

HFUSS BDU 222200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 357

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 22 DEC 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 21/2100Z TO 22/2100Z: SOLAR ACTIVITY CONTINUES AT A VERY LOW LEVEL. BOTH REGION 4608 (N19W76) AND REGION 4609 (S13E10) HAVE LOST THEIR SPOTS. SPOTS HAVE DEVELOPED IN THE PLACE NORTHEAST OF REGION 4609 AND THIS AREA HAS BEEN NUMBERED REGION 4610 (S07E22). NO FLARES HAVE BEEN REPORTED TODAY, HOWEVER, EFR HAVE BEEN OBSERVED IN SEVERAL LOCATIONS. THE FILAMENT NEAR N05 W10 HAS INCREASED IN SIZE. WITH THE EXCEPTION OF MINOR ACTIVITY ASSOCIATED WITH DEPARTING REGION 4608, THE LIMBS ARE QUIET AND NO REGIONS ARE DUE BACK.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN AT A VERY LOW LEVEL.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 21/2100Z TO 22/2100Z: THE GEOMAGNETIC FIELD WAS QUIET TO UNSETTLED. INTERPLANETARY SOLAR WIND DATA FROM THE ICE SPACECRAFT REFLECTED A POSITIVE CORONAL HOLE SIGNATURE (LOW DENSITY AND HIGH VELOCITY) FROM 12 TO 21 DEC. TODAYS MEASUREMENTS INDICATE A HIGH DENSITY WITH LOW VELOCITY.

IIIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE UNSETTLED TO ACTIVE EARLY IN THE PERIOD BECOMING GENERALLY UNSETTLED BY THE END OF THE PERIOD. THE INCREASE IN ACTIVITY IS EXPECTED AS A CONSEQUENCE OF THE FILAMENT WHICH DISAPPEARED ON 19 DEC.

III. EVENT PROBABILITIES 23 DEC-25 DEC

CLASS M 01/01/01

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 22 DEC 073

PREDICTED 23 DEC-25 DEC 072/071/071

90 DAY MEAN 22 DEC 075

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 21 DEC 013/013

ESTIMATED AFR/AP 22 DEC 008/015

PREDICTED AFR/AP 23 DEC-25 DEC 015/020-010/010-007/010

SOLTERWARN

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