

HFUS 1 BOU 181230

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 199A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 18 JULY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 17/1200Z TO 18/1200Z:

SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOURS. REGIONS 3203 (S08W52) AND 3221 (S08E74) HAVE BEEN THE SOURCES OF THIS ACTIVITY: 3203 PRODUCING AN M3/1B FLARE AT 17/1221Z AND AN M1/1B AT 17/1658Z, WHILE 3221 PRODUCED AN M1/SB AT 18/0703Z. REGION 3203'S GROWTH HAS SLOWED, BUT ITS MAGNETIC STRUCTURE REMAINS COMPLEX WITH SEVERAL DELTAS PRESENT. REGION 3221 WAS APPARENTLY GROWING SLOWLY AS IT ROTATED OVER EAST LIMB. IT IS A LARGE DKC SPOT GROUP WITH AT LEAST ONE DELTA MAGNETIC CONFIGURATION VISIBLE. REGIONS 3219 (S10W39) AND 3210 (N23W54) ARE BOTH GROWING ALONG WITH SEVERAL OTHER SMALL EMERGING REGIONS.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE DURING THE FORECAST PERIOD WITH FREQUENT M-CLASS FLARE PRODUCTION LIKELY FROM REGIONS 3203 AND 3221. IF GROWTH AND RESTRUCTURING CONTINUE IN BOTH REGIONS, AN X-CLASS EVENT CAN BE EXPECTED.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS ACTIVE DURING THE PAST 24 HOURS. ACTIVE CONDITIONS ARE EXPECTED TO CONTINUE INTERMITTENTLY DURING THE NEXT 24 HOURS IN RESPONSE TO RECENT FLARE ACTIVITY.

III. EVENT PROBABILITIES: 19 JULY - 21 JULY

CLASS M 95/95/95

CLASS X 40/40/40

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 17 JULY 200

ESTIMATED 18 JULY 198

PREDICTED 19-21 JULY 200/200/200

90 DAY MEAN 17 JULY 177

V. GEOMAGNETIC A INDICES

OBSERVED AFR 16 JULY 09 AP 17 JULY 30

ESTIMATED AFR 17 JULY 17 AFR/AP 18 JULY 15/15

PREDICTED AFR/AP 19-21 JULY 15/15 15/15 10/10

SOLTERWARN

BT

HFUS 3 BOU 182200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO
SDF NUMBER 99B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 18 JULY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 18/1200Z TO 18/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE DURING THE LAST NINE HOURS. REGION 3221 (S07E71) PRODUCED A M1/SB WITH DOUBLE X-RAY MAXIMA AT 1150Z AND 1317Z. THIS REGION ALSO PRODUCED A M2/SB AT 1557Z (MAX) AND A M4/SB AT 2058Z (MAX). MINOR CENTIMETRIC BURSTS AND MODERATE TO STRONG SHORT WAVE FADES THROUGH 15 MHZ ACCOMPANIED THESE FLARES. REGION 3203 (S07W59) PRODUCED A C6 AND C9 WITH SUB FLARES. REGION 3203 IS DOMINATED BY LEADER POLARITY STRUCTURE BUT CONTAINS A VERY CONVOLUTED NEUTRAL LINE AND TIGHT GRADIENTS. REGION 3221 HAS A LARGE SUNSPOT AREA WITH ONE OR MORE DELTA CONFIGURATIONS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH. BOTH REGIONS 3203 AND 3221 ARE CAPABLE OF CLASS X FLARES.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED THE PAST NINE HOURS. THE FIELD IS EXPECTED TO BE UNSETTLED TO ACTIVE THROUGH THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 19 JULY - 21 JULY

CLASS M 95/95/95

CLASS X 40/40/40

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 JULY 204

PREDICTED 19-21 JULY 200/200/200

90-DAY MEAN 18 JULY 176

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 17 JULY 26/30

ESTIMATED AFR/AP 18 JULY 11/12

PREDICTED AFR/AP 19-21 JULY 15/15 - 15/15 - 10/10

SOLTERWARN

BT