

HFUS 1 BOU 041300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 155A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 04 JUN 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 03/1200Z TO 04/1200Z: SOLAR ACTIVITY REMAINS HIGH. REGION 3763 (S08E57) HAS PRODUCED ONE X1/1B FLARE AT 04/0516Z AND SEVEN M-CLASS EVENTS (M2 AT 03/1515Z, M6 AT 04/0034Z, M2 AT 0303Z, M1 AT 0431Z, M2 AT 0633Z, M2 AT 0932Z AND M1 AT 1042Z). THE X1 EVENT WAS ACCOMPANIED BY A WEAK RADIO BURST AND MODERATE SHORT WAVE FADING. THE SPOT GROUP IN 3763 IS MAGNETICALLY VERY COMPLEX AND IS STILL GROWING AND RESTRUCTURING. NEAR CONTINUOUS PLAGE FLUCUATIONS ARE ALSO REPORTED. A SMALL NEW REGION 3765 (S03W11) WAS NUMBERED TODAY. NO SIGNIFICANT CHANGES OR ACTIVITY HAVE BEEN REPORTED IN ANY OTHER REGION.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN AT A HIGH LEVEL WITH FREQUENT M-CLASS AND OCCASIONAL X-CLASS EVENTS EXPECTED FROM REGION 3763 DURING THE FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN SLIGHTLY UNSETTLED. ACTIVE CONDITIONS ARE EXPECTED BEGINNING 06 JUNE FROM RECENT FLARE ACTIVITY IN REGION 3763. THE DISAPPEARANCE OF TWO LARGE FILAMENTS ON 3 JUNE MAY ALSO CONTRIBUTE TO GEOMAGNETIC ACTIVITY BEGINNING 7 JUNE. NO PARTICLE ENHANCEMENT WAS OBSERVED FROM THE X3/2B FLARE IN REGION 3763 AT 03/1140Z.

III. EVENT PROBABILITIES 05 JUN-07 JUN

CLASS M 95/95/95

CLASS X 60/60/60

PROTON 30/35/40

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 03 JUN 133

ESTIMATED 04 JUN 155

PREDICTED 05 JUN-07 JUN 160/165/168

90 DAY MEAN 03 JUN 168

V. GEOMAGNETIC A INDICES

OBSERVED AFR 02 JUN 021 AP 03 JUN 013

ESTIMATED AFR 03 JUN 012 AFR/AP 04 JUN 008/010

PREDICTED AFR/AP 05 JUN-07 JUN 010/010-015/015-020/025

SOLTERWARN

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HFUS 3 BOU 042200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 155B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 04 JUN 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 04/1200Z TO 04/2100Z: REGION 3763 (S07E47) CONTINUES TO BE THE MAJOR SOURCE OF ACTIVITY ON THE SUN. SINCE THE 1200Z REPORT IT HAS PRODUCED AN X5.9/2B AT 1333Z, AN X2.4/2B AT 1423Z, AN M3.1/SB AT 1655Z AND AN M2.9/2B AT 1919Z. MOST OF THE EVENTS WERE ACCOMPANIED BY WEAK MICROWAVE BURSTS. A TYPE II SWEEP WAS OBSERVED WITH THE 1919Z EVENT. A NEW REGION 3766 (N12W29) HAS DEVELOPED ON THE DISK. ALL OTHER REGIONS ARE LARGELY UNCHANGED.

IB. SOLAR ACTIVITY FORECAST: REGION 3763 REMAINS THE MOST COMPLEX REGION ON THE DISK WITH TWO MAGNETIC DELTAS IN THE LARGEST SPOT. SINCE YESTERDAY, THE SUNSPOT AREA OF THIS REGION HAS GROWN 30 PERCENT INDICATING THE CONTINUED HIGH PROBABILITY OF VERY ENERGETIC FLARES. AS THE REGION CONTINUES TO APPROACH THE CENTER OF THE DISK, THE CHANCES OF NEAR-EARTH PARTICLE FLUX ENHANCEMENTS AND ASSOCIATED SOLAR CAP DISTURBANCES WILL INCREASE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS REMAINED AT QUIET TO UNSETTLED LEVELS THROUGHOUT THE DAY. HOWEVER, AS A RESULT OF THE INTENSE SOLAR FLARES FROM REGION 3763 ALONG WITH THE DISAPPEARANCE OF TWO LARGE FILAMENTS NEAR S20E30 ON 3 JUNE, MINOR STORM LEVELS IN THE GEOMAGNETIC FIELD MAY BE EXPECTED TO BEGIN EARLY ON 7 JUNE. THE MAGNETIC DISTURBANCES MAY BE ACCOMPANIED BY ENHANCED LEVELS IN LOW ENERGY BACKGROUND WROTON FLUXES AT GEOSYNCHRONOUS ALTITUDES.

III. EVENT PROBABILITIES 05 JUN-07 JUN

CLASS M 99/99/99

CLASS X 80/80/80

PROTON 30/35/40

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 04 JUN 152

PREDICTED 05 JUN-07 JUN 160/165/168

90 DAY MEAN 04 JUN 18

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 03 JUN 011/013

ESTIMATED AFR/AP 04 JUN 008/010

PREDICTED AFR/AP 05 JUN-07 JUN 010/010-025/020-040/025

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