

HFUS 1 BOU 101230

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 222 A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 1300Z 10 AUG 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
09/1200Z TO 10/1200Z:

SOLAR ACTIVITY REACHED MODERATE LEVELS EARLY ON 10 AUGUST AFTER MORE THAN 24 HOURS OF ONLY "C" CLASS FLARES. AN M4/1B FROM REGION 3257 (S10W02) AT 100701Z (MAX) WAS ACCOMPANIED BY SHORT WAVE FADES TO 12 MHZ AND SMALL DISCRETE FREQUENCY RADIO BURSTS (25.0 FLUX UNITS AT 10 CM). REGION 3257 IS LARGE, BRIGHT AND COMPLEX. SOME EMERGING FLUX MAY BE OCCURRING IN THE TRAILING PORTIONS WHERE ENHANCED PLAGE IS EVIDENT. THE NEUTRAL LINE FILAMENT IS LESS ACTIVE THAN EARLIER TODAY BUT RETAINS ITS MANY KINKS. THE MAGNETIC DELTA CONFIGURATION REMAINS. THE REST OF THE DISK IS NOT IMPRESSIVE ALTHOUGH MINOR GROWTH IS OCCURRING IN REGIONS 3261 (N15W41) AND 3258 (S24W28).

IB. SOLAR ACTIVITY FORECAST:

OCCASIONAL M LEVEL FLARES SHOULD CONTINUE AT A FREQUENCY SUFFICIENT TO MAINTAIN MODERATE CONDITIONS.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD EXPERIENCED A SUDDEN COMMENCEMENT AT 100433UT. UNSETTLED TO ACTIVE CONDITIONS ARE EXPECTED FOR THE NEXT 18-24 HOURS AS A RESULT. THE PROTON ENHANCEMENT WHICH BEGAN ON 9 AUG REACHED EVENT THRESHOLDS (10 PARTICLES/CM2/SEC/STER AT GREATER THAN 10MEV) AT 100115 UT AND REACHED A MAXIMUM OF 38 PARTICLES/CM2/SEC/STER AT 100445 UT. AN ABSORPTION OF 1.8 DB IN THE POLAR CAP WAS OBSERVED WITH THIS EVENT.

III. EVENT PROBABILITIES: 11 - 13 AUG

CLASS M 85/85/85

CLASS X 10/10/10

PROTON 10/10/10

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 09 AUG 176

ESTIMATED 10 AUG 175

PREDICTED 11-13 AUG 180/185/190

90 DAY MEAN 09 AUG 177

V. GEOMAGNETIC A INDICES

OBSERVED AFR 08 AUG 03 AP 09 AUG 09

ESTIMATED AFR 09 AUG 08 AFR/AP 10 AUG 22/25

PREDICTED AFR/AP 11-13 AUG 16/15 12/12 12/10

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HFUS 3 ROU 102200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLO

SDF NUMBER 222R

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 10 AUGUST 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

10/1200Z TO 10/2100Z:

SOLAR ACTIVITY HAS BEEN LOW. REGION 3257 (S10W14) HAS PRODUCED SEVERAL CLASS C FLARES SINCE THE M4/1B AT 10/0701UT. SPOT AND PENUMERAL DECAY ARE OCCURRING AND MAGNETIC GRADIENTS, ALTHOUGH STILL HIGH, ARE DECLINING. MULTIPLE DELTA CONFIGURATIONS ARE STILL VISIBLE. THE EAST LIMB IS QUIET.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY SHOULD BE MODERATE FOR THE NEXT 72 HOURS WITH REGION 3257 AS THE PRIME SOURCE REGION. TWO PREVIOUSLY ACTIVE REGIONS ARE EXPECTED TO RETURN TO THE EAST LIMB ON 11 AND 13 AUGUST WHICH MAY ADD TO CURRENT ACTIVITY LEVELS.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN ACTIVE SINCE THE SUDDEN COMMENCEMENT AT 10/0433 UT. THE PROTON FLUX IS DECLINING AND IS CURRENTLY BELOW EVENT CRITERION. THE FIELD IS EXPECTED TO REMAIN ACTIVE ON 11 AUGUST, QUIETING TO UNSETTLED LEVELS ON 12 AND 13 AUGUST.

III. EVENT PROBABILITIES: 11 AUG TO 13 AUG

CLASS M 85/85/85

CLASS X 10/10/10

PROTON 10/10/10

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 10 AUGUST 177

PREDICTED 11 - 13 AUG 180/185/190

90 DAY MEAN 10 AUG 176

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 09 AUG 09/09

ESTIMATED AFR/AP 10 AUG 19/20

PREDICTED AFR/AP 11 - 13 AUG 16/15 12/12 12/10

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