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HFUS 1 BOU 020600

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 153A

JOINT AFGWC/SESC SECONDARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 0600Z 02 JUNE 1974

IA. REGION 416 (S13E52) HAS PRODUCED A FEW NON-ENERGETIC SUBFLARES  
DURING THE PAST 24 HOURS. DURING THE PAST 8 HOURS ONE SUB-NORMAL  
FLARE HAS BEEN OBSERVED WHICH WAS A CLASS X-1 EVENT.

IB. A FEW CLASS C AND CLASS M FLARES ARE EXPECTED DURING THE NEXT  
24 HOURS. NO MAJOR ACTIVITY IS EXPECTED.

II. THE MINOR GEOMAGNETIC DISTURBANCE CONTINUES AT SUB-STORM LEVEL.  
IT IS EXPECTED TO REMAIN DISTURBED DURING THE NEXT 24 HOURS.

III. NO CHANGE.

IV. NO CHANGE.

V. NO CHANGE.

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HFUS 1 BOU 021400

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 153B

JOINT AFGWC/SESC SECONDARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 1400Z 02 JUNE 1974

IA. SOLAR ACTIVITY HAS REMAINED VERY LOW DURING THE PAST 8 HOURS,  
AND NO ENERGETIC ACTIVITY HAS BEEN REPORTED FOLLOWING THE SUB-  
BRILLIANT CLASS X-1 FLARE THAT OCCURRED IN REGION 416 AT 02/0420Z.  
THAT CLASS X-1 FLARE WAS ACCCOMPANIED BY A RADIO BURST OF ABOUT 360  
FLUX UNITS ABOVE BACKGROUND AT 2695 MHZ. REGION 416 HAS SHOWN  
LITTLE SIGNIFICANT CHANGE EXCEPT FOR THE EMERGENCE OF SPOTS OF  
PROBABLE FOLLOWING POLARITY NORTH OF THE MAIN LEADER. THIS REGION  
REMAINS COMPLEX AND DYNAMIC. A NEW REGION HAS BEEN REPORTED TO BE  
EMERGING NEAR S12E09.

IB. SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE, WITH REGION  
416 PRODUCING MOST OF THE ACTIVITY. SPORADIC ENERGETIC FLARES ARE  
LIKELY.

II. THE GEOMAGNETIC FIELD HAS BEEN ACTIVE DURING THE PAST 8 HOURS,  
WITH MAXIMUM DISTURBANCE MEASURED DURING THE PERIOD 02/0900-1200Z.  
CONTINUED ACTIVE CONDITIONS ARE EXPECTED, GRADUALLY BECOMING UNSETTLED  
DURING THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 02 JUNE - 04 JUNE

CLASS M 70/75/75

CLASS X 10/15/15

PROTON 02/02/03

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 01 JUNE 95

PREDICTED 02 JUNE - 04 JUNE 97/99/100

90-DAY MEAN 01 JUNE 86

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 31 MAY 22

ESTIMATED AFR/AP 01 JUNE 22/28

PREDICTED AFR/AP 02 JUNE - 04 JUNE 17/20 - 13/14 - 13/14

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HFUS 1 BOU 022215

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 153

JOINT AFGWC/SESC PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 02 JUNE 1974

IA. EXCEPT FOR A BRIEF CLASS X1 EVENT, SOLAR ACTIVITY HAS BEEN LOW DURING THE PAST 24 HOURS. THE CLASS X1 EVENT WAS CAUSED BY A SUB-BRILLIANT FLARE IN REGION 416 (S14E41). THIS FLARE BEGAN AT 02/0420Z, REACHED OPTICAL AND X-RAY MAXIMUM AT 0427Z, AND ENDED AT 0435Z. A RADIO BURST OF ABOUT 360 FLUX UNITS ABOVE BACKGROUND ACCOMPANIED THIS EVENT. NO OTHER SIGNIFICANT ENERGETIC FLARE ACTIVITY HAS BEEN REPORTED. REGION 416 PRESENTLY EXHIBITS A COMPLEX MAGNETIC CONFIGURATION, INCLUDING A KINKY H-ALPHA NEUTRAL LINE AND ISOLATED MAGNETIC POLES. MAGNETIC FIELD GRADIENTS DO NOT APPEAR ESPECIALLY STRONG NOW, AND THE SPOT GROUP IS BIPOLE, ACCORDING TO THE MT. WILSON OBSERVATORY. TWO SMALL SPOT GROUPS HAVE APPEARED AT S13E02 AND S10W01. THESE REGIONS ARE NUMBERED 417 AND 418, RESPECTIVELY. A LARGE, DARK FILAMENT THAT RUNS FROM ABOUT S26E27 TO S12E09 HAS BEEN VERY ACTIVE RECENTLY. THIS FILAMENT IS PART OF A PROMINENT SECTOR BOUNDARY.

IB. SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE, WITH REGION 416 PRODUCING SPORADIC ENERGETIC EVENTS DURING THE NEXT 3 DAYS. THE LARGE, DARK FILAMENT MENTIONED ABOVE MAY WELL DISAPPEAR OR, PERHAPS EVEN LEAD TO A FLARE.

II. THE GEOMAGNETIC FIELD HAS BEEN ACTIVE DURING THE PAST 24 HOURS. MAXIMUM DISTURBANCE (BOULDER K-INDEX OF 5) OCCURRED DURING THE INTERVAL 02/0900-1200Z. THE VELA SATELLITES AND THE NEW GOES GEO-STATIONARY SATELLITE HAVE OBSERVED APPARENT ENHANCEMENTS OF LOW-ENERGY PARTICLES DURING THE PAST 13 HOURS. GOES OBSERVED A RELATIVELY FAST INCREASE BEGINNING ABRUPTLY AT 02/0942Z. THIS PARTICLE INCREASE OCCURRED NEARLY SIMULTANEOUSLY WITH A MAGNETIC BAY OBSERVED AT BOULDER. NO SIGNIFICANT ENHANCEMENTS OF HIGH-ENERGY PARTICLES HAVE BEEN REPORTED RECENTLY. THE APPARENT ENHANCEMENTS OF LOW ENERGY PARTICLES ARE NOT BELIEVED RELATED TO THE CLASS X1 FLARE MENTIONED IN PART IA ABOVE. UNSETTLED GEOMAGNETIC CONDITIONS ARE EXPECTED DURING THE NEXT 72 HOURS, WITH MAXIMUM LEVELS OF DISTURBANCE LIKELY DURING LOCAL NIGHT.

III. EVENT PROBABILITIES 03-05 JUNE

CLASS M 75/75/75

CLASS X 10/10/10

PROTON 02/02/02

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 02 JUNE 97

PREDICTED 03-05 JUNE 99/100/101

90-DAY MEAN 02 JUNE 86

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 01 JUNE 25

ESTIMATED AFR/AP 02 JUNE 17/20

PREDICTED AFR/AP 03-05 JUNE 15/17-13/14-09/110

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