

HFUS 1 BOU 122200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, CO

SDF NUMBER 285

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 12 OCT 1978

IA. SOLAR ACTIVITY HAS BEEN LOW-TO-MODERATE. THE FACE OF THE SUN IS DOMINATED BY A PLETHORA OF REGIONS THAT RANGE FROM SMALL BUT COMPLEX AND MODERATELY EXCITING TO MANY THAT ARE SO SMALL AND SIMPLE THAT THEY INTEREST ONLY THE MOST DEDICATED OBSERVERS. THE PRIMARY ACTIVITY THE PAST 24 HOURS HAS BEEN A SERIES OF ENERGETIC EVENTS FROM ACTIVE REGION 1320 THAT HAS JUST ROTATED OUT OF VIEW OVER THE WEST LIMB. THE OPTICAL ACTIVITY HAS BEEN PREDOMINANTLY BRIGHT SURGES. SUPERPOSED ON A HIGH X-RAY BACKGROUND (AROUND C1-C3 LEVELS) HAVE BEEN SLOW RISE AND DECAY EVENTS. IN PARTICULAR, CLASS M1 EVENTS BEGAN AT 12/0125Z (PEAK AT 12/0321Z) AND AT 12/1435Z (PEAK AT 12/1540Z). THE FIRST WAS ACCOMPANIED BY TYPE IV RADIO EMISSION AND A 10 CM BURST OF 210 F.U. THE SECOND HAD MUCH SMALL RADIO ACCOMPANIMENT. THE MOST INTERESTING DISK REGION IS 1332 (S24W62), WHICH IS CLASSED EKI/BETA-GAMMA. THE REGION IS SMALL BUT GROWING WITH AN ACTIVE ARCH-FILAMENT SYSTEM.

IB. ONE OR TWO MORE SLOW EVENTS THAT REACH CLASS M THRESHOLDS MAY OCCUR BEYOND THE WEST LIMB IN REGION 1320. THE MOST PROBABLE SOURCE OF CLASS M FLARES FROM DISK REGIONS IS FROM REGION 1332 AS IT CONTINUES TO DEVELOP.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET-TO-UNSETTLED. A CONSISTENT CORONAL HOLE IS VISIBLE IN HE 10830 IMAGES NEAR S20W20. IT MAY BEGIN TO PRODUCE A DISTURBANCE BY 14-15 OCTOBER. A PROMINENCE LOCATED NEAR N10W20 ON 11 OCT ERUPTED BETWEEN 11 AND 12 OCT. SOME MAGNETIC DISTURBANCE IS POSSIBLE FROM THIS DISAPPEARANCE ON 14/15 OCT. THE WEST LIMB ACTIVITY HAS NOT PRODUCED SIGNIFICANT ENHANCEMENT OF ENERGETIC PROTONS. THOUGH NOT LIKELY, THERE IS A SMALL CHANCE OF SUCH AN OCCURRENCE.

III. EVENT PROBABILITIES 13 OCT - 15 OCT

CLASS M 50/50/50

CLASS X 15/10/10

PROTON 15/10/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 12 OCT 179

PREDICTED 13-15 OCT 181/182/183

90-DAY MEAN 12 OCT 137

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 11 OCT 03

ESTIMATED AFR/AP 12 OCT 05/13

PREDICTED AFR/AP 13-15 OCT 08/15 - 10/12 - 15/15

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SDF NUMBER 285

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 12 OCTOBER 1979

IA. SOLAR ACTIVITY HAS BEEN LOW DURING THE PAST 24 HOURS. THE LARGEST FLARE TODAY WAS FROM REGION 2045 (N27E31) C9/IN WITH MAXIMUM AT 2105Z. A TYPE II SWEEP WAS REPORTED WITH A C5/IB FROM REGION 2046 (N12E45) AT 0527 UT. A C2/SB FROM REGION 2038 (N11W6) AT 1211 UT WAS ACCOMPANIED BY MINOR RADIO. REGION 2032 (N15W39) HAS SHOWN SIGNIFICANT DEVELOPMENT IN TRAILER PORTION AND AGAIN APPEARS CAPABLE OF PRODUCING AN ISOLATED M CLASS EVENT. NEW REGIONS TODAY ARE 2048 (S26W00) SIMPLE A TYPE AND 2049 (N34E56) SIMPLE B TYPE.

IB. SOLAR ACTIVITY SHOULD BE LOW TO MODERATE DURING THE NEXT 24 HOURS. REGIONS 2045, 2046, 2032 AND 2038 OFFER THE BEST CHANCE OF M CLASS ACTIVITY.

II. THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED DURING THE PAST 24 HOURS. THE FIELD IS EXPECTED TO BE ACTIVE WITH PERIODS AT MINOR STORM LEVELS, FOR THE NEXT 24 TO 36 HOURS, AS THE EFFECTS OF A DISAPPEARING FILAMENT AND CORONAL PASSAGE ARE FELT AT EARTH. THE FIELD IS EXPECTED TO BE ACTIVE TO UNSETTLED THE REST OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 13 - 15 OCT

CLASS M 50/50/50

CLASS X 10/10/10

PROTON 05/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 12 OCT 218

PREDICTED 13 - 15 OCT 218/219/221

90-DAY MEAN 12 OCT 184

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 11 OCT 11

ESTIMATED AFR/AP 12 OCT 09/13

PREDICTED AFR/AP 13 - 15 OCT 25/25 15/15 12/12

SOLTERWARN

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