

HFUS 1 BOU 151300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 015A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 15 JAN 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
14/1200Z TO 15/1200Z: SOLAR ACTIVITY HAS BEEN LOW WITH REGIONS
3549(S08E18) AND 3550(N04E07) EACH PROVIDING SEVERAL SUBFLARES.
REGION 3549 IS CURRENTLY THE MOST IMPRESSIVE ACTIVE REGION ON
THE VISIBLE DISK. IT IS A GROWING D-TYPE GROUP OF MODERATELY
COMPLEX (BETA-GAMMA) MAGNETIC STRUCTURE WITH AN EAST-WEST
NEUTRAL LINE AND DOMINATE TRAILER POLARITY SPOTS. THE MAGNETIC
GRADIENT HAS STRENGTHENED CONSIDERABLY SINCE YESTERDAY AND AN
EXTENSIVE ARCH FILAMENT SYSTEM HAS BEEN REPORTED. JUST 12
DEGREES NORTH AND WEST OF 3549, REGION 3550 HAS DEVELOPED VERY
RAPIDLY INTO A D-TYPE BETA GROUP WITH FLUCTUATING PLAGE, BRIGHT
POINTS ON ITS NORTH-SOUTH NEUTRAL LINE AND A STRONG ARCH
FILAMENT SYSTEM. NONE OF THE OTHER 4 SPOTTED REGIONS ARE OF
SPECIAL INTEREST EXCEPT THAT NEW REGION 3552(N11E71), AN H-TYPE
SPOT, IS THE RETURN OF OLD REGION 3516.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
LOW BUT WITH INTENSIFYING C-CLASS FLARE ACTIVITY FROM REGIONS
3549 AND 3550. IF THESE REGIONS CONTINUE TO DEVELOP,
SIGNIFICANT FLARES ARE POSSIBLE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN MOSTLY QUIET FOR THE PAST 24 HOURS. UNSETTLED PERIODS FROM
0300-0600Z AND 0900-1200Z MAY BE MARKING THE COMMENCEMENT OF
GENERALLY UNSETTLED LEVELS WHICH SHOULD CONTINUE FOR THE NEXT
TWO DAYS. QUIET CONDITIONS ARE EXPECTED TO RETURN BY THE THIRD
DAY.

III. EVENT PROBABILITIES 16 JAN-18 JAN

CLASS M 30/30/30

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 14 JAN 135

ESTIMATED 15 JAN 140

PREDICTED 16 JAN-18 JAN 140/145/150

90 DAY MEAN 14 JAN 204

V. GEOMAGNETIC A INDICES

OBSERVED AFR 13 JAN 004 AP 14 JAN 004

ESTIMATED AFR 14 JAN 003 AFR/AP 15 JAN 011/012

PREDICTED AFR/AP 16 JAN-18 JAN 012/015-010/012-007/008

SOLTERWARN

BT

HXUS BOU 151300

PREDM 03016 03017 03018

PREDX 00116 00117 00118

PREDP 00116 00117 00118

PCAFT 00116

TENCM 14016 14517 15018

AFRED 01216 01017 00718

AFAPF 01516 01217 00818

KKK 22343 32233 33332

BT

HFUS 3 BOU 152200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 015B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 15 JAN 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
15/1200Z TO 15/2100Z: SOLAR ACTIVITY HAS CONTINUED AT A LOW
LEVEL THIS PERIOD. REGION 3550 (N04E01) PRODUCED A C2/SN AT
15/1833UT, THIS WAS THE LARGEST OBSERVED EVENT DURING THIS
PERIOD. REGION 3550 HAS EXHIBITED RAPID GROWTH THIS PERIOD AND
IS NOW A D-TYPE BETA-GAMMA GROUP. REGION 3549 (S09E13) IS ALSO
A D-TYPE BETA-GAMMA WITH SOME SPOT ROTATION BEING OBSERVED. NEW
REGION TODAY 3553 (S09W13) IS A SIMPLE C-TYPE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
LOW DURING THE FORECAST PERIOD. REGIONS 3549 AND 3550 COULD, IF
THEY CONTINUE TO DEVELOPE, PRODUCE M-CLASS EVENTS NEAR THE END
OF THE PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN MOSTLY UNSETTLED WITH A FEW PERIODS AT ACTIVE LEVELS. THE
FIELD IS EXPECTED TO BE UNSETTLED FOR THE NEXT 48 HOURS THEN
QUIET FOR THE REMAINDER OF THE FORECAST.

III. EVENT PROBABILITIES 16 JAN-18 JAN

CLASS M 30/30/30

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 15 JAN 141

PREDICTED 16 JAN-18 JAN 145/150/155

90 DAY MEAN 15 JAN 202

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 14 JAN 003/004

ESTIMATED AFR/AP 15 JAN 012/012

PREDICTED AFR/AP 16 JAN-18 JAN 012/015-010/012-007/008

SOLTERWARN

BT

HXUS BOU 152200

PREDM 03016 03017 03018

PREDX 00116 00117 00118

PREDP 00116 00117 00118

PCAFT 00116

TENCM 14516 15017 15518

AFRED 01216 01017 00718

AFAPF 01516 01217 00818

BT