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HFUS 1 BOU 131300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 164A

JO INT USAF/NO AA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 13 JUN 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
12/1200Z TO 13/1200Z: SOLAR ACTIVITY HAS BEEN HIGH. REGION  
3776 (N12E68) PRODUCED AN X3/2B FLARE AT 0949Z ACCOMPANIED BY A  
TENFLARE OF 750 FLUX UNITS AND MAJOR IONOSPHERIC DISTURBANCES.  
THE RADIO SPECTRUM WEAKLY SUGGESTS THIS WAS A PROTON FLARE.  
THE ASSOCIATED SUNSPOT GROUP IS THE LARGEST IN THE PAST 12  
YEARS, AN FKJ GROUP WITH PENUMBRA UNINTERRUPTED OVER ITS 16  
DEGREE LENGTH. THERE ARE AT LEAST TWO MAJOR DELTA CONFIGURATIONS.  
THIS WAS THE SOURCE OF SMALL CLASS M EVENTS AT 1627Z, 742Z,  
1832Z, 1859Z AND 0510Z. AN MW/SN FLARE AT 1135Z ORIGINATED IN  
REGION 3763 (S09W69). THIS REGION HAS DIMINISHED IN AREA AND  
SPOT COUNT AND ITS DELTA CONFIGURATION HAS WEAKENED. REGION  
3779 (S23E39) FORMED ON THE DISK AND IS GROWING RAPIDLY. THE  
FOUR OTHER SIMPLE BUT SIGNIFICANT REGIONS ARE LITTLE CHANGED.  
ACTIVITY AT NE LIMB SUGGESTS YET ANOTHER REGION MAY APPEAR  
TODAY.

IB. SOLAR ACTIVITY FORECAST: CLASS X PROTON FLARES ARE EXPECTED  
FROM REGION 3776.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS  
BEEN IN A MINOR STORM CONDITION SINCE THE SUDDEN COMMENCEMENT  
AT 12/1442Z. THIS STORM MAY ORIGINATE FROM THE OCCURRENCE OF  
NUMEROUS FLARES IN REGION 3763 ON THE BOUNDARY OF A GROWING  
TRANSEQUATORIAL CORONAL HOLE. MINOR STORM CONDITIONS ARE EX-  
PECTED TO CONTINUE THROUGH THIS FORECAST PERIOD. AS THE LARGE  
CORONAL HOLE ROTATES THROUGH THE SUN-EARTH CONNECTION LONGI-  
TUDES. A MINOR PROTON EVENT IS EXPECTED 13-14 JUNE. LARGER  
PROTON EVENTS MAY OCCUR FOLLOWING ADDITIONAL FLARES IN REGION  
3776.

III. EVENT PROBABILITIES 14 JUN - 16 JUN

CLASS M 99/99/99

CLASS X 60/60/60

PROTON 40/45/50

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 12 JUN 256

ESTIMATED 13 JUN 260

PREDICTED 14-16 JUN 260/250/230

90 DAY MEAN 12 JUN 166

V. GEOMAGNETIC A INDICES

OBSERVED AFR 1 JUN 025 AP 12 JUN 040

ESTIMATED AFR 12 JUN 029 AFR/AP 13 JUN 035/047

PREDICTED AFR/AP 14-16 JUN 025/030 - 025/025 - 025/025

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HFUS 3 BOU 132200  
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 164B  
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
ISSUED 2200Z 13 JUN 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
13/1200Z TO 13/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE FOR THE  
PAST 9 HOURS. REGION 3776 (N13E63) PRODUCED AN M2/SB FLARE  
MAXING AT 1823Z WHICH WAS ACCOMPANIED BY MAJOR SHORT WAVE FADES  
TO 15 MHZ AND A WEAK CASTELLI U-SHAPED RADIO BURST SPECTRUM.  
DURING THIS PERIOD SUBFLARES WERE OBSERVED IN 6 OF THE 10  
SPOTTED REGIONS ON THE VISIBLE DISK. THREE OF THESE GROUPS,  
3776, 3770 (S18W20), AND 3763 (S10W74) CONTAIN DELTA MAGNETIC  
CONFIGURATIONS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE  
HIGH. X-CLASS FLARES ARE LIKELY FROM REGION 3776 AND  
SIGNIFICANT FLARES ARE POSSIBLE FROM 3763, 3770, AND 3774  
(N08E34).

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS  
CONTINUED AT MINOR STORM LEVELS FOR THE PAST 9 HOURS. ACTIVE TO  
STORM LEVEL CONDITIONS ARE EXPECTED TO PERSIST THROUGHOUT THE  
FORECAST PERIOD IN RESPONSE TO THE COMBINED EFFECTS OF NUMEROUS  
SIGNIFICANT FLARES AND A TRANSEQUATORIAL POSITIVE-POLARITY  
CORONAL HOLE. PROTON FLUXES AT SATELLITE ALTITUDES ARE WELL  
BELOW EVENT THRESHOLD VALUES AT THIS TIME.

III. EVENT PROBABILITIES 14 JUN-16 JUN

CLASS M 99/99/99

CLASS X 60/60/60

PROTON 40/45/50

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 13 JUN 233

PREDICTED 14 JUN-16 JUN 230/230/225

90 DAY MEAN 13 JUN 166

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 12 JUN 036/040

ESTIMATED AFR/AP 13 JUN 030/047

PREDICTED AFR/AP 14 JUN-16 JUN 025/030-025/025-025/025

SOLTERWARN

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