

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 ACCCOMPANIED BY AN S40 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 UNSETLED 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 RECFPTION PROBLEMS. IT APPEARS THAT PROTON EVENT THRESHOLD HAS NOT BEEN EXCEEDED.

III. EVENT PROBABILITIES 17 DEC-19 DEC

CLASS M 80/80/70

CLASS X 30/20/10

PROTON 30/20/10

PCAF YELLOW

NAKRCW

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

SOLTERWARN

BT

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 ACCCOMPANIED 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 1416Z 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 011/011

ESTIMATED AFR/AP 16 DEC 016/017

PREDICTED AFR/AP 17 DEC-19 DEC 250/050-035/030-035/035

SOLTERWARN

BT