4.0		240 2.1
P	25.92	25.92	25.39		26.01
C	◯	◯	250 - ◐		◯
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	98.11	98.11	92.66		95.54
I_a	77.17	77.17	79.97		75.26
I_d	50.21	50.21	50.48		49.12
N	97.83	97.83	101.13		98.68
N_a	72.67	72.67	74.48		71.79
N_b	66.41	66.41	70.73		64.71
N_c	55.43	55.43	58.35		56.18
N_d	48.02	48.02	50.09		49.10
i	51.18	58.35	6.98		26.43
i_a	50.71	47.61	5.43		23.22
i_d	27.66	26.06	4.35		17.53
$T_{g/w}$	18.5	24.8	31.1		40.8
T_s	29.1	32.9	27.0		39.2
Ψ	24.4	19.7			0.8
ε					
El, Az	60.7 202.6	60.7 202.6	60.6 200.6		61.2 202.8

REMARKS: MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 4 April 77

RADIOSONDE: (0800 MST) TTAA 54151 72HMS 99876 05860 02008 00164 /////
///// 85507 03464 01013 70046 07566 35022 50560 22363 02035 40720 34560
01056 30916 467// 01592 25035 531// 00572 20180 527// 31044 15364 587//
29047 10618 579// 27552 88250 531// 00572 77312 01609 43239

TTBB 5415/ 72HMS 00876 05860 11865 04466 22829 01064 33715 07963 44649
08570 55533 20162 66500 22363 77400 34560 88346 40760 99250 531// 11230
505// 22173 533// 33143 605// 44127 613// 55100 579//

TTCC 54152 72HMS 70839 593// 27532 50050 563// 25514 30374 547// 22520
20635 509// 24525 88999 77999

TTDD 5415/ 72HMS 11813 641// 22700 593// 33522 595// 44500 563// 55452
557// 66428 579// 77360 577// 88200 509// 99172 515//

ROCKETSONDE: (1055 MST) RRXX 04180 72269 81010 13101 25548 24012 27550
25017 30541 26019 35532 26038 36527 26039 37521 27037 38522 29033 40519
27018 45503 25044 46001 26048 47005 27047 48006 28046 50003 29032 52502
26022 55509 21036 56510 22039 57507 24035 59515 29021 60514 26019 61511
25023 62514 29015 63519 02018 64523 05027 65528 06025 66*** 08018

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 5 April 77 TIME 0911 (Local) 1611 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	12.5	12.5	10.8		12.2
T_{dp}	6.1	6.1	-4.9		-5.5
W_d, W_s	360 0.9	360 0.9	180 4.0		CALM
P	26.06	26.06	25.51		26.22
C	○	○	○		○
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	72.79	72.79	67.25		65.61
I_a	54.34	54.34	56.26		50.64
I_d	36.55	36.55	39.85		33.59
N	91.83	91.83	92.87		92.08
N_a	69.60	69.60	69.79		68.19
N_b	64.24	64.24	66.60		61.34
N_c	53.13	53.13	54.41		53.42
N_d	46.62	46.62	46.72		46.34
i	missing	40.84	6.04		19.56
i_a	34.34	33.50	4.62		17.17
i_d	18.91	18.01	3.54		13.06
$T_{g/w}$	22.8	20.7	19.3		27.7
T_s	15.2	14.1	23.2		25.2
Ψ	20.1	19.5			0.8
ε					
El, Az	40.7 113.6	40.7 113.6	40.6 114.2		40.9 113.1

REMARKS: MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (°
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 5 April 77

RADIOSONDE: No flight this date.

ROCKETSONDE: No flight this date.

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 6 April 77 TIME 1141 (Local) 1841 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	18.8	18.8	21.7	17.5	22.4
T_{dp}	-3.8	-3.8	-1.8	1.1	-3.2
W_d, W_s	180 2.2	180 2.2	220 4.0	320 1.0	020 2.0
P	26.12	26.12	25.61	25.91	26.24
C	○	○	60 ◐	○	○
M	No	No	No	No	No
T_{a25}			19.5		
T_{dp25}			-5.9		
I	100.74	100.74	94.13	101.11	94.67
I_a	77.49	77.49	80.76	77.46	73.52
I_d	59.49	59.49	53.35	51.10	48.11
N	103.83	103.83	92.31	98.38	99.16
N_a	78.54	78.54	72.80	70.91	72.63
N_b	69.86	69.86	68.48	65.05	65.43
N_c	60.03	60.03	54.79	53.74	57.02
N_d	53.00	53.00	43.15	46.06	49.82
i	missing	56.66	7.34	3.98	26.22
i_a	49.08	43.47	5.53	2.79	22.97
i_d	27.67	25.64	4.25	0.70	17.29
$T_{g/w}$	33.0	33.0	34.3	12.0	missing
T_s	33.0	33.0	45.0		46.2
Ψ	19.1	19.2			0.5
ε					
El, Az	62.5 165.4	62.5 165.2	62.0 166.0	62.0 163.8	63.0 165.0

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 6 April 77 TIME 1200 (Local) 1900 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	18.3	18.3	22.4	17.5	22.8
T_{dp}	-3.8	-3.8	-2.1	1.1	-2.7
W_d, W_s	180 2.2	180 2.2	200 2.2	360 1.0	020 2.0
P	26.14	26.14	25.61	25.83	26.22
C	○	○	60◐	○	○
M	No	No	No	No	No
T_{a25}			19.8		
T_{dp25}			7.9		
I	101.58	101.58	94.95	101.26	95.54
I_a	78.35	78.35	81.29	77.46	73.87
I_d	59.85	59.85	53.16	51.00	48.11
N	104.21	104.21	100.19	98.59	97.60
N_a	78.54	78.54	75.98	70.71	71.43
N_b	71.90	71.90	70.73	65.05	64.47
N_c	57.98	57.98	58.16	53.74	55.94
N_d	53.38	53.38	48.78	46.06	48.74
i	missing	56.88	7.46	4.17	26.01
i_a	49.54	43.67	5.53	2.79	22.49
i_d	28.00	25.85	4.45	0.50	17.05
$T_{g/w}$	32.9	36.8	36.4	12.0	missing
T_s	32.8	35.0	46.0		45.8
W	19.1	19.2			0.5
ε					
El, Az	63.2 175.7	63.2 175.7	62.6 176.1	62.8 173.8	63.7 175.4

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); W = Soil Moisture (%
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE 6 April 77

RADIOSONDE: (0843 MST) TTAA 56161 72HMS 99884 13667 00000 00224 /////
///// 85590 12667 17005 70190 01463 13514 50581 15968 28520 40746 28566
28037 30945 451// 28043 25065 543// 28047 20206 579// 27547 15387 605//
28049 10637 643// 28030 88213 587// 27547 77147 28050 40808

TTBB 5616/ 72HMS 00884 13667 11874 12467 22850 12567 33756 07665 44683
00562 55607 07564 66587 07168 77528 13568 88470 18567 99400 28566 11355
35764 22238 563// 33213 587// 44166 587// 55100 643//

TTCC 56162 72HMS 70855 635// 29520 50064 615// 25009 30392 521// 26010
20655 489// 24516 88999 77999

TTDD 5616/ 72HMS 11912 659// 22700 635// 33656 601// 44500 615// 55440
547// 66362 515// 77243 535// 88159 467//

ROCKETSONDE: (1331 MST) RRXX 06203 72269 81010 16101 25551 25011 28549
27012 30542 29015 31539 28014 35539 27025 37534 28029 40518 27018 41513
25015 45505 25030 47503 26033 50508 28029 51509 26030 52508 25030 54506
24012 55511 23011 56515 24011 57512 26012 58511 28013 60516 04004 61519
06013 62523 09011 63526 17007 65534 00012 66539 04022 6-*** 06026 69***
14018

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 12 April 77 TIME 1106 (Local) 1806 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	20.8	20.8	21.3		22.3
T_{dp}	-4.1	-4.1	-4.9		-4.6
W_d, W_s	060 1.3	060 1.3	190 4.5		CALM
P	25.93	25.93	25.42		26.02
C	○	○	○		○
H	No	No	No		No
T_{a25}			21.0		
T_{dp25}			8.9		
I	100.42	100.42	94.04		95.43
I_a	76.96	76.96	80.11		75.15
I_d	50.85	50.85	55.27		47.45
N	98.86	98.86	99.06		97.24
N_a	73.51	73.51	76.17		71.19
N_b	67.55	67.55	70.17		64.11
N_c	56.53	56.53	58.35		55.70
N_d	49.18	49.18	48.97		48.62
i	missing	54.72	7.34		25.91
i_a	43.06	41.74	5.33		21.89
i_d	28.22	24.68	4.25		16.81
$T_{g/w}$	34.0	37.9	34.5		missing
T_s	33.0	38.2	34.0		40.6
Y	19.5	19.2			0.5
ε					
El, Az	61.8 147.1	61.8 147.1	61.4 148.0		62.2 146.4

REMARKS: MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); H = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Y = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 12 April 77

RADIOSONDE: (0900 MST) TTAA 62161 72HMS 99877 16071 00000 00164
///// ///// 85528 15069 02503 70139 02066 23511 50577 16165 22033
40741 28962 22537 30941 449// 22547 25060 551// 22550 20200 619//
22545 15381 589// 24036 10636 583// 22516 88196 625// 22542 77222
22557 41116

TTBB 6216/ 72HMS 00877 16071 11858 12869 22850 15069 33769 09468
44690 00865 55641 01371 66585 07749 09369 88500 16165 99475 17767
11400 28962 22387 29763 33335 38361 44250 551// 55196 625// 66176
567// 77135 607// 88122 599// 99111 553// 11100 583// 51515 10186
//700 02066 SUPER 70-69

TTCC 62163 72HMS 70857 625// 23012 50066 585// 23506 30392 549//
24514 88999 77999

TTDD 6216/ 72HMS 11853 637// 22808 609// 33700 625// 44323 535//
55212 517// 51515 10190 20653

ROCKETSONDE: (1000 MST) RRXX 12173 72269 81010 13101 25559 26010
30552 26013 35538 25021 40528 28021 42519 27012 43514 25008 45516
26016 47508 25024 49513 28023 50509 28022 51511 29023 52513 30016
53515 03001 55512 15010 57519 22003 58522 22014 59526 20024 60///
20019 61/// 28014 62/// 31023 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

DATE OF OBSERVATION 13 April 77 TIME 0910 (Local) 1610 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	12.3	12.3		12.9	18.0
T_{dp}	5.5	5.5		-0.1	9.1
W_d, W_s	310 2.2	310 2.2		020 4.0	350 1.5
P	25.91	25.91		25.58	25.98
C	E50 (II)	E50 (II)		(O)	E45 (II)
M	Yes	Yes		Yes	Yes
T_{a25}					
T_{dp25}					
I	73.20	73.20		71.93	39.39
I_a	62.71	62.71		54.18	30.31
I_d	29.77	29.77		35.27	19.09
N				85.45	39.14
N_a				62.63	32.77
N_b				57.37	26.29
N_c				47.47	20.65
N_d				40.00	18.73
i	36.72	18.73		3.39	11.03
i_a	30.77	11.45		2.48	9.79
i_d	missing	5.51		1.01	7.26
$T_{g/w}$	12.9	16.3		13.2	20.3
T_s	18.5	19.0			30.2
Ψ	24.4	21.2			1.0
ε					
El, Az	42.8 110.7	42.8 110.7		42.0 110.3	43.0 110.2

REMARKS: MET SAT I - No normal incoming data due to clouds.

MET SAT II - Not operated this day due to inclement weather.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 13 April 77 TIME 1200 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	20.8	20.8		20.0	22.8
T_{dp}	8.9	8.9		6.7	9.2
W_d, W_s	220 1.8	220 1.8		CALM	360 2.6
P	25.83	25.83		25.51	25.90
C	60 ◐	60 ◐		E60 ◐	E50 ◐
M	Yes	Yes		Yes	Yes
T_{a25}					
T_{dp25}					
I	98.53	98.53		22.77	122.74
I_a	75.78	75.78		15.97	97.10
I_d	48.41	48.41		9.72	40.83
N	90.04	90.04			
N_a	67.69	67.69			
N_b	61.56	61.56			
N_c	51.72	51.72			
N_d	45.08	45.08			
i	41.62	45.65		0.78	16.44
i_a	30.88	32.23		0.41	12.21
i_d	missing	17.69		0.30	7.74
$T_{g/w}$	37.5	30.3		16.0	22.3
T_s	29.0	29.0			38.0
Ψ	24.4	21.2			1.0
c					
El, Az	65.8 176.5	65.8 176.5		65.4 174.5	66.3 176.2

REMARKS: MET SAT II - Not operated this day due to inclement weather
MET SAT III, IV - No normal incoming data due to clouds

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%
c = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 13 April 77 TIME 1326 (Local) 2026 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	23.5	23.5			27.1
T_{dp}	9.5	9.5			8.8
W_d, W_s	060 3.1	060 3.1			120 4.1
P	25.76	25.76			25.85
C	E50 (II)	E50 (II)			E50 (II)
M	Yes	Yes			Yes
T_{a25}					
T_{dp25}					
I	98.63	98.63			25.68
I_a	74.60	74.60			18.23
I_d	47.25	47.25			11.34
N	90.93	90.93			
N_a	68.07	68.07			
N_b	61.69	61.69			
N_c	51.47	51.47			
N_d	44.57	44.57			
i	MISSING	34.52			6.76
i_a	28.99	32.93			5.08
i_d	MISSING	18.11			4.23
$T_{g/w}$	34.9	37.4			17.9
T_s	31.0	32.0			33.5
Ψ	24.4	21.2			1.0
ε					
El, Az	59.6 222.0	59.6 222.0			60.0 222.4

REMARKS:
METSAT II - Not operated this day due to inclement weather
METSAT III - Site not operated for this observation
METSAT IV - No normal incoming data due to clouds

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 13 April 77

RADIOSONDE: (0800 MST) TTAA 63151 72HMS 99875 09802 00134 ///// /////
85504 13459 09014 70113 02831 18515 50574 16760 21025 40738 29359 21521
30936 455// 19519 25055 559// 18524 20194 647// 20540 15374 549// 24025
10630 619// 23019 88202 651// 20039 77197 20542 41421

TTBB 6315/ 72HMS 00875 09802 11854 13658 22818 13060 33745 06458 44668
00401 55628 03357 66602 06719 77571 08559 88466 20362 99458 20770 11429
24768 22408 27758 33400 29359 44393 30159 55387 30768 66374 32967 77225
613// 88200 647// 99184 635// 11170 581// 22150 549// 33115 577// 44100
619// 51515 SUPER 63-60 41-40

TTCC 63152 72HMS 70850 637// 25509 50059 585// 25507 30383 537// 25515
20646 501// 27520 88999 77999

TTDD 6315/ 72HMS 11880 639// 22792 599// 33700 637// 44654 609// 55578
619// 66500 585// 77388 575// 88326 531// 99168 497//

ROCKETSONDE: (1105 MST) RRXX 13181 72269 81010 13101 25553 27010 30545
24018 35536 27021 40521 28015 42515 25019 45507 26013 46509 28009 47510
28008 48507 26018 49504 26024 50508 26022 51505 26020 52501 27017 53501
29004 55510 30004 56516 33009 57515 07005 58515 16021 59517 17027 60516
15017 61520 20006 62525 26013 63528 24007 65531 20009 66534 32005 67538
01016 68542 03020 70*** 06032 72*** 10022 ***** *****

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

DATE OF OBSERVATION 20 April 77 TIME 0909 (Local) 1609 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	14.7	14.7	13.6		14.8
T_{dp}	8.4	8.4	5.0		4.5
W_d, W_s	070 3.6	070 3.6	030 3.0		200 8.2
P	25.90	25.90	25.22		25.86
C	50 E200	50 E200	40 E100 250		50
M	Yes	Yes	Yes		Yes
T_{a25}					
T_{dp25}					
I	77.21	77.21	64.86		71.49
I_a	56.16	56.16	33.20		57.14
I_d	34.22	34.22	25.48		37.05
N	84.42	84.42	26.27		89.08
N_a	63.09	63.09	13.13		65.67
N_b	57.47	57.47	14.45		59.66
N_c	48.02	48.02	17.07		51.14
N_d	41.25	41.25	14.07		44.66
i	missing	43.57	missing		19.98
i_a	25.63	34.00	missing		18.14
i_d	19.34	21.56	missing		13.66
$T_{g/w}$	missing	missing	17.0		12.5
T_s	20.7	21.5	20.0		26.4
Ψ	26.1	23.8			missing
ε					
El, Az	44.5 108.1	44.5 108.1	44.4 108.8		44.6 107.5

REMARKS: MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 20 April 77 TIME 1200 (Local) 1900 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a T_{dp} W_d, W_s P C M T_{a25} T_{dp25}					21.2 -0.4 210 6.2 25.83 E70 (11) Yes
I I_a I_d N N_a N_b N_c N_d i i_a i_d					108.60 87.69 57.28 90.40 66.15 59.42 51.26 44.66 29.14 26.60 19.83
$T_{g/w}$ T_s Ψ ε El, Az					18.5 36.4 missing 68.8 177.0

REMARKS: MET SAT I,II - No observation this period due to inclement weather
MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 20 April 77 TIME 1256 (Local) 1956 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a					20.8
T_{dp}					-4.0
W_d, W_s					205 5.1
P					25.81
C					E70 (11)
M					Yes
T_{a25}					
T_{dp25}					
I					21.76
I_a					16.02
I_d					10.11
N					
N_a					
N_b					
N_c					
N_d					
i					
i_a					5.52
i_d					4.23
					3.63
$T_{g/w}$					34.8
T_s					43.8
Ψ					missing
ε					
El, Az					65.7 212.2

REMARKS: MET SAT I,II - No observation this period due to inclement weather
MET SAT III - Not operated this day
MET SAT IV - No normal incoming data due to cloudiness

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 20 April 77

RADIOSONDE: (0800 MST) TTAA 70151 72HMS 99871 11022 00000 00084 /////
///// 85458 09245 24002 70039 01156 23523 50561 21356 21036 40722 33757
21539 30918 483// 20542 25036 541// 23554 20178 581// 23557 15362 523//
24037 10620 587// 19522 88187 593// 23062 77187 23062 40709

TTBB 7015/ 72HMS 00871 11022 11861 10057 22814 07446 33803 06859 44676
03556 55624 10126 66607 11511 77546 17756 88511 19744 99478 23358 11400
33757 22349 409// 33313 471// 44250 541// 55225 533// 66187 593// 77179
543// 88162 517// 99136 529// 11114 585// 22100 587// 51515 SUPER 67-62

TTCC 70153 72HMS 70841 625// 22530 50051 615// 25002 30371 561// 24515
88999 77999

TTDD 7015/ 72HMS 11813 633// 22758 605// 33700 625// 44593 581// 55475
635// 66278 527// 77205 523// 51515 10190 20632

ROCKETSONDE: (1030 MST) RRXX 20173 72269 80100 01201 21/// 06002 25///
24004 30/// 25004 32/// 24013 35/// 28011 40/// 30016 41/// 31008 43///
03009 45/// 16004 49/// 20015 50/// 19008 51/// 34009 52/// 34017 55***
23009 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 21 April 77 TIME 0909 (Local) 1609 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a			15.1		12.7
T_{dp}			0.3		3.4
W_d, W_s			CALM		CALM
P			25.48		26.17
C			○		○
M			Yes		Yes
T_{a25}			15.4		
T_{dp25}			1.1		
I			70.92		70.84
I_a			58.37		56.45
I_d			36.30		36.58
N			88.18		87.76
N_a			67.73		65.19
N_b			62.85		59.18
N_c			52.53		51.02
N_d			41.90		44.66
i			3.55		20.50
i_a			3.02		18.02
i_d			2.02		13.54
$T_{g/w}$			20.2		26.8
T_s			27.0		27.3
Y					2.9
ε					
El, Az			44.6 108.4		44.8 107.2

REMARKS: MET SAT I - Not operated this day
MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Y = Soil Moisture (%
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 21 April 77

RADIOSONDE: (0900 MST) TTAA 71161 72HMS 99880 12261 00000 00186 /////
///// 85548 07461 18004 70132 01959 31513 50572 19362 32033 40734 33762
34028 30826 493// 32045 25057 545// 33051 20198 561// 29040 15381 561//
26531 10638 587// 26531 88211 587// 31046 77165 28056

TTBB 7116/ 72HMS 00880 12261 11870 09461 22850 07461 33820 07664 44710
00760 55678 04357 66667 05750 77619 08560 88532 15764 99400 33762 11368
38961 22312 477// 33288 515// 44211 587// 55200 561// 66160 545// 77153
557// 88135 575// 99112 555// 11100 587// 51515 SUPER 68-67

TTCC 7116/ 72HMS 88999 77999

TTDD 7116/ 72HMS 11893 583// 22803 609// 33743 597// 51515 10190 70861

ROCKETSONDE: NONE

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

DATE OF OBSERVATION 22 April 77 TIME 0858 (Local) 1558 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	13.0	13.0	17.2		16.7
T_{dp}	4.9	4.9	2.6		4.2
W_d, W_s	CALM	CALM	350 0.9		CALM
P	26.26	26.26	25.89		26.24
C	220 - ⊕	220 - ⊕	240 - ⊕		250 - ⊕
M	No	No	No		No
T_{a25}			17.2		
T_{dp25}			2.3		
I	67.65	67.65	70.64		68.55
I_a	49.52	49.52	59.16		55.17
I_d	32.63	32.63	40.52		48.67
N	72.54	72.54	87.24		86.43
N_a	53.77	53.77	68.11		63.87
N_b	54.66	54.66	60.98		57.38
N_c	47.64	47.64	50.84		48.86
N_d	41.63	41.63	42.40		42.38
i	missing	39.93	4.73		19.25
i_a	missing	29.58	3.52		17.29
i_d	missing	18.64	2.62		13.18
$T_{g/w}$	11.5	13.0	missing		31.5
T_s	18.7	17.1	35.0		31.3
Ψ	16.6	17.2			missing
ε					
El, Az	42.9 105.4	42.9 105.4	42.9 106.1		43.0 104.9

REMARKS: MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_d = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_b = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 22 April 77 TIME 1118 (Local) 1818 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	20.3	20.3	21.5		23.8
T_{dp}	7.1	7.1	0.7		1.9
W_d, W_s	120 4.0	120 4.0	220 1.8		235 1.5
P	26.23	26.23	25.59		26.19
C	220 - ⊕	220 - ⊕	240 - ⊕		250 - ⊕
M	No	No	No		No
T_{a25}			20.2		
T_{dp25}			1.7		
I	105.46	105.46	96.70		101.20
I_a	82.74	82.74	83.00		76.66
I_d	53.39	53.39	57.47		48.77
N	92.46	92.46	97.75		72.87
N_a	68.71	68.71	73.36		58.10
N_b	63.86	63.86	67.92		50.18
N_c	53.26	53.26	56.85		39.02
N_d	46.23	46.23	47.84		35.77
i	49.82	60.98	7.34		24.35
i_a	41.16	46.10	5.43		19.95
i_d	35.00	28.64	4 15		15.84
$T_{g/w}$	20.5	21.5	missing		49.9
T_s	28.2	30.0	43.2		47.6
Ψ	16.6	17.2			missing
ε					
El, Az	66.6 150.9	66.6 150.9	66.1 151.9		67.0 150.1

REMARKS: MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 22 April 77

RADIOSONDE: (0830 MST) TTAA 72161 72HMS 99883 15062 30004 00217 /////
///// 85090 11663 27004 70185 03065 33004 50581 16063 31016 40744 29363
31522 30943 419// 30535 25064 529// 29054 20204 659// 28080 15378 629//
28546 10629 607// 28035 88182 695// 29058 77200 28080 43323

TTBB 7216/ 72HMS 00883 15062 11865 12263 22802 10264 33575 09565 44567
09566 55400 29363 66335 38361 77300 419// 88182 695// 99168 691// 11161
643// 22100 607//

TTCC 72161 72HMS 70852 615// 26020 50062 627// 10006 30383 543// 04002
20633 513// 16008 10092 407// 240// 07337 357// 235// 88999 77999

TTDD 7216/ 72HMS 11883 589// 22700 615// 33634 579// 44500 627// 55398
575// 66358 581// 77300 541// 88258 551// 99111 451// 11100 401// 22063
347//

ROCKETSONDE: (1109 MST) RRXX 22181 72269 81010 13101 25555 05001 30545
23007 35534 23015 36529 26019 37531 27022 38528 28021 39519 26009 40513
17012 41514 18018 42514 19015 43512 24008 45508 07003 46504 08011 47505
08016 48505 10010 50505 19021 51505 15014 52508 12025 55512 15030 56514
15037 57517 14038 58520 15030 59523 19023 60526 20041 61527 20044 62529
22016 63532 10013 64532 10038 65*** 08063 JJJ

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA y

DATE OF OBSERVATION 26 April 77 TIME 1022 (Local) 1622 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	17.5	17.5	20.9		19.6
T_{dp}	8.9	8.9	3.9		8.3
W_d, W_s	360 2.2	360 2.2	190 0.4		360 1.0
P	26.08	26.08	25.43		26.06
C	E110 (11)	E110 (11)	(0)		E80 (11) 200 (11)
M	Yes	Yes	Yes		Yes
T_{a25}			20.4		
T_{dp25}			5.4		
I	47.90	47.90	73.30		87.60
I_a	34.83	34.83	61.26		70.27
I_d	19.28	19.28	39.27		45.65
N			88.56		74.91
N_a			68.29		57.26
N_b			63.60		54.86
N_c			52.35		45.62
N_d			44.28		39.98
i		25.82	4.62		23.73
i_a		19.05	3.62		21.52
i_d		11.36	2.63		16.08
$T_{g/w}$	20.5	18.0	28.8		30.2
T_s	27.0	23.0	38.4		32.7
Ψ	20.0	18.1			missing
ε					
El, Az	48.5 108.6	48.5 108.6	48.4 109.4		48.5 108.0

REMARKS:
MET SAT I - No normal incoming data due to clouds
MET SAT I-A - No global outgoing data this day
MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 26 April 77

RADIOSONDE: (0700 MDT) TTAA 76131 72HMS 99878 10438 00000 00139 /////
///// 85528 13459 16505 70141 03442 28006 50578 15757 33154 40742 27758
29514 30942 435// 31531 25062 535// 31533 20202 617// 31038 15381 631//
30050 10628 639// 29038 88216 617// 31032 77150 30050 40606

TTBB 7613/ 72HMS 00878 10438 11867 14458 22837 13059 33827 13860 44758
08460 55731 05850 66668 00637 77639 03110 88630 03140 99615 04156 11526
12559 22476 18945 33400 27758 44387 30156 55315 40760 66216 617// 77181
599// 88155 617// 99150 631// 11124 659// 28100 639// 51515 SUPER 40-39

TTCC 76132 72HMS 70848 619// 31529 50055 627// 31021 30374 575// 19003
20633 525// 26009 88999 77999

TTDD 7613/ 72HMS 11868 647// 22803 611// 33538 647// 44160 481//

ROCKETSONDE: (1000 MDT) RRXX 26164 72269 81010 63101 25/// 26005 30///
26010 35/// 25016 40/// 27013 45/// 22007 47/// 18014 48/// 17020 49///
10002 50/// 14004 51/// 16012 52/// 13005 55/// 06006 56/// 10016 60///
13015 61/// 13020 62/// 14032 63/// 15037 65/// 11014 66/// 08019 68///
03010 69/// 01010 70/// 35022 71/// 00026 72/// 03023 JJJ

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 27 April 77 TIME 1224 (Local) 1824 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	25.5	25.5	25.1	21.5	26.1
T_{dp}	8.4	8.4	5.8	11.1	8.2
W_d, W_s	130 4.0	130 4.0	220 5.0	230 2.0	250 2.6
P	26.03	26.03	25.38	25.60	25.98
C	70 ⦶ 220- ⦶	70 ⦶ 220 ⦶	80 ⦶ 230- ⊕	220- ⦶	60 ⦶ 220- ⦶
M	No	No	No	No	No
T_{a25}			22.9		
T_{dp25}			5.3		
I	100.21	100.21	94.77	97.35	98.80
I_a	77.60	77.60	80.90	73.58	78.40
I_d	49.58	49.58	54.79	48.30	49.53
N	89.02	89.02	91.37	85.66	86.19
N_a	66.54	66.54	70.73	62.63	63.63
N_b	60.79	60.79	59.85	58.79	60.50
N_c	50.19	50.19	53.85	49.90	49.34
N_d	43.30	43.30	45.22	42.02	43.86
i	46.51	58.02	7.34	3.01	24.25
i_a	36.91	43.57	5.73	2.07	21.28
i_d	26.67	26.70	4.35	0.60	16.20
$T_{g/w}$	35.0	37.5	39.3	16.3	45.9
T_s	33.5	36.8	38.0	16.0	51.5
Ψ	14.7	14.9			3.3
ε					
El, Az	68.8 153.2	68.8 153.2	68.3 154.2	68.1 151.5	69.2 152.4

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 27 April 77 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	25.5	25.5	25.5	21.0	28.8
T_{dp}	9.3	9.3	5.9	11.0	7.1
W_d, W_s	110 2.7	110 2.7	170 3.1	CALM	140 2.1
P	26.02	26.02	25.37	25.60	25.96
C	70 ◐ 220- ◐	70 ◐ 220- ◐	80 ◐ 230- ⊕	220- ◐	60 ◐ 220- ⊕
H	No	No	No	No	No
T_{a25}			23.7		
T_{dp25}			6.7		
I	102.84	102.84	96.70	92.60	98.91
I_a	78.99	78.99	82.48	69.85	78.16
I_d	49.26	49.26	55.36	46.09	56.09
N	89.40	89.40	90.81	86.06	82.83
N_a	66.79	66.79	74.86	63.43	61.70
N_b	61.05	61.05	60.41	58.59	58.82
N_c	50.32	50.32	53.66	49.49	40.14
N_d	43.30	43.30	44.84	41.41	41.78
i	48.96	59.16	6.98	2.81	23.93
i_a	39.15	44.17	5.43	1.65	20.92
i_d	27.78	27.18	4.24	0.70	15.72
$T_{g/w}$	35.0	37.5	40.0	16.2	49.9
T_s	35.0	38.0	39.5	16.0	52.3
Ψ	14.7	14.9			3.3
ε					
El, Az	70.7 178.0	70.7 178.0	70.0 178.5	70.3 175.5	71.2 177.7

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); H = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 27 April 77 TIME 1327 (Local) 1927 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	26.5	26.5	27.0	30.0	39.4
T_{dp}	8.4	8.4	4.8	14.6	7.0
W_d, W_s	120 4.0	120 4.0	230 0.9	130 2.0	180 1.5
P	26.00	26.00	25.34	25.56	25.95
C	70 ◐ E220 ◐	70 ◐ E220 ◐	80 ◐ E250 ⊕	70 ◐ E250 ⊕	60 ◐ E220 ⊕
M	NO	NO		NO	NO
T_{a25}			23.5		
T_{dp25}			6.0		
I	102.42	102.42	95.78	95.25	97.39
I_a	78.24	78.24	81.42	66.42	75.73
I_d	47.03	47.03	53.07	47.49	49.62
N	88.38	88.38	77.67	62.83	70.59
N_a	65.90	65.90	63.41	46.06	52.46
N_b	60.41	60.41	51.03	43.03	49.94
N_c	49.81	49.81	45.22	28.48	40.94
N_d	42.66	42.66	38.65	25.86	35.77
i	47.74	58.93	7.10	3.39	23.83
i_a	39.15	44.07	5.53	2.48	21.04
i_d	26.67	26.70	4.14	1.01	15.96
$T_{g/w}$	35.0	37.5	missing	17.3	51.7
T_s	35.0	38.0	39.5		52.3
Ψ	14.7	14.9			3.3
ε					
El, Az	69.9 197.4	69.9 197.4	69.3 197.3	69.8 194.7	70.4 197.6

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg. Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 27 April 77

RADIOSONDE: No Flight

ROCKETSONDE: (1200 MDT) RRXX 27182 72269 81010 63101 25554 24007 26549
23007 30545 23014 31540 24018 33539 27017 35529 27020 40519 31009 41511
15001 42510 18010 44505 30002 45508 19002 46503 24005 47003 22006 50501
09012 51503 16010 55512 07006 56510 09009 60520 10017 61523 13008 65536
11013 67/// 10009 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 4 May 1977 TIME 1016 (Local) 1616 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	22.8	22.8	23.1	18.0	23.2
T_{dp}	7.2	7.2	1.9	7.8	5.7
W_d, W_s	210 6.3	210 6.3	200 4.9	CALM	030 1.5
P	26.03	26.03	25.46	25.54	25.93
C	E110 ⦶	E110 ⦶	○	○	E70 ⦶ 180 ⦶
M	No	No	No	No	No
T_{a25}			21.5		
T_{dp25}			3.3		
I	99.05	99.05	76.88	78.07	78.45
I_a	78.14	78.14	59.84	60.60	63.30
I_d	48.73	48.73	40.80	37.47	40.26
N	94.38	94.38	94.93	93.74	89.32
N_a	69.99	69.99	72.23	68.69	61.70
N_b	63.35	63.35	67.17	62.63	60.14
N_c	52.23	52.23	55.16	52.32	48.02
N_d	44.57	44.57	47.09	42.02	42.14
i	53.61	56.99	6.51	2.91	23.20
i_a	45.41	43.57	5.03	2.07	20.80
i_d	28.89	26.89	4.04	0.52	15.36
$T_{g/w}$	34.5	36.3	27.5	17.0	39.6
T_s	28.0	32.0	32.2		36.7
Ψ	13.4	8.5			2.1
ϵ					
El, Az	48.9 104.5	48.9 104.5	48.8 105.3	48.0 104.2	48.9 103.8

REMARKS:

LEGEND

T_a = Air Temperature (^oC); T_{dp} = Dew Point Temperature (^oC); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (^oC), Dew Point Temperature (^oC) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (^oC); T_s = Surface Temperature (^oC); Ψ = Soil Moisture (%); ϵ = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Landsat B

DATE OF OBSERVATION 4 May 1977 TIME 1040 (Local) 1640 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	23.8	23.8	23.1	18.4	24.1
T_{dp}	6.9	6.9	1.9	7.9	7.3
W_d, W_s	210 10.3G12.1	210 10.3G12.1	180 4.5	270 2.2	050 1.0
P	26.02	26.02	25.46	25.53	25.93
C	E110 ◐ 230 ◐	E110 ◐ 230 ◐	230 - ◐	○	70 ◐ E180 ◐
T^M	No	No	No	No	No
T_{a25}			21.8		
T_{dp25}			2.4		
I	95.12	95.12	82.84	82.26	91.40
I_a	74.70	74.70	65.05	62.54	68.52
I_d	51.63	51.63	44.35	40.08	44.71
N			96.25	95.96	74.07
N_a			72.80	70.30	44.66
N_b			68.11	64.44	37.33
N_c			55.16	53.94	34.57
N_d			47.47	45.05	25.57
i	55.45	40.61	6.98	2.81	23.77
i_a	49.55	18.84	5.33	1.96	20.80
i_d	12.11	10.10	4.25	0.31	15.11
$T_{g/w}$	28.3	31.4	29.5	17.0	42.7
T_s	27.0	31.0	32.2		46.0
Ψ	13.4	8.5			2.1
ε					
El, Az	53.7 109.6	53.7 109.6	53.6 110.5	52.9 109.2	53.8 108.8

REMARKS: MET SAT I - No normal incoming data this run due to clouds

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 4 May 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	26.1	26.1	27.1		25.0
T_{dp}	5.4	5.4	1.8		6.8
W_d, W_s	240 7.2G9.8	240 7.2G9.8	240 4.5		285 2.1
P	25.98	25.98	25.43		25.89
C	60 ⦶ E110 ⦷	60 ⦶ E110 ⦷	120 ⦶		550 ⦶ E90 ⦷
M	No	No	No		No
T_{a25}			24.8		
T_{dp25}			0.9		
I	136.66 *	136.66 *	100.18		81.28
I_a	110.83 *	110.83 *	81.48		71.20
I_d	65.04 *	65.04 *	56.80		45.84
N			99.55		54.62
N_a			74.30		33.25
N_b			69.42		31.09
N_c			56.66		
N_d			48.22		
i	75.89 *	34.13	7.81		15.71
i_a	28.30	21.07	6.13		14.39
i_d	14.00	12.43	4.85		12.82
$T_{g/w}$	29.1	29.3	34.9		42.2
T_s	41.0	45.0	41.8		41.3
Ψ	13.4	8.5			2.1
ε					
El, Az	79.4 167.2	79.4 167.2	78.8 168.5		79.9 166.0

REMARKS: MET SAT I - No normal incoming data this run due to clouds
MET SAT II - Not operated this run
MET SAT IV - Normal incoming (N_c N_d) readings missing due to clouds
METSAT I * - High readings also noted at other times around Noon Run period.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

4 May 1977

RADIOSONDE: (0900 MDT) TTAA 54151 72HMS 99878 21266 23005 00128
///// ///// 85543 18866 21509 70166 05261 25526 50581 13168 27028
40748 23167 26053 30951 38362 24054 25075 467// 25037 20219 583//
25052 15395 661// 25060 10648 601// 27512 88162 679// 25057 77178
25070 41118 Ø

TTBB 5415/ 72HMS 00878 21266 11850 18866 22825 15464 33723 06461
44700 05261 55666 02461 66575 07734 77568 07759 88553 07960 99526
10968 11443 17967 22427 19165 33400 23167 44329 34961 55300 38362
66250 467// 77162 679// 88143 643// 99136 651// 11114 531// 22100
601// 51515 SUPER 85-82 Ø

TTCC 54152 72HMS 70868 635// 24513 50076 633// 28004 30395 545//
27509 20658 496// 26015 88999 77999 Ø

TTDD 5415/ 72HMS 11915 635// 22873 609// 33728 645// 44700 635//
55643 617// 66500 633// 77429 625// 88393 577// 99323 577// 11300
545// 22200 495// 33160 489// Ø

ROCKETSONDE: (1000 MDT) RRXX 04161 72269 81010 63101 25550 27007
29542 25007 30536 25008 35523 27010 37513 28007 38513 27009 40003
33004 41000 02011 45510 17008 46511 23008 47513 31001 48516 06003
50526 11006 51525 12004 55/// 09019 56/// 08021 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 5 May 1977 TIME 1203 (Local) 1803 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	20.7	20.7	20.0		20.5
T_{dp}	11.6	11.6	9.0		6.7
W_d, W_s	200 8.0	200 8.0	230 3.6		210 4.1
P	25.98	25.98	25.40		25.85
C	60 ◐ 120 ◐ E250 ◐	60 ◐ 120 ◐ E250 ◐	50 ◐ E210 ◐		60 ◐ 250 - ◐
M	Yes	Yes	Yes		Yes
T_{a25}			21.0		
T_{dp25}			9.7		
I	105.67	105.67	96.51		98.59
I_a	83.07	83.07	76.97		78.16
I_d	45.97	45.97	59.38		49.62
N	92.46	92.46	53.93		92.80
N_a	70.37	70.37	27.70		66.39
N_b	65.39	65.39	22.35		62.91
N_c	55.30	55.30	18.71		51.38
N_d	48.02	48.02	16.18		44.66
i	41.98	51.19	7.10		26.33
i_a	23.50	39.01	5.63		23.70
i_d	14.67	23.98	4.45		17.65
$T_{g/w}$	20.6	22.9	27.9		37.9
T_s	21.2	22.5	30.0		40.2
Ψ	24.4	22.9			2.9
ε					
El, Az	68.5 138.3	68.5 138.3	68.1 139.6		68.9 137.2

REMARKS: MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 5 May 1977 TIME 1420 (Local) 2020 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	23.9	23.9	21.2		23.5
T_{dp}	7.7	7.7	7.7		6.7
W_d, W_s	150 4.9	150 4.9	200 3.6		200 3.0
P	25.94	25.94	25.32		25.79
C	60 ◐ 120 ◐	60 ◐ 120 ◐	50 ◐ 210 ◐		60 ◐
M	Yes	Yes	Yes		Yes
T_{a25}			22.0		
T_{dp25}			8.9		
I	109.14	109.14	62.96		109.79
I_a	86.71	86.71	42.94		88.73
I_d	42.69	42.69	36.42		57.47
N	95.27	95.27			67.47
N_a	71.65	71.65			66.75
N_b	65.90	65.90			63.27
N_c	55.43	55.43			51.38
N_d	25.16	25.16			44.66
i	47.61	57.79	9.23		31.53
i_a	26.85	43.97	6.53		28.78
i_d	15.11	26.89	3.03		21.52
$T_{g/w}$	30.9	30.5	25.2		51.8
T_s	28.0	29.5	26.1		52.3
Ψ	24.4	22.9			1.7
ε					
El, Az	65.5 231.1	65.5 231.1	65.1 230.3		65.9 231.8

REMARKS: MET SAT II - No normal incoming data due to clouds
MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

5 May 1977

RADIOSONDE: (0800 MDT) TTAA 55141 72HMS 99871 15065 03002 00058 /////
///// 85469 13657 30502 70067 01411 23511 50570 14724 19530 40735 26147
18024 30936 42956 18027 25057 507// 19033 20202 543// 23526 15386 561//
23036 10643 595// 24542 88200 543// 23526 77230 29551 43427 Ø

TTBB 5514/ 72HMS 00871 15065 11861 14057 22804 10456 33724 02801 44618
03903 55400 26147 66291 44556 77263 503// 88241 515// 99237 491// 11200
543// 22173 539// 33154 571// 44129 569// 55121 557// 66100 595// Ø

TTCC 55141 72HMS 70861 621// 23512 50070 615// 08512 30391 545// 22009
20653 507// 29511 10115 401// 28014 88999 77999 Ø

TTDD 5514/ 72HMS 11761 679// 22700 621// 33500 615// 44200 507// 55173
479// 66100 401// 77078 381// 51515 10190 07355 Ø

ROCKETSONDE: (1200 MDT) RRXX 05180 72269 81010 63101 25551 26006 29544
25006 30539 25006 35528 27007 40517 04006 41509 08008 45505 11009 48001
08017 49501 09017 50502 09013 51503 09010 52505 12020 53506 13027 55505
13020 56507 14026 57509 14027 58512 15020 59514 09007 60517 05016 62523
10033 65532 08026 66536 09023 68*** 06007 ***** *****

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 10 May 1977 TIME 0946 (Local) 1546 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	22.1	22.1	22.2		22.2
T_{dp}	1.0	1.0	-1.8		1.4
W_d, W_s	220 10.0	220 10.0	180 4.0		310 4.1
P	25.99	25.99	25.43		25.89
C	120 ⦶	120 ⦶	120 ⦶		80 ⦶
M	No	No	No		No
T_{a25}			22.0		
T_{dp25}			1.6		
I	75.32	75.32	70.46		70.29
I_a	58.52	58.52	53.47		58.89
I_d	31.67	31.67	36.59		38.19
N	90.93	90.93	93.25		88.00
N_a	67.43	67.43	74.86		64.11
N_b	62.20	62.20	65.85		60.74
N_c	51.60	51.60	55.16		49.82
N_d	42.27	42.27	46.34		43.58
i	37.33	42.43	5.92		21.33
i_a	missing	32.21	4.52		19.23
i_d	20.78	20.00	3.54		14.27
$T_{g/w}$	22.0	23.5	28.4		32.8
T_s	23.5	24.0	29.2		32.8
Ψ	19.4	20.2			1.8
ε					
El, Az	43.6 97.1	43.6 97.1	43.6 97.8		43.6 96.6

REMARKS: MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Landsat A

DATE OF OBSERVATION 10 May 1977 TIME 0957 (Local) 1557 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	22.3	22.3	22.2		22.2
T_{dp}	0.7	0.7	-0.4		1.0
W_d, W_s	230 9.8	230 9.8	180 3.1		300 4.1
P	25.99	25.99	25.45		25.84
C	120 ⦶	120 ⦶	120 ⦶		80 ⦶
M	No	No	No		No
T_{a25}			22.0		
T_{dp25}			1.6		
I	78.78	78.78	73.39		77.80
I_a	60.99	60.99	56.25		61.44
I_d	32.84	32.84	38.03		39.89
N	91.31	91.31	94.18		89.32
N_a	68.33	68.33	75.05		64.71
N_b	62.58	62.58	66.79		61.46
N_c	51.85	51.85	55.53		50.54
N_d	44.57	44.57	46.34		44.06
i	38.80	44.37	6.27		22.27
i_a	missing	33.74	4.72		20.19
i_d	21.44	20.87	3.74		14.99
$T_{g/w}$	21.9	23.5	29.0		35.1
T_s	23.5	24.0	29.2		34.7
Ψ	19.4	20.2			1.8
ε					
El, Az	45.9 98.9	45.9 98.9	45.9 99.6		45.9 98.3

REMARKS: Met Sat III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 2 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 10 May 1977 TIME 1209 (Local) 1809 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	24.8	24.8	26.3		24.9
T_{dp}	4.3	4.3	6.0		2.5
W_d, W_s	100 2.7	100 2.7	220 3.6		185 3.6G11.8
P	25.98	25.98	25.39		25.86
C	○	○	120 ◐		○
M	No	No	No		No
T_{a25}			25.0		
T_{dp25}			1.5		
I	104.52	104.52	98.17		100.54
I_a	81.24	81.24	79.51		80.37
I_d	46.82	46.82	54.69		51.32
N	97.45	97.45	99.44		95.32
N_a	71.14	71.14	76.92		68.43
N_b	65.52	65.52	69.42		64.47
N_c	54.02	54.02	58.16		52.94
N_d	46.62	46.62	48.97		46.22
i	49.45	58.82	7.22		27.47
i_a	missing	44.48	5.53		24.79
i_d	28.00	20.06	4.45		18.62
$T_{g/w}$	38.5	37.9	35.1		46.8
T_s	37.0	43.0	42.1		45.3
Ψ	19.4	20.2			
ε					
El, Az	70.5 139.6	70.5 139.6	70.1 141.0		70.9 138.4

