

HFUS 1 BOU 061300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 157A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 06 JUN 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 05/1200Z TO 06/1200Z: SOLAR ACTIVITY HAS BEEN HIGH FOR THE PAST 24 HOURS. REGION 3763 (S09E26) HAS PRODUCED 10 M-CLASS FLARES WITH THE LARGEST BEING AN M7/1B FLARE AT 05/1531Z. RADIO SIGNATURES WITH THESE EVENTS HAVE NOT BEEN EXTRAORDINARY ALTHOUGH A TYPE II SWEEP WAS OBSERVED FROM 1730-1744Z.

LEARMONTH OBSERVATORY REPORTS THAT THE OVERALL MAGNETIC AND H-ALPHA APPEARANCE SUGGESTS THAT THE REGION IS BEGINNING TO STABILIZE. HOWEVER, MAGNETIC GRADIENTS REMAIN STRONG IN THE VICINITY OF THE MAIN DELTA AND THE LARGE UMBRA HAS SHOWN NOTICABLE CLOCKWISE ROTATION. THE COMPLEX OF REGIONS IN THE NORTH CENTRAL PORTION OF THE VISIBLE DISK ARE SHOWING GROWTH IN WHITE LIGHT AND MAY BECOME ERUPTIVE. THESE INCLUDE REGIONS 3762 (N22E05), 3561 (N13E02), AND 3759 (N09W02). MINOR SURGING WAS OBSERVED AT SE15, AND AT NE00 WHERE A NEW H-TYPE SPOT IS ROUNDING THE LIMB.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE HIGH EVEN THOUGH APPARENT STABILIZATION IN 3763 INDICATES A DECREASING FREQUENCY OF BIG EVENTS. REGION 3763 IS NOW FAVORABLY LOCATED TO PRODUCE PROTON EVENTS AT THE EARTH IF ADDITIONAL MAJOR FLARES SHOULD OCCUR.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETLED TO ACTIVE FOR THE PAST 24 HOURS. A SUDDEN COMMENCEMENT OCCURRED AT 0243Z WHICH FOLLOWED A SHOCK OBSERVED AT THE ISEE-3 SPACECRAFT AT 0141Z. THIS ACTIVITY PROBABLY STEMS FROM THE SEVERAL MAJOR FLARES IN REGION 3763 DURING THE LAST FEW DAYS. THE GEOMAGNETIC DISTURBANCE IS EXPECTED TO INTENSIFY OVER THE NEXT 24 HOURS INTO OVERALL MINOR STORM CONDITIONS WITH SOME PERIODS AT MAJOR STORM LEVELS. A FEW PROTONS AT SATELLITE LEVELS AT GREATER THAN 10 MEV ENERGIES ARRIVED WITH THE INTERPLANETARY SHOCK AND PROTON FLUXES HAVE FLUCTUATED NEAR 10 PARTICLES/CM²/SEC/STER SINCE 0245Z. THIS PROTON ENHANCEMENT IS EXPECTED TO CONTINUE INDEFINITELY.

III. EVENT PROBABILITIES 07 JUN-09 JUN

CLASS M 99/99/99

CLASS X 50/45/40

PROTON 35/35/35

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 05 JUN 152

ESTIMATED 06 JUN 154

PREDICTED 07 JUN-09 JUN 155/155/155

90 DAY MEAN 05 JUN 167

V. GEOMAGNETIC A INDICES

OBSERVED AFR 04 JUN 010 AP 05 JUN 009

ESTIMATED AFR 05 JUN 010 AFR/AP 06 JUN 025/025

PREDICTED AFR/AP 07 JUN-09 JUN 040/030-030/030-025/020

SOLTERWARN

BT

KBOI

HFUS 3 BO 062200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 157B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 06 JUNE 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 06/1200Z TO 06/2100Z: SOLAR ACTIVITY HAS BEEN HIGH DUE TO A X12/3B, AT 06/1630Z. THIS EVENT WAS FROM REGION 3763 (S09E21) STRONG MICROWAVE BURSTS, 3300 AT 2695 MHZ, AND TYPE II/IV SWEEPS ALONG WITH SHORT WAVE FADES UP TO 22MHZ WERE ALSO OBSERVED WITH THIS EVENT. THE BACKGROUND RADIO HAS CONTINUED TO BE ENHANCED WITH 1000 FLUX UNITS RECORDED AT 2695 MHZ AT 1825Z. REGION 1 CONTINUES TO EXHIBIT STRONG MAGNETIC GRADIENTS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO CONTINUE HIGH.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE LEVELS. A MAJOR GEOMAGNETIC STORM IS EXPECTED TO BEGIN LATE ON 08 JUNE OR EARLY ON 09 JUNE. A PROTON EVENT IS EXPECTED TO BEGIN EARLY ON 07 JUNE AND CONTINUE ABOVE EVENT LEVELS OF GREATER THAN 10 VARTICLES/CM²/SEC/STER AT SATELLITE LEVELS THROUGH THE FORECAST PERIOD.

III. EVENT PROBABILITIES 07 JUNE - 09 JUNE

CLASS M 99/99/99

CLASS X 60/50/50

PROTON 80/50/50

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 06 JUNE 152

PREDICTED 07-09 JUNE 155/155/155

90-DAY MEAN 06 JUNE 166

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 05 JUNE 08/09

ESTIMATED AFR/AP 06 JUNE 21/20

PREDICTED AFR/AP 07-09 JUNE 40/30 - 40/30 - 60/50

SOLTERWARN

BT