

HFUS 1 BOU 221300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 326A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 22 NOV 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 21/1200Z TO 22/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE. REGION 3994 (S11W35) PRODUCED A LON-LIVED 2B FLARE WITH A M1 MAX AT 1312Z AND A M2 MAX AT 1420Z. RADIO BURSTS FOR THIS FLARE WERE MINOR. X-RAY EVENTS THEN REMAINED IN THE CLASS C LEVEL UNTIL 1016Z TODAY WHEN AN IMPULSIVE M2 OCCURRED. NO OPTICAL REPORTS WERE RECEIVED FOR THIS FLARE. SUBFLARES ALSO OCCURRED IN REGIONS 4000 (S24E58) AND 4001 (N11W28). REGION 3994 CONTINUES TO RESTRUCTURE BUT RETAINS ITS SIZE AND MAGNETIC COMPLEXITY. FLUX IS EMERGING NEAR N10W73, N15W41, AND S24W41. THESE MAY BE NUMBERED AS NEW REGIONS LATER TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE. REGION 3994 STILL RETAINS THE POTENTIAL TO PRODUCE CLASS X ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE TO STORM LEVEL. THE MAIN RING CURRENT BEGAN TO INCREASE AFTER 21/2100Z WITH MAGSTORM CONDITIONS EXISTING FROM 00-09Z. HIGH DENSITIES ON ISEE-3 INDICATES THE ACTIVITY OVER THE PAST 24 HOURS PROBABLY RELATES BACK TO THE HIGH LATITUDE FILAMENT WHICH DISAPPEARED ON 17 NOVEMBER. THE FIELD IS EXPECTED TO BE UNSETTLED TO SLIGHTLY ACTIVE FOR THE NEXT 24-36 HOURS AND THEN BECOME FULLY ACTIVE.

III. EVENT PROBABILITIES 23 NOV-25 NOV

CLASS M 80/80/80

CLASS X 15/15/15

PROTON 15/15/15

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 21 NOV 206

ESTIMATED 22 NOV 212

PREDICTED 23 NOV-25 NOV 214/214/210

90 DAY MEAN 21 NOV 164

V. GEOMAGNETIC A INDICES

OBSERVED AFR 20 NOV 005 AP 21 NOV 026

ESTIMATED AFR 21 NOV 015 AFR/AP 22 NOV 026/040

PREDICTED AFR/AP 23 NOV-25 NOV 012/015-014/020-020/020

SOLTERWARN

BT

*Again unable to  
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af*  
*WORKED okay  
WHEN PHIL  
CHECKED it.*

MFUS 3 BOU 222200  
FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SF NUMBER 326P

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 22 NOVEMBER 1982

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 22/1200Z TO 22/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE TO HIGH. REGION 3994 (S09W42) PRODUCED AN M7 XRAY BURST WITH A MAX TIME OF 22/1928Z. THIS EVENT WAS RADIO RICH IN BOTH DISCRETE AND SWEEP FREQUENCIES. THE 2695 MHZ FLUX REACHED 12000 FLUX UNITS AT ONE OBSERVATORY AND BOTH I AND IV SWEEP BURSTS WERE REPORTED. REGION 3994 HAS EXTENSIVE PENUMBRA IN ITS TRAILING SECTION WHICH PROBABLY ACCOMMODATES SEVERAL DELTA MAGNETIC CONFIGURATIONS. A RAPIDLY GROWING REGION DEVELOPED OVER NIGHT AT N12W79 AND WAS NUMBERED 4003. A SECOND, LESSER IMPRESSIVE REGION DEVELOPED AT N18W51 AND IT IS NUMBER 4004.

II. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD REMAIN AT MODERATE TO HIGH LEVELS AS 3994 SHOWS NO INDICATIONS OF DECAY.

III. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS OCCASIONALLY AT MINOR TO MAJOR STORM LEVELS DURING NIGHTTIME HOURS BUT RAPIDLY DECAYED TO QUIET CONDITIONS BETWEEN 0900Z AND 1500Z. GENERALLY UNSETTLED CONDITIONS SHOULD DOMINATE THE NEXT TWO DAYS. BY 25 NOV, THE EFFECTS OF TODAYS FLARE WILL BE REFLECTED IN THE FIELD AND ACTIVE TO MINOR STORM CONDITIONS CAN BE EXPECTED THE LAST HALF OF THE DAY. THE PARTICLE FLUX IS RISING AS A RESULT OF TODAYS EVENT AND THE CURRENT READING IS 18 PARTICLES/CM<sup>2</sup>/SEC/SIUF. A MAXIMUM ABSORPTION OF 4 DB IS EXPECTED DURING NIGHTTIME HOURS.

IV. EVENT PROBABILITIES 23-25 NOV

CLASS M 80/80/80

CLASS X 15/15/15

PROTON 15/15/15

PCAF RED

V. OTTAWA 10.7 CM FLUX

OBSERVED 22 NOV 222

PREDICTED 23-25 NOV 222/214/210

90-DAY MEAN 22 NOV 165

VI. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 21 NOV 16/26

ESTIMATED AFR/AP 22 NOV 25/30

PREDICTED AFR/AP 23-25 NOV 12/15 - 14/20 - 20/40

SOLARFLARE WARN

PT