REMARKS: MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 10 May 1977

RADIOSONDE: (0900 MDT) TTAA 60151 72HMS 99872 21471 25006 00068 /////
///// 85488 17665 25510 70104 03861 26006 50576 11763 21524 40742 26961
22017 30942 433// 23514 25062 521// 24524 20204 567// 24026 15385 585//
24533 10637 631// 23017 88188 595// 23531 77477 21535 40811 Ø

TTBB 6015/ 72HMS 00872 21471 11850 17665 22709 04462 33650 00661 44624
00761 55580 05941 66563 07150 77546 07562 88521 09364 99400 26961 11325
39959 22232 557// 33221 569// 44200 567// 55188 595// 66158 581// 77127
579// 88103 635// 99100 631// Ø

TTCC 60152 72HMS 70858 633// 32003 50067 587// 10510 30391 527// 21504
20656 483// 77999 88999 Ø

TTDD 6015/ 72HMS 11938 607// 22878 609// 33700 633// 44598 603// 55553
623// 66423 559// 77368 571// 88233 99153 439// Ø

ROCKETSONDE: (1200 MDT) RRXX 10180 72269 81010 63101 23*** 35002 24556
05001 25553 12003 27546 17005 30544 29002 31543 30003 32541 27001 33532
18003 35529 16006 38527 12004 40514 11007 41514 07008 44500 12019 45500
12020 50506 14024 52508 15017 53508 15017 55507 10029 56510 09025 57512
09029 58514 10041 59516 11038 60519 13022 61522 11013 62524 08026 63527
08040 64530 10038 65533 12024 66537 12011 67541 08010 69552 04027 70***
03029 71*** 01031 72*** 35033 JJJ

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

DATE OF OBSERVATION 11 May 1977 TIME 1013 (Local) 1613 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	20.2	20.2	20.8	17.6	21.5
T_{dp}	6.5	6.5	0.1	-5.7	1.7
W_d, W_s	240 2.0	240 2.0	190 2.7	CALM	215 1.0
P	26.06	26.06	25.51	25.56	25.95
C	220 - ◐	220 - ◐	240 - ◐	250 - ◐	230 - ◐
T^M	No	No	No	No	No
T_{a25}			22.0		
T_{dp25}			3.1		
I	82.25	82.25	78.62	84.92	79.11
I_a	62.81	62.81	61.46	64.78	62.72
I_d	41.84	41.84	41.38	42.59	41.02
N	93.74	93.74	95.50	94.14	90.76
N_a	69.86	69.86	73.36	69.29	66.15
N_b	63.73	63.73	67.54	63.43	62.55
N_c	53.00	53.00	56.29	52.93	51.62
N_d	45.98	45.98	47.47	44.04	45.14
i	36.47	45.40	5.92	3.00	21.54
i_a	missing	34.14	4.52	2.59	19.35
i_d	20.34	21.36	3.64	1.01	14.87
$T_{g/w}$	27.8	30.3	28.9	17.7	35.3
T_s	38.8	41.0	31.0		39.6
Ψ	13.8	14.2			1.0
ε					
El, Az	49.3 101.5	49.3 101.5	49.3 102.2	48.5 101.2	49.4 100.8

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 11 May 1977 TIME 1200 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	25.5	25.5	27.7		29.0
T_{dp}	-2.5	-2.5	-2.7		2.3
W_d, W_s	010 3.0	010 3.0	190 4.5		205 2.1
P	26.03	26.03	25.46		25.90
C	E200 - ⊕	E200 - ⊕	E240 - ⊕		E230 - ⊕
M	No	No	No		No
T_{a25}			24.5		
T_{dp25}			-3.5		
I	105.15	105.15	100.73		100.44
I_a	78.99	78.99	82.75		77.00
I_d	51.69	51.69	55.94		52.36
N	80.20	80.20	97.56		93.64
N_a	58.75	58.75	74.30		67.83
N_b	50.19	50.19	68.86		63.75
N_c	38.31	38.31	56.66		52.70
N_d	35.38	35.38	48.03		46.34
i	44.19	54.83	7.10		27.47
i_a	37.97	41.34	5.43		24.23
i_d	26.44	26.60	4.45		18.62
$T_{g/w}$	39.8	39.8	39.0		46.4
T_s	40.5	40.5	41.0		50.2
Ψ	13.8	14.2			1.0
ε					
El, Az	74.8 178.8	74.8 178.8	74.2 179.3		75.3 178.4

REMARKS: MET SAT III - Not operated during this observation period.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 11 May 1977 TIME 1309 (Local) 2009 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	28.3	28.3	27.3		29.3
T_{dp}	-1.1	-1.1	-4.3		8.1
W_d, W_s	180 2.0	180 2.0	220 5.4		220 3.1
P	26.01	26.01	25.46		25.88
C	E250 - ⊕	E250 - ⊕	70 ⦶ E240- ⊕		65 ⦶ E230- ⦶
M	No	No	No		No
T_{a25}			25.0		
T_{dp25}			-2.2		
I	80.36	80.36	91.56		96.52
I_a	57.23	57.23	79.51		77.00
I_d	40.15	40.15	49.43		50.47
N	71.01	71.01	72.61		93.40
N_a	57.73	57.73	52.53		67.11
N_b	54.41	54.41	50.66		63.51
N_c	44.70	44.70	42.03		51.98
N_d	35.63	35.63	35.83		45.38
i	45.78	45.85	7.34		27.06
i_a	36.55	34.25	5.63		24.43
i_d	27.56	27.18	4.55		18.62
$T_{g/w}$	35.0	39.8	37.8		48.0
T_s	39.6	46.0	43.0		52.0
Ψ	13.8	14.2			1.0
ε					
El, Az	68.5 229.1	68.5 229.1	67.0 228.2		68.9 229.9

REMARKS: **MET SAT III - Not operated during this observation period.**

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 11 May 1977

RADIOSONDE: (0800 MDT) TTAA 61141 72HMS 99873 15260 11002 00089
///// ///// 85484 18262 17005 70011 07063 24517 50568 09564 24527
40737 20963 23513 30942 37160 23013 25066 463// 26021 20211 555//
26040 15394 513// 23525 10657 513// 23027 88189 575// 26042 77189
26043 40807 Ø

TTBB 6117/ 72HMS 00873 15260 11855 14061 22850 18262 33772 13265
44700 07063 55608 00734 66582 03558 77567 04164 88521 07564 99500
09564 11400 20963 22281 40360 33189 575// 44174 585// 55169 545//
66160 513// 77100 513// Ø

TTCC 61142 72HMS 70885 545// 20515 50103 529// 11506 30441 439//
23008 20715 399// 22512 88999 77999 Ø

TTDD 6114/ 72HMS 11763 573// 22700 545// 33663 519// 44500 529//
55403 467// 66300 439// 77248 441// 88162 367// Ø

ROCKETSONDE: (1225 MDT) RRXX 11183 72269 81010 63101 25549 21007
30542 18008 31543 18008 33536 24009 35532 03003 37524 12013 40511
13015 42512 10015 45502 11013 47504 12023 48503 13023 50501 09018
52502 10026 53504 09032 55507 10025 60519 12036 61521 13039 62524
13032 63527 12021 65534 13031 66538 12021 67542 09014 70560 07030
72/// 08040 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 17 May 1977 TIME 1029 (Local) 1629 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	22.9	22.9	23.0		21.2
T_{dp}	-1.0	-1.0	-6.9		0.1
W_d, W_s	110 4.5	110 4.5	180 5.4		240 0.9
P	26.04	26.04	25.48		25.92
C	○	○	○		○
M	No	No	No		No
T_{a25}			21.8		
T_{dp25}			-7.3		
I	86.87	86.87	83.49		84.87
I_a	67.42	67.42	66.09		66.43
I_d	45.02	45.02	44.44		44.80
N	92.46	92.46	93.06		88.96
N_a	68.84	68.84	71.67		65.31
N_b	63.22	63.22	66.98		61.70
N_c	51.60	51.60	55.16		51.50
N_d	45.34	45.34	47.65		45.02
i	43.82	48.81	6.86		24.04
i_a	37.32	36.88	5.33		21.77
i_d	25.00	23.11	4.35		16.69
$T_{g/w}$	28.1	32.9	29.7		37.3
T_s	27.5	32.0	33.5		36.2
Ψ	20.2	16.8			0.7
ε					
El, Az	53.4 102.4	53.4 102.4	53.3 103.4		53.4 101.7

REMARKS: MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 17 May 1977 TIME 1358 (Local) 1958 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	27.8	27.8	26.0		27.2
T_{dp}	-0.6	-0.6	-3.8		-5.0
W_d, W_s	170 4.5	170 4.5	190 5.4		200 5.1
P	25.98	25.98	25.44		25.87
C	○	○	○		○
M	No	No	No		No
T_{a25}			24.0		
T_{dp25}			-5.5		
I	103.89	103.89	98.44		99.56
I_a	81.35	81.35	61.83		80.49
I_d	52.54	52.54	54.69		52.55
N	92.59	92.59	96.81		91.24
N_a	69.86	69.86	73.55		65.67
N_b	63.86	63.86	68.29		62.06
N_c	51.21	51.21	55.72		51.26
N_d	42.47	42.47	47.84		45.14
i	52.88	57.91	7.46		28.10
i_a	44.79	44.28	5.73		25.51
i_d	29.67	27.38	4.55		19.47
$T_{g/w}$	35.0	37.5	37.2		47.2
T_s	33.5	38.5	40.3		44.3
Ψ	20.2	16.8			0.7
ε					
El, Az	71.3 226.2	71.3 226.2	70.8 225.2		71.7 227.1

REMARKS: MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 17 May 1977

RADIOSONDE: No Flight this day.

ROCKETSONDE: (1300 MDT) RRXX 17190 72269 81010 63101 25/// 09002
30/// 08005 32/// 24000 35/// 04008 37/// 05007 40/// 08019 41///
11018 42/// 12012 45/// 09015 46/// 08023 50/// 15018 51/// 15021
52/// 15018 53/// 14007 54/// 08004 55/// 03015 56/// 04027 58///
07030 60/// 09044 62/// 10037 65/// 12042 66/// 11031 69/// 10016
70/// 05022 72*** 05063 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 18 May 1977 TIME 1158 (Local) 1758 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	25.0	25.0	24.6		25.7
T_{dp}	-12.7	-12.7	-13.4		-9.6
W_d, W_s	230 9.0	230 9.0	180 4.5		210 9.4
P	25.99	25.99	25.44		25.89
C	○	○	250-①		○
M	No	No	No		No
T_{a25}			22.8		
T_{dp25}			-7.8		
I	105.25	105.25	99.08		101.96
I_a	83.92	83.92	81.02		81.07
I_d	54.34	54.34	55.46		53.02
N	96.42	96.42	61.94		94.48
N_a	68.97	68.97	46.82		68.19
N_b	62.32	62.32	43.70		64.47
N_c	52.62	52.62	35.89		53.30
N_d	44.44	44.44	30.89		46.58
i	55.69	58.97	7.93		28.51
i_a	47.23	56.80	6.13		25.88
i_d	31.11	28.45	4.85		19.71
$T_{g/w}$	31.2	32.0	32.7		46.4
T_s	29.0	33.0	35.5		42.0
Ψ	17.2	16.7			0.7
ε					
El, Az	70.4 129.8	70.4 129.8	70.1 131.4		70.7 128.5

REMARKS: MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 18 May 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	25.0	25.0	26.0		27.4
T_{dp}	-9.5	-9.5	-6.1		-12.1
W_d, W_s	210 11.0	210 11.0	190 4.9		210 9.8
P	25.99	25.99	25.43		25.88
C	○	○	○		○
M	No	No	No		No
T_{a25}			23.3		
T_{dp25}			-6.0		
I	108.93	108.93	101.65		104.90
I_a	86.39	86.39	84.26		82.69
I_d	56.46	56.46	56.03		55.01
N	95.27	95.27	97.94		95.20
N_a	68.33	68.33	73.73		68.67
N_b	60.28	60.28	68.67		64.95
N_c	49.81	49.81	56.10		53.54
N_d	43.17	43.17	48.59		46.58
i	57.04	61.32	7.63		29.44
i_a	47.88	58.58	6.23		26.72
i_d	31.56	29.13	5.06		20.19
$T_{g/w}$	32.5	33.5	35.2		49.2
T_s	33.5	36.5	36.2		43.8
Ψ	17.2	16.7			0.7
ε					
El, Az	70.4 129.8	70.4 129.8	70.1 131.4		70.7 128.5

REMARKS: MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 18 May 1977

RADIOSONDE: (0900 MDT) TTAA 68151 72HMS 99873 19074 18005 00080
///// ///// 85486 17064 21014 70100 03863 23518 50575 14162 22040
40741 26560 22046 30943 41159 24042 25064 495// 24055 20208 571//
24056 15391 555// 24053 10646 599// 21531 88200 571// 24056 77185
24571 42120

TTBB 6815/ 72HMS 00873 19074 11863 17664 22691 02863 33624 00564
44500 14162 55461 18560 66400 26560 77300 41159 88200 571// 99150
555// 11127 589// 22108 577// 33100 599// 51515 SUPER 70-69

TTCC 68152 72HMS 70868 601// 21515 50081 559// 08512 30409 501//
14506 20673 481// 18510 10137 383// 88999 77999

TTDD 6815/ 72HMS 11943 577// 22740 639// 33700 601// 44668 611//
55643 573// 66343 537// 77300 501// 88238 525// 99200 481// 11133
449// 22100 383//

ROCKETSONDE: (1210 MDT) RRXX 18181 72269 81010 63101 25552 05003
30539 14005 33534 27002 35528 09008 38516 11007 40511 10015 43508
12011 45001 13010 47000 09017 48500 11024 50501 13021 52503 10014
55508 06025 56510 08032 57512 10036 59513 11023 60/// 12020 62///
12035 63/// 13044 65/// 12034 66/// 12025 67/// 08015 68/// 09041
JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 25 May 1977 TIME 1028 (Local) 1628 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	23.0	23.0	22.1		22.9
T_{dp}	-1.2	-1.2	-1.7		-4.0
W_d, W_s	140 3.6	140 3.6	210 3.1		180 5.1
P	26.06	26.06	25.51		25.93
C	E 180 ⊕	E 180 ⊕	E 180 ⊕		E 150 ⊕
M	No	No	No		No
T_{a25}			21.6		
T_{dp25}			-1.3		
I	40.44	40.44	26.97		26.33
I_a	29.80	29.80	20.49		23.96
I_d	16.74	16.74	12.64		16.45
N					
N_a					
N_b					
N_c					
N_d					
i	20.44	22.41	2.25		10.06
i_a	17.12	16.32	1.81		6.83
i_d	10.33	9.51	1.31		5.36
$T_{g/w}$	23.9	23.0	25.0		27.5
T_s	25.0	27.0	25.0		21.1
Ψ	14.9	14.3			2.2
ε					
El, Az	53.9 99.69	53.9 99.69	53.9 100.6		53.9 98.93

REMARKS: MET SAT I, II, IV - No normal data due to cloud cover
MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 25 May 1977 TIME 1227 (Local) 1827 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	24.9	24.9	21.2		25.3
T_{dp}	4.2	4.2	9.7		-4.3
W_d, W_s	200 1.8	200 1.8	180 2.6		195 7.26
P	26.04	26.04	25.49		25.92
C	E 180 ⊕	E 180 ⊕	E 140 ⊕		E 150 ⊕
M	No	No	No		No
T_{a25}			22.1		
T_{dp25}			0.6		
I	57.38	57.38	43.03		29.08
I_a	42.44	42.44	33.22		26.27
I_d	25.53	25.53	20.40		18.24
N					
N_a					
N_b					
N_c					
N_d					
i	29.13	32.88	3.55		11.01
i_a	24.45	25.03	2.81		7.34
i_d	15.22	14.16	2.22		5.97
$T_{g/w}$	30.4	30.1	28.2		30.7
T_s	30.0	33.5	27.0		29.4
Ψ	14.9	14.3			2.2
ε					
El, Az	75.6 145.2	75.6 145.2	75.2 146.9		76.0 143.7

REMARKS: MET SAT I, II, IV - No normal incoming data due to cloud cover
MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 25 May 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	24.8	24.8	22.2		25.0
T_{dp}	-0.5	-0.5	6.6		-4.5
W_d, W_s	190 5.4	190 5.4	180 4.0		215 7.7G12.9
P	26.02	26.02	25.48		25.90
C	E 180	E 180	E 150		120 E 150
M	No	No	No		No
T_{a25}			22.4		
T_{dp25}			0.5		
I	42.02	42.02	32.02		32.57
I_a	30.65	30.65	23.73		29.40
I_d	11.12	11.12	14.27		20.79
N					
N_a					
N_b					
N_c					
N_d					
i	21.42	24.12	7.94		12.43
i_a	18.02	18.03	2.49		8.24
i_d	10.67	10.19	1.42		5.77
$T_{g/w}$	26.0	27.5	27.0		30.7
T_s	29.9	30.8	27.0		29.8
Ψ	14.9	14.3			2.2
ε					
El, Az	77.9 177.9	77.9 177.9	77.3 178.6		78.4 177.4

REMARKS: MET SAT I, II, IV - No normal incoming data due to clouds
MET SAT III - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 25 May 1977

RADIOSONDE: (0900 MDT) TTAA 75151 72HMS 99874 20864 16007 00073
///// ///// 85498 19664 18513 70132 05862 21517 50581 10341 23044
40749 21356 23553 30954 36757 24557 25078 471// 25069 20221 597//
25556 15398 619// 24534 10651 597// 22523 88181 645// 25563 77253
25072 41713.

TTBB 7515/ 72HMS 00874 20864 11864 20665 22644 00062 33628 00159
44635 00323 55599 01904 66400 21356 77264 43756 88181 645// 99142
597// 11116 627// 22108 575// 33100 597//

TTCC 75152 72HMS 70873 605// 14002 50086 559// 13005 30414 513//
05514 20682 455// 05508 10149 587// 88999 77999

TTDD 7515/ 72HMS 11803 615// 22659 605// 33619 557// 44300 513//
55255 469// 66123 431// 77100 387// 88098 389//

ROCKETSONDE: (1300 MDT) RRXX 25190 72269 81010 63101 24553 08008
25549 07009 30542 07003 35534 06012 40514 08009 43508 09019 45505
11017 47506 10020 49003 11025 50002 10028 55514 10030 57514 08028
60517 08046 62526 10036 63529 12040 65533 12040 66537 13041 67///
14031 68/// 10008 69/// 01029 70/// 01044 72/// 06040 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 27 May 1977 TIME 1413 (Local) 2013 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	28.5	28.5	29.0		28.9
T_{dp}	-1.5	-1.5	1.9		-1.1
W_d, W_s	210 7.6	210 7.6	260 4.0		310 5.1
P	25.96	25.96	25.41		25.85
C	E 90	E 90	85		E 230
M	No	No	No		No
T_{a25}			25.4		
T_{dp25}			-2.5		
I	114.08	114.08	98.17		88.47
I_a	88.75	88.75	80.09		81.42
I_d	55.40	55.40	53.26		51.53
N	79.57	79.57	97.00		17.29
N_a	57.22	57.22	72.80		13.45
N_b	51.60	51.60	67.54		12.12
N_c	42.40	42.40	54.78		9.48
N_d	36.27	36.27	46.53		8.16
i	62.91	65.76	7.22		22.06
i_a	52.64	49.54	5.63		18.50
i_d	34.78	30.10	4.43		14.63
$T_{g/w}$	33.0	33.0	42.4		46.8
T_s	37.0	37.0	48.0		40.3
Ψ	14.0	14.0			
ε					
El, Az	70.4 237.8	70.4 237.8	69.9 236.6		70.7 238.8

REMARKS: MET SAT III - Not operated this day
MET SAT IV: Wind gusts to 11.3 mps

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 27 May 1977

RADIOSONDE: (0800 MDT) TTAA 77141 72HMS 99872 19268 18002 00071
///// ///// 85468 19264 23003 70098 05460 26041 40748 21369 27546
30956 38558 29052 25078 489// 28543 20222 569// 28050 15402 617//
27536 10651 653// 28013 88157 617// 29028 77307 28555 41311

TTBB 7714/ 72HMS 00872 19268 11862 20066 22841 19064 33682 03859
44624 01865 55583 02162 66543 03164 77400 21369 88280 42357 99225
543// 11157 617// 22100 653//

TTCC 77142 72HMS 70867 627// 05005 50077 587// 09510 30400 547//
09020 20663 489// 09006 88999 77999

TTDD 7714/ 72HMS 11901 681// 22768 651// 33723 671// 44700 627//
55663 633// 66618 579// 77348 579// 88193 475//

ROCKETSONDE: (1430 MDT) RRXX 27203 72269 81010 13101 25552 08007
30542 11001 35531 17005 40510 10019 41512 11020 42509 11017 45003
12027 49000 11020 50501 12025 53508 11039 55507 09037 56506 09038
58513 11043 60521 12035 62529 10048 63530 10054 64/// 12047 65///
15028 66/// 18012 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Moon Run

DATE OF OBSERVATION 1 June 1977 TIME 1200 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	30.8	30.8	30.6	missing	31.5
T_{dp}	6.7	6.7	7.1	missing	8.7
W_d, W_s	140 2.0	140 2.0	190 0.9	320 2.0	120 2.0
P	26.14	26.14	25.65	25.67	26.04
C	85 ⦶	85 ⦶	70 ⦶	70 ⦶	E 50 ⦶
M	Yes	Yes	Yes	Yes	Yes
T_{a25}					
T_{dp25}					
I	104.73	104.73	97.98	101.26	84.11
I_a	79.53	79.53	78.47	76.72	75.26
I_d	50.32	50.32	51.44	48.80	49.24
N	91.83	91.83	92.50	92.32	90.16
N_a	66.92	66.92	69.98	67.07	64.95
N_b	61.94	61.94	64.73	61.82	59.06
N_c	50.96	50.96	52.35	51.31	49.10
N_d	42.15	42.15	44.47	42.63	43.22
i	51.04	50.00	6.15	3.39	20.60
i_a	42.34	44.68	4.62	2.59	19.59
i_d	27.56	27.38	3.54	0.64	15.84
$T_{g/w}$	30.2	35.5	45.7	23.0	49.6
T_s	45.4	46.2	55.8	27.2	56.2
Ψ	19.5	20.1			4.2
ε					
El, Az	79.0 176.7	79.0 176.7	78.4 177.5	78.6 172.6	79.6 176.0

REMARKS: MET SAT I, II: Air temperature and Dew point temperature at 25 meter height (T_a25, $T_{dp}25$) discontinued until further notice.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 1 June 1977 TIME 1424 (Local) 2024 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	31.0	31.0	34.4	36.5	32.8
T_{dp}	5.5	5.5	6.0	14.0	7.8
W_d, W_s	160 2.0	160 2.0	160 1.3	320 2.0	010 5.1
P	26.13	26.13	25.60	25.63	26.00
C	90 ①	90 ①	85 ①	100 ①	E 50 ⑪
M	Yes	Yes	Yes	Yes	Yes
T_{a25}					
T_{dp25}					
I	98.34	98.34	94.22	95.95	81.39
I_a	75.24	75.24	75.58	73.13	74.56
I_d	47.14	47.14	50.19	47.19	47.45
N	90.17	90.17	92.87	93.94	89.56
N_a	65.64	65.64	69.98	68.48	64.35
N_b	60.79	60.79	65.10	62.83	58.82
N_c	49.81	49.81	52.72	51.72	48.74
N_d	41.25	41.25	44.65	42.83	42.98
i	48.84	55.86	5.80	3.49	20.08
i_a	40.54	41.95	4.32	2.59	19.47
i_d	26.22	25.34	3.44	0.80	15.84
$T_{g/w}$	41.7	43.5	48.8	23.0	49.9
T_s	46.4	48.8	54.6	25.1	58.1
Ψ	19.5	20.1			4.2
ε					
El, Az	68.9 243.8	68.9 243.8	68.6 242.6	69.5 241.6	69.3 244.9

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 1 June 1977

RADIOSONDE: (0800 MDT) TTAA 51141 72HMS 99880 21265 00000 00034
///// ///// 85501 20261 17503 70150 10059 09011 50585 11558 06527
40753 20758 06019 30958 36957 24508 25082 451// 27513 20228 533//
29035 15411 617// 30051 10656 689// 33039 88120 685// 30021 77170
30054 41619

TTBB 5114/ 72HMS 00880 21265 11869 21261 22731 12860 33500 11558
44471 15150 55441 17359 66400 20758 77265 43556 88207 527// 99159
589// 11127 675// 22120 685// 33116 675// 44100 689//

TTCC 51141 72HMS 70870 653// 01010 50079 581// 07019 30405 511//
25513 20668 475// 29015 10138 363// ///// 88999 77999

TTDD 5114/ 72HMS 11843 709// 22801 671// 33700 653// 44613 597//
55353 549// 66300 511// 77223 539// 88200 475// 99000 363//

ROCKETSONDE: (1210 MDT) RRXX 01181 72269 81010 63101 25552 12004
29547 10008 30541 09011 35530 10011 37523 08020 40518 10017 42509
09024 45508 10028 50505 10031 52503 12029 55511 11032 60524 09036
61522 11044 62523 12044 63527 10035 65/// 08047 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 2 June 1977 TIME 1022 (Local) 1622 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	24.9	24.9	28.8		29.8
T_{dp}	8.1	8.1	6.8		7.5
W_d, W_s	250 3.0	250 3.0	220 3.1		200 2.0
P	26.13	26.13	25.60		26.00
C	E100-(II)	E100-(II)	150 (I)		150 (I)
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	90.34	90.34	78.81		66.70
I_a	68.92	68.92	60.30		60.51
I_d	44.17	44.17	39.56		38.85
N	81.74	81.74	83.11		84.63
N_a	59.90	59.90	64.35		61.58
N_b	55.68	55.68	59.47		56.90
N_c	45.34	45.34	47.84		47.54
N_d	36.91	36.91	39.96		41.78
i	46.14	51.76	5.92		17.59
i_a	39.00	38.91	4.42		17.05
i_d	25.11	23.98	3.44		14.03
$T_{g/w}$	33.0	31.5	36.7		missing
T_s	35.1	32.0	37.4		45.6
Ψ	19.9	19.8			3.3
ε					
El, Az	52.9 96.5	52.9 96.5	53.0 97.4		52.9 95.8

REMARKS: MET SAT III: Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%), ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 2 June 1977 TIME 1207 (Local) 1807 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	31.1	31.1	31.7		34.7
T_{dp}	8.7	8.7	6.9		6.8
W_d, W_s	190 3.0	190 3.0	190 2.2		205 0.9
P	26.10	26.10	25.56		25.95
C	100 (1)	100 (1)	E 250 (1)		60 (1)
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	104.41	104.41	105.75		83.68
I_a	84.99	84.99	62.14		75.96
I_d	50.00	50.00	38.51		48.68
N	89.40	89.40	53.85		89.68
N_a	64.24	64.24	37.15		64.59
N_b	59.64	59.64	36.21		59.30
N_c	49.04	49.04	28.33		48.98
N_d	40.10	40.10	24.02		43.46
i	50.92	59.39	5.44		20.92
i_a	42.21	44.88	4.32		20.30
i_d	27.67	26.80	3.44		16.69
$T_{g/w}$	40.2	38.0			missing
T_s	47.2	46.4			54.7
Ψ	19.9	19.8			3.3
ε					
El, Az	73.6 127.6	73.6 127.6	73.3 129.6		73.8 126.0

REMARKS: MET SAT III: Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 2 June 1977 TIME 1224 (Local) 1824 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	31.9	31.9	32.0		34.7
T_{dp}	6.4	6.4	6.4		5.9
W_d, W_s	170 0.2	170 0.2	190 3.1		207 2.0
P	26.00	26.00	25.56		25.93
C	85	85	E 250		E 85
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	106.30	106.30	111.19		88.68
I_a	81.24	81.24	89.58		81.42
I_d	51.38	51.38	59.48		51.80
N	89.91	89.91	89.31		91.84
N_a	64.50	64.50	68.48		65.55
N_b	59.90	59.90	63.98		60.14
N_c	49.17	49.17	51.76		49.94
N_d	40.87	40.87	43.90		44.06
i	52.63	59.50	8.28		22.58
i_a	43.89	44.48	6.03		21.64
i_d	28.89	27.18	4.94		18.02
$T_{g/w}$	39.5	47.1	45.5		missing
T_s	47.1	46.6	42.5		57.0
Ψ	19.9	19.8			3.3
ε					
El, Az	76.2 139.0	76.2 139.0	75.8 141.0		76.5 137.2

REMARKS: MET SAT: Not oeprated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 2 June 1977

RADIOSONDE: (0800 MDT) TTAA 52141 72HMS 99877 26668 24004 00094
///// ///// 85532 25061 19506 70202 11459 17002 50590 10160 12510
40758 20759 17510 30964 37957 25008 25087 469// 27015 20233 515//
28525 15417 603// 28034 10663 703// 27512 88104 709// 28013 77122
28035 40510

TTBB 5214/ 72HMS 00877 26668 11850 25061 22786 19260 33578 02571
44500 10160 55400 20759 66327 32158 77300 37957 88272 43957 99261
465// 11250 469// 22208 519// 33185 513// 44154 601// 55104 709//
66100 703//

TTCC 52142 72HMS 70878 655// 09008 50087 559// 12010 30416 511//
105// 20681 461// 09518 88999 77999

TTDD 5214/ 72HMS 11700 655// 22500 559// 33300 511// 44283 529//
55118 397// 51515 10190 10153

ROCKETSONDE: NONE

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 8 June 1977 TIME 0953 (Local) 1553 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	24.2	24.2	25.8	25.6	27.0
T_{dp}	9.5	9.5	9.1	13.4	8.9
W_d, W_s	020 1.0	020 1.0	180 2.7	160 2.2	150 4.1
P	26.07	26.07	25.50	25.57	25.91
C	65 ⦶	65 ⦶	○	300 - ⦶	130 ⦶ 250 - ⊕
M	Yes	Yes	Yes	Yes	Yes
T_{a25}					
T_{dp25}					
I	75.42	75.42	71.10	68.02	69.10
I_a	54.77	54.77	53.24	49.25	54.36
I_d	35.06	35.06	35.54	31.76	34.12
N	75.22	75.22	79.36	82.22	75.27
N_a	55.30	55.30	62.10	61.41	55.94
N_b	52.11	52.11	58.16	56.97	51.50
N_c	43.81	43.81	48.78	47.88	43.10
N_d	36.40	36.40	41.65	40.20	36.85
i	30.48	36.63	4.62	2.33	14.98
i_a	25.48	28.06	3.62	1.76	14.49
i_d	16.33	17.09	2.53	.50	11.49
$T_{g/w}$	27.9	30.2	34.0	21.5	40.7
T_s	31.6	32.3	37.0		39.0
Ψ	19.3	18.2			3.2
ε					
El, Az	46.0 90.98	46.0 90.98	47.1 91.71	46.2 90.85	46.9 90.37

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 8 June 1977 TIME 1220 (Local) 1820 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	30.2	30.2	31.1	29.8	
T_{dp}	8.4	8.4	8.6	10.8	
W_d, W_s	140 2.9	140 2.9	200 2.7	230 0.3	
P	26.01	26.01	25.48	25.53	
C	65 ◐	65 ◐	45 ◐	35 ◐	
M	Yes	Yes	Yes	Yes	
T_{a25}					
T_{dp25}					
I	99.89	99.89	96.51	102.65	
I_a	77.06	77.06	76.85	76.72	
I_d	48.31	48.31	51.05	49.50	
N	79.95	79.95	88.74		
N_a	58.24	58.24	67.35		
N_b	53.77	53.77	63.04		
N_c	45.21	45.21	52.34		
N_d	37.68	37.68	44.28		
i	45.17	37.68	6.63	3.39	
i_a	37.71	39.92	5.13	2.17	
i_d	24.11	24.56	3.94	0.60	
$T_{g/w}$	45.4	42.9	42.9	22.6	
T_s	44.8	47.2	46.3		
Ψ	19.3	18.2			
ε					
El, Az	76.0 133.4	76.0 133.4	75.7 135.5	75.2 132.0	

REMARKS: MET SAT III - No normal incoming data due to clouds
MET SAT IV - Not operated this observation

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 8 June 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	30.2	30.2	31.5	29.7	31.1
T_{dp}	7.4	7.4	7.8	16.1	9.2
W_d, W_s	140 0.3	140 0.3	140 0.9	230 0.2	185 0.8
P	25.99	25.99	25.43	25.52	25.83
C	E 250 ⊕	E 250 ⊕	100 ◐	65 ◐	E 80 ◐ 150 ◐ 250 ⊕
M	Yes	Yes	Yes	Yes	Yes
T_{a25}					
T_{dp25}					
I	106.09	108.09	102.11	114.25	93.80
I_a	82.72	82.72	82.18	85.22	51.10
I_d	51.69	51.69	53.45	52.40	23.16
N	85.19	85.19	90.43		
N_a	62.32	62.32	68.11		
N_b	57.09	57.09	64.17		
N_c	48.15	48.15	53.10		
N_d	48.61	48.61	44.47		
i	49.08	56.09	7.22	3.49	23.31
i_a	41.06	42.86	5.53	2.59	10.75
i_d	26.44	26.31	4.35	.60	8.10
$T_{g/w}$	41.5	42.1	45.5	22.6	53.5
T_s	46.9	49.0	47.0		52.2
Ψ	19.3	18.2			3.2
ε					
El, Az	79.9 174.8	79.9 174.8	79.3 175.8	79.4 170.5	80.4 174.1

REMARKS: MET SAT III, IV : No normal incoming due to clouds between sun & sensors.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 8 June 1977 TIME 1355 (Local) 1955 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	31.6	30.6	32.9		31.0
T_{dp}	7.3	7.3	10.7		7.3
W_d, W_s	150 1.3	150 1.3	220 1.3		180 8.8
P	25.97	25.97	25.45		25.81
C	85 ◐	85 ◐	○		E 80 ◐ 150 ◑ 250 ⊕
M	Yes	Yes	Yes		Yes
T_{a25}					
T_{dp25}					
I	52.94	52.94	99.45		97.06
I_a	38.48	38.48	80.44		78.16
I_d	21.93	21.93	52.78		52.17
N			89.49		
N_a			67.35		
N_b			63.63		
N_c			52.91		
N_d			44.28		
i	24.11	28.21	6.75		30.18
i_a	19.82	21.38	5.23		27.66
i_d	12.00	18.94	4.04		24.18
$T_{g/w}$	35.0	37.5	47.7		51.0
T_s	38.2	39.2	50.0		53.4
Ψ	19.3	18.2			3.2
ε					
El, Az	74.9 231.3	74.9 231.3	74.4 229.9		75.3 232.6

REMARKS: MET SAT I, IV - No normal incoming data due to clouds
MET SAT III - Not operated this observation

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 8 June 1977

RADIOSONDE: (0800 MDT) TTAA 58151 72HMS 99874 22664 24002 00072 /////
///// 85506 20462 20004 70155 09460 16507 50585 09358 16014 40754 19363
16017 30961 15520 25085 461// 16516 20230 581// 15518 15409 601// 16010
10658 665// 26006 88184 609// 14018 77272 15521 40507 Ø

TTBB 5815/ 72HMS 00874 22664 11700 09460 22636 03661 33535 07550 44524
07157 55500 09358 66472 00568 77400 19363 88277 40160 99184 619// 11176
619// 22168 591// 33129 613// 44106 681// 55100 665// Ø

TTCC 58157 72HMS 70874 631// 09013 50085 559// 88999 77999 Ø

TTDD 5815/ 72HMS 11763 663// 22500 559// Ø

ROCKETSONDE: (1210 MDT) RRXX 08181 72269 81010 63101 25549 14007 27549
11008 30539 11011 31538 12017 35529 11012 37523 11020 40525 08021 42515
09033 45504 10034 47504 10046 50001 10047 52503 11039 55510 11045 57516
09042 60515 09044 61520 09028 62525 10019 64536 10040 65542 10042 66548
09050 67*** 09063 68*** 09062

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Landsat B

DATE OF OBSERVATION 9 June 1977 TIME 1039 (Local) 1639 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	27.3	27.3	28.2		29.7
T_{dp}	9.8	9.8	9.8		11.9
W_d, W_s	150 3.0	150 3.0	230 4.5		CALM
P	26.05	26.05	25.51		25.91
C	250 - ◐	250 - ◐	E 250 ◐		140 ◐ 250 ◐
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	70.17	70.17	79.27		79.98
I_a	54.66	54.66	66.20		63.30
I_d	36.23	36.23	41.57		40.08
N	76.24	76.24	52.16		82.95
N_a	56.70	56.70	42.40		61.34
N_b	49.30	49.30	36.02		57.74
N_c	44.70	44.70	30.02		47.30
N_d	37.68	37.68	27.77		41.30
i	46.63	50.06	5.68		18.52
i_a	39.64	39.11	4.52		17.57
i_d	25.22	24.85	3.54		14.13
$T_{g/w}$	30.0	29.5	36.1		46.5
T_s	missing	missing	37.0		48.7
Ψ	15.7	15.4			0.9
ε					
El, Az	56.6 98.0	56.6 98.0	56.6 99.0		56.6 97.2

REMARKS: METSAT III - Operations at this site discontinued until May 1978.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 9 June 1977 TIME 1236 (Local) 1836 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	31.1	31.1	30.4		31.7
T_{dp}	8.8	8.8	8.9		5.9
W_d, W_s	100 3.0	160 3.0	220 2.2		260 1.5
P	26.04	26.04	25.48		25.88
C	65 (1)	65 (1)	70 (2)		90 (1)
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	103.99	103.99	97.98		105.66
I_a	78.46	78.46	78.01		82.35
I_d	49.58	49.58	51.05		53.40
N	84.93	84.93	91.18		85.47
N_a	61.94	61.94	69.04		63.27
N_b	57.09	57.09	64.35		59.42
N_c	47.64	47.64	53.28		48.14
N_d	40.10	40.10	45.03		42.62
i	47.74	57.11	6.39		23.20
i_a	39.64	43.06	4.92		22.22
i_d	25.22	26.60	3.84		18.50
$T_{g/w}$	35.0	38.5	44.9		60.2
T_s	missing	missing	48.0		59.2
Ψ	15.7	15.4			0.9
ε					
El, Az	77.3 150.8	77.3 150.8	76.8 152.6		77.7 149.3

REMARKS: METSAT III - Operations at this site discontinued until May 1978.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = CG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 9 June 1977

RADIOSONDE: (1200 MDT) TTAA 59183 72HMS 99874 28268 00000 00054
///// ///// 85502 26889 27505 70173 12062 29004 50589 07950 23510
40759 18569 20516 30967 339// 18517 88999 77421 23022 41207

TTBB 5918/ 72HMS 00874 28268 11548 03757 22522 05762 33493 08943
44444 13174 55400 18569 66318 30769 77294 351// 51515 10150

ROCKETSONDE: (1230 MDT) RRXX 09183 72269 81010 13101 24*** 11007
25550 10008 30542 11011 31537 11012 35532 07012 40519 09021 41515
08031 42515 08041 45505 10038 47504 12036 48503 11034 50501 08042
51501 09052 55507 11051 56509 11055 57512 11047 58515 11034 60522
11048 62529 11040 64538 11054 65542 10051 66548 09051 67552 08065
68556 08069 69*** 08070 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 14 June 1977 TIME 1217 (Local) 1817 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	34.2	34.2	35.1		36.8
T_{dp}	7.2	7.2	7.9		6.1
W_d, W_s	180 2.6	180 2.6	200 3.6		200 2.6
P	26.13	26.13	25.61		25.98
C	70 - ①	70 - ①	250 - ①		65 ①
T^M	No	No	No		No
T_{a25}					
T_{dp25}					
I	101.58	101.58	97.25		105.66
I_a	76.79	76.79	77.55		82.35
I_d	49.05	49.05	51.05		53.02
N	88.51	88.51	93.62		94.03
N_a	63.86	63.86	70.54		70.16
N_b	58.75	58.75	65.29		63.87
N_c	48.66	48.66	53.85		52.77
N_d	40.87	40.87	45.40		43.98
i	48.84	57.58	7.34		23.93
i_a	41.12	43.36	5.73		19.25
i_d	26.33	26.70	4.35		16.38
$T_{g/w}$	40.5	41.5	44.6		54.4
T_s	missing	missing	47.3		57.2
Ψ	19.1	18.0			2.4
ε					
El, Az	75.7 129.3	75.7 129.3	75.4 131.4		75.9 127.4

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-NS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 14 June 1977 TIME 1242 (Local) 1842 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	35.0	35.0	34.4		37.1
T_{dp}	6.0	6.0	7.5		6.1
W_d, W_s	180 3.0	180 3.0	180 3.1		180 5.1
P	26.13	26.13	25.61		25.98
C	70 ◐	70 ◐	70 ◐		65 ◐
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	104.10	104.10	98.99		25.35
I_a	79.85	79.85	79.28		18.23
I_d	50.32	50.32	51.44		11.34
N	89.72	89.72	94.75		
N_a	64.11	64.11	71.67		
N_b	59.00	59.00	66.04		
N_c	48.53	48.53	54.60		
N_d	41.25	41.25	45.59		
i	49.45	58.36	7.34		5.93
i_a	41.63	44.07	5.83		4.68
i_d	26.56	26.99	4.45		3.54
$T_{g/w}$	44.8	46.7	46.1		48.0
T_s	missing	missing	48.0		46.5
Ψ	19.1	18.0			2.4
ε					
El, Az	79.1 150.7	79.1 150.7	78.6 152.7		79.5 148.9

REMARKS: MET SAT IV - No normal incoming data due to clouds

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 14 June 1977 TIME 1344 (Local) 1944 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	36.2	36.2	36.7		36.9
T_{dp}	5.8	5.8	5.4		4.2
W_d, W_s	110 0.1	110 0.1	220 5.4		210 6.2
P	26.10	26.10	25.58		25.94
C	70 ◐	70 ◐	E 70 ◐		65 ◐ 200 ◐
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	105.57	105.57	98.99		98.48
I_a	78.26	78.26	79.82		76.54
I_d	49.16	49.16	51.63		50.57
N	89.40	89.40	94.37		92.36
N_a	64.24	64.24	71.29		67.85
N_b	59.00	59.00	65.84		60.94
N_c	48.91	48.91	53.28		50.89
N_d	41.00	41.00	44.84		42.51
i	49.82	58.13	6.98		22.48
i_a	41.76	44.17	6.51		17.93
i_d	26.67	26.80	4.85		15.50
$T_{g/w}$	46.9	48.0	49.0		60.5
T_s	missing	missing	54.0		58.0
Ψ	19.1	18.0			2.4
ε					
El, Az	77.1 224.0	77.1 224.0	76.6 222.6		77.5 225.3

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 14 June 1977

RADIOSONDE: (0800 MDT) TTAA 64141 72HMS 99876 27078 35005 00065
///// ///// 85527 24470 15010 70193 14467 19011 50591 08769 20007
40760 21771 20009 30967 357// 25017 25091 455// 25525 20236 551//
26530 15417 619// 27541 10693 719// 20011 88999 77152 28042 40822

TTBB 6414/ 72HMS 00876 27078 11866 24872 22850 24470 33835 25270
44724 14866 55678 12474 66648 09471 77577 00159 88534 05559 99518
07559 11500 08769 22486 09976 33400 21771 44391 22571 55383 21374
66322 31568 77217 523// 88171 593// 99138 639// 11128 645// 22124
653// 33112 663// 44100 719//

TTCC 64141 72HMS 70876 653// 09516 50084 585// 10019 30410 525//
09018 20686 459// 09023 10150 411// 08527 88943 735// 160// 77999

TTDD 6414/ 72HMS 11943 735// 22913 709// 33823 669// 44763 659//
55738 705// 66700 653// 77200 459// 88113 435// 99100 411// 11093
377// 51515 SUPER 76-74

ROCKETSONDE: (0700 MDT) RRXX 14132 72269 81010 13101 25553 07010
30544 09015 35529 08019 37524 10027 40513 08022 42513 08 30 45501
07036 46505 08044 50502 09049 52503 09034 53504 10035 55510 10037
56514 11045 58516 10041 60/// 09056 63/// 09053

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

DATE OF OBSERVATION 15 June 1977 TIME 0947 (Local) 1547 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	26.5	26.5	29.8		28.8
T_{dp}	9.3	9.3	2.9		8.5
W_d, W_s	260 2.0	260 2.0	210 3.6		060 1.5
P	26.16	26.16	25.65		26.04
C	○	○	○		○
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	71.22	71.22	69.27		67.25
I_a	54.23	54.23	51.74		52.85
I_d	35.17	35.17	34.96		33.65
N	83.65	83.65	87.24		86.30
N_a	61.69	61.69	67.17		64.67
N_b	58.11	58.11	62.48		59.22
N_c	47.25	47.25	51.22		49.51
N_d	39.60	39.60	43.53		42.04
i	36.35	40.16	4.97		19.11
i_a	missing	30.19	3.82		15.24
i_d	19.22	18.64	2.83		12.82
$T_{g/w}$	31.3	32.5	36.0		42.9
T_s	missing	missing	40.4		38.0
Ψ	18.6	18.6			3.6
ϵ					
El, Az	45.6 89.3	45.6 89.3	45.7 90.0		45.5 88.7

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ϵ = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

DATE OF OBSERVATION 15 June 1977 TIME 0953 (Local) 1553 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	26.5	26.5	29.8		29.4
T_{dp}	9.3	9.3	8.0		8.7
W_d, W_s	260 2.0	260 2.0	220 2.2		CALM
P	26.16	26.16	25.65		26.04
C	○	○	○		○
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	73.50	73.50	72.02		70.08
I_a	56.81	56.81	53.94		55.05
I_d	36.12	36.12	36.59		34.97
N	83.40	83.40	87.43		87.91
N_a	61.05	61.05	67.17		66.09
N_b	58.37	58.37	62.85		60.63
N_c	47.13	47.13	51.41		50.73
N_d	39.85	39.85	43.71		43.25
i	37.94	41.52	4.97		17.07
i_a	missing	31.31	3.82		15.72
i_d	20.00	19.22	2.83		13.18
$T_{g/w}$	31.3	32.5	32.0		42.9
T_s	missing	missing	40.4		38.0
Ψ	18.6	18.6			3.6
ε					
El, Az	46.9 90.1	46.9 90.1	46.9 90.8		46.8 89.5

