

HFUS 1 BOU 221300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 203A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 22 JUL 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 21/1200Z TO 22/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE. REGION 3804 (N15W1MB) PRODUCED AN M3/SB AT 1814Z AND AN M2/BRIGHT SURGE ON THE LIMB TO .26 RADII AT 0509Z; BOTH EVENTS WERE ACCOMPANIED BY MINOR RADIO BURSTS ON ALL FREQUENCIES. THE REGION IS NOW BEYOND THE LIMB AND ONLY MINOR SURGE ACTIVITY IS REPORTED FROM THE AREA. REGION 3810 (N14E59) HAS DECLINED SIGNIFICANTLY IN SIZE, COMPLEXITY AND FLARE ACTIVITY. IT HAS PRODUCED ONLY 3 SUBFLARES IN THE PAST 24 HOURS AND CONTINUED DECAY IS LIKELY OVER THE NEXT THREE DAYS. ALL OTHER REGIONS ARE SMALL AND STABLE OR DECLINING.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO DECREASE TO A LOW LEVEL EXCEPT FOR THE POSSIBILITY OF AN ISOLATED M-CLASS EVENT IN REGION 3810 IN THE NEXT TWO DAYS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED. UNSETTLED TO ACTIVE CONDITIONS ARE POSSIBLE LATER TODAY AND TOMORROW. ACTIVE CONDITIONS ARE EXPECTED ON 25 JULY DUE TO AN EQUATORIAL CORONAL HOLE WHICH PASSED CENTRAL MERIDIAN ON 21 JULY.

III. EVENT PROBABILITIES 23 JUL-25 JUL

CLASS M 60/40/30

CLASS X 05/05/01

PROTON 05/05/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 21 JUL 178

ESTIMATED 22 JUL 158

PREDICTED 23 JUL-25 JUL 144/130/125

90 DAY MEAN 21 JUL 166

V. GEOMAGNETIC A INDICES

OBSERVED AFR 20 JUL 015 AP 21 JUL 012

ESTIMATED AFR 21 JUL 008 AFR/AP 22 JUL 014/017

PREDICTED AFR/AP 23 JUL-25 JUL 020/020-012/020-015/025

SOLTERWARN

BT

HFUS 3 BOU 222200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 203B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 22 JUL 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 22/1200Z TO 22/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE DUE TO A M4/1F EVENT FROM REGION 3804 (N17W90) AT 1634UT THE EVENT LASTED 49 MINUTES. LOOPS ARE IN PROGRESS. MOST OF THE FLARE IS BELIEVED TO HAVE OCCURRED OVER THE WEST LIMB. A RADIO BURST OF 272 FLUX UNITS AT 2695 MHZ WAS OBSERVED WITH THE EVENT. THE REST OF THE DISK REGIONS HAVE BEEN STABLE OR HAVE SLIGHTLY DECAYED THIS PERIOD.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE FOR THE NEXT 36 HOURS AS REGION 3804 MAY STILL PRODUCE LARGE FLARES. LOW CONDITIONS ARE FORECAST FOR THE REST OF THE FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE DURING THIS PERIOD. THE FIELD IS EXPECTED TO BE ACTIVE UNTIL 24 JULY WHEN UNSETTLED TO SLIGHTLY ACTIVE CONDITIONS ARE EXPECTED. A PROTON EVENT, FROM THE 1634UT EVENT, BEGAN AT 2030UT AND REACHED 26 P/CM2/SEC/STER AT GREATER THAN 10 MEV. EVENT IS STILL IN PROGRESS AND IS EXPECTED TO REACH NEAR 90 PARTICLES IN FOUR HOURS. SOME ABSORPTION IS BEING OBSERVED IN THE POLAR CAP BUT IS BELOW EVENT LEVELS.

III. EVENT PROBABILITIES 23 JUL-25 JUL

CLASS M 60/40/30

CLASS X 05/05/01

PROTON 05/05/01

PCAF RED

IV. OTTAWA 10.7 CM FLUX

OBSERVED 22 JUL 145

PREDICTED 23 JUL-25 JUL 130/120/110

90 DAY MEAN 22 JUL 160

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 21 JUL 011/012

ESTIMATED AFR/AP 22 JUL 014/017

PREDICTED AFR/AP 23 JUL-25 JUL 020/020-012/020-015/025

SOLTERWARN

BT

HXUS BOU 222200

PREDM 06023 04024 03025

PREDX 00523 00524 00125

PREDP 00523 00524 00125

PCAFT 00323

TENCM 13023 12024 11025

AFRED 02023 01224 01525

AFAPF 02023 02024 02525

BT