

HFUS 1 BOU 172200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 290

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 17 OCTOBER 1978

IA. SOLAR ACTIVITY HAS BEEN AT A RELATIVELY LOW LEVEL THE PAST 24 HOURS WITH ONLY MINOR CLASS C EVENTS SINCE THE M2 OUT OF 1351 (N31E32) AT 16/2146Z. REGION 1351 HAS SHOWN SOME INCREASE IN MAGNETIC COMPLEXITY. A DELTA MAY BE FORMING. REGION 1346 (S21E56) APPEARS TO BE DECAYING AND MAY BE SIMPLIFYING. THREE NEW REGIONS HAVE APPEARED IN THE PAST UT DAY. REGION 1355 (N30E80) IS OLD 1304, REGION 1356 (S21E76) AND REGION 1357 (S27E41) ARE NEW. SURGE ACTIVITY IS BEING REPORTED ON THE EAST LIMB NEAR 1355. DEVELOPMENT HAS BEEN OBSERVED IN REGION 1340 (N21W49).

IB. THE CURRENT LOW LEVEL OF SOLAR ACTIVITY IS EXPECTED TO BE INTERRUPTED WITH INFREQUENT ENERGETIC EVENTS THRU THE FORECAST PERIOD. REGIONS 1348 AND 1346 BOTH RETAIN THE POTENTIAL FOR MAJOR ACTIVITY. ADDITIONAL DEVELOPMENT IN 1351 AND 1340 COULD MAKE THESE THE SITES OF SIGNIFICANT EVENTS AS WELL.

II. THE GEOMAGNETIC FIELD AT MID-LATITUDES HAS BEEN VERY QUIET THE PAST 36 HOURS. GENERALLY QUIET CONDITIONS SHOULD PREVAIL MOST OF FORECAST PERIOD. HIGH LATITUDE STATIONS ARE SEEING SOME ACTIVITY AND MAY EXPERIENCE UNSETTLED CONDITIONS. A 10830A CORONAL HOLE HAS ROTATED ON TO THE DISK AND IS NOW AT N10 E70.

III. EVENT PROBABILITIES 18 OCTOBER - 20 OCTOBER

CLASS M 70/70/50

CLASS X 25/25/10

PROTON 10/10/05

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 17 OCTOBER 173

PREDICTED 18-20 OCTOBER 170/167/165

90-DAY MEAN 17 OCTOBER 138

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 16 OCTOBER 03

ESTIMATED AFR/AP 17 OCTOBER 03/09

PREDICTED AFR/AP 18-20 OCTOBER 07/10 - 08/12 - 10/15

SOLTERWARN

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SDF NUMBER 290

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 17 OCTOBER 1979

IA. SOLAR ACTIVITY HAS BEEN GENERALLY MODERATE FOR THE LAST 24 HOURS. DRAMATIC GROWTH IN REGION 2058 (N27E34) AND SIGNIFICANT RESTRUCTURING IN REGION 2049 (N32W08) WERE THE MOST IMPRESSIVE DISK CHANGES SINCE YESTERDAY. REGION 2058, WITH ITS BETA DELTA CONFIGURATION, IS DEVELOPING ADDITIONAL SPOTS IN ITS LEADING PORTIONS AND BRIGHT PATCHES OF PLAGE ARE SCATTERED THROUGHOUT. REGION 2058 PRODUCED AN M3/1B AT 170658 UT (MAX). REGION 2049 PRODUCED AN M1/2B WITH MAXIMUM AT 171616 UT. THIS REGION HAS A LARGE LEADER WITH A GROWING TRAILER AND ITS MAGNETIC CONFIGURATION IS CLASSIFIED AS BETA GAMMA DELTA. REGION 2049 HAS VERY BRIGHT PLAGE CROWDING THE TRAILER SPOT THEN EXTENDING TO THE LEADER SPOT BUT BECOMING LESS BRIGHT AND COMPACT. SEVERAL SMALL FLARES HAVE OCCURRED FROM RANDOM SOURCES BUT FOR THE MOST PART WERE NON-ENERGETIC. SMALL SURGING WAS OBSERVED ON THE SOUTHEAST LIMB WHERE A SMALL SPOT GROUP WITH A SEGMENT OF PLAGE IS ROTATING ONTO THE DISK. ITS NUMBER IS 2066 (S10E79). THREE OTHER REGIONS WERE NUMBERED TODAY; REGIONS 2064 (S08E63), 2065 (N13E21) AND 2067 (S13E30). ALL ARE SIMPLE UNIPOLAR REGIONS SO FAR.

IB. SOLAR ACTIVITY SHOULD REMAIN AT MODERATE LEVELS FOR THE COMING 24 HOURS AS REGIONS 2058 AND 2049 CONTINUE THEIR TRANSFORMATION.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET THE PAST DAY OR SO. QUIET CONDITIONS SHOULD BECOME UNSETTLED TO ACTIVE CONDITIONS EARLY ON 18 OCTOBER AND PERSIST UNTIL EARLY 19 OCTOBER.

III. EVENT PROBABILITIES 18 OCTOBER - 20 OCTOBER

CLASS M 90/90/90

CLASS X 25/30/30

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 17 OCTOBER 232

PREDICTED 18-20 OCTOBER 230/227/227

90-DAY MEAN 17 OCTOBER 189

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 16 OCTOBER 08

ESTIMATED AFR/AP 17 OCTOBER 05/05

PREDICTED AFR/AP 18-20 OCTOBER 15/20 - 12/12 - 08/08

SOLTERWARN

BT