

HFUS3 BOU 142200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 134

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 14 MAY 1985

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 13/2100 TO 14/2100Z: SOLAR ACTIVITY WAS VERY LOW. REGION 4652 (S12W15) PRODUCED ONLY ONE C2.0 X-RAY EVENT AT 14/0026Z WITH A CORRELATED OPTICAL FLARE, TYPE I AND III RADIO SWEEP, AND ENHANCED RADIO NOISE STORM PEAKS UP TO 1120 SFU AT 240 MHZ. FREQUENT B-LEVEL X-RAY EVENTS CONTINUED THROUGHOUT THE PERIOD. THE MAGNETIC CONFIGURATION EVOLVED INTO A BETA-GAMMA AS THE NEGATIVE LEADER FIELD WAS ENGULFED BY THE FOLLOWER POSITIVE FIELD BUT THE OVERALL GRADIENTS DECREASED SIGNIFICANTLY AND A FRAGMENTATION OF THE GROUP RESULTED. WHITE-LIGHT NUMBERS DECREASED WITH THE AREA AND THE FINAL CONSENSUS CLASSIFICATION WAS STILL A DKI. NO NEW REGION WAS ASSIGNED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW. REGION 4652 STILL PROVIDES A VERY SLIGHT CHANCE OF MODERATE ACTIVITY. RETURNING REGION 4647 (N05, CAR 233) ALSO PROVIDES A VERY SLIGHT CHANCE OF M-LEVEL X-RAYS. IT IS EXPECTED TO REAPPEAR AT 16/1600Z. IT PRODUCED TWO M-LEVEL EVENTS AND THREE IMPORTANCE ONE FLARES DURING ITS LAST APPEARANCE BEFORE IT ROTATED AROUND THE LIMB AS A DAO (WHITE-LIGHT CLASSIFICATION).

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 13/2100Z TO 14/2100Z: GEOMAGNETIC ACTIVITY WAS UNSETTLED-TO-ACTIVE.

IIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS EXPECTED TO BE UNSETTLED-TO-ACTIVE THE FIRST DAY (15 MAY). THE FIELD IS EXPECTED TO INCREASE TO ACTIVE TO MINOR STORM LEVELS THE SECOND AND THIRD DAYS (16-17 MAY) AS THE CUMMULATIVE EFFECTS OF THE DISAPPEARING FILAMENT OF 12 MAY (FIVE DEGREES FROM N05W53) AND THE M2 X-RAY EVENT OF 13 MAY (2B FROM S12E07) IMPACT THE MAGNETOSPHERE. THE OUTLOOK IS FOR CONTINUED ACTIVE TO MINOR STORM LEVELS THE FOURTH AND FIFTH DAYS (18-19 MAY) DUE TO A RECURRENT SOLAR SECTOR BOUNDARY PASSAGE ACROSS CENTRAL MERIDIAN ON 13 MAY WITH ENHANCED GEOMAGNETIC ACTIVITY FOUR TO SIX DAYS LATER.

III. EVENT PROBABILITIES 15 MAY-17 MAY

CLASS M 04/03/02

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 14 MAY 090

PREDICTED 15 MAY-17 MAY 089/089/089

90 DAY MEAN 14 MAY 075

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 13 MAY 011/016

ESTIMATED AFR/AP 14 MAY 009/015

PREDICTED AFR/AP 15 MAY-17 MAY 010/015-015/025-020/030

SOLTERWARN

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