

HFUS 180U 161400

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 047A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 1200UT 16 FEB 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

15/1200UT TO 16/1200UT:

SOLAR ACTIVITY WAS MODERATE DURING THE LATTER HALF OF THE  
PREVIOUS ZULU DAY AND HAS BEEN LOW THE FIRST HALF OF THE  
CURRENT ZULU DAY. AN M1 EVENT AT 151905UT (MAX) FROM REGION  
2930 (N13W69) AND AT 152113UT (MAX) AN M1 FROM 2945 (N13E25)  
ENDED THE ALMOST 60 HOUR DROUGHT OF NO SIGNIFICANT ACTIVITY.  
REGION 2930 CONTINUES TO DISPLAY THREATENING BEHAVIOR IN THE  
FORM OF FLUCTUATIONS AND POINT BRIGHTENINGS AND THE MAGNETIC  
GRADIENTS ARE REPORTEDLY STRONGER. MEANWHILE, REGION 2945  
HAS SHOWN OCCASIONAL POINT BRIGHTENINGS AND FLUCTUATIONS BUT  
APPARENTLY ITS MAGNETIC GRADIENT IS WEAKENING. REGION 2941  
(N18E03) HAS DEVELOPED AN ARCH FILAMENT SYSTEM, IS INCREASING  
IN BOTH SPOT NUMBER AND AREA AND COULD BEGIN SOME INTERACTIONS  
WITH NEWLY DEVELOPING REGION 2946 (N18W04).

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY SHOULD BE LOW TO MODERATE WITH "M" TYPE FLARES  
POSSIBLE AS THE PROMINENT REGIONS ARE APPARENTLY UNDERGOING  
TRANSITION.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN GENERALLY QUIET. A LARGE CORONAL  
HOLE COULD START INFLUENCING THE FIELD BY 17 FEB WITH ACTIVE  
CONDITIONS PERSISTING THROUGH 19 FEB.

III. EVENT PROBABILITIES: 17 - 19 FEB

CLASS M 50/50/50

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 15 FEB 199

ESTIMATED 16 FEB 195

PREDICTED 17-19 FEB 192/190/188

90 DAY MEAN 15 FEB 198

V. GEOMAGNETIC A INDICES

OBSERVED AFR 14 FEB 05 AP 15 FEB 10

ESTIMATED AFR 15 FEB 07 AFR/AP 16 FEB 08/08

PREDICTED AFR/AP 17-19 FEB 15/18 19/23 20/28

SOLTERWARN

BT

HFUS.3 BOU 162200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 047B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200UT 16 FEB 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
16/1200UT TO 16/2200UT:

SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 12 HOURS. HOWEVER,  
REGION 2941 (N18W03) PRODUCED A C7/1B FLARE AT 1736UT WITH AN  
IMPORTANCE 2 SHORTWAVE FADE, TYPE V RADIO BURST AND 2300 FLUX  
UNITS AT 245 MHZ. THIS FLARE WAS PRECEDED BY A C5/SB FLARE  
FROM 2943 (N11W03) WHICH MAXED AT 1723UT. YESTERDAY'S REGION  
2946 HAS NOW MERGED WITH 2941 AND MT. WILSON REPORTED THAT A  
MAGNETIC DELTA HAD FORMED IN THE REGION OF INTERACTION. MT.  
WILSON ALSO REPORTED WEAK DELTA CONFIGURATIONS IN REGIONS  
2945 (N15E20) AND 2942 (S19W00).

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE SINCE SEVERAL  
REGIONS ARE NOW CAPABLE OF ISOLATED M-CLASS EVENTS.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED. UNSETTLED INCREASING  
TO ACTIVE CONDITIONS ARE EXPECTED FOR THE REMAINDER OF THE FORE  
CAST PERIOD IN RESPONSE TO FLARE ACTIVITY AND A LARGE SOUTHERN  
CORONAL HOLE.

III. EVENT PROBABILITIES: 17 - 19 FEBRUARY

CLASS M 50/50/50

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 16 FEB 192

PREDICTED 17-19 FEB 188/184/182

90 DAY MEAN 16 FEB 198

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 15 FEB 10/10

ESTIMATED AFR/AP 16 FEB 12/12

PREDICTED AFR/AP 17-19 FEB 15/18 19/23 20/28

SOLTERWARN

BT