

HFUS 1 BOU 311300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 031A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 31 JAN 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 30/1200Z TO 31/1200Z: SOLAR ACTIVITY HAS BEEN LOW. REGION 4077 (S18E29) HAS CONTINUED TO EMERGE. IS NOW A MODERATE SIZE CLASS D GROUP, AND FREQUENT SUBFLARES HAVE BEEN OBSERVED. MAGNETIC GRADIENTS HAVE BEEN INCREASING AND PENUMBRA GROWTH HAS ALMOST ENCLOSED BOTH LEADER AND TRAILER SPOTS IN THIS REGION. MINOR CHANGES HAVE OCCURRED IN OTHER PREEXISTING REGIONS. NEW REGION 4079 (S11E72) PRODUCED A C1/SF FLARE AT 30/2302Z AND A SINGLE CLASS H SPOT HAS RECENTLY BEEN OBSERVED AT THIS LOCATION. MINOR SURGING CONTINUES AT THE SOUTHEAST LIMB WHERE SEVERAL SMALL REGIONS ARE EXPECTED TO RETURN.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE GENERALLY LOW FOR THE FORECAST PERIOD. FREQUENT SUBFLARES SHOULD CONTINUE FROM REGION 4077. THE LACK OF MID TO HIGH CLASS C FLARES FROM THIS REGION AND NEARBY 4075 (S13E19) IS THE RATIONALE FOR RELATIVELY LOW CLASS M FLARE PROBABILITIES. ONCE INSTABILITIES BEGIN FORMING IN THIS COMPLEX, FLARE ACTIVITY COULD RAPIDLY ESCALATE INTO THE MODERATE CATEGORY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED TO SLIGHTLY ACTIVE DURING THE PERIOD. THE MINOR DISTURBANCE WHICH BEGAN NEAR MIDDAY ON 29 JAN, AND WAS MOST LIKELY CORONAL HOLE RELATED, HAS SUBSIDED. UNSETTLED CONDITIONS SHOULD PREDOMINATE FOR THE FORECAST PERIOD.

III. EVENT PROBABILITIES 01 FEB-03 FEB

CLASS M 15/15/15

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30 JAN 160

ESTIMATED 31 JAN 165

PREDICTED 01 FEB-03 FEB 170/170/165

90 DAY MEAN 30 JAN 170

V. GEOMAGNETIC A INDICES

OBSERVED AFR 29 JAN 016 AP 30 JAN 017

ESTIMATED AFR 30 JAN 017 AFR/AP 31 JAN 010/010

PREDICTED AFR/AP 01 FEB-03 FEB 010/010-010/010-008/010

SOLTERWARN

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HFUS 3 BOU 312200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 031B
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 31 JAN 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
31/1200Z TO 31/2100Z: SOLAR ACTIVITY IS LOW. HOWEVER, CONTINUED
DEVELOPMENT IN REGION 4077 (S18E23) MAY ALTER THAT FACT. THE
PENUMBRAL GROWTH IN THE TRAILER PORTIONS HAS ENCOMPASSED ALL OF
THE SPOTS IN THAT AREA RESULTING IN A RATHER IMPRESSIVE DELTA
MAGNETIC CONFIGURATION. POINT BRIGHTENINGS, ARCH FILAMENTS AND
SMALL FLARES CONTINUE TO BE OBSERVED IN THIS REGION AND ITS
EXPANSION TOWARD REGION 4075 (S14E11) WILL MOST LIKELY INCREASE
THE GRADIENTS IN THE LEADER PORTIONS. NO MAJOR CHANGES IN THE
OTHER DISK REGIONS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD REMAIN LOW.
ISOLATED M EVENTS ARE BECOMING MORE LIKELY AS 4077 DEVELOPS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN UNSETTLED. QUIET TO UNSETTLED CONDITIONS SHOULD DOMINATE
THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 01 FEB-03 FEB

CLASS M 15/25/25

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 31 JAN 162

PREDICTED 01 FEB-03 FEB 165/170/170

90 DAY MEAN 31 JAN 170

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 30 JAN 017/017

ESTIMATED AFR/AP 31 JAN 012/010

PREDICTED AFR/AP 01 FEB-03 FEB 010/010-010/010-008/010

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