

HFUS 1 BOU 171233

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 198A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 17 JULY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
16/1200Z TO 17/1200Z:

SOLAR ACTIVITY HAS BEEN HIGH DURING THE PAST 24 HOURS. AN X1-
BRIGHT SURGE WAS OBSERVED AT 0753UT FROM S10E90. THIS SURGE WAS
ACCOMPANIED BY STRONG DISCRETE FREQUENCY RADIO BURSTS (2400 FLUX
UNITS AT 2695 MHZ) AND STRONG SHORT WAVE FADES. THIS REGION (GIVEN
SESC NUMBER 3221) COULD BE THE RETURN OF OLD REGION 3189 (S10, CAR
328) WHICH WAS GROWING RAPIDLY PRIOR TO LIMB ROTATION. REGION 3203
(S09W38), WHICH PRODUCED AN M4/1B AT 0153Z MAXIMUM, CONTINUES TO
GROW SLOWLY IN AREA AND COMPLEXITY. INCREASING COMPLEXITY HAS
ALSO BEEN NOTED IN REGION 3212 (S12E19), WHILE REGION 3204 (S28-
W33) IS NOW DECAYING SLOWLY.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO CONTINUE AT THE MODERATE LEVEL
PRIMARILY DUE TO THE FLARE PRODUCTION IN REGION 3203. REGION 3221
HAS YET TO BECOME VISIBLE ON THE DISK, BUT HAS PROVEN ITS CAPABIL-
ITY FOR LARGE FLARES. WITH THIS IN MIND, THE POSSIBILITY FOR
X-CLASS FLARES CANNOT BE IGNORED.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS UNSETTLED DURING MOST OF THE PERIOD UNTIL
A SUDDEN COMMENCEMENT OF 37 GAMMAS WAS OBSERVED AT BOULDER AT
0801UT. THE SC AND ACTIVE CONDITIONS THAT FOLLOWED ARE PROBABLY THE
RESPONSE TO THE RECENT M-CLASS FLARE ACTIVITY. ACTIVE CONDITIONS
ARE EXPECTED TO PERSIST THROUGH THE NEXT 24 HOURS.

III. EVENT PROBABILITIES: 18 JULY - 20 JULY

CLASS M 90/95/95

CLASS X 40/45/50

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 16 JULY 195

ESTIMATED 17 JULY 202

PREDICTED 18-20 JULY 205/207/207

90 DAY MEAN 16 JULY 177

V. GEOMAGNETIC A INDICES

OBSERVED AFR 15 JULY 04 AP 16 JULY 09

ESTIMATED AFR 16 JULY 10 AFR/AP 17 JULY 15/15

PREDICTED AFR/AP 18-20 JULY 18/18 15/15 10/10

SOLTERWARN

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HFUS 3 BOU 172200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 198B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 17 JULY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 17/1200Z
TO 17/2100Z;

SOLAR ACTIVITY HAS BEEN MODERATE SINCE 1200Z. REGION 3203
(S08W44) PRODUCED A M3/1B AT 1209Z AND AN M1/1B AT 1703Z. MINOR
CENTIMETRIC BURSTS ACCOMPANIED BOTH FLARES WITH SHORT WAVE FADES
THROUGH 22 MHZ AND 15MHZ RESPECTIVELY. REGION 3203 RETAINS A
COMPLEX STRUCTURE AND DELTA CONFIGURATION. A LARGE SUNSPOT HAS
ROTATED ONTO THE DISK FOR REGION 3221 (S08E84), WHICH PRODUCED
THE X1 AT 0753Z. A MODERATELY BRIGHT PLAGE ACCOMPANIES THIS SPOT.

IB. SOLAR ACTIVITY FORECAST;

SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE.

II. GEOPHYSICAL SUMMARY AND FORECAST;

THE GEOMAGNETIC FIELD HAS BEEN ACTIVE SINCE A SUDDEN
COMMENCEMENT AT 0802Z. ACTIVE CONDITIONS ARE EXPECTED TO
PREVAIL THROUGH THE NEXT THREE DAYS. THE IMF AT ISEE-3 HAS
BEEN STRONGLY NEGATIVE SINCE 1701Z. STRONG SUBSTORM ACTIVITY
IS EXPECTED TONIGHT.

III. EVENT PROBABILITIES 18-20 JUL

CLASS M 90/95/95

CLASS X 40/45/50

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 17 JUL 200

PREDICTED 18-20 JUL 205/207/207

90-DAY MEAN 17 JUL 177

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 16 JUL 09/09

ESTIMATED AFR/AP 17 JUL 17/23

PREDICTED AFR/AP 18-20 JUL 18/18 - 15/15 - 15/15

SOLTERWARN

BT