

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 98000 FU AT 245 MHZ AND 2700 FU AT 2595 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 M2/1B AT 0318Z PLUS NUMEROUS 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 UNSETTLED AND IS EXPECTED TO BE QUIET TO UNSETTLED DURING
THE FORECAST PERIOD. UNSETTLED 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-03 JUN 003/010-003/010-003/010

SOLTERWARN

BT

NNNNZCZEGVZLVZOUU

KBOU

HEUS 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 ACCOMPANIED 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.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN AT UNSETTLED 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 UNSETTLED 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

SOLIERWARN

BT

NNNNZSV

INT