

HFUS 1 BOU 241300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 358A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 24 DEC 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 23/1200Z TO 24/1200Z: SOLAR ACTIVITY CONTINUES LOW. ONLY SMALL AND/OR MAGNETICALLY SIMPLE REGIONS ARE ON THE VISIBLE DISK. GROWTH IS OCCURRING IN REGIONS 3521 (S23E09) AND 3522 (N22E34) BUT NEITHER IS A SIGNIFICANT REGION AT THIS TIME.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD REMAIN LOW FOR AT LEAST THE NEXT TWO DAYS. ON 27 DECEMBER, REGION 3487 (N05, 354) IS EXPECTED TO RETURN TO THE EAST LIMB AND COULD POSSIBLY RETURN ACTIVE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED FOR THE PAST 24 HOURS. QUIET TO UNSETTLED CONDITIONS SHOULD PREVAIL FOR THE NEXT THREE DAYS. A LARGE, APPARENTLY STRONG, CORONAL HOLE PASSED CENTRAL MERIDIAN TODAY AND SHOULD CAUSE ACTIVE GEOMAGNETIC CONDITIONS BEGINNING LATE ON 27 DECEMBER AND CONTINUING ON 28 DECEMBER. THIS S SHAPED HOLE HAS ENLARGED GREATLY SINCE LAST ROTATION AND ITS HIGH SPEED STREAM MAY NOT HAVE DEVELOPED TO MATURITY YET.

III. EVENT PROBABILITIES 25 DEC-27 DEC

CLASS M 05/05/10

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 23 DEC 158

ESTIMATED 24 DEC 162

PREDICTED 25 DEC-27 DEC 168/170/178

90 DAY MEAN 23 DEC 215

V. GEOMAGNETIC A INDICES

OBSERVED AFR 22 DEC 002 AP 23 DEC 005

ESTIMATED AFR 23 DEC 005 AFR/AP 24 DEC 007/008

PREDICTED AFR/AP 25 DEC-27 DEC 007/008-006/008-010/014

SOLTERWARN

BT

HXUS ROU 241300

PREDM 00525 00526 01027

PREDX 00125 00126 00127

PREDP 00125 00126 00127

PCAFT 00125

TENCM 16925 17026 17827

AFRED 00725 00626 01027

AFAPF 00825 00826 01427

KKK 22122 22222 22221

BT

HEUS 3 EOU 242200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 3585

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 24 DEC 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 24/1200Z TO 24/2100Z. SOLAR ACTIVITY CONTINUES LOW, HOWEVER, THE LARGEST EVENT IN OVER A WEEK OCCURRED AT 24/1842Z MAXIMUM. THIS EVENT CAME FROM REGION 3522 (N23E27) AND WAS OBSERVED AS A C3/SB FLARE IN THE TRAILER PORTION OF THE REGION WHERE INCREASING COMPLEXITY AND STRONGER GRADIENTS ARE EVIDENT. THE REMAINING DISK REGIONS ARE SIMPLE AND GENERALLY QUIET. TWO NEW REGIONS WERE NUMBERED TODAY, REGION 3525 (S17E46) AND 3526 (S08E64). BOTH ARE SIMPLE A-TYPE GROUPS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN LOW DURING THE FORECAST PERIOD.

IC. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN QUIET DURING THE PAST NINE HOURS. QUIET TO VERY LOW UNSETTLED CONDITIONS ARE EXPECTED DURING THE NEXT 48 HOURS, FOLLOWED BY A SLIGHT INCREASE IN ACTIVITY LATE ON THE 27TH, DUE TO A FAVORABLY LOCATED CORONAL HOLE.

IID. EVENT PROBABILITIES 25 DEC-27 DEC

CLASS M 05/05/10

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 24 DEC 163

PREDICTED 25 DEC-27 DEC 168/170/178

90 DAY MEAN 24 DEC 215

V. GEOMAGNETIC A INDICES

OBSERVED APR/AP 23 DEC 006/005

ESTIMATED APR/AP 24 DEC 007/008

PREDICTED APR/AP 25 DEC-27 DEC 007/008-006/008-010/014

SOLTERWARN

BT