

HFUS 1 BOU 191300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 050A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 19 FEB 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 18/1200Z TO 19/1200Z: SOLAR ACTIVITY WAS JUST BARELY MODERATE DURING THE PAST 24 HOURS WITH ONLY ONE CLASS M EVENT BEING REPORTED. AN M3/1B EVENT WAS PRODUCED BY REGION 3607 (N04W24) AT 181323Z (MAX) AND SINCE THAT TIME ONLY C CLASS ACTIVITY HAS BEEN OBSERVED. REGION 3607 REMAINS BASICALLY AS IT HAS BEEN FOR THE PAST 48 HOURS. REGION 3610 (N12E22) BECAME AN E TYPE SPOT GROUP, SIMPLIFIED IN NEUTRAL LINE STRUCTURE AND CONTINUES TO FLUCTUATE IN BRIGHTNESS. REGION 3612 (S23W08) DEVELOPED ON THE DISK AND QUICKLY BECAME A CLASS C GROUP. ALL OF THE OTHER DISK FEATURES WERE EITHER STABLE OR DECLINING.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE MODERATE. THE CONTINUED GROWTH IN 3610 IS LIKELY TO PRODUCE ENERGETIC ACTIVITY. REGION 3607 IN ITS MATURE STATE ALSO REMAINS CAPABLE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS AT ACTIVE TO MINOR STORM LEVELS. A LOW DENSITY, HIGH SPEED STREAM THAT HAS AFFECTED THE FIELD FOR THE PAST 48 HOURS SHOULD BECOME LESS OF AN INFLUENCE AND GENERALLY UNSETTLED CONDITIONS SHOULD RESULT.

III. EVENT PROBABILITIES 20 FEB-22 FEB

CLASS M 80/80/80

CLASS X 05/05/05

PROTON 02/02/02

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 FEB 170

ESTIMATED 19 FEB 169

PREDICTED 20 FEB-22 FEB 170/170/173

90 DAY MEAN 18 FEB 200

V. GEOMAGNETIC A INDICES

OBSERVED AFR 17 FEB 026 AP 18 FEB 026

ESTIMATED AFR 18 FEB 018 AFR/AP 19 FEB 020/030

PREDICTED AFR/AP 20 FEB-22 FEB 012/015-012/018-010/015

SOLTERWARN

BT

HXUS BOU 191300

PREDM 08020 08021 08022

PREDX 00520 00521 00522

PREDP 00220 00221 00222

PCAFT 00120

TENCM 17020 17021 17322

AFRED 01220 01221 01022

AFAPF 01520 01821 01522

KKK 32243 32233 34433

BT

HFUS 3 BOU 192200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 050B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 19 FEB 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
19/1200Z TO 19/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE DURING
THE PAST 9 HOURS. REGION 3607 (N04W30) PRODUCED A LONG-LIVED
M1/2B FLARE WHICH BEGAN NEAR 1200Z AND MAXED AT 1348Z. THE
EVENT PRODUCED A SIGNIFICANT SHORT WAVE FADE TO 18 MHZ AND
RADIO NOISE WHICH INCLUDED 2000 FLUX UNITS AT 245 MHZ AND 200
FLUX UNITS AT 2695 MHZ. THE REGION PRESENTS A THREATENING
APPEARANCE AT THIS TIME WITH A CLEARLY SPIRAL-SHAPED PENUMBRA
CONTAINING MIXED POLARITIES (DELTA CONFIGURATION). THIS REGION
IS REMINISCENT OF CLASSIC PROTON-PRODUCERS. REGION 3610
(N13E15) HAS DECAYED MAGNETICALLY TO A SIMPLE BIPOLE. HOWEVER,
IT STILL SHOWS A GOOD MAGNETIC GRADIENT AND IS PRODUCING
SUBFLARES. THREE NEW REGIONS WERE NUMBERED TODAY. THEY ARE
REGION 3613 (N06E62), A C-TYPE GROUP, REGION 3614 (S12E72), AN
H-TYPE SPOT WHICH IS THE RETURN OF OLD REGION 3577, AND 3615
(S09W13), AN A-TYPE SPOT.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
HIGH WITH A GOOD CHANCE FOR A PROTON EVENT. A SIGNIFICANT
INCREASE IN EVENT PROBABILITIES IS BASED ON THE PECULIAR
DEVELOPMENT OCCURRING IN REGION 3607.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN CONSISTENTLY ACTIVE FOR THE PAST 9 HOURS. IN THE ABSENCE
OF MAJOR FLARE ACTIVITY, THE FIELD IS EXPECTED TO DECLINE TO
UNSETTLED LEVELS OVER THE NEXT FEW DAYS.

III. EVENT PROBABILITIES 20 FEB-22 FEB

CLASS M 95/95/95

CLASS X 70/30/30

PROTON 75/30/30

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 19 FEB 179

PREDICTED 20 FEB-22 FEB 180/185/190

90 DAY MEAN 19 FEB 200

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 18 FEB 024/026

ESTIMATED AFR/AP 19 FEB 025/030

PREDICTED AFR/AP 20 FEB-22 FEB 012/015-012/018-010/015

SOLTERWARN

BT

HXUS BOU 192200

PREDM 09520 09521 09522

PREDX 07020 03021 03022

PREDP 07520 03021 03022

PCAFT 00220

TENCM 18020 18521 19022

AFRED 01220 01221 01022

AFAPF 01520 01821 01522

BT