

HFUS 1 POU 061300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 126A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 1200UT 06 MAY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
05/1200UT TO 06/1200UT:

SOLAR ACTIVITY HAS BEEN HIGH TO MODERATE DURING THE PAST 24 HOURS. REGION 3080 (N17W13) PRODUCED AN X1/3B FLARE WITH MAXIMUM AT 05/1410UT AND AN M4/2B FLARE WITH MAXIMUM AT 2307UT. BOTH FLARES HAD RELATIVELY STRONG DISCRETE FREQUENCY RADIO BURSTS ASSOCIATED WITH THEM CENTERED AROUND 1415 MHZ (DEFINITELY NOT U-SHAPED SPECTRUM). CULGOORA REPORTED AN UNUSUALLY SHAPED TYPE II BURST ASSOCIATED WITH THE M4 EVENT. SLIGHT DECAY IN WHITE LIGHT HAS BEEN REPORTED IN THIS REGION. REGION 3079 (N06W16) HAS NOW BECOME A MORE CONVENTIONAL LOOKING BIPOLAR REGION AND HAS PRODUCED NOTHING BUT A SUBFAINT FLARE DURING THE PAST 24 HOURS. NEW REGION 3099 (N08E69) (OLD RETURNING SESC REGION 3038) APPEARS TO BE A LARGE STRONG COMPLEX REGION BUT IS STILL TOO CLOSE TO THE LIMB FOR PROPER ANALYSIS.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE. FLARE PROBABILITIES HAVE BEEN ADJUSTED TO TAKE INTO ACCOUNT THE FLARE HISTORY OF REGION 3080 OVER THE LAST FEW DAYS. THE REGION COULD BE RESPONSIBLE FOR A COUPLE OF LARGE M-CLASS OR SMALL X-CLASS BURSTS DURING THE NEXT THREE OR FOUR DAYS. THERE IS EVERY POSSIBILITY THAT THE REGION WILL DECAY FROM THIS POINT.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN QUIET DURING THE PAST 24 HOURS. A MINOR DISTURBANCE IS POSSIBLE ON 08-09 MAY DUE TO THE X1 AND M4 FLARES IN REGION 3080 ON 05 MAY; THERE IS ALSO THE POSSIBILITY THAT ACTIVITY LEVELS WILL BE BOOSTED ON 09 MAY DUE TO LINGERING EFFECTS OF THE MAJOR GEOMAGNETIC STORM WHICH STRUCK THE EARTH LAST SOLAR ROTATION.

III. EVENT PROBABILITIES: 07-09 MAY 1981

CLASS M 65/65/55

CLASS X 20/20/15

PROTON 15/15/15

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 05 MAY 233

ESTIMATED 06 MAY 239

PREDICTED 07-09 MAY 245/250/253

90 DAY MEAN 05 MAY 211

V. GEOMAGNETIC A INDICES

OBSERVED AFR 04 MAY 04 AP 05 MAY 08

ESTIMATED AFR 05 MAY 04 AFR/AP 06 MAY 05/07

PREDICTED AFR/AP 07-09 MAY 11/15 15/15 20/25

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FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 126B CORRECTION

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200 UT 06 MAY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 06/1200 UT TO 06/2200 UT: SOLAR ACTIVITY HAS BEEN LOW SINCE 1200 UT. ALTHOUGH CLOUDS HAVE HAMPERED OBSERVATIONS AT MOST OBSERVATORIES, LIMITED VIEWING AND ONLY SEVERAL SMALL X-RAY BURSTS SUGGEST THAT THE DISK HAS NOT BEEN ACTIVE. REGION 3099 (N09E62) IS STILL TOO CLOSE TO THE LIMB FOR ACCURATE ANALYSIS BUT ITS SIZE IS IMPRESSIVE.

REGION 3079 (N06W24) IS SHOWING SOME SIGNS OF BECOMING MORE COMPLEX AS LEADER POLARITY SPOTS ARE NOW FORMING IN THE TRAILER.

REGION 3080 (N17W19) RETAINS ITS DELTA MAGNETIC CONFIGURATION.

A NEW B-TYPE GROUP IN THE SOUTHEAST IS NUMBERED 3100 (S03E61).

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD BE AT MODERATE LEVELS DURING THE PERIOD. ALL OF THE ABOVE MENTIONED REGIONS ARE CAPABLE OF "M" CLASS FLARES WITH THE EXCEPTION OF 3100.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN QUIET. THE FIELD IS LIKELY TO BECOME ACTIVE THE LATTER HALF OF THE ZULU DAY ON 07 MAY IN RESPONSE TO THE X1/3B FLARE AT 05/1359 UT.

III. EVENT PROBABILITIES 07 MAY - 09 MAY

CLASS M 65/65/55

CLASS X 20/20/15

PROTON 15/15/15

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 06 MAY 227

PREDICTED 07-09 MAY 233/235/237

90-DAY MEAN 06 MAY 212

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 05 MAY 03/08

ESTIMATED AFR/AP 06 MAY 07/07

PREDICTED AFR/AP 07-09 MAY 15/15 - 15/15 - 20/25

SOLTERWAR N

BT