

HFUS 1 BOU 072200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO.

SDF NUMBER 098

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

I A. 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 (N22E7) 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, REMINDING US THAT REGIONS 2370 AND 2372 ARE NOT THE ONLY REGIONS ON THE DISK THAT HAVE FLARE POTENTIAL.

I B. 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 UNSETLED 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 07 APRIL.

III. EVENT PROBABILITIES 08 APRIL - 10 APRIL

CLASS M 90/90/90

CLASS X 40/40/40

PREDICTED 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 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

SOLIERWARN

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