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HFUS BOU 010500

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 182A ISSUED 0500Z 01 JULY 1971

CLASS M FLARES ARE EXPECTED DURING THE NEXT 24 HOURS.

A. A FEW CLASS-C SUBFLARES AND AN INTERESTING ONE-BRILLIANT FLASH-PHASE FLARE WERE OBSERVED DURING THE PAST SEVEN HOURS.

THE FLASH-PHASE EVENT OCCURRED AT 01/0130Z NORTHWEST OF THE MAIN LEADER OF REGION 148 /S14E32/ AND WAS EXTREMELY BRILLIANT IN H-ALPHA. THIS FLARE EXHIBITED A RING-SHAPED STRUCTURE AND ROSE TO MAXIMUM INTENSITY VERY QUICKLY. EFFECTS OF THIS EVENT INCLUDED A BRIEF CLASS X3 X-RAY BURST, SHORT-WAVE FADES OF MODERATE INTENSITY, A GEOMAGNETIC CROCHET AT 01/0130-0133Z, AND AN ATYPICAL RADIO BURST PROFILE /6 FLUX UNITS AT 2700 MHZ, 33 FLUX UNITS AT 5000 MHZ, AND 380 FLUX UNITS AT 8800 MHZ/. NO PROTONS WERE OBSERVED FOLLOWING THIS 1B FLARE. SLOW DEVELOPMENT HAS CONTINUED IN THE DYNAMIC SOUTHEASTERN COMPLEX CONSISTING OF REGION 145 /S07E18/, REGION 148 /S14E32/, AND REGION 150 /S10E33/.

MAGNETIC ANALYSIS AND RADIO MAP DATA AT 9.1 CM AND 8.6 MM SUGGEST THAT THIS SE COMPLEX MAY BE THE KIND OF ACTIVE CENTER THAT CAN PRODUCE MAJOR FLARES. FLUCTUATIONS HAVE BEEN OBSERVED RECENTLY IN THE PLAGE OF REGION 137 /N16W22/. OTHER REGIONS ARE RELATIVELY UNIMPRESSIVE. UNSETLED GEOMAGNETIC CONDITIONS HAVE PREVAILED DURING THE PAST SEVEN HOURS. (forgot to add note - GCF)

B. SOLAR ACTIVITY PROBABLY WILL INCREASE DURING THE THREE-DAY FORECAST PERIOD. AT LEAST ONE CLASS X FLARE PROBABLY WILL BE PRODUCED DURING THE NEXT 72 HOURS IN THE SE COMPLEX, AND SEVERAL SMALL CLASS M EVENTS ARE LIKELY IN THE SE AND IN REGION 137. UNSETLED GEOMAGNETIC CONDITIONS ARE ANTICIPATED FOR THE NEXT THREE DAYS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 01 JULY/0000Z ENDING 03 JULY/2400Z.

CLASS M OR GREATER 90/90/90

CLASS X 30/35/40

PROTON EVENTS 15/20/20

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FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 182B ISSUED 2200Z 01 JULY 1971

CLASS M FLARES ARE EXPECTED AND A CLASS X FLARE IS PROBABLE IN THE NEXT 24 HOURS.

A. THE COMPLEX OF REGIONS 145 /S07E09/, 148 /S13E20/ AND 150 /S10E22/ CONTINUE TO DOMINATE SOLAR ACTIVITY WITH OCCASIONAL SMALL CLASS M FLARES. THE LEADER OF REGION 148 IS ROTATING COUNTERCLOCKWISE BRINGING REGION 150 CLOSER AND POSSIBLY SANDWICHING SMALL OPPOSITE POLARITY SPOTS AND PLAGE BETWEEN THE TWO LEADING SPOTS OF 148 AND 150. THIS IS A HIGHLY UNSTABLE CONFIGURATION AND COULD LEAD TO AN OCCASIONAL LARGE ENERGETIC EVENT. REGIONS 154 /S07E42/ AND 151 /N07W01/ APPEAR TO BE FORMING SIMPLE BIPOLARS AND ARE ACTIVE IN CLASS C FLARES.

B. THE INTERACTION BETWEEN REGIONS 148 AND 150 IS OF PRIME INTEREST NOW AND THE RESULT IS ONE OR TWO CLASS X EVENTS EXPECTED DURING THE NEXT 72 HOURS. THE GEOMAGNETIC FIELD IS EXPECTED TO BE UNSETTLED DURING THE FORECAST PERIOD.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 02 JULY/0000Z ENDING 04 JULY/2400Z.

CLASS M OR GREATER 90/90/90

CLASS X 40/45/40

PROTON EVENTS 20/20/20

D. OTTAWA 10.7 CM FLUXES FOR 01/1400Z, 01/1700Z AND 01/2000Z WERE 142, 140 AND 134 RESPECTIVELY.

PREDICTED 10.7 CM FLUX FOR 02-04 JULY IS 132/130/128.

E. MAGNETIC A-FREDERICKSBURG FOR 30 JUNE WAS 12. FOR 01 JULY ABOUT 10. PREDICTED AP FOR 02-04 JULY, 13/12/10.

NOTE. BEGINNING 01 JULY 1971 THE 0500 AND 2200Z FORECAST FROM THE NOAA SPACE ENVIRONMENT SERVICE CENTER WILL REFER TO SOLAR ACTIVE REGIONS BY THE NUMBER OF THE SUNSPOT GROUP, AS ASSIGNED BY A COOPERATIVE EFFORT OF THE NOAA AND AIR WEATHER SERVICE SOLAR OBSERVATORIES, FOLLOWED BY THE LOCATION OF THE REGION AT FORECAST ISSUE TIME CONTAINED WITHIN PARENTHESES.

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