

HFUS 1 BOU 131300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 317A
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 13 NOV 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 12/1200Z TO 13/1200Z: SOLAR ACTIVITY HAS BEEN HIGH. REGION 3987(S12E24) HAS BEEN THE SOURCE OF ALL SIGNIFICANT ACTIVITY DURING THE PERIOD. MODERATE TYPE IV SWEEP EMISSION OF LONG DURATION ACCCOMPANIED AN M1/1B EVENT IN THIS REGION AT 13/0228Z AND ALSO TYPE II, TYPE IV OCCURRED WITH THE SECOND M1 MAXIMUM OF THIS SAME OPTICAL EVENT. AN M3/1B WITH LITTLE RADIO EMISSION FOLLOWED AT 13/0558Z. A DELTA AND TIGHT MAGNETIC GRADIENTS, AND A COMPLEX E/W NEUTRAL LINE ALONG WITH SIGNIFICANT GROWTH IN WHITE LIGHT INCLUDING ADDITIONAL SPOTS ALL MARK THE CHARACTER OF THIS REGION IN RECENT HOURS. PERSISTENT AFS IS ALSO REPORTED DURING THE PERIOD. ON THE LIMB AT SE15 ACTIVE SURGING TOGETHER WITH CORONAL RAIN AND AFS AND LOOP TYPE PROMINENCE INDICATE THE POSSIBLE RETURN OF OLD REGION 3955, DUE BACK ON 14 NOV.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO OCCASIONALLY HIGH. ANALYSIS OF REGION 3987 INDICATES CONTINUED POTENTIAL FOR MAJOR ACTIVITY AND THE POSITION IS FAVORABLE FOR A MAJOR EFFECT AT EARTH IN THE CASE OF A PROTON FLARE IN THIS REGION. OTHER REGIONS ON THE DISK DO NOT APPEAR CAPABLE OF MAJOR ACTIVITY, BUT ANOTHER POSSIBLE SOURCE TO BE CONSIDERED IS SEEN IN THE SIGNS ON THE EAST LIMB.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE. RECENT FLARE ACTIVITY IS EXPECTED TO CONTRIBUTE TO MAGNETIC ACTIVITY THROUGH THE FORECAST PERIOD. CURRENT ACTIVITY IS APPARENTLY ASSOCIATED WITH THE CORONAL HOLE IN THE NORTH EAST QUADRANT AND IS LIKELY TO CONTINUE FOR MUCH OF THE FORECAST PERIOD. MAGNETIC ACTIVITY IS EXPECTED TO REMAIN AT ACTIVE LEVEL WITH PERIODS AT MINOR STORM DURING THE FORECAST PERIOD.

III. EVENT PROBABILITIES 14 NOV-16 NOV

CLASS M 80/90/90

CLASS X 30/30/30

PROTON 20/30/30

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 12 NOV 168

ESTIMATED 13 NOV 176

PREDICTED 14 NOV-16 NOV 186/194/200

90 DAY MEAN 12 NOV 162

V. GEOMAGNETIC A INDICES

OBSERVED AFR 11 NOV 016 AP 12 NOV 013

ESTIMATED AFR 12 NOV 015 AFR/AP 13 NOV 025/025

PREDICTED AFR/AP 14 NOV-16 NOV 025/025-025/025-025/025

SOLTERWARN

BT

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 317B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 13 NOV 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 13/1200Z TO 13/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE WITH A 1B/M1.5 FLARE OUT OF REGION 3987 (S13E16) BEING THE LARGEST OF THE PERIOD. REGION 3987 HAS CONTINUED AS THE MOST DYNAMIC REGION ON THE DISK. IT HAS SHOWN RESTRUCTURING IN WHITE LIGHT WITH GROWTH IN SOME AREAS AND DECAY IN OTHERS. THIS REGION ALSO RETAINS ITS MAGNETIC COMPLEXITY AND REMAINS A BETA GAMMA DELTA REGION. THREE NEW REGIONS WERE NUMBERED TODAY. THESE SMALL AREAS ARE 3992 (S28W15), 3993 (S06E54), AND 3994 (S13E76).

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE. REGION 3987 HAS THE POTENTIAL FOR CONTINUED M CLASS ACTIVITY, WITH INFREQUENT X CLASS FLARES POSSIBLE.

III. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE. THE GEOMAGNETIC FIELD IS EXPECTED TO REMAIN IN THE ACTIVE CATEGORY THROUGHOUT THE FORECAST PERIOD, HOWEVER THE LEVEL OF ACTIVITY IS EXPECTED TO INCREASE TOMORROW DUE TO A COMBINATION OF A DISAPPEARING FILAMENT AND RECENT FLARE ACTIVITY.

III. EVENT PROBABILITIES 14 NOV-16 NOV

CLASS M 80/90/90

CLASS X 30/30/30

PROTON 20/30/30

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 13 NOV 165

PREDICTED 14 NOV-16 NOV 168/172/180

90 DAY MEAN 13 NOV 162

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 12 NOV 014/013

ESTIMATED AFR/AP 13 NOV 016/016

PREDICTED AFR/AP 14 NOV-16 NOV 025/025-025/025-025/025

SOLTERWARN

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