

HELIUS 1 BOU 151400

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDIE NUMBER 074A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 1200UT 15 MARCH 1981

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

14/1200UT TO 15/1200UT:

SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOURS. FOUR M-CLASS X-RAY BURSTS HAVE BEEN NOTED, BUT ONLY ONE HAD CLEAR OPTICAL ASSOCIATION. THAT WAS AN M1/1B FROM REGION 2971 (N07W49) WITH MAXIMUM AT 14/2349 UT. THE OTHER THREE M-CLASS EVENTS CAN M1 WITH MAX AT 15/0155, AN M1 WITH MAX AT 0430 AND AN M3 WITH MAX AT 0917 UT. ALL HAD SLOW-RISING CHARACTERISTICS (OFTEN IDENTIFIED WITH LIMB EVENTS) AND ARE PROBABLY FROM REGION 2973 (S14W93). WHEN 2973 WAS LAST SEEN IT WAS GROWING RAPIDLY AND IT HAS PRODUCED SURGING AND LOOP PROMINENCES AT THE LIMB. REGION 2971, WHILE POSSESSING THE BEST ENERGETIC FLARE POTENTIAL OF ANY REGION ON THE DISK, SEEMS TO BE DECAYING SLOWLY. OTHER REGIONS ON THE DISK ARE RELATIVELY QUIET AND STABLE.

B. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE UNTIL REGION 2973 IS WELL BEHIND THE WEST LIMB. REGION 2971 SHOULD STILL BE THE MOST FREQUENTLY FLARING REGION, ALTHOUGH THAT ACTIVITY MAY LAPSE TO ONLY ISOLATED SMALL M-CLASS EVENTS. OTHER REGIONS POSE NO IMMEDIATE THREAT.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE LEVELS FOR THE PAST 24 HOURS, WITH OCCASIONAL PERIODS AT MINOR STORM LEVELS. THE ACTIVITY BEGAN ABOUT 14/0400 UT. ACTIVITY HAD DIMINISHED TO MILDLY UNSETTLED LEVELS BY 15/0700 UT. THE FIELD IS EXPECTED TO BE GENERALLY MILDLY UNSETTLED FOR THE NEXT 72 HOURS, TRENDING TOWARD QUIET CONDITIONS.

III. EVENT PROBABILITIES: 16 - 18 MARCH 1981

CLASS M 50/35/25

CLASS X 05/02/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 14 MAR 211

ESTIMATED 15 MAR 216

PREDICTED 16-18 MAR 208/200/194

90 DAY MEAN 14 MAR 203

V. GEOMAGNETIC A INDICES

OBSERVED AFR 13 MAR 21 AP 14 MAR 33

ESTIMATED AFR 14 MAR 32 AFR/AP 15 MAR 15/15

PREDICTED AFR/AP 16-18 MAR 09/08 08/08 07/07

SOLTERWARN

BT

HFUS 3 BOU 152200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 074B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200UT 15 MARCH 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

15/1200UT TO 15/2200UT:

SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 12 HOURS.  
FOUR M-CLASS EVENTS WERE OBSERVED - THREE OF WHICH WERE FROM  
UNKNOWN LOCATIONS BUT COULD HAVE BEEN FROM RGN 2973 (S14W100)  
WHICH IS BEHIND THE WEST LIMB. THE OTHER EVENT WAS FROM RGN  
2971 (N08W56) - M1.1N WITH MAX AT 1417 UT. THREE NEW REGIONS:  
RGN 2986 (S14W69), RGN 2987 (N15E71) AND RGN 2988 (N08W07) WERE  
OBSERVED. ALL OTHER DISK AND LIMB FEATURES ARE REPORTED QUIET  
AND STABLE.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE WITH M-CLASS  
FLARE POTENTIAL FROM RGN 2971 BEING THE LARGEST. SURGING FROM  
RGN 2973 IS ALSO EXPECTED AS IT ROTATES FURTHER BEHIND THE WEST  
LIMB. ALL OTHER REGIONS ARE EXPECTED TO REMAIN STABLE OR DECAY.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN ACTIVE AND IS EXPECTED TO REMAIN  
UNSETTLED TO SLIGHTLY ACTIVE DURING THE NEXT 24 HOURS AND BECOME  
UNSETTLED DURING THE REMAINING 72 HOURS OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES: 16 - 18 MAR

CLASS M 5.0/40/40

CLASS X 05/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 15 MAR 212

PREDICTED 16-18 MAR 200/195/190

90 DAY MEAN 15 MAR 203

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 14 MAR 33/33

ESTIMATED AFR/AP 15 MAR 18/20

PREDICTED AFR/AP 16-18 MAR 14/15 08/08 07/07

SOLTERWARN

BT