

HFUS 3 BOU 132200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 133

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 13 MAY 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 12/2100 TO 13/2100Z: SOLAR ACTIVITY WAS LOW DURING THE PAST 24 HOURS WITH ONLY "C" CLASS EVENTS BEING RECORDED. THE LARGEST EVENT WAS A C6/NO OPTICAL AT 0625UT. REGION 4173 (S11W60) PRODUCED A C4/SB AT 1417UT. REGION 4171 (S31W13) HAS EXHIBITED MINOR WHITE LIGHT DECAY, HOWEVER IT STILL CONTAINS A DELTA MAGNETIC CONFIGURATION. REGION 4173 ALSO CONTAINS A DELTA BUT IT IS REPORTED TO HAVE LOST SOME AREA. REGIONS 4176 (S09E10) AND 4174 (N09E54) HAVE BOTH SHOWN RAPID GROWTH. HOWEVER THE MAGNETIC GRADIENTS ARE STILL WEAK. NO NEW REGIONS WERE NUMBERED. OLD RETURNING REGIONS WERE SMALL AND ARE NOT EXPECTED TO RETURN WITH VIGOR.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE WITH REGION 4171 HAVING THE POTENTIAL FOR AN ISOLATED X CLASS EVENT. REGION 4173 SHOULD CONTINUE TO PRODUCE M EVENTS WITH AN X CLASS EVENT POSSIBLE IF RAPID CHANGE OCCURS.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 12/2100Z TO 13/2100Z: THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE TO MINOR STORM LEVELS AT THE MID-LATITUDE SITES. MINOR STORM TO MAJOR STORM LEVELS WERE OBSERVED AT THE HIGH LATITUDE SITES. THE MOST ACTIVE PERIOD WAS FROM 0730UT TO 1030UT.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE FIELD IS EXPECTED TO CONTINUE ACTIVE WITH SHORT PERIODS AT MINOR STORM LEVELS GENERALLY DURING THE NIGHT TIME SECTOR. SOME INCREASE IN ACTIVITY IS EXPECTED ON 14 OR 15 MAY IN RESPONSE TO THE M5 EVENT OF 12 MAY.

III. EVENT PROBABILITIES 14 MAY-16 MAY

CLASS M 90/90/90

CLASS X 30/30/15

PROTON 20/20/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 13 MAY 151

PREDICTED 14 MAY-16 MAY 145/140/130

90 DAY MEAN 13 MAY 120

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 12 MAY 040/048

ESTIMATED AFR/AP 13 MAY 030/045

PREDICTED AFR/AP 14 MAY-16 MAY 025/025-025/025-014/025

SOLTERWARN

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