

SDF NUMBER 358

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

PAP

ISSUED 2200Z 24 DEC 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 23/2100Z TO 24/2100Z: SOLAR ACTIVITY HAS CONTINUED AT A VERY LOW LEVEL THIS PERIOD WITH ONLY THREE SUB FAINT OPTICAL FLARES OBSERVED ALL FROM REGION 4380 (S12W72) AT 0326Z, 1300Z AND 1825Z. NO X-RAYS WERE RECORDED WITH THESE FLARES. TWO SMALL "B" CLASS X-RAY EVENTS WERE ALSO OBSERVED, NO OPTICAL CORRELATION, A B7 AT 1117Z AND A B1 AT 1801Z. REGION 4380 HAS EXHIBITED DECAY THIS PERIOD. ONE NEW REGION HAS BEEN NUMBERED TODAY 4383 (N02E02) A SIMPLE "B" TYPE WITH WEAK PLAGE. A SMALL ACTIVE SURGE REGION HAS BEEN OBSERVED AT NE13 HOWEVER NO SPOT REPORT HAS BEEN RECEIVED FOR THIS LOCATION.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO CONTINUE AT A VERY LOW LEVEL DURING THIS FORECAST PERIOD. CURRENT DISK REGIONS DO NOT APPEAR CAPABLE OF ENERGETIC ACTIVITY AND OLD RETURNING REGIONS WERE SIMPLE LAST ROTATION AND DEVELOPMENT OF THEM IS NOT EXPECTED. ✓

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 23/2100Z TO 24/2100Z: THE GEOMAGNETIC FIELD WAS GENERALLY AT QUIET CONDITIONS UNTIL APPROXIMATELY 1330Z WHEN ACTIVE CONDITIONS WERE OBSRVED AT THE MID-LATITUDE SITES WHILE THE HIGH LATITUDE SITES EXPERIENCED PERIODS OF MINOR STORM CONDITIONS. THIS ACTIVITY IS THOUGHT TO BE FROM A SOLAR SECTOR BOUNDARY WHICH PASSED CENTRAL MERIDIAN ON 20 DEC.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT GENERALLY ACTIVE LEVELS WITH SHORT PERIODS OF MINOR, MAJOR AT THE HIGH LATITUDE SITES, STORM CONDITIONS DURING THIS FORECAST PERIOD.

III. EVENT PROBABILITIES 25 DEC-27 DEC

CLASS M 01/01/01

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 24 DEC 086

PREDICTED 25 DEC-27 DEC 085/082/085

90 DAY MEAN 24 DEC 102

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 23 DEC 008/012

ESTIMATED AFR/AP 24 DEC 013/015

PREDICTED AFR/AP 25 DEC-27 DEC 015/020-020/025-025/020

SOLTERWARN

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