

HFXS 1 BOU 281300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 028A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 28 JAN 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 27/1200Z TO 28/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE DUE TO FOUR M-CLASS EVENTS. REGION 3576 (S14E52) PRODUCED THREE OF THE M-EVENTS AN M1/2B AT 27/2109UT, M1/1B AT 27/2245UT, MINOR RADIO WAS RECORDED, AND AN M1/1N AT 28/0640UT. AT 28/0656UT AN IMPRESSIVE M8/3B OCCURRED FROM REGION 3573 (N11E37) THE EVENT HAD UMBRAL COVERAGE, PARALLEL RIBBONS, TYPE II/IV SWEEPS, 320 FLUX UNIT BURST AT 2695MHZ AND 2200 FLUX UNIT BURST AT 245MHZ. REGIONS 3573, 3576 AND 3579 (N12E68) ALL SHOW RAPID GROWTH WITH DELTA CONFIGURATIONS BEING REPORTED IN REGIONS 3573 AND 3576. MINOR SURGING CONTINUES ON EAST LIMB.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO CONTINUE AT A MODERATE LEVEL DURING THE FORECAST PERIOD. REGIONS 3573 AND 3576 SHOULD CONTINUE TO BE THE PRIME PRODUCERS OF EVERGETIC EVENTS WITH AN ISOLATED X-CLASS EVENT POSSIBLE. REGION 3579 MAY JOIN THE RANKS OF M-CLASS ACTIVITY IF GROWTH CONTINUES.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN GENERALLY UNSETTLED, EXCEPT FOR THE LAST THREE PERIODS WHICH WERE ACTIVE. DUE TO THE EFFECTS OF THE M8 EVENT AND A SMALL CORONAL HOLE THE FIELD IS EXPECTED TO BE UNSETTLED UNTIL 31 JANUARY WHEN ACTIVE CONDITIONS, AND A FEW PERIODS AT MINOR STORM LEVELS, ARE EXPECTED.

III. EVENT PROBABILITIES 29 JAN-31 JAN

CLASS M 60/60/60

CLASS X 15/15/10

PROTON 05/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 27 JAN 203

ESTIMATED 28 JAN 217

PREDICTED 29 JAN-31 JAN 225/228/230

90 DAY MEAN 27 JAN 195

V. GEOMAGNETIC A INDICES

OBSERVED AFR 26 JAN 007 AP 27 JAN 013

ESTIMATED AFR 27 JAN 012 AFR/AP 28 JAN 018/022

PREDICTED AFR/AP 29 JAN-31 JAN 012/012-012/014-027/030

SOLTERWARN

BT

HXUS BOU 281300

PREDM 06029 06030 06031

PREDX 01529 01530 01031

PREDP 00529 00530 00531

PCAF 00129

TENCM 22529 22830 23031

AFRED 01229 01230 02731

AFAPP 01229 01430 03031

KKK 34333 32223 33332

BT

HFUS 3 BOU 282200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 028B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 28 JAN 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 28/1200Z TO 28/2100Z: SOLAR ACTIVITY HAS BEEN LOW SINCE THE M8/3B AT 0649Z. THIS MAJOR FLARE IN REGION 3573 (N10E32) MAY HAVE BEEN ACTIVATED BY THE EMERGENCE OF REGION 3581 (N07E43). THE LARGEST FLARE THIS PERIOD CAME FROM REGION 3581; A C7/SB AT 1519Z. REGION 3573 HAS CHANGED LITTLE, WITH THE N-S POLARITY ASYMMETRY STILL REMAINING. MOST OF THE FLARING AND BRIGHTNESS FLUCUTATIONS IN REGION 3576 (S13E47) ARE STILL OCCURRING AROUND THE LEADING SPOT OF THIS REGION. REGION 3577 (S13E06) HAS SLOWED ITS GROWTH; HOWEVER, REGION 3578 (S10E30) IS CURRENTLY UNDERGOING ITS RAPID GROWTH PHASE. ADDITIONALLY, REGIONS 3580 (N12302), 3582 (N14E70), AND 3583 (S18E74) HAVE BEEN ADDED TODAY. LARGE SCALE REORIENTATIONS APPEAR TO BE OCCURRING ACROSS THE SOLAR DISK. THE CORONAL HOLE NEAR S25W25 MAY BE GETTING PINCHED OFF. A LARGE SECTOR BOUNDARY FILAMENT IN THE SOUTH CENTRAL PART OF THE DISK YESTERDAY DISAPPEARED SOMETIME BETWEEN 27/2200Z AND 28/1500Z. MAUNA LOA REPORTS AN ERUPTIVE PROMINENCE, BEGINNING AT 1954Z, NEAR NE05.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE. REGIONS 3573 AND 3576 SHOULD CONTINUE TO BE THE PRIME PRODUCERS OF ENERGETIC EVENTS WITH AN ISOLATED X-CLASS EVENT POSSIBLE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE. A SUDDEN COMMENCEMENT FROM TODAYS MAJOR FLARE IS EXPECTED BETWEEN 30/2200Z AND 31/1000Z. PRIOR TO THIS TIME THE FIELD IS EXPECTED TO BE GENERALLY UNSETTLED WITH SHORT PERIODS AT ACTIVE LEVEL. IF THE BULK OF PARTICLES IS SWEPT UP BY THE EXPECTED SHOCK, A SHORT PERIOD OF MAJOR STORM INTENSITY MAY BE EXPERIENCED ON 31 JANUARY.

III. EVENT PROBABILITIES 29 JAN-31 JAN

CLASS M 60/60/60

CLASS X 15/15/10

PROTON 05/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 28 JAN 233

PREDICTED 29 JAN-31 JAN 245/250/255

90 DAY MEAN 28 JAN 196

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 27 JAN 010/013

ESTIMATED AFR/AP 28 JAN 015/018

PREDICTED AFR/AP 29 JAN-31 JAN 012/012-015/020-035/040

SOLTERWARN

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HXUS BOU 282200

PREDM 06029 06030 06031

PREDX 01529 01530 01031

PREDP 00529 00530 00531

PCAF 00129

TENCM 24529 25030 25531

AFRED 01229 01530 03531

AFAPP 01229 02030 04031

BT