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 15 June 1977 TIME 1035 (Local) 1635 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	28.4	28.4	31.1		30.1
T_{dp}	8.5	8.5	9.6		8.5
W_d, W_s	350 0.1	350 0.1	210 3.6		040 1.0
P	26.16	26.16	25.63		26.03
C	○	○	○		○
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	82.98	82.98	82.02		80.63
I_a	63.77	63.77	62.73		62.72
I_d	63.77	63.77	41.48		40.26
N	84.67	84.67	92.12		90.54
N_a	60.92	60.92	69.79		66.69
N_b	59.51	59.51	63.60		61.03
N_c	47.89	47.89	53.85		50.53
N_d	39.85	39.85	45.40		42.64
i	41.86	46.30	6.04		22.01
i_a	missing	35.06	4.62		17.29
i_d	21.44	21.65	3.54		14.51
$T_{g/w}$	35.0	38.5	39.5		52.7
T_s	missing	missing	46.3		49.0
Ψ	18.6	18.6			3.6
ε					
El, Az	55.7 96.4	55.7 96.4	55.7 97.4		55.7 95.6

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 15 June 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	33.7	33.7	35.0		34.2
T_{dp}	7.1	7.1	7.8		7.2
W_d, W_s	150 0.3	150 0.3	180 1.8		220 1.0
P	26.13	26.13	25.59		25.98
C	○	○	○		65 ◐
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	104.10	104.10	101.01		98.48
I_a	78.46	78.46	80.90		76.07
I_d	49.58	49.58	53.16		50.09
N	92.85	92.85	97.75		93.77
N_a	68.20	68.20	78.80		68.31
N_b	62.71	62.71	68.86		61.64
N_c	51.21	51.21	55.16		50.73
N_d	43.17	43.17	46.34		42.24
i	53.00	59.61	6.98		22.06
i_a	missing	45.00	5.33		20.19
i_d	28.33	27.67	3.94		17.41
$T_{g/w}$	43.2	46.8	48.6		57.7
T_s	missing	missing	55.5		62.1
Ψ	18.6	18.6			3.6
ε					
El, Az	80.3 172.7	80.3 172.7	79.7 173.8		80.8 171.7

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 15 June 1977

RADIOSONDE: None This Date

ROCKETSONDE: (1025 MDT) RRXX 15163 72269 81010 63101 25*** 07009
26548 09010 28549 10014 30545 09020 33532 10018 35530 10019 39518
08022 40518 08029 42507 10034 45502 10036 47507 09037 50505 09040
52510 10047 55509 10054 56512 10055 58513 10041 59517 09036 60521
09038 62530 08056 65543 10064 66546 10067 67546 10075 68546 10062
69549 09041 70556 07038 72*** 07050

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 21 June 1 77 TIME 1156 (Local) 1756 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	30.3	30.3	29.3		
T_{dp}	8.0	8.0	10.1		
W_d, W_s	310 2.2	310 2.2	170 5.4		
P	26.07	26.07	25.55		
C	180 ⦶	180 ⦶	250 ⦶		
M	Yes	Yes	Yes		
T_{a25}					
T_{dp25}					
I	92.96	92.96	94.04		
I_a	69.88	69.88	74.77		
I_d	41.31	41.31	49.62		
N	83.01	83.01	85.55		
N_a	61.94	61.94	70.36		
N_b	56.96	56.96	57.97		
N_c	46.87	46.87	51.22		
N_d	39.85	39.85	42.96		
i	50.55	57.22	7.10		
i_a	missing	43.36	5.43		
i_d	26.78	26.70	4.35		
$T_{g/w}$	37.5	40.5	39.6		
T_s	missing	missing	41.0		
Ψ	23.3	24.3			
ε					
El, Az	71.8 116.8	71.8 116.8	71.7 118.6		

REMARKS:

MET SAT IV - Not operated this date

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 21 June 1977

RADIOSONDE: (0800 MDT) TTAA 71141 72HMS 99874 24666 31506 00056
///// ///// 85502 23867 22017 70150 10459 21011 50584 10544 22008
40752 21556 23026 30976 36558 21549 25082 441// 22071 20228 537//
22074 15409 631// 22556 10656 637// 18011 88115 673// 22535 77209
22078 40710

TTBB 7114/ 72HMS 00874 24666 11850 23867 22818 22065 33756 14860
44607 01457 55591 00259 66525 08144 77508 09756 88486 12120 99471
13147 11469 12559 22427 18559 33400 21556 44334 30142 55305 35558
66287 38959 77272 395// 88212 521// 99150 631// 11115 673// 22110
631// 33100 637//

TTCC 71141 72HMS 70873 615// 14011 50084 561// 11015 30411 541//
08021 20529 477// 10029 10142 399// 07530 07369 345// 11536 88999
77999

TTDD 7114/ 72HMS 11873 683// 22700 615// 33453 545// 44300 539//
55203 493// 66200 477// 77195 445// 88153 435// 99103 403// 11100
399// 22078 351// 33070 345// 44065 349//

ROCKETSONDE: (1055 MDT) PRXX 21166 72269 81010 13101 25/// 09013
30/// 10013 35/// 100[illegible] 3[illegible]/// 11018 40/// 08031 42/// 08042 43///
08049 45/// 11044 46/// 11036 48/// 10035 50/// 10044 55/// 10045
56/// 10039 58/// 08040 60/// 11045 63/// 09057 64/// 08064 65///
08074 67/// 08080 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 22 June 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	27.4	27.4	24.6		29.3
T_{dp}	7.7	7.7	8.7		9.7
W_d, W_s	020 3.1	020 3.1	010 1.8		CALM
P	26.09	26.09	25.59		25.95
C	70 (1)	70 (1)	E 70 (1)		E 55 (1)
M	Yes	Yes	Yes		Yes
T_{a25}					
T_{dp25}					
I	104.83	104.83	27.43		109.58
I_a	78.99	78.99	19.91		83.16
I_d	49.15	49.15	12.36		54.35
N	88.76	88.76			89.33
N_a	64.62	64.62			64.47
N_b	59.64	59.64			58.61
N_c	48.66	48.66			48.10
N_d	41.00	41.00			40.82
i	46.19	59.16	1.78		22.89
i_a	missing	44.98	1.41		21.04
i_d	26.33	27.09	1.01		15.24
$T_{g/w}$	38.5	42.1	29.5		40.4
T_s	missing	missing	29.2		41.0
Ψ	23.6	24.0			4.6
ε					
El, Az	80.5 170.5	80.5 170.5	79.9 171.7		80.0 169.4

REMARKS: MET SAT II - No normal incoming data due to clouds

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 22 June 1977 TIME 1436 (Local) 2036 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	29.9	29.9			31.2
T_{dp}	7.4	7.4			9.0
W_d, W_s	010 2.5	010 2.5			315 3.8
P	26.07	26.07			25.92
C	80 (I)	80 (I)			E 55 (II) 200 (II)
M	Yes	Yes			Yes
T_{a25}					
T_{dp25}					
I	102.00	102.00			31.12
I_a	88.32	88.32			22.65
I_d	54.77	54.77			13.71
N					
N_a					
N_b					
N_c					
N_d					
i	50.97	22.87			6.04
i_a	missing	16.41			5.32
i_d	29.56	12.23			3.51
$T_{g/w}$	39.9	34.3			34.8
T_s	missing	missing			39.4
Ψ	23.6	24.0			4.6
ε					
El, Az	68.3 250.0	68.3 250.0			68.5 251.1

REMARKS: MET SAT I-A, I-B, IV: Normal incoming data missing due to clouds

MET SAT II - Not operated this observation

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%), ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-NS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 22 June 1977

RADIOSONDE: (0900 MDT) TTAA 72151 72JAL 99877 21060 36002 00072
///// '/// 85503 19061 01561 01504 70142 07056 27510 50582 09950
15566 ,0751 21564 20537 30966 371// 19566 25090 465// 19584 20235
565// 20068 15414 625// 21049 10663 641// 19058 88159 633// 21051
77225 19595 41227

TTBB 7215/ 72JAL 00877 21060 11850 19061 22801 17062 33700 07056
44637 00611 55590 01723 77480 11959 88441 15368 99428 17162 11400
21564 22338 32158 33319 33966 44200 56511 55159 609// 66136 653//
77115 653// 88100 641//

TTCC 72153 72JAL 70881 607// 22036 50092 553// 18016 30418 531//
17056 88999 77999

TTDD 7215/ 72JAL 11738 647// 22700 607// 33596 609// 44500 553//
55383 569// 66208 469// 51515 10190 20683

ROCKETSONDE: (1215 MDT) RRXX 22182 72269 81010 63101 26550 10011
30543 09018 32535 11021 35532 10012 36534 09014 38524 08030 39517
08032 40517 09033 42509 09034 43505 09034 45508 11040 50505 09045
55510 10047 60523 11066 62531 10066 65546 11078 66551 10069 67***
08054 68*** 06055 70*** 07087 72*** 09067

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 23 June 1977 TIME 1035 (Local) 1635 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	25.3	25.3	26.5		26.0
T_{dp}	8.4	8.4	8.2		7.2
W_d, W_s	CALM	CALM	CALM		065 1.0
P	26.15	26.15	25.64		26.02
C	150 ①	150 ①	85 ①		65 ① E 90 ①
M	Yes	Yes	Yes		Yes
T_{a25}					
T_{dp25}					
I	83.61	83.61	83.21		63.33
I_a	62.59	62.59	63.43		49.71
I_d	41.21	41.21	42.15		31.57
N	88.12	88.12	84.99		26.27
N_a	64.88	64.88	71.29		19.20
N_b	59.26	59.26	57.79		18.39
N_c	48.66	48.66	51.22		14.96
N_d	40.10	40.10	42.78		13.54
i	40.15	45.87	4.97		15.30
i_a	missing	34.65	3.92		14.03
i_d	21.22	21.46	3.13		10.16
$T_{g/w}$	38.0	37.5	36.2		27.9
T_s	missing	missing	30.0		31.2
Ψ	15.4	16.7			4.4
ε					
El, Az	55.4 95.8	55.4 95.8	55.4 96.8		55.4 95.0

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C) · T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 23 June 1977 TIME 1150 (Local) 1750 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	28.9	28.9	29.3		27.5
T_{dp}	7.1	7.1	6.6		6.5
W_d, W_s	350 0.4	350 0.4	160 4.5		200 2.0
P	26.14	26.14	25.62		26.02
C	140 ◐ 250 ◐	140 ◐ 250 ◐	E 85 ◐		65 ◐ E 100 ◐
M	No	No	No		Yes
T_{a25}					
T_{dp25}					
I	50.00	50.00	103.21		105.66
I_a	36.12	36.12	82.41		83.04
I_d	21.19	21.19	53.64		53.21
N			86.87		76.60
N_a			70.36		57.40
N_b			60.98		52.75
N_c			51.97		43.45
N_d			44.09		37.59
i	19.95	23.21	7.10		25.81
i_a	missing	17.33	5.43		23.82
i_d	9.00	9.81	4.15		17.41
$T_{g/w}$	39.5	38.5	42.4		36.9
T_s	missing	missing	41.0		42.3
Ψ	15.4	16.7			4.4
ε					
El, Az	70.6 114.2	70.6 114.2	70.5 115.9		70.8 112.7

REMARKS: MET SAT I - No normal incoming data due to clouds

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square certimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 23 June 1977

RADIOSONDE: (1000 MDT) TTAA 73161 72HMS 99877 23666 16006 11102
///// ///// 85536 20667 14505 70156 07660 23009 50583 10749 18508
40750 23373 18017 30955 375// 20535 25079 447// 20549 20225 537//
21549 15406 607// 22535 10656 641// 19013 88152 615// 22537 77182
21550 406// Ø

TTBB 7316/ 72HMS 00877 23666 11837 19065 22700 07660 33590 02140
44549 05957 55472 14341 66464 15357 77427 19766 88400 23373 99354
28372 11300 374// 22177 585// 33152 615// 44126 607// 55120 625//
66100 641// 51515 10186 //850 20667 Ø

TTCC 73167 72HMS 70877 587// 13010 50088 545// 88999 77999 Ø

TTDD 7316/ 72HMS 11813 645// 22796 625// 33700 587// 44639 593//
55500 545// Ø

ROCKETSONDE: No Flight This Date

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Landsat B

DATE OF OBSERVATION 27 June 1977 TIME 1038 (Local) 1638 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	30.7	30.7	30.7		34.5
T_{dp}	7.8	7.8	8.2		8.3
W_d, W_s	010 2.5	010 2.5	360 1.8		360 3.1
P	26.09	26.09	25.55		25.95
C	75 ◐	75 ◐	○		70 ◐ 180 ◐
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	90.86	90.86	81.38		88.36
I_a	71.60	71.60	61.34		69.45
I_d	45.34	45.34	40.13		43.86
N	86.97	86.97	89.49		87.51
N_a	63.73	63.73	67.73		63.26
N_b	58.24	58.24	63.04		55.38
N_c	47.51	47.51	50.84		47.29
N_d	39.34	39.34	42.78		38.00
i	47.74	53.81	4.62		23.52
i_a	missing	40.93	3.82		21.77
i_d	25.67	25.53	2.73		15.60
$T_{g/w}$	33.8	36.0	41.5		41.7
T_s	missing	missing	47.5		40.0
Ψ	19.5	19.2			6.3
ε					
El, Az	55.8 96.3	55.8 96.3	55.8 97.3		55.8 97.5

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 27 June 1977 TIME 1152 (Local) 1752 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	32.8	32.8	34.3		34.7
T_{dp}	7.1	7.1	6.6		6.2
W_d, W_s	360 0.3	360 0.3	140 1.8		310 2.0
P	26.08	26.08	25.55		25.94
C	80 ⦶	80 ⦶	85 ⦶		60 ⦶ 150 ⦶
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	97.48	97.48	92.75		95.43
I_a	74.17	74.17	72.11		76.42
I_d	45.34	45.34	48.18		48.87
N	89.91	89.91	92.31		89.53
N_a	65.39	65.39	69.42		63.86
N_b	59.64	59.64	64.35		52.14
N_c	48.56	48.56	51.97		45.67
N_d	40.23	40.23	43.71		34.56
i	48.35	53.58	4.50		26.45
i_a	missing	40.63	3.62		24.79
i_d	25.22	25.05	2.63		18.14
$T_{g/w}$	41.8	42.2	48.0		52.0
T_s	missing	missing	52.0		48.5
Ψ	19.5	19.2			6.3
ε					
El, Az	70.8 114.8	70.8 114.8	70.6 116.6		70.9 113.3

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 27 June 1977 TIME 1238 (Local) 1838 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	34.9	34.9	35.1		36.2
T_{dp}	6.8	6.8	7.7		6.0
W_d, W_s	020 1.5	020 1.5	260 1.3		255 2.5
P	26.07	26.07	25.52		25.92
C	65 ◐	65 ◐	65 ◐		[illegible] ◐ [illegible] ◐ [illegible] ◐
M	No	No	No		
T_{a25}					
T_{dp25}					
I	102.21	102.21	100.09		92.06
I_a	76.31	76.31	79.17		73.52
I_d	48.41	48.41	50.19		49.15
N	90.93	90.93	92.31		90.34
N_a	66.16	66.16	69.61		65.48
N_b	59.90	59.90	64.54		59.42
N_c	49.04	49.04	51.78		48.71
N_d	40.61	40.61	43.53		41.63
i	50.18	57.00	6.39		25.91
i_a	missing	43.26	4.82		23.94
i_d	26.33	26.60	3.94		17.17
$T_{g/w}$	43.9	46.9	48.0		51.5
T_s	missing	missing	53.2		52.2
Ψ	19.5	19.2			6.3
ε					
El, Az	78.4 143.4	78.4 143.4	78.0 145.6		78.8 141.5

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 27 June 1977

RADIOSONDE: (0800 MDT) TTAA 77141 72HMS 99874 24067 00000 00069
///// ///// 85506 26668 35011 70185 14664 30010 50592 07150 29003
40763 17571 24002 30971 34361 28506 25096 441// 30522 20243 533//
31031 15424 633// 29050 10669 665// 32050 88121 697// 30019 77105
31558 41919

TTBB 7714/ 72HMS 00874 24067 11864 26667 22857 26868 33510 06148
44492 08347 55479 08757 66431 14957 77400 17571 88371 21774 99283
38162 11250 441// 22121 697// 33100 665//

TTCC 77142 72HMS 70886 627// 07521 50096 575// 08533 30425 507//
13531 20692 469// 09542 88999 77999

TTDD 7714/ 72HMS 11913 667// 22773 625// 33463 577// 44408 525//
55268 499// 66258 481// 77153 457//

ROCKETSONDE: (1225 MDT) RRXX 27183 72269 81010 13101 25552 10012
30542 09014 35533 09026 36532 09025 38519 09030 39514 10026 40514
10024 45511 09033 50000 10058 53503 10063 55505 10051 57*** 10058
60*** 08037 61*** 08030 62*** 09030 64*** 09063 65*** 09070 69***
08059 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 29 June 1977 TIME 1407 (Local) 2007 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	32.8	32.8	34.0		33.8
T_{dp}	9.9	9.9	7.0		13.7
W_d, W_s	130 2.7	130 2.7	340 2.2		340 1.3
P	26.03	26.03	25.50		25.92
C	E190-⊕	E190-⊕	E 70 ⦶		70 ⦶ E 180 ⦶
T_{a25}^M	No	No	No		Yes
T_{dp25}					
I	99.68	99.68	99.00		106.42
I_a	76.31	76.31	79.75		81.07
I_d	46.61	46.61	51.72		53.40
N	74.46	74.46	78.24		79.19
N_a	54.79	54.79	60.41		57.37
N_b	50.83	50.83	56.29		52.53
N_c	41.12	41.12	45.78		43.64
N_d	35.12	35.12	39.40		35.76
i	missing	46.08	7.22		27.06
i_a	missing	42.15	5.63		22.97
i_d	26.67	23.30	4.55		16.57
$T_{g/w}$	39.8	41.5	49.0		40.0
T_s	44.2	45.0	58.0		49.2
Ψ	20.0	19.8			6.1
ε					
El, Az	73.9 237.1	73.9 237.1	73.5 235.7		74.3 238.5

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 29 June 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	missing	missing	34.5		32.8
T_{dp}	missing	missing	7.3		14.1
W_d, W_s	190 2.3	190 2.3	190 4.9		135 2.3
P	26.08	26.08	25.55		25.96
C	E180-(II)	E180-(II)	75 (I)		70 (I) E180 (II)
M	No	No	No		Yes
T_{a25}					
T_{dp25}					
I	99.16	99.16	100.55		103.48
I_a	75.67	75.67	79.75		79.88
I_d	46.40	46.40	50.96		51.04
N	73.56	73.56	70.73		77.98
N_a	53.51	53.51	53.47		58.38
N_b	49.04	49.04	49.34		53.74
N_c	39.34	39.34	39.77		44.04
N_d	34.10	34.10	34.33		36.36
i	48.17	55.75	6.86		25.39
i_a	missing	42.35	5.33		21.64
i_d	25.67	25.73	4.25		15.48
$T_{g/w}$	41.8	41.8	47.9		39.9
T_s	42.3	42.3	54.0		46.3
Ψ	20.0	19.8			6.1
ε					
El, Az	80.2 168.6	80.2 168.6	79.7 170.0		80.7 167.5

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 29 June 1977 TIME 1007 (Local) 1607 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	27.1	27.1	29.0		26.4
T_{dp}	15.9	15.9	11.0		16.8
W_d, W_s	CALM	CALM	050 1.3		360 1.5
P	26.13	26.13	25.69		26.01
C	E 190 (II)	E 190 (II)	180 (I)		E 170 (II)
M	No	No	No		Yes
T_{a25}					
T_{dp25}					
I	55.04	55.04	74.13		33.95
I_a	35.69	35.69	55.44		25.32
I_d	23.73	23.73	36.59		15.60
N	67.94	67.94	81.05		
N_a	43.04	43.04	61.73		
N_b	35.12	35.12	57.60		
N_c	26.05	26.05	47.47		
N_d	21.71	21.71	39.59		
i	21.91	35.04	4.62		6.56
i_a	missing	27.36	3.72		6.05
i_d	10.67	16.70	2.93		4.11
$T_{g/w}$	29.5	28.1	37.0		37.0
T_s	33.1	30.5	43.0		43.0
Ψ	20.0	19.8			6.1
ε					
El, Az	49.2 91.6	49.2 91.6	49.3 92.4		49.3 92.4

REMARKS: MET SAT 4 - No normal incoming data due to clouds

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 29 June 1977

RADIOSONDE: (0800 MDT) TTAA 79141 72HMS 99877 22462 32002 00071
///// ///// 85529 23865 32506 70195 12666 13011 50591 07150 07606
40762 17961 36015 30971 32965 36012 25096 431// 34510 20243 547//
08513 15422 673// 02008 10664 667// 36018 88135 711// 31508 77999

TTBB 7914/ 72HMS 00877 22462 11850 23865 22795 20668 33774 18864
44750 17471 55622 04258 66601 02240 77566 01128 88449 11356 99420
14971 11400 17961 22391 19359 53369 20762 44337 26560 55331 26963
66283 36363 77200 547// 88135 711// 99100 667//

TTCC 79142 72HMS 70883 615// 04009 50083 565// 10013 30413 505//
09019 20677 479// 09535 88999 77203 09535 40701

TTDD 7914/ 72HMS 11583 609// 22418 517// 33218 517// 44200 479//
55138 451// 66115 389// 51515 10190 10144

ROCKETSONDE: (1200 MDT) RRXX 29181 72269 81010 63101 23554 08014
25555 10017 26548 10016 27546 09013 30541 10021 35529 09023 40519
09035 45502 09047 46/// 08046 JJJ

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 5 July 1977 TIME 1215 (Local) 1815 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a			23.4		25.1
T_{dp}			11.7		17.7
W_d, W_s			160 0.1		CALM
P			missing		missing
C			85		E180-
T_{a25}			Yes		Yes
T_{dp25}					
I			36.33		83.90
I_a			25.58		64.11
I_d			16.38		44.23
N					81.24
N_a					62.04
N_b					56.99
N_c					33.35
N_d					22.64
i			2.96		22.58
i_a			2.21		19.35
i_d			1.62		14.03
$T_{g/w}$			29.5		35.5
T_s			35.1		34.5
Ψ					missing
ε					
El, Az			74.1 128.3		74.6 124.6

REMARKS:
MET SAT I - Not operated this day
MET SAT II - No normal incoming data due to clouds

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 5 July 1977 TIME 1356 (Local) 1956 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a			30.7		
T_{dp}			17.8		
W_d, W_s			170 2.1		
P			missing		
C			E 85 (11)		
M			Yes		
T_{a25}					
T_{dp25}					
I			100.92		
I_a			80.32		
I_d			52.49		
N					
N_a					
N_b					
N_c					
N_d					
i			6.04		
i_a			4.62		
i_d			4.49		
$T_{g/w}$			46.8		
T_s			48.3		
Ψ					
ε					
El, Az			75.19 227.3		

REMARKS:
MET SAT I - Not operated this day
MET SAT II - No normal incoming data due to clouds
MET SAT IV - Not operated this observation

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 5 July 1977

RADIOSONDE: (0900 MDT) TTAA 55151 72HMS 99880 20238 23001 00140
///// ///// 85555 18456 17005 70199 08635 22008 50591 06563 22013
40762 17558 24008 30971 323// 20006 25097 421// 17012 20244 551//
15508 15423 663// 24503 10667 683// 14013 88124 689// 15013 77999

TTBB 5515/ 72HMS 00880 20238 11753 12850 22628 03410 33589 00856
44543 03700 55537 04369 66530 03173 77505 05776 88500 06563 99481
07976 11412 15757 22400 17558 33377 20559 44365 21957 55322 28359
66302 31569 77300 323// 88200 551// 99150 663// 11124 689// 22100
683// 51515 SUPER 30-30

TTCC 55151 72HMS 70884 643// 13016 50094 595// 09020 30419 525//
10029 20683 501// 08031 10145 395// 88999 77103 09047 40203

TTDD 5515/ 72HMS 11918 655// 22700 643// 33638 593// 44533 567//
55500 593// 66383 585// 77319 509// 88300 525// 99133 473// 11120
427// 22100 395// 33083 393// 51515 10190 07389

ROCKETSONDE: (1200 MDT) RRXX 05180 72269 81010 13101 25553 10014
29547 09022 30541 08020 35534 09027 36526 08029 38524 09029 40515
09031 42513 10044 45505 08039 50510 10053 52507 10056 53512 10059
55512 10052 60527 09049 61531 09053 62535 10061 63539 10065 65///
09040 66/// 07050 67/// 07060 68/// 06045 69/// 03020 JJJ

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 6 July 1977 TIME 1040 (Local) 1640 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a					28.3
T_{dp}					15.0
W_d, W_s					CALM
P					missing
C					55 (1)
M					Yes
T_{a25}					
T_{dp25}					
I					78.02
I_a					60.39
I_d					37.81
N					87.88
N_a					63.84
N_b					58.79
N_c					47.68
N_d					39.39
i					27.12
i_a					17.17
i_d					12.21
$T_{g/w}$					49.3
T_s					47.6
Ψ					missing
ε					
El, Az					55.6 96.5
REMARKS: MET SAT I , II - Not operated this day					

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 6 July 1977 TIME 1235 (Local) 1835 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a					32.3
T_{dp}					14.3
W_d, W_s					015 3.6
P					missing
C					70 ⦶
T_{a25}^M					Yes
T_{dp25}					
I					95.54
I_a					74.22
I_d					46.88
N					91.31
N_a					65.45
N_b					60.00
N_c					48.48
N_d					40.20
i					34.35
i_a					21.64
i_d					15.36
$T_{g/w}$					60.8
T_s					59.6
Ψ					missing
ε					
El, Az					77.7 138.8
REMARKS: MET SAT I,II - Not operated this day					

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG69
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 6 July 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a					31.7
T_{dp}					13.9
W_d, W_s					060 1.0
P					missing
C					70 (1)
M					Yes
T_{a25}					
T_{dp25}					
I					96.41
I_a					74.22
I_d					47.64
N					90.50
N_a					65.05
N_b					59.80
N_c					48.48
N_d					40.40
i					34.49
i_a					21.52
i_d					15.24
$T_{g/w}$					59.7
T_s					59.4
Ψ					missing
ε					
El, Az					80.2 166.3

REMARKS: MET SAT I,II - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 6 July 1977

RADIOSONDE: (0900 MDT) TTAA 56151 72HMS 99879 25861 00000 00116
///// ///// 85555 20862 17005 70199 10059 34009 50590 05569 34007
40761 18564 10001 30970 33759 23510 25095 431// 26013 20242 543//
22508 15421 651// 33504 10664 699// 14007 88104 705// 14007 77999

TTBB 5615/ 72HMS 00879 25861 11869 22464 22795 18062 33744 13458
44700 10059 55621 02950 66564 01557 77547 01559 88523 04558 99506
06164 11500 05569 22448 11966 33426 14767 44412 17169 55400 18564
66360 23558 77334 26565 88274 38361 99170 621// 11150 651// 22104
706// 33100 699//

TTCC 56155 72HMS 70885 649// 10016 50091 621// 10508 88999 77670
10018 40609

TTDD 5615/ 72HMS 11848 651// 22700 649// 33598 619// 44500 621//

ROCKETSONDE: (1200 MDT) RRXX 06181 72269 81010 63101 26549 10018
30543 10020 35532 09025 39524 09032 40523 08039 41515 09046 42508
10046 45504 10048 47504 11047 48504 11043 49504 10045 50505 09059
52508 09054 55513 09061 60529 10062 62537 06052 64546 08058 65550
10052 66556 13037 67562 14026 68/// 09025 69/// 06053 70/// 07081
72/// 06054 73/// 04031 74/// 02020 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 13 July 1977 TIME 1203 (Local) 1803 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	30.8	30.8			32.3
T_{dp}	12.7	12.7			12.6
W_d, W_s	240 4.0	240 4.0			160 1.5
P	25.88	25.88			26.02
C	65 ① E 190 ②	65 ① E 190 ③			60 ① 180 ①
M	Yes	Yes			No
T_{a25}					
T_{dp25}					
I	84.79	84.79			93.04
I_a	78.89	78.89			74.68
I_d	48.52	48.52			47.35
N	83.65	83.65			88.48
N_a	60.20	60.20			63.03
N_b	55.13	55.13			57.58
N_c	44.87	44.87			46.67
N_d	22.05	22.05			38.79
i	46.37	46.40			25.51
i_a	37.23	40.60			23.10
i_d	22.34	25.25			16.69
$T_{g/w}$	44.7	43.4			50.9
T_s	34.5	44.0			51.7
Ψ	22.7	21.2			1.1
ε					
El, Az	71.5 121.8	71.5 121.8			71.7 120.3

REMARKS: MET SAT II - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 13 July 1977 TIME 1214 (Local) 1814 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	32.1	32.1			32.8
T_{dp}	13.7	13.7			12.5
W_d, W_s	270 2.7	270 2.7			CALM
P	25.90	25.90			26.01
C	65 Ⓘ E190 Ⓘ	65 Ⓘ E190 Ⓘ			60 Ⓘ 180 Ⓘ E220 Ⓘ
M	Yes	Yes			No
T_{a25}					
T_{dp25}					
I	82.68	82.68			94.89
I_a	78.14	78.14			76.77
I_d	49.79	49.79			48.87
N	84.79	84.79			89.49
N_a	61.60	61.60			64.65
N_b	56.27	56.27			59.20
N_c	45.25	45.25			48.08
N_d	38.28	38.28			40.00
i	49.16	49.15			26.09
i_a	39.61	41.04			23.70
i_d	23.65	24.65			17.17
$T_{g/w}$	44.7	43.4			51.7
T_s	34.5	44.0			53.1
Ψ	22.7	21.2			1.1
ε					
El, Az	73.4 127.4	73.4 127.4			73.6 125.8

REMARKS: MET SAT II - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Moon Run

DATE OF OBSERVATION 13 July 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	33.5	33.5			34.6
T_{dp}	13.1	13.1			13.1
W_d, W_s	195 0.9	195 0.9			180 3.0
P	25.87	25.87			26.01
C	60 ◐ E180 ◑	60 ◐ E180 ◑			60 ◐ E180 ◑ 220 ◑
M	Yes	Yes			No
T_{a25}					
T_{dp25}					
I	102.75	102.75			79.33
I_a	96.57	96.57			61.90
I_d	59.85	59.85			38.37
N	86.31	86.31			47.47
N_a	53.61	53.61			34.95
N_b	48.92	48.92			33.54
N_c	missing	missing			27.68
N_d	missing	missing			23.84
i	57.12	56.57			20.27
i_a	46.33	50.30			17.78
i_d	27.95	31.69			12.70
$T_{g/w}$	38.1	45.7			54.5
T_s	37.0	46.5			53.1
Ψ	22.7	21.2			1.1
ε					
El, Az	79.7 167.4	79.7 167.4			80.2 166.3

REMARKS: MET SAT II - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 13 July 1977 TIME 1448 (Local) 2048 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	34.0	34.0			36.8
T_{dp}	11.6	11.6			13.1
W_d, W_s	200 6.3	200 6.3			205 3.0
P	25.86	25.86			25.99
C	65 (1) E300 (1)	65 (1) E300 (1)			60 (1) 180 (1) E220 (1)
M	Yes	Yes			No
T_{a25}					
T_{dp25}					
I	83.95	83.95			92.97
I_a	78.35	78.35			73.05
I_d	47.03	47.03			46.50
N	87.45	87.45			88.48
N_a	62.99	62.99			63.63
N_b	57.67	57.67			58.38
N_c	44.74	44.74			47.07
N_d	39.92	39.92			38.79
i	48.04	43.54			25.22
i_a	38.78	40.90			22.97
i_d	22.95	25.45			16.81
$T_{g/w}$	39.4	47.5			55.8
T_s	38.3	45.0			53.8
Ψ	22.7	21.2			1.1
ε					
El, Az	65.9 249.3	65.9 249.3			66.2 250.3

REMARKS: MET SAT II - Not operated this day

LEGEND

T_a = Air Temperature (^oC); T_{dp} = Dew Point Temperature (^oC); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (^oC), Dew Point Temperature (^oC) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (^oC); T_s = Surface Temperature (^oC); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 13 July 1977

RADIOSONDE: (0900 MDT) TTAA 63151 72HMS 99877 27469 18010 00074
///// ///// 85536 24267 14517 70195 12263 19006 50591 06748 19510
40762 18358 21008 30971 32765 17008 25097 525// 14507 20244 539//
11511 15423 651// 08004 10567 665// 19009 88128 705// 08007 77999

TTBB 6315/ 72HMS 00877 27469 01850 24267 22823 21866 33816 22268
44647 07058 55644 06456 66538 03964 77535 04561 88521 05376 99513
06126 11500 06748 22483 09134 33446 15157 44423 15157 55403 17960
66400 18358 77394 18757 88377 20368 99342 25561 11291 34165 22165
631// 33128 705// 44100 665// 51515 SUPER 65-64 10186 //619 04659
//588 00856

TTCC 63155 72HMS 70886 601// 11012 50096 575// 10022 30423 509//
88999 77383 08050 41718

TTDD 6315/ 72HMS 11700 601// 22580 611// 33300 509//

ROCKETSONDE: (1200 MDT) RRXX 13181 72269 81010 63101 25552 10017
30544 08025 32535 10025 35535 10026 36535 10029 39520 09036 40521
09042 45507 10055 47503 10050 50505 11043 51508 10040 55520 09058
58530 10061 59534 09063 60537 08075 61535 09091 62532 10087 63530
11070 65537 13039 66541 13024 67547 11014 68551 04018 70559 06040
72/// 08048 73/// 09035 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 15 July 1977 TIME 0957 (Local) 1557 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	24.8	24.8			27.2
T_{dp}	16.5	16.5			15.2
W_d, W_s	250 3.1	250 3.1			020 3.0
P	26.02	26.02			26.11
C	85 ⦶ 250-⦶	85 ⦶ 250-⦶			60⦶170⦶240⦶
M	No	No			Yes
T_{a25}					
T_{dp25}					
I	39.70	39.70			53.32
I_a	35.80	35.80			40.65
I_d	23.52	23.52			24.57
N	47.53	47.53			77.98
N_a	Missing	Missing			49.70
N_b	Missing	MISSING			41.82
N_c	22.18	22.18			31.72
N_d	19.39	19.39			25.25
i	19.97	16.74			13.09
i_a	11.27	12.69			12.09
i_d	8.61	8.85			8.46
$T_{g/w}$	21.7	25.4			35.5
T_s	23.3	25.5			33.3
Ψ	missing	17.2			1.3
ε					
El, Az	45.9 92.0	45.9 92.0			45.8 91.4

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

DATE OF OBSERVATION 15 July 1977 TIME 1027 (Local) 1627 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	20.0	20.0			27.6
T_{dp}	18.7	18.7			14.9
W_d, W_s	290 3.1	290 3.1			030 4.1
P	26.01	26.01			26.10
C	85 ① 250- ①	85 ① 250- ①			60 ① 170 ① 240 ①
M	No	No			Yes
T_{a25}					
T_{dp25}					
I	69.27	69.27			77.80
I_a	63.88	63.83			60.74
I_d	40.47	40.47			38.00
N	81.75	81.75			85.45
N_a	58.94	58.94			62.22
N_b	53.36	53.36			56.97
N_c	44.36	44.36			46.87
N_d	38.15	38.15			39.19
i	36.73	29.66			19.98
i_a	30.71	19.70			18.14
i_d	17.74	17.51			12.94
$T_{g/w}$	25.4	32.8			37.2
T_s	33.8	28.5			36.3
Ψ	missing	17.2			1.3
ε					
El, Az	52.1 96.6	52.1 96.6			52.1 95.9

REMARKS: MET SAT II - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = S. Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT B

DATE OF OBSERVATION 15 July 1977 TIME 1036 (Local) 1636 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	26.2	26.2			28.8
T_{dp}	15.7	15.7			9.5
W_d, W_s	320 3.1	320 3.1			010 3.0
P	26.01	26.01			26.10
C	85 ① 250- ①	85 ① 250- ①			60 ① 170 ① 240 ①
M	No	No			Yes
T_{a25}					
T_{dp25}					
I	62.83	62.83			79.54
I_a	42.34	42.34			62.60
I_d	16.31	16.31			38.85
N	66.16	66.16			86.26
N_a	62.99	62.99			62.42
N_b	36.63	36.63			57.17
N_c	29.91	29.91			46.67
N_d	15.21	15.21			38.79
i	30.17	18.64			20.37
i_a	23.27	13.28			18.38
i_d	13.13	6.84			13.18
$T_{g/w}$	27.7	33.0			37.7
T_s	26.1	29.5			36.3
Ψ	missing	17.2			1.3
ϵ					
El, Az	54.0 98.1	54.0 98.1			54.0 97.4

REMARKS: MET SAT I - Not operated this day

LEGEND

T_a = Air Temperature (^oC); T_{dp} = Dew Point Temperature (^oC); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (^oC), Dew Point Temperature (^oC) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (^oC); T_s = Surface Temperature (^oC); Ψ = Soil Moisture (%); ϵ = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 15 July 1977

RADIOSONDE: (0905 MDT) TTAA 65141 72HMS 99881 22659 05005 00128
///// ///// 85567 21059 02514 70221 11658 16517 50592 07170 17514
40763 17959 19014 30972 34159 23006 25097 441// 20004 20243 551//
14008 15422 659// 12014 10665 691// 11005 88109 723// 14008 77999

TTBB 6514/ 72HMS 00881 22659 11788 17058 22752 16459 33579 01156
44555 02959 55553 02564 66539 03366 77514 06363 88511 06368 99484
08570 11476 09564 22469 09772 33425 15171 44423 15561 55400 17960
66377 21159 77364 23166 88338 27559 99264 41158 11169 627// 22150
659// 33142 653// 44132 687// 55109 723// 66102 713// 77101 687//
88100 691//

TTCC 65142 72HMS 70882 615// 09521 50092 583// 07525 30418 509//
10525 20684 465// 08036 88999 77156 08045 407//

TTDD 6514/ 72HMS 11700 615// 22392 565// 33300 509// 44152 453//

ROCKETSONDE: (1205 MDT) RRXX 15181 72269 81010 13101 25551 08018
28543 10018 30544 10019 35530 09028 40523 08043 42515 09050 45506
10038 47506 09049 49502 10044 50504 10049 55517 09049 56519 09048
57522 09049 60530 08083 61534 09085 64544 10071 65548 11059 66///
11046 67/// 10045 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 20 July 1977 TIME 1021 (Local) 1611 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	26.9	26.9			28.6
T_{dp}	14.5	14.5			15.0
W_d, W_s	Calm	Calm			060 0.9
P	25.84	25.84			25.98
C	180- (II)	180- (II)			60(I)E140(II)250(II)
M	No	No			Yes
T_{a25}					
T_{dp25}					
I	22.70	22.70			40.04
I_a	19.83	19.83			31.94
I_d	14.83	14.83			missing
N					
N_a					
N_b					
N_c					
N_d					
i	54.61	54.61			9.41
i_a	38.88	33.73			9.07
i_d	31.06	21.13			7.26
$T_{g/w}$	33.4	31.2			38.7
T_s	31.4	28.0			35.5
Ψ	12.7	16.3			1.2
ε					
El, Az	48.3 95.1	48.3 95.1			48.3 94.5

REMARKS: MET SAT I, IV - No normal incoming due to clouds
METSAT II - Not Operated This Day.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 20 July 1977 TIME 1153 (Local) 1753 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	31.2	31.2			31.5
T_{dp}	13.0	13.0			13.4
W_d, W_s	CALM	CALM			060 1.0
P	25.84	25.84			25.98
C	60 ① 170 ① 210 ①	60 ① 170 ① 210 ①			80 ① E140 ①
M	No	No			Yes
T_{a25}					
T_{dp25}					
I	79.62	79.62			91.95
I_a	72.24	72.24			62.72
I_d	45.76	45.76			missing
N	84.16	84.16			
N_a	60.46	60.46			
N_b	55.51	55.51			
N_c	44.87	44.87			
N_d	38.78	38.78			
i	44.69	42.58			17.56
i_a	33.71	36.87			15.48
i_d	20.34	22.74			10.76
$T_{g/w}$	37.7	49.2			41.8
T_s	39.0	43.1			46.0
Ψ	12.7	16.3			1.2
ε					
El, Az	68.8 119.7	68.8 119.7			69.0 118.4

REMARKS: MET SAT II - Not operated this day
MET SAT IV - No normal incoming data due to clouds

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Noon Run

DATE OF OBSERVATION 20 July 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	32.8	32.8			32.1
T_{dp}	12.3	12.3			13.1
W_d, W_s	040 2.2	040 2.2			060 0.5
P	25.82	25.82			25.95
C	60 ⦶ 170 ⦶ E200 ⦷	60 ⦶ 170 ⦶ E200 ⦷			75 ⦶ E100 ⦷ 250 ⦷
M	No	No			Yes
T_{a25}					
T_{dp25}					
I	90.60	90.60			113.38
I_a	83.71	83.71			87.80
I_d	51.69	51.69			missing
N	85.42	85.42			78.18
N_a	61.72	61.72			53.54
N_b	56.65	56.65			47.88
N_c	46.01	46.01			41.62
N_d	39.67	39.67			35.56
i	51.82	48.94			39.10
i_a	41.16	42.99			26.24
i_d	24.85	26.56			18.74
$T_{g/w}$	45.7	51.7			44.7
T_s	44.2	48.7			52.5
Ψ	12.7	16.3			1.2
ε					
El, Az	77.7 167.4	77.7 167.4			78.2 166.4

REMARKS: MET SAT II - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 20 July 1977 TIME 1419 (Local) 2019 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	34.1	34.1			34.1
T_{dp}	14.6	14.6			17.3
W_d, W_s	270 1.8	270 1.8			060 0.5
P	25.79	25.79			25.93
C	60 ⦶170⦶E200⦶	60 ⦶170⦶E200⦶			85 ⦶ E250 ⦶
T^M	No	No			Yes
T_{a25}					
T_{dp25}					
I	85.74	85.74			77.91
I_a	79.96	79.96			62.60
I_d	47.67	47.67			missing
N	53.99	53.99			
N_a	40.30	40.30			
N_b	37.26	37.26			
N_c	30.42	30.42			
N_d	23.95	23.95			
i	51.12	47.25			19.59
i_a	40.12	41.19			17.41
i_d	23.35	24.75			13.30
$T_{g/w}$	45.7	50.8			46.7
T_s	43.0	47.2			52.3
Ψ	12.7	16.3			1.2
ε					
El, Az	70.8 235.5	70.8 235.5			71.1 236.6

REMARKS: MET SAT II - Not operated this day
MET SAT IV- No normal incoming data due to clouds

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 20 July 1977

RADIOSONDE: (0900 MDT) TTAA 70151 72HMS 99876 24864 09002 00079
///// ///// 85520 22062 06501 70163 12660 32504 50589 06359 17510
40760 16359 18510 30970 32357 24504 25096 419// 25008 20243 545//
06508 15422 647// 05006 10666 663// 09002 88120 701// 08010 77999

TTBB 7015/ 72HMS 00876 24864 11850 22062 22746 16865 33700 12660
44589 02257 55571 00865 66556 00756 77531 02774 88514 04175 99500
06359 11480 07956 22457 09757 33421 14747 44400 16359 55350 23760
66338 25557 77264 39360 88169 623// 99120 701// 11109 671// 22100
663//

TTCC 70152 72HMS 70885 627// 09520 50096 565// 12523 30423 507//
09528 20543 497// 08531 88999 77360 06537 41610

TTDD 7015/ 72HMS 11700 627// 22468 543// 33404 565// 44250 461//
55200 497// 66156 445//

ROCKETSONDE: (1200 MDT) RRXX 20183 72260 81010 63101 26552 09014
30543 09022 35532 10021 37528 09031 40519 11028 41519 09028 42516
08037 43513 08044 45508 10044 46506 11042 47509 12041 48512 11049
50508 10057 51511 10058 52507 09058 53504 09052 55512 09044 56515
07033 57520 08018 60534 10032 61539 10044 62545 10052 63/// 12057
64/// 13059 65/// 11049 66/// 07062 67/// 06083 68/// 05068 69///
02028 70/// 30024 71/// 28023 72/// 21004 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

DATE OF OBSERVATION 21 July 1977 TIME 0950 (Local) 1550 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a					28.1
T_{dp}					15.8
W_d, W_s					065 2.0
P					26.04
C					60 ⦶ 250- ⊕
M					No
T_{a25}					
T_{dp25}					
I					38.19
I_a					29.97
I_d					missing
N					37.17
N_a					26.67
N_b					23.84
N_c					20.40
N_d					15.35
i					10.09
i_a					9.19
i_d					6.77
$T_{g/w}$					28.5
T_s					32.0
Ψ					1.4
ε					
El, Az					43.8 91.6
REMARKS: MET SAT I & II - Not operated this day					

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 21 July 1977 TIME 1152 (Local) 1752 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a					31.7
T_{dp}					16.8
W_d, W_s					065 2.6
P					26.05
C					[illegible]
M					No
T_{a25}					
T_{dp25}					
I					93.69
I_a					73.64
I_d					missing
N					79.39
N_a					57.58
N_b					52.73
N_c					44.04
N_d					36.36
i					23.06
i_a					21.89
i_d					15.96
$T_{g/w}$					41.6
T_s					36.0
Ψ					1.4
ε					
El, Az					68.7 118.4

REMARKS: MET SAT I & II - Not operated this day

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C): Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 21 July 1977

