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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 FKC 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, 1742Z, 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 THE 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 EXPECTED TO CONTINUE THROUGH THIS FORECAST PERIOD. AS THE LARGE CORONAL HOLE ROTATES THROUGH THE SUN-EARTH CONNECTION LONGITUDES, 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 156

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 ACCCOMPANIED 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

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