

HFUS 1 BOU 121300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF 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 M2/1B 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 XRAY 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 A INDICES

OBSERVED ΔFR 10 MAY 25 ΔP 11 MAY 49

ESTIMATED ΔFR 11 MAY 31 ΔFR/ΔP 12 MAY 12/15

PREDICTED ΔFR/ΔP 13-15 MAY 12/12 16/20 18/20

SOLTERWAPN

BT

HEHS 3.ROU 122200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 130R

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200 UT 12 MAY 1981

IA. 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
SUBLEARES BUT IS ALSO COMPLEX AND CONTAINS A DELTA CONFIGURATION.
A SMALL REGION 3100 (S05W19) PRODUCED A C2/1M FLARE AT 2019 UT.
TWO SMALL REGIONS WERE NUMBERED 3110 (S28E08) AND 3111
(N04E54).

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

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

III. EVENT PROBABILITIES 13 MAY - 15 MAY

CLASS M	90/90/90
CLASS X	35/35/35
PROTON	25/25/25
PCAF	YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED	12 MAY 219
PREDICTED	13-15 MAY 225/230/230
90-DAY MEAN	12 MAY 214

V. 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

SOLTERWARN

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