

HFUS 1 BOU 311300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 365A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 31 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
30/1200Z TO 31/1200Z: SOLAR ACTIVITY HAS BEEN LOW DURING THE
PERIOD. REGION 4033 (S13W50) CONTINUED AS THE SUNS MOST DYNAMIC
GROUP, BUT DISPLAYED SIGNIFICANT SPOT DECAY ALONG WITH A
WEAKENING OF ITS MAGNETIC DELTA CONFIGURATION AND ASSOCIATED
MAGNETIC GRADIENT. THIS REGION HAS PRODUCED TWO C8/1B FLARES
(SIX HOURS APART AT 30/1811Z AND 31/0019Z) WITH MINOR DISCRETE
FREQUENCY RADIO RESPONSE, BUT HAS FAILED TO PRODUCE ANY
SIGNIFICANT ACTIVITY IN THE PAST 11 HOURS. REGIONS 4041
(N06F35) AND 4042 (S18W51), BOTH SIMPLE BI-POLAR SPOT GROUPS,
HAVE ACCOUNTED FOR THE REMAINDER OF THE MINOR FLARE ACTIVITY
OBSERVED DURING THE 24 HOUR PERIOD. THE LIMES HAVE BEEN
GENERALLY QUIET, EXCEPT FOR A SMALL ACTIVE PROMINENCE LOCATED
AT S08.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
REMAIN LOW, HOWEVER, REGION 4033S HISTORY OF FLARE PRODUCTION
INDICATES A MODERATE SIZED EVENT IS POSSIBLE DURING ITS
CONTINUED DECAY PHASE. RETURNING PREVIOUSLY ACTIVE REGIONS ON
THE 2ND AND 3RD (4021, S16, CAR 131 AND 4022, N10, CAR 115)
COULD CAUSE A GRADUAL INCREASE IN THE SOLAR RADIO FLUX (10.7CM)
AND ACTIVITY DURING THAT TIME.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN UNSETTLED DURING THE PERIOD. ACTIVE CONDITIONS ARE
EXPECTED TO BEGIN EARLY ON THE 1ST FOLLOWED BY UNSETTLED TO
OCCASIONALLY ACTIVE LEVELS FOR THE REMAINDER OF THE PERIOD.

NOTE---NOTE--- THE FREDERICKSBURG A VALUE WAS NOT AVAILABLE FOR
THE 29TH OF DEC. IT WILL PROBABLY BE INCLUDED IN TODAYS 2200Z
FORECAST.

III. EVENT PROBABILITIES 01 JAN-03 JAN

CLASS M 50/30/30

CLASS X 05/01/01

PROTON 05/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30 DEC 147

ESTIMATED 31 DEC 142

PREDICTED 01 JAN-03 JAN 137/135/145

90 DAY MEAN 30 DEC 176

V. GEOMAGNETIC A INDICES

OBSERVED AFR 29 DEC 000 AP 30 DEC 013

ESTIMATED AFR 30 DEC 012 AFR/AP 31 DEC 008/015

PREDICTED AFR/AP 01 JAN-03 JAN 013/020-015/010-010/015

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HFUS 3 BOU 312200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 365P

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 31 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 31/1200Z TO 31/2100Z: SOLAR ACTIVITY HAS BEEN LOW. REGION 4033 (S14W56) IS LOSING ITS DELTA CONFIGURATION AND ALTHOUGH MODERATE MAGNETIC GRADIENTS REMAIN, THIS REGION CONTINUES ITS SIMPLIFICATION. REGION 4039 (S17W26) MAY BE STARTING A DECAY PHASE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE GENERALLY LOW FOR THE FORECAST PERIOD WITH INFREQUENT CLASS M DECAY PHASE FLARES EXPECTED FROM REGION 4033. PREVIOUSLY ACTIVE LONGITUDES ARE EXPECTED TO RETURN TO THE EAST LIMB DURING THE FORECAST PERIOD WHICH COULD ELEVATE ACTIVITY LEVELS SLIGHTLY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN QUIET TO SLIGHTLY UNSETTLED. ACTIVE LEVELS ARE FORECAST TO OCCUR ON 01 JAN. UNSETTLED TO SLIGHTLY ACTIVE CONDITIONS SHOULD BE EXPERIENCED ON 02-03 JAN. NOTE: THE AFR VALUE FOR 29 DEC WAS 16.

III. EVENT PROBABILITIES 01 JAN-03 JAN

CLASS M 50/30/30

CLASS X 05/01/01

PROTON 05/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 31 DEC 139

PREDICTED 01 JAN-03 JAN 137/135/145

90 DAY MEAN 31 DEC 173

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 30 DEC 013/013

ESTIMATED AFR/AP 31 DEC 009/010

PREDICTED AFR/AP 01 JAN-03 JAN 018/015-015/010-010/015

SOLTERWARN

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