

HFUS3 BOU 152200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 135

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 15 MAY 1985

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 14/2100 TO 15/2100Z: SOLAR ACTIVITY WAS VERY LOW. REGION 4652 (S13W27) CONTINUED TO DECAY IN ALL ASPECTS. IT PRODUCED A B8/0H EVENT AT 15/1753Z. IT'S MAGNETIC CONFIGURATION DECREASED TO A BETA-TYPE. NEWLY ASSIGNED REGION 4655 (S07E71) WAS A SINGLE ALPHA-TYPE WITH PENUMBRAE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVTY IS EXPECTED TO BE VERY LOW. REGION 4652 STILL CONTINUES TO PROVIDE A VERY SLIGHT CHANCE OF M-LEVEL (MODERATE) X-RAY ACTIVITY. RETURNING REGION 4647 (N05, CAR-233) IS EXPECTED AT 16/1600Z BUT SHOULD PRODUCE ONLY C-LEVEL OR LOWER X-RAY ACTIVITY.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 14/2100Z TO 15/2100Z: GEOMAGNETIC ACTIVITY WAS AT AN ACTIVE LEVEL. MINOR STORM CONDITIONS OCCURRED AT HIGH LATITUDES 15/0130-0730Z WITH ACTIVE LEVELS AT MID LATITUDES. MAJOR STORM CONDITIONS LATER OCCURRED 15/1500-1800Z AT HIGH LATITUDES WITH ACTIVE LEVELS AGAIN AT MID LATITUDES.

IIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS EXPECTED TO BE AT ACTIVE TO MINOR STORM LEVELS. MAJOR STORM CONDITIONS ARE PROBABLE AT HIGH LATITUDES DURING LOCAL MIDNIGHT PERIODS. THIS DISTURBANCE IS BASED ON 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) IMPACTING THE MAGNETOSPHERE. THE OUTLOOK IS FOR CONTINUED ACTIVE TO MINOR STORM LEVELS THE FOURTH AND FIFTH DAYS (19-20 MAY) DUE TO A RECURRENT SOLAR SECTOR BOUNDARY PASSAGE ACROSS CENTRAL MERIDIAN ON 13 MAY WITH ENHANCED GEOMAGNETIC CONDITIONS FOUR TO SIX DAYS LATER.

III. EVENT PROBABILITIES 16 MAY-18 MAY

CLASS M 03/02/01

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 15 MAY 091

PREDICTED 16 MAY-18 MAY 091/091/092

90 DAY MEAN 15 MAY 075

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 14 MAY 009/012

ESTIMATED AFR/AP 15 MAY 016/020

PREDICTED AFR/AP 16 MAY-18 MAY 020/025-025/035-025/030

SOLTERWARN

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