

HFUS 3 BOU 192200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 170

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 19 JUN 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 18/2100 TO 19/2100Z: SOLAR ACTIVITY HAS BEEN LOW; HOWEVER, THE FREQUENCY OF FLARES AND THE INTENSITY OF THE X-RAY BURSTS HAVE INCREASED. REGION 4210 (N17W06) HAS DECAYED, PRIMARILY IN ITS TRAILER POLARITY STRUCTURE; THIS TRAILER POLARITY HAS ACTUALLY BEEN LOCATED IN THE MIDDLE OF THIS REGION. REGION 4209 (N14W01) HAS HAD SLIGHT DECAY IN ITS STRUCTURE. GROWTH IN THE CENTRAL PORTION OF REGION 4213 (S12E02) HAS PRODUCED A DELTA CONFIGURATION WITH A MODERATE GRADIENT. IT WAS AT THIS POINT THAT THE LARGEST EVENT, A C4/SB, OCCURRED AT 1954Z. REGION 4214 (N14E36) CONTINUES A SLOW GROWTH. REGION 4216 (N17E54) IS EMERGING RAPIDLY AND HAS PRODUCED MANY OF TODAY'S FLARES. REGION 4217 (N18E76) HAS ROTATED ON TO THE DISK WITH A DULL PLAGE. A C7 X-RAY BURST, SO FAR UNASSOCIATED, OCCURRED AT 2037Z.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN LOW. HOWEVER, CONTINUED GROWTH IN REGIONS 4213 AND 4216 COULD INCREASE THE ACTIVITY TO THE MODERATE LEVEL.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 18/2100Z TO 19/2100Z: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE AT MID LATITUDES BUT WITH PERIODS AT MINOR STORM LEVEL AT HIGH LATITUDES.

IIB. GEOPHYSICAL ACTIVITY FORECAST: ACTIVE FIELD CONDITIONS, WITH PERIODS AT MINOR STORM LEVEL, ARE EXPECTED THROUGH 20 JUNE. THE FIELD SHOULD THEN ABATE TO UNSETTLED TO ACTIVE LEVELS.

III. EVENT PROBABILITIES 20 JUN-22 JUN

CLASS M 20/20/20

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 19 JUN 130

PREDICTED 20 JUN-22 JUN 134/138/140

90 DAY MEAN 19 JUN 129

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 18 JUN 033/033

ESTIMATED AFR/AP 19 JUN 020/030

PREDICTED AFR/AP 20 JUN-22 JUN 018/035-012/020-012/020

SOLTERWARN

BT