

HFUS 1 BOU 171400

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SD F NUMBER 048A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1200UT 17 FEB 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

16/1200UT TO 17/1200UT:

SOLAR ACTIVITY REMAINED LOW DURING THE PAST 24 HOURS. RATHER FREQUENT "C" CLASS ACTIVITY HAS BEEN OBSERVED FROM SEVERAL SOURCES BUT MOST OFTEN, THE SOURCE HAS BEEN REGION 2945 (N15E13). THIS REGION IS MAGNETICALLY COMPLEX (BETA-DELTA) BUT REMAINS SMALL IN SPOT AREA. AN ACTIVE DARK FILAMENT WITHIN THE PLAGE IS ACCOMPANIED BY CONTINUOUS PLAGE FLUCTUATIONS AND POINT BRIGHTENINGS. REGION 2941 (N18W10) IS A BETA GAMMA DELTA MAGNETICALLY, HAS MERGED WITH REGION 2946 AND CONTINUES TO UNDERGO RESTRUCTURING. ITS PLAGE APPEARS LESS ORGANIZED THAN YESTERDAY BUT AN ARCH FILAMENT SYSTEM WOULD SUGGEST THAT IT IS GROWING. REGION 2947 (N12E01) IS NOW A SMALL "C" TYPE SPOT GROUP THAT ALSO SHOWS A FLUCTUATING AND RESTRUCTURING PLAGE. REGION 2930 (N13W82) IS NOW PRODUCING WEST LIMB SURGES AS IT NEARS ITS DEPARTURE.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE AT LOW TO MODERATE LEVELS THIS PERIOD AS THE INSTABILITY OF VARIOUS REGIONS CONTINUES.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN QUIET TO SLIGHTLY UNSETTLED. UNSETTLED TO ACTIVE CONDITIONS ARE EXPECTED TO COMMENCE LATE TODAY OR EARLY TOMORROW AND PERSIST FOR THE DURATION OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES: 18 FEB - 20 FEB

CLASS M 50/50/50

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 16 FEB 192

ESTIMATED 17 FEB 190

PREDICTED 18-20 FEB 188/184/182

90 DAY MEAN 16 FEB 198

V. GEOMAGNETIC A INDICES

OBSERVED AFR 15 FEB 10 AF 16 FEB 10

ESTIMATED AFR 16 FEB 12 AFR/AP 17 FEB 10/18

PREDICTED AFR/AP 18-20 FEB 15/18 19/23 20/28

SOLTERWARM

BT

HFUS 3 BOU 172200 COR

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 048B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200UT 17 FEBRUARY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 17/1200UT TO 17/2200UT: SOLAR ACTIVITY HAS BEEN HIGH DURING THE PAST 10 HOURS. AN X1/1B FLARE FROM REGION 2941 (N18W18) MAXED AT 2152UT AND IS IN PROGRESS AT FORECAST TIME. 300 FLUX UNITS AT 2695 MHZ HAS BEEN OBSERVED. AN M1.5 X-RAY EVENT BEGAN AT 1846UT, ROSE SLOWLY TO A MAXIMUM AT 1916UT, AND ENDED AT 1929UT. THE EVENT WAS ASSOCIATED WITH A 1B FLARE FROM REGION 2947 (N12W05) AND ALSO A 1N FLARE FROM REGION 2941. OTHER REGIONS ON THE DISK REMAINED MOSTLY STABLE WITH THE EXCEPTION OF RAPID GROWTH IN REGION 2947. NONE OF THE DELTA MAGNETIC CONFIGURATIONS OBSERVED YESTERDAY WERE PRESENT AT 2200UT. ONE NEW REGION WAS NUMBERED TODAY, 2948 (N13E60), A QUIET C-TYPE GROUP ROTATING OVER THE EAST LIMB.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN AT LOW TO MODERATE LEVELS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN QUIET FOR THE PAST 24 HOURS. DISTURBED CONDITIONS ARE NOW EXPECTED TOMORROW WITH UNSETTLED TO ACTIVE GEOMAGNETIC LEVELS THROUGHOUT THE FORECAST PERIOD.

III. EVENT PROBABILITIES 18 FEBRUARY - 20 FEBRUARY

CLASS M 50/50/50

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 17 FEBRUARY 190

PREDICTED 18-20 FEBRUARY 188/184/182

90-DAY MEAN 17 FEBRUARY 198

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 16 FEBRUARY 11/10

ESTIMATED AFR/AP 17 FEBRUARY 08/08

PREDICTED AFR/AP 18-20 FEBRUARY 15/18 - 19/23 - 20/28

SOLTERWARN

BT