

HFUS 1 BOU 031300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 154A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 03 JUN 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 02/1200Z TO 03/1200Z: SOLAR ACTIVITY HAS BEEN VERY HIGH. REGION 3763 (S09E72) PRODUCED AN X8/2B WHITE LIGHT FLARE AT 03/1141Z ACCOMPANIED BY TYPE II, IV AND A CASTELLI U SHAPED RADIO BURST WITH 9800 FU AT 245 MHZ AND 2700 FU AT 2695 MHZ. SHORT WAVE FADES OF UP TO 22 MHZ WERE ALSO REPORTED. EARLIER THIS REGION PRODUCED AN M9/1B FLARE AT 02/1525Z WITH TYPE II AND IV RADIO EMISSION AND A RADIO BURST OF 240 FU AT 2695 MHZ. AN M1/SB AT 03/0317Z AND AN M2/1E AT 0818Z PLUS NUMBEROUS SMALLER FLARES HAVE ALSO BEEN REPORTED IN THIS REGION DURING THE DAY. THE SPOT GROUP IN 3763 CONTAINS A MAGNETIC DELTA CONFIGURATION BUT IS STILL TOO CLOSE TO THE EAST LIMB FOR A GOOD ANALYSIS. TYPE II AND IV RADIO EMISSION WAS REPORTED AT 03/0409Z FROM ABOVE THE NORTHWEST LIMB AND APPEARS TO BE FROM REGION 3739 WHICH ROTATED BEYOND WEST LIMB 4 DAYS AGO. ALL OTHER REGIONS ARE INACTIVE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN AT MODERATE TO HIGH LEVELS THROUGH 15 JUNE AS REGION 3763 CROSSES THE DISK AND OLD REGION 3739 RETURNS ON 11 JUNE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETLED AND IS EXPECTED TO BE QUIET TO UNSETLED DURING THE FORECAST PERIOD. UNSETLED TO ACTIVE CONDITIONS ARE POSSIBLE BEGINNING 6 JUNE FROM THE X8 FLARE AT 03/1141Z AND FUTURE FLARE ACTIVITY. A PARTICLE ENHANCEMENT IS ALSO POSSIBLE BEGINNING EARLY ON 4 JUNE FROM THIS EVENT.

III. EVENT PROBABILITIES 04 JUN-06 JUN

CLASS M - 95/95/95

CLASS X - 30/30/30

PROTON 20/20/20

PCAF RED

IV. OTTAWA 10.7 CM FLUX

OBSERVED 02 JUN 131

ESTIMATED 03 JUN 135

PREDICTED 04 JUN-06 JUN 140/142/144

90 DAY MEAN 02 JUN 170

V. GEOMAGNETIC A INDICES

OBSERVED AFR 01 JUN 023 AP 02 JUN 022

ESTIMATED AFR 02 JUN 015 AFR/AP 03 JUN 010/010

PREDICTED AFR/AP 04 JUN-06 JUN 008/010-008/010-008/010

SOLTERWARN

BT

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HFUS 3 BOU 032200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 154B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 03 JUN 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 03/1200Z TO 03/2100Z: SINCE 1200, SOLAR ACTIVITY HAS BEEN AT MODERATE LEVELS. REGION 3763 (S08E62) HAS BEEN THE ONLY ACTIVE REGION ON THE DISK, PRODUCING SEVERAL C-CLASS AND ONE M-CLASS XRAY EVENTS. THE LARGEST EVENT, AN M2/SB, PEAKED AT 15 5UT AND WAS ACCCOMPANIED BY SHORT WAVE FADES THROUGH 16 MHZ AND REPORTS OF LOOPS ABOVE THE REGION. MICROWAVE EMISSIONS, HOWEVER, HAVE BEEN WEAK WITH ALL OF THE EVENTS. ALL OTHER REGIONS ON THE DISK HAVE BEEN RELATIVELY QUIET. A NEW REGION, 3765 (S03W05), HAS APPEARED DURING THE PERIOD.

IB. SOLAR ACTIVITY FORECAST: REGION 3763 IS EXTREMELY COMPLEX MAGNETICALLY. MAGNETIC DELTAS ARE PRESENT IN BOTH THE LEADER AND INTERMEDIATE SPOTS. ADDITIONALLY, THE REGION IS GENERALLY ORIENTED IN A NORTH-SOUTH DIRECTION, SUGGESTING THAT A CONSIDERABLE AMOUNT OF POTENTIAL ENERGY MAY BE STORED IN THE FIELDS ABOVE THE REGION. THEREFORE, THE REGION IS CLEARLY CAPABLE OF PRODUCING ENERGETIC FLARES AND PROTON EMISSIONS OVER THE NEXT FEW DAYS.

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II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN AT UNSETLED LEVELS DURING THE DAY. A SLIGHT NEAR EARTH PARTICLE ENHANCEMENT IS EXPECTED EARLY ON 4 JUN AS THE RESULT OF THE X3/2B FLARE WHICH OCCURRED IN REGION 3763 AT 1146UT ON 3 JUN. PARTICLES FROM THIS EVENT MAY PRODUCE UNSETLED TO ACTIVE CONDITIONS IN THE GEOMAGNETIC FIELD OVER THE NEXT SEVERAL DAYS.

III. EVENT PROBABILITIES 04 JUN-06 JUN

CLASS M 95/95/95

CLASS X 60/60/60

PROTON 25/30/35

PCAF RED

IV. OTTAWA 10.7 CM FLUX

OBSERVED 03 JUN 138

PREDICTED 04 JUN-06 JUN 141/144/147

90 DAY MEAN 03 JUN 168

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 02 JUN 021/022

ESTIMATED AFR/AP 03 JUN 013 /010

PREDICTED AFR/AP 04 JUN-06 JUN 015/010-015/010-015/015

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