

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 801A ISSUED 0400Z 05 NOV 1970

CLASS C FLARES EXPECTED DURING THE NEXT 13 HOURS.

A. A CLASS M3, 1B--N15E16, FLARE BEGAN AT 2145Z. THIS FLARE HAD A SMALL RADIO BURST ASSOCIATED WITH IT AND WAS LOCATED 8 DEGREES WEST OF THE N15E08 SPOT GROUP. THE FLARE WAS IN THE FORM OF TWO PARALLEL RIBBONS LOCATED ON EACH SIDE OF A FILAMENT WHICH DISAPPEARED DURING THE EVENT. ANOTHER CLASS M3, SB, FLARE BEGAN AT 2250Z LOCATION N12W88. THE RADIO BURST RECORDED WITH THIS EVENT BEGAN AT 2250Z AND LASTED 6 MINUTES. THE RADIO FLUX PEAKED AT THE LOW FREQUENCY END OF THE SPECTRUM WITH 1420 F.U. AT 1400 MHZ, 300 F.U. AT 2700MHZ AND 233 F.U. AT 5000 MHZ. THE EVENT KICKED OFF A 184MHZ RADIO NOISE STORM WHICH WAS IN PROGRESS AT SUNSET. ONLY MINOR CHANGES REPORTED IN DISK FEATURES.

B. SOLAR ACTIVITY EXPECTED TO BE CONFINED TO CLASS C SUBFLARES AND OCCASIONAL BORDER LINE CLASS M FLARES.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 5 NOV/0400Z ENDING 8 NOV/0400Z.

CLASS M OR GREATER 45/40/35

CLASS X 02/02/01

PROTON EVENTS 02/02/01

D. OTTAWA 10.7 CM FLUXES FOR 04/1700Z AND 04/2000Z WERE 155 AND 150 RESPECTIVELY.

SOLTERWARN

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NNNN0445

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HAUS BOU 050440

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 801A ISSUED 0400Z 05 NOV 1970

CLASS C FLARES EXPECTED DURING THE NEXT 13 HOURS.

A. A CLASS M3, 1B--N15E16, FLARE BEGAN AT 2145Z. THIS FLARE HAD A SMALL RADIO BURST ASSOCIATED WITH IT AND WAS LOCATED 8 DEGREES WEST OF THE N15E08 SPOT GROUP. THE FLARE WAS IN THE FORM OF TWO PARALLEL RIBBONS LOCATED ON EACH SIDE OF A FILAMENT WHICH DISAPPEARED DURING THE EVENT. ANOTHER CLASS M3, SB, FLARE BEGAN AT 2250Z LOCATION N12W88. THE RADIO BURST RECORDED WITH THIS EVENT BEGAN AT 2250Z AND LASTED 6 MINUTES. THE RADIO FLUX PEAKED AT THE LOW FREQUENCY END OF THE SPECTRUM WITH 1420 F.U. AT 1400 MHZ, 300 F.U. AT 2700MHZ AND 233 F.U. AT 5000 MHZ. THE EVENT KICKED OFF A 184MHZ RADIO NOISE STORM WHICH WAS IN PROGRESS AT SUNSET. A 2B FLARE BEGAN AT 0312Z MAXED TWICE AT 0320Z AND 0322Z. A MAJOR RADIO BURST, 1161 F.U. AT 10CM., WAS OBSERVED TO START AT 0307Z AND MAX AT 0326Z. THE FLARE INITIATED A MAJOR IONOSPHERIC DISTURBANCE. THE FLARE BEGAN AS A GROUP OF SMALL FLARES THAT COALESCED INTO A FLARE AREA OF APPROXIMATELY 900 MILLIONTHS.

B. SOLAR DISK REGIONS LOOK UNIMPRESSIVE AND INCAPABLE OF PRODUCING THE MAJOR FLARES WE HAVE SEEN THE PAST 6 HOURS. DATA INDICATES THESE EVENTS ARE OF AN ANOMALOUS NATURE AND THAT FLARE ACTIVITY IN THE NEXT 72 HOURS WILL BE CONFINED TO MINOR EVENTS. A MAGNETIC DISTURBANCE IS EXPECTED TOWARDS THE END OF THE 72HR. FORECAST PERIOD DUE TO THE 2B FLARE.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 5 NOV/0400Z ENDING 8 NOV/0400Z.

