

HFUS 1 BOU 070600  
FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, CO  
SDF NUMBER 188A  
JOINT AFGWC/SESC SECONDARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 0600Z 07 JULY 1974

IA. NO SIGNIFICANT FLARE HAS OCCURRED SINCE THE 2300Z FCST. REGION 433 (S15W47) STILL RETAINS A STRONG DELTA CONFIGURATION WITH ACTIVE FILAMENTS. REGION 435 (S10W90) HAS PRODUCED NUMEROUS MINOR SURGES. REGIONS 431 (S13W61) AND 437 (S15W15) REMAIN SIMPLE.

IB. SOLAR ACTIVITY IS EXPECTED TO REMAIN VERY HIGH WITH 1-3 MAJOR FLARES PER DAY EXPECTED FROM REGION 433.

II. THE MAJOR STORM WHICH COMMENCED 06/0322Z SUBSIDED NEAR 06/1000Z. THE GEOMAGNETIC FIELD IS EXPECTED TO REMAIN IN A STORM CONFIGURATION THROUGH THE FORECAST PERIOD. THE PROTON EVENT CONTINUES TO DIMINISH WITH CURRENT THULE 30 MHZ RIOMETER VALUES READING NEAR 1 DB ABSORPTION. A FORBUSH DECREASE OF 6 PERCENT BEGAN NEAR 06/1900Z AT THE THULE NEUTRON MONITOR STATION.

III. EVENT PROBABILITIES NO CHANGE

IV. OTTAWA 10.7 CM FLUX NO CHANGE

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 05 JUL 52  
ESTIMATED AFR/AP 06 JUL 112/130  
PREDICTED AFR/AP 07-09 JUL 70/110 - 60/90 - 48/75  
SOLTERWARN  
SPAN  
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HFUS 1 BOU 071430

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO  
SDF NUMBER 188B

JOINT AFGWC/SESC SECONDARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 1430Z 07 JULY 1974

IA. SOLAR ACTIVITY HAS BEEN HIGH THE PAST 8 HOURS. REGION 433 (S15W51) HAS PRODUCED SEVERAL RELATIVELY NON-ENERGETIC SUBFLARES AND TWO ENERGETIC FLARES. THE MOST ENERGETIC EVENT WAS AN IMPORTANCE ONE-BRILLIANT CLASS XI FLARE THAT REACHED MAXIMUM AT 07/1011Z. A RADIO BURST OF 180 F.U. ABOVE BACKGROUND AT 2695 MHZ ACCCOMPANIED THIS EVENT. AN IMPORTANCE ONE-NORMAL CLASS M4 FLARE REACHED MAXIMUM AT 07/1223Z. THIS FLARE WAS RELATIVELY LONG-LIVED AND HAD SEVERAL MAXIMA. REGION 433 HAS CONTINUED ITS PATTERN OF GENERAL DECLINE, BUT THE MAGNETIC DELTA CONFIGURATION REMAINS IN THE TRAILING SECTION.

IB. A CONTINUED HIGH LEVEL OF SOLAR ACTIVITY IS EXPECTED. REGION 433 IS EXPECTED TO CONTINUE TO PRODUCE ENERGETIC FLARES. MAJOR FLARES ARE STILL LIKELY.

II. THE GEOMAGNETIC FIELD HAS BEEN UNSETLED DURING THE PAST EIGHT HOURS, DESPITE THE CONSIDERABLE RECENT FLARE ACTIVITY AND THE MAJOR GEOMAGNETIC STORM REPORTED IN SDF 187. UNSETLED TO MINOR STORM CONDITIONS ARE LIKELY DURING THE NEXT 24 HOURS, WITH MORE MINOR STORM ACTIVITY LIKELY THROUGH THE FORECAST PERIOD. DUE TO THE RECENT FLARE ACTIVITY, THERE IS STILL A CHANCE OF MAJOR GEOMAGNETIC STORM ACTIVITY DURING THE FORECAST PERIOD.

THE PROTON ENHANCEMENT REPORTED IN SDF 184, 185, 186, AND 187 HAS CONTINUED TO DECLINE ON SATELLITE PARTICLE COUNTERS. THERE IS STILL A SIGNIFICNAT CHANCE THAT FLARE ACTIVITY MAY CAUSE ANOTHER PARTICLE ENHANCEMENT AND POLAR CAP ABSORPTION EVENT.

