

HFUS 3 BOU 041358

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SOF NUMBER 309 A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 1200UT 04 NOV 1980

IA. SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOURS. REGIONS 2772 (N22W06), 2773 (N03E02) AND 2776 (N12E31) HAVE ALL PRODUCED AN M1 X-RAY BURST IN THE PAST 24 HOURS (WITH MAXIMA AT 04/1107, 03/1358 AND 04/0934 UT, RESPECTIVELY). IN ADDITION, AN M2/SB WAS REPORTED AT 04/0202 UT MAXIMUM AT THE SOUTHEAST LIMB (SE15) WHERE OLD SESC REGION 2725 IS APPARENTLY RETURNING. AGAIN TODAY REGION 2772 HAS FLARED MOST FREQUENTLY, HAVING PRODUCED A DOZEN MOSTLY C-CLASS SUBFLARES. REGION 2773 FOLLOWED 2772 WITH ONLY HALF AS MANY FLARES TOTAL - HOWEVER, 2773 EQUALED REGION 2772'S X-RAY BURST OUTPUT. REGION 2776 WAS COMPARATIVELY QUIET. REGION 2777 (SLIE29) SHOWED SUBSTANTIAL GROWTH DURING THE 24 HOUR PERIOD BUT HAS PRODUCED ONLY (NON-ENERGETIC SUBFAINT FLARES SO FAR. THE REGIONS WELL WEST OF CENTRAL MERIDIAN HAVE ALL BEEN QUIET.

IB. DESPITE RELATIVELY CONTINUOUS FLARING, REGION 2772 SEEMS TO HAVE SPREAD AND SIMPLIFIED AND IS NOT REGARDED AS A PARTICULAR MAJOR FLARE THREAT AS LONG AS IT CONTINUES TO DISSIPATE ITSELF. IT IS AN UNBALANCED REGION (WITH TRAILER SPOTS LARGER AND STRONGER THAN LEADER SPOTS) SO ITS THREAT CANNOT BE COMPLETELY DISMISSED. REGION 2773 MAY ALSO HAVE SIMPLIFIED. IT DOESN'T FLARE AS FREQUENTLY, BUT WHEN IT DOES IT IS MORE LIKELY TO PRODUCE LOW M-LEVEL X-RAY BURSTS. REGION 2776 IS RELATIVELY QUIET BUT IS FELT TO CONTAIN THE BEST PROSPECTS FOR MAJOR (X-CLASS) FLARES. THE REGION HAS STRONG SPOTS, OPPOSITE POLARITIES DISTRIBUTED IN A MESSY FASHION AROUND A GENERALLY CIRCULAR NEUTRAL LINE AND SHOWS SOME SIGNS OF TORSION. AS REGION 2776 CONTINUES TO EVOLVE, CHANCES FOR ONE OR MORE MAJOR FLARES FROM IT (WITH THE USUAL GEOPHYSICAL CONSEQUENCES) WILL INCREASE.

II. THE GEOMAGNETIC FIELD WAS QUIET TO MILDLY UNSETTLED THROUGH MOST OF THE PAST 24 HOURS. HOWEVER, A COUPLE OF GEOMAGNETIC BAYS WERE OBSERVED BETWEEN 04/0900 AND 1200 UT (MID-LATITUDE ACTIVITY LEVELS REACHED K EQUALS 4). THE FIELD IS NOW EXPECTED TO BE GENERALLY UNSETTLED WITH OCCASIONAL ACTIVE PERIODS FOR THE NEXT THREE DAYS.

III. EVENT PROBABILITIES: 05 - 07 NOVEMBER 1980

CLASS M 80/80/80

CLASS X 15/20/20

PROTON 05/10/15

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 03 NOV 246

ESTIMATED 04 NOV 250

PREDICTED 05-07 NOV 253/255/254

90 DAY MEAN 04 NOV 192

V. GEOMAGNETIC A INDICES

OBSERVED AFR 02 NOV 08 AP 03 NOV 06

ESTIMATED AFR 03 NOV 06 AFR/AP 04 NOV 14/20

PREDICTED AFR/AP 05-07 NOV 17/15 12/14 15/20

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FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 309B
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200UT 04 NOV 1980

IA. SOLAR ACTIVITY HAS BEEN MODERATE. ENERGETIC EVENTS HAVE OCCURRED AS FOLLOWS ON 04 NOV. M2/SB IN REGION 2779 (S15E90) MAXIMUM AT 0202UT, M1/SF IN REGION 2776 (N12E18) MAXIMUM AT 0934 UT, M1/SB IN REGION 2772 (N23W11) MAXIMUM AT 1107 UT, M1/IB IN REGION 2772 MAXIMUM AT 1508 UT. NUMEROUS C CLASS FLARES OCCURRED DURING THE UT DAY. REGION 2779 ON OR BEHIND THE LIMB WAS NUMBERED TODAY. A FILAMENT NEAR E17N20 DISAPPEARED TODAY AT 0800UT.

IB. SOLAR ACTIVITY MAY BE EXPECTED TO REMAIN AT MODERATE LEVELS DUE TO THE INFLUENCE OF ACTIVE REGIONS 2772, 2773 (N04W05), 2776. REGION 2776 APPEARS CAPABLE OF A LARGE FLARE AT ANY TIME. REGION 2779 HAS INFLUENCED ACTIVITY AND IS JUST ARRIVING ON THE DISK. ITS POTENTIAL IS YET TO BE ASSESSED.

II. THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED, AND IS EXPECTED TO REMAIN UNSETTLED.

III. EVENT PROBABILITIES: 05-07 NOV

CLASS M 80/80/80

CLASS X 15/20/20

PROTON 05/10/15

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 04 NOV 261

PREDICTED 05-07 NOV 263/265/264

90 DAY MEAN 04 NOV 192

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 03 NOV 06/06

ESTIMATED AFR/AP 04 NOV 14/12

PREDICTED AFR/AP 05-07 NOV 17/15 12/15 15/20

SOLTERWARN

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