

HFUS 1 BOU 221303

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 173A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 1200UT 22 JUNE 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

21/1200UT TO 22/1200UT:

SOLAR ACTIVITY HAS BEEN LOW SINCE 21/1200UT. ONLY SUBFLARES HAVE OCCURRED, PRIMARILY FROM REGIONS 3161 (S20W56) AND 3170 (N15E42). BOTH REGIONS HAVE MODERATELY STRONG MAGNETIC GRADIENTS AND REGION 3170 HAS A DELTA MAGNETIC CONFIGURATION. AN ASR OBSERVED AT NE 22 MAY INDICATE THE APPROACH OF AN ACTIVE REGION.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO REMAIN LOW WITH AN INCREASING NUMBER AND INTENSITY OF C-CLASS X-RAY FLARES, MOSTLY FROM REGIONS 3161 AND 3170. REGION 3170 HAS THE POTENTIAL TO PRODUCE AN M-CLASS X-RAY EVENT BEFORE THE END OF THE FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED FOR THE PAST 24 HOURS. INCREASINGLY UNSETTLED CONDITIONS ARE EXPECTED FOR THE FORECAST PERIOD. ACTIVE PERIODS ARE EXPECTED LATE 25 JUN IN RESPONSE TO A LOW LATITUDE CORONAL HOLE AND A DISAPPEARING FILAMENT LAST SEEN 20 JUN.

III. EVENT PROBABILITIES: 23 - 25 JUN

CLASS M 40/50/50

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 21 JUN 149

ESTIMATED 22 JUN 148

PREDICTED 23-25 JUN 148/145/143

90 DAY MEAN 21 JUN 195

V. GEOMAGNETIC A INDICES

OBSERVED AFR 20 JUN 10 AP 21 JUN 11

ESTIMATED AFR 21 JUN 10 AFR/AP 22 JUN 07/09

PREDICTED AFR/AP 23-25 JUN 09/15 10/10 14/12

SOLTERWARN

BT

HFUS 3 BOU 222200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 173B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200 UT 22 JUNE 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 22/1200 UT TO 22/2200 UT: SOLAR ACTIVITY INCREASED TO MODERATE DURING THE PAST 12 HOURS. REGION 3170 (N15E37) PRODUCED AN M2/SB AT 1508 UT MAXIMUM. STRONG RADIO BURSTS OF LONG DURATION (330 FLUX UNITS AT 2695 MHZ, 910 FLUX UNITS AT 4995 MHZ AND 359 FLUX UNITS AT 2800 MHZ) WERE ASSOCIATED WITH THIS EVENT. GROWTH CONTINUES IN THIS REGION, BUT AT A SLOWER PACE. THE MAGNETIC GRADIENTS AND DELTA CONFIGURATION REMAIN STRONG. NEW REGIONS 3174 (N16W11) AND 3175 (N09E04) EMERGED ON THE DISK TODAY AS SIMPLE GROUPS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY WILL BE LOW TO MODERATE WITH ISOLATED M-CLASS EVENTS PROBABLE FROM REGION 3170.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN QUIET DURING THE PAST 12 HOURS. INCREASINGLY UNSETTLED CONDITIONS ARE EXPECTED DURING THE NEXT 24 HOURS.

III. EVENT PROBABILITIES 23 JUNE - 25 JUNE

CLASS M 40/50/50

CLASS X 05/10/10

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 22 JUNE 161

PREDICTED 23-25 JUNE 163/165/169

90-DAY MEAN 22 JUNE 195

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 21 JUNE 10/11

ESTIMATED AFR/AP 22 JUNE 06/08

PREDICTED AFR/AP 23-25 JUNE 15/15 - 12/12 - 14/14

SOLTERWARN

BT