RADIOSONDE: (0900 MDT) TTAA 71741 72HMS 99878 23666 15010 00098
///// ///// 85539 21860 15006 70203 12662 10017 50593 05573 12018
40764 17567 14519 30973 32957 04008 25099 41759 02020 20246 543//
08019 15425 681// 07513 10670 675// 08515 88139 697// 08040 77999

TTBB 71140 72HMS 00878 23666 11860 21859 22850 21860 33844 22860
44708 20061 55754 19466 66700 12662 77663 09059 88634 06463 99575
00562 11562 02167 22547 01176 33456 09173 44400 17567 55330 27966
66318 29757 77300 32957 88295 33596 99250 41959 11176 611// 22139
697// 33128 659// 44121 681// 55100 675// 51515 SUPER 75-70 30-30

TTCC 71141 72HMS 70888 631// 08520 50098 571// 08523 30425 509//
10023 20691 491// 09540 10158 425// 08562 88999 77032 08570 410//

TTDD 7114/ 72HMS 11932 635// 22700 631// 33500 571// 44370 557//
55327 509// 66300 509// 77239 467// 88200 491// 99146 417// 11100
425// 22086 357// 51515 10190 07406

ROCKETSONDE: (1200 MDT) RRXX 21180 72269 81010 63101 25552 09020
30545 09024 31534 10027 33535 10021 35533 09031 40518 08028 42518
09042 45509 09050 47504 09051 48504 09052 50508 10038 51510 10036
52512 10045 53513 10051 55514 11044 56517 09046 57520 08059 60522
08062 61526 09062 62530 11058 63534 13050 65543 16016 66548 32006
67554 35022 68/// 02034 69/// 04065 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 26 July 1977 TIME 0943 (Local) 1543 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	23.8	23.8			28.3
T_{dp}	15.2	15.2			13.3
W_d, W_s	040 1.8	040 1.8			065 1.0
P	25.97	25.97			26.10
C	200 ①	200 ①			250- ①
T^M	Yes	Yes			Yes
T_{a25}					
T_{dp25}					
I	64.68	64.68			60.07
I_a	49.63	49.63			47.97
I_d	32.63	32.63			29.76
N	78.20	78.20			81.62
N_a	57.03	57.03			60.61
N_b	52.22	52.22			54.75
N_c	42.84	42.84			46.26
N_d	36.63	36.63			38.38
i	30.03	27.44			13.87
i_a	24.10	24.78			12.94
i_d	15.13	15.69			9.55
$T_{g/w}$	26.7	27.2			42.0
T_s	22.4	23.0			37.1
Ψ	20.6	19.3			2.2
ε					
El, Az	41.9 92.4	41.9 92.4			41.8 91.9

REMARKS: MET SAT II - Not operated this date

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 26 July 1977 TIME 1149 (Local) 1749 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	29.9	29.9			31.1
T_{dp}	13.2	13.2			14.4
W_d, W_s	210 2.7	210 2.7			060 4.1
P	25.99	25.99			26.10
C	70 ⦶ 200 ⦶	70 ⦶ 200 ⦶			250- ⦶
M	Yes	Yes			Yes
T_{a25}					
T_{dp25}					
I	91.84	91.84			90.10
I_a	72.02	72.02			70.03
I_d	52.44	52.44			43.29
N	85.42	85.42			85.25
N_a	61.34	61.34			62.83
N_b	56.27	56.27			57.17
N_c	45.63	45.63			48.08
N_d	39.04	39.04			39.80
i	41.34	39.94			21.34
i_a	32.47	35.07			19.47
i_d	19.84	21.73			14.15
$T_{g/w}$	35.5	33.8			missing
T_s	36.3	33.5			45.6
Ψ	20.6	19.3			2.2
ε					
El, Az	67.3 120.5	67.3 120.5			67.5 119.8

REMARKS: MET SAT II - Not operated this date

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW \cdot cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 26 July 1977 TIME 1159 (Local) 1759 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	30.1	30.1			31.3
T_{dp}	13.6	13.6			14.5
W_d, W_s	230 2.2	230 2.2			060 4.1
P	26.00	26.00			26.10
C	70 ⦶ 200 ⦶	70 ⦶ 200 ⦶			250- ⦶
T^M	Yes	Yes			Yes
T_{a25}					
T_{dp25}					
I	92.45	92.45			90.75
I_a	72.65	72.65			70.85
I_d	46.19	46.19			43.60
N	85.42	85.42			86.87
N_a	61.09	61.09			64.85
N_b	56.02	56.02			56.97
N_c	45.50	45.50			46.87
N_d	39.16	39.16			37.78
i	41.62	39.51			21.44
i_a	32.68	34.93			19.95
i_d	20.14	21.53			14.51
$T_{g/w}$	35.9	33.7			missing
T_s	36.9	33.7			45.9
Ψ	20.6	19.3			2.2
ε					
El, Az	69.1 124.7	69.1 124.7			69.3 123.4

REMARKS: MET SAT II - Not operated this date

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 26 July 1977

RADIOSONDE: (1005 MDT) TTAA 76161 72HMS 99881 28265 00000 00138
///// ///// 85575 25066 22002 70249 12661 14509 50596 05771 14009
40767 17368 18016 30976 32360 17022 25102 431// 16021 20249 533//
15530 15430 639// 15540 10673 707// 11512 88108 725// 15013 77999

TTBB 7616/ 72HMS 00881 28265 11850 25066 22700 12661 33612 03248
44603 03061 55560 01763 66549 03558 77543 03762 88525 04370 99509
05367 11500 05771 22483 06573 33400 17368 44373 20170 55300 32360
66259 41159 77250 431// 88200 533// 99171 599// 11150 639// 22140
641// 33123 689// 44114 715// 55108 725// 66105 701// 77100 707//
51515 SUPER 56-55

TTCC 76162 72HMS 70891 633// 09505 50102 567// 11022 30430 515//
08026 20695 487// 08540 88999 77159 09546 40903

TTDD 7616/ 72HMS 11928 671// 22809 621// 33700 633// 44618 619//
55538 539// 66500 567// 77479 549// 88433 567// 99333 511// 11300
515// 22200 487// 33123 403// 51515 10190 10163

ROCKETSONDE: (1100 MDT) RRXX 26175 72269 81010 13101 25552 08020
30541 09022 32540 10024 33540 10025 35528 10023 37529 10022 40522
08035 45507 11048 50503 09034 55523 09031 57524 08051 60532 09067
62539 10061 63539 10049 64535 09040 65/// 07067 JJJ

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 27 July 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	32.8	32.8			34.1
T_{dp}	17.9	17.9			11.3
W_d, W_s	180 3.6	180 3.6			070 2.0
P	25.97	25.97			26.05
C	250 ⦶	250 ⦶			250 - ⊕
M	No	No			No
T_{a25}					
T_{dp25}					
I	96.71	96.71			93.14
I_a	76.03	76.03			73.87
I_d	47.88	47.88			45.68
N	82.38	82.38			89.09
N_a	59.06	59.06			65.25
N_b	54.37	54.37			59.80
N_c	43.73	43.73			46.46
N_d	37.09	37.09			41.21
i	46.51	45.76			22.79
i_a	36.30	40.30			21.04
i_d	22.34	24.85			15.11
$T_{g/w}$	36.4	39.3			Missing
T_s	39.6	43.2			57.0
Ψ	20.4	17.8			1.3
ε					
El, Az	76.3 168.3	76.3 168.3			76.8 167.5

REMARKS: METSAT II - Not operated this day.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 27 July 1977 TIME 1349 (Local) 1949 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	34.7	34.7			35.2
T_{dp}	13.2	13.2			9.7
W_d, W_s	170 3.1	170 3.1			CALM
P	25.95	25.95			26.05
C	250 - ⊕	250 - ⊕			250 - ⊕
M	No	No			No
T_{a25}					
T_{dp25}					
I	97.20	97.20			93.91
I_a	77.40	77.40			75.26
I_d	47.78	47.78			46.83
N	86.69	86.69			87.88
N_a	68.86	68.86			63.03
N_b	57.54	57.54			55.96
N_c	46.51	46.51			42.63
N_d	39.29	39.29			37.98
i	46.79	46.50			23.08
i_a	36.71	40.90			21.40
i_d	22.95	25.15			15.48
$T_{g/w}$	42.0	42.2			46.7
T_s	38.0	45.8			56.0
Ψ	20.4	17.8			1.3
ε					
El, Az	74.2 214.1	74.2 214.1			74.7 214.9

REMARKS:

METSAT II - not operated this day.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%)
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 27 July 1977

RADIOSONDE: (0800 MDT) TTAA 77141 72HMS 99880 21058 00000 00117 ///// /////
85559 26063 15009 70232 12058 18007 50595 05364 26507 40766 18331 24008 30976
32164 20016 25101 413// 21025 20249 523// 21527 15429 657// 20519 10670 729//
09507 88113 733// 15505 77999

TTBB 7714/ 72HMS 00880 21058 11850 26063 22623 03842 33596 00643 44578 00560
55576 00564 66517 03169 77437 12962 88428 14558 99413 16556 11404 18120 22400
18331 33392 18369 44362 21765 55279 36363 66163 625// 77113 733// 88100 729//
51515 SUPER 44-43

TTCC 77141 72HMS 70883 623// 08521 50094 565// 08522 30421 515// 10030 20687
473// 08038 10152 3751/ 10552 88999 77145 08552 40705

TTDD 7714/ 72HMS 11878 71/// 22700 623// 33578 575// 44388 555// 55208 473//
66183 493// 77100 375// 88088 355//

ROCKETSONDE: (1230 MDT) RRXX 27183 72269 81010 63101 26551 09024 30541 10024
33534 11016 35533 08022 40519 09037 45505 12047 50509 10040 52513 09041 55520
08059 57519 10070 58518 11077 60529 14061 61536 15052 62537 15036 63535 10031
64532 09044 65534 10028 66539 12012 68544 10025 70551 16024 72/// 26008 73///
03008 74/// 07029 75/// 05034 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 2 August 1977 TIME 1016 (Local) 1616 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	26.8	26.8			28.8
T_{dp}	12.5	12.5			15.2
W_d, W_s	120 4.5	120 4.5			CALM
P	25.92	25.92			26.04
C	220 - ⊕	220 - ⊕			250 - ⦶
M	Yes	Yes			Yes
T_{a25}					
T_{dp25}					
I	65.90	65.90			69.60
I_a	50.05	50.05			54.94
I_d	32.20	32.20			34.03
N	56.40	56.40			86.26
N_a	36.38	36.38			64.65
N_b	35.49	35.49			58.99
N_c	29.78	29.78			49.09
N_d	25.86	25.86			41.41
i	35.20	30.93			10.77
i_a	27.51	27.61			10.52
i_d	17.03	16.80			7.86
$T_{g/w}$	MISSING	MISSING			34.2
Ψ	MISSING	MISSING			35.0
T_s	24.8	18.5			5.0
ε					
El, Az	48.2 99.3	48.2 99.3			48.2 98.7

REMARKS: METSAT II - not operated this day.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT B

DATE OF OBSERVATION 2 August 1977 TIME 1036 (Local) 1636 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	28.1	28.1			29.9
T_{dp}	12.9	12.9			13.9
W_d, W_s	120 4.5	120 4.5			CALM
P	25.92	25.92			26.04
C	220 - ⊕	220 - ⊕			250 - ⊕
M	Yes	Yes			Yes
T_{a25}					
T_{dp25}					
I	67.84	67.84			73.56
I_a	52.80	52.80			58.42
I_d	33.79	33.79			36.11
N	68.82	68.82			86.87
N_a	48.67	48.67			64.44
N_b	45.37	45.37			58.99
N_c	36.25	36.25			47.47
N_d	30.93	30.93			40.81
i	35.06	33.47			11.15
i_a	27.51	30.15			10.88
i_d	17.33	18.81			7.98
$T_{g/w}$	MISSING	MISSING			35.0
T_s	MISSING	MISSING			35.2
Ψ	24.8	18.5			5.0
ε					
El, Az	52.3 103.0	52.3 103.0			52.3 102.3

REMARKS: METSAT II - Not operated this day.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 2 August 1977

RADIOSONDE: (0800 MDT) TTAA 52141 72HMS 99878 22862 00000 00097 ///// /////
85542 24264 06507 70223 14659 07010 50595 08562 01019 40766 17768 36006 30975
32362 31011 25101 41756 32013 20298 539// 32018 15429 665// 33021 88999 77158
32531 41415

TTBB 5214/ 72HMS 00878 22862 11850 24264 22829 26667 33700 14659 44612 04659
55547 02470 66507 07559 77500 08562 88492 07372 99477 07972 11400 17768 22332
26967 33326 27957 44321 28163 55300 32362 66272 38159 77267 38757 88250 41756
99241 43756 11200 539// 22150 665// 33124 719// 44113 699// 51515 10158

TTDD 5214/ 72HMS 51515 10150

ROCKETSONDE: No firing this day.

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 3 August 1977 TIME 1251 (Local) 1851 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	34.1	34.1			35.7
T_{dp}	10.9	10.9			11.1
W_d, W_s	100 2.7	100 2.7			060 2.1
P	25.87	25.87			25.97
C	70 ⦶	70 ⦶			O
M	NO	NO			NO
T_{a25}					
T_{dp25}					
I	96.95	96.95			92.27
I_a	76.98	76.98			72.59
I_d	47.88	47.88			45.06
N	88.34	88.34			87.47
N_a	63.12	63.12			65.05
N_b	58.56	58.56			59.19
N_c	47.15	47.15			46.67
N_d	39.92	39.92			40.40
i	49.86	45.55			20.76
i_a	38.88	27.71			19.35
i_d	24.55	25.54			14.39
$T_{g/w}$	39.4	44.5			40.3
T_s	38.4	42.5			42.3
Ψ	14.8	14.5			2.1
ε					
El, Az	74.4 161.5	74.4 161.5			74.9 160.6

REMARKS: METSAT II - Not operated this day.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 3 August 1977 TIME 1300 (Local) 1900 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	34.2	34.2			35.7
T_{dp}	10.8	10.8			11.1
W_d	140	140			060
W_s	2.7	2.7			2.1
P	25.87	25.87			25.97
C	70 ⦶	70 ⦶			○
M	No	No			No
T_{a25}					
T_{dp25}					
I	96.95	96.95			93.04
I_a	77.19	77.19			73.29
I_d	47.78	47.78			45.27
N	88.34	88.34			88.08
N_a	63.24	63.24			64.65
N_b	58.68	58.68			59.19
N_c	47.28	47.28			48.69
N_d	39.92	39.92			41.41
i	50.14	45.66			20.95
i_a	38.99	27.72			19.59
i_d	24.45	25.54			14.63
$T_{g/w}$	42.6	45.0			40.3
T_s	36.2	47.0			42.3
Ψ	14.8	14.5			2.1
ε					
El, Az	74.9 169.4	74.9 169.4			75.4 168.7

REMARKS: METSAT II - Not operated this day.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL NS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 3 August 1977

RADIOSONDE: (0700 MST) TTAA 53141 72HMS 99878 21662 00000 00097 ///// /////
85539 26066 16010 70200 14662 285// 50594 07160 04508 40763 17165 34010 30973
31909 300// 25099 41939 30518 20246 531// 29522 15426 659// 30020 88999 77170
09527 404//

TTBB 5314/ 72HMS 00878 21662 11860 23064 22854 26265 33727 16060 44700 14662
55610 05658 66480 09561 77400 17165 88359 22758 99352 24533 11325 28501 22285
349// 33258 40144 44232 46333 55150 659// 66119 717// 73113 69/// 51515 10158

ROCKETSONDE: (1100 MDT) RRXX 03174 72269 81010 63101 25552 08016 30543 10021
35533 09024 40517 08033 45513 10049 46508 11047 50510 11047 55524 10052 58528
08071 60527 09072 61527 10074 62531 11068 64539 13034 65545 11027 66548 08038
67546 08047 69554 08045 70/// 08044 71/// 06029 JJJ

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 4 August 1977 TIME 1236 (Local) 1836 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	34.0	34.0			30.1
T_{dp}	10.7	10.7			11.2
W_d, W_s	240 1.8	240 1.8			CALM
P	25.88	25.88			25.93
C	250 - ⓪	250 - ⓪			80 ⓪
M	No	No			No
T_{a25}					
T_{dp25}					
I	94.88	94.88			91.84
I_a	75.61	75.61			72.24
I_d	47.14	47.14			44.22
N	89.61	89.61			90.30
N_a	63.75	63.75			68.28
N_b	58.94	58.94			62.02
N_c	48.04	48.04			50.70
N_d	41.44	41.44			42.83
i	47.35	40.78			19.69
i_a	36.19	37.16			18.14
i_d	22.14	23.14			13.18
$T_{g/w}$	45.0	51.3			46.3
T_s	42.0	47.3			51.2
Ψ	18.9	17.8			0.9
ε					
El, Az	72.9 150.1	72.9 150.1			73.3 148.9

REMARKS: METSAT II - Not operated this day.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%)
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 4 August 1977 TIME 1642 (Local) 2042 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	38.0	38.0			36.6
T_{dp}	6.3	6.3			9.3
W_d, W_s	350 1.8	350 1.8			060 1.5
P	25.84	25.84			25.91
C	65 ⓪ 250 - ⓪	65 ⓪ 250 - ⓪			60 ⓪
M	No	No			No
T_{a25}					
T_{dp25}					
I	88.31	88.31			88.14
I_a	69.80	69.80			70.50
I_d	43.64	43.64			42.77
N	89.73	89.73			89.70
N_a	64.13	64.13			66.26
N_b	59.32	59.32			60.40
N_c	48.42	48.42			49.49
N_d	41.83	41.83			42.63
i	45.95	41.21			19.88
i_a	34.95	36.27			18.62
i_d	21.54	22.64			14.03
$T_{g/w}$	50.0	53.2			54.1
T_s	44.8	49.5			54.0
Ψ	18.9	17.8			0.9
ε					
El, Az	64.7 238.9	64.7 238.9			65.0 239.7

REMARKS:

METSAT II - Not operated this day.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%)
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 4 August 1977

RADIOSONDE: (0700 MST) TTAA 54141 72HMS 99875 23067 00000 00067 ///// /////
85515 26668 14005 70190 14065 29009 50592 06968 15512 40763 17556 25510 30972
33156 25013 25097 43150 26020 20244 535// 28026 15424 659// 27008 88999 77188
29029 40918

TTBB 5414/ 72HMS 00875 23067 11858 26868 22627 06860 33583 02462 44523 04958
55439 07770 66450 11966 77405 17145 88400 17556 99350 24357 11331 28150 22300
33156 33281 36544 44243 44550 55167 621// 66128 713// 77117 723// 88114 709//
99107 721// 11104 703// 51515 10190 10665 10158

TTDD 5414/ 72HMS 51515 10150

PPBB 54140 72HMS 90056 00000 14006 21006 90789 30013 34014 34510 91024 30009
28008 25006 9168/ 17010 15510 92025 16014 19012 26009 93023 26008 24513 27019
935// 26019 94025 28025 29029 28011 9503/ 24504 22504

PPDD 54140 72HMS

ROCKETSONDE: NO FIRING THIS DAY

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

DATE OF OBSERVATION 8 August 1977 TIME 0948 (Local) 1548 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	27.0	27.0			28.5
T_{dp}	12.8	12.8			14.5
W_d W_s	160 0.9	160 0.9			150 4.1
P	25.92	25.92			26.06
C	0	0			0
M	yes	yes			No
T_{a25}					
T_{dp25}					
I	61.51	61.51			59.85
I_a	47.73	47.73			47.97
I_d	31.99	31.99			28.72
N	83.40	83.40			81.82
N_a	61.34	61.34			60.61
N_b	56.27	56.27			55.15
N_c	45.88	45.88			45.66
N_d	40.05	40.05			37.78
i	30.03	28.71			15.62
i_a	23.08	24.93			14.75
i_d	14.33	22.99			11.61
$T_{g/w}$	39.2	42.1			40.3
T_s	27.2	36.0			32.5
Ψ	19.3	18.1			0.4
ε					
El, Az	41.6 97.1	41.5 97.1			41.5 96.6

REMARKS:

METSAT II - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 8 August 1977

RADIOSONDE: (0800MDT) TTAA 58141 72HMS 99876 22864 ØØØØØ ØØ11Ø ///// /////
85526 24665 18512 7Ø195 14Ø61 24ØØ4 5Ø592 Ø5365 15ØØ6 4Ø764 16768 165Ø93Ø972
33151 175Ø2 25Ø98 423// ØØ5Ø9 2Ø245 527// 25Ø13 15425 655// 35Ø2Ø 1Ø669 663//
12Ø13 8813Ø 7Ø1// 35515 77158 33523 41ØØ6

TTBB 5814/ 72HMS ØØ876 22864 11866 24464 22850 24665 33749 19263 44668 11Ø59
556Ø9 Ø5464 66549 ØØ760 77529 Ø2365 885ØØ Ø5365 99493 Ø5971 11437 12363 22423
13768 334ØØ 16768 44326 29561 55295 34346 66259 4Ø359 77150 655// 8813Ø 7Ø1//
99133 663// 111ØØ 663//

TTCC 5814/ 72HMS 88999 77999

TTDD 5814/ 72HMS 11918 663// 33723 645// 51515 1Ø19Ø 7Ø886

ROCKETSONDE: (0800 MDT) RRXX 08160 72269 81010 13101 25547 08018 26550 07019
30543 10024 32541 08019 35532 08029 36527 08029 37523 09028 40523 08014 41524
07018 42517 07031 45513 09044 48504 10040 49502 11037 50506 10035 51510 08028
52514 07028 53515 08042 54515 09053 55518 10052 57525 11051 58529 10058 59529
10058 60527 09046 61524 08047 62521 09042 63521 12017 65534 19009 66540 13007
69545 06014 70*** 06016

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 10 August 1977 TIME 1016 (Local) 1616 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	26.0	26.0			25.6
T_{dp}	16.1	16.1			16.8
W_d, W_s	130 4.9	130 4.9			calm
P	25.96	25.96			26.04
C	E120 (I)	E120 (II)			E50 (I) 200 (II)
M	No	No			No
T_{a25}					
T_{dp25}					
I	87.94	87.94			61.48
I_a	70.75	70.75			49.01
I_d	55.93	55.93			30.39
N					39.80
N_a					33.33
N_b					32.12
N_c					27.07
N_d					24.04
i	41.90	42.80			15.32
i_a	33.20	54.18			14.15
i_d	21.04	31.29			11.12
$T_{g/w}$	33.5	40.0			missing
T_s	29.5	35.0			32.4
Ψ	19.4	18.3			0.8
ε					
El, Az	47.1 102.6	47.1 102.6			47.1 102.0

REMARKS:

METSAT I - NO NORMAL INCOMING DATA DUE TO CLOUDS
METSAT II- NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 10 August 1977 TIME 1158 (Local) 1758 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	29.0	29.0			38.5
T_{dp}	14.6	14.6			10.2
W_d, W_s	200 3.6	200 3.6			calm
P	25.93	25.93			26.02
C	60 (I) 120 (O)	60 (I) 120 (I)			170-(II)
M	No	No			No
T_{a25}					
T_{dp25}					
I	91.35	91.35			59.52
I_a	69.80	69.80			47.97
I_d	43.43	43.43			30.91
N					
N_a					
N_b					
N_c					
N_d					
i	39.53	32.84			15.03
i_a	31.75	26.12			14.15
i_d	20.74	15.79			10.40
$T_{g/w}$	33.5	41.2			44.7
T_s	31.7	35.2			44.6
Ψ	19.4	18.3			0.8
ε					
El, Az	missing	missing			missing

REMARKS: METSAT I,IV-NO NORMAL INCOMING DATA DUE TO CLOUDS
MET SAT II- NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 10 August 1977 TIME 1230 (Local) 1830 (GMT)

PARAMETER	METSAT 1-A	METSAT 1-B	METSAT II		METSAT IV
T_a	29.9	29.9			29.2
T_{dp}	15.1	15.1			15.8
W_d, W_s	140 3.6	140 3.6			070 3.1
P	25.91	25.91			26.00
C	60 ⦶ 120 - ⦶	60 ⦶ 120 - ⦶			E 180 ⦷
M	No	No			No
T_{a25}					
T_{dp25}					
I	101.34	101.34			41.02
I_a	78.99	78.99			31.82
I_d	50.32	50.32			19.15
N					
N_a					
N_b					
N_c					
N_d					
i	52.23	52.23			9.21
i_a	40.33	40.33			8.34
i_d	25.35	25.35			6.41
$T_{g/w}$	43.3	45.1			38.9
T_s	40.3	43.0			38.6
Ψ	19.4	18.3			0.8
ε					
El, Az	70.7 149.2	70.7 149.2			71.1 148.2

REMARKS:

MET SAT I, IV - NO NORMAL INCOMING DATA DUE TO CLOUDS
MET SAT - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%)
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOONRUN

DATE OF OBSERVATION 10 August 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	29.9	29.9			28.9
T_{dp}	14.1	14.1			16.2
W_d, W_s	100 2.7	100 2.7			calm
P	25.90	25.90			26.00
C	60 ⦶ 100 - ⦶	60 ⦶ 100 ⦶			E 170 ⦶
T_{a25}^M	No	No			No
T_{dp25}					
I	96.71	96.71			40.70
I_a	75.50	75.50			31.48
I_d	47.35	47.35			18.78
N	60.33	60.33			
N_a	53.74	53.74			
N_b	51.08	51.08			
N_c	36.88	36.88			
N_d	23.83	23.83			
i	50.40	46.50			9.21
i_a	38.88	40.75			8.46
i_d	24.15	25.25			6.41
$T_{g/w}$	45.5	47.3			39.3
T_s	42.1	44.0			39.3
Ψ	19.4	18.3			0.8
ε					
El, Az	72.8 171.3	72.8 171.3			73.3 170.7

REMARKS:

MET SATII-NOT OPERATED THIS DAY
MET SAT - IV NO NORMAL INCOMING DATA DUE TO CLOUDS

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); N = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_d = OG530, N_c = RG630. N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 10 August 1977 TIME 1431 (Local) 2031 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	31.9	31.9			33.3
T_{dp}	13.4	13.4			14.4
W_d, W_s	120 6.7	120 6.7			070 3.1
P	25.86	25.86			25.95
C	60 ◐ 120 ◐	60 ◐ 120 ◐			100 ◐
M	No	No			No
T_{a25}					
T_{dp25}					
I	89.65	89.65			89.55
I_a	66.10	66.10			71.08
I_d	49.47	49.47			42.56
N					89.70
N_a					63.84
N_b					58.59
N_c					47.47
N_d					39.80
i	37.71	31.04			19.20
i_a	29.58	26.12			17.65
i_d	17.64	15.90			13.06
$T_{g/w}$	44.5	45.7			53.3
T_s	40.0	43.0			57.3
Ψ	19.4	18.3			0.8
ε					
El, Az	65.1 231.7	65.1 231.7			65.5 232.1

REMARKS: MET SAT I- NO NORMAL INCOMING DATA DUE TO CLOUDS
MET SAT II - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 10 August 1977

RADIOSONDE: (0600MDT) TTAA 6Ø121 72HMS 99876 24459 ØØØØØ ØØØ61 /////
///// 85526 20458 19Ø1Ø 7Ø191 12616 11Ø1Ø 5Ø596 Ø25Ø5 325Ø5 4Ø77Ø 11949
Ø2ØØ6 3Ø984 25959 3ØØØ7 25114 351// 315Ø6 2Ø266 461// 34517 15452 585//

TTBB 6Ø12/ 72HMS ØØ876 24459 1185Ø 2Ø456 22782 19Ø57 337ØØ 12617 44669
12Ø49 55533 ØØ2Ø3 66449 Ø71Ø7 77436 Ø8956 88429 1Ø766 994Ø4 12362 114ØØ
11949 22397 26558 88272 3Ø359 99165 555// 1115Ø 585// 2214Ø 585// 33126
621// 44123 6Ø5// 55111 629// 661ØØ 621// 51515 SUPER 44-43 34-33

TTCC 6Ø121 72HMS 7Ø929 569// 08511 5Ø146 517// Ø8Ø23 3Ø482 465// Ø9Ø33
2Ø755 589// 18Ø35 1Ø231 36711 Ø8551 Ø7480 3Ø1// Ø9560 Ø5723 245// 88999
77Ø77 Ø9Ø6Ø 4ØØØ4

TTDD 6Ø12/ 72HMS 11823 563// 227ØØ 569// 336Ø8 525// 445ØØ 517// 55398
475// 66258 463// 77219 3Ø3// 8815Ø 391// 99118 391// 111ØØ 367// 22Ø87
365// 33Ø5Ø 245//

ROCKETSONDE: (1100 DJ) UNUS 1 KWSD 11527
RRXX 10171 72269 81010 63101
25550 09020 26553 09018 30541 10023 31536 10021 35534 10021 35534 10019
36535 09024 37529 10031 40522 08035 41521 08037 42515 08039 43510 09041
45511 09038 46512 09044 49509 10036 50512 10045 52511 09056 55519 11055
56522 10056 57522 10056 58519 12046 59525 12034 60526 10039 61524 09052
62527 10052 64538 13028 65546 10024 66547 08017 67540 22011 68539 23024
70554 27012 72/// 27028

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

DATE OF OBSERVATION 17 August 1977 TIME 0959 (local) 1559 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a					27.4
T_{dp}					18.3
W_d, W_s					060 1.0
P					26.13
C					120 ◐
M					yes
T_{a25}					
T_{dp25}					
I					60.04
I_a					49.48
I_d					30.91
N					82.83
N_a					61.62
N_b					56.77
N_c					46.46
N_d					38.18
i					13.43
i_a					12.82
i_d					9.92
$T_{g/w}$					30.8
T_s					34.2
Ψ					0.9
ε					
El, Az					42.8 101.0

REMARKS:

METSAT I - NOT OPERATED THIS OBSERVATION
METSAT II - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BE-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 17 August 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	29.0	29.0			32.2
T_{dp}	16.5	16.5			16.6
W_d W_s	100 2.2	100 2.2			060 1.7
P	25.94	25.94			26.08
C	60 - (1) 220 (1) -	60 - (1) 220 - (1)			60 (1) 250 (1)
M	yes	yes			yes
T_{a25}					
T_{dp25}					
I	40.80	40.80			66.20
I_a	31.57	31.57			71.89
I_d	18.43	18.43			44.33
N					88.08
N_a					64.24
N_b					58.79
N_c					47.88
N_d					39.80
i	18.16	15.25			19.50
i_a	15.00	12.39			18.02
i_d	7.82	7.42			13.30
$T_{g/w}$	30.5	25.2			40.0
T_s	30.3	27.3			52.0
Ψ	21.7	21.8			0.9
c					
El, Az	70.7 173.1	70 .7 173.1			71.2 172.6

REMARKS:

MET SAT I - NO NORMAL INCOMING DATA DUE TO CLOUDS
MET SAT II - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG550, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) c = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 17 August 1977 TIME 1402 (Local) 2002 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	29.4	29.4			34.8
T_{dp}	17.4	17.4			16.8
W_d, W_s	070 2.2	070 2.2			060 2.1
P	25.93	25.93			26.08
C	E 60 ⊕ 90 ⊕ 200	E 60 ⊕ 90 ⊕ 200			60 ⊕ 260 ⊕
M	yes ⊕	yes ⊕			yes
T_{a25}					
T_{dp25}					
I	37.03	37.03			89.61
I_a	28.72	28.72			70.62
I_d	16.31	16.31			43.08
N					65.66
N_a					49.49
N_b					31.31
N_c					22.63
N_d					21.21
i	17.46	13.77			19.98
i_a	14.27	11.19			18.02
i_d	7.82	6.74			13.30
$T_{g/w}$	31.3	45.1			50.4
T_s	27.7	25.7			52.5
Ψ	21.7	21.8			0.9
ε					
El, Az	67.4 215.1	67.4 215.1			67.9 215.7

REMARKS:

MET SAT I - NO INCOMING DATA DUE TO CLOUDS
MET SAT II- NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 17 August 77

RADIOSONDE: (0700 MDT) TTAA 67141 72HMS 99879 18Ø57 ØØØØØ ØØ129 /////

85553 2366Ø 18ØØ6 7Ø215 12257 215Ø6 5Ø594 Ø5561 15ØØ7 4Ø766 15175 22ØØ5
521// Ø9527 15433 655// Ø952Ø 2Ø252 521// Ø9527 15433 655// Ø9527 88999
77167 11Ø32 4Ø814 Ø
TTBB 6714/ 72HMS ØØ879 18Ø57 11869 22456 22855 24Ø6Ø 33783 19660 44635
Ø5631 55627 Ø4857 66568 ØØ445 77482 Ø7163 8846Ø Ø7577 994ØØ 15175 11332
26573 22132 715// 3311Ø 727// 51515

TTDD 6714/ 72HMS 51515 1Ø15Ø Ø

ROCKETSONDE: (1200 MST) RRXX 17182 72269 81010 63101 26548 09011 28546
08018 30538 09022 35529 11023 40520 09026 42512 09031 43505 09030 45512
11038 48508 10033 50507 08043 52509 09050 53511 10043 55157 10047 56521
10041 57521 11025 58522 14017 59526 08025 60531 07048 61529 08051 62525
11036 63527 16025 65539 27018 66540 32033 68537 32031 70541 30028 72***
31041 73/// 30048 74/// 31040

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 18 August 1977 TIME 1015 (Local) 1615 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	25.6	25.6			29.0
T_{dp}	17.2	17.2			15.7
W_d, W_s	280 4.0	280 4.0			calm
P	25.98	25.98			26.04
C	E160 ⦶ 220 ⊕	E160 ⦶ 220 ⊕			E160 ⦶ 250 ⊕
M	yes	yes			No
T_{a25}					
T_{dp25}					
I	32.16	32.16			37.34
I_a	25.24	25.24			31.48
I_d	14.73	14.73			20.98
N					
N_a					
N_b					
N_c					
N_d					
i	15.22	15.04			9.02
i_a	12.51	12.24			7.98
i_d	6.91	6.94			6.05
$T_{g/w}$	25.5	25.2			44.0
T_s	29.0	24.2			36.8
Ψ	20.9	17.1			0.6
ε					
El, Az	45.9 105.7	45.9 105.7			46.0 105.1

REMARKS:

METSAT I & IV- NO NORMAL INCOMING DATA DUE TO CLOUDS
METSAT II - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-HS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 18 August 1977 TIME 1144 (Local) 1744 (GMT)

PARAMETER	METSAT 1-A	METSAT 1-B	METSAT II		METSAT IV
T_a	26.1	26.1			32.0
T_{dp}	15.7	15.7			17.4
W_d, W_s	340 2.2	340 2.2			calm
P	25.98	25.98			26.03
C	E160 ⓘ220 ⊕	E160 ⓘ220 ⊕			160 ⓘ 250 ◯
M	yes	yes			No
T_{a25}					
T_{dp25}					
I	35.44	35.44			80.63
I_a	27.24	27.24			66.67
I_d	16.75	16.75			44.02
N					52.36
N_a					39.42
N_b					35.91
N_c					29.40
N_d					24.18
i	16.48	13.98			18.62
i_a	13.24	11.49			16.69
i_d	7.41	6.84			12.82
$T_{g/w}$	31.0	28.0			53.2
T_s	28.4	26.7			51.3
Ψ	20.9	17.1			0.6
ε					
El, Az	missing	missing			missing

REMARKS:

MET SAT I - NO NORMAL INCOMING DATA DUE TO CLOUDS

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%)
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 18 August 1977 TIME 1151 (Local) 1751 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II		METSAT IV
T_a	27.1	27.1			31.0
T_{dp}	16.3	16.3			15.4
W_d, W_s	290 1.8				calm
P	25.97	25.97			26.03
C	E160 ⦶ 220 ⊕	E160 ⦶ 220 ⊕			160 ⦶ 250 ⦶
M	yes	yes			No
T_{a25}					
T_{dp25}					
I	38.12	38.12			77.40
I_a	29.25	29.25			64.46
I_d	17.96	17.96			43.55
N					
N_a					
N_b					
N_c					
N_d					
i	17.88	15.04			18.33
i_a	14.37	12.54			16.57
i_d	8.21	7.44			12.70
$T_{g/w}$	31.0	28.0			53.2
T_s	28.4	26.7			51.7
Ψ	20.9	17.1			0.6
ε					
El, Az	63.6 132.9	63.6 132.9			63.9 132.0

REMARKS:

METSAT I, IV - NO NORMAL INCOMING DATA DUE TO CLOUDS
METSAT II - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbol c), M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-4S 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 18 August 1977

RADIOSONDE: (0800MDT) TTAA 68141 72HMS 99880 21639 00000 00123 /////
///// 85560 23059 14515 70229 12257 22506 50579 05307 32002 40768 15969
10002 30979 297// 13518 25106 399// 13029 20254 517// 13032 15435 667//
12531 88999 77195 13533 41610 0

TTBB 6814/ 72HMS 00880 21639 11861 23459 22833 24061 33700 12257 44605
04848 55555 00917 66500 05307 77451 11102 88421 14333 99419 15760 11400
15969 22386 17164 33355 21170 44335 24160 53300 29762 66258 38562 77150
667// 88127 711// 99123
711// 51515 10190 10675 SUPER 42-42

TTDD 6814 72 HMS 51515 10150

ROCKETSONDE: (1100 MDT) UNUS 1 KWSD 191754
RRXX 18170 72269 81010 13101 26550 08016 27546 08016 30545 08018 32541
09024 35532 09020 36528 10017 37528 12013 38532 09010 40530 06031 42520
09034 43514 09034 45514 11031 46512 09028 47511 08034 48509 09047 49510
11050 50515 10039 52519 10051 53520 10057 55518 12053 56521 13041 57524
11034 58521 09046 59518 09049 60514 10034 61517 14010 64531 26016 65///
27014 66/// 27008 67/// 01002

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 24 August 1977 TIME 1147 (Local) 1747 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a				28.0	
T_{dp}				16.7	
W_d, W_s				CALM	
P				25.99	
C				250 - ⦶	
M				Yes	
T_{a25}					
T_{dp25}					
I				96.30	
I_a				77.23	
I_d				37.88	
N				88.89	
N_a				65.66	
N_b				59.80	
N_c				48.89	
N_d				40.40	
i				18.14	
i_a				17.15	
i_d				13.06	
$T_{g/w}$				59.0	
T_s				55.0	
Ψ				Missing	
ε					
El, Az				69.0 174.5	

REMARKS:

METSAT I - NOT OPERATED THIS DAY
METSAT II - NOT OPERATED THIS RUN

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%) ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DRSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 24 August 1977 TIME 1300 (Local) 1900 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a			33.0	28.0	
T_{dp}			missing	17.4	
W_d			missing	CALM	
W_s			missing	25.99	
C			120-◐	65-◐	
M			No	Yes	
T_{a25}					
T_{dp25}					
I			93.03	93.69	
I_a			missing	72.41	
I_d			47.33	42.25	
N			75.40	90.51	
N_a			46.65	67.88	
N_b			43.42	60.00	
N_c			33.72	49.29	
N_d			28.41	41.21	
i			6.23	19.50	
i_a			4.14	15.13	
i_d			3.91	11.45	
$T_{g/w}$			63.7	61.0	
T_s			66.2	56.1	
Ψ				missing	
ε					
El, Az			61.3 135.6	62.0 133.7	

REMARKS:

METSAT I - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 24 August 1977

RADIOSONDE: (1000 MDT) TTAA 74161 72HMS 99876 25464 18ØØ5 ///// /////
8553Ø 25264 18Ø1Ø 7Ø212 14862 13ØØ1 5Ø595 Ø636Ø 26516 4Ø767 15163 26514
3Ø978 3Ø764 29Ø19 251Ø5 411// 2652Ø 2Ø253 521// 26Ø27 15433 647// 2Ø523
1Ø675 745// 31Ø12 88999 77186 26531 40711

TTBB 7416/ 72HMS ØØ876 25464 1187Ø 24862 2285Ø 25264 33794 23Ø66 446Ø9
Ø5258 5559Ø Ø3061 66524 Ø4356 775ØØ Ø636Ø 88491 Ø6770 994ØØ 15163 11341
23569 22274 35566 33163 629// 44115 737// 55108 703// 66100 745//

ROCKETSONDE: (1329 MDT) RRXX 24193 72269 81010 63101
26548 10019 30545 09018 31543 09025 32527 10026 35536 09023 38532 10022
39530 10027 40524 10030 41518 10025 45514 09026 47514 11030 49507 11029
50511 12031 53515 08035 55515 12031 53515 08035 55515 10034 56513 11029
57515 11024 58519 11035 59524 12047 60528 11039 61533 07022 62539 04032
63540 07034 64541 10032 65*** 08021 66*** 06026 67*** 06030 69*** 05002

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 25 August 1977 TIME: 1212 (Local) 1812 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	30.1	30.1		30.3	
T_{dp}	15.1	15.1		16.8	
W_d, W_s	CALM	CALM		CALM	
P	25.88	25.88		25.91	
C	60-0	60-0		250-0	
M	YES	YES		YES	
T_{a25}					
T_{dp25}					
I	90.41	90.41		95.10	
I_a	70.76	70.76		71.79	
I_d	42.21	42.21		39.23	
N	91.57	91.57		85.86	
N_a	64.35	64.35		65.45	
N_b	60.29	60.29		60.20	
N_c	49.11	49.11		49.70	
N_d	43.36	43.36		40.40	
i	45.45	40.81		17.42	
i_a	35.24	35.52		15.48	
i_d	21.76	21.70		11.12	
$T_{g/w}$	29.2	30.0		39.2	
T_s	34.0	35.0		35.9	
Ψ	20.5	19.0		2.7	
ε					
El, Az	missing	missing		missing	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.). Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

DATE: 25 August 1977

RADIOSONDE (0800 MDT) TTAA 75141 72HMS 99876 21856 ØØØØØ ØØØ85 ///// ///// 85518
22657 17ØØ3 7Ø193 13258 265Ø9 5Ø593 Ø596Ø 25Ø1Ø 4Ø765 15157 25Ø18 3Ø976 3Ø157
23Ø2Ø 251Ø3 4Ø757 24Ø22 2Ø251 515// 25Ø35 15432 655// 27Ø41 88999 77429 26Ø43
4Ø2// Ø

TTBB 7514/ 72HMS ØØ876 21856 1185Ø 22657 22837 23659 337ØØ 13258 44654 Ø9457
55645 17848 66587 Ø3Ø60 77552 ØØ56Ø 88541 Ø1557 99516 Ø4162 115ØØ Ø596Ø 22458
Ø8162 33435 1Ø962 44413 1355Ø 554ØØ 15157 66362 2Ø542 773ØØ 3Ø157 88250 4Ø757
99238 43357 112ØØ 515// 2215Ø 655// 33139 689// 51515 SUPER 65-64 Ø

ROCKETSONDE (1Ø11 MDT) RRXX 25161 72269 8Ø1ØØ Ø12Ø1 215ØØ 3Ø5Ø1 385Ø1 415Ø1
5Ø5Ø4 55/// 57/// 11Ø1Ø 1ØØ23 1ØØ22 Ø9Ø35 1ØØ41 11Ø21 Ø6Ø39 255ØØ 355Ø1 4Ø5Ø1
4Ø5Ø2 535Ø5 56/// Ø9Ø13 Ø9Ø26 Ø8Ø28 Ø8Ø22 Ø9Ø37 Ø8Ø21

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

ATE OF OBSERVATION 26 August 1977 TIME 0946 (Local) 1546 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	28.1	28.1			30.0
T_{dp}	14.9	14.9			calm
W_d, W_s	120 3.6	120 3.6			calm
P	25.79	25.79			25.90
C	220 - Ⓘ	220- Ⓘ			170 Ⓘ 250 Ⓘ
M	No	No			yes
T_{a25}					
T_{dp25}					
I	56.03	56.03			57.34
I_a	43.93	43.93			43.90
I_d	29.07	29.07			26.74
N	77.12	77.12			77.58
N_a	50.95	50.95			58.99
N_b	44.37	44.37			55.15
N_c	31.23	31.23			46.87
N_d	25.41	25.41			39.60
i	36.17	29.87			missing
i_a	28.75	27.16			12.82
i_d	17.84	17.52			10.52
$T_{g/w}$	32.0	31.1			39.2
T_s	26.0	27.8			34.0
Ψ	18.8	19.1			1.3
ε					
El, Az	39.0 103.7	3.90 103.7			39.0 103.2

EMARKS:

MET SAT II NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci pitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

ATE OF OBSERVATION 26 August 1977 TIME 1016 (Local) 1616 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	29.1	29.1			31.0
T_{dp}	14.2	14.2			13.1
W_s	160 3.1	160 3.1			calm
P	25.80	25.80			25.90
C	220 - ⦶	320 - ⦶			180 ⦶ 250 - ⦶
M	No	No			yes
T_{a25}					
T_{dp25}					
I	69.43	69.43			69.75
I_a	53.96	53.96			52.72
I_d	35.14	35.14			31.43
N	82.05	82.05			84.44
N_a	57.40	57.40			64.44
N_b	53.35	53.35			60.00
N_c	43.49	43.49			48.48
N_d	39.76	39.76			41.82
i	37.71	33.90			missing
i_a	29.58	29.40			14.63
i_d	18.41	18.13			11.12
$T_{g/w}$	34.8	24.5			41.0
T_s	31.5	32.5			36.3
ψ	18.8	19.1			1.3
ε					
El, Az	45.3 108.5	45.3 108.5			45.4 107.9

EMARKS:

MET SAT - II NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci ɔitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 ɜeter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

ATE OF OBSERVATION 26 August 1977 TIME 0946 (Local) 1546 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	28.1	28.1			30.0
T_{dp}	14.9	14.9			calm
W_d	120	120			calm
W_s	3.6	3.6			25.90
P	25.79	25.79			170 ⦶250⦶
C	220 - ⦶	220- ⦶			yes
M	No	No			
T_{a25}					
T_{dp25}					
I	56.03	56.03			57.34
I_a	43.93	43.93			43.90
I_d	29.07	29.07			26.74
N	77.12	77.12			77.58
N_a	50.95	50.95			58.99
N_b	44.37	44.37			55.15
N_c	31.23	31.23			46.87
N_d	25.41	25.41			39.60
i	36.17	29.87			missing
i_a	28.75	27.16			12.82
i_d	17.84	17.52			10.52
$T_{g/w}$	32.0	31.1			39.2
T_s	26.0	27.8			34.0
Ψ	18.8	19.1			1.3
ε					
El, Az	39.0 103.7	3.90 103.7			39.0 103.2

