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FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 312A
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 08 NOV 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 07/1200Z TO 08/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE FOR THE PAST 24 HOURS DUE TO TWO M-CLASS X-RAY FLARES. THE FIRST WAS AN UNASSOCIATED M2 AT 8/0320 UT AND THE SECOND WAS AN M1/1B FROM REGION 3450 (S21E29) AT 8/0359 UT. THIS REGION HAS BECOME MORE COMPLEX MAGNETICALLY AND HAS A MODERATELY STRONG MAGNETIC GRADIENT. MOUNT WILSON OBSERVED THE STRONGEST MAGNETIC GRADIENT ON THE DISK IN REGION 3444 (S15E01), YET THIS REGION WAS INACTIVE THIS PERIOD. REGION 3432 (S10W51) CONTINUES A SLOW DECAY AND HAS APPARENTLY LOST ITS DELTA MAGNETIC CONFIGURATION. HOWEVER, ITS MAGNETIC GRADIENT IS STILL SUBSTANTIAL AND THE REGION REMAINS ERUPTIVE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE FOR THE NEXT THREE DAYS. REGION 3432 MAY STILL HAVE RETAINED ENOUGH FLARE POTENTIAL TO PRODUCE SMALL M-CLASS FLARES. REGION 3450 IS NOW A PROVEN M-CLASS FLARE PRODUCER AND REGION 3444 HAS GROWN SUFFICIENTLY COMPLEX TO HAVE MODERATE FLARE POTENTIAL.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD BECAME UNSETTLED DURING THE LATTER HALF OF 7 NOV AFTER BEING ACTIVE DURING THE FIRST HALF OF THAT DAY. MINOR STORM CONDITIONS GRADUALLY COMMENCED AT 8/0430 UT, GIVING A K INDEX OF 5 FROM 03-06 UT. ACTIVE TO MINOR STORM CONDITIONS ARE EXPECTED TO SUBSIDE LATE THIS UT DAY, BECOMING UNSETTLED TO ACTIVE 9 NOV, UNSETTLED 10 NOV, AND ACTIVE TO MINOR STORM ON 11 NOV IN RESPONSE TO AN M6/1B FLARE WHICH OCCURRED ON 7/0357 UT.

III. EVENT PROBABILITIES 09 NOV-11 NOV

CLASS M 60/70/70

CLASS X 10/10/10

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 07 NOV 246

ESTIMATED 08 NOV 242

PREDICTED 09 NOV-11 NOV 238/233/226

9Z DAY MEAN 07 NOV 228

V. GEOMAGNETIC A INDICES

OBSERVED AFR 06 NOV 008 AP 07 NOV 020

ESTIMATED AFR 07 NOV 018 AFR/AP 08 NOV 020/020

PREDICTED AFR/AP 09 NOV-11 NOV 015/015-012/015-025/025

SOLTERWARN

BT

HXUS BOU 081300
PREDM 06009 07010 07011
PREDX 01009 01010 01011
PREDP 01009 01010 01011
PCAFT 00109
TENCM 23809 23310 22611
AFRED 01509 01210 02511
AFAPF 01509 01510 02511
KKK 43323 34333 23324
BT

KBOU

HEUS 3 BOU 082200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 312B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 08 NOV 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 08/1200Z TO 08/2100Z: SOLAR ACTIVITY APPROACHED THE MODERATE LEVEL DURING THE PERIOD WITH AN IMPRESSIVE LONG LASTING C8/1B FLARE IN REGION 3452 (S17E36). THIS FLARE BEGAN AT 1908Z IN REGION 3452 AND GRADUALLY SPREAD WESTWARD INTO REGION 3450 (S20E23) WITH A 1B FLARE MAXIMUM IN THIS REGION AT 1918Z. ONE REPORT OF THE FLARES INDICATED THE COMBINED TOTAL AREA WAS AT LEAST 2B IN SIZE. REGION 3450 CONTINUES TO GROW AS WELL AS REGION 3444 (S15W05) WHICH HAS BEEN STABLE DURING THE PERIOD. REGION 3432 (S10W54) HAS BEEN INACTIVE DURING THE PERIOD AND NOW HAS APPARENTLY STABILIZED AS A BETA GAMMA F-TYPE GROUP. A NEW H-TYPE SPOT AT N17E74 HAS BEEN NUMBERED REGION 3456. SOME SURGING, AN ACTIVE PROMINENCE, AND EXTENSIVE CALCIUM PLAGE AT S10-15E90 INDICATES THE POSSIBLE RETURN OF OLD ACTIVE REGION 3403 (S11 CAR 278).

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE DURING THE FORECAST PERIOD WITH M CLASS EVENTS POSSIBLE FROM REGIONS 3432, 3444, AND 3450.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE LEVELS DURING THE PERIOD. UNSETLED TO ACTIVE CONDITIONS ARE EXPECTED DURING THE NEXT 24 HOURS DUE TO THE M6/1B FLARE IN REGION 3432 YESTERDAY. THE ACTIVE CONDITIONS SHOULD BE NOTICED AT EARTH SOMETIME AFTER 1500UT ON THE 9TH.

III. EVENT PROBABILITIES

09 NOV-11 NOV

CLASS M 70/70/70

CLASS X 10/10/10

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 08 NOV 245

PREDICTED 09 NOV-11 NOV 238/233/226

90 DAY MEAN 08 NOV 228

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 07 NOV 013/020

ESTIMATED AFR/AP 08 NOV 025/025

PREDICTED AFR/AP 09 NOV-11 NOV 015/015-025/025-015/015

SOLTERWARN

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