

HFUS 1 BOU 191300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 262A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 19 SEPTEMBER 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
18/1200UT TO 19/1200Z:

SOLAR ACTIVITY HAS BEEN MODERATE SINCE 18/1200UT DUE TO AN M2/1B  
FLARE FROM REGION 3344 (N10E38) AT 19/0552UT. THIS FLARE WAS  
ACCOMPANIED BY SHORT WAVE FADES AND SMALL RADIO BURSTS ACROSS  
THE SPECTRUM. REGION 3344 HAS BEEN MAGNETICALLY SIMPLE, BUT IS  
VERY EXTENSIVE AND HAS BEEN SHOWING PLAGE FLUCTUATIONS AND  
BRIGHT POINTS. NUMEROUS CLASS C X-RAY EVENTS HAVE OCCURRED  
THIS PERIOD, THE MOST SIGNIFICANT WERE A C5 AND A C6 FROM  
REGIONS 3347 (S07E48) AND 3332 (N15W41) RESPECTIVELY.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE DUE PRIMARILY TO  
THE CHARACTERISTICS AND RECENT ACTIVITY IN REGION 3344.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN ACTIVE FOR THE PAST 24 HOURS  
WITH A BOULDER K-INDEX OF SIX FROM 0600-0900UT. ACTIVE CON-  
DITIONS ARE EXPECTED TO PERSIST THROUGH 20 SEP, BECOMING UN-  
SETLED 21-22 SEP.

III. EVENT PROBABILITIES: 20 SEP - 22 SEP

CLASS M 50/60/65

CLASS X 05/10/10

PROTON 01/01/05

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 18 SEP 218

ESTIMATED 19 SEP 213

PREDICTED 20-22 SEP 212/211/209

90 DAY MEAN 18 SEP 208

V. GEOMAGNETIC A INDICES

OBSERVED AFR 17 SEP 03 AP 18 SEP 12

ESTIMATED AFR 18 SEP 10 AFR/AP 19 SEP 27/35

PREDICTED AFR/AP 20-22 SEP 15/18 09/12 08/10

SOLTERWARN

BT

HFUS 3 BOU 192200 COR

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO  
SDF NUMBER 262B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 19 SEPTEMBER 1981

I.A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 19/1200Z TO 19/2100Z: SOLAR ACTIVITY HAS BEEN LOW DURING THE PAST NINE HOURS WITH ONLY SMALL C-CLASS X-RAY EVENTS OBSERVED. THE MAJORITY OF THESE WERE ASSOCIATED WITH SUBFLARES IN REGION 3344 (N10E31). A C3/SR AT 1754Z IN 3344 WAS THE LARGEST OF THESE EVENTS. REGION 3332 (N15W46) AND SPOTLESS REGION 3331 (S17W63) ALSO PRODUCED SMALL FLARES. THREE NEW REGIONS HAVE BEEN NUMBERED, 3351 (S09E90) WHICH PRODUCED A TYPE II/IV SWEEP AND AN ASSOCIATED RSL/LOOPS, 3352 (N16E09) AND 3353 (S07W09) WHICH ARE SMALL EMERGING REGIONS. REGION 3351 IS NOT YET VISIBLE ON THE DISK, BUT WAS NUMBERED BECAUSE OF THE SIGNIFICANCE OF THE EVENT AT 0310Z.

I.B. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO RETURN TO THE MODERATE LEVEL. REGION 3344, ALTHOUGH NOT IMPRESSIVE, HAS THE CAPABILITY FOR SMALL M-CLASS FLARES. EVIDENCE OF AN ACTIVE REGION AT THE SOUTHEAST LIMB (POSSIBLY OLD SESG REGION 3300, S13 CAR 1981) SHOULD ALSO CONTRIBUTE TO THE GENERAL LEVEL OF ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE SINCE THE MINOR STORM CONDITIONS OBSERVED EARLY IN THE UT DAY. A SMALL INCREASE IN THE SOLAR WIND SPEED AND DENSITY RECORDED BY THE ISEE-3 SATELLITE AT 1853Z INDICATES WE CAN EXPECT ANOTHER 24 HOURS OF ACTIVE CONDITIONS.

III. EVENT PROBABILITIES 20 SEPTEMBER - 22 SEPTEMBER

CLASS M	50/60/65
CLASS X	05/10/10
PROTON	01/01/05
PCAF	GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED	19 SEPTEMBER	214
PREDICTED	20-22 SEPTEMBER	214/215/215
90-DAY MEAN	19 SEPTEMBER	208

V. GEOMAGNETIC A/T INDICES

OBSERVED AFR/AP	18 SEPTEMBER	13/12
ESTIMATED AFR/AP	19 SEPTEMBER	22/24
PREDICTED AFR/AP	20-22 SEPTEMBER	15/18 - 09/12 - 08/10
SOLTERMARN		
BT		