

HFUS 1 BOU 202200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO.

SDF NUMBER 263

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 20 SEPTEMBER 1978

IA. DUE TO A COMBINATION OF EQUIPMENT PROBLEMS AND WEATHER, BOTH AT THE OBSERVATORIES AND THE FORECAST CENTER, A PRECISE ASSESSMENT OF THE OVERALL DISK IS NOT POSSIBLE. HOWEVER, X-RAY CHANNELS WOULD INDICATE THAT THE LEVEL OF ACTIVITY HAS BEEN LOW AND RESTRICTED TO CLASS C AND SUB C X-RAY BURST. LIMITED DISK ANALYSIS BY TEHRAN AND HOLLOWMAN SHOW REGION 1294 (N36W19) TO BE A MATURE GROUP AND POSSIBLY EVEN DECAYING. REGION 1294 RETAINS THE POTENTIAL FOR SIGNIFICANT ACTIVITY AND IS LARGEY RESPONSIBLE FOR THE LEVEL OF PROBABILITIES. A SMALL C CLASS SPOT GROUP ROTATED OVER THE NORTHEAST LIMB AND IS NUMBER 1304 (N27E75).

IB. THE LEVEL OF SOLAR ACTIVITY IS EXPECTED TO INCREASE AS A RESULT OF ANTICIPATED REGENERATION IN 1294.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET. GENERALLY QUIET TO UNSETLED CONDITIONS SHOULD DOMINATE THE COMING 24 HOURS.

III. EVENT PROBABILITIES 21 SEPTEMBER - 23 SEPTEMBER

CLASS M 80/80/80

CLASS X 20/20/20

PROTON 15/15/15

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 SEPTEMBER 167

PREDICTED 21-23 SEPTEMBER 167/167/167

90-DAY MEAN 20 SEPTEMBER 136

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 19 SEPTEMBER 00

ESTIMATED AFR/AP 20 SEPTEMBER 03/03

PREDICTED AFR/AP 21-23 SEPTEMBER 09/07 - 14/10 - 14/14

SOLTERWARN

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SD F NUMBER 263

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 20 SEPT 1979

IA. AN X5/3B FLARE WITH MAX TIME NEAR 192303 UT WAS THE HIGHLIGHT OF THE PAST 24 HOURS. CULGOORA REPORTED FAINT WHITE LIGHT EMISSION WITH THIS EVENT AS WELL AS SOME UMBRAL COVERAGE. THERE WAS AN ABSENCE OF TYPE II/IV SWEEP FREQUENCY RADIO EMISSION BUT DISCRETE FREQUENCY BURSTS WERE AS LARGE AS 3000 FLUX UNITS ON 10.7 CM. THE FLARE OCCURRED IN REGION 1994 (N05E 18) WHICH STILL POSSESSES THOSE CHARACTERISTICS NORMALLY ASSOCIATED WITH FLARE PRODUCTION; THE MAGNETIC CONFIGURATION REMAINS A BETA-GAMMA-DELTA WITH AN "E" TYPE SPOT GROUP, THE PLAGE IS BRIGHT AND FLUCTUATING AND THERE IS APPARENTLY SOME UMBRAL MOTION WITHIN THE LARGE PENUMBRA. REGION 1994 HAS PRODUCED SEVERAL M CLASS FLARES SINCE THE X5; AN M1 AT 0807Z (MAX), M1 AT 1343Z (MAX) AND M4 AT 1904Z (MAX) IN ADDITION TO SEVERAL "C" CLASS FLARES. THE SECOND MOST INTERESTING REGION IS 2001 (N27E47). ALTHOUGH NOT PRODUCING SIGNIFICANT ACTIVITY AT PRESENT, THE GROWTH AND INCREASED COMPLEXITY IN THIS REGION WOULD SUGGEST THAT ENERGETIC ACTIVITY IS FORTH COMING. A NEW REGION 2006 (N18E 82) ROTATED INTO VIEW TODAY AND HAS A SIMPLE H TYPE SPOT GROUP. NO OTHER MAJOR CHANGES HAVE BEEN REPORTED.

IB. SOLAR ACTIVITY IS LIKELY TO CONTINUE AT ITS PRESENT LEVEL WITH BOTH M AND X CLASS EVENTS PROBABLE.

II. THE GEOMAGNETIC FIELD HAS BEEN UNSETLED TO ACTIVE. GENERALLY ACTIVE CONDITIONS SHOULD PRESIST UNTIL THE IMPACT OF THE X5 FLARE IS FELT LATE ON 21 SEPT OR EARLY ON 22 SEPT.

III. EVENT PROBABILITIES 21 SEPT - 22 SEPT

CLASS M 99/99/99

CLASS X 60/60/60

PROTON 60/60/60

PCAF RED

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 SEPT 216

PREDICTED 21 SEPT - 23 SEPT 216/214/212

90-DAY MEAN 20 SEPT 174

V. GEOMAGNETIC INDICES

OBSERVED FREDERICKSBURG 19 SEPT 07

ESTIMATED AFR/AP 20 SEPT 14/14

PREDICTED AFR/AP 21 SEPT - 23 SEPT 20/20 35/35 25/30

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