

HFUS 1 BOU 601240

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 263A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 1300Z 20 SEPT 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
19/1200Z TO 20/1200Z:

SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS. THE  
LARGEST FLARE WAS A C5/B FROM REGION 3334 (S04W24) AT  
19/2303 UT. MOST OF THE SUBFLARE ACTIVITY HAS COME FROM  
REGION 3344 (N10E23) WHICH IS STILL THE MOST SIGNIFICANT  
REGION ON THE DISK. MAGNETIC GRADIENTS ARE SLIGHTLY STRONGER  
TODAY IN THIS REGION AND IT APPEARS TO HAVE MATURED INTO A  
POTENTIALLY ACTIVE REGION. REGION 3349 (N19W38) GREW RAPIDLY  
AND NOW HAS THE CHARACTERISTICS OF A SMALL BUT POTENTIALLY  
FRUPTIVE REGION. A SMALL ACTIVE SURGE REGION EXISTS IN REGION  
3351 AT SE 08 AND NOW HAS ONE SPOT VISIBLE.

IP. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE. ALTHOUGH  
REGION 3344 IS CURRENTLY PRODUCING ONLY SMALL FLARES, IT HAS  
FEATURES INDICATING A MORE ACTIVE FUTURE. SMALL M-CLASS  
FLARES ARE PROBABLE IN THIS REGION.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED FOR THE PAST 24 HOURS  
FOLLOWING THE ACTIVE CONDITIONS WHICH OCCURRED THE FIRST HALF  
OF 19 SEPT. UNSETTLED CONDITIONS ARE EXPECTED FOR THE FORECAST  
PERIOD.

III. EVENT PROBABILITIES: 21 - 23 SEP

CLASS M 60/65/65

CLASS X 10/10/10

PROTON 01/05/05

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 19 SEP 214

ESTIMATED 20 SEP 214

PREDICTED 21-23 SEP 215/215/210

90 DAY MEAN 19 SEP 208

V. GEOMAGNETIC A INDICES

OBSERVED AFR 18 SEP 13 AP 19 SEP 25

ESTIMATED AFR 19 SEP 22 AFR/AP 20 SEP 08/12

PREDICTED AFR/AP 21-23 SEP 09/12 08/10 10/13

SOLTERWARN

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HFUS 3 BOU 202200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO  
SDF NUMBER 263B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 20 SEPTEMBER 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 20/1200Z  
TO 20/2100Z: SOLAR ACTIVITY HAS REMAINED LOW FOR THE PAST NINE  
HOURS. THE SUN'S FLARE PRODUCTION HAS DIMINISHED SIGNIFICANTLY  
WITH ONLY A FEW C-CLASS SUBFLARES OBSERVED. REGION 3344 (N10E18)  
HAS PRODUCED MOST OF THESE FLARES. AN UNSPOTTED REGION 3333  
(S18W43) PRODUCED A C2/SB AT 2049Z MAXIMUM. NEW REGION 3354  
(S20W20) HAS EMERGED AS A SMALL BIPOLAR GROUP IN THE ALREADY  
COMPLICATED SOUTHWEST QUADRANT. ALL OTHER REGIONS ARE EITHER  
STABLE OR DECLINING.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD REMAIN  
GENERALLY LOW. REGION 3344 IS SIGNIFICANTLY COMPLEX (BETA-GAMMA)  
TO PRODUCE A SMALL M-CLASS EVENT, BUT WITH ONLY ONE M-CLASS  
FLARE SINCE ITS APPEARANCE, ONLY ISOLATED MODERATE FLARES ARE  
EXPECTED. THE 10.7 CM SOLAR RADIO FLUX IS EXPECTED TO FALL  
RAPIDLY WITH THE DECLINING ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS  
BEEN UNSETTLED DURING THE PAST NINE HOURS. NO SIGNIFICANT CHANGE  
IS EXPECTED DURING THE FORECAST PERIOD.

III. EVENT PROBABILITIES 21 SEPTEMBER - 23 SEPTEMBER

CLASS M	40/40/40
CLASS X	01/01/01
PROTON	01/01/01
PCAF	GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED	20 SEPTEMBER 199
PREDICTED	21-23 SEPTEMBER 195/190/180
90-DAY MEAN	20 SEPTEMBER 209

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP	19 SEPTEMBER 28/25
ESTIMATED AFR/AP	20 SEPTEMBER 08/08
PREDICTED AFR/AP	21-23 SEPTEMBER 09/12 - 08/10 - 10/13

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