

HFUS 1 BOU 071300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 158A
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 07 JUN 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
06/1200Z TO 07/1200Z: SOLAR ACTIVITY HAS BEEN HIGH FOR THE PAST
24 HOURS. REGION 3763 (S09E15) HAS CONTINUED ITS AWESOME
BEHAVIOR BY PRODUCING ITS LARGEST EVENT YET - AN X12/3P FLARE
ON 7 JUNE 1637Z (MAXIMUM). THE FLARE WAS ACCOMPANIED BY MASSIVE
RADIO NOISE INCLUDING 3300 FLUX UNITS AT 10 CM (2.7 GHZ), 9900
FU AT 15.4 GHZ, AND 2700 FU AT 245 MHZ. SIGNIFICANT TYPE II (12
MINUTES DURATION) AND IV (88 MINUTES DURATION) RADIO SWEEPS WERE
OBSERVED AND MAJOR SHORT WAVE FADES BLANKETED THE HIGH
FREQUENCY RADIO SPECTRUM FOR NEARLY 3 HOURS. WHITE LIGHT
DRAWINGS DONE BEFORE AND AFTER THE X12 FLARE SHOW THAT
CONSIDERABLE FRAGMENTATION IN PENUMBRAL STRUCTURE OCCURRED.
CLOCKWISE SPOT ROTATION REMAINS EVIDENT, AND A LARGE ARCH
FILAMENT SYSTEM IS PRESENT IN ITS SOUTHEAST PORTION. THREE
OTHER M-CLASS EVENTS

ORIGINATED IN 3763 DURING THIS REPORTING PERIOD. THESE INCLUDE
AN M6/1B FLARE 6 JUNE 1434Z AND AN M2/1B TENFLARE (230 FU AT 10
CM, 15 MINUTES DURATION) 07 JUNE 0830Z. NEW REGION 3768
(N03E67), AN H-TYPE SPOT WHICH IS THE RETURN OF OLD REGION
3727, WAS NUMBERED UPON EAST LIMB PASSAGE TODAY, AND A NEW
BIPOLAR GROUP HAS CROSSED THE EASTERN LIMB NEAR S23.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
REMAIN HIGH. REGION 3763 STILL POSSESSES THE POTENTIAL FOR
ADDITIONAL MAJOR EVENTS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN UNSETTLED TO ACTIVE FOR THE PAST 24 HOURS. THE MINOR STORM
EXPECTED FOLLOWING YESTERDAY'S SUDDEN COMMENCEMENT HAS NOT
MATERIALIZED. HOWEVER, MAJOR STORM CONDITIONS ARE NOW PREDICTED
TO BEGIN ON 8 JUNE AS A RESULT OF THE X12/3P FLARE DESCRIBED
ABOVE. A FEW HIGH ENERGY PROTONS FROM THAT FLARE BEGAN
TRICKLING IN NEAR 0000Z ON 7 JUNE, BUT EVENT THRESHOLDS (13
PROTONS/CM2/SEC/STER AT GREATER THAN 10 MEV ENERGIES AT
SATELLITE ALTITUDES) HAVE NOT BEEN EXCEEDED.

III. EVENT PROBABILITIES 08 JUN-10 JUN

CLASS M 99/99/99
CLASS X 50/45/40
PROTON 50/35/30
PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX
OBSERVED 06 JUN 152
ESTIMATED 07 JUN 155
PREDICTED 08 JUN-10 JUN 155/155/155
90 DAY MEAN 06 JUN 166

V. GEOMAGNETIC A INDICES

OBSERVED AFR 05 JUN 008 AP 06 JUN 017
ESTIMATED AFR 06 JUN 020 AFR/AP 07 JUN 025/030
PREDICTED AFR/AP 08 JUN-10 JUN 045/030-045/050-025/025

SOLTERWARN

BT

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HFUS 3 BOU 072200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 158B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 07 JUN 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 07/1200Z TO 07/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE THIS PERIOD AS REGION 3763 (S09E09) HAS PRODUCED TWO M-CLASS EVENTS AN M4/1B AT 1251UT AND A M3/1B AT 1607UT, ONLY MINOR MICROWAVE BURST WERE OBSERVED DURING THESE EVENTS. REGION 3763 CONTINUES TO EXHIBIT STRONG MAGNETIC GRADIENTS AND HAS A VERY COMPLEX NEUTRAL LINE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE HIGH DURING THIS FORECAST PERIOD. REGION 3763 APPEARS CAPABLE OF AT LEAST THREE DAYS OF MAJOR ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE THIS PERIOD. THE FIELD IS EXPECTED TO BE AT MINOR STORM LEVELS DURING THE FIRST TWO DAYS OF THE FORECAST PERIOD AS THE EFFECTS OF THE RECENT LARGE SOLAR EVENTS REACH EARTH.

III. EVENT PROBABILITIES 08 JUN-10 JUN

CLASS M 99/99/99

CLASS X 50/45/40

PROTON 50/45/40

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 07 JUN 151

PREDICTED 08 JUN-10 JUN 155/155/155

90 DAY MEAN 07 JUN 165

V. GEOMAGNETIC A INDICES

OBSERVED AFP/AP 06 JUN 023/027

ESTIMATED AFP/AP 07 JUN 023/022

PREDICTED AFP/AP 08 JUN-10 JUN 045/030-045/030-025/025

SOLTERWARN

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NNNNZSVA