

HFUS 1 BOU 131300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 194A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 13 JUL 1932

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
12/1200Z TO 13/1200Z: SOLAR ACTIVITY IS HIGH. CLASS M FLARE
ACTIVITY REMAINS FREQUENT AND REGION 3804 (N14E21) WILL
APPARENTLY KEEP IT THAT WAY. THE VERY LARGE COMPLEX SPOT GROUP
SHOWS NO INDICATION OF DECAY AND THE BRIGHT H-ALPHA PLAGE IS
INCREASING IN AREA. MEANWHILE, REGION 3806 (S24E06) PRODUCED AN
M1 FLARE AT 130728Z (MAX) AND A LARGE CLASS C FLARE AT 130728Z
(MAX). THIS REGION IS ALSO GROWING AND WHILE NOT NEARLY AS
IMPRESSIVE AS 3804, ITS STRONG GRADIENTS SUGGEST CONTINUED
ENERGETIC ACTIVITY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
REMAIN HIGH AS REGIONS 3804 AND 3806 HAVE DEMONSTRATED A
POTENTIAL FOR SUSTAINED ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN AT ACTIVE TO MINOR STORM LEVELS WITH BRIEF PERIODS OF
MAJOR STORM CONDITIONS. THE FIELD SHOULD CONTINUE DISTURBED AS
IT RESPONDS TO THE FLURRY OF FLARE ACTIVITY. THE 10 MEV
PARTICLE FLUX HAS GRADUALLY INCREASED SINCE 1800Z ON 12 JULY
AND IS NOW AT 410 PARTICLES PER CM2/SEC/STER.

III. EVENT PROBABILITIES 14 JUL-16 JUL

CLASS M 99/99/99

CLASS X 70/70/70

PROTON 25/30/30

PCAF IN PROGRES

IV. OTTAWA 10.7 CM FLUX

OBSERVED 12 JUL 245

ESTIMATED 13 JUL 255

PREDICTED 14 JUL-16 JUL 260/265/265

90 DAY MEAN 12 JUL 157

V. GEOMAGNETIC A INDICES

OPSERVED AFR 11 JUL 032 AP 12 JUL 034

ESTIMATED AFR 12 JUL 025 AFR/AP 13 JUL 035/040

PREDICTED AFR/AP 14 JUL-16 JUL 030/035-025/040-020/040

SOLTERWARN

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HFUS 3 BOU 132200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 194B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 13 JUL 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
13/1200Z TO 13/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE FOR THE
PAST 9 HOURS WITH AN M3 X-RAY EVENT MAXING AT 1413Z. THIS EVENT
CORRELATES WITH SIMULTANEOUS FLARES OCCURRING IN REGION 3804
(N13E15), 3806 (S24W02), AND 3812 (N22E57). REGION 3804 HAS
SHOWN SPOT DECAY BUT RETAINS AMPLE POTENTIAL FOR MAJOR
ACTIVITY. REGION 3806 CONTINUES TO GROW AND MAGNETIC GRADIENTS
ARE INCREASING. REGION 3812 IS SHOWING RAPID GROWTH IN BOTH
WHITE LIGHT AND MAGNETIC COMPLEXITY. NO NEW REGIONS WERE
REPORTED TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
HIGH.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD
REACHED MAJOR STORM LEVELS DURING THE PAST 9 HOURS WITH
K-INDEXES OF 8 AND 9 BEING OBSERVED AT LOW AND HIGH LATITUDE
STATIONS. A SUDDEN COMMENCEMENT OF 90 GAMMAS AT BOULDER OCCURRED
AT 1618Z WHICH WAS COUPLED WITH A SIGNIFICANT INCREASE IN THE
PROTON FLUX AT SATELLITE LEVELS AT GREATER THAN 10 MEV
ENERGIES. THE MAXIMUM FLUX OBSERVED SO FAR WAS 2900
PROTONS/CM2/SEC/STER AT 1315Z. A POLAR CAP ABSORPTION EVENT
(PCA) IN EXCESS OF 20 DB IS OCCURRING. PROTON FLUXES ARE
EXPECTED TO REMAIN WELL ABOVE THRESHOLD FOR THE NEXT THREE
DAYS. THE GEOMAGNETIC STORM IS EXPECTED TO MAXIMIZE TOMORROW
AND DECLINE OVER THE FOLLOWING TWO DAYS. IF ADDITIONAL MAJOR
FLARES OCCUR, FORECASTS WILL BE REVISED.

III. EVENT PROBABILITIES 14 JUL-16 JUL

CLASS M 99/99/99

CLASS X 70/70/70

PROTON 25/30/30

PCAF IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 13 JUL 250

PREDICTED 14 JUL-16 JUL 250/250/250

90 DAY MEAN 13 JUL 158

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 12 JUL 039/034

ESTIMATED AFR/AP 13 JUL 030/080

PREDICTED AFR/AP 14 JUL-16 JUL 080/050-040/040-020/040

SOLTERWARN

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