

HFUS 1 BOU 181300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 077A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 18 MAR 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 17/1200Z TO 18/1200Z: SOLAR ACTIVITY WAS MODERATE THIS PERIOD DUE TO A M1/1B EVENT FROM REGION 3643 (S07W15) AT 18/0407UT. MINOR RADIO BURSTS WERE ALSO RECORDED WITH THE EVENT, NO TYPE II/IV SWEEPS WERE OBSERVED. REGIONS 3649 (N14E03), 3640 (N03W33), 3644 (N08W11) AND 3650 (N18E50) HAVE ALL PRODUCED SEVERAL C-CLASS EVENTS THIS PERIOD. REGION 3643 HAS CONTINUED TO EXHIBIT GROWTH AND AN INCREASE IN MAGNETIC COMPLEXITY DURING THE PAST 24 HOURS. REGIONS 3644, 3648 AND 3652 (N04E71) ARE ALSO GROWING HOWEVER AT A SLOWER RATE. ALL OTHER REGIONS ARE STABLE OR SLIGHTLY DECAYED THIS PERIOD. POSSIBLE NEW REGION (N05E51) ARCH FILAMENT SYSTEM HAS BEEN REPORTED THIS POSITION.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO GENERALLY MODERATE DURING THIS FORECAST PERIOD. REGION 3643 APPEARS CAPABLE OF ONE M-CLASS EVENT EVERY 24 HOURS WITH AN ISOLATED CHANCE OF A X-CLASS EVENT. REGIONS 3644 AND 3649 MAY ALSO CONTRIBUTE, IF GROWTH CONTINUES, TO THE PRODUCTION OF M-CLASS EVENTS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE DURING THE PAST 24 HOURS. THE EFFECTS OF THE CORONAL HOLE ALONG WITH A FILAMENT WHICH DISAPPEARED LATE ON 15 MARCH IS EXPECTED TO CAUSE THE FIELD TO REMAIN ACTIVE WITH SHORT PERIODS AT MINOR STORM LEVELS DURING THIS FORECAST PERIOD.

III. EVENT PROBABILITIES 19 MAR-21 MAR

CLASS M 60/70/70

CLASS X 05/05/10

PROTON 05/05/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 17 MAR 233

ESTIMATED 18 MAR 230

PREDICTED 19 MAR-21 MAR 226/220/210

90 DAY MEAN 17 MAR 196

V. GEOMAGNETIC A INDICES

OBSERVED AFR 16 MAR 003 AP 17 MAR 010

ESTIMATED AFR 17 MAR 011 AFR/AP 18 MAR 018/016

PREDICTED AFR/AP 19 MAR-21 MAR 020/020-015/016-015/015

SOLTERWARN

BT

HXUS BOU 181300

PREDM 06019 07020 07021

PREDX 00519 00520 01021

PREDP 00519 00520 01021

PCAF 00119

TENCM 22619 22020 21021

AFRED 02019 01520 01521

AFAPP 02019 01620 01521

KKK 44444 33333 44332

BT

HFXS 3 BOU 182200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 077B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 18 MAR 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 18/1200Z TO 18/2100Z: SOLAR ACTIVITY HAS BEEN LOW. REGION 3643 (S06W21) PRODUCED A 1B/C5 FLARE AT 18/1352Z. REMAINING ACTIVITY CONSISTS OF SUBFLARES WITH XRAY LEVELS TO C3 OR LESS THROUGH THE PERIOD. REGIONS 3640 (N04W38) AND 3649 (N15W02) WERE THE ONLY OTHERS CONTRIBUTING TO THIS LOW LEVEL ACTIVITY. SIGNIFICANT GROWTH WAS OBSERVED IN H ALPHA AND WHITE LIGHT ONLY IN REGION 3643. ALTHOUGH OBSERVATIONS HAVE BEEN EXTREMELY LIMITED BY WEATHER, THIS REGION IS BELIEVED TO STILL CONTAIN A DELTA.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD BE MODERATE. REGION 3643 IS THE MOST LIKELY SOURCE OF ACTIVITY WITH A LIMITED PROSPECT FOR MAJOR ACTIVITY. REGIONS 3644 AND 3649 ARE POSSIBLE CONTRIBUTORS OF LOW LEVEL ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE. IT IS EXPECTED TO REMAIN ACTIVE DUE TO CORONAL HOLE EFFECTS WITH POSSIBLE INFLUENCE DUE TO A DISAPPEARING FILAMENT ON LATE 15 MARCH. ACTIVE TO UNSETTLED CONDITIONS ARE EXPECTED TO CONTINUE FOR THE BALANCE OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 19 MAR-21 MAR

CLASS M 60/70/70

CLASS X 05/05/10

PROTON 05/05/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 MAR 229

PREDICTED 19 MAR-21 MAR 224/220/216

90 DAY MEAN 18 MAR 197

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 17 MAR 013/010

ESTIMATED AFR/AP 18 MAR 018/016

PREDICTED AFR/AP 19 MAR-21 MAR 020/020-015/016-015/015

SOLTERWARN

BT

HFXS BOU 182200

PREDM 06019 07020 07021

PREDX 00519 00520 01021

PREDP 00519 00520 01021

CAFT 00119

ENCM 22419 22020 21621

FRED 02019 01520 01521

FAPF 02019 01620 01521