

HFUS 1 BOU 142200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER CO

SDF NUMBER 348

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 14 DECEMBER 1978

IA. SOLAR ACTIVITY REMAINS HIGH. REGION 1447 (S17W92), ALTHOUGH NO LONGER VISIBLE ON THE DISK, PRODUCED TWO X1 FLARES IN THE PAST 24 HOURS. AN X1/IB AT 132351Z THAT LASTED UNTIL 140020 U. T. AND AT 140722Z AN X1/SN OCCURRED. THE COMPLEX IN THE SOUTHEAST HAS BEEN RELATIVELY QUIET EXCEPT FOR AN OCCASIONAL SUBFLARE. THE EXTREME EASTERN PORTIONS OF THE REGION THAT WAS NUMBERED 1453 (S16W18) YESTERDAY IS NOW NUMBERED 1456 (S15W10) SINCE THE GROWTH AND DEVELOPMENT IN THAT AREA DICTATES THAT IT BE DEALT WITH AS A SEPARATE ENTITY. REGION 1444 (S16W25) REMAINS A LARGE PENUMBRA ENCLOSING BOTH POLARITIES BUT THE LEADER AND TRAILER POLARITIES ARE CLEARLY SEPARATED. A NEW SPOT GROUP HAS ROTATED OVER THE NORTHEAST LIMB AND IS NUMBERED 1457 (N21E75).

IB. THE COMPLACENCY OF THE 1444 COMPLEX WOULD SUGGEST THAT A SLIGHT DECLINE IN FLARE PRODUCTION CAN BE EXPECTED; HOWEVER, THE COMPLEXITY OF THIS AREA OFFERS THE POTENTIAL FOR ADDITIONAL SIGNIFICANT ACTIVITY.

II. THE GEOMAGNETIC FIELD WAS AT MINOR STORM LEVELS EARLIER TODAY BUT IS NOW ONLY SLIGHTLY UNSETTLED. NIGHTTIME SECTORS CAN EXPECT GENERALLY ACTIVE CONDITIONS DURING THE NEXT 24-48 HOURS WHILE QUIET TO UNSETTLED CONDITIONS WILL DOMINATE DAY TIME SECTORS.

III. EVENT PROBABILITIES 15-17 DECEMBER

CLASS M 95/95/95

CLASS X 50/40/30

PROTON 25/25/25

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 14 DECEMBER 202

PREDICTED 15-17 DECEMBER 194/188/172

90-DAY MEAN 14 DECEMBER 163

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 13 DECEMBER 04

ESTIMATED AFR/AP 14 DECEMBER 19/25

PREDICTED AFR/AP 15-17 DECEMBER 15/25 - 15/25 - 12/20

SOLTERWARN

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FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, COLO

SDF NUMBER 348

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 14 DECEMBER 1979

IA. SOLAR ACTIVITY HAS BEEN MODERATE DURING THE LAST 24 HOURS. X-RAY BACKGROUND LEVELS ARE ENHANCED AND HALF OF THE SEVENTEEN REGIONS ON THE VISIBLE DISK HAVE PRODUCED AT LEAST ONE FLARE DURING THE PAST 24 HOURS. TWO M2 BURSTS WERE NOTED: ONE WITH MAXIMUM AT 14/0300Z (NO OPTICAL ASSOCIATION) AND ONE WITH MAXIMUM AT 1805Z (SN OPTICALLY) IN REGION 2183 (S15W39). TWO M1 BURSTS WERE NOTED: ONE WITH MAXIMUM AT 0410Z AND ONE WITH MAXIMUM AT 0819Z (SB OPTICALLY) IN REGION 2172 (N09W69). SEVENTEEN OTHER C-CLASS SUBFLARES OR X-RAY BURSTS WERE NOTED DURING THE PERIOD, SCATTERED AMONGST THE VISIBLE REGIONS. BOTH REGIONS 2183 AND 2194 (N17W08) HAVE SHOWN DRAMATIC GROWTH IN THE PAST 24 HOURS BUT 2183 SEEMS TO HAVE THE GREATEST ENERGETIC FLARE POTENTIAL OF THE TWO GROUPS.

IB. SOLAR ACTIVITY IS EXPECTED TO CONTINUE MODERATE FOR A FEW DAYS. BACKGROUND FLUXES SHOULD CONTINUE SLIGHTLY ELEVATED WITH OCCASIONAL X-RAY BURSTS TO M1 OR M2 LEVELS. MAJOR X-RAY EVENTS ARE NOT LIKELY.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET FOR THE PAST 24 HOURS. THE FIELD IS EXPECTED TO CONTINUE GENERALLY QUIET FOR THE NEXT 72 HOURS.

III. EVENT PROBABILITIES 15 DECEMBER - 17 DECEMBER 1979

CLASS M 55/60/60

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 14 DECEMBER 246

PREDICTED 15-17 DECEMBER 245/242/240

90-DAY MEAN 14 DECEMBER 225

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 13 DECEMBER 03

ESTIMATED AFR/AP 14 DECEMBER 06/05

PREDICTED AFR/AP 15-17 DECEMBER 05/08 05/08 07/10

SOLTERWARN

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