

HFUS 1 BOU 031400

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 062A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1200UT 03 MARCH 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

02/1200UT TO 03/1200UT:

SOLAR ACTIVITY HAS BEEN MODERATE WITH FOUR SMALL CLASS M X-RAY EVENTS IN THE PAST 24 HOURS. THREE OCCURRED IN REGION 2954 (S15W36) : 02/1850Z, 02/2120Z AND 03/0747Z; AND THE FOURTH IN REGION 2958 (S12W11) AT 02/2236Z. BOTH REGIONS CONTINUE WITH DELTA MAGNETIC CONFIGURATIONS. REGION 2958 HAS DECREASED IN AREA AND SPOT COUNT IN THE PAST TWO DAYS. REGION 2954 HAS BEEN EXCEPTIONALLY DYNAMIC. LARGE PROPER MOTIONS AMONG ITS MAJOR SPOTS HAVE CREATED AN INCREASING GRADIENT ACROSS THE NEUTRAL LINE IN THE LEADING PORTION OF THE SPOT GROUP, NEAR WHERE STRONG NEW MAGNETIC FLUX HAS FORMED. A FILAMENT ASSOCIATED WITH THE REGION HAS ENLARGED AND BECOME MORE ACTIVE, INDICATING INCREASING INSTABILITY ABOVE THE SPOT GROUP. MINOR GROWTH HAS OCCURRED IN REGION 2959 (N2IW58). THREE ACTIVE CENTERS HAVE ROTATED INTO VIEW NEAR EAST LIMB. THE LARGEST IS REGION 2964 (S06E64), A SMALL CLASS E SPOT GROUP WITH A SIMPLE CONFIGURATION. SURGES AT N09 MAY INDICATE THE RETURN OF OLD REGION 2930, A SOURCE OF CLASS-M EVENTS THREE WEEKS AGO.

IB. SOLAR ACTIVITY FORECAST:

CLASS M EVENTS ARE EXPECTED FREQUENTLY IN REGION 2954 FOR THE NEXT TWO DAYS. A SINGLE CLASS X EVENT IS EXPECTED. REGION 2958 IS AN EXPECTED SOURCE OF LESS FREQUENT CLASS-M ACTIVITY. LARGE-SCALE SHEAR IS EXPECTED TO BUILD ACTIVITY IN REGION 2958 AND EAST OF ITS LOCATION DURING THE NEXT TWO WEEKS.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS ACTIVE EARLY IN THIS 24-HOUR PERIOD BUT BECAME QUIET BY THE END OF 02 MARCH. CONDITIONS ARE EXPECTED TO BECOME SLIGHTLY ACTIVE EARLY ON 04 MARCH WHEN THE EARTH IS EXPECTED TO ENCOUNTER A REALM OF INTERPLANETARY DISTURBANCE ASSOCIATED WITH THE LONGITUDES OF HIGH SOLAR ACTIVITY.

III. EVENT PROBABILITIES: 04-06 MARCH

CLASS M 90/80/70

CLASS X 30/20/20

PROTON 30/20/20

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 02 MAR 246

ESTIMATED 03 MAR 250

PREDICTED 04-06 MAR 250/240/230

90 DAY MEAN 02 MAR 202

V. GEOMAGNETIC INDICES

OBSERVED AFR 01 MAR 25 AP 02 MAR 25

ESTIMATED AFR 02 MAR 25 AFR/AP 03 MAR 06/21

PREDICTED AFR/AP 04-06 MAR 15/18 18/25 18/15

SOLTERWARN

BT

HFUS 3 BOU 032200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 062B
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200UT 03 MARCH 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
03/1200UT TO 03/2200UT:
SOLAR ACTIVITY HAS BEEN GENERALLY LOW DURING THIS PERIOD. THE
1-8 ANGSTROM X-RAY BACKGROUND LEVELS HAS MOVED SLOWLY UP AND
DOWN BETWEEN C2 AND C4 LEVELS. THE LAST SPECIFIC EVENT WAS A
SLOW RISING M1 X-RAY BURST WITH MAXIMUM AT 1326UT.

IB. SOLAR ACTIVITY FORECAST:
SOLAR ACTIVITY IS EXPECTED TO BE MODERATE. SOME POTENTIAL EXISTS
FOR MAJOR FLARES FROM EITHER REGION 2954 (S17W41) OR REGION
2958 (S12W20).

II. GEOPHYSICAL SUMMARY AND FORECAST:
THE GEOMAGNETIC FIELD HAS BEEN QUIET DURING THIS PERIOD. THE
FIELD IS EXPECTED TO BE UNSETLED DURING THE NEXT 24 HOURS.

III. EVENT PROBABILITIES: 04 MAR - 06 MAR 1981

CLASS M	80/70/60
CLASS X	30/20/20
PROTON	30/20/20
PCAF	YELLOW

IV. OTTAWA 10.7 FLUX

OB SERVED	03 MAR	248
PREDICTED	04-06 MAR	250/246/245
90 DAY MEAN	03 MAR	203

V. GEOMAGNETIC INDICES

OB SERVED AFR/AP	02 MAR	24/25
ESTIMATED AFR/AP	03 MAR	05/07
PREDICTED AFR/AP	04-06 MAR	14/18 18/25 18/15

SOLTERWARN
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