

HFUS 1 BOU 051300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 036A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 05 FEB 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 04/1200Z TO 05/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE THIS PERIOD WITH A SINGLE M1/1B FLARE IN REGION 4077(S16W37) ACCOMPANIED BY A 245 MHZ BURST OF 2700 EU AND MODEST DISCRETE EMISSION AT OTHER OBSERVED FREQUENCIES. THIS EVENT OCCURRED AT 05/0927Z AND WAS PRECEDED BY C3/1B AND C6/1B EVENTS FROM THE SAME REGION AT 05/0433Z AND 05/0649Z RESPECTIVELY. REGION 4077 RETAINS A SIGNIFICANT MAGNETIC GRADIENT WITH A DELTA STILL PRESENT. SOME RESTRUCTURING IS REPORTED IN THE REGION AND SOME ADDITIONAL ACTIVITY IS LIKELY TO ACCOMPANY THE DECAY PHASE WHEN IT BEGINS. REGION 4097(S17E10) HAS CONTINUED TO GROW VERY RAPIDLY TO ISSUE TIME. THIS REGION NOW ALSO APPEARS CAPABLE OF SIGNIFICANT ACTIVITY. IT NOW EXCEEDS 300 MILLIONTHS IN AREA WHILE REMAINING MAGNETICALLY SIMPLE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE WITH ISOLATED M-CLASS EVENTS POSSIBLE IN REGIONS 4077 AND 4079. THE FREQUENCY OF EVENTS IS EXPECTED TO BE LOW BUT REGION 4077 APPEARS CAPABLE OF ANOTHER MAJOR FLARE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN AT MAJOR STORM LEVEL SINCE THE LATE HOURS OF THE UT DAY 4 FEB. MAJOR TO MINOR STORM CONDITIONS MAY BE EXPECTED THROUGH EARLY ON 6 FEB. ACTIVE CONDITIONS SHOULD FOLLOW TO NEAR THE END OF THE FORECAST PERIOD. THE SATELLITE PROTON EVENT ENDED WITH FLUXES DROPPING BELOW THRESHOLD AROUND 5/0700Z.

III. EVENT PROBABILITIES 06 FEB-08 FEB

CLASS M 70/70/70

CLASS X 10/10/10

PROTON 10/10/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 04 FEB 161

ESTIMATED 05 FEB 159

PREDICTED 06 FEB-08 FEB 158/158/158

90 DAY MEAN 04 FEB 171

V. GEOMAGNETIC A INDICES

OBSERVED AFR 03 FEB 000 AP 04 FEB 051

ESTIMATED AFR 04 FEB 037 AFR/AP 05 FEB 055/050

PREDICTED AFR/AP 06 FEB-08 FEB 026/030-016/015-012/015

SOLTERWARN

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RUN BEDIT FILE RRTX TO EDIT

~~RENSP3NBHUM062200~~FOR TAPE

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 036B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 05 FEB 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM *low*
05/1200Z TO 05/2100Z: SOLAR ACTIVITY HAS BEEN ~~MODERATE~~ REGION
4077 (S17W43) IS THE LARGEST REGION AND HAS PRODUCED SEVERAL C
CLASS XRAY FLARES AND ALSO A 1B OPTICAL FLARE. THE REGION
MAINTAINS ITS STEEP MAGNETIC GRADIENT AND DELTA CONFIGURATION.
REGION 4079 (S18E02) HAS CONTINUED TO GROW, DEVELOPING SPOTS
ABOVE THE LEADER. AN AFS HAS BEEN SEEN IN THIS REGION. ALL
OTHER REGIONS APPEAR STABLE. NO NEW REGIONS HAVE BEEN NUMBERED
THIS PERIOD.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
REMAIN MODERATE. REGIONS 4077 AND 4079 ARE BOTH POSSIBLE
SOURCES FOR FUTURE MAJOR FLARE ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN AT MAJOR STORM LEVELS. THIS LEVEL IS EXPECTED TO CONTINUE
UNTIL EARLY 06 FEB, WHEN IT SHOULD TAPER TO MINOR STORM
LEVELS, ENDING WITH ACTIVE CONDITIONS ON THE LAST DAY OF THE
FORECAST PERIOD. SLIGHT ACTIVITY IS EXPECTED FROM A
DISAPPEARING FILAMENT WHICH OCCURRED ON 04 FEB AT 0516Z.

III. EVENT PROBABILITIES 06 FEB-08 FEB

CLASS M 70/70/70

CLASS X 10/10/10

PROTON 10/10/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 05 FEB 159

PREDICTED 06 FEB-08 FEB 155/150/150

90 DAY MEAN 05 FEB 171

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 04 FEB 046/051

ESTIMATED AFR/AP 05 FEB 075/095

PREDICTED AFR/AP 06 FEB-08 FEB 030/030-025/025-015/015

SOLTERWARN

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