

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 ACCOMPANIED 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

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PREDM 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

NNNNZCVZDZEGVZLVZOUU

KBOU

HFUS 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) PRODUCED 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 INTENSIFICATION TO MAXIMUM AT 1836Z. REGION 3650 (N19W08) HAS AN EAST WEST NEUTRAL LINE AND EVIDENCE OF A FAIRLY STEEP MAGNETIC 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. OTT 10.7 FLUX

OBSERVED 22 MAR 215

PREDICTED 23-25 MAR 210/204/196

90 DAY MEAN 22 MAR 200

V. GEOMAGNETIC 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

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