

HFUS 1 BOU 132200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER CO

SDF NUMBER 347

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 13 DECEMBER 1978

IA. SOLAR ACTIVITY HAS BEEN HIGH. AN XI/IB FLARE IN REGION 1447
(S 17W 79) OCCURRED AT 130615 U.T. AGAIN, RADIO EMISSION WAS
RELATIVELY SMALL BUT SHORTWAVE FADES AS HIGH AS 18 MHZ WERE
OBSERVED. A TOTAL OF 10 "M" CLASS EVENTS HAVE BEEN OBSERVED THUS
FAR TODAY BUT ONLY FOUR COULD DEFINITELY BE ASSOCIATED WITH A
PARTICULAR REGION AND IN ALL FOUR INSTANCES, THAT REGION WAS
1447. THE COMPLEX OF REGIONS NEAR THE CENTER OF THE DISK, 1448
(S 12W 11), 1444 (S 17W 11) AND 1453 (S 17E 00) ARE STILL COMPLEX,
SHOWING GROWTH IN SOME SECTIONS WHILE DECAYING IN OTHERS AND IN
GENERAL MAINTAINING A THREATENING APPEARANCE. THE LARGE REGION
IN THE NORTH, 1446 (N 21W 19), REMAINS DORMANT. THE OTHER DISK
FEATURES ARE UNIMPRESSIVE BY COMPARISON.

IB. THE STRUCTURE OF THE COMPLEX NEAR THE SOUTH CENTER OF THE
DISK WOULD SUGGEST THAT ADDITIONAL SIGNIFICANT ACTIVITY CAN BE
EXPECTED.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET TO SLIGHTLY UNSET-
TLED. THE IMPACT FROM THE 11 DECEMBER FLARE IS NOW EXPECTED
LATE ON 13 DECEMBER OR EARLY ON 14 DECEMBER. THE STORM IS
EXPECTED TO PERSIST FOR 2 OR 3 DAYS. A SMALL INCREASE IN LOW
ENERGY PARTICLES WAS OBSERVED FOR A SHORT PERIOD WITH .3 DB
NOTED ON THE THULE 30MHZ RIOMETER.

III. EVENT PROBABILITIES 14-16 DECEMBER

CLASS M 95/95/95

CLASS X 50/50/50

PROTON 40/50/50

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 13 DECEMBER 231

PREDICTED 14-16 DECEMBER 226/220/216

90-DAY MEAN 13 DECEMBER 162

V. GEOMAGNETIC INDICES

OBSERVED FREDERICKSBURG 12 DECEMBER 03

ESTIMATED AFR/AP 13 DECEMBER 06/06

PREDICTED AFR/AP 14-16 DECEMBER 40/60 - 30/40 - 20/28

SOLTERWARN

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SDF NUMBER 347

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 13 DECEMBER 1979

IA. SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOURS. REGION 2186 (N25E04) PRODUCED A M1/SN AT 0902 U.T. A TYPE II SWEEP WAS RECORDED ALONG WITH MINOR RADIO BURSTS. A M2/SF WITH A TYPE IV SWEEP AND AN ASSOCIATED 17000 FLUX UNIT BURST ON 245 MHZ WAS REPORTED FROM REGION 2174 (N11W90) AT 1355 U.T., APPARENTLY MOST OF THE OPTICAL PORTION OF THE FLARE WAS BEHIND THE LIMB. REGION 2180 (S34W42) PRODUCED A M1/SB FLARE AT 2108 UT. REGION 2186 HAS SHOWN SOME INCREASE IN COMPLEXITY AND MAY HAVE SOME INTERACTION WITH REGION 2194 (N17E07). NEW REGIONS TODAY ARE 2197 (S28W56) SIMPLE A TYPE AND 2198 (N09E30) UNSPOTTED. HOWEVER A SB FLARE WAS REPORTED AT THIS LOCATION AT 0921 U.T.

IB. SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE DURING THE FORECAST PERIOD.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET. THE FIELD IS EXPECTED TO BE QUIET WITH ONLY AN OCCASIONAL PERIOD OF SLIGHTLY UNSETLED CONDITIONS DURING THE FORECAST PERIOD.

III. EVENT PROBABILITIES 14-16 DECEMBER

CLASS M 40/40/40

CLASS X 01/01/01

PREDICTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 13 DEC 238

PREDICTED 14-16 DEC 234/229/222

90-DAY MEAN 13 DEC 224

V. GEOMAGNETIC INDICES

OBSERVED FREDERICKSBURG 12 DEC 03

ESTIMATED AFR/AP 13 DEC 04/05

PREDICTED AFR/AP 14-16 DEC 05/08 05/08 05/08

SOLAR TERRAIN

BT