

HXUS 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

I. 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 (S18W53) 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.

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

III. 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.

IV. EVENT PROBABILITIES 16 NOV-13 NOV

CLASS M 95/95/95

CLASS X 30/30/30

PROTON 30/30/30

PCAF YELLOW

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

PCAF1 00216

TENCM 20516 20017 19518

AFRED 01816 01217 01818

AFAPF 02016 01817 02518

KKK 32344 33333 33332

BT

HXUS 3 BOU 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 3454 (S05E54) AT 1426 UT WHICH WAS ACCCOMPANIED 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 3451 (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 3455 (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 UNSETLED TO A FIVE FOR THE PAST NINE HOURS. UNSETLED TO OCCASIONALLY ACTIVE CONDITIONS ARE EXPECTED TO PERSIST THROUGHOUT THE FORECAST PERIOD.

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 15 NOV 196

PREDICTED 15 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 015/025

PREDICTED AFR/AP 15 NOV-18 NOV 013/020-012/018-018/025

SOLTERWARN

BT

HXUS BOU 152200

PREDM 09516 09517 09518

PREDX 03016 03017 03018

PREDP 03016 03017 03018

PAFT 00216

TENCM 19016 13517 13018

AFRED 01816 01217 01818

AFAPF 02016 01817 02518

BT