

END OF BUFFER

HFUS 1 BOU 081300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 342A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 08 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 07/1200Z TO 08/1200Z: SOLAR ACTIVITY HAS BEEN HIGH. AN X2/SB FLARE OCCURRED IN REGION 4007 (S14W80) WITH XRAY MAXIMUM AT 2354Z. TYPE II AND TYPE IV RADIO SWEEPS (20-8000 MHZ), STRONG DISCRETE RADIO BURSTS, AND A SHORT WAVE FADE TO 25 MHZ ACCOMPANIED THIS FLARE. LOOPS WERE VISIBLE FROM THIS REGION FROM THE TIME OF THE FLARE UNTIL AT LEAST 0900Z. FIVE M CLASS EVENTS ALSO OCCURRED THIS PERIOD. THOSE ASSOCIATED WITH OPTICAL EVENTS CAME FROM REGIONS 4014 (N07W09), 4019 (S23W48), AND 4008 (S23W72). REGIONS 4007 AND 4013 SHOWED SIGNIFICANT DECAY IN WHITE LIGHT AREA WHILE REGIONS 4017(S09E43) AND 4021 (S16E63) HAVE GROWN. REGION 4022 (N11E79) IS A LARGE, 1200 MILLIONTHS, "E" TYPE GROUP THAT WAS NUMBERED TODAY.

MAGNETICALLY REGIONS 4014 AND 4007 HAVE BETA-GAMMA-DELTA CONFIGURATIONS. REGION 4022 IS CURRENTLY CLASSIFIED AS A BETA GROUP, BUT LIMB PROXIMITY STILL PREVENTS POSITIVE ANALYSIS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE. ISOLATED X CLASS XRAY EVENTS ARE POSSIBLE FROM REGIONS 4014 AND 4022 DURING THE FIRST DAY OF THE FORECAST, AND FROM THESE AND RETURNING REGION 3994 AT THE END OF THE PERIOD. HOWEVER, THE PROBABILITY OF AN X CLASS EVENT IS STILL FAIRLY LOW.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE. A SATELLITE PROTON EVENT (GT 10 AT GT 10 MEV) BEGAN AT 0010Z. AND A POLAR CAP ABSORPTION BEGAN AT 0045Z. BOTH OF THESE ARE A RESULT OF THE X2 FLARE DESCRIBED IN PART I A. THE GEOMAGNETIC FIELD IS EXPECTED TO REMAIN ACTIVE THROUGH TODAY AND THEN SUBSIDE TO UNSETTLED CONDITIONS. ACTIVE CONDITIONS WILL THEN RETURN ON THE 10TH IN RESPONSE TO THE FLARE AND REMAIN THROUGH THE FORECAST PERIOD. III. EVENT PROBABILITIES 09 DEC-11 DEC

CLASS M 95/95/95

CLASS X 10/15/15

PROTON 10/10/10

PCAF IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 07 DEC 252

ESTIMATED 08 DEC 270

PREDICTED 09 DEC-11 DEC 270/270/270

90 DAY MEAN 07 DEC 167

V. GEOMAGNETIC A INDICES

OBSERVED AFR 06 DEC 003 AP 07 DEC .023

ESTIMATED AFR 07 DEC 023 AFR/AP 08 DEC 020/025

PREDICTED AFR/AP 09 DEC-11 DEC 010/015-015/020-020/025

SOLTERWARN

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HFUS 3 BOU 082200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 342B
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 08 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 08/1200Z TO 08/2100Z: SOLAR ACTIVITY WAS MODERATE THIS PERIOD WITH A M6/2B EVENT FROM REGION 4022 (N11E65) AT 1323UT THE EVENT LASTED 152 MIN. RADIO BURST OF 1471 FLUX UNITS AT 10.7CM WAS OBSERVED WITH THE EVENT. LOOPS WERE OBSERVED AT (N07E70) AT 1528UT, .07 RADII. REGION 4022 IS STILL CARRIED AS A BETA HOWEVER IT MAY BE MUCH MORE COMPLEX. THE ONLY OTHER EVENT OBSERVED WAS A M1, NO OPTICAL, AT 1935UT. REGION 4014 (N08W20) CONTINUES TO BE MAGNETICALLY COMPLEX WITH A BETA-GAMMA-DELTA CONFIGURATION HOWEVER IT HAS REMAINED QUIET. REGION 4021 (S17E52) HAS ALSO BEEN QUIET BUT DOES NOW CONTAIN A BETA-GAMMA MAGNETIC STRUCTURE. A NEW REGION DEVELOPED AT (N14W64) AND IS A "C" TYPE WITH NEW NUMBER 4023. REPORTS OF A NEW REGION AT (S05E84) HOWEVER NO SPOT REPORT HAS BEEN RECEIVED. THE 10.7CM FLUX RECEIVED AT 1700UT MAY BE IN ERROR WE WILL HAVE MORE INFORMATION ON IT ON 09 DEC.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO CONTINUE AT MODERATE LEVELS WITH REGIONS 4007 AND 4022 THE PRIME CANDIDATES FOR LARGE M-CLASS EVENTS. REGION 4022 MAY PRODUCE AN ISOLATED X-CLASS EVENT DURING THIS FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE WITH PERIODS AT MINOR STORM LEVELS. THE FIELD IS EXPECTED TO REMAIN ACTIVE UNTIL 11 DEC WHEN THE EFFECTS OF THE LARGE EVENTS DURING THE PAST 24 HOURS ARE FORECAST TO BRING THE LEVELS UP TO MINOR STORM CONDITIONS.

III. EVENT PROBABILITIES 09 DEC-11 DEC

CLASS M 95/95/95

CLASS X 10/15/15

PROTON 10/10/15

PCAF IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 08 DEC 241

PREDICTED 09 DEC-11 DEC 270/270/270

90 DAY MEAN 08 DEC 168

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 07 DEC 019/023

ESTIMATED AFR/AP 08 DEC 025/025

PREDICTED AFR/AP 09 DEC-11 DEC 015/020-020/025-035/040

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