

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 ACCCOMPANIED 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 BIPOLEAR 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 UNSETLED 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 X12/3B 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

NNNNZCVZEZGVZLVZOUU

KBOU

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 151 07 JUN 151

PREDICTED 155 08 JUN-10 JUN 155/155/155

90 DAY MEAN 165 07 JUN 165

V. GEOMAGNETIC A INDEXES

OBSERVED AFR/AP 06 JUN 02 CY 017

ESTIMATED AFR/AP 07 JUN 023/022

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

SOLTERWARN

BT

NNNNZSV