

FUS 3 BOU 252200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 206

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 25 JUL 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 24/2100 TO 25/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOURS. TWO M2 X-RAY EVENTS OCCURRED, AT 0401Z AND 1038Z, ACCOMPANIED BY MINOR RADIO BURSTS ACROSS THE SPECTRUM. BOTH WERE ASSOCIATED WITH FLARE LOOPS SEEN ON THE SOUTHWEST LIMB WHERE REGIONS 4249, 4260, AND 4251 DEPARTED YESTERDAY. NEAR-CONTINUOUS SURGING HAS BEEN REPORTED FROM THAT LOCATION. ALSO ON THE WEST LIMB, REGION 4245 (N14W88) PRODUCED A C9/1N FLARE AT 24/2156Z WITH TYPE II AND TYPE IV RADIO SWEEPS. FLARE LOOPS WERE SEEN NEAR 1200Z FROM NW10 WHERE 4245 IS EXITING THE LIMB. ON THE DISK, REGIONS 4255 (N08W57) AND 4256 (S06W58) HAVE CONTINUED TO DEVELOP BOTH NEARLY DOUBLING IN WHITE LIGHT AREA. REGION 4255 IS NOW MAGNETICALLY COMPLEX (BETA-GAMMA CLASS) BUT NEITHER OF THESE REGIONS HAS PRODUCED SIGNIFICANT FLARES RECENTLY. REGIONS 4253 (N10W43) AND 4252 (S09W46) SHOWED RAPID DECAY. NO NEW REGIONS WERE ADDED BUT SOME SPOTS EMERGED BRIEFLY IN REGION 4254 (S13W23) THIS MORNING.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW. REGIONS PRESENTLY ON THE VISIBLE DISK, ESPECIALLY 4255, APPEAR CAPABLE OF ONLY ISOLATED SIGNIFICANT FLARES.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 24/2100Z TO 25/2100Z: THE GEOMAGNETIC FIELD HAS BEEN MOSTLY UNSETTLED DURING THE PAST 24 HOURS, WITH ONE PERIOD FROM 03-06Z AT MINOR STORM LEVELS.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD SHOULD BE UNSETTLED TO QUIET TOMORROW, INCREASING SHARPLY TO ACTIVE CONDITIONS MIDDAY ON JULY 27 AND THEN TO MINOR STORM LEVELS ON THE 28TH. THIS STORM IS EXPECTED IN RESPONSE TO A FILAMENT DISAPPEARANCE ON 24 JULY FROM HELIOGRAPHIC LONGITUDE W20. IN ADDITION, POSITIVE-POLARITY CORONAL HOLES STRADDLING THE EQUATOR CROSSED THE CENTRAL MERIDIAN TODAY AND SHOULD ADD TO THE EXPECTED ACTIVITY ON THE 28TH.

III. EVENT PROBABILITIES 26 JUL-28 JUL

CLASS M 05/05/05

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 25 JUL 134

PREDICTED 26 JUL-28 JUL 125/115/110

90 DAY MEAN 25 JUL 134

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 24 JUL 040/046

ESTIMATED AFR/AP 25 JUL 020/025

PREDICTED AFR/AP 26 JUL-28 JUL 010/015-025/025-035/035

SOLTERWARN

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