III. EVENT PROBABILITIES 07-09 JULY

CLASS M 95/90/90

CLASS X 80/70/60

PROTON 60/50/50

PCAF IN PROGRESS-SEE PART II ABOVE

IV. OTTAWA 10.7 CM FLUX

OBSERVED 06 JULY 118

PREDICTED 07-09 JULY 120/118/115

90-DAY MEAN 06 J06 JULY 92

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 05 JULY 52

OBSERVED AFR/EST AP 06 JULY 116/130

PREDICTED AFR/AP 07-09 JULY 30/40 - 32/45 - 32/45

SOLTERWARN

SPAN

BT

HFUS BOU 072230

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, CO  
SDF NUMBER 188

JOINT AFGWC/SESC PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 07 JULY 1974

IA. SOLAR ACTIVITY HAS DECREASED DURING THE PAST 24 HOURS. THE MOST ENERGETIC EVENT REPORTED WAS AN IMPORTANCE ONE-BRILLIANT CLASS XI FLARE THAT OCCURRED IN REGION 433 (S12W56) AT 07/1011Z. A RADIO BURST OF 180 FLUX UNITS ABOVE BACKGROUND AT 2695 MHZ ACCCOMPANIED THIS FLARE. AN IMPORTANCE ONE-NORMAL CLASS M4 EVENT ALSO OCCURRED IN REGION 433 AT 07/1222Z. REGION 433 HAS CONTINUED TO DECAY. A DELTA CONFIGURATION STILL EXISTS IN THE TRAILING SECTION, BUT THE FIELD STRENGTHS OF THE SPOTS AND THE GRADIENTS BETWEEN THEM HAVE DECREASED. A SIGNIFICANT REDUCTION OF THE PENUMBRAL AREA OF THIS REGION HAS OCCURRED. THE H-ALPHA PLAGE STILL IS DYNAMIC, AND THE MAGNETIC NEUTRAL LINE THROUGH THE DELTA CONFIGURATION IS STILL CONTOURED. CONSIDERABLE RESTRUCTURING OF THIS REGION STILL WILL HAVE TO OCCUR BEFORE THE MAGNETIC FIELDS ARE RESOLVED INTO A SIMPLE BI-POLAR STRUCTURE. OTHER REGIONS ARE UNIMPRESSIVE.

IB. REGION 433 IS STILL BELIEVED TO BE CAPABLE OF PRODUCING SEVERAL SIGNIFICANT ENERGETIC FLARES. RESTRUCTURING AND CONTINUED DECAY OF THE REGION ARE EXPECTED TO PRODUCE SPORADIC FLARE ACTIVITY DURING THE THREE-DAY FORECAST PERIOD. MAJOR FLARE ACTIVITY STILL IS POSSIBLE.

II. THE GEOMAGNETIC FIELD HAS GRADUALLY BECOME QUIET DURING THE PAST 24 HOURS. ACTIVE CONDITIONS WERE OBSERVED EARLY TODAY, FOLLOWING THE MAJOR GEOMAGNETIC STORM REPORTED IN SDF 187. THIS RAPID QUIETING TREND WAS NOT ANTICIPATED. MINOR GEOMAGNETIC STORM CONDITIONS ARE STILL LIKELY DURING THE FORECAST PERIOD, DUE TO THE RECENT FLARE ACTIVITY. ADDITIONAL MAJOR FLARE ACTIVITY, IF IT OCCURS, MAY LEAD TO MORE MAJOR GEOMAGNETIC STORM ACTIVITY.

THE PROTON ENHANCEMENT REPORTED IN SDF 184, 185, 186, AND 187 GENERALLY HAS DECLINED. A SLIGHT RISE IN POLAR CAP ABSORPTION OCCURRED NEAR 07/1830Z, WHEN THE THULE 30 MHZ RIOMETER REACHED A MAXIMUM OF 1.3 DB. SATELLITE PARTICLE COUNTING RATES PRESENTLY ARE DECREASING.

III. EVENT PROBABILITIES 08 - 10 JULY

CLASS M 90/90/80

CLASS X 60/60/40

PROTON 40/30/30

PCAF IN PROGRESS-SEE PART II ABOVE

IV. OTTAWA 10.7 CM FLUX

OBSERVED 07 JULY 111

PREDICTED 08-10 JULY 115/110/100

90-DAY MEAN 07 JULY 92

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 06 JULY 116

ESTIMATED AFR/AP 07 JULY 13/15

PREDICTED AFR/AP 08-10 JULY 22/27 - 23/29 - 22/28

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