

SESC Solar Summary and Forecast - For Joe Hirman

Begin: 02/15/86 00:00:00

End : 02/15/86 23:59:00

15 22:00

2143

HFUS3 BOU 152200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 046

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 15 FEB 1986

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 14/2100 TO 15/2100Z: SOLAR ACTIVITY WAS MODERATE. REGION 4713 (NO1W97) PRODUCED AN M2 X-RAY EVENT AT 15/1203Z WITH SIGNIFICANT RADIO BURSTS. ITS LOOPS, SPRAY, AND SURGING LATER ACCOMPANIED AN M1 EVENT AT 15/1309Z. IT WAS LAST SEEN EARLY IN THE PERIOD AS A DK1 - BETA-DELTA TYPE BEFORE ROTATION AROUND THE LIMB. NO NEW REGION WAS ASSIGNED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW. REGION 4713 PROVIDES A FAIR CHANCE OF MODERATE ACTIVITY.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 14/2100Z TO 15/2100Z: THE GEOMAGNETIC FIELD WAS UNSETTLED TO QUIET. THE 10 MEV PROTON EVENT CONTINUED THROUGHOUT THE PERIOD. A PEAK VALUE OF 130 P/CM-CM-SEC-STER OCCURRED AT 15/0400Z. THIS WAS ALSO THE MAXIMUM SINCE THE START AT 14/1155Z. THE 50 MEV PROTON EVENT THAT STARTED AT 14/1100Z ALSO CONTINUED IN PROGRESS. ITS MAXIMUM WAS 68 P/CM-CM-SEC-STER AT 14/2048Z. A POLAR CAP ABSORPTION EVENT BRIEFLY OCCURRED AT 14/2245Z AND AGAIN LATER AT 15/1900Z.

IIIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT ACTIVE TO MINOR STORM LEVELS. THIS INCREASING DISTURBANCE IS BASED ON SIGNIFICANT FLARE ACTIVITY THE PAST SIX DAYS. THE 10MEV AND 50 MEV PROTON EVENT ARE EXPECTED TO END 16 FEB. BOTH ARE ABOVE NORMAL BACKGROUND LEVELS AND THERE IS A SLIGHT CHANCE OF FLARE ENHANCEMENTS ABOVE EVENT THRESHOLDS THE FIRST DAY (16 FEB).

III. EVENT PROBABILITIES 16 FEB-18 FEB

CLASS M 35/05/01

CLASS X 03/01/01

PROTON 20/05/01

PCAF RED

IV. OTTAWA 10.7 CM FLUX

OBSERVED 15 FEB 082

PREDICTED 16 FEB-18 FEB 076/072/070

90 DAY MEAN 15 FEB 078

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 14 FEB 025/019

ESTIMATED AFR/AP 15 FEB 010/007

PREDICTED AFR/AP 16 FEB-18 FEB 020/025-020/025-025/035

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