

HFUS 1 BOU 191230

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 200A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 19 JULY 1981

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 18/1200Z TO 19/1200Z:

SOLAR ACTIVITY HAS BEEN HIGH DURING THE PAST 24 HOURS. THE MOST SIGNIFICANT EVENT WAS A LONG LIVED X2 EVENT AT 19/0537Z. THIS X-RAY EVENT BEGAN WITH A SLOW RISING 1B FLARE IN REGION 3221 (S07E63) AT 0528Z FOLLOWED BY AN IMPULSIVE 1B FLARE IN A PREVIOUSLY DORMANT REGION 3204 (S28W59) WHICH BEGAN AT 0532Z. THIS EVENT WAS THE MORE ENERGETIC, PRODUCING A TYPE II/IV SWEEP FREQUENCY BURST AND STRONG CENTIMETRIC BURSTS (1800 SFU AT 2695MHZ) AND STRONG SHORT WAVE FADES. REGION 3221 ALSO PRODUCED AN M9/1B AT 0428Z MAXIMUM. REGION 3204 WHICH LULLED US TO SLEEP WITH ITS SLOW DECAY AND INACTIVITY CONTINUES TO DISPLAY A STRONG DELTA. REGION 3221 REMAINS THE MOST IMPRESSIVE DISK REGION WITH FREQUENT M-CLASS FLARE PRODUCTION. REGION 3203 (S07W68), FAIRLY QUIET DURING THE PAST 24 HOURS, REMAINS COMPLEX WITH GOOD FLARE POTENTIAL.

I B. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY SHOULD CONTINUE MODERATE TO HIGH. REGIONS 3204 AND 3219 (S09W54), A DEVELOPING GROUP BEHIND 3203, HAVE GOOD M-CLASS FLARE POTENTIAL. REGIONS 3203 AND 3221 ARE LIKELY TO PRODUCE AN ISOLATED X-CLASS EVENT.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS ACTIVE EARLY IN THE PERIOD, BUT GRADUALLY RETURNED TO UNSETTLED LEVELS EARLY IN THE UT DAY ON THE 19TH.

UNSETTLED TO OCCASIONAL ACTIVE CONDITIONS ARE EXPECTED FOR THE NEXT 24 HOURS. NO PARTICLE HAVE BEEN DETECTED FROM TODAY'S X2 EVENT, ALTHOUGH A MINOR ENHANCEMENT OF LOW ENERGY PARTICLES IS STILL POSSIBLE.

III. EVENT PROBABILITIES: 20 JULY - 22 JULY

CLASS M 95/95/95

CLASS X 40/40/40

PROTON 20/15/10

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 18 JULY 204

ESTIMATED 19 JULY 206

PREDICTED 20-22 JULY 206/206/197

90 DAY MEAN 18 JULY 176

V. GEOMAGNETIC A INDICES

OBSERVED AFR 17 JULY 26 AP 18 JULY 13

ESTIMATED AFR 18 JULY 11 AFR/AP 19 JULY 10/12

PREDICTED AFR/AP 20 - 22 JULY 15/15 10/10 18/20

SOLTERWARN

PT

HEUS 3 BOU 192200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 200B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 19 JULY 1981

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 19/1200Z TO 19/2100Z: AFTER THE M9 (0428Z MAX) AND THE X2 (0537Z MAX), SOLAR ACTIVITY HAS BEEN LOW (CLASS C X-RAY BURSTS) THE PAST NINE HOURS. BOTH REGIONS 3203 (S07W73) AND 3221 (S07E57) HAVE BEEN RELATIVELY QUIET THE LAST NINE HOURS. REGION 3220 (N06E38) HAS HAD MODERATE GROWTH AND REGION 3224 (N16E27) STRONG GROWTH TODAY. BOTH REGIONS HAVE HAD FREQUENT SUBFLARE ERUPTIONS.

JB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE. REGIONS 3203 AND 3221 ARE LIKELY TO PRODUCE AN ISOLATED CLASS X EVENT.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED. THE FIELD IS EXPECTED TO BE GENERALLY UNSETTLED WITH ACTIVE CONDITIONS ON 22 JULY AS A RESULT OF TODAYS FLARES.

III. EVENT PROBABILITIES 20 JULY - 22 JULY

CLASS M 95/95/95

CLASS X 40/40/40

PROTON 15/15/15

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 19 JULY 214

PREDICTED 20-22 JULY 217/214/200

90-DAY MEAN 19 JULY 177

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 18 JULY 12/13

ESTIMATED AFR/AP 19 JULY 10/12

PREDICTED AFR/AP 20-22 JULY 15/15 - 10/10 - 18/20

SOLTERWARN

BT