

HFUS 1 BOU 161300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 350A
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 16 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
15/1200Z TO 16/1200Z: SOLAR ACTIVITY HAS BEEN VERY HIGH. THE
ACTIVITY COMPLEX 4025/4026 (S10W01) DOMINATED WITH AN X5/2B
EVENT AT 15/1620Z ACCOMPANIED BY AN 340 FU 10CM BURST AND A
TYPE IV BURST. SID EFFECTS WERE MAJOR. ADDITIONAL EVENTS
OCCURRED IN THIS REGION : M1 AT 1703Z, M5/2B AT 2153Z AND M3/1B
AT 1002Z. A 380 FU 10CM BURST ACCOMPANIED THE LAST EVENT.
BOTH DECAY AND MINOR GROWTH ARE REPORTED IN DIFFERENT PARTS OF
THIS COMPLEX. ACTIVE FILAMENTS ARE PRESENT. A DELTA MAGNETIC
CONFIGURATION CONTINUES ONLY IN THE TRAILING PORTION(REGION
4026). A DELTA ALSO CONTINUES IN REGION 4022(N11W33) WHERE
PLAGE DECAY HAS OCCURRED. SLOW DECAY IS REPORTED IN ALL OTHER
ACTIVE REGIONS. A MINOR REGION(4030) HAS ROTATED INTO VIEW AT
N10E66.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
MODERATE TO OCCASIONALLY HIGH. A GENERAL DECAY IN ACTIVITY IS
EXPECTED DURING THIS FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN UNSETTLED TO ACTIVE. A MAJOR GEOMAGNETIC STORM IS
EXPECTED TO COMMENCE WITHIN THE NEXT 12 HOURS. PROTONS HAVE
BEEN DETECTED FROM THE X12 EVENT AT 15/0200Z BUT THEIR EXACT
FLUX IS OBSCURED BY SATELLITE DATA RECEPTION PROBLEMS. IT
APPEARS THAT PROTON EVENT THRESHOLD HAS NOT BEEN EXCEEDED.

III. EVENT PROBABILITIES 17 DEC-19 DEC

CLASS M 80/30/70
CLASS X 30/20/10
PROTON 30/20/10
PCAF YELLOW

NAKREN

IV. OTTAWA 10.7 CM FLUX

OBSERVED	15 DEC	236
ESTIMATED	16 DEC	229
PREDICTED	17 DEC-19 DEC	222/215/207
90 DAY MEAN	15 DEC	176

V. GEOMAGNETIC A INDICES

OBSERVED AFR	14 DEC	006	AP 15 DEC	011
ESTIMATED AFR	15 DEC	011	AFR/AP 16 DEC	018/025
PREDICTED AFR/AP	17 DEC-19 DEC	050/050-035/030-024/020		

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END OF BUFFER

HFUS 3 BOU 162200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 350B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 16 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 16/1200Z TO 16/2100Z: SOLAR ACTIVITY HAS REMAINED VERY HIGH. REGION 4025 (S07W11) PRODUCED AN X1/2B FLARE AT 1452Z. MAJOR DISCRETE RADIO BURSTS OCCURRED WITH 600 FU RECORDED AT 2695 MHZ. STRONG SHORT WAVE FADE THROUGH 13 MHZ ACCOMPANIED THIS FLARE. NEARLY 50 PERCENT UMBRAL COVERAGE WAS OBSERVED BUT IT WAS NOT REPORTED AS A WHITE LIGHT FLARE. ADDITIONALLY, REGION 4026 (S11W00) PRODUCED A M1/SB AT 1415Z WITH A 430 FU BURST AT 2695 MHZ AND REGION 4021 (S16W54) PRODUCED A M1/1B AT 1926Z WITH ONLY MINOR RADIO BURSTS. REGIONS 4022 (N11W39), 4025, AND 4026 STILL RETAIN THEIR DELTA CONFIGURATIONS. AMONG THESE THREE REGIONS, 4025 HAS THE STEEPEST GRADIENTS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE TO HIGH. A SLOW DIMUNITION IN THE STRENGTH AND FREQUENCY OF THE ENERGETIC FLARES IS EXPECTED THROUGH THE NEXT THREE DAYS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE AT MIDLATITUDES BUT AT STORM LEVEL AT HIGH LATITUDES. DUE TO THE SERIES OF MAJOR FLARES, THE FIELD IS EXPECTED TO BE GENERALLY AT STORM LEVEL THROUGH THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 17 DEC-19 DEC

CLASS M 80/80/70

CLASS X 30/20/10

PROTON 30/20/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 16 DEC 214

PREDICTED 17 DEC-19 DEC 210/200/190

90 DAY MEAN 16 DEC 177

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 15 DEC 311/011

ESTIMATED AFR/AP 16 DEC 016/017

PREDICTED AFR/AP 17 DEC-19 DEC 050/050-035/030-035/035

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