HFUS 1 BOU 301300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 030A
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 30 JAN 1982
IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 29/1200Z TO 30/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOURS. REGIONS 3579 (N11E38), 3573 (N10E12) AND 3576 (S13E26) ALL PRODUCED NEARLY SIMULTANEOUS SUBFLARES WHICH RESULTED IN AN M1 X-RAY BURST AT 30/0035Z. THEN REGIONS 3581 (N09E22) AND 3576 PRODUCED SUBFLARES SIMULTANEOUSLY AT 30/0048Z WITH COMBINED X-RAYS AGAIN REACHING M1 LEVEL. THIS SECOND M1 EVENT WAS ACCOMPANIED BY SMALL RADIO NOISE BURSTS AT MICROWAVE FREQUENCIES. ASIDE FROM THESE M-CLASS EVENTS, REGION 3581 HAS BEEN MOST ACTIVE. IT PRODUCED 12 C-CLASS SUBFLARES DURING THE PAST 24 HOURS. REGION 3576 HAS BEEN NEXT MOST ACTIVE, PRODUCING 8 C-CLASS SUBFLARES. GROWTH HAS SLOWED OR STOPPED IN REGIONS 3576, 3577 (S13W15) AND 3578 (S10E07). NOW REGIONS 3579, 3580 (N12W22) AND 3581 ARE SEEING SUBSTANTIAL GROWTH.
IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO CONTINUE MODERATE. REGION 3576 REMAINS THE MOST COMPLEX ON THE DISK, BUT NOT BY MUCH. REGION 3577 HAS BEEN RELATIVELY QUIET BUT LOOKS PAINFULLY STRESSED IN WHITE LIGHT. REGIONS 3579, 3581 AND 3573 ARE CROWDING EACH OTHER SOMEWHAT AND THEIR TENDENCY TO FLARE SIMULTANEOUSLY SUGGESTS THEY ARE SHARING ENERGY (WHICH MAKES IT DIFFICULT TO PREDICT WHERE A LARGE FLARE MAY OCCUR OR HOW LARGE IT MIGHT BE). OVERALL SPOT STRENGTHS AND MAGNETIC GRADIENTS DO NOT YET APPEAR FAVORABLE FOR X-CLASS ACTIVITY.
II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS ACTIVE DURING THE PAST 24 HOURS. A SUDDEN COMMENCEMENT OCCURRED AT 29/1744Z. THIS EVENT HAS BEEN TENTATIVELY ASSOCIATED WITH A FILAMENT DISAPPEARANCE SOMETIME BETWEEN 27 AND 28 JANUARY. AN ADDITIONAL DISTURBANCE IS EXPECTED TO ARRIVE BETWEEN 30/2200Z AND 31/1000Z DUE TO THE M8 FLARE WHICH OCCURRED ON 28 JANUARY.
III. EVENT PROBABILITIES 31 JAN-02 FEB

CLASS M	75/75/65
CLASS X	15/15/10
PROTON	05/05/10
PCAF	GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED	29 JAN	275
ESTIMATED	30 JAN	290
PREDICTED	31 JAN-02 FEB	291/289/284
90 DAY MEAN	29 JAN	196

V. GEOMAGNETIC A INDICES

OBSERVED AFR	28 JAN	015	AP	29 JAN	009
ESTIMATED AFR	29 JAN	011	AFR/AP	30 JAN	025/025
PREDICTED AFR/AP	31 JAN-02 FEB	035/040-019/020-011/012			

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HXUS BOU 301300
PREDM 07531 07501 06502
PREDX 01531 01501 01002
PREDP 00531 00501 01002
PCAFT 00131
TENCM 29131 28901 28402
AFRED 03531 01901 01102
AFAPF 04031 02001 01202
KKK 33465 43445 54433

HFUS 3 BOU 302200
FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO
SDF NUMBER 030B
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 30 JANUARY 1982
IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 30/1200Z TO 30/2100Z; SOLAR ACTIVITY HAS BEEN MODERATE SINCE 12Z. AN M4.2 X-RAY EVENT WITH ACCOMPANYING SHORT WAVE FADES TO 15 MHZ FOR 30 MINUTES BEGAN AT 1208Z AND PEAKED AT 1219Z. THE SOURCE REGION FOR THIS EVENT REMAINS UNIDENTIFIED. THE ONLY OTHER EVENT OF CONSEQUENCE WAS AN M1.3 X-RAY FLARE FROM REGION 3580 (N12W28). ONLY ONE NEW, SMALL REGION (3584) FORMED TODAY NEAR S12E59.
IB. SOLAR ACTIVITY FORECAST; SOLAR ACTIVITY WILL REMAIN AT MODERATE LEVELS. THE RECENT RAPID RATE OF GROWTH OF MICROWAVE EMISSIONS FROM THE SUN HAS SLOWED MARKEDLY AND IS EXPECTED TO BEGIN DECLINING WITHIN 1-2 DAYS. HOWEVER, REGIONS 3573 (N10E06), 3581 (N09E16), AND 3576 (S13E19) ALL ARE VERY COMPLEX MAGNETICALLY AND CLEARLY HAVE THE POTENTIAL FOR M-CLASS OR LARGER SOLAR FLARES OVER THE NEXT 1-3 DAYS.
II. GEOPHYSICAL SUMMARY AND FORECAST; THE GEOMAGNETIC FIELD HAS BEEN ACTIVE DURING THE PAST 9 HOURS AS THE RESULT OF A SUDDEN COMMENCEMENT AT 29/1744UT. HOWEVER, DURING THE PAST 6 HOURS THE FIELD HAS BEEN STEADILY GROWING QUIETER BOTH AT MID AND HIGH LATITUDES. A SECOND DISTURBANCE IS EXPECTED TO BEGIN LATER TODAY OR EARLY TOMORROW AS THE RESULT OF AN M8 SOLAR FLARE ON 28 JAN.
III. EVENT PROBABILITIES 31 JAN - 02 FEB
CLASS M 90/90/90
CLASS X 15/15/15
PROTON 05/10/15
PCAF GREEN
IV. OTTAWA 10.7 CM FLUX
OBSERVED 30 JAN 293
PREDICTED 31 JAN - 02 FEB 300/295/290
90-DAY MEAN 30 JAN 197
V. GEOMAGNETIC A INDICES
OBSERVED AFR/AP 29 JAN 11/09
ESTIMATED AFR/AP 30 JAN 23/25
PREDICTED AFR/AP 31 JAN - 02 FEB 35/40 - 19/20 - 11/12
SOLTERWARN
BT