

HFUS 1 BOU 261300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 360A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 26 DEC 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 25/1200Z TO 26/1200Z: SOLAR ACTIVITY HAS CONTINUED LOW WITH ONLY INFREQUENT, LOW LEVEL CLASS C FLARES BEING OBSERVED FROM VARIOUS SOURCES. REGION 3522 (N22E06) CONTINUES ITS SLOW GROWTH BUT OVERALL REGION MAGNETIC GRADIENTS REMAIN LOW. SEVERAL SMALL REGIONS HAVE BEEN NUMBERED IN THE EASTERN HEMISPHERE. ACTIVE SURGING HAS BEEN OBSERVED AT TWO LOCATIONS ALONG THE NORTHEASTERN LIMB INDICATING IMMINENT DISK APPEARANCE OF MORE SUNSPOT GROUPS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE LOW. REGION 3522 DOES NOT APPEAR CAPABLE OF PRODUCING ANYTHING BUT ISOLATED M CLASS FLARES. ACTIVE LONGITUDES AT THE EAST LIMB COULD ELEVATE ACTIVITY LEVELS. MORE SHOULD BE KNOWN TOMORROW REGARDING THEIR POTENTIAL. JUST AT THE END OF THE PERIOD MORE PREVIOUSLY ACTIVE LONGITUDES ARE EXPECTED TO RETURN TO THE EAST LIMB. HOWEVER, THESE LONGITUDES ARE FORECAST TO BE LESS ACTIVE THIS ROTATION.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED. ACTIVE CONDITIONS SHOULD BEGIN TO BE EXPERIENCED LATE TOMORROW AND CONTINUE THROUGH 28 DECEMBER DUE TO CORONAL HOLE EFFECTS. UNSETTLED LEVELS SHOULD OCCUR ON 29 DECEMBER.

III. EVENT PROBABILITIES 27 DEC-29 DEC

CLASS M 15/20/20

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 25 DEC 168

ESTIMATED 26 DEC 173

PREDICTED 27 DEC-29 DEC 181/187/193

90 DAY MEAN 25 DEC 215

V. GEOMAGNETIC A INDICES

OBSERVED AFR 24 DEC 008 AP 25 DEC 007

ESTIMATED AFR 25 DEC 005 AFR/AP 26 DEC 007/008

PREDICTED AFR/AP 27 DEC-29 DEC 010/014-016/016-010/014

SOLTERWARN

BT

HFUS 3 ROU 262200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 3608

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 26 DEC 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 26/1200Z TO 26/2100Z: SOLAR ACTIVITY CONTINUES TO BE LOW AND DISAPPOINTING. DURING THE PAST NINE HOURS THE LARGEST FLARE PRODUCED WAS A C1/SF FROM REGION 3527 (S11E44) AT 1644Z. REGION 3525 (S19E19) WAS THE ONLY OTHER REGION TO PRODUCE A FLARE, WITH A SF OBSERVED AT 1807Z. BOTH THESE GROUPS HAVE REPORTED SLOW GROWTH, BUT ARE AT PRESENT UNIMPRESSIVE IN H ALPHA AND WHITE LIGHT. REGION 3522 (N22W00) IS NOW APPARENTLY SIMPLIFYING MAGNETICALLY AS IT DECAYS. REGION 3528 (S11E64) HAS DISPLAYED SOME SIGNIFICANT GROWTH DURING THE PERIOD, WITH ARCH FILAMENTS, BUT AS YET HAS FAILED TO PRODUCE ANY FLARES. AN ACTIVE PROMINENCE AT NE08 ALONG WITH SOME CALCIUM PLAGE VISIBLE AT THIS AREA INDICATES A SMALL REGION RETURNING TO THE DISK. NO NEW REGIONS WERE NUMBERED TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO CONTINUE LOW. THE CURRENT DISK REGIONS SHOULD NOT PRODUCE ANY SIGNIFICANT ACTIVITY, HOWEVER, RETURNING ACTIVE REGIONS FROM LAST ROTATION COULD INCREASE THE GENERAL LEVEL OF ACTIVITY DURING THE NEXT THREE DAYS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED DURING THE PAST NINE HOURS. UNSETTLED CONDITIONS ARE EXPECTED UNTIL LATE ON THE 27TH, WHEN SLIGHTLY ACTIVE LEVELS ARE FORECAST AS A RESULT OF A SOUTHERN HEMISPHERE CORONAL HOLE WHICH WILL THEN BE IN A FAVORABLE LOCATION FOR TERRRESTRIAL EFFECTS.

III. EVENT PROBABILITIES 27 DEC-29 DEC

CLASS M 15/20/20

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 17.7 CM FLUX

OBSERVED 26 DEC 172

PREDICTED 27 DEC-29 DEC 181/187/193

90 DAY MEAN 26 DEC 215

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 25 DEC 005/007

ESTIMATED AFR/AP 26 DEC 009/008

PREDICTED AFR/AP 27 DEC-29 DEC 010/014-015/016-010/014

SOLTERWARN

PT

HXUS ROU 262200

PREDM 01527 02028 02029

PREDX 00127 00128 00129

PREDP 00127 00128 00129

PCAFT 00127

TENCM 18127 18728 19329

AFRED 01027 01628 01029

AFAPF 01427 01628 01429

BT