

HFUS 1 BOU 25 1400

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 05 6A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 1200UT 25 FEBRUARY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

24/1200UT TO 25/1200UT:

SOLAR ACTIVITY HAS BEEN HIGH DURING THE PAST 24 HOURS. NO OPTICAL REPORT HAS BEEN RECEIVED FOR AN X2 AT 24/1226Z (MAX). HOWEVER, A RADIO REPORT INDICATES THE SOURCE AS EITHER REGION 2954 (S16E42) OR 2958 (S11E66). A 150 F.U. 10 CM BURST, TYPE II DEKAMETRIC BURST, AND STRONG SHORT WAVE FADE THROUGH 18 MHZ ACCOMPANIED THIS EVENT. OTHER SIGNIFICANT EVENTS WERE FROM REGION 2958: M1/SB AT 24/1822Z (MAX) WITH MINOR CENTIMETRIC BURSTS AND MODERATE SHORT WAVE FADE THROUGH 15 MHZ; X1/2B AT 24/1939Z (MAX) WITH 768 F.U. 2800 MHZ BURST AND STRONG SHORT WAVE FADE THROUGH 15 MHZ; AND, M2/1B AT 25/0246Z (MAX) WITH MINOR CENTIMETRIC BURST. LEARMONTH REPORTS THAT THE DEGREE OF COMPLEXITY IN REGION 2958 IS DIFFICULT TO ASCERTAIN EVEN WITH MAGNETOGRAPHIC SUPPORT. REGION 2954 CONTINUES TO RESTRUCTURE WITH A TENDENCY TOWARD INCREASING NEUTRAL LINE COMPLEXITY. REGION 2951 (N12W54), DESPITE HAVING THE LARGEST SUNSPOT AREA OF ANY OF THE DISK REGIONS, REMAINS REMARKABLY QUIET. THIS REGION CONTAINS A DELTA CONFIGURATION BUT ALSO A SIMPLE N/S ALIGNMENT TO ITS NEUTRAL LINE.

IB. SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE TO HIGH.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN ACTIVE. SINCE 25/0300Z SUBSTORM ACTIVITY HAS PRODUCED SEQUENTIAL STRONG K4 VALUES AT BOULDER. THE GEOMAGNETIC FIELD IS EXPECTED TO BE UNSETTLED TO ACTIVE THROUGH THE FORECAST PERIOD WITH GENERALLY ACTIVE CONDITIONS ON 27 FEBRUARY DUE TO A SMALL EQUATORIAL CORONAL HOLE.

III. EVENT PROBABILITIES: 26-28 FEB

CLASS M 90/90/90

CLASS X 20/20/20

PROTON 10/10/10

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 24 FEB 241

ESTIMATED 25 FEB 250

PREDICTED 26-28 FEB 256/260/262

90 DAY MEAN 200

V. GEOMAGNETIC A INDICES

OBSERVED AFR 23 FEB 13 AP 24 FEB 14

ESTIMATED AFR 24 FEB 11 AFR/AP 25 FEB 18/25

PREDICTED AFR/AP 26-28 FEB 10/15 14/20 10/15

SOLIERWARN

BT

HFUS 3 BOU 252200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SOF NUMBER 056B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200UT 25 FEB 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
25/1200UT TO 25/2200UT:

SOLAR ACTIVITY HAS BEEN AT LOW LEVELS SINCE THE M2 EVENT AT
25/0246UT. THERE HAVE BEEN ABOUT FIVE C-CLASS EVENTS SINCE
25/1200UT, NONE OF THEM VERY SIGNIFICANT. REGION 2958 (S12E60)
HAS GROWN IN SPOT AREA AND SPOT NUMBER AND DEFINITELY STILL HAS
MAJOR FLARE POTENTIAL. REGIONS 2951 (N12W61) AND 2954 (S16E36)
HAVE DECLINED SOMEWHAT.

IB. SOLAR ACTIVITY FORECAST:

MODERATE SOLAR ACTIVITY IS FORECAST. X-CLASS FLARES ARE VERY
POSSIBLE, ESPECIALLY FROM REGION 2958.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN ACTIVE SINCE 25/0300UT. CORONAL
HOLE AND FLARE-RELATED ACTIVITY IS POSSIBLE ON 26-27 FEBRUARY.

III. EVENT PROBABILITIES: 26-28 FEB

CLASS M 90/90/90

CLASS X 20/20/20

PROTON 10/10/10

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 25 FEB 239

PREDICTED 26-28 FEB 245/245/240

90 DAY MEAN 25 FEB 201

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 24 FEB 14/14

ESTIMATED AFR/AP 25 FEB 17/25

PREDICTED AFR/AP 26-28 FEB 12/20 12/20 10/15

SOLTERWARN

BT