EMARKS:

MET SAT II NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci pitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

ATE OF OBSERVATION 26 August 1977 TIME 1436 (Local) 2036 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	34.5	34.5			25.1
T_{dp}	11.9	11.9			19.1
W_d, W_s	180 6.7 G8.9	180 6.7G 8.9			calm
P	25.69	25.69			25.9
C	65 ⦶ 180 ⦶ 220	65 ⦶ 180 ⦶ 220			60 ⦶ E170 ⦶
M	No ⦶	No ⦶			yes
T_{a25}					
T_{dp25}					
I	87.45	87.45			29.38
I_a	69.06	69.06			22.87
I_d	42.71	42.71			13.57
N	88.12	88.12			
N_a	59.92	59.92			
N_b	55.88	55.88			
N_c	45.13	45.13			
N_d	41.21	41.21			
i	48.60	43.64			missing
i_a	37.85	38.06			6.29
i_d	23.35	23.36			4.72
$T_{g/w}$	40.2	41.2			40.0
T_s	40.4	43.4			39.0
Ψ	18.8	19.1			1.3
ε					
El, Az	59.9 227.8	59. 9 227.8			60.3 228.3

EMARKS:

METSAT II - NOT OPERATED THIS DAY
METSAT IV - NO NORMAL INCOMING DATA DUE TO CLOUDS

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci
pitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
meter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 26 August 1977

RADIOSONDE: (0800 MDT) TTAA 76141 72HMS 99873 24067 17010 00033 ///// /////
85493 24462 17011 70162 13059 25012 50590 05161 23012 40762 15762 23519 30973
30564 24531 25100 40158 22031 20248 519// 24537 15429 641// 25022 10670 725//
20019 88117 751// 25019 77173 24539 40516

TTBB 7614/ 72HMS 00873 24067 11863 25663 22767 20064 33700 13059 44629 07258
55591 02856 66574 02262 77514 04157 88500 05161 99472 08559 11462 08967 22400
15762 33389 17557 44367 19565 55327 25367 66300 30564 77273 34958 88241 41959

TTCC 76142 72HMS 70885 601// 11006 50097.571// 16013 30426 497// 16523 20687
481// 17020 88999 77999

TTDD 7614/ 72HMS 11918 709// 22700 601// 33300 497// 44144 465//

ROCKETSONDE: (1230MDT) RRXX 26183 72269 81010 3101
25553 11017 30545 09123 35538 09019 33528 09021 40529 08025 45508 09035 50512
10030 51514 10037 52510 11442 53505 13041 55509 14026 58514 13010 59516 28003
60519 01007 62525 20011 63529 21007 65537 10019 66541 11019 67*** 10012

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

ATE OF OBSERVATION 29 August 1977 TIME 1002 (Local) 1602 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	25.0	25.0			28.8
T_{dp}	14.6	14.6			16.5
W_d, W_s	340 4.5	340 4.5			120 3.6
P	25.98	25.98			26.01
C	○	○			65 ◐
M	No	No			No
T_{a25}					
T_{dp25}					
I	58.18	58.18			62.02
I_a	56.15	56.15			49.74
I_d	31.84	31.84			28.41
N	79.90	79.90			82.22
N_a	65.37	65.37			61.01
N_b	51.83	51.83			54.14
N_c	43.36	43.36			45.05
N_d	38.56	38.56			39.80
i	33.24	30.61			missing
i_a	25.96	26.57			14.51
i_d	16.24	16.31			11.37
$T_{g/w}$	41.0	33.0			37.4
T_s	38.5	27.6			26.0
ψ	20.9	19.7			1.0
ε					
El, Az	41.8 107.9	41.8 107.9			41.9 107.4

EMARKS:

MET SAT II - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 29 August 1977 TIME 1201 (Local) 1801 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	30.1	30.1			31.8
T_{dp}	15.5	15.5			15.3
W_d, W_s	calm	calm			100 5.1
P	25.98	25.98			26.01
C	60 Ⓘ	60 Ⓘ			E70 Ⓘ 120 Ⓘ
M	No	No			No
T_{a25}					
T_{dp25}					
I	87.43	87.43			88.03
I_a	68.50	68.50			69.74
I_d	44.42	44.42			45.89
N	85.32	85.32			84.65
N_a	67.91	67.91			65.05
N_b	57.81	57.81			58.18
N_c	45.82	45.82			48.69
N_d	40.49	40.49			41.41
i	44.69	40.38			missing
i_a	34.34	35.01			21.76
i_d	21.16	21.50			16.81
$T_{g/w}$	38.1	38.3			46.8
T_s	39.3	40.3			43.1
Ψ	20.9	19.7			1.0
ε					
El, Az	62.4 143.4	62.4 143.4			62.8 142.6

REMARKS:

MET SAT II- NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg); Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture; ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 29 August 1977

RADIOSONDE: (0700MDT)TTAA 79131 72HMS 99876 17060 00000 00099 ///// /////
85524 22259 16002 70186 11657 20006 50591 03165 26005 40763 15564 28512
30973 31962 38519 25098 421// 26515 20245 539// 25519 15424 659// 24520
539// 25519 15424 659// 24520 10665 703// 25014 88119 733// 27015 77999

TTBB 7913/ 72HMS 00876 17060 11866 23460 22850 22259 33757 17059 44700
11657 55592 00432666584 00658 77500 00958 88552 00165 99544 00962 11537
00165 22500 03165 33432 12963 44400 15564 55362 22563 66300 31962 77268
38561 88250 421// 99200 539// 11170 619// 22150 659// 33133 713// 44119
733// 55106 68511 66100 703// 0

TTCC 79153 72HMS 70882 619// 06007 50003 585// 08019 88999 77388 08023
40504 0

TTDD 7913/ 72HMS 11949 681// 22884 637// 33833 655// 44750 651// 55700
619// 66618 585// 77500 585// 88388 545// 99321 501// 51515 10190 30420 0

ROCKETSONDE: (1145MDT) RRXX 29175 72269 81010 13101 23557 11011 25552
09012 30544 09021 33538 11018 35540 10016 37528 07017 38525 07021 40***
10027 42*** 09021 45*** 09026 50*** 09033 51*** 10039 52*** 13038 53***
16032 54*** 19013 55*** 02012 56*** 05023 57***06023 60*** 20018 61***
24002 42*** 06012 63*** 09017 64*** 08011 65*** 36009 66*** 35008 67***
00010 68***34019

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

ATE OF OBSERVATION 30 August 1977 TIME 1216 (Local) 1816 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	29.6	29.6			27.1
T_{dp}	12.6	12.6			15.3
W_d, W_s	140 3.6	140 3.6			calm
P	25.85	25.85			26.02
C	○	○			160-◐
M	No	No			No
T_{a25}					
T_{dp25}					
I	89.89	89.89			87.49
I_a	70.43	70.43			73.13
I_d	45.05	45.05			43.81
N	87.99	87.99			90.30
N_a	62.96	62.96			66.67
N_b	55.38	55.38			59.19
N_c	46.53	46.53			50.10
N_d	40.83	40.83			43.23
i	47.91	44.39			19.59
i_a	37.33	38.96			19.47
i_d	23.35	23.87			14.63
$T_{g/w}$	40.5	40.3			50.1
T_s	42.8	40.6			50.0
Ψ	21.3	18.8			0.8
ε					
El, Az	missing	missing			missing

EMARKS:

METSAT II - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ORSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 30 August 1977

RADIOSONDE: (0800MDT) TTAA 8Ø142 72HMS 99878 23Ø61 15ØØ5 ///// ///// 85539
21458 16Ø12 7Ø199 12647 18ØØ4 5Ø594 Ø4365 225Ø9 4Ø766 1557Ø 27Ø13 3Ø975 31767
26Ø21 251Ø1 411// 26Ø34 2Ø249 517// 2654Ø 88999 774Ø6 27Ø48 411// Ø

TTBB 8Ø14/ 72HMS ØØ878 23Ø61 11185Ø 21458 227ØØ 12647 33613 Ø4Ø3Ø 4453Ø Ø3157
55522 Ø2558 66514 Ø2559 775ØØ Ø4365 88489 Ø5164 994ØØ 1557Ø 113ØØ 31767 22291
33567 3325Ø 411// 442ØØ 517// 55156 639// 51515 1Ø190 15430 Ø

TTDD 8Ø14/ 72HMS 51515 1Ø15Ø Ø

NO ROCKETSONDE

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 31 August 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	32.0	32.0			33.8
T_{dp}	18.1	18.1			13.5
W_d, W_s	160 1.8	160 1.8			calm
P	25.85	25.85			25.90
C	60 ⦶ 200 ⦶	60 ⦶ 200 ⦶			70 ⦶ 250 ⦶
M	No	No			No
T_{a25}					
T_{dp25}					
I	87.21	87.21			96.84
I_a	60.19	60.19			77.54
I_d	37.81	37.81			43.70
N	94.24	94.24			93.54
N_a	63.54	63.54			68.08
N_b	57.37	57.37			63.23
N_c	48.66	48.66			51.52
N_d	42.49	42.49			43.64
i	36.21	33.37			20.76
i_a	28.75	27.16			19.23
i_d	15.63	15.21			14.15
$T_{g/w}$	38.0	44.0			45.0
T_s	41.2	46.7			45.0
Ψ	20.0	18.9			0.5
ε					
El, Az	66.1 176.6	66.1 176.6			66.6 176.3

REMARKS:

METSAT II - NOT OPERATED THIS RUN

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ERSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

ATE OF OBSERVATION 31 August 1977 TIME 1443 (Local) 2043 (GMT.

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	29.9	29.9	missing		34.2
T_{dp}	15.9	15.9	missing		11.4
W_d, W_s	005 1.8	005 1.8	180 4.0		085 1.3
P	25.85	25.85	missing		25.85
C	65 ⦶	65 ⦶	E65 ⦶		E70 ⦶ 250 ⦶
M	No	No			No
T_{a25}					
T_{dp25}					
I	83.19	83.19	88.07		91.85
I_a	66.21	66.21	missing		75.90
I_d	41.75	41.75	45.41		43.91
N	94.24	94.24			93.74
N_a	67.56	67.56			71.31
N_b	58.31	58.31			63.84
N_c	49.73	49.73			52.73
N_d	43.30	43.30			43.23
i	45.11	40.08	16.09		21.44
i_a	34.64	35.22	9.44		20.56
i_d	21.04	21.35	6.59		16.08
$T_{g/w}$	52.9	40.2	missing		50.5
T_s	41.7	45.6	missing		47.7
Ψ	20.0	18.9			0.5
ε					
El, Az	57.2 228.8	57.2 228.8	57.2 228.8	56.7 228.3	57.6 229.2

EMARKS:

METSAT II - NO NORMAL INCOMING DATA

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci
itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
= Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 31 August 1977

RADIOSONDE: (1200 MDT) UNUS 1 KWSD 011705
RRXX 31181 72269 81010 63101 25552 10009 30545 09014 35536 09017 40519
09016 45511 09032 46505 10029 47508 13030 48512 12032 50512 09026 51515
09033 52513 10035 53510 10038 54506 11033 55510 15017 56514 15007 58519
15021 59520 17024 60521 21018

61524 28011 62527 01005 63531 10016 64535 12017 65539 25002 66546 32018
67550 3302169555 07005 70559 25010 72/// 31039 73/// 31043 74/// 32028

ROCKETSONDE: (0800MDT) TTAA 81141 72HMS 99876 19460 00000 00093 /////
///// 85518 23060 19004 70174 10031 33004 50589 07363 16008 40760 17561
24008 30970 31568 25023 25095 417// 25029 20244 527// 25045 15424 66311
27033 10665 701// 26510 88999 77182 25047 41010

TTBB 8114/ 72HMS 00876 19460 11857 23860 22850 23060 33787 18058 44700
10031 55691 09223 66661 08658 77522 05556 88514 05963 99500 07364 11464
10167 22456 11557 33441 12573 44418 15764 55417 15959 66400 17561 77395
18158 88388 18770 99327 27562 11300 31568 22295 325// 33250 417// 44200
527// 55176 595// 66150 663// 77132 709// 88122 70511 99116 729// 11104
731// 22100 701// 51515 SUPER 86-85 46-46 Ø

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT B

DATE OF OBSERVATION 7 September 1977 TIME 1034 (Local) 1634 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	24.1	24.1			27.7
T_{dp}	10.9	10.9			10.9
W_d, W_s	calm	calm			calm
P	26.05	26.05			26.12
C					
M	No	No			No
T_{a25}					
T_{dp25}					
I	71.99	71.99			69.99
I_a	56.39	56.39			55.18
I_d	38.02	38.02			33.61
N	90.48	90.48			86.87
N_a	66.49	66.49			65.86
N_b	60.32	60.32			60.40
N_c	50.27	50.27			51.11
N_d	44.10	44.10			42.02
i	34.50	33.37			16.10
i_a	28.06	30.30			15.36
i_d	17.68	19.64			12.21
$T_{g/w}$	31.1	32.8			43.5
T_s	26.1	27.0			37.0
Ψ	10.3	25.7			0.7
ε					
El, Az	missing missing	missing missing			missing missing

REMARKS: METSAT II- NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
Wind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci
pitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

RSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

ATE OF OBSERVATION 7 September 1977 TIME 1202 (Local) 1802 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	29.5	29.5			30.0
T_{dp}	9.4	9.4			10.1
W_d	170	170			275
W_s	05	05			2.1
P	26.04	26.04			26.11
C	○	○			70 ◐
M	No	No			No
T_{a25}					
T_{dp25}					
I	89.16	89.16			86.42
I_a	70.22	70.22			69.95
I_d	45.37	45.37			42.14
N	95.44	95.44			91.52
N_a	69.03	69.03			68.69
N_b	60.59	60.59			63.03
N_c	51.47	51.47			52.53
N_d	45.58	45.58			43.64
i	42.46	31.31			19.48
i_a	34.95	37.16			18.26
i_d	21.48	23.46			14.27
$T_{g/w}$	37.2	42.3			43.1
T_s	36.0	39.2			42.3
Ψ	10.3	25.7			0.7
ε					
El, Az	missing missing	missing missing			missing missing

EMARKS: METSAT II - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci ɔitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 ɔeter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture . = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ORSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

ATE OF OBSERVATION 7 September 1977 TIME 1300 (Local) 1900 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	30.9	30.9			32.0
T_{dp}	9.0	9.0			9.2
W_d, W_s	200 1.8	200 1.8			calm
P	26.01	26.01			26.08
C	○	○			70 ◐ 250 -◐
M	No	No			No
T_{a25}					
T_{dp25}					
i	93.54	93.54			90.01
I_a	74.76	74.76			72.82
I_d	48.35	48.35			44.22
N	98.26	98.26			90.91
N_a	70.64	70.64			68.08
N_b	62.06	62.06			62.42
N_c	52.82	52.82			51.31
N_d	46.65	46.65			42.63
i	46.93	44.17			20.13
i_a	38.76	39.85			18.98
i_d	24.08	25.48			14.87
$T_{g/w}$	41.1	42.3			49.0
T_s	39.2	43.0			46.4
Ψ	10.3	25.7			0.7
ε					
El, Az	missing missing	missing missing			missing missing

EMARKS: METSAT II - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 7 September 1977 TIME 1414 (Local) 2014 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	32.1	32.1			31.5
T_{dp}	8.6	8.6			7.1
W_d, W_s	calm	calm			calm
P	26.01	26.01			26.06
C	○	○			70 ◐ 250 ◐
M	No	No			No
T_{a25}					
T_{dp25}					
I	90.38	90.38			89.14
I_a	71.81	71.81			70.05
I_d	46.22	46.22			43.70
N	97.86	97.86			93.13
N_a	70.64	70.64			70.10
N_b	62.74	62.74			64.44
N_c	52.95	52.95			52.93
N_d	46.65	46.65			44.44
i	45.55	42.48			19.37
i_a	37.84	38.51			18.02
i_d	23.53	24.37			14.15
$T_{g/w}$	41.2	42.0			51.7
T_s	40.3	42.2			46.5
Ψ	10.3	25.7			0.7
ε					
El, Az	missing missing	missing missing			missing missing

REMARKS: METSAT II- NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg); Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture; ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 7 September 1977

RADIOSONDE: (0700MDT) TTAA 57131 72HMS 99881 12661 00000 00146 ///// /////
85571 21862 21004 70221 09661 01009 50593 07769 05025 40762 18967 04018
30969 35559 01021 25094 439// 34515 20241 519// 33519 15423 631// 00516
10669 681// 35514 88126 675// 35021 77999 Ø

TTBB 5713/ 72HMS 00881 12661 11871 21461 22865 22862 33731 12058 44649
05868 55575 00368 66557 01169 77400 18967 88394 19967 99319 32558 11275
40960 22]26 675// 33100 681// Ø

TTCC 57132 72HMS70883 643// 08015 50094 583// 050// 30420 515// 08021
20686 471// 07029 88999 77148 09035 403// Ø

TTDD 57131 72HMS 11945 709// 22700 643// 33631 599// 44500 583// 55269
497// 66243 50511 77213 467// 88128 435// Ø

ROCKETSONDE: (1210MDT) RRXX 07181 72269 81010 63101 26*** 10012 27548
10014 30544 10013 35535 10023 37528 12020 39526 09013 40525 07018 43515
11024 45510 12018 46509 10027 47506 11032 48507 14015 49511 11004 50514
12014 52515 13006 55519 13011 56517 15018 57514 17013 58513 24003 60520
21005 61524 17004 62529 16006 63535 18012 65534 24034 67540 26035 68542
28037 70553 30055 72*** 31074 73/// 32069 74/// 24054

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 8 September 1977 TIME 1021 (Local) 1621 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	24.9	24.9	23.5		28.3
T_{dp}	12.2	12.2	12.6		11.9
W_d, W_s	180 2.7	180 2.7	210 4.0		065 4.5
P	25.98	25.98	25.61		26.10
C	O	O	O		O
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	67.60	67.60	64.22		66.57
I_a	52.59	52.59	54.56		52.41
I_d	35.14	35.15	32.59		32.37
N			85.97		83.64
N_a			67.00		65.25
N_b			62.58		57.78
N_c			51.83		48.48
N_d			44.88		40.60
i	42.46	missing	5.90		15.56
i_a	19.90	missing	4.14		15.60
i_d	19.85	missing	3.35		12.58
$T_{g/w}$	29.1	missing	29.1		38.0
T_s	24.2	missing	36.4		31.8
Ψ	12.6	28.0			0.3
ε					
El, Az	missing missing	missing missing	missing missing		missing missing

REMARKS:

METSAT I-NO NORMAL INCOMING DATA THIS RUN

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

ATE OF OBSERVATION 8 September 1977 TIME 1226 (Local) 1826 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	30.0	30.0	30.4		32.6
T_{dp}	10.3	10.3	10.3		10.0
W_d, W_s	180 2.7	180 2.7	170 2.7		060 4.1
P	25.98	25.98	25.57		26.10
C	○	○	○		○
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	91.56	91.56	86.15		92.34
I_a	72.32	72.32	71.33		72.00
I_d	46.26	46.26	45.31		44.54
N	92.48	92.48	92.28		89.49
N_a	66.60	66.60	69.28		67.68
N_b	59.08	59.08	64.00		61.62
N_c	49.85	49.85	53.10		50.30
N_d	44.37	44.37	45.01		41.82
i	45.91	43.79	6.95		20.46
i_a	37.96	39.07	4.61		19.83
i_d	23.73	24.40	3.75		15.84
$T_{g/w}$	48.2	38.0	38.0		48.2
T_s	38.0	35.9			49.9
Ψ	12.6	28.0			0.3
ε					
El, Az	missing missing	missing missing	missing missing		missing missing

EMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 8 September 1977

RADIOSONDE: (1000MDT) TTAA 58161 72HMS 9988Ø 26265 17Ø1Ø ØØ130 ///// ///// 85566
23664 16511 7Ø227 1146Ø 335Ø8 5Ø596 Ø4570 Ø451Ø 4Ø768 19167 Ø4513 3Ø974 34765 Ø5513
25Ø99 427// 33ØØ8 2Ø247 513// 3Ø513 15429 623// 3Ø5Ø9 1Ø676 681// Ø4ØØ3 88118 673//
355Ø3 776Ø4 Ø5Ø22 41414

TTBB 5816/ 72HMS ØØ88Ø 26265 1168Ø Ø9459 226Ø8 Ø6070 3354Ø ØØØ72 444ØØ19167 55342
29166 663ØØ 34765 7715Ø 623// 88118 673// 991ØØ 681//

TTCC 58167 72HMS 7Ø892 625// Ø9Ø11 88999 77999

TTDD 5816/ 72HMS 11943 687// 22538 579// 51515 1Ø19Ø 5Ø1Ø3

ROCKETSONDE: (1200MDT) RRXX 08180 72269 81010 13101 25553 10010 30542 09017 35538
11022 36531 12022 40523 08015 42517 09017 43512 11016 44508 11010 45510 11006 46512
12016 47514 11023 48517 10019 50508 07020 51506 10014 52505 14012 54509 14026 55511
15022 56513 22010 58517 32005 60523 23019 62530 25031 65540 28018 67*** 29020

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

ATE OF OBSERVATION 13 September 1977 TIME 0944 (Local) 1544 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	20.7	20.7	22.3		25.0
T_{dp}	11.8	11.8	13.5		10.9
W_d, W_s	340 5.4	340 5.4	040 0.4		calm
P	25.91	25.91	missing		26.01
C	○	○	○		○
M	yes	yes	yes		yes
T_{a25}					
T_{dp25}					
I	56.39	56.39	55.32		54.70
I_a	43.55	43.55	44.89		43.92
I_d	29.02	29.02	26.44		27.16
N	87.04	87.04	87.23		87.68
N_a	63.62	63.62	68.27		67.68
N_b	55.94	55.94	61.95		61.62
N_c	47.72	47.72	50.57		52.12
N_d	42.18	42.18	44.25		44.04
i	26.62	27.35	2.32		15.43
i_a	22.62	24.66	1.65		13.30
i_d	13.69	15.65	1.32		10.54
$T_{g/w}$	23.0	25.4	25.6		39.2
T_s	19.9	20.8	25.0		33.0
ψ	8.7	8.5			0.6
ε					
El, Az	35.9 111.1	35.9 111.1	35.8 111.7		36.0 110.7

EMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci pitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 13 September 1977

RADIOSONDE: (0800MDT) TTAA 63141 72HMS 99875 17Ø37 Ø3ØØ1 ØØØ96 ///// ///// 85512 18461 35ØØ9 7Ø145 Ø746Ø 33517 5Ø582 Ø9968 28Ø27 4Ø75Ø 22156 27Ø35 3Ø95Ø 38559 26Ø34 25Ø73 467// 26554 2Ø218 551// 26Ø46 154Ø1 577// 25Ø32 1Ø651 647// 25521 882Ø6 563// 26552 77228

TTBB 6314/ 72HMS ØØ875 17Ø37 11862 19Ø6Ø 22582 Ø3762 33548 Ø6558 4453Ø Ø8162 55515 Ø8957 66492 1Ø769 774ØØ 22156 88389 22562 993ØØ 38559 11281 42757 2225Ø 467// 33215 559// 442Ø6 563// 55197 537// 66127 611// 77113 671// 881Ø8 645// 991ØØ 647// 0/

TTCC 6314 72HMS 88999 77999 Ø

TTDD 6314/ 72HMS 11863 647// 22798 617// 33768 63[illegible]// 51515 1Ø19Ø 7Ø87Ø Ø

ROCKETSONDE: (1000MDT) RRXX 13160 72269 81010 13101
25550 09011 30546 1oo13 32540 1201135539 06010 37529 12010 39530 11005
40523 04005 42520 04019 43518 06021 45511 12013 46507 15006 48508 02011
50505 08024 51507 12032 52509 15019 53513 31003 54510 04011 55518 11013
56517 21008 57524 22013 60526 28016 61528 31017 62525 32009 65534 25017
66/// 23013

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

ATE OF OBSERVATION 14 September 1977 TIME 0952 (Local) 1552 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	21.2	21.2	21.6		
T_{dp}	13.2	13.2	9.5		
W_d, W_s	070 1.8	070 1.8	200 4.0		
P	25.95	25.95	25.55		
C	○	○	○		
M	yes	yes	yes		
T_{a25}					
T_{dp25}					
I	58.34	58.34	54.31		
I_a	45.41	45.41	46.11		
I_d	30.46	30.46	27.45		
N	87.27	87.27	83.44		
N_a	63.67	63.67	67.04		
N_b	56.30	56.30	62.58		
N_c	48.26	48.26	51.83		
N_d	42.23	42.23	45.51		
i	28.49	28.60	4.95		
i_a	24.02	25.37	2.60		
i_d	15.18	16.52	2.13		
$T_{g/w}$	34.0	30.3	missing		
T_s	31.1	28.2	missing		
Ψ	11.3	8.3			
ε					
El, Az	37.3 113.1	37.3 113.3	37.1 113.7		

EMARKS:

METSAT IV - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incomi. : I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

ATE OF OBSERVATION 14 September 1977 TIME 1222 (Local) 1822 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	25.0	25.0	26.9		
T_{dp}	12.8	12.8	17.2		
W_d, W_s	130 2.7	130 2.7	200 3.6		
P	25.93	25.93	25.52		
C	○	○	80 ◐		
M	yes	yes	yes		
T_{a25}					
T_{dp25}					
I	87.70	87.70	84.68		
I_a	69.27	69.27	70.00		
I_d	45.05	45.05	44.80		
N	94.37	94.37	97.98		
N_a	67.56	67.56	91.43		
N_b	60.59	60.59	67.64		
N_c	50.27	50.27	55.63		
N_d	44.37	44.37	48.04		
i	41.34	42.27	6.85		
i_a	34.12	37.91	4.02		
i_d	21.58	23.87	3.45		
$T_{g/w}$	37.1	32.0	35.2		
T_s	34.6	30.5	missing		
Ψ	11.3	8.3			
ε					
El, Az	59.6 160.7	59.6 160.7	59.0 161.3		

EMARKS:

METSAT IV - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

g/w = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

ATE OF OBSERVATION 14 September 1977 TIME 1229 (Local) 1829 (GMT

ARA-STER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	25.0	25.0	26.9		
T_{dp}	12.8	12.8	17.2		
d_p, W_s	130 2.7	130 2.7	190 1.3		
P	25.93	25.93	25.52		
C	○	○	80 ◐		
M	yes	yes	yes		
T_{a25}					
T_{dp25}					
I	88.67	88.67	85.50		
I_a	70.22	70.22	70.22		
I_d	45.26	45.26	45.21		
N	94.91	94.91	96.71		
N_a	67.56	67.56	71.43		
N_b	60.72	60.72	66.37		
N_c	50.54	50.54	54.99		
N_d	44.37	44.37	46.78		
i	41.90	43.01	6.64		
i_a	34.64	38.21	3.78		
i_d	21.58	23.97	3.14		
$T_{g/w}$	37.1	32.0	36.7		
T_s	34.6	30.5	missing		
Ψ	11.3	8.3			
ε					
El, Az	60.1 164.1	60.1 164.1	59.4 164.7		

EMARKS:

METSAT IV - NOT OPERATED THIS DAY

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

ATE OF OBSERVATION 14 September 1977 TIME 1300 (Local) 1900 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	26.0	26.0	25.9		
T_{dp}	12.2	12.2	13.4		
W_s	180 2.7	180 2.7	180 2.7		
P	25.90	25.90	25.51		
C	○	○	○		
M	yes	yes	yes		
T_{a25}					
T_{dp25}					
I	90.01	90.01	86.97		
I_a	71.28	71.28	70.44		
I_d	45.58	45.58	45.41		
N	95.31	95.31	96.71		
N_a	67.96	67.96	72.69		
N_b	60.46	60.46	67.64		
N_c	50.54	50.46	55.63		
N_d	44.04	44.64	48.04		
i	43.16	43.96	6.85		
i_a	35.77	39.10	3.66		
i_d	22.34	24.47	3.14		
$T_{g/w}$	37.2	32.0	37.1		
T_s	35.0	30.5	missing		
Ψ	11.3	8.3			
ε					
El, Az	61.0 179.7	61.0 179.7	60.3 180.0		

'EMARKS:

METSAT IV - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

g/w = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

ATE OF OBSERVATION 14 September 1977 TIME 1345 (Local) 1945 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	27.6	27.6	28.3		
T_{dp}	9.3	9.3	14.3		
W_d, W_s	180 2.7	180 2.7	320 2.2		
P	25.90	25.90	25.48		
C	○	○	80 ◐		
T^M	yes	yes	yes		
T_{a25}					
T_{dp25}					
I	89.16	89.16	86.61		
I_a	71.17	71.17	70.56		
I_d	45.26	45.26	45.31		
N	96.65	96.65	97.35		
N_a	69.30	69.30	72.06		
N_b	61.80	61.80	66.37		
N_c	51.61	51.61	55.63		
N_d	45.71	45.71	48.04		
i	42.74	44.60	6.74		
i_a	35.36	40.45	3.90		
i_d	22.34	24.97	3.35		
$T_{g/w}$	400	37.0	38.0		
T_s	38.2	34.6	missing		
Ψ	11.3	8.3			
c					
El, Az	59.2 202.1	59.2 201.9	58.5 201.9		

EMARKS:

METSAT IV - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci pitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 14 September 1977

RADIOSONDE: (0800 MDT)

TTCC 64147 72HMS 7Ø876 645// 335Ø4 88999 77999

TTDD 6414/ 72HMS 118Ø8 661// 22700 645// 33649 6Ø7// 44589 595// 51515 1Ø19Ø
5ØØ86

TTAA 64141 72HMS 99878 14857 ØØØØØ ØØ131 ///// ///// 85534 16Ø59 19ØØ4 7Ø17Ø
0665Ø 28Ø1Ø 5Ø585 Ø9966 31523 4Ø753 2216Ø 31541 3Ø958 3[illegible]8 32Ø34 25Ø8Ø 471//
32Ø372Ø226 545// 3153Ø 154Ø8 583// 31Ø27 1Ø658 659// 32[illegible] 88124 635// 31529
77353 32Ø48 41Ø13

TTBB 64141 72HMS ØØ878 14857 11864 16659 22789 13858 337ØØ Ø665Ø 44647 Ø2437
55565 Ø5762 66549 Ø7362 77524 Ø7165 88449 15365 994ØØ 2216Ø11375 25948 22343
3Ø56Ø 3328Ø 42158 4425Ø 471// 55228 489// 66183 569// 7715Ø 583// 88124 635//
991Ø1 661// 111ØØ 659//

ROCKETSONDE: (1230 MDT)

RRXX 14183 72269 81010 63101 24549 11008 25548 11012 28543 11018 30539 10011
35533 09013 40519 11012 45505 14010 50508 16015 51504 12006 52502 05017 54504
17025 55505 19017 56507 17007 58512 20008 60519 23025 62527 25017 63528 25028
65530 26022 66531 25019 67534 30010 68537 34020 70/// 34053 71/// 35048 72///
34032

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

ATE OF OBSERVATION 21 September 1977 TIME 0931 (Local) 1531 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	21.7	21.7	20.4		26.8
T_{dp}	7.9	7.9	8.7		9.3
W_s	110 13.4	110 13.4	calm		calm
P	25.99	25.99	25.52		26.01
C	160 (1) 220- (i)	160 (1) 220- (1)	120 (1)		250- (i)
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	50.06	50.06	46.79		55.93
I_a	38.86	38.86	34.67		38.46
I_d	26.41	26.41	19.88		24.77
N	93.30	93.30	80.28		81.62
N_a	68.23	68.23	61.31		65.05
N_b	62.87	62.87	57.52		56.57
N_c	51.74	51.74	46.14		48.48
N_d	46.38	46.38	41.09		40.40
i	29.19	missing	3.79		15.99
i_a	23.90	missing	2.36		12.33
i_d	16.05	missing	2.13		9.43
$T_{g/w}$	27.8	missing	26.3		missing
T_s	19.9	missing	missing		missing
Ψ	19.4	18.4			1.1
ε					
El, Az	32.1 112.1	32.1 112.1	31.9 112.7		32.1 112.8

EMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci ipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

RSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

ATE OF OBSERVATION 21 September 1977 TIME 1035 (Local) 1635 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	27.1	27.1	25.4		28.1
T_{dp}	6.8	6.8	6.3		8.7
W_d, W_s	100 4.5	100 4.5	120 1.3		calm
P	26.00	26.00	25.52		26.00
C	160 (1) 220 (1)	160 (1) 220 (1)	120 (1)		210- (1)
M	No	No	No		No
T_{a25}					
T_{dp25}					
1	68.45	68.45	52.48		88.25
I_a	53.54	53.54	40.56		65.56
I_d	36.53	36.53	25.33		31.42
N	98.66	98.66	90.39		90.91
N_a	70.78	70.78	67.00		65.05
N_b	64.88	64.88	61.95		60.40
N_c	53.35	53.35	50.57		52.73
N_d	47.86	47.86	42.98		43.03
i	37.01	missing	5.27		22.39
i_a	29.56	missing	2.84		17.05
i_d	19.74	missing	2.33		12.21
$T_{g/w}$	38.7	missing	30.1		missing
T_s	18.4	missing	missing		missing
Ψ	19.4	18.4	missing		1.1
ε					
El, Az	43.8 126.0	43.8 126.0	43.5 126.6		44.0 125.5

EMARKS:

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci
ipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
meter height.

adiant Flux: Global Incoming: 1 = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
= Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

ATE OF OBSERVATION 21 September 1977 TIME 1200 (Local) 1800 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	29.0	29.0	29.8		30.2
T_{dp}	7.6	7.6	10.9		9.3
W_d W_s	070 9.0	070 9.0	210 2.2		calm
P	25.99	25.99	25.50		25.98
C	170 ⦶	170 ⦶	120 ⦶		210-⦶
M	No	No	No		No
T_{a25}					
T_{dp25}					
i	84.77	84.77	82.11		98.37
I_a	66.95	66.95	68.78		67.69
I_d	43.77	43.77	42.58		42.56
N	101.07	101.07	98.61		96.36
N_a	71.98	71.98	72.69		71.72
N_b	66.22	66.22	67.00		63.64
N_c	54.16	54.16	53.73		53.54
N_d	48.53	48.53	46.14		45.66
i	45.67	missing	7.27		25.59
i_a	36.18	missing	5.32		19.59
i_d	23.54	missing	4.36		15.36
$T_{g/w}$	36.0	38.8	41.9		missing
T_s	31.9	35.2	missing		missing
Ψ	19.4	18.4	missing		1.1
ε					
El, Az	55.5 153.8	55.5 153.3	54.0 154.5		55.8 153.4

EMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 21 September 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	29.3	29.3	31.3		31.0
T_{dp}	7.4	7.4	10.5		13.1
W_d, W_s	050 13.4	050 13.4	220 6.7		calm
P	25.96	25.96	25.48		29.98
C	170 (I) 210- (II)	170 (I) 210- (II)	120 (I)		210- (II)
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	89.04	89.04	87.34		103.59
I_a	70.58	70.58	71.33		70.77
I_d	45.48	45.58	45.31		44.85
N	101.61	101.61	101.14		96.77
N_a	72.12	72.12	73.96		72.12
N_b	66.22	66.22	67.64		64.24
N_c	54.16	54.16	55.63		53.33
N_d	48.53	48.53	48.04		44.44
i	48.88	missing	7.38		26.70
i_a	38.77	missing	5.67		20.19
i_d	25.49	missing	4.78		15.96
$T_{g/w}$	37.6	41.5	43.9		49.0
T_s	36.7	45.8	missing		missing
Ψ	19.4	18.4	missing		1.1
ε					
El, Az	58.3 181.0	58.3 181.0	57.6 181.2		58.7 180.8

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci pitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 21 September 1977

RADIOSONDE: (0800 MDT) TTAA 71141 72HMS 99876 18664 16002 00095 ///// ///// 85519
22867 21504 70160 09064 28021 50587 07330 24034 40756 20364 26042 30964 34565 24550
25089 443// 25054 20235 545// 26573 15415 651// 27076 10659 675// 24009 88126 687//
27051 77160 27081 40915 0

TTBB 7114/ 72HMS 00876 18664 11864 23466 22713 09861 33684 08268 44663 06863 55627
05471 66564 00574 77400 20364 88347 25966 99300 34565 11168 615// 22126 687// 33100
675// 0

TTCC 71141 72HMS 70876 637// 24506 50086 567// 06004 30413 515// 07009 20679 453//
08013 10143 427// 06513 07386 385// 07520 88999 77999 0

TTDD 7114/ 72HMS 11500 567// 22228 495// 33200 453// 44153 439// 55128 463// 66100
427// 77070 385// 88053 313// 51515 10190 05621 0

ROCKETSONDE: (1120 MST) RRXX 21181 72269 81010 63101 24553 13011 25552 13011 26548
12008 28550 09010 30543 10011 35537 06001 40525 06003 45512 18005 47510 24017 50507
18010 55516 20007 56514 25021 57516 28024 58519 30018 60516 23013 62521 24022 63526
24029 65529 23016 66528 23024 67529 26037 69538 27048 70544 27045 71/// 27046 75///
33052 77/// 01059

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

ATE OF OBSERVATION 22 September 1977 TIME 1215 (Local) 1815 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	28.0	28.0	30.4		32.7
T_{dp}	7.0	7.0	8.3		4.7
W_d, W_s	calm	calm	190 3.1		140 2.2
P	25.95	25.95	25.47		25.91
C	120 ◐ 180 ◐	120 ◐ 180 ◐	E100 ◐ 260- ⊕		150 ◐ 250-⊕
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	70.65	70.65	83.49		91.27
I_a	42.34	42.34	69.89		77.95
I_d	20.13	20.13	41.37		44.64
N	50.94	50.94	75.85		67.27
N_a	40.48	40.48	65.74		42.02
N_b	35.52	35.52	53.10		37.37
N_c	26.94	26.94	41.72		30.71
N_d	14.21	14.21	35.40		23.03
i	28.21	missing	7.90		20.67
i_a	22.16	missing	5.08		19.71
i_d	10.63	missing	4.16		15.84
$T_{g/w}$	35.0	37.5	36.6		51.1
T_s	42.3	39.5	missing		missing
Ψ	19.6	18.7			0.6
ε					
El, Az	56.4 160.5	56.4 160.5	55.8 161.1		56.8 160.1

EMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 22 September 1977 TIME 1437 (Local) 2037 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	32.4	32.4	36.2		33.7
T_{dp}	8.3	8.3	9.9		5.2
W_d, W_s	170 4.5	180 4.5	180 4.5		105 2.7
P	25.89	25.89	25.41		25.84
C	80 ⦶ E170 ⦶	80 ⦶ E170 ⦶	80 ⦶ 260- ⊕		E150 ⦶ 250 ⊕
M	No	No	No		No
T_{a25}					
T_{dp25}					
i	69.43	69.43	54.13		48.30
I_a	56.49	56.49	57.56		40.00
I_d	35.46	35.46	25.03		23.10
N					
N_a					
N_b					
N_c					
N_d					
i	41.90	missing			12.62
i_a	36.91	missing			11.25
i_d	22.23	missing			8.95
$T_{g/w}$	36.1	37.0	37.9		49.0
T_s	40.1	39.0	missing		missing
Ψ	19.6	18.7			0.6
ε					
El, Az					

REMARKS:

METSAT I,II, IV - NO NORMAL INCOMING DATA DUE TO CLOUDS

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL DATELLITE CALIBRATION DATA

DATE: 22 September 1977

RADIOSONDE: (0800 MDT) TTAA 72141 72HMS 99876 13265 ØØØ95 ///// ///// 85514
22668 14506 70170 10462 23515 50588 Ø7558 2352Ø 4Ø758 18958 23034 3Ø966 33757
25Ø47 25Ø92 42159 25551 20239 539// 26074 15419 653// 26Ø58 1Ø661 713// 26Ø25
281Ø3 717// 28Ø19 772ØØ 26Ø74 416Ø6 Ø

TTBB 7214/ 72HMS ØØ876 13265 11866 22067 22859 22868 33815 21669 447ØØ 1Ø462
55649 Ø6356 66619 Ø3256 77612 Ø3461 88587 Ø1Ø59 99562 Ø1565 11536 Ø3362 22526
Ø4557 33521 Ø496Ø 44459 12727 55451 12758 664ØØ 18958 77371 23755 88359 2454Ø
99334 27156 1125Ø 42159 2215Ø 653// 33127 7Ø3// 44118 681// 55112 7Ø9// 661Ø3
717// 771ØØ 713// ø

TTCC 72145 72HMS 7Ø877 611// 19522 5ØØ89 581// 24518 3Ø415 515// 17ØØ5 2Ø68Ø
495// Ø7514 1Ø142 453// Ø9519 Ø7383 4Ø1// Ø7Ø14 Ø5614 373// 13Ø19 88999 77999
Ø

TTDD 7214/ 72HMS 11788 63 7// 22733 653// 337ØØ 611// 44573 567// 555ØØ581//
663ØØ 515// 772ØØ 495// 8814Ø 435// 991ØØ 453// 11Ø4Ø 35311 Ø

ROCKETSONDE: (1120K J) 18152 RRXX 22182 72269 81010 13101
25553 11007 26549 08008 30550 09008 35537 15004 38534 36005 40524 34003 45515
18004 46511 21009 48508 23017 50509 25012 53508 26022 54508 26026 55508 28019
56510 26008 57513 22014 58516 25019 60522 28017 61525 22008 62528 21022 65539
21040 66540 22051 68543 23055 70*** 27068 27863 71*** 28071

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

ATE OF OBSERVATION 27 September 1977 TIME 1007 (Local) 1607 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	24.0	24.0			27.5
T_{dp}	12.2	12.2			11.3
W_d, W_s	320 2.7	320 2.7			calm
P	25.98	25.98			26.00
C	60 ⦶ 250 ⦶	60 ⦶ 250 ⦶			200- ⦶
M	No	No			No
T_{a25}					
T_{dp25}					
I	57.61	57.61			58.68
I_a	44.56	44.56			47.15
I_d	29.71	29.71			29.46
N	92.90	92.90			88.08
N_a	66.49	66.49			66.67
N_b	61.53	61.53			60.61
N_c	49.73	49.73			50.10
N_d	44.10	44.10			41.41
i	31.70	missing			14.64
i_a	25.05	missing			13.91
i_d	15.84	missing			10.88
$T_{g/w}$	missing	missing			37.0
T_s	missing	missing			missing
Ψ	13.7	19.3			0.6
ε					
El, Az	37.7 122.0	37.7 122.0			37.8 121.6

EMARKS:

METSAT II - NOT OPERATED THIS DAY

LEGEND

$_a$ = Air Temperature (^oC); T_{dp} = Dew Point Temperature (^oC); W_d, W_s = Wind Direction (de
Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci
pitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (^oC), Dew Point Temperature (^oC) at 25
eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (^oC); T_s = Surface Temperature (^oC); Ψ = Soil Moisture
= Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 27 September 1977 TIME 1156 (Local) 1756 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	28.3	28.3			30.5
T_{dp}	11.5	11.5			11.0
W_d, W_s	320 2.2	320 2.2			010 2.0
P	25.97	25.97			25.99
C	60 (I) 250-(II)	60 (I) 250-(II)			60 (I) 220- (II)
M	No	No			No
T_{a25}					
T_{dp25}					
I	78.32	78.32			83.51
I_a	61.25	61.25			66.17
I_d	41.85	41.85			41.51
N	97.05	97.05			91.31
N_a	68.63	68.63			67.07
N_b	63.00	63.00			61.01
N_c	51.47	51.47			49.49
N_d	45.44	45.44			41.41
i	44.69	missing			19.66
i_a	35.41	missing			17.90
i_d	22.89	missing			13.54
$T_{g/w}$	missing	missing			46.7
T_s	missing	missing			missing
Ψ	13.7	19.3			0.6
ε					
El, Az	53.2 154.5	53.2 154.5			53.5 154.1

REMARKS:

METSAT II-NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 27 September 1977 TIME 1220 (Local) 1820 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	29.3	29.3			31.6
T_{dp}	11.0	11.0			10.3
W_d, W_s	320 2.7	320 2.7			calm
P	25.97	25.97			25.98
C	60 (I) 80 (I) 120	60 (I) 80 (I) 120			60 (I) 220 - (I)
M	No (I)	No (I)			No
T_{a25}					
T_{dp25}					
I	82.95	82.95			86.61
I_a	65.68	65.68			68.39
I_d	43.34	43.34			43.33
N	98.53	98.53			93.54
N_a	69.44	69.44			68.48
N_b	63.40	63.40			61.82
N_c	51.88	51.88			50.10
N_d	46.38	46.38			42.02
i	45.25	missing			20.06
i_a	35.70	missing			18.14
i_d	23.21	missing			13.78
$T_{g/w}$	missing	missing			47.5
T_s	missing	missing			missing
ψ	13.7	19.3			0.6
ϵ					
El, Az	54.9 164.3	54.9 164.3			55.3 164.0

REMARKS:

METSAT II-NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); ψ = Soil Moisture ϵ = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 27 September 1977

RADIOSONDE: (0800 MDT) TTAA 77141 72HMS 99876 18458 ØØØØØ ØØØ95 /////
885524 22Ø62 Ø35Ø2 7Ø184 11661 29Ø15 5Ø591 Ø5561 27522 4Ø761 17544 26Ø26
3Ø97Ø 3175Ø 26539 25Ø97 4Ø7// ///// 2Ø245 519// 27549 15426 649// 28541
88999 77175 27553 4Ø312 Ø

