

HFUS 1 BOU 151300  
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 319A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
ISSUED 1300Z 15 NOV 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
14/1200Z TO 15/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE. REGION  
3451 (N18W53) PRODUCED AN M5/2B FLARE AT 142220Z (MAX). THIS  
EVENT HAD TYPE II AND IV SWEEP FREQUENCY EMISSION AND A 10 CM  
BURST OF 340 FLUX UNITS. REGION 3451 REMAINS THE LARGEST, MOST  
COMPLEX REGION ON THE VISIBLE DISK. IT RETAINS ITS DELTA  
CONFIGURATION AND FREQUENT POINT BRIGHTENINGS DEMONSTRATE ITS  
DYNAMIC TENDENCIES. REGION 3450 (S18W63) IS THE SECOND LARGEST  
COMPLEX REGION BUT HAS BEEN QUIET FOR THE PAST 20 HOURS OR SO.  
REGION 3461 (S04E49) IS NOW A MODERATE SIZE D TYPE SPOT GROUP  
AND IS PRODUCING FREQUENT LOW ENERGY FLARES. THE REMAINING DISK  
REGIONS ARE NOT SHOWING MUCH CHANGE.

IB. SOLAR ACTIVITY FORECAST: REGIONS 3451 AND 3450 SHOULD  
SUSTAIN ACTIVITY AT MODERATE LEVELS FOR THE NEXT 24 HOURS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS  
BEEN GENERALLY ACTIVE. RECENT FLARE ACTIVITY AND THE RECURRENT  
PATTERN SUGGEST THAT UNSETTLED TO ACTIVE CONDITIONS SHOULD  
CONTINUE FOR THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 16 NOV-13 NOV

CLASS M 95/95/95  
CLASS X 30/30/30  
PROTON 30/30/30  
PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 14 NOV 212  
ESTIMATED 15 NOV 207  
PREDICTED 16 NOV-18 NOV 205/200/195  
90 DAY MEAN 14 NOV 230

V. GEOMAGNETIC A INDICES

OBSERVED AFR 13 NOV 004 AP 14 NOV 023  
ESTIMATED AFR 14 NOV 018 AFR/AP 15 NOV 018/025  
PREDICTED AFR/AP 16 NOV-18 NOV 013/020-012/018-018/025

SOLTERWARN

BT

HXUS BOU 151300  
PREDM 09516 09517 09518  
PREDX 03016 03017 03018  
PREDP 03016 03017 03018  
PCAFT 00216  
TENCN 20516 20017 19518  
AFRED 01816 01217 01918  
AFAPF 02016 01817 02518  
KKK 32344 33333 33332  
BT

HFUS 3 ROU 152200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 319B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 15 NOV 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 15/1200Z TO 15/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE. AN M3/2B FLARE OCCURRED IN REGION 3464 (S05E54) AT 1426 UT WHICH WAS ACCOMPANIED BY RADIO BURSTS OF 2100 FLUX UNITS AT 245 MHZ AND 260 FLUX UNITS AT 2695 MHZ. THE EVENT TRIGGERED A BRIGHT SURGE AND SPRAY SEEN OUT TO .31 RADII BEYOND THE EASTERN LIMB. THIS REGION IS PRESENTLY OBSERVED TO BE A SIMPLE A TYPE GROUP OF FOLLOWER POLARITY BUT IS PROBABLY LINKED WITH REGION 3461 (S04E42) WHICH HAS DEVELOPED A SMALL DELTA CONFIGURATION IN ITS TRAILER PORTION. REGION 3451 (N19W57) HAS PRODUCED SEVERAL C-CLASS SUBFLARES IN THE PAST FEW HOURS. THIS REGION IS STILL GROWING IN WHITE LIGHT AND SOME RESTRUCTURING IS OCCURRING. NEW REGION 3465 (S15W40) IS A SMALL B TYPE GROUP.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO CONTINUE AT MODERATE LEVELS WITH REGIONS 3451, 3450 (S13W69), AND 3461/3464 BEING CAPABLE OF SIGNIFICANT FLARES.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED TO A TIVE FOR THE PAST NINE HOURS. UNSETTLED TO OCCASIONALLY ACTIVE CONDITIONS ARE EXPECTED TO PERSIST THROUGHOUT THE FORECAST PERIOD.

III. EVENT PROBABILITIES 16 NOV-18 NOV

CLASS M 95/95/95

CLASS X 30/30/30

PROTON 30/30/30

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 15 NOV 196

PREDICTED 16 NOV-18 NOV 190/135/130

90 DAY MEAN 15 NOV 229

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 14 NOV 019/023

ESTIMATED AFR/AP 15 NOV 016/025

PREDICTED AFR/AP 16 NOV-18 NOV 013/020-012/018-018/025

SOLTERWARN

BT

HXUS ROU 152200

PREDM 09516 09517 09518

PREDX 03016 03017 03018

PREDP 03016 03017 03018

P AFT 00216

TENCM 19016 13517 13018

AFRED 01816 01217 01818

AFAPF 02016 01317 02518

BT