

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 (S0SF57) 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 ACCCOMPANIED 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 PFRIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN SLIGHTLY UNSETLED. 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

PREDICTFD 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 ACCCOMPANIED 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 LARGEY 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 VOLTAGE CAP DISTURBANCES WILL
INCREASE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
REMAINED AT QUIET TO UNSETLED 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 VORTON 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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