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HFUS 1 BOU 310601

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 305A

JOINT AESC/SESC SECONDARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 0600Z 31 OCTOBER 1972

IA. ATS-1 SATELLITE PROTON READOUTS ARE 5-21 MEV 458 P/CM2/SEC, AND
21-70 MEV 23 P/CM2/SEC. REGION 460 (S13W13) CONTINUES AS A POTENTIAL
FOR MAJOR ACTIVITY.

IB. NO CHANGE.

II. THE GEOMAGNETIC FIELD HAS REMAINED QUIET.

III. EVENT PROBABILITIES NO CHANGE.

IV. OTTAWA 10.7 CM FLUX NO CHANGE.

V. GEOMAGNETIC A INDICES NO CHANGE.

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HFUS 1 BOU 311300

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 305B

JOINT AESC/SESC SECONDARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 1300Z OCTOBER 31 1972

IA. REGION 460 (S12W21) IS THE ONLY ACTIVE REGION ON THE DISK AND REMAINS COMPLEX IN ALL PARAMETERS. NINE SUBFLARES AND TWO ONE-BRIGHT FLARES (30/1655Z AND 31/0506Z) HAVE BEEN REPORTED IN THE PAST 24 HOURS, SOME WITH MINOR IONOSPHERIC EVENTS AND RADIO BURSTS. THE PARTICLE ENHANCEMENT CONTINUES, WITH RATES AT ~~500~~⁵⁰⁰ AND 15 TIMES BACKGROUND AT 5-21 MEV AND 21-70 MEV RESPECTIVELY. A DECREASE IN THE DEEP RIVER NEUTRON COUNT BEGINNING AROUND 31/0800Z HAS NOW REACHED APPROXIMATELY 02 PERCENT BELOW BACKGROUND.

IB. MINOR AND MEDIUM ACTIVITY FROM REGION 460 WILL CONTINUE FOR THE NEXT 72 HOURS, AND ENERGETIC ACTIVITY IS ALSO EXPECTED. POTENTIAL FOR MARKED GEOPHYSICAL EFFECTS INCREASES AS THE REGION MOVES FURTHER INTO THE WESTERN HEMISPHERE. THE APPARENT FORBUSH DECREASE NOW IN PROGRESS MAY LEAD PARTICLE ARRIVAL BY 24-48 HOURS. II. THE GEOMAGNETIC FIELD BECAME QUIET AT 30/2300Z AND REMAINS SO. ACTIVE PERIODS ARE EXPECTED IN THE NEXT 72 HOURS IN ASSOCIATION WITH REGION 460 ACTIVITY.

III. EVENT PROBABILITIES 31 OCT -02 NOV

CLASS M 90/90/90

CLASS X 30/30/30

PROTON 25/25/25

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30/1400Z 147

PREDICTED 31 OCT-02 NOV 145/142/138

90-DAY MEAN 30 OCT 121

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 29 OCT 21

ESTIMATED 30 OCT 17

PREDICTED 31 OCT -02 NOV 10/14/18

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FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 305

JOINT AESC/SESC PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 31 OCTOBER 1972

IA. REGION 460 /SIOW27/ PRODUCED AN IMPORTANCE IB CLASS XI
EVENT AT 31/0425Z. STRONG SHORTWAVE FADEOUTS OF UP TO 45
MINUTES DURATION WERE REPORTED. THE RADIO EMISSION AT CENTI-
METRIC WAVELENGTHS WAS LESS THAN 150 FLUX UNITS AT ALL FRE-
QUENCIES REPORTED SO FAR. REGION 460 SHOWS SIGNS OF SLOW DECAY
BUT IS JUDGED TO RETAIN ITS POTENTIAL FOR ENERGETIC ACTIVITY.
THE FLUX OF 21-70 MEV PARTICLES AT ATS-1 HAS DECAYED TO ABOUT
2 TIMES THE PRE-EVENT LEVEL. THE 5-21 MEV FLUX IS STILL ABOUT
400 TIMES THE PRE-EVENT LEVEL. THIS LOWER ENERGY FLUX DID
INCREASE SHARPLY TO 8000 TIMES BACKGROUND IN TIME COINCIDENCE
WITH A GEOMAGNETIC SUDDEN COMMENCEMENT AT 31/1658Z, AND THEN IT
GRADUALLY DECAYED BACK TO THE PRE-SUDDEN COMMENCEMENT LEVEL.

IB. ENERGETIC EVENTS UP TO CLASS X ARE EXPECTED FROM REGION 460.
MAJOR EVENTS ARE POSSIBLE.

II. THE GEOMAGNETIC FIELD HAS BEEN DISTURBED TO STORM INTENSITY
SINCE A SUDDEN COMMENCEMENT AT 31/1658Z. STORM CONDITIONS ARE
EXPECTED TO CONTINUE FOR 24 HOURS. POLAR CAP ABSORPTION OF 1.5
TO 2 DB HAS BEEN OBSERVED SINCE 31/1400Z WITH A PEAK OF 3.3 DB
AT 31/1720Z. ABSORPTION OF 0.5 TO 1.5 DB IS EXPECTED FOR THE
NEXT 24 HOURS.

III. EVENT PROBABILITIES 01 NOV - 03 NOV.

CLASS M 90/90/85

CLASS X 30/30/25

PROTON 25/25/25

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX.

OBSERVED 31 OCT 146

PREDICTED 01 NOV - 03 NOV 142/138/135

90-DAY MEAN 31 OCT 121

V. GEOMAGNETIC A INDICES.

OBSERVED FREDERICKSBURG 30 OCT 15

ESTIMATED 31 OCT 25

PREDICTED 01 NOV - 03 NOV 30/18/10

SOLTERWARN

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