

HFUS 3 BOU 162200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 167

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 16 JUN 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 15/2100 TO 16/2100Z: SOLAR ACTIVITY WAS AT MODERATE LEVELS DUE TO A M5/1B EVENT FROM REGION 4213 (S13E43) AT 1513UT. MINOR RADIO ACROSS THE SPECTRUM WAS OBSERVED. A ERUPTIVE PROMINENCE WAS OBSERVED TO BEGIN AT 15/0646UT THE EVENT THEN REACHED .3 RADII AND WAS ACCCOMPANIED BY A SLOW RISING X-RAY EVENT WHICH REACHED C4.8 AT 0729UT, ~~NO RADIO WAS REPORTED WITH THIS EVENT.~~ THE REST OF THE DISK IS LITTLE CHANGED TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW DURING THE REST OF THE FORECAST PERIOD. REGION 4213 WHICH PRODUCED THE "M" CLASS EVENT IS A SMALL "C" TYPE GROUP AND IS NOT EXPECTED TO CONTINUE WITH "M" CLASS PRODUCTION. OLD REGION 4187, WHICH PRODUCED SEVERAL LARGE FLARES LAST ROTATION, IS DUE BACK IN THE NEXT 24 HOURS AND MAY BE A "M" PRODUCER.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 15/2100Z TO 16/2100Z: THE GEOMAGNETIC FIELD HAS BEEN GENERALLY UNSETTLED DURING THIS PERIOD. THE HIGH LATITUDE SITES HAVE HAD SHORT PERIODS OF ACTIVE CONDITIONS. AN INCREASE IN PROTONS WAS OBSERVED AT 15/0425UT AND REACHED EVENT LEVEL OF 10 PROTONS/CM²/SEC/STER AT GREATER THAN 10MEV AT 15/0740UT. MAXIMUM WAS OBSERVED AT 15/2130UT WHEN 19 PARTICLES AT GREATER THAN 10MEV WERE RECORDED. THE EVENT BELOW EVENT LEVELS AT 16/1955UT. PROGRAMMING PROBLEMS WITH THE NEW DETECTORS DELAYED IDENTIFICATION OF THIS EVENT UNTIL AFTER THE FORECAST FOR 15 JUNE WAS ISSUED. THE PROBLEMS APPEAR TO HAVE BEEN SOLVED AND WE SHOULD BE ABLE TO DETECT ANY FUTURE EVENTS IN REAL TIME.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT ACTIVE LEVELS DURING THIS FORECAST PERIOD. A LARGE CORONAL HOLE JUST PAST CM IS EXPECTED TO PRODUCE NEAR MINOR STORM CONDITIONS NEAR THE END OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 17 JUN-19 JUN

CLASS M 10/10/10

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 16 JUN 127

PREDICTED 17 JUN-19 JUN 127/128/129

90 DAY MEAN 16 JUN 129

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 15 JUN 016/026

ESTIMATED AFR/AP 16 JUN 011/020

PREDICTED AFR/AP 17 JUN-19 JUN 025/025-020/020-025/030

SOLTERWARN

BT