

HFUS 1 BOU 122200
FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER CO
SDF NUMBER 316

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 12 NOV 1978

IA. SOLAR ACTIVITY REMAINED LOW DURING THE PAST 24 HOUR PERIOD. REGION 1382 (S14W72) HAS HAD POINT BRIGHTENINGS AND PLAGE FLUCTUATIONS NEARING FLARE INTENSITY. IT REMAINS AN F-TYPE BETA-GAMMA GROUP WITH A COMPLEX NEUTRAL LINE AND EMERGING FLUX WAS EVIDENT DURING THE PERIOD. REGION 1385 (N18W39) HAS CHANGED LITTLE MAGNETICALLY. IT REMAINS AN E-TYPE BETA-GAMMA GROUP; HOWEVER IT HAS HAD POINT BRIGHTENINGS, PLAGE FLUCTUATIONS AND EMERGING FLUX THIS PERIOD. ONLY MINOR C-CLASS X-RAY FLARES WERE OBSERVED.

IB. SOLAR ACTIVITY SHOULD BE LOW TO MODERATE DURING THE NEXT 24 HOURS. BOTH REGIONS 1385 AND 1382 COULD BE EXPECTED TO PRODUCE M-CLASS X-RAY EVENTS. HISTORICALLY, REGION 1385 IS THE STRONGER PRODUCER HAVING PREVIOUSLY HAD SEVERAL MINOR M-CLASS FLARES WITH A PROBABLE SMALL PROTON EVENT.

II. THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE LEVELS APPARENTLY AS A CONSEQUENCE OF THE M1/2N FLARE FROM REGION 1385 ON 10 NOVEMBER. THE DISTURBANCE BEGAN AS SUDDEN IMPULSE (SI) AT 12/0105 U.T. THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT PREDOMINATELY UNSETTLED LEVELS WITH INTERMITTENT NOCTURNAL PERIODS AT THE ACTIVE LEVELS DURING THE NEXT 24-HOURS PERIOD.

III. EVENT PROBABILITIES 13 NOV - 15 NOV

CLASS M	70/70/60
CLASS X	15/15/15
PROTON	15/15/15
PCAF	YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED	12 NOV	154
PREDICTED	13-15 NOV	152/150/148
90-DAY MEAN	12 NOV	152

GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG	11 NOV	06
ESTIMATED AFR/AP	12 NOV	25/32
PREDICTED AFR/AP	13-15 NOV	14/15 - 10/15 - 10/13

SOLTERWARN

BT

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JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 12 NOVEMBER 1979

IA. SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOURS. OPTICAL FLARE COVERAGE HAS BEEN POOR, SO IT HAS NOT BEEN POSSIBLE TO IDENTIFY THE SOURCES OF ALL X-RAY BURSTS MEASURED BY SATELLITE SENSORS: BUT REGION 2099 (S14W47) WOULD APPEAR TO BE RESPONSIBLE FOR MOST OF THE ENERGETIC ACTIVITY. REGION 2099 IS NOW CLEARLY DECAYING AND THIS INCREASES THE PROSPECTS FOR A MAJOR FLARE FROM THE REGION SINCE REGIONS TEND TO PRODUCE THEIR LARGEST ~~CLASS~~ FLARES DURING PERIODS OF RAPID GROWTH OR DECAY. REGION 2106 (S17W11) IS A LARGER REGION THAN REGION 2099 BUT HAS NOT BEEN AS ACTIVE DURING THIS DISK PASSAGE. REGIONS 2110 (N30E06) AND 2112 (N12E19) HAVE BOTH BEEN SEEN TO BE FLARING AT THE SAME TIME AS FLARES OCCURRED IN REGION 2099. AN M4 BURST WITH A MAXIMUM AT 12/0115Z WAS ACCOMPANIED BY A 1N FLARE IN REGION 2110 AND A SB FLARE IN REGION 2099. AN M3 BURST WITH A MAXIMUM AT 1949Z WAS ACCOMPANIED BY A 2B FLARE IN REGION 2112 AND A SF IN REGION 2099.

IB. SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE TO HIGH. REGIONS 2099, 2106, 2110 AND 2112 SHOULD CONTINUE TO PRODUCE OCCASIONAL M-CLASS X-RAY BURSTS WITH AN EXCELLENT CHANCE OF PRODUCING AN INFREQUENT X-CLASS MAJOR BURST.

II. THE GEOMAGNETIC FIELD HAS BEEN MILDLY UNSETTLED DURING THE PAST 24 HOURS. THE FIELD IS EXPECTED TO BECOME UNSETTLED TO MILDLY ACTIVE EARLY IN THE FORECAST PERIOD WITH ACTIVITY LEVELS DIMINISHING THEREAFTER.

III. EVENT PROBABILITIES 13 - 15 NOVEMBER

CLASS M 95/95/95

CLASS X 50/50/50

PROTON 40/40/40

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 12 NOV 297

PREDICTED 13-15 NOV 286/276/255

90-DAY MEAN 12 NOV 217

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 11 NOV 09

ESTIMATED AFR/AP 12 NOV 08/07

PREDICTED AFR/AP 13-15 NOV 13/16 10/12 09/10

SOLTERWARN

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