TTBB 7714/ 72HMS ØØ876 18458 11866 2266Ø 22733 15Ø63 33615 Ø3839 44548
ØØ956 55532 Ø1563 66471 Ø956Ø 77434 14336 884ØØ 17544 99342 2612Ø 113ØØ
3175Ø 22283 35361 33258 38761 44127 723// 55112 751// 51515 1Ø19Ø 1Ø665
1Ø158 Ø

TTDD 7714/ 72HMS 51515 1Ø150

ROCKETSONDE: (1205 MDT) RRXX 27181 72269 81010 13101 25553 09005 30542
09009 35532 04001 40521 02004 45512 12010 46512 13017 47506 15015 50509
21011 51512 17006 52509 23008 53508 30010 54512 01009 55515 16003 56513
23014 57513 25011 58518 25005 60519 22016 63*** 27031 64*** 28036 65***
29027 69*** 34039

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 28 September 1977 TIME 1426 (Local) 2026 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	31.6	31.6		34.3	
T_{dp}	17.4	17.4		13.1	
W_d, W_s	calm	calm		200 3.0	
P	25.94	25.94		25.92	
C				60	
M	yes	yes		No	
T_{a25}					
T_{dp25}					
I	77.10	77.10		76.24	
I_a	61.03	61.03		61.31	
I_d	37.70	37.70		36.42	
N	92.90	92.90		85.45	
N_a	65.42	65.42		63.43	
N_b	59.38	59.38		57.78	
N_c	48.66	48.66		46.67	
N_d	43.30	43.30		38.79	
i	missing	missing		17.55	
i_a	27.64	missing		16.45	
i_d	missing	missing		12.82	
$T_{g/w}$	40.2	37.2		49.2	
T_s	49.7	39.1		missing	
Ψ	15.5	15.1		4.0	
ε					
El, Az	49.5 216.3	49.5 216.3		49.9 216.5	

REMARKS: METSATII-NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.). Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 28 September 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	28.0	28.0		32.7	
T_{dp}	16.5	16.5		13.0	
W_d, W_s	calm	calm		170 3.0	
P	25.90	25.90		25.90	
C	0	0		60 ⦶	
T_{a25}	Yes	Yes		No	
T_{dp25}					
I	83.07	83.07		88.17	
I_a	65.79	65.79		70.08	
I_d	41.64	41.64		42.25	
N	93.16	93.16		90.51	
N_a	65.42	65.42		66.06	
N_b	59.38	59.38		60.61	
N_c	48.26	48.26		49.09	
N_d	42.76	42.76		40.81	
i	missing	missing		19.66	
i_a	29.27	missing		18.02	
i_d	missing	missing		14.03	
$T_{g/w}$	37.4	35.0		49.4	
T_s	51.0	36.9		missing	
Ψ	15.5	15.1		4.0	
ε					
El, Az	55.6 182.0	55.6 182.0		56.0 181.9	

REMARKS:

METSAT II-NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); N = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 28 September 1977

ROCKETSONDE:(1427)RRXX 28203 72269 81010 63101 24*** 32001 25547 04000
30539 11007 35531 35007 37522 01009 38522 03014 39520 07018 40513 10016
42509 17011 45508 08003 48501 22008 49002 29012 50502 30010 52505 27016
55510 23007 57512 32005 58514 34002 60520 20016 62526 25023 65*** 28022
66*** 30032 67*** 30036 68*** 28031

NO RADIOSONDE

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 5 October 1977 TIME 1206 (Local) 1806 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a					24.3
T_{dp}					17.3
W_s					065 1.0
P					26.06
C					80 (1) 150 (1) 210 (1)
M					yes
T_{a25}					
T_{dp25}					
I					
I_a					77.54
I_d					55.59
N					37.31
N_a					
N_b					
N_c					
N_d					
i					
i_a					9.03
i_d					4.84
					3.26
$T_{g/w}$					33.0
T_s					missing
Ψ					
ε					
El, Az					51.6 160.7

REMARKS:

METSAT I, II, NOT OPERATED THIS DAY
METSAT IV- NO NORMAL INCOMING DUE TO CLOUDS

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOONRUN

ATE OF OBSERVATION 5 October 1977 TIME 1300 (Local) 1900 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a					24.7
T_{dp}					17.1
W_d, W_s					calm
P					26.06
C					80 ⊕ 150 ⊕ 200 ⊕
M					yes
T_{a25}					
T_{dp25}					
I					80.89
I_a					62.77
I_d					40.80
N					82.02
N_a					62.63
N_b					56.57
N_c					45.45
N_d					38.38
i					18.66
i_a					16.32
i_d					11.97
$T_{g/w}$					34.0
T_s					missing
Ψ					
ε					
El, Az					53.2 182.7

EMARKS:

METSAT I and II-NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 5 October 1977

RADIOSONDE: (0800 MDT) TTAA 55141 72HMS 99879 17832 ØØØØØ ØØ135 /////
///// 8554Ø 1Ø431 ØØ5Ø4 7Ø177 Ø9658 343// 25Ø45 25Ø93 417// 25Ø55 2Ø24Ø
541// 15419 667// 26564 1Ø66Ø 721// 31Ø29 88127 717// 26Ø34 77136 26576
4312Ø

TTBB 5514/ 72HMS ØØ879 17832 11784 12Ø13 2275Ø 12457 337ØØ Ø9658 44648
04868 556Ø9 Ø1461 66591 ØØ677 77565 Ø2558 88556 02567 9954Ø Ø4757 11513
Ø7157 225ØØ Ø9765 33453 1636Ø 44426 15775 55412 18374 664Ø4 17774 774ØØ
18574 88372 2Ø374 9933Ø
TTDD 5514/ 72Hms 11783 681// 51515 1Ø19Ø 7Ø866 Ø

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

ATE OF OBSERVATION 7 October 1977 TIME 1223 (Local) 1823 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a					22.2
T_{dp}					15.7
W_d, W_s					260 5.1
P					25.78
C					40 ⦶ E100 ⊕
M					yes
T_{a25}					
T_{dp25}					
I					18.72
I_a					13.74
I_d					8.49
N					
N_a					
N_b					
N_c					
N_d					
i					3.51
i_a					3.02
i_d					2.42
$T_{g/w}$					missing
T_s					20.8
Ψ					
ε					
El, Az					51.8 167.9

EMARKS:

METSAT I-NOT OPERATED THIS DAY
METSAT II-NOT OPERATED THIS DAY
METSAT IV-NO NORMAL INCOMING DATA DUE TO CLOUDS

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

RSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 7October 1977

RADIOSONDE: TTAA 57141 72HMS 99877 16611 165Ø6 ØØØ74 ///// ///// 85527
15411 17Ø13 7Ø153 Ø7633 27523 5Ø586 Ø6111 26Ø52 4Ø757 16347 26Ø45 3Ø968
3Ø76Ø 26Ø29 25Ø95 41359 25543 2Ø242 539// 25576 15421 667// 28Ø4Ø 1Ø66Ø
751// 27549 88999 77188 25578 43Ø15 Ø

TTBB 5714/ 72HMS ØØ877 16611 1185Ø 15411 2276Ø 1ØØ26 337ØØ Ø7633 44671
Ø6Ø3Ø 55623 Ø16Ø9 66566 Ø15Ø7 775ØØ Ø6111 88444 11322 994ØØ 16347 11369
19959 22352 2176Ø 333ØØ 3Ø76Ø 4425Ø 41359 55217 495// 662ØØ 539// 77158
657// 8815Ø 667// 99136 7Ø9// 111ØØ 751// Ø

TTCC 57142 72HMS 7Ø37Ø 7Ø9// 27Ø11 5ØØ78 545// 27ØØ9 3Ø4Ø3 561// 32ØØ9
2Ø653 525// 36ØØ3 889Ø3 747// 27548 77999 Ø

TTDD 5714/ 72HMS 11933 759// 229Ø3 747// 33878 683// 44733 717// 557ØØ
7Ø9// 66599 639// 77543 579// 885ØØ 545// 99413 565// 11363 551// 223ØØ
561// 33218 521// 442ØØ 525// 55155 485// Ø

ROCKETSONDE: (1006MDT) RRXX 07168 72269 81010 13101 25554 08006 30547
10007 35538 23007 38532 26014 39531 26013 40522 26017 41524 28023 45509
27025 46509 26026 48511 27033 50511 26042 55508 26063 56511 26068 60523
27061 61522 27055 65/// 29064 66/// 28053

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

ATE OF OBSERVATION 12 October 1977 TIME 1233 (Local) 1833 (GMT.

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a			17.3		19.0
T_{dp}			25		-0.4
W_d, W_s			230 3.1		050 3.1
P			25.81		26.14
C			250- ⦶		250- ⊕
M			No		No
T_{a25}					
T_{dp25}					
I			77.71		81.28
I_a			64.10		68.08
I_d			41.47		43.76
N			101.14		86.26
N_a			75.22		66.87
N_b			68.90		62.63
N_c			55.63		51.92
N_d			48.67		44.65
i			8.58		19.96
i_a			3.31		17.90
i_d			2.84		13.91
$T_{g/w}$			27.0		30.8
T_s			missing		30.1
Ψ					1.3
ε					
El, Az			49.4 183.5		50.6 183.3

EMARKS:

METSAT I-NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci ipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

ATE OF OBSERVATION 12 October 1977 TIME 1300 (Local) 1900 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a			17.8		20.0
T_{dp}			1.9		0.2
W_d, W_s			240 3.1		160 3.1
d_p			25.78		26.14
C			250- ⦶		250- ⊕
M			No		No
T_{a25}					
T_{dp25}					
I			77.16		73.62
I_a			62.77		61.31
I_d			40.26		38.82
N			101.77		86.02
N_a			74.59		63.23
N_b			68.27		60.00
N_c			57.52		50.10
N_d			50.57		41.82
i			8.18		17.95
i_a			3.55		15.84
i_d			2.94		12.33
$T_{g/w}$			24.5		30.7
T_s			missing		32.3
Ψ					1.3
ε					
El, Az			49.4 183.3		50.6 183.3

EMARKS:

METSAT I-NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
Wind Speed (m/s); d_p = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci
pitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 12 October 1977

RADIOSONDE: (1000MDT) TTAA 62161 72HMS 99888 11660 36006 00251 ///// /////
85620 07862 07002 70208 04071 13003 50589 08776 34006 40758 22573 35011
30962 391// 34520 25085 473// 27539 20231 537// 29093 15314 647// 28064
10654 693// 29003 88168 647// 27050 77164 25101 42653 0

TTBB 6216/ 72HMS 00888 11660 11880 10664 22850 07862 33770 06061 44760
06664 55700 04071 66670 01471 77650 02479 88621 01478 99585 00478 11532
05777 22500 08776 33400 22573 44355 28772 55300 391// 66250 473// 77200
537// 88180 623// 99168 647// 11159 625// 22150 647// 33105 681// 44100
693// 0

TTCC 62161 72HMS 70869 659// 30020 50076 607// 03529 30400 543// 30010
20653 497// 27517 10121 471// 26529 88999 77999 0

DD 6216/ 72HMS 11700 659// 22583 617// 33500 607// 44423 525// 55348565//
66300 543// 77200 497// 88173 473// 99148 477// 11100 471// 0

ROCKETSONDE: (1125MDT) RRXX 12173 72269 81010 63101 25550 15002 30545
02004 32537 06000 35538 25003 39529 25029 40527 26028 42517 26028 43511
26030 45509 26028 50504 24038 55513 25050 57517 26065 60520 26068 65527
26055 66526 26054 67527 26051 68531 25060 69536 26060 70542 29033 72///
31038

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

ATE OF OBSERVATION 13 October 1977 TIME 0955 (Local) 1555 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a			12.2		14.0
T_{dp}			2.0		1.3
W_d, W_s			160 2.2		calm
P			25.69		26.20
C			150 ◐		○
M			No		No
T_{a25}					
T_{dp25}					
I			46.88		47.62
I_a			38.36		40.06
I_d			24.62		26.02
N			86.60		87.27
N_a			65.74		67.07
N_b			60.68		62.02
N_c			50.57		50.91
N_d			43.62		43.03
i			4.95		12.14
i_a			2.48		11.12
i_d			2.23		8.59
$T_{g/w}$			16.3		19.3
T_s			missing		20.1
Ψ					
ε					
El, Az			missing missing		missing missing

EMARKS:

METSAT I-NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT B

DATE OF OBSERVATION 13 October 1977 TIME 1032 (Local) 1632 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a			18.9		15.9
T_{dp}			2.9		0.4
W_d, W_s			180 2.7		calm
P			25.68		26.20
C			150 ①		○
M			No		No
T_{a25}					
T_{dp25}					
I			44.22		53.54
I_a			35.90		47.25
I_d			26.24		30.97
N			89.13		89.29
N_a			66.37		67.88
N_b			61.31		61.62
N_c			51.20		50.91
N_d			44.25		43.43
i			5.16		14.14
i_a			3.07		12.58
i_d			2.43		9.67
$T_{g/w}$			18.1		22.2
T_s			missing		21.7
Ψ					
ε					
El, Az			missing missing		missing missing

REMARKS:

METSAT I-NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de and Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

ATE OF OBSERVATION 13 October 1977 TIME 1219 (Local) 1819 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a			19.8		21.1
T_{dp}			1.5		-0.3
W_d, W_s			210 4.0		calm
P			25.64		26.13
C			140 ◐ 220 ◐		○
M			No		No
T_{a25}					
T_{dp25}					
I			78.62		76.55
I_a			67.49		61.63
I_d			43.09		39.89
N			92.92		92.53
N_a			69.53		69.90
N_b			63.21		63.84
N_c			53.73		52.53
N_d			46.14		44.04
i			6.64		17.85
i_a			4.49		15.36
i_d			3.55		11.73
$T_{g/w}$			21.2		32.2
T_s			missing		33.4
Ψ					
ε					
El, Az			missing missing		missing missing

EMARKS:

METSAT I-NOT OPERATED THIS DAY

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

ATE OF OBSERVATION 13 October 1977 TIME 1448 (Local) 2048 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a			21.2		23.2
T_{dp}			2.0		2.6
W_d, W_s			210 4.0		calm
P			25.57		26.08
C			220-◐		○
M			No		No
T_{a25}					
T_{dp25}					
I			65.69		67.12
I_a			52.62		54.23
I_d			33.10		34.62
N			92.92		90.51
N_a			69.53		67.88
N_b			63.21		62.42
N_c			51.20		51.52
N_d			45.51		43.23
i			5.27		15.65
i_a			3.66		13.66
i_d			3.04		10.52
$T_{g/w}$			27.5		35.1
T_s			missing		34.1
Ψ					
ε					
El, Az			missing missing		missing missing

EMARKS:

METSAT I-NOT OPERATED THIS DAY

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci
:itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
= Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE 13 October 1977

RADIOSONDE: (0900 MDT) TTAA 63151 72HMS 99883 Ø4842 ØØØØØ ØØ2ØØ /////
///// 85569 Ø9463 33ØØ2 7Ø164 Ø3242 24515 5Ø583 13159 25524 4Ø749 24166
26Ø33 3Ø952 399// 27Ø31 25Ø74 491// 27048 2Ø218 581// 27582 15396 659//
26527 1Ø639 675// 27Ø25 88135 697// 26546 772Ø2 27Ø76 43212 Ø

TTBB 6315/ 72HMS ØØ883 Ø4842 11873 Ø9862 2285Ø Ø9463 33765 Ø7263 44734
Ø5462 557ØØ Ø3242 66685 Ø2Ø35 77654 ØØ457 88644 Ø1Ø63 99626 Ø1467 11562
Ø4566 225ØØ 13159 33461 18956 44446 21558 55439 2Ø165 664ØØ 24166 77534
3Ø365 88317 36963 993ØØ 399// 1125Ø 491// 22234 525// 33223 533// 442ØØ
581// 5517Ø 623// 6615Ø 659// 77135 697// 881ØØ 675// 51515 SUPER 46-45
Ø

TTCC 63151 72HMS 7Ø853 667// 27Ø15 5ØØ6Ø 6Ø5// 215Ø4 3Ø384 545// Ø5ØØ4
2Ø644 521// Ø45Ø3 1Ø1Ø2 427// Ø65Ø2 88999 77999 Ø

TTDD 6315/ 72HMS 11893 695// 227ØØ 667// 33539 617// 445ØØ 6Ø5// 55438
551// 66388 575// 77313 539// 883ØØ 545// 99268 555// 112ØØ 521// 22;33
471// 331ØØ 427// Ø

ROCKETSONDE: (1o15 MDT) RRXX 13162 72269 81010 13101 25555 14002 27552
11009 30546 10003 35542 18004 37536 25017 39531 25033 40530 26034 42526
27834 43520 27035 45510 27027 47504 25041 50507 26044 55510 24048 63524
25067 63525 25066 64*** 27060

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA VI

ATE OF OBSERVATION 19 October 1977 TIME 1017 (Local) 1617 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	12.0	12.0			19.8
T_{dp}	2.3	2.3			-2.2
W_d, W_s	260 1.8	260 1.8			020 3.1
P	26.00	26.00			26.06
C	○	○			○
M	No	No			NO
T_{a25}					
T_{dp25}					
I	54.08	54.08			missing
I_a	42.13	42.13			42.18
I_d	30.03	30.03			26.64
N	89.54	89.54			88.28
N_a	59.52	59.52			67.88
N_b	53.09	53.49			62.63
N_c	48.39	48.39			51.72
N_d	43.03	43.03			44.44
i	missing	28.92			13.24
i_a	25.36	missing			12.09
i_d	15.84	16.92			9.31
$T_{g/w}$	40.3	40.0			30.0
T_s	missing	missing			28.4
Ψ	21.6	19.2			1.2
ε					
El, Az	missing	missing			missing

EMARKS:

METSAT II-NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 19 October 1977 TIME 1215 (Local) 1815 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	16.4	16.4			24.6
T_{dp}	missing	missing			1.0
W_d, W_s	calm	calm			160 1.5
P	26.01	26.01			26.04
C	○	○			○
M	No	No			No
T_{a25}					
T_{dp25}					
I	73.93	73.93			missing
I_a	58.39	58.39			59.09
I_d	38.98	38.98			37.57
N	96.25	96.25			93.94
N_a	66.49	66.49			70.57
N_b	62.06	62.06			64.85
N_c	50.80	50.80			53.74
N_d	45.71	45.71			44.85
i	missing	36.44			17.65
i_a	30.92	missing			15.24
i_d	18.22	19.64			11.61
$T_{g/w}$	28.0	28.2			35.0
T_s	26.0	28.5			36.8
Ψ	21.6	19.2			1.2
ε					
El, Az	missing	missing			missing

REMARKS: METSAT II-NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (degrees); Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture; ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 19 October 1977 TIME 1300 (Local) 1900 (GMT

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	22.8	22.8			26.6
T_{dp}	3.9	3.9			-0.1
W_d, W_s	110 2.2	110 2.2			100 1.0
P	missing	missing			26.02
C	O	O			O
M	No	No			No
T_{a25}					
T_{dp25}					
I	76.61	76.61			missing
I_a	61.03	61.03			60.68
I_d	39.72	39.72			37.88
N	96.51	96.51			93.33
N_a	66.49	66.49			70.51
N_b	61.93	61.93			64.44
N_c	50.94	50.94			53.33
N_d	45.71	45.71			44.44
i	missing	40.15			18.15
i_a	35.26	missing			15.60
i_d	21.04	22.66			12.09
$T_{g/w}$	31.0	33.0			35.9
T_s	27.0	29.5			37.1
Ψ	21.6	19.2			1.2
ε					
El, Az					

REMARKS:

METSAT II-NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 19 October 1977

RADIOSONDE: (0800MDT) TTAA 69141 72HMS 99878 11864 ØØØØØ ØØ128 /////
///// 85533 16864 145Ø4 7Ø168 Ø7664 29ØØ3 5Ø583 13764 115Ø6 4Ø749 25758
Ø85Ø6 3Ø951 4Ø5// 28Ø17 25Ø74 461// 29Ø26 2Ø22Ø 519// 28Ø34 154Ø3 595//
26Ø35 88999 77154 26Ø37 4Ø9//

TTBB 6914/ 72HMS ØØ878 11864 11867 16664 22857 17265 33812 16864 44577
Ø5764 55565 Ø5967 665ØØ 13764 77455 17763 884ØØ 25758 99362 32357 11312
39361 22217 5Ø7// 33173 551// 44135 631// 51515 1Ø158

TTDD 6914/ 72HMS 51515 1Ø15Ø

ROCKETSONDE: (1140 MDT) RRXX 19174 72269 81010 63101 30*** 13002 33545
28007 35539 26019 37536 27026 40521 28030 42521 27032 45510 28045 50503
27053 55508 26057 59515 26053 60518 26061 63525 28061 65529 29052 66532
30057 67537 30065 68541 31059 69543 27032 70*** 23033 73/// 22035

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAAV

ATE OF OBSERVATION 20 October 1977 TIME 1037 (Local) 1637 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a			22.0		21.2
T_{dp}			6.4		5.2
W_d, W_s			170 2.2		calm
P			25.5		26.00
C			180 ◐		○
M			No		No
T_{a25}					
T_{dp25}					
I			missing		missing
I_a			46.46		44.71
I_d			28.56		28.10
N			93.55		90.51
N_a			69.53		68.48
N_b			64.48		63.43
N_c			51.83		52.12
N_d			44.25		43.64
i			5.37		14.14
i_a			2.01		12.82
i_d			1.72		9.92
$T_{g/w}$			24.8		missing
T_s			32.1		27.2
Ψ					0.5
ε					
El, Az			missing		missing

EMARKS:

METSATI-NOT OPERATED THIS DAY

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION Nimbus VI

ATE OF OBSERVATION 20 October TIME 1215 (Local) 1815 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a			24.7		26.8
T_{dp}			10.1		0.6
W_s			200 4.0		060 2.1
d_p			25.49		25.96
C			70 ①		○
M			No		No
T_{a25}					
T_{dp25}					
I			72.57		missing
I_a			59.38		58.46
I_d			37.03		35.17
N			97.35		95.15
N_a			72.06		71.92
N_b			67.00		66.06
N_c			54.36		53.94
N_d			46.78		46.67
i			6.11		17.85
i_a			3.90		16.08
i_d			3.25		12.58
$T_{g/w}$			29.1		missing
T_s			36.0		45.4
Ψ					0.5
ε					
El, Az			missing		missing

EMARKS:

METSAT I-NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci
pitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
eter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

ATE OF OBSERVATION 20 October 1977 TIME 1418 (Local) 2018 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a			25.9		27.7
T_{dp}			2.2		0.8
W_d, W_s			190 6.3		060 5.1 G10.3
P			25.43		25.92
C			70 ⦶		60 ⦶
M			No		No
T_{a25}					
T_{dp25}					
I			67.61		missing
I_a			54.26		55.39
I_d			33.91		34.03
N			96.08		94.14
N_a			72.06		70.71
N_b			65.74		65.25
N_c			53.10		52.73
N_d			45.51		45.05
i			5.58		17.05
i_a			3.90		15.36
i_d			3.14		11.85
$T_{g/w}$			31.8		missing
T_s			41.6		55.0
ψ					0.5
ε					
El, Az			missing		missing

EMARKS:

METSAT I-NOT OPERATED THIS DAY

LEGEND

= Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de nd Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

g/w = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 20 October 1977

RADIOSONDE: (0700 MDT) TTAA 7Ø131 72HMS 99876 Ø9258 Ø6ØØ2 ØØ127 ///// /////
85512 18661 185Ø8 7Ø145 Ø6458 26Ø14 5Ø582 1Ø962 24513 4Ø759 24361 24514
3Ø951 42558 25525 25Ø72 477// 26Ø36 2Ø218 543// 27Ø28 15399 617// 28Ø33
1Ø645 681// 27527 77244 26Ø37 41221

TTBB 7Ø13/ 72HMS ØØ876 Ø9258 11866 1746Ø 22857 18861 33765 13Ø61 44719
Ø866Ø 55644 ØØ4Ø5 66628 Ø15Ø4 77611 Ø253J 88586 Ø57Ø1 99568 Ø7749 11565
Ø5562 2256Ø Ø4564 335ØØ 1Ø962 44431 2176Ø 554ØØ 24361 663ØØ 42558 7729Ø
445// 88213 511// 9913Ø 661// 111Ø5 693// 221ØØ 681//

TTCC 7Ø132 72HMS 7Ø861 641// 25ØØ6 5ØØ7Ø 581// 185Ø4 3Ø393 535// Ø95Ø4
2Ø654 513// Ø5Ø7 88999 77999

TTDD 7Ø13/ 72HMS 115ØØ 581// 22378 577// 333ØØ 535// 44228 543// 55158
471//

ROCKETSONDE: (1200MDT) RRXX 20180 72269 81010 13101 25553 13001 28548
03004 30551 05005 31548 09002 33539 23011 35539 26019 38533 25029 40526
28027 42515 27030 43509 28033 45508 28041 47507 26038 50507 26049 51510
26036 53512 25057 54512 26061 55515 26056 56518 26055 57520 26059 60513
26069 64524 27073 65*** 28072 67*** 29066 ***** *****

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

ATE OF OBSERVATION 25 October 1977 TIME 1211 (Local) 1811 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	17.9	17.9	25.2		23.9
T_{dp}	3.5	3.5	2.1		-3.9
W_d, W_s	180 2.2	180 2.2	260 2.2		calm
P	26.10	26.10	25.63		26.07
C	0	0	0		0
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	73.45	73.45	70.37		103.89
I_a	58.08	58.08	62.22		59.30
I_d	39.08	39.08	36.73		38.92
N	99.46	99.46	104.30		99.39
N_a	68.77	68.77	77.75		75.15
N_b	64.34	64.34	72.06		69.29
N_c	53.08	53.08	60.05		57.58
N_d	47.32	47.32	52.47		48.48
i	missing	37.43	6.53		18.15
i_a	29.46	33.61	3.31		16.20
i_d	19.31	21.29	2.94		12.21
$T_{g/w}$	25.5	28.9	30.8		35.5
T_s	28.0	29.0	37.5		34.7
Ψ	21.9	19.1			0.6
ε					
El, Az	39.1 211.2	39.1 211.2	39.3 211.2		40.3 211.3

EMARKS:

LEGEND

$_a$ = Air Temperature (^oC); T_{dp} = Dew Point Temperature (^oC); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci ipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (^oC), Dew Point Temperature (^oC) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (^oC); T_s = Surface Temperature (^oC); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

ATE OF OBSERVATION 25 October 1977 TIME 1425 (Local) 2025 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	25.1	25.1	26.9		25.5
T_{dp}	7.7	7.7	0.1		-4.1
W_s	070 1.8	070 1.8	250 4.5		068 1.5
P	26.03	26.03	25.52		25.99
C	0	0	0		0
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	66.14	66.14	67.25		69.78
I_a	53.75	53.75	57.22		55.71
I_d	36.21	36.21	34.21		36.77
N	98.79	98.79	99.87		96.57
N_a	68.50	68.50	74.59		72.93
N_b	64.75	64.75	68.90		67.27
N_c	53.22	53.22	57.52		55.76
N_d	47.45	47.45	50.57		46.87
i	missing	33.41	6.32		15.25
i_a	26.30	29.69	4.85		15.11
i_d	17.14	18.73	3.96		10.40
$T_{g/w}$	29.3	30.2	33.5		41.0
T_s	26.4	30.0	41.5		37.9
Ψ	21.9	19.1			0.6
ε					
El, Az	missing missing	missing missing	missing missing		missing missing

EMARKS:

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci
itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

g/w = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
= Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

RSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 25 October 1977

RADIOSONDE: (0800 MDT) TTAA 75141 72HMS 99879 Ø5646 ØØØØØ ØØ179 /////
///// 85541 16264 31ØØ1 7Ø166 Ø5662 12006 5Ø585 1Ø964 33ØØ9 4Ø752 23363
31517 3Ø957 36561 Ø5Ø61 25Ø81 453// Ø5574 2Ø227 547// Ø4584 154Ø9 615//
Ø4572 1Ø655 683// Ø2519 88115 697// Ø3529 77162 Ø3596 4174Ø

TTBB 7514/ 72HMS ØØ879 Ø5646 11869 11461 22859 15863 33837 16664 447ØØ
Ø5662 55599 Ø1765 66588 Ø1967 77471 14565 88441 19Ø6Ø 994ØØ 23363 113ØØ
36551 22289 38961 33178 585// 44161 585// 5515Ø 615// 697// 771Ø5 671//
881ØØ 683//

TTCC 75141 72HMS 7Ø87Ø 639// 04004 5ØØ78 619// Ø1ØØ5 3Ø399 567// 245Ø6
2Ø657 543// 01ØØ6 1Ø11Ø 481// 3Ø51Ø 88999 77999

TTDD 7514/ 72HMS 11768 671// 227ØØ 639// 334ØØ 619// 44328 559// 552ØØ
543// 66143 489// 77100// 481// 88Ø88 451//

ROCKETSONDE: (1230 MDT) RRXX 25183 72269 81010 13101 25557 02005 30550
26007 35541 26024 38531 27041 40531 28043 41531 27041 40531 28043 41531
27043 45513 26047 465k3 25051 47512 25066 50508 27073 52509 26070 64521
24074 65*** 24078 67*** 25088 69*** 27084

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

ATE OF OBSERVATION 26 October 1977 TIME 1143 (Local) 1743 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	16.6	16.6	23.2		22.9
T_{dp}	4.4	4.4	0.9		0.5
W_d, W_s	280 1.8	280 1.8	200 3.1		calm
P	26.07	26.07	25.65		26.07
C	○	○	○		○
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	69.55	69.55	67.43		missing
I_a	54.80	54.80	55.49		54.76
I_d	37.27	37.27	34.91		35.27
N	98.79	98.79	101.14		96.97
N_a	71.18	71.18	75.85		73.74
N_b	65.28	65.28	69.83		67.07
N_c	54.83	54.83	58.15		55.76
N_d	49.06	49.06	51.83		47.68
i	33.33	34.82	6.53		15.95
i_a	27.64	31.34	4.02		15.44
i_d	17.90	19.96	3.25		10.17
$T_{g/w}$	25.2	25.5	26.8		34.0
T_s	23.3	25.8	35.2		21.0
Ψ	22.0	19.1			1.0
c					
El, Az	missing missing	missing missing	missing missing		missing missing

EMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci ipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture c = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 26 October 1977

RADIOSONDE: (0800 MDT) TTAA 72HMS 99879 08058 00000 00176 ///// /////
85544 15662 15004 70167 05263 19007 50584 08765 11018 40753 20963 10035 30959
35761 09053 25083 429// 09058 20231 511// 09557 15413 627// 09555 10658 725//
09513 88100 725// 09513 77210 09562 40302

TTBB 7614/ 72HMS 00879 08058 11869 14461 22844 16463 33803 14463 44713 05460
55679 03863 66668 04465 77619 00865 88611 00865 99555 05164 11500 08765 22400
20963 33324 32562 44280 39161 55264 403// 66250 429// 77217 497// 88200 511//
99150 627// 11130 643// 22100 725//

TTCC 76142 72HMS 70872 641// 15010 50079 607// 19525 30399 575// 23010 20657
551// 09506 88999 77999

TTDD 7614/ 72HMS 11964 727// 22888 677// 33798 681// 44700 641// 55558 635//
66500 607// 77423 587// 88368 605// 99228 545// 11200 551// 22168 525//

ROCKETSONDE: (1325 MDT) RRXX 26193 72269 81010 63101 25555 23003 30550 27009
35540 26033 40528 27052 43518 27046 45513 26052 46510 26065 49502 25071 50504
26071 52508 26070 55510 25085 56508 25086 57508 25077 58512 26068 60514 27071
61518 28079 62523 29084 63530 29078 64532 27080 65531 26099 66530 26110 70550
28087 72/// 29042

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 28 October 1977 TIME 1038 (Local) 1638 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	15.9	15.9			20.2
T_{dp}	5.3	5.3			7.7
W_d, W_s	060 2.2	060 2.2			350 2.1
P	26.10	26.10			26.00
C	0	0			0
M	No	No			No
T_{a25}					
T_{dp25}					
I	56.39	56.39			missing
I_a	43.93	43.93			42.81
I_d	30.14	30.14			27.20
N	96.38	96.38			92.12
N_a	71.85	71.85			68.89
N_b	64.88	64.88			65.05
N_c	54.42	54.42			53.33
N_d	48.26	48.26			45.05
i	27.86	30.25			12.94
i_a	23.61	27.32			12.44
i_d	15.51	17.30			8.37
$T_{g/w}$	missing	missing			25.2
T_s	missing	missing			27.5
Ψ	17.8	19.8			1.5
ε					
El, Az	34.7 140.1	34.7 140.1			35.0 139.8

REMARKS:

MET SAT II - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS 6

ATE OF OBSERVATION 28 October 1977 TIME 1206 (Local) 1806 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	21.5	21.5			24.7
T_{dp}	5.3	5.3			4.6
W_d, W_s	130 1.3	130 1.3			calm
P	26.10	26.10			26.01
C	0	0			0
M	No	No			No
T_{a25}					
T_{dp25}					
I	69.55	69.55			missing
I_a	54.70	54.70			55.50
I_d	36.63	36.63			35.48
N	100.27	100.27			95.56
N_a	74.13	74.13			71.52
N_b	66.89	66.89			66.67
N_c	55.90	55.90			54.55
N_d	49.60	49.60			45.45
i	33.33	35.15			16.25
i_a	27.64	31.65			15.89
i_d	18.22	19.86			10.38
$T_{g/w}$	missing	missing			35.2
T_s	26.0	31.0			41.8
Ψ	17.8	19.8			1.5
ε					
El, Az	43.3 165.6	43.3 165.6			43.7 165.3

EMARKS:

METSAT II - NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, i_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 28 October 1977
RADIOSONDE: (0800 MDT)

TTAA 78141 72HMS 99878 Ø249 ØØØØØ ØØ164 ///// ///// 85534 16461 21ØØ2
7Ø155 0546Ø 26Ø1Ø 5Ø584 Ø9166 3ØØ13 4Ø753 1936Ø 29523 3Ø961 35161
29513 25Ø86 455// 28Ø21 2Ø232 519// 28Ø41 15414 625// 27533 1Ø657
739// 29Ø25 881Ø2 743// 29Ø34 77185 28548 416Ø5 Ø

TTBB 7814/ 72HMS ØØ878 Ø8249 11868 22857 1646Ø 33853 17Ø61 44661 01659
55634 Ø1462 66623 Ø2265 77512 Ø7967 885ØØ Ø9166 99479 1Ø765 11464 11759
22457 12557 334ØØ 1936Ø 4428Ø 39561 55238 481// 662Ø9 519// 77184 539//
88156 625// 991Ø2 743// 111ØØ 739// Ø

TTCC 78141 72HMS 7Ø869 669// 23514 5ØØ74 627// 3Ø51Ø 3Ø391 579// 3ØØ12
2Ø647 557// 29514 1ØØ93 523// 28Ø2Ø Ø7325 475// ///// 88999 77999 Ø

TTDD 7814/ 72HMS 11818 681// 22758 695// 335ØØ 627// 44398 629// 553ØØ
579// 66248 587// 7722Ø 539// 88178 563// 991ØØ 523// 11Ø88 525// 22Ø7Ø
475// Ø

ROCKETSONDE: (1035 MDT) RRXX 28164 72269 81010 13101 25558 33001 30552
24009 32546 27022 33541 27023 35541 26025 37536 26039 40530 26043 41525
27048 42527 27049 43525 27050 45515 27053 50508 26063 55511 26075 60516
26090 62515 26088 63519 26087 65524 24066 66*** 23069

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

ATE OF OBSERVATION 31 October 1977 TIME 0924 (Local) 1624 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a			16.3		20.9
T_{dp}			1.7		5.4
W_s			260 3.1		missing 8.2
P			25.46		25.89
C			250 - ◐		80 ◐ 250 - ◐
M			yes		yes
T_{a25}					
T_{dp25}					
I			51.38		52.02
I_a			42.26		43.13
I_d			26.74		27.53
N			88.50		91.52
N_a			65.16		67.68
N_b			58.15		64.44
N_c			44.25		53.33
N_d			36.66		45.25
i			5.80		12.84
i_a			3.78		12.33
i_d			3.04		8.47
$T_{g/w}$			13.0		26.0
T_s			16.5		21.9
Ψ					
ε					
El, Az			31.5 137.9		32.2 137.2

EMARKS:
METSAT I - NOT OPERATED THIS OBSERVATION

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

g/w = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT B

ATE OF OBSERVATION 31 October 1977 TIME 0932 (Local) 1632 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a			17.5		20.9
T_{dp}			1.6		5.4
W_d, W_s			220 2.7		missing 8.2
P			25.45		25.90
C			250 -⦶		80 ⦶ 250 -⦶
M			yes		yes
T_{a25}					
T_{dp25}					
I			50.09		52.00
I_a			40.21		43.13
I_d			25.43		27.53
N			89.76		91.52
N_a			68.27		67.68
N_b			61.97		64.44
N_c			51.83		53.33
N_d			40.46		45.25
i			5.69		12.74
i_a			3.55		12.44
i_d			2.94		8.58
$T_{g/w}$			17.0		26.0
T_s			17.0		21.9
Ψ					0.7
ε					
El, Az			32.6 139.8		33.4 139.1

EMARKS:

METSAT I - NOT OPERATED THIS RUN

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci
ipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
eter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ORSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

ATE OF OBSERVATION 31 October 1977 TIME 1148 (Local) 1748 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	13.5	13.5	18.4		22.1
T_{dp}	7.0	7.0	0.3		7.3
W_d, W_s	120 3.1	120 3.1	210 3.1		190 2.2
P	25.92	25.92	25.46		25.90
C	E 180 ◐ 200 ⊕	E 180 ◐ 200	130 ◐ 200 - ◐		80 ◐ 250 - ◐
M	No	No ⊕	yes		yes
T_{a25}					
T_{dp25}					
I	66.38	66.38	53.12		64.22
I_a	52.59	52.59	26.56		54.12
I_d	34.72	34.72	19.27		34.95
N	56.03	56.03	50.57		95.15
N_a	40.75	40.75	29.08		70.51
N_b	40.48	40.48	17.70		65.66
N_c	38.87	38.87	10.11		53.94
N_d	34.05	34.05	8.85		45.45
i	32.60	34.60	4.21		15.65
i_a	26.49	29.38	2.60		15.33
i_d	17.68	19.04	2.03		10.06
$T_{g/w}$	22.9	24.2	23.0		30.0
T_s	19.8	20.4	18.9		27.2
Ψ	18.2	17.3			0.9
c					
El, Az	41.2 160.2	41.2 160.2	40.6 160.6		41.6 160.0

EMARKS:

LEGEND

= Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

g/w = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

RSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 31 October 1977

RADIOSONDE: (0900 MST) TTAA 81161 72HMS 99876 16664 ØØØØØ ØØ117 ///// ///// 85ØØ9 14662 24ØØ4 7Ø118 Ø4864 27Ø22 5Ø579 1176Ø 26Ø33 4Ø746 23358 25548 3Ø95Ø 38557 26Ø49 1Ø644 661// 27Ø43 88229 543// 27Ø55 77185 29591 43946 Ø

TTBB 8116/ 72HMS ØØ876 16664 11865 14661 2285Ø 14662 33724 Ø4863 447ØØ Ø4864 5562Ø ØØ264 66543 Ø636277421 21356 884ØØ 23358 99374 25761 11279 42757 22229 543// 3321Ø 543// 442ØØ 5Ø7// 55193 511// 66165 567// 7715Ø 611// 88139 637// 99119 657// 111Ø7 647// 221ØØ 661// Ø

TTCC 81167 72HMS 7Ø863 677// 27Ø2Ø 5ØØ69 613// ///// 88999 77999 Ø

TTDD 8116/ 72HMS 11888 661// 22768 7Ø5// 337ØØ 677// 44688 689// 55578 629// 665ØØ 613// Ø

ROCKETSONDE: (1100 MST) RRXX 31126 72269 81010 13101 25559 29003 30549 30006 35539 27026 39533 28033 40528 28029 43522 28030 45513 28033 50517 27051 51516 26053 52513 26054 53523 26058 54532 26063 55529 26064 56524 27065 57520 27069 58515 27075 60523 27058 62522 26082 63*** 25096 64*** 25106 65*** 25106 68*** 27080

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT B

DATE OF OBSERVATION 1 November 1977 TIME 0937 (Local) 1637 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	12.4	12.4	10.4		13.0
T_{dp}	3.0	-3.0	-6.0		-3.9
W_d, W_s	360 9.8	360 9.8	360 4.0		270 5.1
P	26.03	26.03	25.61		26.00
C	E 220 ⊕	E 220 ⊕	180 ◐ E 200 ◐		E 165 ◐
T_{a25}	No	No	No		No
T_{dp25}					
I	58.34	58.34	35.14		missing
I_a	47.62	47.62	30.56		23.68
I_d	32.48	32.48	18.16		15.59
N			35.15		
N_a			27.56		
N_b			31.35		
N_c			20.99		
N_d			31.35		
i	35.77	38.41	4.43		7.32
i_a	29.56	34.33	3.07		7.11
i_d	20.50	21.49	2.64		4.77
$T_{g/w}$	missing	missing	13.9		17.3
T_s	12.9	14.9	17.8		30.1
Ψ	18.8	18.6			1.8
ε					
El, Az	33.5 140.7	33.5 140.7	33.0 141.2		33.8 140.5

REMARKS:

METSAT I & IV NO NORMAL INCOMING DUE TO CLOUDS

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
Wind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci
pitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ERSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

ATE OF OBSERVATION 1 November 1977 TIME 1049 (Local) 1749 (GMT)

'ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	16.7	16.7	11.8		14.8
T_{dp}	-3.9	-3.9	-5.9		-4.8
W_d, W_s	010 7.6	-3.9	14 6.3		300 7.7
P	26.03	26.03	25.61		26.00
C	E 210 (II)	E 210 (II)	E 200 (II)		170 (I)
T_{a25}	No	No	No		No
T_{dp25}					
I	71.13	71.13	58.81		missing
I_a	56.07	56.07	48.10		59.20
I_d	38.45	38.45	33.10		37.42
N			66.12		80.61
N_a			47.41		70.51
N_b			45.64		62.22
N_c			35.02		49.49
N_d			29.08		45.66
i	41.73	43.96	6.53		16.75
i_a	34.74	39.38	4.73		15.56
i_d	23.43	24.36	3.65		10.17
$T_{g/w}$	missing	missing	15.3		25.0
T_s	16.7	17.0	21.5		23.2
Ψ	18.8	18.6			1.8
ε					
El, Az	41.0 160.7	41.0 160.7	40.3 161.0		41.3 160.4

'EMARKS:

METSAT I - NO NORMAL INCOMING DUE TO CLOUDS

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci ›itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 ›eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 1 November 1977

RADIOSONDE: (0700 MST) TTAA 51141 72HMS 99877 Ø9866 36Ø17 ØØ136 ///// /////
85513 Ø8459 Ø1020 7ØØ86 Ø1959 31Ø27 5Ø571 15159 29Ø60 4Ø735 29158 31582 3Ø933
46541 31Ø88 25Ø52 5Ø7// 31Ø64 2Ø197 555// 31Ø71 15377 6Ø1// 29Ø52 1Ø629 587//
2955Ø 88276 5Ø7// 31Ø77 77314 31Ø89 41114 Ø

TTBB 5114/ 72HMS ØØ877 Ø9866 11867 Ø9Ø59 22775 Ø2459 33649 Ø536Ø 44622 Ø656Ø
5558Ø Ø6559 664ØØ 29158 77321 4174Ø 883ØØ 46541 99276 5Ø7// 11266 499// 222ØØ
555// 33187 581// 44162 605// 55139 6Ø1// 111ØØ 587// 51515 1Ø186 //115 633//
Ø

TTCC 51141 72HMS 7Ø849 645// 27519 5ØØ57 6Ø1// 3451Ø 3Ø375 585// 26514 2Ø634
545// 29Ø1Ø 1ØØ85 481// 27Ø18 Ø7323 419// ///// 88999 77999 Ø

TTDD 5114/ 72HMS 11738 671// 22661 619// 33618 641// 445ØØ 6Ø1// 55318 6Ø7//
66248 537// 772ØØ 545// 881ØØ 481// 99Ø7Ø

NO ROCKETSONDE

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

ATE OF OBSERVATION 2 November 1977 TIME 0843 (Local) 1543 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	4.8	4.8	7.5		11.0
T_{dp}	-5.4	-5.4	-6.9		-7.7
W_d, W_s	300 0.9	300 0.9	330 1.3		030 2.1
P	25.97	25.97	25.49		25.94
C	0	0	0		0
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	41.41	41.41	21.83		missing
I_a	32.42	32.42	18.56		30.02
I_d	23.64	23.64	12.21		19.89
N	96.78	96.78	82.55		91.92
N_a	75.47	75.47	66.25		70.51
N_b	69.57	69.57	62.07		66.26
N_c	56.84	56.84	52.09		55.35
N_d	50.13	50.13	45.26		46.87
i	21.29	25.68	3.58		9.83
i_a	17.95	22.89	2.60		9.78
i_d	12.36	14.64	2.33		6.67
$T_{g/w}$	missing	missing	24.1		12.2
T_s	3.8	4.1	11.0		32.0
Ψ	14.2	13.7			
ε					
El, Az	25.2 129.1	25.2 129.1	24.8 129.5		29.4 128.9

EMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

ATE OF OBSERVATION 2 November 1977 TIME 1109 (Local) 1809 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	14.0	14.0	14.9		17.0
T_{dp}	-6.2	-6.2	-2.1		-4.8
W_d, W_s	320 2.2	320 2.2	360 1.8		calm
P	25.97	25.97	25.52		25.93
C	0	0	0		0
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	70.89	70.89	67.34		missing
I_a	55.65	55.65	55.08		53.38
I_d	37.81	37.81	35.32		33.55
N	105.50	105.50	102.78		99.39
N_a	79.89	79.89	77.75		73.94
N_b	73.06	73.06	71.68		68.69
N_c	59.65	59.65	59.12		56.36
N_d	52.41	52.41	51.58		47.07
i	37.83	41.78	6.74		15.75
i_a	31.09	37.32	4.14		15.22
i_d	20.50	23.44	3.55		9.96
$T_{g/w}$	20.0	21.0	missing		29.1
T_s	22.8	22.4	24.0		43.6
Ψ	14.2	13.7			1.0
ε					
El, Az	41.8 167.0	41.8 167.0	41.2 167.3		42.2 166.8

