

WFHS 1 RQU 141300

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 134A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 1200UT 14 MAY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 13/1200UT
TO 14/1200UT:

SOLAR ACTIVITY HAS BEEN HIGH. REGIONS 3099 (N11W34), 3106 (N14E35)
AND 3112 (N15E46) HAVE PRODUCED M CLASS FLARES DURING THE PAST 24
HOURS. THE MOST RECENT (14/0808-0850Z) AND PROBABLY THE MOST
IMPRESSIVE, WAS AN IMPORTANCE 3B AS REPORTED BY LEARMONTH. THIS
FLARE REPORTEDLY WAS TO THE WEST OF REGION 3112 AND NORTH OF 3106
BUT IS ATTRIBUTED TO 3106 BECAUSE OF PROXIMITY. PARALLEL RIBBONS,
SHORTWAVE FADES, M2 XRAY EMISSION, 190 FLUX UNIT 10CM BURST AND TYPE
II/IV SWEEP FREQUENCY EMISSION WERE AMONG THE MORE NOTABLE
CHARACTERISTICS OBSERVED WITH THIS 3B. REGIONS 3106 AND 3112
REVEALED A CONSIDERABLE DEGREE OF COMPLEXITY AS THEY ROTATED
FURTHER ONTO THE DISK. BESIDES THE COMPLEXITY DUE TO THE INTER
REGION RELATIONSHIPS, BOTH REGIONS ARE INDIVIDUALLY COMPLEX AND
EACH IS BELIEVED TO CONTAIN A DELTA MAGNETIC CONFIGURATION. A
VAST, BRIGHT PLAGE AREA AND MODERATELY DARK SPOT UMBRAE ADD TO THE
THREATENING APPEARANCE OF THESE REGIONS. REGION 3099 HAS NOT
CHANGED A GREAT DEAL ALTHOUGH SLOW DECAY IS EVIDENT. NO OTHER
VISIBLE FEATURES RIVAL THE ABOVE MENTIONED REGIONS IN SIZE,
COMPLEXITY OR INTEREST.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY SHOULD CONTINUE HIGH. ANY OF THE ABOVE MENTIONED
REGIONS APPEAR CAPABLE OF SIGNIFICANT ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN QUIET. THE FIELD SHOULD GRADUALLY
BECOME UNSETTLED TO ACTIVE OVER THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 15-17 MAY

CLASS M 95/95/95

CLASS X 25/25/25

PROTON 10/10/10

SCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 13 MAY 217

ESTIMATED 14 MAY 220

PREDICTED 15-17 MAY 222/225/227

90-DAY MEAN 13 MAY 214

V. GEOMAGNETIC A INDICES

OBSERVED APR 12 MAY 10 APR 13 MAY 14

ESTIMATED APR 13 MAY 11 APR/AP 14 MAY 12/15

PREDICTED APR/AP 15-17 MAY 14/20 - 14/25 - 18/30

SOLTERWARN

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WHS 3 BOU 142200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 134B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200 UT 14 MAY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 14/1200 UT TO 14/2200 UT: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 10 HOURS. THE LARGEST EVENT OBSERVED WAS A C5/1M FLARE FROM REGION 3106 (N11E30) MAXING AT 1935 UT. SUBFLARES WERE REPORTED FROM REGIONS 3106, 3112 (N13E36), AND 3099 (N10W41). SURGING ON THE EAST LIMP WAS SEEN AT S15 AND N05.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH. REGIONS 3106, 3112, AND TO A LESSE EXTENT 3099, ARE ALL CAPABLE OF SIGNIFICANT ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED FOR THE PAST 10 HOURS. AN INTERPLANETARY SHOCK PASSED THE ISEE-3 SPACECRAFT AT 1824 UT AND WAS OBSERVED AS A SUDDEN IMPULSE IN THE H-COMPONENT OF THE MID TO LOW LATITUDE NORTH AMERICAN IMS STATIONS AT 1858 UT. STRONGLY FLUCTUATING INTERPLANETARY FIELDS ARE FOLLOWING THE SHOCK. UNSETTLED TO ACTIVE GEOMAGNETIC CONDITIONS ARE EXPECTED THROUGHOUT THE FORECAST PERIOD.

III. EVENT PROBABILITIES 15 MAY - 17 MAY

CLASS M 95/95/95

CLASS X 25/25/25

PROTON 10/12/15

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 14 MAY 228

PREDICTED 15-17 MAY 227/229/231

90-DAY MEAN 14 MAY 214

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 13 MAY 10/14

ESTIMATED AFR/AP 14 MAY 12/15

PREDICTED AFR/AP 15-17 MAY 14/20 - 14/25 - 18/30

SOLTERWARN

BT