

HFUS 1 ROU 021300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 183A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 02 JULY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
01/1200Z TO 02/1200Z.

SOLAR ACTIVITY HAS CONTINUED AT LOW LEVELS WITH THE SUN PRODUCING
ONLY A HANDFUL OF SUBFLARES. REGION 3180 (S16W14) HAS CONTINUED
AS THE ONLY INTERESTING REGION ON THE SOLAR DISK. ITS MAGNETIC
COMPLEXITY, AREA, AND SPOT NUMBER HAVE ALL INCREASED SIGNIFICANTLY
DURING THE LAST 12 HOURS. THE ATHENS OBSERVATORY REPORTED A
SHARP KINK IN THE MAGNETIC NEUTRAL LINE.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE. OUR EXPECTATIONS ARE
THAT REGION 3180 IS DUE TO PRODUCE ONE LARGE FLARE (X-CLASS
EVENT) TO RELEASE ITS STORED-UP ENERGY WITHIN THE NEXT 48 HOURS.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS AT UNSETTLED LEVELS UNTIL 02/0400UT,
WHEN IT BECAME ACTIVE. THE FIELD SHOULD RETURN TO UNSETTLED
LEVELS WITHIN THE NEXT 12 TO 24 HOURS.

III. EVENT PROBABILITIES: 03-05 JULY

CLASS M 70/60/60

CLASS X 20/20/20

PROTON 10/15/20

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 01 JULY 170

ESTIMATED 02 JULY 162

PREDICTED 03-05 JULY 158/155/152

90 DAY MEAN 01 JULY 192

V. GEOMAGNETIC A INDICES

OBSERVED AFR 30 JUNE 18 AP 01 JULY 19

ESTIMATED AFR 01 JULY 18 AFR/AP 02 JULY 19/22

PREDICTED AFR/AP 03-05 JULY 10/10 12/15 10/10

SOLTERWARN

BT

HFUS 3 001 022200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 183B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 02 JULY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 02/1200Z TO 02/2100Z: SOLAR ACTIVITY HAS BEEN LOW EXCEPT FOR THE M1/2P FLARE AT 1303Z FROM REGION 3180 (S14W19). THIS REGION RETAINS A VERY HIGH SPOT COUNT BUT IS SLOWLY DIMINISHING IN AREA. A DELTA CONFIGURATION AND E-W NEUTRAL LINE GIVE THIS LARGE REGION POTENTIAL FOR ADDITIONAL CLASS-M EVENTS. ALL OTHER REGIONS ARE SMALL AND LITTLE CHANGED.

IB. SOLAR ACTIVITY FORECAST: SLOW EVOLUTION IS EXPECTED TO LIMIT ACTIVITY IN REGION 3180 TO A SINGLE CLASS M EVENT DURING THIS FORECAST PERIOD. THE RETURN OF REGION 3165 TO NORTHEAST/LIMP ON 04 JULY WILL COMPENSATE FOR THE SMALL REGIONS PASSING OVER WEST LIMP.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS AT MINOR STORM LEVEL MOST OF THIS DAY. MINOR STORM ACTIVITY IS EXPECTED TO CONTINUE ANOTHER 12-18 HOURS. UNSETTLED TO OCCASIONALLY ACTIVE CONDITIONS WILL PREVAIL FOR THE REMAINDER OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 03 JULY - 05 JULY

CLASS M 70/60/60

CLASS X 10/10/10

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 02 JULY 163

PREDICTED 03-05 JULY 158/155/160

90-DAY MEAN 02 JULY 191

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 01 JULY 21/19

ESTIMATED AFR/AP 02 JULY 25/23

PREDICTED AFR/AP 03-05 JULY 13/15 - 12/15 - 15/18

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