

HEUS 1 BOU 121300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDE NUMBER 132A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1200UT 12 MAY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

11/1200UT TO 12/1200UT:

SOLAR ACTIVITY HAS BEEN MODERATE THIS PERIOD. A SINGLE M CLASS EVENT WAS REPORTED. AN M2.71B, FROM REGION 3099 (N10W10) REACHED MAXIMUM AT 11/1600Z. REGION 3099 HAS ALSO BEEN RESPONSIBLE FOR MOST OF THE LOW LEVEL OPTICAL AND C-CLASS X-RAY ACTIVITY, WITH SMALL CONTRIBUTIONS FROM REGION 3106 (N11E61). REGION 3099 APPEARS TO HAVE DECLINED SOMEWHAT IN W.L. MAGNETIC GRADIENTS MAY BE RELAXING ALSO, THE REGION IS BELIEVED TO BE IN DECLINE. REGION 3106 APPEARS STABLE IN RECENT HOURS, BUT HAS PRESENTED ITSELF AS A LARGE F CLASS GROUP IN W.L. WITH COMPLEX MAGNETIC STRUCTURE AND A PROBABLE DELTA. THIS GROUP IS NOW THE MOST LIKELY SOURCE OF LARGE EVENTS ON THE DISK. REGION 3099 IS ALSO FULLY CAPABLE OF LARGE EVENTS DURING THE EARLY PART OF ITS DECLINE.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY SHOULD BE MODERATE TO HIGH DUE TO ACTIVITY EXPECTED FROM REGIONS 3099 AND 3106.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS DECLINED FROM ACTIVE TO NEAR QUIET LEVELS WITHIN THE PERIOD. IT MAY REMAIN AT LOW UNSETTLED LEVELS FOR A BRIEF PERIOD MATCHING A BRIEF LULL IN EARLIER SOLAR ACTIVITY. THE SATELLITE ALTITUDE PROTON EVENT ENDED NEAR 12/1200Z WITH PARTICLES GREATER THAN .10 MEV DROPPING TO 9/CM²/SEC/STER.

III. EVENT PROBABILITIES: 13-15 MAY

CLASS M 90/90/90

CLASS X 35/35/35

PROTON 25/25/25

PCAF YELLOW.

IV. OTTAWA 10.7 FLUX

OBSERVED 11 MAY 222

ESTIMATED 12 MAY 225

PREDICTED 13-15 MAY 230/235/235

90 DAY MEAN 11 MAY 214

V. GEOMAGNETIC INDICES

OBSERVED AFR 10 MAY 25 AP 11 MAY 49

ESTIMATED AFR 11 MAY 31 AFR/AP 12 MAY 12/15

PREDICTED AFR/AP 13-15 MAY 12/12 X 16/20 18/20

SOLTERWARN

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HEUS 3. POU 122200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO.

SD F NUMBER 132R

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200 UT 12 MAY 1981

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 12/1200 UT TO 12/2200 UT: SOLAR ACTIVITY WAS LOW WITH ONLY SMALL CLASS C X-RAY EVENTS REPORTED IN THE PAST 10 HOURS. REGION 3099 (N10W17) REMAINS COMPLEX AND STILL CONTAINS A DELTA CONFIGURATION BUT HAS NOT BEEN FLARE ACTIVE. REGION 3106 (N12E59) HAS PRODUCED ONLY SURFLARES BUT IS ALSO COMPLEX AND CONTAINS A DELTA CONFIGURATION. A SMALL REGION 3100 (S05W19) PRODUCED A C2/1N FLARE AT 2019 UT. TWO SMALL REGIONS WERE NUMBERED 3110 (S28E08) AND 3111 (NOAE54).

II. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH WITH LARGE FLARES POSSIBLE FROM REGIONS 3099 AND 3106.

III. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED, AND IS EXPECTED TO REMAIN UNSETTLED DURING THE FORECAST PERIOD.

IV. EVENT PROBABILITIES 13 MAY - 15 MAY

CLASS M 90/90/90

CLASS X 35/35/35

PROTON 25/25/25

PCAF YELLOW

V. OTTAWA 10.7 CM FLUX

OBSERVED 12 MAY 219

PREDICTED 13-15 MAY 225/230/230

90-DAY MEAN 12 MAY 214

VI. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 11 MAY 33/49

ESTIMATED AFR/AP 12 MAY 09/15

PREDICTED AFR/AP 13-15 MAY 12/12 - 16/20 - 18/20

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