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HFUS 1 BOU 300600

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 365A

JOINT AESU/SESC SECONDARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 0600Z 30 DEC. 1972

IA. MODERATE X-RAY EVENTS WERE OBSERVED AT 29/1948Z /C7/ AND 30/0027Z /M1/ ACCCOMPANIED BY SMALL /10 TO 40 DEGREES/ SUDDEN PHASE ANOMALIES. SINCE OBSERVATORIES ARE PRESENTLY TROUBLED BY CLOUDS, NO ACTIVE REGION HAS BEEN POSITIVELY IDENTIFIED AS THE SOURCE OF THESE EVENTS. NO CENTIMETER WAVELENGTH RADIO BURSTS HAVE BEEN OBSERVED.

IB. NEW REGION 516 /S17W38/ HAS DEVELOPED INTO A D-CLASS SPOT GROUP SINCE ITS APPEARANCE YESTERDAY. IT IS ONLY MODERATELY INTENSE IN H-ALPHA BUT CONTAINS A VERY DARK IMBEDDED FILAMENT WHICH MAY BE ACTIVE. REGION 516 IS PRESENTLY THE MOST LIKELY SOURCE OF THESE MODERATE X-RAY EVENTS. WHATEVER THE SOURCE, THERE IS INCREASED LIKELIHOOD OF MORE SMALL M-CLASS X-RAY EVENTS. HOWEVER, NO LARGER EVENTS ARE EXPECTED.

II. NO CHANGE.

III. EVENT PROBABILITIES 30 DEC-01 JAN

CLASS M 35/35/35

CLASS X 01/01/01

PROTON 01/01/01

PCFC GREEN

IV. OTTAWA 10.7 CM FLUX - NO CHANGE.

V. GEOMAGNETIC A INDICES - NO CHANGE.

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HFUS 1 BOU 301300

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 365B

JOINT AESU/SESC SECONDARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 1300Z 30 DECEMBER 1972

IA. SOLAR ACTIVITY HAS INCREASED. THE FOLLOWING PRELIMINARY X-RAY EVENTS HAVE OCCURRED WITH NO COINCIDENT OPTICAL REPORTS; 29/1948Z (C7), 30/0027Z (M-1) AND 30/0801Z (C6). REGION 516 (S17W42) HAS SHOWN ONLY SLIGHT GROWTH THE PAST 15 HOURS AND REMAINS SIMPLE MAGNETICALLY. AN H-TYPE SPOT IS LOCATED AT N08E80 WITH PLAGE EXTENDING TO THE LIMB. SURGING EXTENDS FROM NE07 TO NE12, INDICATING MORE STRUCTURE REMAINS TO CROSS THE EAST LIMB. OSO-7, 9.1 CM (STANFORD) AND K-CORONAMETER (HAWAII) DATA FOR 29 DECEMBER ALL SHOW A MODERATELY STRONG LOW LEVEL CORONAL EMISSION. THE RE-ENFORCEMENT OF THE APPROACHING SECTOR, AS EXPERIENCED BY PIONEER 9, WOULD INDICATE PROBABLE ACTIVITY ON THE BACK-SIDE OF THE SUN BY THE APPROACHING REGION(S) ON THE NE LIMB.

IB. CLASS M ACTIVITY IS EXPECTED FROM THE NE REGION(S).

II. THE GEOMAGNETIC FIELD HAS BEEN UNSETLED. IT IS EXPECTED TO REMAIN UNSETLED FOR APPROXIMATELY 12-18 HOURS AND THEN BECOME QUIET FOR A SHORT DURATION PRIOR TO THE ARRIVAL OF A SECTOR BOUNDARY NEAR 01/0000Z, THEN BECOMING ACTIVE. THIS SECTOR HAS BEEN WEAK THE PAST TWO ROTATIONS. HOWEVER, PIONEER 9 (TWO DAYS EAST OF EARTH) IS EXPERIENCING VERY DISTURBED CONDITIONS.

III. EVENT PROBABILITIES 30 DEC - 01 JAN

CLASS M 50/60/60

CLASS X 01/02/05

PROTON 01/02/03

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 29 DEC 98

PREDICTED 30 DEC - 01 JAN 100/105/110

90-DAY MEAN 29 DEC 110

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 28 DEC 02

ESTIMATED 29 DEC 10

PREDICTED 30 DEC - 01 JAN 09/06/16

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HFUS BOU 302200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 365

JOINT AESU/SESC PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 30 DEC 1972

IA. SOLAR ACTIVITY HAS INCREASED TO A MODERATE LEVEL AS A NEW REGION /NUMBER 517 AT N12E78/ HAS ROTATED ONTO THE VISIBLE DISK. THIS REGION HAS BEEN PRODUCING FREQUENT CLASS C EVENTS AND A CLASS M-1 AT 30/0022Z WHICH WAS RECORDED BY THE VELA SATELLITE. THE SPOT GROUP ASSOCIATED WITH THIS REGION IS OF MODERATE SIZE, BUT LIMB PROXIMITY PREVENTS DETERMINATION OF ITS MAGNETIC COMPLEXITY. REGION 516 /S16W40/ IS INACTIVE.

IB. CLASS C ACTIVITY AND AN OCCASIONAL SMALL CLASS M EVENT CAN BE EXPECTED DURING THE NEXT 72 HOURS. IONOSPHERIC EFFECTS FROM THESE EVENTS SHOULD BE SMALL AND SHORT-LIVED. A MODERATE CLASS M EVENT WITH IONOSPHERIC EFFECTS LASTING UP TO 30 MINUTES IS POSSIBLE.

II. A SMALL ENHANCEMENT IN THE 5-21 MEV PROTONS WAS OBSERVED BY ATS-1 BEGINNING AT 30/2040Z. THIS ENHANCEMENT IS NOT EXPECTED TO BECOME LARGE ENOUGH TO PRODUCE A PCA. THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED. PIONEER 9 INDICATES THAT SOLAR WIND SPEEDS IN THE VICINITY OF THE EARTH WILL BE BETWEEN 450 AND 500 KM/SEC DURING THE NEXT 48 HOURS. THIS SHOULD LEAD TO UNSETTLED GEOMAGNETIC CONDITIONS DURING THIS PERIOD.

III. EVENT PROBABILITIES 31 DEC -02 JAN

CLASS M 50/50/50

CLASS X 05/05/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30 DEC 96

PREDICTED 31 DEC -02 JAN 97/99/101

90-DAY MEAN 31 DEC - 110

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 29 DEC 09

ESTIMATED 30 DEC 12

PREDICTED 31 DEC -02 JAN 10/14/08

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