

HFUS 3 BOU 202200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 080

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
ISSUED 2200Z 20 MAR 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 19/2100  
TO 20/2100Z: SOLAR ACTIVITY HAS BEEN LOW. THE MOST SIGNIFICANT  
EVENT WAS A C5/2B AT 0346Z (X-RAY MAX) IN THE TRAILER PORTION  
OF REGION 4441 (N13W01). ADDITIONAL SIMULTANEOUS EMISSION  
PRODUCED A SN FLARE IN REGION 4443 (N14E16). DISCRETE RADIO  
BURSTS VARIED ACROSS THE SPECTRUM WITH 120 FU REPORTED AT 2695  
MHZ. A TYPE II DEKAMETRIC BURST ALSO WAS REPORTED WITH THIS  
FLARE. A SMALL EMBEDDED ACTIVE FILAMENT APPEARS TO BE THE  
TRIGGER MECHANISM FOR FLARES OCCURRING IN REGION 4441. THE MAIN  
PENUMBRA OF REGION 4443 HAS DIMINISHED AND FRACTURED; THE DELTA  
CONFIGURATION NO LONGER EXISTS. HOWEVER, THE LEADING POLARITY  
PROTRUDES EASTWARD UNDER THE STRONGEST TRAILER SUNSPOT;  
THEREFORE, REGION 4443 HAS A BETA GAMMA MAGNETIC  
CLASSIFICATION. REGION 4446 (N13E43) HAS TWO PENUMBRA  
ORIENTATED ESSENTIALLY N-S WHICH MAY BE THE REMNANTS OF TWO  
GROUPS. MAGNETIC ANALYSIS SHOWS ALL SPOTS TO BE THE SAME  
POLARITY; HOWEVER, THE ATTENDANT PLAGE STRUCTURE IS BIPOLAR.  
OLD AR 4423 RETURNED WITH NOMINAL PLAGE AND IS DESIGNATED  
REGION 4449 (S13E71). THE SPOTS IN THE PLAGE STRUCTURE ARE  
DISPERSED BUT BECAUSE OF LIMB PROXIMITY ALL ARE INCLUDED AS  
REGION 4449 TODAY. SEVERAL FLARES HAVE OCCURRED IN THIS REGION  
AS WELL AS PLAGE FLUCTUATIONS AND POINT BRIGHTENINGS. SPOTS  
HAVE REEMERGED IN REGION 4440 (N15W27) AND SLOW GROWTH  
CONTINUES IN REGION 4445 (N07W45).

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE  
LOW WITH DIMINISHING LIKELYHOOD FOR A CLASS M FLARE.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 19/2100Z TO 20/2100Z:  
THE GEOMAGNETIC FIELD HAS BEEN QUIET TO UNSETTLED.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS  
EXPECTED TO BE GENERALLY UNSETTLED THROUGHOUT THE FORECAST  
PERIOD.

III. EVENT PROBABILITIES 21 MAR-23 MAR

CLASS M 40/30/20

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 MAR 127

PREDICTED 21 MAR-23 MAR 127/126/124

90 DAY MEAN 20 MAR 121

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 19 MAR 013/016

ESTIMATED AFR/AP 20 MAR 007/010

PREDICTED AFR/AP 21 MAR-23 MAR 012/015-008/015-010/015

SOLTERWARN

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