

HFUS 1 BOU 221300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 081A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 22 MAR 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 21/1200Z TO 22/1200Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS. REGION 3643 (S06W70) HAS PRODUCED NUMEROUS CLASS C SUBFLARES. 3643 HAS SHOWN SOME SLIGHT DECAY BUT REMAINS A MODERATELY COMPLEX LARGE SUNSPOT GROUP. SLIGHT NEW GROWTH HAS BEEN OBSERVED IN REGION 3650 (N19W01) AND THIS REGION PRODUCED A C8/1B FLARE AT 22/0602UT WHICH WAS ACCCOMPANIED BY A WEAK TYPE IV AND MINOR CM BURSTS. GROWTH HAS ALSO BEEN REPORTED IN REGION 3655 (N14E36). A NEW REGION IS ROTATING ONTO THE DISK AT S13E90. ALL THAT IS CURRENTLY VISIBLE IS A LARGE H SPOT AND BRIGHT PLAGE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE GENERALLY LOW WITH A GOOD PROBABILITY OF AN M CLASS FLARE BEING OBSERVED DURING THE NEXT TWO DAYS. A MAJOR FLARE FROM REGION 3643 REMAINS A POSSIBILITY, BUT A SLIGHT ONE. THE REGION ON THE SOUTHEAST LIMB APPEARS NEW AND MAY BE IN A GROWTH STAGE. PREVIOUSLY ACTIVE LONGITUDES ARE EXPECTED TO RETURN TO THE EAST LIMB OVER THE NEXT THREE DAYS BUT ARE NOT EXPECTED TO BE AS DYNAMIC AS LAST ROTATION.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS UNSETTLED UNTIL APPROXIMATELY 22/0200UT. AFTER THAT TIME MINOR STORM CONDITIONS PREVAILED. THIS DISTURBANCE IS WEAKLY ATTRIBUTED TO M CLASS FLARES SEVERAL DAYS AGO FROM REGION 3643. UNSETTLED TO SLIGHTLY ACTIVE CONDITIONS ARE EXPECTED FOR THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 23 MAR-25 MAR

CLASS M 50/50/40

CLASS X 05/05/01

PROTON 05/05/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 21 MAR 214

ESTIMATED 22 MAR 203

PREDICTED 23 MAR-25 MAR 190/175/175

90 DAY MEAN 21 MAR 199

V. GEOMAGNETIC A INDICES

OBSERVED AFR 20 MAR 012 AP 21 MAR 021

ESTIMATED AFR 21 MAR 017 AFR/AP 22 MAR 028/025

PREDICTED AFR/AP 23 MAR-25 MAR 015/018-012/016-015/018

SOLTERWARN

BT

HXUS BOU 221300

PREFDM 05023 05024 04025

PREDX 00523 00524 00125

PREDP 00523 00524 00125

PCAFT 00123

TENCM 19023 17524 17525

AFRED 01523 01224 01525

AFAPF 01823 01624 01825

KKK 33344 33333 34332

PT

NNNNZCVZDZEZGVZLVZOUU

KBOU

HF US 3 BOU 222200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 081B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 22 MAR 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
22/1200Z TO 22/2100Z:

SOLAR ACTIVITY HAS BEEN LOW. EVENTS THIS PERIOD HAVE BEEN
LIMITED TO C CLASS XRAY EVENTS. REGION 3659 (N11E76) PRO-
DUCED A C9/OF FLARE AT 22/1622Z. REGION 3648 (S10W48) GAVE
A LONG DURATION C5/1B FLARE AT 22/1833 WITH A DOUBLE MAXIMUM
AND EXPANSION OF THE FLARE AREA WITH OPTICAL INTENSI-
FICATION TO MAXIMUM AT 1836Z. REGION 3650 (N19W08) HAS AN
EAST WEST NEUTRAL LINE AND EVIDENCE OF A FAIRLY STEEP MAG-
NETIC GRADIENT. OF THE FOUR NEW REGIONS NUMBERED TODAY,
REGIONS 3657 (S09E45), 3658 (S13E73), 3659 (N11E76), 3660
(S17E83), REGION 3659 SHOWS POSSIBLE EVENT POTENTIAL. IT
HAS ALREADY PRODUCED A FLARE AND LOOPS AND SURGING, THE
SPOTS NOW IN VIEW ARE LARGE WITH MORE SPOTS EXPECTED TO
APPEAR.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO CONTINUE LOW WITH INCREASES
IN FREQUENCY OF EVENTS DUE TO NEW REGIONS. REGIONS 3643
AND 3659 ARE THE MOST LIKELY SOURCES OF ANY MAJOR ACTIVITY
WHICH MIGHT OCCUR.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS DECLINED FROM A MINOR STORM LEVELS
EARLY ON THE UT DAY MAR 22 TO ACTIVE LEVELS. UNSETTLED TO
NEAR ACTIVE LEVELS ARE EXPECTED FOR THE FORECAST PERIOD.

III. EVENT PROBABILITIES: 23-25 MAR

CLASS M 60/60/60

CLASS X 05/05/05

PROTON 01/01/01

PCAF GREEN

IV. OTI 10.7 FLUX

OBSERVED 22 MAR 215

PREDICTED 23-25 MAR 210/204/196

90 DAY MEAN 22 MAR 200

V. GEONAGNETIC A INDICES

OBSERVED AFR/AP 21 MAR 18/21

ESTIMATED AFR/AP 22 MAR 32/30

PREDICTED AFR/AP 23-25 MAR 15/18 12/16 15/18

SOLTERWARN

BT