

HFUS 1 BOU 072200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 098

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 07 APRIL 1980

IA. SOLAR ACTIVITY HAS BEEN HIGH DURING THE PAST 24 HOURS. THE
LARGEST FLARE, AN M8 (A 1B OPTICALLY), OCCURRED IN REGION 2372
(N12W09) WITH MAXIMUM AT 07/0541 UT. THIS HAD STRONG SHORT-WAVE
FADES REPORTED WITH IT BUT RELATIVELY WEAK DISCRETE FREQUENCY
RADIO RESPONSES. REGION 2372 ALSO PRODUCED AN M4 BURST (MAXIMUM
AT 0110 UT) AND AN M1 (1845 UT). REGION 2370 (N22E0) HAS
PRODUCED A FEW SMALL SUBFLARES THIS UT DAY WITH VERY LITTLE X-RAY
RESPONSE. REGION 2375 (S30E67) WAS SURGING NEAR THE LIMB
YESTERDAY AND PRODUCED A SUB-BRILLIANT C-CLASS FLARE TODAY,
REMINING US THAT REGIONS 2370 AND 2372 ARE NOT THE ONLY REGIONS
ON THE DISK THAT HAVE FLARE POTENTIAL.

IB. ALTHOUGH REGION 2372 HAS THE BEST FLARE POTENTIAL AND IS A
PROVEN X-RAY PRODUCER, GRADIENTS HAVE WEAKENED SOMEWHAT IN THE
REGION AND THE EXPLOSIVE GROWTH HAS SLOWED DRAMATICALLY. AT THE
SAME TIME, THE GRADIENTS AND COMPLEXITY OF REGION 2370 SEEM TO
HAVE INCREASED. THIS IS TO SAY THAT WHILE THE WORLD WATCHES AND
WAITS FOR A MAJOR FLARE FROM REGION 2372, IT MAY BE 2370 THAT
PRODUCES THE IMPRESSIVE ACTIVITY. BOTH REGIONS WILL BE IDEALLY
LOCATED TO PRODUCE GEO-EFFECTIVE FLARES FOR THE NEXT 4 TO 6 DAYS.
II. THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED TO QUIET DURING THE
PAST 24 HOURS. THE FIELD IS EXPECTED TO BE AT ACTIVE TO MINOR
GEOMAGNETIC STORM LEVELS THROUGH MOST OF THE UT DAY ON 08 APRIL
AS A FLARE-INDUCED SHOCK REACHES THE EARTH FROM THE X2 FLARE ON
APRIL.

III. EVENT PROBABILITIES 08 APRIL - 10 APRIL

CLASS M 90/90/90

CLASS X 40/40/40

PROTON 35/40/40

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 07 APRIL 243

PREDICTED 08-10 APRIL 245/245/242

90-DAY MEAN 07 APRIL 191

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 06 APRIL 26

ESTIMATED AFR/AP 07 APRIL 15/16

PREDICTED AFR/AP 08-10 APRIL 40/40 - 19/15 - 13/10

SOLTERWARN

BT