

HFUS 1 BOU 301300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 089A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 30 MAR 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
29/1200Z TO 30/1200Z: SOLAR ACTIVITY HAS BEEN HIGH THIS PERIOD.
AN X2/2B FLARE OCCURRED IN REGION 3659(N12W21) AT 30/0542 UT.
THIS FLARE WAS RICH IN RADIO, INCLUDING TYPES II AND IV RADIO
BURSTS AND A TENFLARE OF 860 FLUX UNITS. THE PROTON EVENT
EXPECTED FROM THIS FLARE HAD NOT MATERIALIZED BY FORECAST TIME.
SEVERAL OTHER REGIONS HAVE PRODUCED NUMEROUS, MUCH LESS
SIGNIFICANT FLARES.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
BECOME MODERATE DUE, PRIMARILY, TO THE FLARE POTENTIAL
SUSTAINED BY REGION 3659. THIS REGION STILL APPEARS CAPABLE OF
ENERGETIC EVENTS SIMILAR TO THE X2/2B FLARE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN UNSETTLED FOR THE PAST 24 HOURS AND IS EXPECTED TO REMAIN
UNSETTLED UNTIL LATE ON 1 APRIL WHEN A MINOR STORM IS EXPECTED
TO RESULT FROM THE X2/2B FLARE. A LOW ENERGY PROTON ENHANCEMENT
MAY STILL RESULT FROM THIS FLARE, BUT IS NOT EXPECTED TO REACH
THE EVENT THRESHOLD OF 10 PARTICLES/ SEC/CM2/STER-RAD GREATER
THAN 10 MEV.

III. EVENT PROBABILITIES 31 MAR-02 APR

CLASS M 80/80/70

CLASS X 25/20/10

PROTON 20/15/05

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 29 MAR 199

ESTIMATED 30 MAR 194

PREDICTED 31 MAR-02 APR 190/185/180

90 DAY MEAN 29 MAR 202

V. GEOMAGNETIC A INDICES

OBSERVED AFR 28 MAR 005 AP 29 MAR 019

ESTIMATED AFR 29 MAR 013 AFR/AP 30 MAR 012/014

PREDICTED AFR/AP 31 MAR-02 APR 010/015-014/018-030/035

SOLTERWARN

BT

HXUS BOU 301300

PREDM 08031 03001 07002

PREDX 02531 02001 01002

PREDP 02031 01501 00502

PCAFT 00231

TENCM 19031 18501 18002

AFRED 01031 01401 03002

AFAPF 01531 01801 03502

KKK 22343 32233 34433

BT

HFUS 3 BOU 302200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBFR 089B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 30 MAR 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
30/1200Z TO 30/2100Z: SOLAR ACTIVITY DECREASED TO THE MODERATE
LEVEL FOLLOWING THE X2/3B FLARE IN REGION 3659 (N12W26) AT
0541Z MAXIMUM. THIS REGION, WHICH IS APPARENTLY DECAYING VERY
SLOWLY, PRODUCED AN M2/1B AT 1424Z MAXIMUM. THE EVENT WAS
ACCOMPANIED BY STRONG SHORT WAVE FADES TO 22MHZ ALONG WITH WEAK
DISCRETE FREQUENCY BURSTS. REGION 3667 (N13E20) PRODUCED A
C8/SN AT 1647Z AND REGION 3656 (S14W52) PRODUCED A C6/SF AT
1606Z MAXIMUM. BOTH THIS REGIONS ARE SMALL AND UNCOMPLICATED.
REGION 3661 (N19W27) HAS REGAINED ITS SPOTS TODAY. ITS WEAK
DIFFUSE PLAGE COVERS 15 DEGREES, WITH EMERGING FLUX OBSERVED IN
THE EASTERN PORTION. THE REMAINING DISK REGIONS ARE SMALL AND
INACTIVE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
REMAIN MODERATE. REGION 3659 MAINTAINS ITS POTENTIAL FOR
M-CLASS FLARES, BUT ITS POTENTIAL FOR X-CLASS EVENTS WILL
DIMINISH DURING THE FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN UNSETTLED DURING THE PAST 9 HOURS. UNSETTLED TO
OCCASIONALLY ACTIVE CONDITIONS ARE EXPECTED FOR THE NEXT 36
HOURS. ACTIVE TO MINOR STORM LEVELS ARE FORECAST TO FOLLOW A
SUDDEN COMMENCEMENT LATE ON THE FIRST OF APRIL. NO PARTICLE
FLUX INCREASES WERE OBSERVED ON THE GOES SATELLITE CHANNELS,
BUT A SLIGHT ENHANCEMENT IN POLAR CAP ABSORPTION (.4DB) WAS
REPORTED BY THE ANCHORAGE RIOMETER.

III. EVENT PROBABILITIES 31 MAR-02 APR

CLASS M 80/80/70
CLASS X 25/20/10
PROTON 20/15/05
PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30 MAR 198
PREDICTED 31 MAR-02 APR 195/190/180
90 DAY MEAN 30 MAR 202

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 29 MAR 013/019
ESTIMATED AFR/AP 30 MAR 014/016
PREDICTED AFR/AP 31 MAR-02 APR 012/015-014/018-030/035

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