

HFUS 1 BOU 091300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 040A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 09 FEB 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 08/1200Z TO 09/1200Z: SOLAR ACTIVITY HAS BEEN HIGH. REGION 3576 (S13W102) PRODUCED A X1/1B AT 08/1253Z (X-RAY MAX) WITH MODERATE TO STRONG CENTIMETRIC BURSTS WITH A 880 FU BURST AT 2695 MHZ AND STRONG SHORT WAVE FADE THROUGH 22 MHZ. THOUGH BEYOND WEST LIMB, THIS REGION PRODUCED A X1/SPRAY (0.5R) AT 09/0357Z. CULGOORA REPORTS EMISSION ACROSS THE RADIO SPECTRUM WITH A TYPE II BURST AND STRONG SHORT WAVE FADE THROUGH 40 MHZ; THE 2695 MHZ BURST WAS 220 FU. LEARMONT REPORTED MATERIAL WHICH DID NOT REACH ESCAPE VELOCITY TRACED VERY COMPLEX MAGNETIC FIELD LINES AND LOOPS BACK TO THE SUN'S SURFACE; A SPECTACULAR EVENT FOR THOSE FORTUNATE TO HAVE OBSERVED IT. SHORTLY AFTER THE START OF THE SPRAY IN REGION 3576, ANOTHER SPRAY ERUPTED AT N12 AND EXTENDED TO 0.3R. REGION 3594 (S10E14) PRODUCED A M2/1B AT 0334Z AND A M1/SN AT 0710Z. MINOR CENTIMETRIC BURSTS OCCURRED WITH BOTH THESE FLARES. ADDITIONALLY, FOUR CLASS M2 X-RAY BURSTS OCCURRED WITHOUT CORRELATED OPTICAL REPORTS RECEIVED. WEATHER IN THE WESTERN HEMISPHERE PRECLUDED ANY ANALYSIS AT BOULDER. REGION 3594 IS EXTENSIVE, 30 DEGREES IN LONGITUDINAL EXTENT. REPORTS INDICATE THAT FRAGMENTATION AND RESTRUCTURING ARE CONSTANT PROCESSES FOR THIS LARGE SUNSPOT GROUP.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE WITH ISOLATED CLASS X EVENTS IN REGION 3594 DISTINCTLY POSSIBLE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE. MODERATELY UNSETTLED TO ACTIVE CONDITIONS ARE EXPECTED THROUGH THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 10 FEB-12 FEB

CLASS M 95/95/95

CLASS X 20/20/20

PROTON 15/15/15

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 08 FEB 258

ESTIMATED 09 FEB 262

PREDICTED 10 FEB-12 FEB 262/260/255

90 DAY MEAN 08 FEB 199

V. GEOMAGNETIC A INDICES

OBSERVED AFR 07 FEB 019 AP 08 FEB 017

ESTIMATED AFR 08 FEB 018 AFR/AP 09 FEB 014/018

PREDICTED AFR/AP 10 FEB-12 FEB 012/015-010/015-014/012

SOLTERWARN

BT

HXUS BOU 091300

PREDM 09510 09511 09512

PREDX 02010 02011 02012

PREDP 01510 01511 01512

PCAF 00210

TENCM 26210 26011 25512

AFRED 01210 01011 01412

AFAPF 01510 01511 01212

KKK 22344 33333 34433

BT

HXUS 3 BOU 092200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 040B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 09 FEB 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 09/1200Z TO 09/2100Z: AT 09/1412Z (MAX) AN M9 WITH AN UNCERTAIN LOCATION MAY HAVE BEEN FROM REGION 3592 (N13W77) AS LOOPS WERE REPORTED IN THAT REGION SHORTLY THEREAFTER. 3592 IS APPROACHING THE WEST LIMB AND APPEARS TO BE A SIMPLE H TYPE GROUP. REGION 3594 (S08W01) HAS NOT PRODUCED AN M CLASS EVENT FOR SEVERAL HOURS BUT ITS CAPABILITY APPEARS UNDIMINISHED. THE PENUMBRA AND UMBRAE NEAR E17 THAT WAS CONSIDERED THE TRAILER OF 3594 HAS NOW BEEN SEPARATED INTO ANOTHER GROUP AND IS REGION 3603 (S08E17). OCCASIONAL SUBFLARES ARE OCCURRING IN SEVERAL REGIONS BUT 3594 REMAINS THE FOCAL POINT. FOUR REGIONS WERE NUMBERED TODAY: 3603 (S08E17), 3604 (N23W03), 3605 (N17E27) AND 3606 (N09E57).

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD BE MODERATE FOR THE NEXT 24 HOURS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED TO ACTIVE. GENERALLY UNSETTLED CONDITIONS ARE EXPECTED FOR THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 10 FEB-12 FEB

CLASS M 95/95/95

CLASS X 20/20/20

PROTON 15/15/15

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 09 FEB 238

PREDICTED 10 FEB-12 FEB 229/222/215

90 DAY MEAN 09 FEB 199

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 08 FEB 016/017

ESTIMATED AFR/AP 09 FEB 015/016

PREDICTED AFR/AP 10 FEB-12 FEB 012/015-010/015-014/012

SOLTERWARN

BT

HXUS BOU 092200

PREDM 09510 09511 09512

PREDX 02010 02011 02012

PREDP 01510 01511 01512

PCAF 00210

TENCM 22910 22211 21512

AFRED 01210 01011 01412

AFAPF 01510 01511 01212

BT