

HFUS3 BOU 182200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 049

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 18 FEB 1985

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 17/2100Z TO 18/2100Z: SOLAR ACTIVITY WAS VERY LOW. REGION 4626 (S11W54) DECAYED TO THE SIMILIAR SPOTLESS PLAGE CONDITION AS REGIONS 4625 (N01W70) AND 4627 (S07W35). ACTIVE PROMINENCES AND SURGING AT ESE LIMB AND THE SMM X-RAY IMAGER ENHANCEMENT SOURCE AT THE NE LIMB BOTH MAY HAVE CONTRIBUTED TO THE SIGNIFICANT INCREASE OF THE 10.7 CM EAST-WEST SCAN ON THE EAST LIMB. THESE REGIONS WERE ALSO SUSPECTED TO BE THE ORIGIN OF SEVERAL LOW-LEVEL C-CLASS X-RAY EVENTS DURING THE PERIOD. NO SIGNIFICANT RADIO EVENTS ACCOMPANIED THEM. NO NEW REGION WAS ASSIGNED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW. DUE TO THE UPCOMING REGIONS ON THE EAST LIMB, MENTION OF THE VERY SLIGHT CHANCE OF POSSIBLE SIGNIFICANT ACTIVITY IS REQUIRED. A SLIGHT INCREASE IN THE 10.7 CM FLUX REFLECTS THIS TREND. NO RETURNING REGIONS PROVIDE ANY SIGNIFICANT ACTIVITY POTENTIAL, THEREFORE THE NEW REGIONS MAY BE SHORT-LIVED AND PRODUCE QUICKLY-CHANGING CHARACTERISTICS WITH COMPRESSED-TIME EVENTS.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 17/2100Z TO 18/2100Z: GEOMAGNETIC ACTIVITY WAS UNSETTLED.

IIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS EXPECTED TO BE ACTIVE. MINOR/MAJOR STORM LEVELS ARE POSSIBLE AT HIGH LATITUDES LATE ON THE FIRST DAY (19 FEB) AND THROUGHOUT THE SECOND (20 FEB) DUE TO THE 14 DEGREE LONG DISAPPEARING FILAMENT OF 17/2103Z FROM S22W35 (CENTROID POINT). BRIEF MINOR LEVELS ARE ALSO POSSIBLE AT MID LATITUDES DURING THIS PERIOD. THE OUTLOOK IS EXPECTED TO BE AT UNSETTLED TO ACTIVE LEVELS FOR 22-23 FEB WITH ACTIVE TO MINOR STORM LEVELS POSSIBLE ON 24 FEB.

III. EVENT PROBABILITIES 19 FEB-21 FEB

CLASS M 01/01/01

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 FEB 076

PREDICTED 19 FEB-21 FEB 077/078/079

90 DAY MEAN 18 FEB 076

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 17 FEB 010/019

ESTIMATED AFR/AP 18 FEB 007/012

PREDICTED AFR/AP 19 FEB-21 FEB 016/020-019/025-015/020

SOLTERWARN

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