

FUS 3 BOU 132200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 164

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 13 JUN 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 12/2100 TO 13/2100Z: SOLAR ACTIVITY HAS BEEN LOW. REGION 4204 (S09W35) CONTINUES TO BE THE MOST PRODUCTIVE SPOT GROUP ON THE VISIBLE DISK BUT HAS ONLY MANAGED TO PRODUCE FAIRLY FREQUENT C-CLASS XRAY EVENTS CORRELATED WITH OPTICAL SUBFLARES. MOST OF THESE SMALL EVENTS HAD MINOR DISCRETE FREQUENCY RADIO BURSTS ASSOCIATED WITH THEM. THIS REGION CONTINUES TO DISPLAY SLOW DECAY IN BOTH SPOT AREA AND MAGNETIC COMPLEXITY. THE REGION'S WEAK MAGNETIC DELTA VISIBLE YESTERDAY HAS NOW NEARLY DECAYED LEAVING A SIMPLE NORTH-SOUTH INVERSION LINE. FOUR NEW REGIONS HAVE BEEN NUMBERED TODAY AND TWO OF THESE HAVE PRODUCED SMALL FLARES. REGION 4208 (S07E63) IS A DEVELOPING B-TYPE SPOT GROUP AND HAS PRODUCED TWO SUBFLARES. REGIONS 4209 (N12E76) AND 4210 (N18E77) HAVE ROTATED OVER EAST LIMB, BUT HAVE REMAINED QUIET. NEW REGION 4211 (N12E08) IS DEVELOPING RAPIDLY WITH MINOR ACTIVITY OBSERVED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD REMAIN LOW WITH THE SLIM POSSIBILITY OF A SMALL M-CLASS EVENT FROM REGION 4204 PRIOR TO ITS WEST LIMB TRANSIT.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 12/2100Z TO 13/2100Z: THE GEOMAGNETIC FIELD HAS BEEN AT MAJOR STORM LEVELS SINCE ABOUT 00Z ON THE 13TH. THE STRONGEST PERIODS OF THE STORM OCCURRED BETWEEN 0300Z AND 0900Z WHEN K VALUES OF EIGHT (8) WERE OBSERVED AT BOTH MID AND HIGH LATITUDE SITES. ALTHOUGH NO SUDDEN COMMENCEMENT WAS OBSERVED, THIS STORM IS SUSPECTED TO BE FROM THE INFLUENCE OF A FILAMENT WHICH DISAPPEARED ON THE 9TH OR 10TH.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS BEGINNING TO DISPLAY TRENDS TOWARDS QUIETER CONDITIONS AND IS EXPECTED TO DROP TO ACTIVE LEVELS BY THE UT DAY TOMORROW. THESE ACTIVE CONDITIONS SHOULD CONTINUE FOR THE DURATION OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 14 JUN-16 JUN

CLASS M 20/15/15

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 13 JUN 124

PREDICTED 14 JUN-16 JUN 121/120/120

90 DAY MEAN 13 JUN 128

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 12 JUN 020/019

ESTIMATED AFR/AP 13 JUN 065/070

PREDICTED AFR/AP 14 JUN-16 JUN 020/015-015/015-020/020

SOLTERWARN

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