EMARKS:

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci
ipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
= Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

ATE OF OBSERVATION 2 November 1977 TIME 1200 (Local) 1900 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	15.4	15.4	17.0		18.0
T_{dp}	-9.9	-9.9	0.4		-7.8
W_d, W_s	320 4.0	320 4.0	calm		calm
P	25.90	25.90	25.45		25.99
C	0	0	0		0
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	72.59	72.59	69.63		missing
I_a	57.34	57.34	55.49		54.86
I_d	38.23	38.23	35.82		35.91
N			103.41		99.39
N_a			78.13		73.74
N_b			72.19		68.69
N_c			59.67		56.16
N_d			51.83		46.87
i	38.93	43.53	6.74		15.95
i_a	31.67	38.76	3.66		15.67
i_d	20.72	23.85	3.14		10.06
$T_{g/w}$	27.0	26.0	missing		30.2
T_s	20.0	21.1	24.0		46.1
Ψ	14.2	13.7			1.0
ε					
El, Az	42.7 183.7	42.7 183.7	42.0 183.8		43.1 183.6

EMARKS:

METSAT I - NO NORMAL INCOMING DATA THIS RUN

LEGEND

$_a$ = Air Temperature (^oC); T_{dp} = Dew Point Temperature (^oC); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (^oC), Dew Point Temperature (^oC) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG530, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$_{g/w}$ = Soil or Water Temperature (^oC); T_s = Surface Temperature (^oC); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 2 November 1977

RADIOSONDE: (0800 MST) TTAA 52151 72HMS 99876 Ø8259 35ØØ6 ØØ146 ///// /////
855Ø7 Ø8469 35Ø11 7ØØ9Ø Ø3Ø66 35Ø24 5Ø578 Ø8567 35554 4Ø747 1957Ø 35Ø59 3Ø954
36363 35564 25Ø78 459// 35582 2Ø223 547// 35564 154Ø3 647// 35567 1Ø646 7Ø1//
33Ø36 88138 675// 35515 99283 35587 4Ø223

TTBB 5215/ 72HMS ØØ867 Ø8259 11866 Ø8469 2285Ø Ø8469 3375Ø Ø2866 44741 Ø4867
55688 Ø2266 66656 Ø3868 77631 Ø3266 88525 Ø5161 994ØØ 1957Ø 113ØØ 36363 2225Ø
459// 33150 647// 44138 675// 55115 677// 661Ø8 7Ø1// 771ØØ 7Ø1// Ø

TTCC 52151 72HMS 7Ø861 643// 35512 5ØØ66 633// Ø35Ø2 3Ø384 577// 25ØØ6 2Ø642
533// 27Ø11 1ØØ93 473// 34524 Ø7332 415// 31Ø23 88999 77999 Ø

TTDD 5215/ 72HMS ØØ922 723// 22823 641// 33728 663// 447ØØ 643// 55618 663//
66576 643// 775Ø8 653// 885ØØ 633// 99363 611// 11333 565// 223ØØ 577// 33178
5Ø5// 44125 517// 551ØØ 473// 66Ø7Ø 415// 77Ø61 39711 51515 1Ø186 11841 677//
1Ø19Ø Ø5553 Ø

NO ROCKETSONDE

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 3 November 1977 TIME 0901 (Local) 1601 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	5.6	5.6	15.2		14.8
T_{dp}	-2.6	-2.6	-0.2		-3.6
W_d, W_s	290 3.6	290 3.6	020 4.5		calm
P	26.03	26.03	25.59		25.98
C	O	O	O		O
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	43.36	43.36	44.77		missing
I_a	35.27	35.27	37.33		missing
I_d	25.13	25.13	23.71		22.69
N	97.05	97.05	95.07		92.32
N_a	75.07	75.07	73.32		70.30
N_b	69.03	69.03	67.64		61.21
N_c	56.70	56.70	56.26		50.91
N_d	50.00	50.00	49.18		45.86
i	24.82	28.07	5.37		10.13
i_a	21.02	25.36	3.53		10.67
i_d	14.32	16.27	3.35		6.46
$T_{g/w}$	12.0	11.0	9.2		22.5
T_s	10.0	10.5	17.7		28.0
Ψ	missing	missing			1.1
ε					
El, Az	27.8 133.0	27.8 133.0	27.4 133.4		28.0 132.3

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (degrees); Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 3 November 1977 TIME 1400 (Local) 2100 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	21.2	21.2	25.0		24.7
T_{dp}	1.7	1.7	5.8		-4.0
W_d, W_s	230 1.8	230 1.8	180 4.0		calm
P	26.03	26.03	25.52		25.98
C	O	O	O		O
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	55.18	55.18	55.87		missing
I_a	44.56	44.56	43.38		44.13
I_d	28.75	28.75	27.95		28.39
N	102.01	102.01	96.59		95.56
N_a	77.08	77.08	74.08		72.12
N_b	71.98	71.98	68.52		66.97
N_c	57.64	57.64	56.26		55.29
N_d	50.80	50.80	49.43		46.18
i	30.29	33.95	5.27		12.69
i_a	24.95	30.41	3.90		12.47
i_d	16.49	19.45	3.35		8.23
$T_{g/w}$	missing	missing	25.8		42.1
T_s	26.1	25.5	37.0		37.0
Ψ	missing	missing			1.1
ε					
El, Az	33.1 218.7	33.1 218.7	32.4 218.5		33.4 218.7

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 3 November 1977

RADIOSONDE: (0800 MST) TTAA 5315Ø 72HMS 99877 Ø7462 ØØØØØ ØØ161 /////
///// 85514 14666 36Ø11 7Ø14Ø Ø9873 Ø3Ø12 5Ø584 Ø917Ø 32Ø25 4Ø753 2Ø569
31528 3Ø96Ø 2Ø23Ø 553// 31538 1541Ø 643// 32527 1Ø52 737// 32Ø57 88999
77999 Ø

TTBB 5315/ 72HMS ØØ877 Ø7462 11866 11866 11Ø66 2286Ø 15Ø7Ø 3385Ø 14666
44743 1Ø872 5973Ø 11571 667ØØ Ø9873 77681 Ø8375 88516 Ø8167 99427 16771
114ØØ 2Ø569 22317 32767 332ØØ 553// 44187 565// 55166 619// 66138 669//
77124 675// 881ØØ 737// 51515 1Ø186 //566 ØØ97Ø //434 16971 Ø

TTCC 53152 72HMS 7Ø861 679// 33Ø43 5ØØ67 611// Ø4Ø2Ø 3Ø285 561// 22Ø25
2Ø645 539// 28Ø31 1ØØ98 457// Ø734Ø 385// 88916 759// 32555 7794Ø 32Ø62
41416 Ø

TTDD 5315/ 72HMS 11916 759// 2275Ø 711// 33741 675// 447ØØ 679// 55631
667// 66524 6Ø1// 77398 623// 883ØØ 561// 99177 511// 11168 525// 2215Ø
479// 33134 5Ø1// 441ØØ 457// 55Ø7Ø 385// 66Ø66 395// Ø

NO ROCKETSONDE

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

ATE OF OBSERVATION 7 November 1977 TIME 0843 (Local) 1543 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	7.5	7.5	7.0		
T_{dp}	1.8	1.8	2.5		
W_d, W_s	230 6.3	230 6.3	180 6.3		
P	25.70	25.70	25.25		
C	90 ⦶	90 ⦶	100 ⦶		
M	yes	yes	yes		
T_{a25}					
T_{dp25}					
I	40.07	40.07	38.44		
I_a	31.15	31.15	31.90		
I_d	22.26	22.26	20.08		
N	91.15	91.15	91.28		
N_a	69.17	69.17	71.05		
N_b	65.95	65.95	66.62		
N_c	53.75	53.75	55.12		
N_d	47.45	47.45	48.17		
i	20.19	19.70	4.32		
i_a	17.47	18.25	3.19		
i_d	11.82	11.77	2.84		
$T_{g/w}$	9.0	9.8	12.6		
T_s	6.5	6.8	11.9		
Ψ	missing	missing			
ε					
El, Az	24.0 130.2	24.0 130.2	23.6 130.6		

EMARKS:

METSAT IV NOT OPERATED THIS DAY
MET SAT I WIND GUSTS TO 8.0 mps

LEGEND

$_a$ = Air Temperature (^oC); T_{dp} = Dew Point Temperature (^oC); W_d, W_s = Wind Direction (de
ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci
itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (^oC), Dew Point Temperature (^oC) at 25
eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (^oC); T_s = Surface Temperature (^oC); Ψ = Soil Moisture
= Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

RSEL-BL-MS 121, 28 Mar 75 (Rev.)

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

ATE OF OBSERVATION 7 November 1977 TIME 1114 (Local) 1814 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	10.3	10.3	10.4		
T_{dp}	-0.9	-0.9	1.1		
W_s	210 6.3 G 10.7	210 6.3 G 10.7	180 6.3		
P	25.70	25.70	25.23		
C	60 ① 80 ① 180 ①	60 ① 80 ① 180 - ①	100 ①		
M	yes	yes	yes		
T_{a25}					
T_{dp25}					
I	74.67	74.67	67.16		
I_a	59.13	59.13	55.08		
I_d	39.94	39.94	35.02		
N	89.81	89.81	100.76		
N_a	62.20	62.20	75.85		
N_b	61.80	61.80	70.42		
N_c	51.88	51.88	58.53		
N_d	44.77	44.77	50.95		
i	36.25	35.26	6.64		
i_a	30.13	32.27	4.85		
i_d	20.07	20.37	3.96		
$T_{g/w}$	5.9	6.0	14.0		
T_s	13.1	14.1	22.9		
ψ	missing	missing			
ϵ					
El, Az	40.5 168.9	40.5 168.9	39.8 169.2		

EMARKS:

METSAT IV NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

RSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 7 November 1977

RADIOSONDE: (0900 MST) TTAA 57161 72HMS 99867 Ø8657 18Ø13 ØØØ57 /////
///// 85424 Ø6661 18525 7Ø299 Ø4961 26Ø16 5Ø555 25165 21Ø44 4Ø716 275//
18Ø34 3Ø919 335// 2ØØ52 25Ø46 371// 2ØØ37 2Ø198 421// 22Ø47 1539Ø 521//
23543 1Ø645 625// 2ØØØ2 88318 361// 19Ø46 773Ø1 2ØØ53 41512 Ø

TTBB 5716/ 72HMS 99867 Ø8657 11857 Ø8Ø62 2285Ø Ø6661 337ØØ Ø4961 44656
Ø9558 55564 18761 66548 19167 775ØØ 25165 88472 27166 99465 25571 11456
25373 2242Ø 26773 334ØØ 275// 44337 349// 55318 361// 663ØØ 335// 77172
455// 88122 599// 991ØØ 625// 51515 10186 //316 345// Ø

TTDD 5716/ 72HMS 11843 669// 227ØØ 637// 33618 655// 445ØØ 611// 552ØØ
553// 66155 5Ø3// 77113 449// 881ØØ 463// 99088 449// Ø

NO ROCKETSONDE

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

ATE OF OBSERVATION 8 November 1977 TIME 0917 (Local) 1617 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	7.3	7.3	7.6		13.5
T_{dp}	3.0	3.0	1.6		1.8
W_s	100 3.6	100 3.6	220 3.6		330 5.1
P	25.69	25.69	25.29		25.66
C	90 ⦶	90 ⦶	210 ⦶		O
M	yes	yes	yes		yes
T_{a25}					
T_{dp25}					
I	47.02	47.02	22.66		missing
I_a	36.64	36.64	16.51		35.76
I_d	25.56	25.56	10.29		23.65
N	89.41	89.41			87.58
N_a	68.90	68.90			67.13
N_b	64.61	64.61			62.71
N_c	52.68	52.68			52.83
N_d	46.38	46.38			47.84
i	24.33	26.33	2.63		missing
i_a	20.44	24.02	2.36		missing
i_d	13.99	15.46	1.62		10.36
$T_{g/w}$	12.9	11.5	10.2		18.0
T_s	9.5	8.0	9.0		16.8
Ψ	24.0	20.4			2.4
ε					
El, Az	28.6 137.0	28.6 137.0	28.2 137.4		28.0 136.8

EMARKS:

METSAT II NO NORMAL INCOMING DUE TO CLOUDS

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci ipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%), El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 8 November 1977

RADIOSONDE: (0900 MST) TTAA 58161 72HMS 99867 Ø643Ø ØØØØØ ØØØ77 /////
///// 85418 Ø6Ø6Ø 19ØØ2 7Ø983 Ø1342 32534 5Ø561 14575 31564 4Ø725 285//
31Ø64 3Ø924 431// 3ØØ61 25Ø45 497// 32536 2Ø189 497// 29551 15378 519//
24Ø27 1Ø634 6Ø7// 21514 88222 543// 24Ø25 77339 32Ø74 41819 Ø

TTBB 5816/ 72HMS ØØ867 Ø643Ø 11856 Ø626Ø 228Ø2 Ø2Ø56 33722 ØØ149 44674
Ø3541 55657 Ø4359 66652 Ø2563 77646 Ø2777 88543 Ø9976 99411 26573 114ØØ
285// 22312 425// 33222 542// 442Ø3 521// 552ØØ 497// 6616Ø 491// 77123
6Ø1// 88112 567// 991ØØ 6Ø7// Ø

TTCC 58165 72HMS 7Ø853 653// 245Ø9 5ØØ59 6Ø9// 2Ø5Ø6 88999 77999 Ø

TTDD 5816/ 72HMS 11689 657// 22333 575// 51515 1Ø19Ø 3Ø38Ø Ø

NO ROCKETSONDE

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

ATE OF OBSERVATION 9 November 1977 TIME 1023 (Local) 1623 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	3.8	3.8	4.1		
T_{dp}	-2.9	-2.9	-5.6		
W_d, W_s	320 2.2	320 2.2	040 4.0		
P	26.27	26.27	25.71		
C	0	0	0		
M	yes	yes	yes		
T_{a25}					
T_{dp25}					
I	49.21	49.21	49.27		
I_a	38.97	38.97	41.03		
I_d	28.43	28.43	26.14		
N	98.26	98.26	98.48		
N_a	75.07	75.07	75.98		
N_b	69.84	69.84	70.16		
N_c	56.97	56.97	58.28		
N_d	50.40	50.40	50.57		
i	26.52	30.47	5.06		
i_a	21.69	27.42	3.31		
i_d	15.29	17.71	2.49		
$T_{g/w}$	missing	missing	12.0		
T_s	4.0	4.4	13.3		
Ψ	24.4	18.0			
ε					
El, Az	29.5 139.0	29.5 139.0	29.0 139.4		

EMARKS:

METSAT IV NOT OPERATED THIS RUN

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

ATE OF OBSERVATION 9 November 1977 TIME 1200 (Local) 1900 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	7.2	7.2	8.8		10.8
T_{dp}	-5.8	-5.8	-7.1		-12.7
W_d, W_s	050 1.8	050 1.8	020 1.3		calm
P	26.21	26.21	25.68		26.17
C	0	0	0		0
M	yes	yes	yes		No
T_{a25}					
T_{dp25}					
I	69.91	69.91	68.90		missing
I_a	56.28	56.28	55.59		58.35
I_d	38.55	38.55	36.02		38.60
N	106.84	106.84	103.03		101.62
N_a	80.03	80.03	78.38		75.96
N_b	75.34	75.34	72.19		71.31
N_c	61.13	61.13	59.54		58.99
N_d	54.15	54.15	51.83		50.10
i	38.56	42.76	6.12		missing
i_a	31.86	38.66	3.55		missing
i_d	21.69	25.08	3.14		15.57
$T_{g/w}$	missing	missing	15.0		26.0
T_s	12.7	15.0	16.2		29.9
Ψ	24.4	18.0			1.5
ε					
El, Az	40.6 183.4	40.6 183.4	39.9 183.5		41.0 183.3

EMARKS:

METSAT II NOT OPERATED THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 9 November 1977

RADIOSONDE: (0800 MST) TTAA 59151 72HMS 99883 Ø1863 315Ø4 ØØ226 /////
///// 85561 Ø12868 ØØ511 7ØØ9Ø Ø4374 33533 5Ø57Ø 16565 3155Ø 4Ø735 26768
32Ø68 3Ø937 417// 32Ø8Ø 35Ø58 493// 326Ø7 2Ø2Ø1 555// 32Ø87 15385 597//
26Ø24 1Ø637 643// 29536 882Ø6 571// 32Ø88 77267 326Ø7 429Ø8 Ø

TTBB 5915/ 72HMS ØØ883 Ø1863 11873 Ø2267 2285Ø Ø1268 33764 Ø6563 44727
Ø7966 55715 Ø5371 66679 Ø2775 7767Ø Ø3175 88634 Ø5172 99617 Ø4972 11474
19764 224ØØ 26768 33353 33366 442Ø6 571// 55188 523// 6615Ø 597// 77119
597// 881ØØ 643// Ø

TTCC 59151 72HMS 7Ø855 641// 25536 5ØØ63 611// 2452Ø 3Ø383 569// 185Ø5
2Ø641 541// 23Ø46 1ØØ96 473// 2ØØ3Ø Ø7334 413// 29597 Ø5564 393// /////
88999 77999 Ø

TTDD 5915/ 72HMS 11833 653// 222ØØ 541// 33138 471// 441ØØ 473// 55Ø7Ø
413// 66Ø5Ø 393// Ø

ROCKETSONDE: (1000MST) RRXX 09171 72269 81010 63101 23555 17002 25552
19001 27552 27009 30543 29007 35532 28018 40520 29019 44513 33007 45509
31011 47507 32006 50503 27022 55510 29022 58510 29029 60516 28036 62523
26046 65529 31038 66534 33033 67*** 34029 68*** 34025 70*** 35032 71***
02037

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

ATE OF OBSERVATION 10 November 1977 TIME 1133 (Local) 1833 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	10.3	10.3	13.0		14.0
T_{dp}	-5.8	-5.8	-6.5		-6.5
W_d, W_s	290 3.6	290 3.6	010 1.3		calm
P	26.25	26.25	25.58		missing
C	0	0	210 - ①		230 - ①
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	65.45	65.45	missing		missing
I_a	54.28	54.28	53.95		55.29
I_d	36.85	36.85	34.61		35.91
N	104.16	104.16	103.16		100.81
N_a	77.08	77.08	78.13		75.16
N_b	72.12	72.12	72.82		70.51
N_c	58.85	58.85	59.54		57.98
N_d	51.74	51.74	52.21		48.89
i	37.59	41.35	6.11		16.05
i_a	31.29	37.01	3.19		15.78
i_d	20.61	23.34	2.74		10.28
$T_{g/w}$	17.1	18.4	18.7		24.2
T_s	16.4	14.1	26.1		25.0
Ψ	16.6	14.2			1.2
ε					
El, Az	40.2 174.9	40.2 174.9	39.5 175.1		40.6 174.7

'EMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de; ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci ɔitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 ıeter height.

.adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

ATE OF OBSERVATION 10 November 1977 TIME 1400 (Local) 2100 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	15.0	15.0	16.1		18.0
T_{dp}	-6.1	-6.1	-6.1		-9.1
W_d, W_s	340 1.8	340 1.8	200 1.8		calm
P	missing	missing	25.74		missing
C	0	0	0		0
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	53.11	53.11	missing		missing
I_a	43.19	43.19	41.85		44.08
I_d	28.43	28.43	27.04		28.71
N	100.00	100.00	98.36		95.56
N_a	74.93	74.93	75.47		71.72
N_b	70.11	70.11	70.29		67.47
N_c	57.64	57.64	57.90		55.35
N_d	50.54	50.54	50.57		47.27
i	30.29	33.73	5.16		12.54
i_a	25.05	30.31	3.55		12.22
i_d	16.59	19.55	3.04		8.16
$T_{g/w}$	24.2	17.4	21.0		29.1
T_s	15.2	17.1	24.9		27.0
Ψ	16.6	14.2			1.2
ε					
El, Az	31.4 217.2	31.4 217.2	30.7 217.1		31.7 217.3

EMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci
pitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
meter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 10 November 1977

RADIOSONDE: (0800 MST) TTAA 60151 72HMS 99886 02059 00000 00272 /////
///// 85592 06071 36015 70170 02068 31010 50581 12969 31522 40748 25766 29525
30950 40757 29034 25071 507// 28039 20215 541// 29034 15396 623// 28534 10643
679// 29041 88110 681// 29043 77105 29043 40216 D

TTBB 6015/ 72HMS 00886 02059 11876 04468 22870 06471 33700 02068 44639 02368
55592 03175 66400 25766 77355 33156 88343 33557 99286 43757 11238 531// 22211
523// 33110 681// 44100 679// 0

TTCC 60151 72HMS 70859 679// 29010 50064 607//25007 30384 585// 31007 20641
543// 36009 10093 479// 30007 88999 77999

TTDD 6015/ 72HMS 11858 641// 22683 685// 33500 607// 44403 581// 55321609//
66164 501// 77113 503// 88100 479// 99088 461// 0

ROCKETSONDE: (0800 MST) UNUS 1 KWSD 162129 RRXX 10153 72269 81010 13101 25557
33004 30548 31009 35537 27005 39521 33014 40521 31011 42516 32006 45508 32011
46505 31009 50510 33014 42507 28007 53511 24017 54514 25020 55513 26011 57512
33012 58514 36009 59517 01009 59517 01009 60521 03017 61525 06024 65530 06018
66/// 07020

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

ATE OF OBSERVATION 16 November 1977 TIME 0915 (Local) 1615 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a					
T_{dp}	9.0	9.0	11.6		14.4
W_d	-1.5	-1.5	-2.8		-4.6
W_s	calm	calm	300 4.0		355 3.6
P	26.03	26.03	25.58		26.02
C	0	0	0		0
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	44.03	44.03	42.84		42.91
I_a	34.80	34.80	34.56		35.94
I_d	24.78	24.78	22.50		23.87
N	96.78	96.78	96.59		94.55
N_a	73.35	73.35	74.97		72.73
N_b	68.55	68.55	70.04		67.88
N_c	55.88	55.88	57.27		56.77
N_d	49.28	49.28	50.32		48.28
i	24.33	27.90	5.06		10.83
i_a	20.13	25.26	2.72		9.78
i_d	13.41	16.31	2.23		7.93
$T_{g/w}$	11.0	11.3	15.5		21.6
T_s	10.3	11.1	15.8		19.1
Ψ	21.3	17.9			0.9
ε					
El, Az	26.7 138.2	26.7 138.2	26.2 138.6		27.0 138.0

EMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci pitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

ATE OF OBSERVATION 16 November 1977 TIME 1200 (Local) 1900 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	16.7	16.7	20.0		21.5
T_{dp}	-6.6	-6.6	-2.8		-4.0
W_d, W_s	340 4.4	340 4.5	210 0.9		340 2.1
P	25.97	25.97	25.48		26.00
C	0	0	0		0
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	66.63	66.63	65.14		62.44
I_a	53.19	53.19	51.69		52.96
I_d	35.93	35.93	33.40		34.41
N	104.44	104.44	102.65		101.21
N_a	77.33	77.33	78.00		76.57
N_b	72.23	72.23	72.31		70.91
N_c	58.82	58.82	59.67		58.59
N_d	51.86	51.86	51.96		49.49
i	38.83	41.94	6.22		15.25
i_a	31.42	36.60	3.31		13.42
i_d	20.85	23.39	2.74		10.42
$T_{g/w}$	21.0	21.2	24.2		30.6
T_s	18.0	21.5	23.5		28.4
Ψ	21.3	17.9			0.9
ε					
El, Az	38.7 182.9	38.7 182.9	37.9 133.0		39.1 182.8

EMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

ATE OF OBSERVATION 16 November 1977 TIME 1318 (Local) 2018 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	19.9	19.9	19.6		22.0
T_{dp}	-5.0	-5.0	-1.5		-5.2
W_d, W_s	320 5.4	320 5.4	280 1.8		360 3.6
P	25.97	25.97	25.51		26.00
C	0	0	0		0
M	No	No	No		No
T_{a25}					
T_{dp25}					
I	59.26	59.26	59.82		56.59
I_a	47.97	47.97	46.46		48.63
I_d	31.47	31.47	30.37		31.72
N	102.92	102.92	101.39		99.39
N_a	76.55	76.55	77.12		75.35
N_b	71.74	71.74	72.06		69.90
N_c	58.47	58.47	59.67		58.18
N_d	51.65	51.65	52.34		49.09
i	35.11	37.17	5.58		14.24
i_a	28.38	33.28	3.07		11.78
i_d	18.73	21.40	2.64		9.74
$T_{g/w}$	23.0	23.1	20.5		32.5
T_s	18.0	20.5	22.7		29.6
Ψ	21.3	17.9			0.9
ε					
El, Az	34.6 205.5	34.6 205.5	33.9 205.4		35.0 205.5

EMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (d ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Prec itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE:16 November 1977

RADIOSONDE: (1000MST) TTAA 66172 72HMS 99877 15466 35Ø1Ø ØØ147 ///// /////
85518 12871 Ø15Ø6 7Ø126 Ø6Ø76 Ø4ØØ8 5Ø58Ø 1Ø172 36Ø14 4Ø748 22969 35Ø12 3Ø952
391// Ø4Ø4Ø 25Ø74 479// Ø8Ø58 2Ø218 561// Ø5Ø14 88999 77264 Ø7558 42235 Ø

TTBB 6617/ 72HMS ØØ877 15466 12856 1267Ø 2285Ø 13871 33798 1Ø27Ø 44744 Ø7274
55714 Ø6874 66635 Ø2Ø71 77578 Ø3572 8856Ø Ø4372 99524 Ø8769 11482 11572 2244Ø
16774 334ØØ 22969 44347 31168 55327 349// 66211 557// 77182 553// 88157 623//
51515 1Ø15Ø 1Ø19Ø 15399 Ø

TTDD 6617/ 72HMS 51515 1Ø155 Ø

ROCKETSONDE: UNUS 1 KWSD 211807 RRXX 16165 72269 81010 63101 23557 24006 25556
25006 30548 34002 35534 28007 37525 26014 40520 27025 45508 27030 48505 25042
50509 26044 55515 25046 56513 25048 58517 28037 60526 28045 62535 28049 63537
28045 64538 26043 65539 25058 66542 25077 67544 25087 70555 28076 72/// 29105
73/// 29106 74/// 30080

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT B

ATE OF OBSERVATION 17 November 1977 TIME 0926 (Local) 1626 (GMT

AKA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	4.1	4.1			13.3
T_{dp}	-4.8	-4.8			-5.0
W_d, W_s	030 1.8	030 1.8			calm
P	26.05	26.05			26.00
C	0	0			0
M	No	No			No
T_{a25}					
T_{dp25}					
I	46.77	46.77			43.11
I_a	36.96	36.96			36.26
I_d	26.52	26.52			23.76
N	98.26	98.26			94.75
N_a	74.26	74.26			73.13
N_b	68.90	68.90			67.68
N_c	56.70	56.70			56.77
N_d	49.73	49.73			48.28
i	26.40	29.92			11.43
i_a	22.07	26.91			10.56
i_d	14.21	16.99			8.38
$T_{g/w}$	8.2	8.5			19.4
T_s	10.0	6.5			22.0
Ψ	22.1	18.0			0.7
ε					
El, Az	27.9 140.8	27.9 140.8			28.2 140.5

EMARKS:

MET SAT II- NO OBSERVATION THIS DAY

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci
itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
er height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
= Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

ATE OF OBSERVATION 17 November 1977 TIME 1112 (Local) 1812 (GMT

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	10.1	10.1			18.3
T_{dp}	-3.7	-3.7			-6.2
W_d, W_s	180 1.8	180 1.8			070 1.0
P	26.04	26.04			26.03
C	0	0			0
M	No	No			No
T_{a25}					
T_{dp25}					
I	63.34	63.34			59.86
I_a	49.74	49.74			50.85
I_d	34.40	34.40			33.44
N	103.62	103.62			99.39
N_a	76.94	76.94			75.76
N_b	71.85	71.85			68.90
N_c	58.58	58.85			58.18
N_d	51.74	51.74			49.29
i	34.92	38.85			14.94
i_a	28.60	34.95			12.89
i_d	19.63	22.42			10.31
$T_{g/w}$	14.8	17.6			30.5
T_s	13.9	13.5			27.2
Ψ	22.1	18.0			0.7
ε					
El, Az	37.6 168.4	37.6 168.4			38.0 168.3

EMARKS:

MET SAT II - NO OBSERVATION THIS DAY

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci
ipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
= Emissivity (%); El Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

ATE OF OBSERVATION 17 November 1977 TIME 1123 (Local) 1823 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a	10.2	10.2			19.2
T_{dp}	-3.9	-3.9			-5.9
W_d, W_s	190 2.7	190 2.7			145 1.0
P	26.05	26.05			26.03
C	0	0			0
M	No	No			NO
T_{a25}					
T_{dp25}					
I	64.56	64.56			61.15
I_a	50.79	50.79			52.01
I_d	34.82	34.82			33.98
N	103.75	103.75			99.80
N_a	77.35	77.35			75.35
N_b	71.85	71.85			69.90
N_c	58.71	58.71			57.98
N_d	51.87	51.87			48.89
i	35.52	39.28			15.35
i_a	28.98	35.36			13.22
i_d	19.96	22.72			10.65
$T_{g/w}$	14.8	17.6			31.0
T_s	13.9	13.5			27.8
Ψ	22.1	18.0			0.7
ε					
El, Az	38.1 171.7	38.1 171.7			38.5 171.5

EMARKS:

MET SAT II -- NO OBSERVATION THIS DAY

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci
itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: millawatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

ATE OF OBSERVATION 17 November 1977 TIME 0904 (Local) 1604 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B	METSAT II	METSAT III	METSAT IV
T_a					10.5
T_{dp}					-7.2
W_d, W_s					080 2.1
P					26.06
C					0
M					No
T_{a25}					
T_{dp25}					
I					37.96
I_a					32.24
I_d					21.61
N					93.54
N_a					72.73
N_b					67.27
N_c					56.36
N_d					48.08
i					10.03
i_a					8.33
i_d					7.59
$T_{g/w}$					14.5
T_s					15.9
Ψ					0.7
ε					
El, Az					25.1 135.9

EMARKS:

MET SAT I - NO OBSERVATION THIS RUN
MET SAT II - NO OBSERVATION THIS DAY

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci
itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
= Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 17 November 1977

RADIOSONDE: (0800 MST) TTAA 67151 72HMS 99878 Ø6Ø64 ØØØØØ ØØ169 ///// /////
85524 12871 18ØØ2 7Ø141 Ø7Ø 75 265Ø8 5Ø578 12173 23Ø17 4Ø745 24169 27515 3Ø947
4Ø9// 3152Ø 25Ø69 487// 32527 2Ø213 555// 32518 15392 615// 29528 1Ø64Ø 673//
28537 88163 639// 29Ø26 77124 27543

TTBB 6715/ 72HMS ØØ879 Ø6Ø64 11867 Ø8866 2285Ø 12871 33837 13673 44793 12874
557ØØ Ø7Ø75 66539 Ø8375 775ØØ 12173 884ØØ 24169 99342 34765 113ØØ 4Ø9// 2225Ø
487// 332ØØ 555// 44163 639// 5515Ø 615// 661Ø7 675// 771ØØ 673// Ø

TTCC 67151 72HMS 7Ø853 7Ø3// 27525 5ØØ58 625// 28Ø21 3Ø381 565// 25524 2Ø638
553// 27Ø17 1ØØ84 485 26ØØ4 Ø7319 477// 23ØØ8 Ø5546 4Ø7// ///// 88999 77999 Ø

TTDD 6715/ 72HMS 117ØØ 7Ø3// 22553 621// 335ØØ 625// 4446Ø 585// 5538Ø 561//
66318 589// 773ØØ 565// 88228 571// 99216 541// 112ØØ 553// 2216Ø 561// 331ØØ
485// 44Ø70 477// 55Ø61 419// 66Ø5Ø 4Ø7// Ø

ROCKETSONDE: (1100 MST) RRXX 17180 72269 81010 13101 25556 26010 26558 25007
27560 24007 30551 21006 35538 24012 40522 26033 43518 26022 455;3 24024 47509
25030 50513 26049 51515 25004 53517 26055 55507 27055 56510 28054 57516 28057
58519 28073 59521 29077 60524 28052 61526 29071 62527 29077 64538 29074 65***
28068

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 21 November 1977 TIME 0929 (Local) 1629 (GMT)

PARAMETER	METSAT I-A	METSAT I-B		METSAT II	METSAT IV
T_a	9.4	9.4		9.9	15.9
T_{dp}	0.7	0.7		-1.4	0.7
W_d, W_s	calm	calm		010 2.2	120 1.5
P	26.09	26.09		25.63	missing
C	50 ⦶ 210 - ⦶	50 ⦶ 210 - ⦶		250 - ⦶	200-⦶
M	No	No		No	NO
T_{a25}					
T_{dp25}					
I	45.43	45.43		41.74	41.85
I_a	35.48	35.48		33.74	34.02
I_d	24.81	24.81		21.39	22.23
N	89.01	89.01		84.45	53.54
N_a	66.22	66.22		66.25	52.12
N_b	61.66	61.66		63.08	50.51
N_c	52.41	52.41		52.59	44.04
N_d	45.98	45.98		45.64	35.95
i	24.21	25.90		4.85	10.94
i_a	20.06	23.51		3.07	10.80
i_d	13.88	15.15		2.54	7.67
$T_{g/w}$	13.0	14.9		missing	20.0
T_s	11.8	13.5		16.9	19.2
Ψ	17.4	16.9			0.4
ε					
El, Az	27.4 141.8	27.4 141.8		26.9 142.2	22.7 141.6

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

ATE OF OBSERVATION 21 November 1977 TIME 1325 (Local) 2025 (GM

ARA-ETER	METSAT I-A	METSAT I-B		METSAT II	METSAT IV
T_a	19.8	19.8		18.2	21.7
T_{dp}	3.5	3.5		3.6	3.4
W_d, W_s	190 3.6	190 3.6		200 6.3	210 5.1
P	26.03	26.03		25.54	missing
C	210 - ⦶	210 - ⦶		200 - ⦶	80 ⦶ 200 - ⦶
M	No	No		No	NO
T_{a25}					
T_{dp25}					
I	54.81	54.81		54.95	55.20
I_a	43.51	43.51		43.18	46.51
I_d	28.12	28.12		27.35	28.54
N	60.05	60.05		95.45	87.88
N_a	MISSING	MISSING		72.69	66.46
N_b				67.38	60.81
N_c				55.12	50.30
N_d				47.91	41.82
i	31.39	32.54		5.37	14.04
i_a	26.39	29.28		4.14	13.33
i_d	17.57	18.63		3.35	9.74
$T_{g/w}$	23.0	24.0		missing	31.0
T_s	21.0	22.9		24.7	27.0
Ψ	17.4	16.9			0.4
ε					
El, Az	33.0 206.4	33.0 206.4		32.3 206.3	33.4 206.4

EMARKS:

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

RSEL-BL-MS 121, 28 Mar 75 (Rev.)

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 21 November 1977
RADIOSONDE: (0800 MST) TTAA 71151 72HMS 99879 Ø6Ø5Ø 1ØØØ5 ØØ173 /////
///// 85532 12861 18Ø19 7Ø121 Ø287Ø 24527 5Ø577 1Ø168 24514 4Ø744 23567
25Ø22 3Ø947 4Ø9// 28Ø2Ø 25Ø69 513// 27513 2Ø21Ø 633// 28518 15384 653//
27Ø2Ø 1Ø629 653// 28Ø45 88174 685// 27Ø2Ø 77114 26549 41Ø27 Ø

TTBB 7115/ 72HMS ØØ879 Ø6Ø5Ø 11869 1186Ø 22855 13Ø61 3385Ø 12861 4473Ø

Ø2256 55722 Ø2868 667ØØ Ø287Ø 77642 ØØ771 88617 12861 4473Ø Ø2256 55722
Ø2868 667ØØ Ø287Ø 77642 ØØ771 88617 Ø2761 996Ø1 Ø4163 11591 Ø5159 22560
Ø7159 33535 Ø816Ø 445Ø6 1Ø965 555ØØ 1Ø168 664ØØ23567 7738Ø 25569 88323
36366 99184 675// 11174 685// 22163 641// 33114 689// 441ØØ 653// Ø

TTCC 7115 72HMS 7Ø848 635// 27Ø39 5ØØ58 587// 27514 88999 77999 Ø

TTDD 7115/ 72HMS 11873 623// 22753 645// 33618 611// 44568 569// 555ØØ
587// 66448 6Ø1// 774Ø3// 577// Ø

ROCKETSONDE: (0930 MST) 25564 30010 30557 25005 35546 28015 37537 26029
38530 26036 40529 26033 45516 25031 48508 26035 50509 27030 52509 27030
55519 26035 57518 27036 58518 28033 60/// 25031 62/// 26034 65/// 27024
66/// 28026

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

ATE OF OBSERVATION 23 November 1977 TIME 0850 (Local) 1550 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B		METSAT II	METSAT IV
T_a	4.5	4.5		10.8	10.1
T_{dp}	-3.7	-3.7		-3.7	-7.5
W_d, W_s	calm	calm		060 1.8	calm
P	26.03	26.03		25.59	26.03
C	180 ◐210 -◐	180 ◐210 ◐		130 ◐230-⊕	280- ◐
M	No	No		No	No
T_{a25}					
T_{dp25}					
I	49.94	49.94		27.52	missing
I_a	40.13	40.13		21.38	25.58
I_d	28.33	28.33		15.04	18.39
N	87.00	87.00		23.39	81.82
N_a	66.76	66.76		24.65	64.65
N_b	64.34	64.34		17.70	59.39
N_c	54.29	54.29		14.92	49.29
N_d	46.92	46.92			34.75
i	27.13	31.12		4.00	9.23
i_a	23.80	28.56		3.78	8.92
i_d	16.59	17.81		2.84	7.27
$T_{g/w}$	5.2	7.2		8.0	12.8
T_s	6.0	7.7		10.2	12.5
Ψ	missing	missing		missing	missing
ε					
El, Az	21.5 133.9	21.5 133.9		21.1 134.2	21.7 133.7

EMARKS:

METSAT II CLOUDS INTERFERING WITH READING FROM NORMAL INCOMING

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de nd Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

ATE OF OBSERVATION 23 November 1977 TIME 1107 (Local) 1807 (GMT

ARA-ETER	METSAT I-A	METSAT I-B		METSAT II	METSAT IV
T_a	11.1	11.1		16.7	12.0
T_{dp}	-4.5	-4.5		-3.6	0.9
W_d, W_s	160 3.6	160 3.6		180 3.6	calm
P	26.03	26.03		25.52	26.00
C	250 - ◐	250 - ◐		230 ◐	270 ◐
M	No	No		No	No
T_{a25}					
T_{dp25}					
I	63.09	63.09		48.26	missing
I_a	49.84	49.84		27.90	28.01
I_d	33.97	33.97		16.15	16.99
N	104.56	104.56		60.56	missing
N_a	80.03	80.03		50.06	missing
N_b	73.99	73.99		43.87	missing
N_c	61.93	61.93		35.15	missing
N_d	53.35	53.35		33.88	missing
i	35.04	37.54		3.79	8.43
i_a	29.65	33.92		3.66	7.49
i_d	19.96	21.70		2.64	6.06
$T_{g/w}$	13.3	18.0		22.9	23.2
T_s	14.7	17.6		21.3	23.4
Ψ	missing	missing		missing	missing
ε					
El, Az	36.0 166.9	36.0 166.9		35.3 167.1	36.4 166.7

EMARKS:

METSAT IV NO NORMAL INCOMING DUE TO CLOUDS

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci ipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NCON RUN

ATE OF OBSERVATION 23 November 1977 TIME 1200 (Local) 1900 (GMT)

ARA-ETER	METSAT I-A	METSAT I-B		METSAT II	METSAT IV
T_a	15.3	15.3		18.8	21.0
T_{dp}	-2.4	-2.4		-3.7	-6.5
d_p, W_s	170 4.5	170 4.5		180 54	calm
P	25.97	25.97		25.48	25.94
C	250 - ◐	250 - ◐		230 - ◐	250 - ◐
M	No	No		No	No
T_{a25}					
T_{dp25}					
I	67.24	67.24		63.76	51.34
I_a	53.33	53.33		50.72	45.14
I_d	36.00	36.00		33.00	34.95
N	103.75	103.75		101.52	97.37
N_a	82.44	82.44		81.92	76.77
N_b	67.96	67.96		71.30	69.90
N_c	56.97	56.97		60.30	58.18
N_d	51.47	51.47		52.47	49.49
i	37.96	39.06		6.32	16.35
i_a	31.96	35.15		4.96	14.87
i_d	21.26	22.52		3.85	11.15
$T_{g/w}$	22.2	21.0		28.0	missing
T_s	19.0	18.0		26.5	missing
Ψ	missing	missing			missing
ε					
El, Az	37.1 182.3	37.1 182.3		36.3 182.4	37.5 182.2

EMARKS:

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci
itation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
= Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 23 November1977

ROCKETSONDE: UNUS 1 KWSD 282048 RRXX 23181 72269 81010 63101 25556 26006
30552 25006 35533 26022 40525 27039 42513 27044 45504 26038 46000 25033
48502 24030 50505 26039 51507 27042 55508 26020 56506 25022 57509 24019
58515 22023 60511 23045 65530 33024 66538 330024 66538 33021 67546 32024
68550 31032 70556 34036 71/// 35033 72/// 00039 73/// 00052

NO RADIOSONDE:

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

ATE OF OBSERVATION 25 November 1977 TIME 0841 (Local) 1541 (GMT

ARA-ETER	METSAT I-A	METSAT I-B		METSAT II	METSAT IV
T_a	4.0	4.0		13.0	9.5
T_{dp}	-1.5	-1.5		0.3	-8.5
W_d	calm	calm		050	140
W_s	26.17	26.17		5.4	2.1
P				25.68	26.13
C	200 - ◐	200 - ◐		210 - ◐	200 - ⊕
M	No	No		No	No
T_{a25}					
T_{dp25}					
I	30.94	30.94		30.55	29.17
I_a	24.29	24.29		25.12	22.41
I_d	16.93	16.93		16.55	14.62
N	89.41	89.41		88.70	51.72
N_a	70.51	70.51		70.69	35.96
N_b	65.68	65.68		65.77	37.37
N_c	54.69	54.69		54.36	31.52
N_d	46.92	46.92		46.76	25.25
i	17.88	19.80		4.74	7.22
i_a	15.45	18.04		4.37	6.97
i_d	10.52	11.26		3.45	5.45
$T_{g/w}$	7.2	7.1		missing	12.1
T_s	4.5	3.3		10.0	11.5
Ψ	16.3	14.1			2.2
ε					
El, Az	19.7 132.4	19.7 132.4		19.3 132.7	19.9 132.2

EMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de ind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Preci ipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 eter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

ATE OF OBSERVATION 25 November 1977 TIME 1110 (Local) 1810 (GMT

ARA-ETER	METSAT I-A	METSAT I-B		METSAT II	METSAT IV
T_a	15.0	15.0		1[illegible].6	17.9
T_{dp}	-1.3	-1.3		0.4	-4.1
W_d, W_s	270 3.6	270 3.6		360 4.5	280 2.6
P	26.17	26.17		25.68	26.12
C	0	0		210-⦶	0
T_{a25}	No	No		No	No
T_{dp25}					
I	59.32	59.32		60.18	60.57
I_a	46.99	46.99		48.07	49.68
I_d	31.74	31.74		31.99	32.26
N	102.55	102.55		101.23	96.77
N_a	77.75	77.75		77.74	72.73
N_b	72.25	72.25		72.15	67.07
N_c	59.79	59.79		59.06	55.35
N_d	51.21	51.21		50.22	45.86
i	34.43	35.69		6.64	15.35
i_a	28.89	31.96		5.44	14.05
i_d	19.09	20.06		4.36	10.55
$T_{g/w}$	20.3	20.0		missing	27.2
T_s	21.8	20.0		24.1	26.4
Ψ	16.3	14.1			2.2
ε					
El, Az	35.7 167.7	35.7 167.7		35.0 167.9	36.1 167.5

EMARKS:

LEGEND

$_a$ = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (de
ind Speed (m/s); P = Station Pressure (in Hg); C = Sky Condition (symbolic); M = Preci
ipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25
eter height.

adiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Global Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG69
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(milliwatts per square centimeter [mW cm^{-2}])

$_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture
= Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 25 November 1977

RADIOSONDE: TTAA 75151 72HMS 99880 08062 33006 00175 ///// ///// 85544 13670
32029 70154 07266 31529 50584 10174 33021 40752 21571 34036 30957 395// 33031
27079 4859// 330382 0223 571// 32579 15402 641// 10646 719// 32028 88999 77178
32583 43616

TTBB 7515/ 72HMS 00880 08062 11870 12069 22865 14070 33855 14471 44850 13670
55784 09665 66707 06465 77700 07266 88640 04069 99552 03173 11534 05775 22500
10174 33487 11572 44464 13369 55400 21571 66345 30169 77300 395// 88250 489//
99230 529// 11205 5733/ 22200 571// 33179 605// 641// 55135 673// 66125625//
77188 659// 88100 719// 44150

TTCC 75155 72HMS 70854 711// 32020 50057 677// 32008 88878 745// 32033 77999

TTDD 7515/ 72HMS 11878 745// 22758 755// 33728 749// 44700 711// 55688 659//
66648 649// 77513 687// 88500 677// 99481 675// 11455 647// 22418 419//

