

HFUS 1 BOU 112200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 345

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 11 DECEMBER 1978

IA. SOLAR ACTIVITY HAS BEEN AT VERY HIGH LEVELS DURING THE LAST 24 HOURS. SIGNIFICANT ENERGETIC EVENTS WERE PRODUCED BY REGIONS 1447 (S17W51) AND 1444 (S16E12). REGION 1447 PRODUCED A 2B/M7 FLARE BEGINNING AT 1909 UT AND MAXING AT 1927 UT. REGION 1444 PRODUCED A 2B/X1 FLARE BEGINNING AT 1937 UT AND MAXING AT 1945 UT. A SIGNIFICANT RADIO BURST OF MORE THAN 10,000 FLUX UNITS ON 2695 MHZ MAXED AT 1919 UT. PRELIMINARY INDICATIONS ARE THAT REGION 1447 PRODUCED THIS BURST ALTHOUGH THE CONCURRENT TIMES OF THESE FLARES LEAVE THE RESPONSIBLE REGION AMBIGUOUS.

IB. SOLAR ACTIVITY IS EXPECTED TO REMAIN AT MODERATE TO HIGH LEVELS DURING THE NEXT 24 HOURS. REGIONS 1447 AND 1444 REMAIN LARGE AND COMPLEX AND COULD CONTINUE TO PRODUCE ENERGETIC EVENTS. INCREASED COMPLEXITY AND THE FORMATION OF INTERMEDIATE SPOTS WAS REPORTED IN BOTH REGIONS AFTER THE BIG FLARES, INDICATING STRESSES HAVE NOT RELAXED IN EITHER REGION.

II. THE GEOMAGNETIC FIELD HAS BEEN AT QUIET LEVELS DURING THE LAST 24 HOURS. A PROTON EVENT IS EXPECTED TO BEGIN AT ABOUT 12/0200 UT REACHING A PEAK ABSORPTION OF 6 TO 10 DB AT ABOUT 12/0800 UT. A MINOR GEOMAGNETIC STORM IS EXPECTED BY THE END OF THE UT DAY ON 12 DECEMBER. ACTIVE TO UNSETTLED CONDITIONS ARE EXPECTED TOWARD THE END OF THE FORECAST PERIOD AS THE FLARE INDUCED STORM SUBSIDES.

III. EVENT PROBABILITIES 12 DECEMBER - 14 DECEMBER

CLASS M 85/90/85

CLASS X 25/30/25

PROTON 20/25/30

PCAF RED

IV. OTTAWA 10.7 CM FLUX

OBSERVED 11 DECEMBER 217

PREDICTED 12-14 DECEMBER 221/224/222

90-DAY MEAN 11 DECEMBER 160

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 10 DECEMBER 01

ESTIMATED AFR/AP 11 DECEMBER 01/02

PREDICTED AFR/AP 12-14 DECEMBER 20/20 - 46/60 - 15/30

SOLTERWARN

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SDF NUMBER 345

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 11 DECEMBER 1979

IA. SOLAR ACTIVITY, WHILE REMAINING LOW, HAS INCREASED OVER
YESTERDAY'S LEVEL. REGIONS 2182 (N11W03), 2183 (S15W00), 2186
(N05E30) AND 2188 (N11W14) HAVE ALL PRODUCED SUBFLARE ACTIVITY.
REGION 2182 (S12W36) IS NO LONGER AS IMPOSING AS IT HAS BEEN FOR
THE PAST SEVERAL DAYS. THE SPOT GROUP IS NOW A "C" TYPE GROUP
AND HAS A MAGNETIC CHARACTER OF TYPE BETA. TWO "E" SPOT GROUPS ARE
PRESENT TODAY; 2183 AND 2191 (S18E68). NEITHER POSSESSES THE
COMPLEXITY NECESSARY FOR SIGNIFICANT ACTIVITY; HOWEVER, BOTH
COULD POSSIBLY DEVELOPE THAT COMPLEXITY IF GROWTH OCCURS IN THEIR
INTERIOR.

IB. SOLAR ACTIVITY SHOULD CONTINUE LOW WITH ISOLATED M ACTIVITY
A POSSIBILITY.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET. QUIET TO UNSETTLED
CONDITIONS SHOULD DOMINATE THE NEXT 24 HOURS.

III. EVENT PROBABILITIES 12 DEC - 14 DEC

CLASS M 40/40/40

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 11 DEC 24.1

PREDICTED 12-14 DEC 23.6/23.0/22.4

90-DAY MEAN 11 DEC 22.3

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 10 DEC 04

ESTIMATED AFR/AP 11 DEC 06/06

PREDICTED AFR/AP 12-14 DEC 12/14 08/10 08/08

SOLTERWARN

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