

HFUS 1 BOU 032200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 155

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z-03 JUNE 1980

IA. SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOURS. REGION 2490 (S14E61) HAS PRODUCED THREE SMALL M-CLASS BURSTS AND A LARGE C-CLASS SUBFLARE WITH CLASSES AND MAXIMUM TIMES AS FOLLOWS: M1/1N 03/0114Z, M2/1N 0807Z, M3/1B 1209Z AND C9/SB 1416Z. THE M3 EVENT WAS A DOUBLE PEAKED EVENT WITH STRONG SWF'S OCCURRING AT THE SAME TIME AS THE X-RAY PEAKS, BUT ONLY MINOR DISCRETE FREQUENCY RESPONSES AND NO SWEEP FREQUENCY EVENTS REPORTED. REGION 2478 (S10W56) HAS ONLY PRODUCED A SINGLE C-CLASS SUBFLARE (C8/SF WITH A MAXIMUM AT 03/0213Z) BUT THE REGION CONTAINS A STRONG DELTA CONFIGURATION AND A STEEP GRADIENT (0.31 GAUSS/KILOMETER). OTHER REGIONS APPEAR QUIET AND STABLE ALTHOUGH THERE ARE CONFUSED GROUPINGS OF WEAK ACTIVE REGIONS BOTH NORTH AND SOUTH OF THE SOLAR EQUATOR AT ABOUT 14 DEGREES EAST OF CENTRAL MERIDIAN. IN THE NORTH, REGION 2486 (N12E04) HAS REVERSED POLARITY BUT IS QUITE STABLE. IN THE SOUTH, THE MOST SUBSTANTIAL REGIONS ARE REGION 2487 (S10E06) AND 2488 (S10E16). REGION 2487 WAS NEARLY FLARE BRIGHT FOR PART OF THE DAY TODAY AND TRANSITORY SPOTS AND FAINT MARKINGS ARE SHOWING UP IN THE GENERAL VICINITY OF THESE TWO REGIONS AS REORGANIZATION TAKES PLACE.

IB. REGION 2490 IS A PROVEN X-RAY PRODUCER AND MAY CONTAIN A WEAK DELTA. IT SHOULD BE REGARDED WITH CAUTION BUT, FOR THE TIME BEING DOES NOT SEEM DESTINED TO PRODUCE MORE THAN SMALL (LESS THAN M5) M-CLASS X-RAY EVENTS. REGION 2478, THOUGH PRESENTLY QUIET, HAS MAJOR FLARE POTENTIAL. IT HAS A HEAVILY IMBEDDED DELTA CONFIGURATION AND IT IS NOT LIKELY THAT THE STRESS IN THE REGION WILL BE RELIEVED PEACEFULLY. THOUGH IT IS IMPOSSIBLE TO SAY WHEN A MAJOR FLARE CAN BE EXPECTED, THERE IS A GOOD CHANCE SUCH A FLARE WILL OCCUR BEFORE THE REGION IS COMPLETELY OUT OF SIGHT OVER THE WEST LIMB.

II. THE GEOMAGNETIC FIELD HAS BEEN MILDLY UNSETTLED DURING THE PAST 24 HOURS. THE FIELD IS EXPECTED TO BE QUIET TO MILDLY UNSETTLED FOR THE NEXT 72 HOURS.

III. EVENT PROBABILITIES 04 JUNE - 06 JUNE

CLASS M 75/75/70

CLASS X 30/25/25

PROTON 25/25/20

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 03 JUNE 174

PREDICTED 04-06 JUNE 175/179/182

90-DAY MEAN 03 JUNE 202

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 02 JUNE 08

ESTIMATED AFR/AP 03 JUNE 10/10

PREDICTED AFR/AP 04-06 JUNE 06/08 - 10/10 - 09/10

SOLTERWARN

BT