HFUS I BOU 181400
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 049A
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 1200UT 18 FEB 1981
1A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
17/1200UT TO 18/1200UT:
AN M1/1B FLARE AT 17/1916Z (MAX) FOLLOWED BY AN X1/1B AT
17/2152Z (MAX) BROUGHT THE LEVEL OF ACTIVITY TO "HIGH" FOR A
BRIEF INTERVAL. THE M1/1B WAS PRODUCED BY REGION 2947 (N12W12)
WHICH GREW FROM A SMALL, SIMPLE, C TYPE GROUP ON 16 FEB TO A
MODERATE SIZE, BETA-GAMMA, D TYPE GROUP ON 17 FEB. THE GROWTH
HAS APPARENTLY STOPPED FOR THE PRESENT BUT RECENT HISTORY
WOULD INDICATE THAT GROWTH MAY START AGAIN WITH RESULTING FLARE
OCCURRENCES. REGION 2941 (N18W25) WAS RESPONSIBLE FOR THE
X1/1B AND THIS EVENT ALSO OCCURRED DURING A RAPID GROWTH PHASE.
RADIO EMISSION WITH THE X1 COVERED THE SPECTRUM OF DISCRETE
FREQUENCIES (300 FLUX UNITS AT 10CM) AND INCLUDED A TYPE II
SWEEP FREQUENCY BURST OF 17 MINUTES DURATION. REGION 2941 IS
STILL GROWING IN WHITE LIGHT WHILE PRODUCING OCCASIONAL SUBFLARES
THE REMAINING DISK FEATURES ARE LESS DRAMATIC IN THEIR BEHAVIOR.
1B. SOLAR ACTIVITY FORECAST:
SOLAR ACTIVITY SHOULD CONTINUE ITS ERRATIC TREND AS THE VISIBLE
DISK REGIONS REMAIN IN A STATE OF TRANSITION.
II. GEOPHYSICAL SUMMARY AND FORECAST:
THE GEOMAGNETIC FIELD HAS BEEN QUIET. THESE CONDITIONS SHOULD
GRADUALLY CHANGE TO ACTIVE AS THE FIELD RESPONDS TO RECENT FLARE
ACTIVITY AND POSSIBLY A MORE FAVORABLE DISK POSITION OF A CORONAL
HOLE.
III. EVENT PROBABILITIES: 19 - 21 FEB
CLASS M 50/50/50
CLASS X 01/01/01
PROTON 01/01/01
PCAF GREEN
IV. OTTAWA 10.7 FLUX
OBSERVED 17 FEB 190
ESTIMATED 18 FEB 190
PREDICTED 19-21 FEB 188/184/182
90 DAY MEAN 17 FEB 198
V. GEOMAGNETIC A INDICES
OBSERVED AFR 16 FEB 11 AP 17 FEB 06
ESTIMATED AFR 17 FEB 08 AFR/AP 18 FEB 08/10
PREDICTED AFR/AP 19/21 FEB 15/18 19/23 20/28
SOLTERWARN
BT

HFUS 3 BOU 182200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 049B
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200UT 18 FEB 1981
IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
18/1200UT TO 18/2200UT:
SOLAR ACTIVITY HAS CONTINUED MODERATE DURING THE PAST 10 HOURS. AN IMPULSIVE M1.1/SN FLARE OCCURRED IN REGION 2941 (N18W33) AT 1641 UT (MAXIMUM). NO RADIO EVENTS WERE ASSOCIATED. REGIONS 2941, 2943 (N11W31) AND 2947 (N12W20) ARE ONCE AGAIN REPORTED TO HAVE MAGNETIC DELTA CONFIGURATIONS. THESE REGIONS ARE ALL IN CLOSE PROXIMITY AND ARE APPARENTLY INTERACTING. NEW REGION 2949 (N09E54) A PLAGE WHICH HAD ROTATED OVER THE EAST LIMB, DEVELOPED AN A-TYPE SPOT TODAY.
1B. SOLAR ACTIVITY FORECAST:
SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE WITH HIGH LEVELS POSSIBLE DURING THE FORECAST PERIOD. REGIONS 2941, 2943 AND 2947 ARE ALL CAPABLE OF SIGNIFICANT ACTIVITY AND ARE FAVORABLY LOCATED FOR PROTON EVENTS AT EARTH.
II. GEOPHYSICAL SUMMARY AND FORECAST:
THE GEOMAGNETIC FIELD HAS REMAINED MOSTLY QUIET. INTERPLANETARY DATA SHOW THAT THE EARTH HAS PROBABLY ENTERED A STREAM OF SOLAR WIND EMANATING FROM THE SOUTHERN CORONAL HOLE, BUT THE INTERPLANETARY MAGNETIC FIELD DIRECTION IS MOSTLY NORTHWARD AND THEREFORE NOT INTERACTING WITH THE GEOMAGNETIC FIELD. FLARE EFFECTS ARE STILL EXPECTED FROM THE M EVENT OF 15 FEB AND THE X EVENT YESTERDAY.
III. EVENT PROBABILITIES: 19 - 21 FEBRUARY
CLASS M 80/70/60
CLASS X 25/15/10
PROTON 15/10/05
PCAF GREEN
IV. OTTAWA 10.7 FLUX
OBSERVED 18 FEB 199
PREDICTED 19-21 FEB 195/195/195
90 DAY MEAN 18 FEB 199
V. GEOMAGNETIC A INDICES
OBSERVED AFR/AP 17 FEB 06/06
ESTIMATED AFR/AP 18 FEB 05/06
PREDICTED AFR/AP 19-21 FEB 15/18 19/23 15/18
SOLTERWARN
BT