

FUS 3 BOU 252200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 145

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 25 MAY 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 24/2100 TO 25/2100Z: SOLAR ACTIVITY HAS BEEN LOW TO MODERATE. THE ONLY SIGNIFICANT EVENT WAS AN M2 WITH X-RAY MAXIMUM AT 0955Z. ATHENS (WITH ONLY BRIEF OBSERVATIONS) REPORTED A LIMB FLARE AND EJECTA NEAR SE09 - AFTER X-RAY MAXIMUM. THIS WOULD MARK THE RETURN OF OLD REGION 4165. HOWEVER, NO FURTHER ACTIVITY HAS BEEN REPORTED IN THIS VICINITY. OTHER LOW LEVEL CLASS C FLARES OCCURRED IN REGIONS 4183 (N18W29) AND 4187 (S17E13). A REJUVENATION OF SUNSPOT GROWTH IS OCCURRING IN REGION 4187 WITH ARCH FILAMENTS CURRENTLY IN EXISTENCE. REGIONS 4193 (S07W01) AND 4194 (N17E68) WERE ADDED TODAY. MODERATE GROWTH IS OCCURRING IN REGION 4193.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE WITH A SLIGHT CHANCE FOR A CLASS M FLARE, PRIMARILY FROM REGION 4187.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 24/2100Z TO 25/2100Z: THE GEOMAGNETIC STORM WHICH BEGAN 24/1600Z ENDED NEAR 0500Z. THE FIELD HAS BEEN QUIET TO UNSETTLED SINCE THE END OF THE STORM.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BECOME ACTIVE ON THE 26TH AND REMAIN SO FOR THE FORECAST PERIOD. THE CONTRIBUTING CORONAL HOLE FOR THIS INCREASED FIELD ACTIVITY IS CENTERED AT N30. BECAUSE OF THIS HIGHER LATITUDE, THE STRENGTH OF THE ASSOCIATED HIGH SPEED STREAM REACHING THE EARTH IS UNCERTAIN. ALSO, A FILAMENT WHICH DISAPPEARED ON 23 MAY IS EXPECTED TO INCREASE THE LEVEL OF ACTIVITY ON 27 MAY.

III. EVENT PROBABILITIES 26 MAY-28 MAY

CLASS M 20/25/25

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 25 MAY 135

PREDICTED 26 MAY-28 MAY 135/133/130

20 DAY MEAN ----- 25 MAY 125

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 24 MAY 058/075

ESTIMATED AFR/AP 25 MAY 014/020

PREDICTED AFR/AP 26 MAY-28 MAY 018/025-028/020-015/020

SOLTERWARN

BT