CLASS M OR GREATER 45/40/35

CLASS X 02/02/01

PROTON EVENTS 02/02/01

D. OTTAWA 10.7 CM FLUXES FOR 04/1700Z AND 04/2000Z WERE 155 AND 150 RESPECTIVELY.

SOLTERWARN

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HAUS BOU 051755

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 801B ISSUED 1700Z 05 NOV 1970

CLASS M FLARES ARE POSSIBLE DURING THE NEXT 11 HOURS.

A. WE ARE FORCED TO CONCLUDE THAT A MAJOR EVENT AT 05/0312Z NEAR S14E37 WAS ANOMALOUS. THE EVENT WAS ENTIRELY UNEXPECTED AND WE ARE STILL UNABLE TO ACCOUNT FOR THE OCCURRENCE OF SUCH AN EVENT IN THE SEEMINGLY SIMPLE AND UNIMPRESSIVE S14E37 REGION. OPTICALLY, THE EVENT WAS CLASSIFIED AS 3B BY TWO OBSERVATORIES AND AS 2B BY ONE OBSERVATORY, AND IT HAD A DURATION OF ALMOST 4 HOURS. THE 1-8A X-RAY BURST WAS OF INTENSITY X2 AND HAD A DURATION IN THE NEIGHBORHOOD OF 9 HOURS. THE MAJOR RADIO BURST HAD PEAK FLUXES (CORRECTED FROM SDF 801A) OF 310 FLUX UNITS AT 1400 MHZ, 990 AT 2700 MHZ, AND 2080 AT 5000 MHZ. THE DURATION OF THE RADIO BURST WAS APPROXIMATELY 2 HOURS. TYPE 2 DECA-METRIC EMISSION WAS OBSERVED; WE HAVE NOT YET RECEIVED WORD WHETHER OR NOT TYPE 4 WAS OBSERVED. AT 05/0425Z PIONEER 6 OBSERVED A 30 FOLD INCREASE IN PROTONS WITH ENERGY GREATER THAN 190 MEV. PROTON ARRIVAL AT EARTH WAS ABOUT 0700Z. THE FLUXES DETECTED BY ATS-1 AT 05/1600Z WERE 160 AND 16 PARTICLES PER SQ CM PER SEC AT 5-20 AND 20-70 MEV, RESPECTIVELY. THE HIGHER ENERGY RANGE WAS HOLDING STEADY, AND THE LOWER ENERGY RANGE WAS STILL INCREASING SLOWLY. ABSORPTION OF 0.7 DB WAS REPORTED ON THE THULE 30 MHZ RIOMETER AT 05/1545Z. THE S14E37 REGION REMAINS "UNIMPRESSIVE." THE GEOMAGNETIC FIELD HAS BEEN QUIET.

B. WE DO NOT EXPECT FURTHER MAJOR ACTIVITY FROM THE S14E37 REGION. INFREQUENT SMALL TO MEDIUM CLASS M FLARES ARE EXPECTED FROM REGIONS NEAR S14E37, S10W45, AND N22W03. THE PROTON PROBABILITIES GIVEN BELOW ARE FOR ADDITIONAL PROTON EVENTS. A GEOMAGNETIC STORM IS EXPECTED TO BEGIN ABOUT 06/1500Z AND IS EXPECTED TO LAST 2-3 DAYS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 05 NOV/1700Z ENDING 08 NOV/1700Z.

CLASS M OR GREATER 60/60/60

CLASS X 02/02/01

PROTON EVENTS 02/02/01

D. OTTAWA 10.7 CM FLUX FOR 05/1400Z WAS 153. PREDICTED 10.7 CM FLUX FOR 06-08 NOV IS 150/145/145.

E. MAGNETIC A-FREDERICKSBURG FOR 04 NOV WAS 05. FOR 05 NOV ABOUT 09. PREDICTED AP FOR 06-08 NOV, 20/30/30.

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