

HFUS 1 BOU 112200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 192

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 11 JULY 1978

IA. THE GREATEST SOLAR X-RAY FLARE OF RECORD OCCURRED AT 1043Z TODAY WHEN SATELLITE X-RAY SENSORS SATURATED FOR 15 MIN AT X15. PEAK INTENSITY MAY HAVE BEEN NEAR X30. THE FLARE WAS IMPORTANCE 2B AND VISIBLE IN WHITE LIGHT OPTICALLY WITHIN REGION 1203 (N18E38). THE ASSOCIATED SPOT GROUP IS A MASSIVE TYPE EKC GROUP WITH DELTA CONFIGURATION, EXCEPTIONAL HIGH MAGNETIC FIELD GRADIENT AND SIGNIFICANT GROWTH SINCE YESTERDAY. THIS REGION IS NOW LARGER THAN THE GREAT ACTIVE CENTER OF AUGUST 1972. IMPORTANT GROWTH HAS ALSO OCCURRED IN REGION 1196 (N20W59), REGION 1201 (S20W34) AND REGION 1208 (N16E64) ALL OF WHICH HAVE PRODUCED CLASS M EVENTS TODAY. A FORBUSH DECREASE HAS BEEN REPORTED.

IB. PROTON-CLASS X EVENTS ARE EXPECTED. CLASS M EVENTS WILL BE FREQUENT AND FROM UP TO FOUR DIFFERENT REGIONS ON THE SUN.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET FOR THE PAST 24 HOURS. A MAGNETIC CROCHET OCCURRED AT 1050Z WITH THE GREAT FLARE. CONDITIONS SHOULD REMAIN QUIET UNTIL THE ARRIVAL OF A FLARE SHOCK EARLY ON 13 JULY. A MAJOR MAGNETIC STORM IS EXPECTED.

III. EVENT PROBABILITIES 12 JULY - 14 JULY

CLASS M 99/99/99

CLASS X 50/50/50

PROTON 50/50/50

PCAF RED

IV. OTTAWA 10.7 CM FLUX

OBSERVED 11 JULY 164

PREDICTED 12-14 JULY 171/175/177

90-DAY MEAN 11 JULY 146

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 10 JULY 09

ESTIMATED AFR/AP 11 JULY 07/08

PREDICTED AFR/AP 12-14 JULY 15/25 - 55/55 - 45/45

SOLIERWARN

BT