

HFUS 3 BOU 282200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 087

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 28 MAR 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 27/2100 TO 28/2100Z: SOLAR ACTIVITY HAS REMAINED LOW. THE LARGEST EVENTS OBSERVED DURING THE 24 HOUR PERIOD WERE TWO C1/SN FLARES FROM REGION 4128 (S14E17) AT 0752Z AND 1535Z MAXIMUM. THIS REGION WAS THE ONLY SPOTTED GROUP TO PRODUCE ANY ACTIVITY. IT HAS DISPLAYED EVIDENCE OF SLOW DECAY, BUT DOES RETAIN SOME MINOR MAGNETIC COMPLEXITY ALONG WITH AN INTERESTING NEUTRAL LINE FILAMENT. REGION 4127 (S16E46) IS THE ONLY OTHER DISK GROUP OF ANY SIZE OR COMPLEXITY, BUT THIS AREA HAS BEEN QUIET. NEW REGION 4131 (S05E28) EMERGED ON THE DISK TODAY AS A SIMPLE B-TYPE GROUP WITH FOUR SMALL SPOTS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD REMAIN LOW. NO SIGNIFICANT REGIONS ARE DUE TO RETURN DURING THE PERIOD.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 27/2100Z TO 28/2100Z: THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE TO MINOR STORM LEVELS FOR THE PAST 18 HOURS. THE POSSIBLE SOURCE OF THIS ACTIVITY IS A CORONAL HOLE CENTERED AT N20W71 AT 1500Z TODAY. THIS CORONAL HOLE DID NOT CREATE A GEOMAGNETIC RESPONSE LAST ROTATION.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO REMAIN AT ACTIVE TO OCCASIONAL MINOR STORM CONDITIONS FOR THE NEXT 48 HOURS DUE TO ANOTHER CORONAL HOLE NOW LOCATED AT S05W35. THIS POSITIVE POLARITY HOLE EXTENDS 50 DEGREES NORTH-SOUTH ACROSS THE SOLAR EQUATOR AND WAS RESPONSIBLE FOR SEVERAL DAYS OF ACTIVE TO MINOR STORM CONDITIONS LAST ROTATION.

III. EVENT PROBABILITIES 29 MAR-31 MAR

CLASS M 05/05/05

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 28 MAR 105

PREDICTED 29 MAR-31 MAR 103/100/100

90 DAY MEAN 28 MAR 130

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 27 MAR .003/006

ESTIMATED AFR/AP 28 MAR .022/035

PREDICTED AFR/AP 29 MAR-31 MAR 025/025-025/025-015/020

SOLTERWARN

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