ROCKETSONDE: UNUS 1KWSD 282121 RRXX 25181 72269 81010 13101 25555 28007 30552
25017 31543 25020 35533 27036 36527 27041 39524 26062 40522 26061 45506 27051
49003 27059 50005 29056 52009 29048 55005 30031 56003 29022 58505 22023 60513
23021 61519 20030 62518 21014 63520 33014 64525 01014 65530 02020 66536 02020
67542 01021 68549 36020 69/// 33030

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

DATE OF OBSERVATION 29 November 1977 TIME 0836 (Local) 1536 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	6.9	6.9	6.3	8.8	
T_{dp}	-0.1	-0.1	-2.3	0.8	
W_d, W_s	350 8.0	350 8.0	030 4.5	360 4.6	
P	26.20	26.20	25.75	26.18	
C	0	0	0	0	
M	No	No	No	yes	
T_{a25}					
T_{dp25}					
I	27.65	27.65	26.79	26.64	
I_a	21.86	21.86	22.58	22.73	
I_d	15.23	15.23	14.13	15.38	
N	81.77	81.77	83.67	78.59	
N_a	64.75	64.75	67.45	62.83	
N_b	59.92	59.92	63.42	58.59	
N_c	50.94	50.94	52.91	49.70	
N_d	44.10	44.10	45.64	42.02	
i	16.18	18.39	3.79	6.72	
i_a	14.11	16.80	2.84	6.62	
i_d	9.44	11.39	2.33	5.09	
$T_{g/w}$	6.2	8.0	8.8	9.1	
T_s	3.0	3.5	7.5	9.7	
Ψ	20.0	17.5		1.8	
ε					
El, Az	18.2 131.8	18.2 131.8	17.8 132.1	18.4 131.6	

REMARKS.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 29 November 1977 TIME 0930 (Local) 1630 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	8.2	8.2	6.4	10.5	
T_{dp}	-0.7	-0.7	1.1	-1.1	
W_d, W_s	350 7.6	350 7.6	060 4.5	360 6.7	
P	26.21	26.21	25.76	26.18	
C	0	0	0	0	
M	No	NO	No	yes	
T_{a25}					
T_{dp25}					
I	42.75	42.75	41.19	42.41	
I_a	32.84	32.84	34.30	34.78	
I_d	23.11	23.11	21.70	23.01	
N	93.16	93.16	92.84	86.67	
N_a	71.31	71.31	73.15	67.27	
N_b	65.68	65.68	68.23	62.63	
N_c	55.63	55.63	56.82	52.53	
N_d	47.86	47.86	49.11	44.04	
i	23.48	27.75	5.06	10.23	
i_a	20.06	25.05	3.78	9.89	
i_d	13.45	16.92	2.94	7.52	
$T_{g/w}$	10.0	11.5	missing	14.7	
T_s	7.8	10.3	14.3	17.1	
Ψ	20.0	17.5		1.8	
ε					
El, Az	25.9 142.5	25.9 142.5	25.4 142.8	26.2 142.3	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 29 November 1977 TIME 1103 (Local) 1803 (GMT)

PARAMETER	METSAT [illegible]	METSAT I-B	METSAT II	METSAT IV	
T_a	10.9	10.9	11.5	12.5	
T_{dp}	-2.1	-2.1	-2.6	-1.7	
W_d, W_s	340 6.3	340 6.3	040 3.6	360 3.6	
P	26.22	26.22	25.72	26.17	
C	0	0	0	0	
M	No	No	No	No	
T_{a25}					
T_{dp25}					
I	59.20	59.20	57.71	59.23	
I_a	47.10	47.10	46.62	49.37	
I_d	32.06	32.06	30.27	32.58	
N	100.13	100.13	100.22	93.74	
N_a	75.20	75.20	77.29	71.11	
N_b	69.17	69.17	71.48	66.06	
N_c	58.18	58.18	58.39	54.95	
N_d	50.27	50.27	49.78	45.86	
i	33.21	36.67	6.01	13.84	
i_a	27.93	32.89	4.26	13.25	
i_d	18.55	22.23	3.45	9.81	
$T_{g/w}$	16.9	15.9	missing	23.0	
T_s	16.0	16.8	21.2	21.6	
Ψ	20.0	17.5			
ε					
El, Az	34.6 165.5	34.6 165.5	33.9 165.8	34.9 165.3	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 29 November 1977

RADIOSONDE: TTAA 79151 72HMS 99882 Ø2Ø35 Ø9ØØ6 ØØ212 ///// ///// 85559
Ø7262 Ø85Ø9 7Ø125 Ø5158 Ø2Ø11 5Ø568 21374 Ø1Ø28 4Ø73Ø 287// Ø2075 3Ø931
421// Ø1588 25Ø52 495// Ø1582 2Ø197 555// 36Ø73 15382 547// 35539 1Ø636
593// 32Ø22 88189 577// 35Ø58 77277 Ø16Ø7 41Ø28 Ø

TTBB 7915/ 72HMS ØØ882 Ø2Ø35 11872 Ø5861 22861 Ø7262 33859 Ø7662 4485Ø
Ø7262 557ØØ Ø5158 6668Ø Ø6957 77633 1Ø161 88541 2Ø162 99525 2Ø571 115ØØ
21374 22434 26773 334Ø7 277// 444ØØ 287// 55374 311// 66319 395// 77313
395// 8829Ø 439// 9925Ø 495// 11243 477// 22219 529// 33215 517// 44189
577// 5518Ø 575// 66175 5Ø5// 77129 6Ø5// 88110 589// 991ØØ 593// Ø

TTCC 79151 72HMS 7ØØ58 627// 33Ø12 5ØØ66 611// 34514 3Ø388 533// 24Ø16
2Ø647 545// 25524 1ØØ99 467// 2652Ø 88999 77999 Ø

TTDD 7915/ 72HMS 11863 621// 22773 593// 33648 653// 44553 6Ø7// 555ØØ
611// 66323 557// 773ØØ 533// 88225 559// 99153 5Ø7// 11133 517// 221ØØ
467// 31Ø83 451// 51515 1Ø19Ø Ø7337 Ø

ROCKETSONDE:(1000 MST) RRXX 29170 72269 81010 13101 24556 25012 25548 25014
30552 28021 35544 27038 37535 27048 40534 27061 41532 28064 45509 28078
50508 27088 52502 26084 53000 26078 55508 28073 56512 28060 57517 28059
59516 28051 60/// 28048

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 30 November 1977 TIME 1115 (Local) 1815 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	11.0	11.0	13.2	14.7	
T_{dp}	-6.2	-6.2	-3.2	-4.1	
W_d, W_s	330 3.1	330 3.1	240 2.2	350 3.6	
P	25.90	25.90	25.43	25.89	
C	250 - ◐	250 - ◐	250 - ◐	0	
M	No	No	No	No	
T_{a25}					
T_{dp25}					
I	60.68	60.68	59.17	55.65	
I_a	48.33	48.33	46.74	46.09	
I_d	32.84	32.84	30.98	30.54	
N	104.81	104.81	101.57	98.59	
N_a	79.10	79.10	78.47	75.15	
N_b	73.23	73.23	72.60	69.09	
N_c	61.34	61.34	59.51	57.78	
N_d	53.16	53.16	51.01	48.28	
i	33.45	36.91	6.32	13.94	
i_a	28.09	33.21	5.08	13.16	
i_d	18.49	21.37	3.96	9.82	
$T_{g/w}$	16.2	17.0	18.6	28.0	
T_s	16.0	15.0	19.8	missing	
Ψ	19.0	17.4		1.1	
ε					
El, Az	34.9 168.8	34.9 168.8	34.2 169.0	35.3 168.6	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 30 November 1977 TIME 1200 (Local) 1900 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	13.0	13.0	13.2	15.2	
T_{dp}	-4.5	-4.5	-1.5	-6.1	
W_d, W_s	310 4.9	310 4.9	330 6.3	310 7.2	
P	25.90	25.90	25.42	25.85	
C	250 - ⦶	250 - ⦶	250 - ⦶	0	
M	No	No	No	No	
T_{a25}					
T_{dp25}					
I	62.67	62.67	60.83	58.18	
I_a	49.24	49.24	48.07	48.52	
I_d	33.17	33.17	31.48	31.72	
N	104.57	104.57	101.23	98.99	
N_a	78.95	78.95	77.85	75.35	
N_b	72.92	72.92	72.26	69.29	
N_c	61.13	61.13	59.17	57.78	
N_d	52.98	52.98	50.56	48.28	
i	37.74	37.99	6.11	15.05	
i_a	29.73	34.08	4.96	k4.25	
i_d	18.63	21.88	3.96	10.67	
$T_{g/w}$	18.4	19.5	17.9	24.5	
T_s	17.5	18.6	20.4	25.5	
Ψ	19.0	17.4		1.1	
ε					
El, Az	35.7 181.6	35.7 181.6	35.0 181.7	36.1 181.5	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 30 November 1977 TIME 1358 (Local) 2058 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	10.3	10.3	14.7	17.1	
T_{dp}	0.4	0.4	-6.8	-9.2	
W_d, W_s	320 8.0	320 8.0	330 6.7	300 8.2	
P	25.90	25.90	25.42	25.84	
C	250 - ⦶	250 - ⦶	190 ⦶ 250 - ⦶	0	
M	No	No	NO	No	
T_{a25}					
T_{dp25}					
I	47.11	47.11	48.62	44.79	
I_a	39.45	39.45	37.20	37.10	
I_d	25.69	25.69	25.13	24.19	
N	95.58	95.58	95.64	93.94	
N_a	71.31	71.31	71.61	71.92	
N_b	68.36	68.36	69.24	66.46	
N_c	57.99	57.99	56.94	55.15	
N_d	49.14	49.14	48.77	46.26	
i	28.43	31.27	5.48	12.44	
i_a	23.67	27.52	4.26	11.71	
i_d	15.64	17.46	3.45	8.85	
$T_{g/w}$	15.1	15.2	18.7	22.6	
T_s	15.2	17.5	19.3	missing	
Ψ	19.0	17.4		1.1	
ε					
El, Az	28.2 212.8	28.2 212.8	27.6 212.8	27.6 212.9	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 30 November 1977

RADIOSONDE: (0800 MST) TTAA 8Ø151 72HMS 99873 Ø2857 Ø1ØØ1 ØØ115 ///// /////
85479 Ø6866 36Ø1Ø 7ØØ47 Ø2561 33Ø28 5Ø565 15963 31Ø35 4Ø731 24769 33Ø83 3Ø933
415// 33592 25Ø54 517// 32Ø99 2Ø197 537// 33Ø46 15379 6Ø5// 3ØØ41 1Ø633 6Ø7//
///// 88226 569// 32119 7722Ø 32119 42776

TTBB 8Ø15/ 72HMS ØØ873 Ø2857 11863 Ø7Ø66 22823 Ø6Ø66 3372Ø Ø3261 44641 Ø5165
55548 12761 66456 1897Ø 774ØØ 24769 88355 32567 9922 [illegible]9// 112ØØ 537// 2215Ø
6Ø5// 33117 6Ø1// 441Ø9 567// 551ØØ 6Ø7//

TTCC 8Ø151 72HMS 7Ø853 621// ///// 5ØØ61 621// ///// 3Ø383 573// ///// 2Ø34Ø
553// ///// 1ØØ85 521// 29545 Ø7316 521// 29562 88999 77999

TTDD 8Ø15/ 72HMS 11958 633// 225ØØ 621// 33423 575// 441ØØ 521// 55Ø64 511//

ROCKETSONDE: (1200 MST) UNUS 1 KWSD 022045 RRXX 30195 72269 81010 13101 23///
24012 25/// 26013 28549 31015 30548 28014 33544 29022 35534 29033 40522 27047
45508 27062 48507 26081 50001 26092 51501 26083 53009 25088 54014 25080 55011
25081 59505 26088 60509 25083 61514 25075 65533 24076 66/// 25070 67/// 26070
70/// 27096 72/// 31102

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 5 December 1977 TIME 1058 (Local) 1758 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	16.7	16.7	18.8	21.1	
T_{dp}	-0.6	-0.6	-0.6	-4.5	
W_d, W_s	c alm	calm	020 5.4	040 4.1	
P	25.90	25.90	25.46	25.89	
C	O	O	O	O	
M	No	No	No	No	
T_{a25}					
T_{dp25}					
I	56.15	56.15	56.29	54.61	
I_a	44.77	44.77	44.44	44.82	
I_d	30.67	30.67	29.16	29.25	
N	103.22	103.22	98.99	100.52	
N_a	77.75	77.75	75.84	76.23	
N_b	72.25	72.25	70.36	70.37	
N_c	59.12	59.12	57.16	57.80	
N_d	51.07	51.07	48.55	48.17	
i	31.75	34.49	6.22	14.74	
i_a	26.68	30.82	5.08	13.97	
i_d	17.57	19.75	3.96	10.18	
$T_{g/w}$	23.4	24.0	25.4	28.9	
T_s	17.0	19.5	21.0	28.8	
Ψ	12.6	9.3		missing	
ε					
El, Az	33.3 163.8	33.3 163.8	32.6 164.1	33.6 163.6	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI

DATE OF OBSERVATION 5 December 1977 TIME 1115 (Local) 1815 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	16.7	16.7	19.2	21.6	
T_{dp}	-0.6	-0.6	-0.6	-4.0	
W_d, W_s	310 2.2	310 2.2	010 4.9	330 5.1	
P	25.90	25.90	25.45	25.88	
C	O	O	O	O	
M	NO	NO	NO	NO	
T_{a25}					
T_{dp25}					
I	57.86	57.86	57.73	56.10	
I_a	46.04	46.04	45.65	46.09	
I_d	31.20	31.20	30.07	30.11	
N	103.89	103.89	100.00	100.11	
N_a	78.28	78.28	76.62	75.81	
N_b	72.52	72.52	70.92	69.74	
N_c	59.38	59.38	57.94	57 38	
N_d	51.34	51.34	49.22	47.96	
i	32.60	35.26	6.22	15.25	
i_a	27.35	31.44	4.96	14.34	
i_d	18.00	20.06	3.96	10.55	
$T_{g/w}$	23.4	24.1	24.0	28.9	
T_s	18.2	20.7	27.6	28.8	
Ψ	12.6	9.3	27.6	missing	
ϵ					
El, Az	34.1 168.4	34.1 168.4	33.4 168.7	34.5 168.3	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ϵ = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 5 December 1977

RADIOSONDE: (100MST) TTAA 5517Ø 72HMS 99873 19Ø7Ø 36Ø1Ø ØØØ8Ø ///// /////
8548Ø 15669 36Ø16 7ØØ88 Ø4767 31537 5Ø576 11167 3ØØ39 4Ø744 22567 31558 3Ø949
387// 31Ø5Ø 25Ø72 475// 3258Ø 2Ø216 577// 32115 15394 631// 32108 1Ø64Ø 667//
3Ø549 88156 655// 32646 77174 32656 4151Ø Ø

TTBB 5517/ 72HMS ØØ873 19Ø7Ø 1185Ø 15669 22733 Ø4866 337ØØ Ø4667 44679 Ø6471
55458 15966 66438 17168 774ØØ 22567 88372 25567 99316 11298 393// 222ØØ 577//
33175 627// 44156 633// 5515Ø 631// 66138 625// 77116 693// 881ØØ 665// Ø

TTCC 55177 72HMS 7Ø855 633// 2ØØØ3 5ØØ52 611// ///// 88999 77999 Ø

TTDD 5517/ 72HMS 11783 715// 227ØØ 633// 336Ø3 639// 445ØØ 611// Ø

ROCKETSONDE: (1115 MST) RRXX 05182 72269 81010 13101 25560 09006 30551 22011
35537 23032 37528 25035 40518 25054 45502 27057 47005 27061 48007 28067 49003
28072 50501 28067 53506 27062 55516 28068 57514 28071 60530 29070 62534 29082
63535 29087 64538 30092 65544 30079 66*** 29063 ***** *****

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA IV

DATE OF OBSERVATION 6 December 1977 TIME 0914 (Local) 1614 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	5.0	5.0	6.3	7.3	
T_{dp}	-0.4	-0.4	-3.0	-0.5	
W_d, W_s	170 1.8	170 1.8	180 3.6	calm	
P	26.17	26.17	25.72	26.18	
C	O	O	O	O	
M	No	No	No	No	
T_{a25}					
T_{dp25}					
I	35.81	35.81	36.23	33.78	
I_a	27.77	27.77	30.68	28.86	
I_d	20.87	20.87	19.68	19.35	
N	92.09	92.09	92.73	87.96	
N_a	71.45	71.45	73.49	69.11	
N_b	66.76	66.76	69.02	63.88	
N_c	56.17	56.17	57.05	53.62	
N_d	48.79	48.79	49.22	45.23	
i	21.17	24.16	4.85	9.63	
i_a	18.14	22.16	3.55	9.44	
i_d	12.47	15.29	2.84	7.27	
$T_{g/w}$	7.1	8.2	8.0	12.4	
T_s	6.3	6.0	8.4	13.7	
Ψ	18.3	14.4		0.1	
ε					
El, Az	22.6 139.3	22.6 139.3	22.1 139.6	22.8 139.1	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT B

DATE OF OBSERVATION 6 December 1977 TIME 0930 (Local) 1630 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	6.0	6.0	7.1	8.5	
T_{dp}	-0.5	-0.5	-2.5	-1.1	
W_d	170	170	170	calm	
W_s	1.8	1.8	4.0		
P	26.17	26.17	25.72	26.18	
C	O	O	O	O	
M	No	No	No	No	
T_{a25}					
T_{dp25}					
I	39.83	39.83	40.12	37.50	
I_a	31.15	31.15	33.70	31.71	
I_d	22.26	22.26	21.70	21.29	
N	94.37	94.37	94.74	90.05	
N_a	73.06	73.06	74.83	70.16	
N_b	68.36	68.36	69.91	65.13	
N_c	56.97	56.97	57.83	54.66	
N_d	49.46	49.46	49.78	45.65	
i	22.87	26.44	5.16	10.63	
i_a	19.67	24.02	3.78	10.34	
i_d	13.45	16.49	3.04	7.88	
$T_{g/w}$	7.2	9.0	10.0	12.4	
T_s	6.5	6.2	13.7	13.7	
Ψ	18.3	14.4		0.1	
ϵ					
El, Az	24.7 142.6	24.7 142.6	24.2 142.9	25.0 142.4	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.). Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ϵ = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 6 December 1977

RADIOSONDE: (0800 MST) TTAA 56151 72HMS 99882 Ø3257 19ØØ8 ØØ21Ø ///// /////
85555 Ø6461 19Ø21 7Ø139 Ø4268 34523 5Ø58Ø 13165 31528 4Ø746 25363 3Ø543 3Ø949
3956Ø 3ØØ57 25Ø72 465// 29Ø74 2Ø218 525// 2957Ø 15399 623// 3ØØ67 1Ø643 715//
3Ø551 881ØØ 715// 3Ø551 77173 29Ø81 41216

TTBB 5615/ 72HMS ØØ882 Ø3257 11861 Ø2457 22858 Ø646Ø 33828 Ø5463 44814 Ø6864
55726 Ø3Ø66 667ØØ Ø4268 77687 Ø4668 884ØØ

25363 993Ø8 3916Ø 113ØØ 3956Ø 22240 477// 33179 575// 44171 567// 5515Ø 623//
661ØØ 715//

TTCC 56157 72HMS 7Ø854 721// 31Ø26 5ØØ56 611// 88999 77999

TTDD 5615/ 72HMS 117ØØ 721// 22595 715// 33558 613// 445ØØ
011//

ROCKETSONDE:(0930 MST) RRXX 06163 72269 81010 13101 24559 21002 25355 15001
30551 22011 31552 23013 35539 24029 40522 26054 41520 26066 42517 26071 45507
27067 47502 28078 48500 28084 49504 28082 50501 28082 51002 28085 52501 29088
55509 30078 60527 29075 63*** 30889

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 7 December 1977 TIME 0920 (Local) 1620 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	1.0	1.0	9.5	5.8	
T_{dp}	-2.3	-2.3	-3.7	-4.0	
W_d	calm	calm	calm	calm	
W_s					
P	25.97	25.97	25.48	25.93	
C	○	○	○	○	
M	No	No	No	No	
T_{a25}					
T_{dp25}					
I	37.15	37.15	36.34	39.43	
I_a	28.83	28.83	30.80	33.30	
I_d	21.73	21.73	19.78	22.90	
N	92.76	92.76	92.06	91.94	
N_a	72.12	72.12	72.71	71.41	
N_b	67.29	67.29	68.12	66.80	
N_c	56.30	56.30	56.26	55.71	
N_d	48.93	48.93	48.77	46.70	
i	21.41	24.70	missing	10.73	
i_a	18.43	22.68	3.07	10.25	
i_d	12.80	15.62	2.54	7.76	
$T_{g/w}$	1.3	3.0	14.2	12.7	
T_s	5.0	1.0	15.0	11.2	
Ψ	17.7	16.8		1.1	
ε					
El, Az	23.2 140.5	23.2 140.5	22.7 140.8	23.5 140.3	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 7 December 1977 TIME 1300 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	9.0	9.0	13.8	16.0	
T_{dp}	-1.7	-1.7	-3.2	-2.5	
W_d, W_s	calm	calm	210 3.6	-2.5	
P	25.90	25.90	25.33	25.87	
C					
M	No	No	No	No	
T_{a25}					
T_{dp25}					
I	60.41	60.41	59.47	61.01	
I_a	47.73	47.73	46.86	50.53	
I_d	32.48	32.48	30.88	33.66	
N	102.95	102.95	99.10	99.48	
N_a	77.88	77.88	76.51	76.02	
N_b	72.52	72.52	71.36	70.37	
N_c	60.19	60.19	58.05	58.64	
N_d	52.28	52.28	50.00	49.21	
i	33.58	37.54	missing	15.35	
i_a	28.60	33.92	5.32	14.61	
i_d	19.09	23.10	3.96	10.55	
$T_{g/w}$	16.2	16.1	17.9	22.7	
T_s	17.4	18.0	19.6	25.5	
Ψ	17.7	16.8		1.1	
ε					
El, Az	34.7 180.8	34.7 180.8	35.1 180.7	35.1 180.7	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.). Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 7 December 1977 TIME 1432 (Local) 2032 (GMT)

PARA-METER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	11.5	11.5	15.5	21.0	
T_{dp}	-1.6	-1.6	-2.5	-5.0	
W_d, W_s	calm	calm	180 3.1	calm	
P	25.90	25.90	25.28	25.80	
C	○	○	○	○	
M	No	No	No	No	
T_{a25}					
T_{dp25}					
I	55.54	55.54	52.20	51.19	
I_a	44.24	44.24	40.10	42.92	
I_d	30.03	30.03	27.25	28.39	
N	101.21	101.21	96.09	98.22	
N_a	77.08	77.08	74.94	75.60	
N_b	71.45	71.45	69.91	69.53	
N_c	59.38	59.38	57.16	58.22	
N_d	51.47	51.47	49.33	48.38	
i	31.75	34.93	missing	13.14	
i_a	26.87	31.65	4.73	12.43	
i_d	17.90	21.69	3.85	9.21	
$T_{g/w}$	17.1	18.0	20.4	29.9	
T_s	17.8	18.3	23.5	29.0	
Ψ	17.7	16.8		1.1	
ε					
El, Az	30.3 205.5	30.3 205.5	29.6 205.4	30.7 205.5	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.). Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 7 December 1977

RADIOSONDE: (0800 MST) TTAA 57151 72HMS 99874 ØØ356 ØØØØØ ØØ153 ///// /////
85483 Ø586Ø 17ØØ6 7ØØ9Ø Ø7476 31521 5Ø577 11964 3ØØ36 4Ø745 23767 31Ø39 3Ø948
4Ø7// 32Ø42 25Ø69 497// 31Ø43 2Ø214 549// 28559 15394 623// 28574 1Ø642 669//
29Ø66 88116 657// 3ØØ66 77163 28587 4Ø5Ø3

TTBB 5715/ 72HMS ØØ874 ØØ356 11863 Ø386Ø 22818 Ø9267 33798 Ø8869 44776 Ø9674
55718 Ø9Ø76 66644 Ø3Ø65 776Ø7 ØØ567 88558 Ø3767 995ØØ 11964 11491 1Ø57Ø 224ØØ
23767 33334 34467 44251 5Ø3// 552Ø9 549// 6615Ø 623// 77132 625// 88116 657//
991ØØ 669//

TTCC 57151 72HMS 7Ø856 717// 3ØØ1Ø 5ØØ6Ø 619// 3Ø519 3Ø8Ø 567// 28Ø14 2Ø639
543// 28ØØ7 1ØØ87 495// 265Ø2 88999 77999

TTDD 5715/ 72HMS 11883 653// 22763 717// 33663 741// 446Ø3 645// 553ØØ 567//
66273 581// 77248 545// 8816Ø 515// 99113 535// 111ØØ 495// 22Ø78 5Ø5// 51515
1Ø19Ø Ø732Ø

ROCKETSONDE: (0940 MST) RRXX 07164 72269 81010 63101 25549 11002 30545 22011
33535 25021 35533 26027 40513 27050 43509 28060 45502 28052 47006 28068 48010
28067 50005 28082 51009 28075 52006 29068 55505 30060 58510 28051 60520 28051
62523 29053 64535 29052 65*** 29055 68*** 30082 ***** *****

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

DATE OF OBSERVATION 12 December 1977 TIME 0834 (Local) 1534 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a			5.9	4.1	
T_{dp}			-8.2	-9.3	
W_d, W_s			010 0.4	CALM	
P			25.52	25.95	
C			O	O	
T_{a25}			No	No	
T_{dp25}					
I			23.13	29.17	
I_a			18.36	25.48	
I_d			13.52	17.63	
N			80.65	81.25	
N_a			65.21	64.93	
N_b			61.52	60.31	
N_c			51.12	50.89	
N_d			44.30	43.56	
i			3.58	9.02	
i_a			2.36	6.99	
i_d			2.03	5.33	
$T_{g/w}$			5.1	7.2	
T_s			5.0	4.1	
Ψ				0.9	
ε					
El, Az			15.4 131.9	16.0 131.5	

REMARKS: METSAT I NOT OPERATED THIS OBSERVATION.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); N = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530 N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG69[illegible]
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 12 December 1977 TIME 0934 (Local) 1634 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	2.8	2.8	9.9	8.1	
T_{dp}	-5.1	-5.1	-5.0	-6.4	
W_d, W_s	CALM	CALM	250 1.8	180 1.0	
P	26.01	26.01	25.52	25.95	
C	180 ◐	180 ◐	○	180 ◐	
M	No	No	No	No	
T_{a25}					
T_{dp25}					
I	39.95	39.95	38.69	45.98	
I_a	31.36	31.36	30.68	38.05	
I_d	21.83	21.83	21.09	25.38	
N	92.49	92.49	91.05	91.10	
N_a	71.98	71.98	71.81	70.99	
N_b	66.62	66.62	67.23	65.34	
N_c	56.17	56.17	55.26	55.08	
N_d	48.39	48.39	47.43	46.49	
i	2.63	25.46	4.85	14.33	
i_a	19.29	23.40	3.19	10.98	
i_d	13.23	15.15	2.64	8.12	
$T_{g/w}$	9.5	11.8	11.1	13.4	
T_s	6.0	6.3	13.8	14.3	
Ψ	3.9	5.3		0.9	
ε					
El, Az	24.3 143.3	24.3 143.3	23.8 143.6	24.6 143.1	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 12 December 1977

RADIOSONDE (0800 MST) TTAA 62151 72HMS 99875 ØØ555 ØØØØØ ØØ165 ///// ///// 85496
Ø9264 17511 7ØØ98 Ø4678 26527 5Ø574 13975 2952Ø 4Ø74Ø 25371 29Ø17 3Ø941 427//
28Ø25 25Ø62 521// 26Ø23 2Ø2Ø5 5Ø9// 25545 15391 569// 25Ø44 1Ø641 663// 26Ø34
88221 563// 26Ø56 77188 26Ø56 41912 Ø

TTBB 6215/ 72HMS ØØ875 ØØ555 1185Ø Ø9264 22835 12466 33755 Ø6Ø62 44726 Ø4Ø6Ø
557ØØ Ø4678 66678 Ø3679 7753Ø 12172 8849Ø 14175 994ØØ 25371 11344 34766 2225Ø
521// 33221 563// 442ØØ 5Ø9// 5518Ø 499// 66122 647// 771ØØ 663// 51515 1Ø186
//865 Ø4462 Ø

TTCC 62153 72HMS 7Ø855 671// 26Ø19 5ØØ58 677// 25515 3Ø374 571// 3ØØØ9 2Ø632
551// Ø

TTDD 6215/ 72HMS 11913 659// 22793 713// 33653 661// 44598 681// 55448 655//
66278 557// 77193 537// Ø

ROCKETSONDE (0900 MST) RRXX 1216Ø 72269 81Ø1Ø 131Ø1 24/// 26ØØ4 25559 28ØØ4
27556 28ØØ3 3Ø552 27Ø16 31545 27Ø2Ø 35533 27Ø47 36528 27Ø55 37523 27Ø57 38517
27Ø54 4Ø52Ø 27Ø51 41521 28Ø49 455Ø6 28Ø49 485Ø4 27Ø41 5Ø5Ø3 26Ø26 535Ø9 26Ø39
555Ø7 26Ø5Ø 565Ø6 26Ø54 6Ø526 28Ø65 62536 28Ø68 65542 27Ø8Ø 66548 27Ø88 67///
271Ø1

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 14 December 1977 TIME 1200 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	10.9	10.9	15.5	16.6	
T_{dp}	-10.0	-10.0	-1.7	-9.5	
W_d, W_s	090 0.4	090 0.4	200 2.7	180 1.5	
P	26.03	26.03	25.57	25.98	
C	210-◐	210-◐	230-◑	140-◐ 250-⊕	
M	No	No	No	No	
T_{a25}					
T_{dp25}					
I	58.47	58.47	58.03	57.29	
I_a	46.36	46.36	45.53	48.10	
I_d	32.06	32.06	30.17	32.15	
N	103.08	103.08	98.32	87.12	
N_a	79.09	79.09	75.50	67.02	
N_b	72.79	72.79	69.91	61.78	
N_c	61.26	61.26	57.16	53.19	
N_d	52.95	52.95	48.32	45.86	
i	33.21	35.36	5.90	15.05	
i_a	28.02	31.96	4.61	13.78	
i_d	18.76	20.68	3.55	10.67	
$T_{g/w}$	12.9	19.5	26.0	25.2	
T_s	13.1	13.1	25.3	23.2	
Ψ	5.0	5.1		0.8	
ε					
El, Az	34.1 180.0	34.1 180.0	33.4 180.1	34.5 179.8	

REMARKS:

NOTE DIFFERENT FORMAT FOR RADIOSONDE DATA AND ROCKETSONDE DATA EFFECTIVE THIS DATE

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.). Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 7218

DATE OF OBSERVATION 14 December 1977 TIME 1304 (Local) 2004 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	13.1	13.1	17.9	18.2	
T_{dp}	-9.0	-9.0	-7.6	-8.6	
W_d, W_s	CALM	CALM	210 2.7	CALM	
P	26.00	26.00	25.54	25.96	
C	210-	210-	220-	140- 250-	
M	No	No	No	No	
T_{a25}					
T_{dp25}					
I	52.50	52.30	56.16	52.08	
I_a	42.03	42.03	42.51	43.87	
I_d	29.07	29.07	28.35	29.46	
N	96.38	96.38	99.52	87.33	
N_a	74.17	74.17	77.07	69.11	
N_b	69.30	69.30	71.70	63.04	
N_c	56.97	56.97	58.61	53.19	
N_d	47.19	47.19	49.89	45.02	
i	30.05	32.43	5.37	13.94	
i_a	24.86	29.07	4.26	13.16	
i_d	16.49	18.73	3.25	9.70	
$T_{g/w}$	14.0	19.5	26.6	25.2	
T_s	15.1	17.8	26.5	24.8	
Ψ	5.0	5.1		0.8	
ε					
El, Az	32.0 197.4	32.0 197.4	31.3 197.4	32.5 197.3	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

RADIOSONDE DATA

SIGNIFICANT LEVEL DATA

348C01C857

HOLLOMAN

STATION ALTITUDE 4126.59 FEET MSL
14 DEC. 77 0800 HRS MST
ASCENSION NO. 857

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT
877.1	4126.6	.0	-1.4	90.0
867.3	4428.0	3.7	-2.9	62.0
855.3	4803.3	9.7	-9.3	25.0
850.0	4972.5	9.9	-9.2	25.0
722.2	9377.8	6.1	-23.2	10.0
700.0	10214.2	4.9	-10.4	32.0
588.3	14806.5	-1.6	-22.8	18.0
500.0	18965.0	-12.2	-27.3	27.0
438.3	22217.7	-19.5	-36.2	17.0
400.0	24425.4	-23.5	-43.4	14.0
353.3	27352.8	-31.1	-49.1	15.0
300.0	31071.9	-40.8		
250.0	35039.2	-51.4		
209.3	38742.6	-59.6		
200.0	39670.8	-60.1		
187.8	40955.9	-59.6		
178.3	42017.7	-59.3		
155.3	44651.3	-58.4		
150.0	45567.1	-57.2		
133.8	47908.0	-61.1		
110.8	51730.5	-61.6		
100.0	53785.8	-65.7		
93.3	55152.8	-68.4		
80.8	57990.3	-65.3		
70.0	60632.3	-66.6		
50.0	67527.6	-63.2		
32.3	76362.7	-58.6		
30.0	77906.8	-55.3		
25.3	81436.2	-56.8		
24.5	82099.6	-56.6		

NOTE: ROCKETSONDE DATA ON FOLLOWING PAGE

RECORD COPY

SIGNIFICANT LEVEL DATA

STATION ALTITUDE 4126.59 FEET MSL
14 DEC. 77 0800 HRS MST
ASCENSION NO. 857

348001[illegible]57
HOLLOMAN

GEODETIC COORDINATES
3[illegible].00865 LAT DEG
1[illegible]6.09965 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
20.0	86303.3	-55.3		
16.3	90598.3	-50.5		

ROCKETSONDE (1200 MST) UNUS 1 KWSD 141910 RRXX 14191 72269 81010 63101
24555 36002 25555 28005 28549 25010 29547 26017 30541 27025 35529 28040
40514 29070 45511 29061 50009 27066 51010 26066 52007 25065 55503 27068
60526 27069 65541 27079 69544 27101 70/// 27111 72/// 28123

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NIMBUS VI & DMSP 9415

DATE OF OBSERVATION 15 December 1977 TIME 1125 (Local) 1825 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	8.9	8.9	15.0	14.2	
T_{dp}	2. 2.3	2.3	-9.7	-8.8	
W_d, W_s	CALM	CALM	210 3.6	CALM	
P	25.90	25.90	25.45	25.87	
C	O	O	O	O	
M	No	No	No	No	
T_{a25}					
T_{dp25}					
I	56.76	56.76	56.60	59.52	
I_a	44.77	44.77	44.20	49.26	
I_d	30.56	30.56	29.47	32.58	
N	100.54	100.54	100.00	98.84	
N_a	76.81	76.81	77.63	75.60	
N_b	70.24	70.24	72.37	69.94	
N_c	59.11	59.11	59.40	58.01	
N_d	51.07	51.07	50.67	48.80	
i	31.51	34.60	6.00	14.74	
i_a	26.58	30.93	4.73	13.25	
i_d	17.79	19.24	3.75	10.30	
$T_{g/w}$	14.5	16.3	18.9	22.9	
T_s	17.5	17.1	24.3	23.7	
Ψ	6.7	7.8		0.5	
ε					
El, Az	33.4 170.2	33.4 170.2	32.7 170.4	33.8 170.0	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.). Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

SIGNIFICANT LEVEL DATA
3490010860
HOLLOMAN

STATION ALTITUDE 4126.59 FEET MSL
15 DEC. 77 0800 HRS MST
ASCENSION NO. 860

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT
873.8	4126.6	-.8	-7.1	62.0
864.3	4420.5	6.0	-6.6	40.0
850.0	4871.3	9.1	-5.5	35.0
839.0	5226.1	10.5	-5.5	32.0
829.8	5526.9	10.0	-6.3	31.0
762.3	7829.9	7.6	-4.2	43.0
700.0	10119.0	4.0	-9.0	38.0
587.8	14707.2	-4.0	-18.2	32.0
553.3	16260.4	-7.8	-19.9	37.0
512.3	18216.5	-9.5	-23.4	31.0
500.0	18829.8	-11.2	-24.9	31.0
400.0	24294.6	-24.8	-38.3	27.0
322.3	29298.2	-38.4	-49.7	29.0
300.0	30896.7	-42.8		
270.3	33169.9	-48.5		
250.0	34843.8	-50.3		
228.8	36733.8	-50.8		
200.0	39574.0	-54.7		
183.3	41379.8	-59.1		
178.3	41948.1	-58.0		
166.3	43376.8	-60.0		
157.8	44455.2	-56.9		
150.0	45499.2	-59.1		
122.8	49531.9	-66.0		
114.8	50879.6	-62.1		
100.0	53636.5	-66.6		
77.3	58693.7	-68.9		
70.0	60638.6	-67.2		
60.8	63408.6	-67.7		

RECORD COPY

ROCKETSONDE (1120 MST) UNUS 1 KWSD 151820 RRXX 15182 72269 81010 13101
24561 02003 25559 01001 28554 27012 30551 28026 35537 27051 36523 27062
40519 27065 41524 27070 45508 28067 46504 28067 47000 27067 50501 27063
51005 28059 55501 28049 57511 26044 60531 28046 61539 28046 62543 28052
63545 29064 64/// 28079

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOAA V

DATE OF OBSERVATION 21 December 1977 TIME 0852 (Local) 1552 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	-5.9	-5.9	-3.0	-3.7	
T_{dp}	-15.8	-15.8	-15.9	-16.0	
W_d, W_s	340 0.9	340 0.9	020 3.1	CALM	
P	26.43	26.43	25.95	26.38	
C	230- ⦶	230- ⦶	220 ⦶	270- ⦶	
M	No	No	No	No	
T_{a25}					
T_{dp25}					
I	29.48	29.48	22.76	41.82	
I_a	23.34	23.34	17.39	35.73	
I_d	17.68	17.68	12.31	25.38	
N	93.43	93.43	98.21	92.99	
N_a	74.53	74.53	75.17	73.09	
N_b	68.90	68.90	70.47	68.48	
N_c	59.79	59.79	59.28	58.22	
N_d	53.22	53.22	53.58	52.36	
i	18.00	19.70	3.16	9.63	
i_a	15.74	18.25	2.25	8.92	
i_d	10.95	12.28	1.83	7.15	
$T_{g/w}$	-9.2	-16.0	missing	-0.6	
T_s	-4.6	-9.6	-4.7	-3.1	
Ψ	5.1	5.0		0.1	
ε					
El, Az	17.6 134.5	17.6 134.5	17.3 134.7	17.8 134.3	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.), Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, " = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [mW cm^{-2}])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION DMSP 9415

DATE OF OBSERVATION 21 December 1977 TIME 1120 (Local) 1820 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	2.9	2.9	6.1	4.9	
T_{dp}	-5.3	-5.3	-19.5	-14.0	
W_d, W_s	CALM	CALM	230 0.9	250 2.1	
P	26.40	26.40	25.89	26.36	
C	220-◐	220-◐	210-⊕	220-◐ 250-◐	
M	No	No	No	No	
T_{a25}					
T_{dp25}					
I	56.76	56.76	59.85	53.13	
I_a	45.20	45.20	45.41	44.29	
I_d	31.63	31.63	31.58	30.00	
N	95.98	95.98	106.04	96.34	
N_a	73.73	73.73	82.33	73.39	
N_b	68.23	68.23	77.07	65.75	
N_c	57.10	57.10	63.76	55.36	
N_d	50.80	50.80	54.92	47.12	
i	31.75	34.71	6.53	14.74	
i_a	26.49	31.55	4.02	13.79	
i_d	17.90	20.47	3.04	10.06	
$T_{g/w}$	2.8	1.7	missing	14.9	
T_s	6.4	4.3	27.0	16.8	
Ψ	5.1	5.0		0.1	
ε					
El, Az	32.9 168.1	32.9 168.1	32.2 168.4	33.2 168.0	

REMARKS:

CLOUDS BETWEEN SUN AND SENSORS AT MS IV AND MS I.

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.) Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

Radiant Flux: Global Incoming: I = WG280, I_a = GG495, I_d = RG695
Normal Incoming: N = WG280, N_a = GG495, N_b = OG530, N_c = RG630, N_d = RG695
Global Outgoing: i = WG280, i_a = GG495, i_d = RG695
(Units: milliwatts per square centimeter [$mW\ cm^{-2}$])

$T_{g/w}$ = Soil or Water Temperature (°C); T_s = Surface Temperature (°C); Ψ = Soil Moisture (%); ε = Emissivity (%); El, Az = Solar Elevation, Solar Azimuth (degrees).

DELAS-MS Form 121, 14 Nov 77

ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION NOON RUN

DATE OF OBSERVATION 21 December 77 TIME 1200 (Local) 1900 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a	0.6	0.6	7.5	6.7	
T_{dp}	-2.3	-2.3	-14.8	-17.2	
W_d, W_s	220 1.8	220 1.8	220 0.4	CALM	
P	26.35	26.35	25.87	26.35	
C	220-◐	220-◐	220-◐	220-◐ 250-◐	
T_{a25}	No	No	No	No	
T_{dp25}					
I	52.38	52.38	61.75	52.68	
I_a	43.08	43.08	46.86	43.45	
I_d	29.18	29.18	32.09	29.14	
N	79.36	79.36	103.24	61.15	
N_a	58.58	58.58	77.40	44.40	
N_b	54.96	54.96	71.36	39.58	
N_c	44.77	44.77	60.29	33.09	
N_d	38.87	38.87	49.66	27.64	
i	32.60	33.51	6.53	15.05	
i_a	25.43	30.31	4.02	14.25	
i_d	16.92	19.45	3.55	10.30	
$T_{g/w}$	6.0	4.6	missing	15.7	
T_s	7.5	6.0	17.9	19.8	
Ψ	5.1	5.0		0.1	
ε					
El, Az	33.8 179.1	33.8 179.1	33.1 179.2	34.2 179.0	

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.). Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); N = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

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(Units: milliwatts per square centimeter [mW cm^{-2}])

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DELAS-MS Form 121, 14 Nov 77

21 December 1977

ATION ALTITUDE 4126.59 FEET MSL
DEC. 77 1230 HRS MST
CENSION NO. 874

SIGNIFICANT LEVEL DATA
3550010874
HOLLOMAN

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT
888.0	4126.6	6.0	-15.8	19.0
878.0	4433.3	4.1	-16.2	21.0
850.0	5294.5	2.2	-17.8	21.0
838.3	5661.3	1.9	-18.6	20.0
824.8	6090.8	2.2	-18.4	20.0
760.8	8216.4	-1.0	-21.7	19.0
700.0	10395.8	-.8	-21.5	19.0
620.6	13528.4	-3.9	-24.1	19.0
570.8	15673.2	-8.5	-28.5	18.0
500.0	18987.3	-16.5	-35.7	17.0
463.8	20823.1	-20.8	-36.0	24.0
456.3	21217.9	-20.9	-32.6	34.0
441.3	22024.6	-22.5	-28.3	59.0
400.0	24372.7	-25.8	-32.9	51.0
300.0	30982.2	-41.4	-48.4	46.0
288.3	31862.1	-43.4	-50.7	44.0
250.0	34948.8	-51.0		
200.0	39574.7	-62.5		
183.8	41268.3	-65.1		

ROCKETSONDE (1120 MST) UNUS 1 KWSD 211815 RRXX 21182 72269 81010
63101 25558 01003 30554 24008 33549 25022 35543 26039 40518 24086
41516 24082 42514 24083 43505 24090 44000 24099 45503 24103 47003
24085 48007 24083 50003 23086 52507 22092 53503 22091 54507 23075
55512 23075 56517 23078 60514 24084 61514 25087 62521 25090 63524
25092 65526 26106 67529 25101 69/// 25106

RECORD COPY

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ATMOSPHERIC SCIENCES LABORATORY

METEOROLOGICAL SATELLITE CALIBRATION DATA

SATELLITE IDENTIFICATION LANDSAT A

DATE OF OBSERVATION 30 December 1977 TIME 0832 (Local) 1532 (GMT)

PARAMETER	METSAT I-A	METSAT I-B	METSAT II	METSAT IV	
T_a T_{dp} W_d, W_s P C M T_{a25} T_{dp25}			4.2 -0.2 050 1.3 25.54 E80 ⦶ YES		
I I_a I_d N N_a N_b N_c N_d i i_a i_d			27.33 22.58 16.45 76.29 62.08 59.28 50.11 43.51 3.37 2.96 2.43		
$T_{g/w}$ T_s Ψ ε El, Az			4.8 4.8 13.6 130.3		

REMARKS:

LEGEND

T_a = Air Temperature (°C); T_{dp} = Dew Point Temperature (°C); W_d, W_s = Wind Direction (deg.). Wind Speed (m/s); P = Station Pressure (In Hg); C = Sky Condition (symbolic); M = Precipitation (Yes/No); T_{a25}, T_{dp25} = Air Temperature (°C), Dew Point Temperature (°C) at 25 meter height.

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DELAS-MS Form 121, 14 Nov 77

METEOROLOGICAL SATELLITE CALIBRATION DATA

DATE: 30 December 1977

RADIOSONDE FLIGHT NOT MADE THIS DATE

ROCKETSONDE (0900 MST) RRXX 30160 72269 81010 13101
25/// 29564 28/// 27512 29/// 28014 30/// 27521 31/// 27538 33/// 25528
35/// 24529 40/// 23524 43/// 22522 45/// 21023 46/// 22025 47/// 23024
48/// 23525 49/// 26028 50/// 25528 52/// 24531 53/// 23538 55/// 24040
56/// 24537 58/// 25036 59/// 23545 60/// 23552 61/// 24559 62/// 25575
63/// 26091 64/// 27099 65/// 27103 67/// 26611 68/// 26626
JJJ

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