

HFUS 1 BOU 271400

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 058A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1200UT 27 FEBRUARY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

26/1200UT TO 27/1200UT:

SOLAR ACTIVITY HAS BEEN VERY HIGH. REGION 2958 (S13E41) HAS PRODUCED TWO X-CLASS EVENTS, AN X1/0B AT 1426UT MAXIMUM FOLLOWED BY AN X4/3B AT 1946UT MAXIMUM. THE X1 EVENT WAS VERY IMPULSIVE AND SHORT-LIVED WITH 830 FLUX UNITS REPORTED AT 2800 MHZ AND 10,000 FLUX UNITS AT 606 MHZ. THE X4/3B WAS SYMPATHETIC TO AN M2/2N FLARE IN REGION 2954 (S17E16) AT 1849 UT MAXIMUM. THE X4/3B WAS VISIBLE IN WHITE LIGHT IN THE SOUTHWESTERN AND CENTRAL PORTION OF THE LARGE PENUMBRA, HAD AN ACCOMPANYING RADIO BURST OF 2800 FLUX UNITS AT 2800MHZ, AND A TYPE II/IV RADIO SWEEP.

SINCE THEN, 2958 HAS PRODUCED TWO SMALL M-CLASS XRAY FLARES MAXING AT 2333UT AND 0135UT. BESIDES THE MAJOR ACTIVITY, SUB-FLARES HAVE BEEN REPORTED IN 6 OF THE 9 REGIONS WHICH WERE SPOTTED YESTERDAY PLUS A FLARE FROM A SPOTLESS PLAGE AT N21W62 AND A NEW REGION TRANSMITTING THE EAST LIMB AT S03. REGIONS 2958 AND 2954 ARE STILL VERY COMPLEX MAGNETICALLY AND ARE CONTINUING TO DEVELOP. A DARK FILAMENT NORTH OF 2957 (S06E05) DISAPPEARED EARLY ON 26 FEB.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH THROUGH THE FORECAST PERIOD WITH LARGE EVENTS POSSIBLE FROM REGIONS 2954 AND 2958.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN GENERALLY ACTIVE FOR THE PAST 24 HOURS. ACTIVE TO MINOR STORM CONDITIONS EXPECTED TO PERSIST FOR THE NEXT SEVERAL DAYS IN RESPONSE TO FLARE ACTIVITY AND A SOUTHERN NEGATIVE CORONAL HOLE WEST OF REGION 2954.

III. EVENT PROBABILITIES: 28 FEBRUARY - 02 MARCH

CLASS M 95/95/95

CLASS X 50/50/50

PROTON 30/35/40

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 26 FEB 243

ESTIMATED 27 FEB 240

PREDICTED 28 FEB-02 MAR 243/246/248

90 DAY MEAN 26 FEB 201

V. GEOMAGNETIC A INDICES

OBSERVED AFR 25 FEB 21 AP 26 FEB 25

ESTIMATED AFR 26 FEB 18 AFR/AP 27 FEB 21/25

PREDICTED AFR/AP 28 FEB-02 MAR 20/25, 30/35 25/20

SOLTERWARN

BT

repeat
from
2200
fest

54

HFUS 3 BOU 272129

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 0588

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200UT 27 FEBRUARY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
27/1200UT TO 27/2200UT:

SOLAR ACTIVITY HAS BEEN AT A LOW LEVEL THIS PERIOD WITH THE
LARGEST EVENT A C8/IN FLARE FROM REGION 2953 (S18W21) AT
27/2021UT.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH THROUGH THE
FORECAST PERIOD. REGIONS 2958 (S13E36) AND 2954 ARE BOTH
CAPABLE OF PRODUCING A LARGE EVENT.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE LEVELS DURING THE
PERIOD. THE FIELD IS EXPECTED TO BE ACTIVE WITH PERIODS OF MINOR
STORM CONDITIONS DURING THE FORECAST PERIOD.

III. EVENT PROBABILITIES: 28 FEBRUARY - 02 MARCH

CLASS M 95/95/95

CLASS X 50/50/50

PROTON 30/35/40

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 27 FEB 240

PREDICTED 28 FEB-02 MAR 240/240/240

90 DAY MEAN 27 FEB 202

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 26 FEB 20/25

ESTIMATED AFR/AP 27 FEB 21/27

PREDICTED AFR/AP 28 FEB-02 MAR 20/25 30/35 25/25

SOLTERWARN

BT