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FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 245A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 02 SEP 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
01/1200Z TO 02/1200Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST
24 HOURS. HOWEVER, SEVERAL REGIONS ON THE SOLAR DISK HAVE SHOWN
CONSIDERABLE GROWTH IN RECENT HOURS AND REGION 3886 (N14E59),
WHICH HAS PRODUCED THREE M-CLASS EVENTS SINCE ITS APPEARANCE ON
30 AUGUST, IS REVEALING A COMPLEX MAGNETIC STRUCTURE POSSIBLY
INCLUDING A DELTA CONFIGURATION. THERE ARE SEVERAL ACTIVE DARK
FILAMENTS THREADING THIS REGION AND THERE IS AN ACTIVE
PROMINENCE ON THE EAST LIMB BEHIND IT. REGION 3883 (S20E18) IS
GROWING RAPIDLY BY ADDING INTERMEDIATE AND TAILER SPOTS. AN
ARCH FILAMENT SYSTEM IS IN PROGRESS HERE. SIGNIFICANT GROWTH
AND DEVELOPMENT HAVE ALSO OCCURRED IN REGIONS 3881 (N08W77),
3882 (S05E18), AND 3885 (N10E41). A NEW BIPOLAR GROUP HAS
EMERGED JUST NORTH OF REGION 3880 (N10W08).

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
MODERATE WITH SIGNIFICANT FLARES LIKELY FROM REGION 3886.
REGION 3883 COULD ALSO PRODUCE ISOLATED M-CLASS X-RAY ACTIVITY.
CONTINUED DEVELOPMENT IN 3886 COULD LEAD TO MAJOR EVENTS BY THE
END OF THE FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN QUIET TO SLIGHTLY UNSETTLED FOR THE PAST 24 HOURS, WITH
THE EXCEPTION OF ONE ACTIVE PERIOD ON 02 SEP FROM 06-09Z. THESE
CONDITIONS ARE EXPECTED TO PERSIST INTO TOMORROW, INTENSIFYING
TOWARD GENERALLY ACTIVE LEVELS BY 04 SEP IN RESPONSE TO AN
EQUATORIAL FORONAL HOLE AND ADDITIONAL EVIDENCE INDICATING SOME
RESTRUCTURING OF LARGE-SCALE HELIOMAGNETIC FIELDS. IN THE
ABSENCE OF MAJOR SOLAR FLARES, THE GEOMAGNETIC FIELD IS
EXPECTED TO RETURN TO UNSETTLED CONDITIONS BY THE END OF THE
FORECAST PERIOD.

III. EVENT PROBABILITIES 03 SEP-05 SEP

CLASS M 90/90/90

CLASS X 15/20/20

PROTON 05/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 01 SEP 182

ESTIMATED 02 SEP 180

PREDICTED 03 SEP-05 SEP 190/195/200

90 DAY MEAN 01 SEP 169

V. GEOMAGNETIC A INDICES

OBSERVED AFR 31 AUG 016 AP 01 SEP 011

ESTIMATED AFR 01 SEP 010 AFR/AP 02 SEP 012/013

PREDICTED AFR/AP 03 SEP-05 SEP 012/015-019/030-015/025

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HFUS 3 BOU 022200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 245B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 02 SEP 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 02/1200Z TO 02/2100Z: SOLAR ACTIVITY IS SHOWING A TENDENCY TOWARD INCREASING. REGION 3886 (N14E53) WHILE MAYBE NOT AS COMPLEX AS ORIGINALLY BELIEVED HAS PRODUCED RATHER SIGNIFICANT OPTICAL EVENTS (2N AT 021323Z AND 1N AT 021323Z). THE C4/2N PRODUCED SHORT WAVE FADES TO 15 MHZ. THE 1N WAS FOLLOWED CLOSELY BY A SUBFLARE IN REGION 3883 (S20E12) WHICH RESULTED IN A C9 XRAY BURST. THESE TWO REGIONS, ALONG WITH 3887 (N06W35) WHICH HAS AN ARCH FILAMENT SYSTEM, ARE THE GROWTH ORIENTED REGIONS.

IR. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD BE GENERALLY MODERATE AS BOTH 3886 AND 3883 HAVE THE POTENTIAL FOR M CLASS FLARES.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE GENERALLY UNSETTLED FOR THE NEXT 24 HOURS FOLLOWED BY ACTIVE CONDITIONS AS A CORONAL HOLE STARTS TO INFLUENCE THE FIELD.

III. EVENT PROBABILITIES 03 SEP-05 SEP

CLASS M 90/90/90

CLASS X 15/20/20

PROTON 05/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 02 SEP 169

PREDICTED 03 SEP-05 SEP 174/179/183

90 DAY MEAN 02 SEP 169

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 01 SEP 009/011

ESTIMATED AFR/AP 02 SEP 015/013

PREDICTED AFR/AP 03 SEP-05 SEP 012/015-019/030-015/025

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