

HFUS 1 BOU 222200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO
SDF NUMBER 173

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 22 JUNE 1978

IA. SOLAR ACTIVITY HAS BEEN MODERATE. CLASS M FLARES HAVE OCCURRED IN REGIONS 1164 (N17E13) AT 22/1639UT AND 1172 (S18E49) AT 22/0232UT AND 22/1948UT. THE 22/1639UT EVENT WAS CLASSIFIED IMPORTANCE 3N WITH A RADIO BURST OF 89 FLUX UNITS. THE FLARE WAS A FILAMENT ACTIVATION TYPE WITH TYPICALLY SLOW RISE AND DECAY IN ALL PARAMETERS. TWELVE REGIONS WITH SPOTS ARE VISIBLE ON THE DISK. ONE AREA OF DEVELOPMENT IS IN THE VICINITY OF REGIONS 1164 AND 1177 (N13E03). 1177 IS A NEW REGION THAT IS VISIBLE MANIFESTATION OF GROWTH AND REARRANGEMENT OF THE LARGE SCALE MAGNETIC FIELD THAT IS OCCURRING. 1172 IS SHOWN BY MAGNETOGRAHS TO BE MAGNETICALLY SIMPLE BUT IT IS GROWING AND HAS SHOWN A TENDENCY TOWARD BECOMING MORE COMPLEX.

IB. SOLAR ACTIVITY WILL PROBABLY BE AT LEAST MODERATE. CLASS M FLARES ARE PROBABLE, MOST LIKELY FROM REGIONS 1172 AND THE 1164/1177/1170/1171 COMPLEX.

II. THE 22/1639UT EVENT MAY PRODUCE SMALL PROTON ENHANCEMENT AND A MINOR MAGNETIC STORM. ANY PROTON ENHANCEMENT WOULD PROBABLY PRODUCE NO MORE THAN 1 DB POLAR CAP ABSORPTION WITH A GREATER THAN 10 MEV FLUX OF 5 TO 10 PROTONS/CM²/SEC/STER. MAGNETIC STORM EFFECTS OF THE FLARE ARE NOT EXPECTED UNTIL 24/2100T AND THE DISTURBANCE WILL PROBABLY BE OF ACTIVE TO MINOR STORM LEVELS.

III. EVENT PROBABILITIES 23 JUNE - 25 JUNE

CLASS M	95/95/95
CLASS X	15/20/20
PROTON	30/35/40
PCAF	YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED	22 JUNE 183
PREDICTED	23-25 JUNE 185/187/189
90-DAY MEAN	22 JUNE 144

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG	21 JUNE 25
ESTIMATED AFR/AP	22 JUNE 10/19
PREDICTED AFR/AP	23-25 JUNE 13/15 - 13/15 - 20/25
SOLTERWARN	

BT