

HFUS 1 BOU 05 1400

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 064A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1200UT 05 MARCH 1981

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
04/1200UT TO 05/1200UT:

SOLAR ACTIVITY CONTINUED AT THE LOW END OF THE MODERATE RANGE
WITH ONLY TWO SMALL CLASS M EVENTS DURING THE PAST 24 HOURS. THE
EVENT AT 04/1727Z OCCURRED IN REGION 2954 (S17W62), A COMPLEX
REGION THAT IS NOW DECAYING. THE SECOND EVENT AT 05/0732Z OCCUR-
RED IN THE TRAILING PORTION OF REGION 2964 (S03E38) WHERE GROWTH
IN AN AREA OF COMPLEX MAGNETIC FIELDS IS REPORTED. THREE SMALL
AREAS OF FLARE HAVE ROTATED INTO VIEW NEAR NE LIMB ADDING TO THE
COMPLEX ASPECT OF THE NE QUADRANT.

IB. SOLAR ACTIVITY FORECAST:

INFREQUENT CLASS M EVENTS ARE EXPECTED DURING THE NEXT THREE
DAYS. SOLAR INDICES WILL SLOWLY DECREASE AS DECAY CONTINUES IN
THE MAJOR ACTIVITY CENTERS. A MORE RAPID DECREASE IS EXPECTED
WITH THE WEST LIMB PASSAGE OF REGION 2954 ON THE THIRD DAY.

II. GEOPHYSICAL SUMMARY AND FORECAST:

A SUDDEN IMPULSE OR SUDDEN COMMENCEMENT OF MAGNETIC STORM
OCCURRED AT 0535Z. MAGNETIC ACTIVITY BECAME STRONG BY 1030Z AND
CONTINUES STRONG AT THE TIME OF THIS MESSAGE. THIS MAJOR STORM
IS EXPECTED TO CONTINUE FOR 24-36 HOURS.

III. EVENT PROBABILITIES: 06-08 MARCH

CLASS M 70/60/60

CLASS X 15/10/10

PROTON 15/10/10

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 04 MARCH 255

ESTIMATED 05 MARCH 240

PREDICTED 06-08 MARCH 235/230/220

90 DAY MEAN 04 MARCH 203

V. GEOMAGNETIC A INDICES

OBSERVED AFR 03 MARCH 07. AP 04 MARCH 16

ESTIMATED AFR 04 MARCH 13 AFR/AP 05 MARCH 35/35

PREDICTED AFR/AP 06-08 MARCH 18/15 12/10 12/08

SOLTERWARN

BT

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 064B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200UT 05 MARCH 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
05/1200UT TO 05/2200UT:

SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 10 HOURS.
REGION 2962 (N05E15) PRODUCED AN M2/2N AT 2126UT MAXIMUM WITH
20 PERCENT UNBRAL COVERAGE AND VERY DISTINCT INTERACTION WITH
REGION 2964 (S04E31). REGION 2965 (N13E48) WAS THE ONLY OTHER
REGION TO FLARE IN THE LAST 10 HOURS, PRODUCING A C2/SN AT 1733UT
MAXIMUM. REGIONS 2954 (S17W69) AND 2958 (S12W44) CONTINUE THEIR
SLOW DECAY WHILE 2964 HAS NOW BECOME THE MOST SIGNIFICANT REGION
ON THE DISK.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY SHOULD CONTINUE MODERATE, WITH ISOLATED M-CLASS
EVENTS POSSIBLE FROM 2964, 2954 AND 2958.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN AT MAJOR STORM LEVELS SINCE THE
SUDDEN COMMENCEMENT AT 0535Z. TWO K-VALUES OF SIX WERE OBSERVED
AT BOULDER BETWEEN 1200UT AND 1800UT. POSSIBLE CAUSES FOR THE
STORM ARE THE FAVORABLY LOCATED SOUTHERN CORONAL HOLE AND TWO
M-CLASS FLARES FROM REGIONS 2954 AND 2958 ON THE 2ND OF MARCH.
ACTIVE TO OCCASSIONAL MINOR STORM LEVELS ARE EXPECTED FOR THE
NEXT 24 HOURS AS THE ACTIVITY GRADUALLY DECREASES.

III. EVENT PROBABILITIES: 06 MARCH - 08 MARCH

CLASS M 70/60/60

CLASS X 15/10/10

PROTON 15/10/10

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 05 MARCH 231

PREDICTED 06-08 MARCH 220/210/205

90 DAY MEAN 05 MARCH 204

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 04 MARCH 13/15

ESTIMATED AFR/AP 05 MARCH 52/55

PREDICTED AFR/AP 06-08 MARCH 28/30 18/18 12/12

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THE SPACE ENVIRONMENT SERVICES CENTER IS IN THE PROCESS OF
IDENTIFYING ALL CIRCUITS THIS PRODUCT IS RELAYED OR RETRANSMITTED
ON. THIS INCLUDES AUTODIN, AWN, HF COMMUNICATIONS, CLASSIFIED
AND COMMERCIAL TELEX CIRCUITS. WE ARE ALSO INTERESTED IN THE
NUMBER OF USERS OF THIS PRODUCT; AND WHETHER OR NOT THIS IS NEEDED
IN "REAL-TIME".

SUGGESTIONS AND COMMENTS ARE WELCOME, AS THEY MAY HELP IMPROVE
THIS SERVICE.

PLEASE RESPOND IN ONE OF THE FOLLOWING WAYS:

1. AUTODIN - RUWIGPA/NOAA SESC BOULDER CO ATTN K CARRAN
2. TELEX - 45897 SOLTERWAR BDR ATTN K CARRAN
3. TELEPHONE - FTS 8-320-5690

COMMERCIAL 303-497-5690

THANK YOU