

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
IN THE 1164/1177/1170 (N12E33) AND 1171 (24E39) AREA. REGION

1172 IS SHOWN BY MAGNETOGRAPHS 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