

HFUS 1 BOU 231300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 174A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 1200UT 23 JUNE 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

22/1200UT TO 23/1200UT:

SOLAR ACTIVITY HAS BEEN MODERATE. REGION 3170 (N15E30) HAS BEEN THE SOURCE OF ALL REGION ASSOCIATED ACTIVITY. AN M2/SB FLARE WAS REPORTED, MAXIMUM OCCURRING AT 22/1508. AGAIN AT 23/1108 A MAXIMUM OF M1/IN WAS REACHED IN THIS REGION IN AN IMPULSIVE EVENT. THIS REGION IS BY FAR THE MOST SIGNIFICANT IN VIEW. IT IS MAGNETICALLY COMPLEX WITH STEEP GRADIENTS AND AT LEAST ONE DELTA. THE GROWTH OF THIS REGION HAS SLOWED, PROVIDING A D CLASSIFICATION AND AN AREA GREATER THAN 1300 MILLIONTHS. SURGING ON THE EAST LIMB INDICATES PROBABLE ARRIVAL OF AT LEAST ONE NEW REGION.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY MAY BE EXPECTED TO INCREASE SOMEWHAT, PROVIDING GENERALLY MODERATE LEVELS FOR SEVERAL DAYS. MOST OF THIS ACTIVITY MAY BE ASSOCIATED WITH REGION 3170.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD MAY EXHIBIT A SLIGHT INCREASE IN ACTIVITY LEVEL FROM SLIGHTLY UNSETTLED TO NEAR ACTIVE LEVELS BRIEFLY DUE TO A LOW LATITUDE CORONAL HOLE. IT SHOULD RETURN TO LOW UNSETTLED LEVELS UNLESS FLARE ASSOCIATED DISTURBANCES BEGIN TO OCCUR.

III. EVENT PROBABILITIES: 24 - 26 JUNE

CLASS M 50/50/50

CLASS X 05/05/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 22 JUNE 161

ESTIMATED 23 JUNE 163

PREDICTED 24-26 JUNE 165/170/173

90 DAY MEAN 22 JUNE 195

V. GEOMAGNETIC A INDICES

OBSERVED AFR 21 JUNE 10 AP 22 JUNE 09

ESTIMATED AFR 22 JUNE 06 AFR/AP 23 JUNE 07/11

PREDICTED AFR/AP 24-26 JUNE 08/12 15/15 12/12

SOLTERWARN

BT

HFUS 3 BOU 232200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO
SDF NUMBER 174B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200 UT 23 JUNE 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 23/1200UT
TO 23/2200UT: SOLAR ACTIVITY HAS CONTINUED AT A MODERATE LEVEL.
REGION 3170 (N14E22) REMAINS COMPLEX BUT HAS NOT CHANGED
SIGNIFICANTLY DURING THE DAY. IT PRODUCED A M1/SN FLARE AT
23/1731 UT WHICH LASTED 54 MINUTES. THE RADIO BURSTS ON ALL
FREQUENCIES HAD MAXIMA AT 1718 UT AND 1735 UT, WITH THE LARGEST
BEING 2600 FLUX UNITS AT 2695 MHZ AND 1700 FLUX UNITS AT 8800 MHZ
AT 1735 UT. THE X-RAY LEVELS REMAINED ENHANCED AT NEAR M1 LEVEL
UNTIL 2051 UT WHEN ANOTHER DISTINCT EVENT BEGAN. THIS EVENT, M1/SN
MAX 23/2054 UT, WAS IN NEW REGION 3178 (N19E77) WHICH ROTATED ONTO
THE DISK WITH A SPOT GROUP CLASS/AREA D/300.

IB. SOLAR ACTIVITY FORECAST: MODERATE SOLAR ACTIVITY IS EXPECTED
FROM REGION 3170 AND POSSIBLY REGION 3178.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN UNSETTLED. UNSETTLED TO NEAR ACTIVE CONDITIONS ARE POSSIBLE
DURING THE FORECAST PERIOD.

III. EVENT PROBABILITIES 24 JUNE - 26 JUNE

CLASS M 90/90/90

CLASS X 05/05/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 23 JUNE 161

PREDICTED 24-26 JUNE 165/170/173

90-DAY MEAN 23 JUNE 194

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 22 JUNE 06/09

ESTIMATED AFR/AP 23 JUNE 07/10

PREDICTED AFR/AP 24-26 JUNE 08/12 - 15/15 - 12/12

SOLTERWARN

BT