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HFUS 1 BOU 021300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SD F. 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 BIPOLEAR 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 RESTRICTURING 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

SOLIERWARN

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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 021325Z). 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.

IB. 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 UNSETLED 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

SOLTERWARN

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