

FUS 3 BOU 272200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 117

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 27 APR 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 26/2100 TO 27/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE. DUE TO THE MAGNETIC STRUCTURE OF THE 4154/4156 COMPLEX, THIS AREA IS NOW DESIGNATED AS REGION 4154 (S13E09). THIS REGION PRODUCED AN M1/SN AT 27/0256Z AND AN M1/1B AT 27/1356Z. BOTH FLARES PRODUCED MINOR CENTIMETRIC RADIO BURSTS. THIS REGION IS NOW CLASSIFIED AS A SMALL CLASS F GROUP WITH A BETA GAMMA MAGNETIC CONFIGURATION AND EXTENSIVE PLAGE. JUST TO THE EAST OF THIS GROUP, AND INTRUDING UPON ITS TRAILER, IS NEW REGION 4162 (S15E24) WHICH IS EMERGING QUITE RAPIDLY. REGION 4162 IS BRIGHT, PRODUCING FREQUENT SUBFLARES, AND IS CURRENTLY A CLASS C GROUP WITH MANY SMALL SPOTS. REGIONS 4150 (S11W37) AND 4157 (S05E32) HAVE EXHIBITED DECAY AND PRODUCED SEVERAL SUBFLARES. A LARGE NORTHERN POLAR CROWN FILAMENT HAS FADED DURING THE LAST TWO DAYS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE MODERATE. SHOULD 4162 CONTINUE TO EMERGE AT ITS CURRENT RATE AND IMPINGE FURTHER UPON THE TRAILER OF 4154, THE LIKELIHOOD OF A MAJOR FLARE WOULD INCREASE. INFREQUENT CLASS M FLARES ARE POSSIBLE FROM REGIONS 4150 AND 4157. NO SIGNIFICANT REGIONS ARE DUE TO RETURN.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 26/2100Z TO 27/2100Z: THE GEOMAGNETIC FIELD WAS ACTIVE DURING NIGHTTIME PERIODS BECOMING UNSETTLED TO SLIGHTLY ACTIVE DURING DAYLIGHT HOURS.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO REMAIN ACTIVE FOR THE EARLY PORTION OF 28 APR. GENERALLY UNSETTLED CONDITIONS SHOULD BE EXPERIENCED FOR THE DURATION OF THE FORECAST PERIOD AT MID LATITUDES WITH SLIGHTLY ACTIVE CONDITIONS PREDICTED FOR HIGH LATITUDES.

III. EVENT PROBABILITIES 28 APR-30 APR

CLASS M 70/70/70

CLASS X 10/10/10

PROTON 01/01/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 27 APR 148

PREDICTED 28 APR-30 APR 150/150/148

90 DAY MEAN 27 APR 121

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 26 APR 025/032

ESTIMATED AFR/AP 27 APR 017/020

PREDICTED AFR/AP 28 APR-30 APR 015/020-012/020-012/020

SOLTERWARN

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