

HFUS 1 BOU 182200

FROM SPACE-ENVIRONMENT SERVICES CENTER BOULDER, CO

SDF NUMBER 352

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 18 DECEMBER 1978

IA. SOLAR ACTIVITY HAS BEEN LOW TO MODERATE DURING THE PAST 24 HOURS. REGION 1444 (S15W80) CONTINUES TO BE THE MOST ACTIVE ON THE DISK PRODUCING A C4/SN FLARE AT 1418 UT AND A IN/C2 FLARE AT 1639 UT. REGION 1453 (S18W66) PRODUCED A C4/SB FLARE AT 0000 UT. SEVERAL OTHER C-CLASS EVENTS COULD NOT BE CORRELATED OPTICALLY DUE TO CLOUDS AT MANY OBSERVATORIES. REGION 1461 (N18W51) AND 1462 (N20W34) ARE BOTH BETA GAMMA MAGNETICALLY WITH FLUCTUATIONS AND ARCH FILAMENT SYSTEMS REPORTED. NEW REGION 1463 (N16E64) IS A SIMPLE A-TYPE SPOT GROUP.

IB. SOLAR ACTIVITY WILL BE MODERATE. LIMB ACTIVITY CAN BE EXPECTED WITH THE DEPARTING 1444 COMPLEX. REGIONS 1461 AND 1462 COULD PRODUCE AN ENERGETIC EVENT DURING THE PERIOD.

II. THE GEOMAGNETIC FIELD HAS BEEN AT HIGH ACTIVE TO MINOR STORM LEVELS BEGINNING EARLY IN THE UT DAY. PROBABLE CAUSES INCLUDE RECENT SOLAR ACTIVITY AND THE PASSAGE OF A SOLAR SECTOR BOUNDARY. ACTIVE CONDITIONS WILL CONTINUE THROUGH THE FORECAST PERIOD.

III. EVENT PROBABILITIES 19 - 21 DECEMBER

CLASS M 90/90/70

CLASS X 20/20/10

PROTON 20/20/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 DECEMBER 167

PREDICTED 19-21 DECEMBER 161/156/156

90-DAY MEAN 18 DECEMBER 163

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 17 DECEMBER 08

ESTIMATED AFR/AP 18 DECEMBER 32/32

PREDICTED AFR/AP 19-21 DECEMBER 29/35 - 22/26 - 15/20

SOLTERWARN

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SDF NUMBER 352

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 18 DECEMBER 1979

IA. SOLAR ACTIVITY HAS BEEN LOW TO MODERATE. REGION 2202 (N10W41)
PRODUCED A M2/1B AT 1900Z. MODERATE CENTIMETRIC BURSTS ACCOMPANIED
THIS FLARE. REGION 2202 HAS SHOWN MARKED GROWTH DURING THE PAST 24
HOURS AND IS BETA GAMMA IN MAGNETIC CLASSIFICATION. THIS REGION IS
NEW FLUX INTERMINGLED WITH THE OLD FLUX OF REGION 2198, WHICH
DECAYED SEVERAL DAYS AGO. NUMEROUS SUBFLARES HAVE BEEN REPORTED IN
FIVE DIFFERENT REGIONS, PREDOMINANTLY IN REGIONS 2202 AND 2204
(S16E46). REGION 2204 HAS SHOWN MODERATE GROWTH. REGION 2194 (N17W61)
CONTINUES TO SLOWLY SIMPLIFY IN STRUCTURE. REGIONS 2205 (S19E14) AND
2206 (S30E16) HAVE BEEN ADDED TODAY.

IB. WITH THE GROWTH IN REGIONS 2202 AND 2204, THE PROBABILITIES FOR
CLASS M EVENTS HAVE BEEN INCREASED ACCORDINGLY. SOLAR ACTIVITY IS
EXPECTED TO BE LOW TO MODERATE.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET TO UNSETTLED. THE FIELD IS
EXPECTED TO BE GENERALLY QUIET ON THE 19TH AND UNSETTLED ON THE
20TH AND 21ST.

III. EVENT PROBABILITIES 19-21 DEC

CLASS M 40/40/40

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 DEC 195

PREDICTED 19-21 DEC 187/182/177

90-DAY MEAN 18 DEC 225

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 17 DEC 09

ESTIMATED AFR/AP 18 DEC 06/06

PREDICTED AFR/AP 19-21 DEC 05/08 12/10 10/15

SOLTERWARN

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