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FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 220A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 08 AUG 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 07/1200Z TO 08/1200Z: SOLAR ACTIVITY CONTINUES MODERATE. AT 07/1207Z REGION 3839 (N12E34) PRODUCED AN M1/2B WITH MINOR RADIO BURSTS. FOLLOWING REPORTS OF EMERGING FLUX, REGION 3829 (S12W65) PRODUCED AN M7/1B AT 08/0205Z WITH A BSD/SPY WHICH EXTENDED OVER THE LIMB TO .23R. MODERATE CM BURSTS AND AN EXTREMELY STRONG TYPE II WERE OBSERVED WITH THIS FLARE. REGION 3837 (N10E19) HEN GENERATED AN M1/SB AT 08/0928Z WITH MINOR RADIO. REGIONS 3837 AND 3839 HAVE DEVELOPED DELTA CONFIGURATIONS AND SLIGHT GROWTH IS OCCURRING. 3829 IS CONTINUING AN OVERALL DECLINE WITH ISOLATED FLUX EMERGENCE OCCURRING. TWO D CLASS REGIONS HAVE ROTATED ONTO THE DISK - 3843 (S07E66) AND 3845 (N17E71).

B. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE MODERATE. IT APPEARS REGION 3829 CAN WITH ONLY SLIGHT PROVOCATION PRODUCE CLASS M FLARES. INTERMITTENT CLASS M FLARES ARE THEREFORE EXPECTED FROM 3829 PRIOR TO ITS WEST LIMB TRANSIT. THE 3837/3839 COMPLEX SHOULD SOON BEGIN TO GENERATE MORE FREQUENT CLASS M FLARES AND THE MAJOR FLARE PROBABILITY FOR THIS COMPLEX IS INCREASING.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE MAJOR GEOMAGNETIC STORM WHICH BEGAN ON 06 AUG CEASED ABRUPTLY AT APPROXIMATELY 07/1800Z AND SLIGHTLY UNSETLED CONDITIONS HAVE BEEN OBSERVED SINCE THAT TIME. THIS TURN OFF OF STORM LEVELS WAS PRECEDED BY A NORTHWARD TURNING OF THE IMF AFTER BEING VERY STRONGLY SOUTHWARD DIRECTED. SOLAR WIND SPEEDS REMAIN ABOVE NORMAL. UNSETLED TO SLIGHTLY ACTIVE GEOMAGNETIC CONDITIONS ARE FORECAST FOR THE NEXT THREE DAYS. NO SIGNIFICANT GEOMAGNETIC DISTURBANCE IS INDICATED FROM RECENT FLARE ACTIVITY.

III. EVENT PROBABILITIES 09 AUG-11 AUG

CLASS M 90/90/90

CLASS X 15/20/20

PROTON 05/10/15

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 07 AUG 214

ESTIMATED 08 AUG 225

PREDICTED 09 AUG-11 AUG 235/245/250

90 DAY MEAN 07 AUG 162

V. GEOMAGNETIC A INDICES

OBSERVED AFR 06 AUG 027 AP 07 AUG 070

ESTIMATED AFR 07 AUG 062 AFR/AP 08 AUG 009/015

PREDICTED AFR/AP 09 AUG-11 AUG 012/020-014/020-014/015

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HFUS 3 BOU 082200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 220B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 08 AUG 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 08/1200Z TO 08/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE. REGION 3839 (N12E28) PRODUCED AN M1/1B FLARE AT 1608Z MAXIMUM WITH MINOR DESCRIPTIVE FREQUENCY RADIO BURSTS AND SHORT WAVE FADES TO 15MHZ. REGION 3845 (N16E66) PRODUCED AN OPTICALLY IMPRESSIVE 2B FLARE AT 1651Z MAXIMUM ASSOCIATED WITH AN M1 X-RAY EVENT. THERE WAS NO RADIO EMISSION ASSOCIATED WITH THIS EVENT. THE 3837 (N10E14)/3839 COMPLEX HAS BECOME MORE INTERMINGLED DURING THE PERIOD WHILE DISPLAYING GROWTH THROUGHOUT THE AREA. MOST OF THE RECENT ACTIVITY HAS COME FROM THE TRAILER PORTION OF REGION 3839, WHERE STRONG MAGNETIC GRADIENTS AND A DELTA CONFIGURATION EXIST. OTHER REGIONS TO PRODUCE MINOR ACTIVITY DURING THE PERIOD WERE 3838 (N10W26), 3829 (S11W70), 3841 (S11W05) AND 3843 (S07E58). NO NEW REGIONS WERE NUMBERED TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE WITH THE POSSIBILITY OF ISOLATED X-CLASS X-RAY EVENTS FROM THE 3837/3839 COMPLEX.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED DURING THE PERIOD. UNSETTLED TO BRIEF ACTIVE CONDITIONS ARE FORECAST FOR THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 09 AUG-11 AUG

CLASS M 90/90/90

CLASS X 15/20/20

PROTON 05/10/15

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 08 AUG 214

PREDICTED 09 AUG-11 AUG 218/220/220

90 DAY MEAN 08 AUG 163

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 07 AUG 075/070

ESTIMATED AFR/AP 08 AUG 010/015

PREDICTED AFR/AP 09 AUG-11 AUG 012/015-014/020-014/015

SOLTERWARN

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