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HOUS 2 BOU 300200

JOINT AESU/SESC SOLAR REGION AND ACTIVITY SUMMARY ISSUED AT
30/0200Z APRIL 1973

I. SUNSPOT DATA FROM CANARY ISLANDS AT 29/0700Z

NMBR LOCATION LO AREA Z LL NN MAG-TYPE

0082 N10W67 149 1080 D 09 18 BETA-GAMMA/DELTA

0085 S07W10 092 0090 D 04 17 BETA-GAMMA

0087 S02W07 089 0030 C 05 05 BETA

0089 S12W05 087 0030 C 04 03 BETA

0091 S07W14 096 0020 C 03 02 BETA

NOTE- SPOT POLARITIES INFERRED AT CANARIES.

II. IMPORTANCE ONE OR GREATER FLARES AND ENERGETIC EVENTS-

RGN IMP BEGIN MAX END CLASS

082 0N 29/0136Z 0136Z 0159Z M-1S

082 1B 29/0415Z 0419Z 0421Z S

082 0B 29/0628Z 0630Z 0718Z M-5S

082 1N 29/1001Z 1003Z 1130Z M-9S

082 0N 29/1840Z 1842Z 1853Z M-3S

082 2B 29/2055Z 2101Z 2238Z X-9-S

III. AREAS OF SPECIAL INTEREST-

REGION 082 IS LARGE & COMPLEX, AND (ALONG WITH REGION 085) IS
CAPABLE OF ENERGETIC ACTIVITY. THE EAST LIMB SHOWS SIGNS OF
ACTIVITY AT ABOUT S10 AND A NEW REGION MAY BE APPEARING WITHIN
THE NEXT DAY OR TWO.

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HFUS 1 BOU 300600

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 120A

JOINT AESU/SESC SECONDARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 0600Z 30 APRIL 1973

IA. FLARE ACTIVITY HAS BEEN LOW SINCE THE LARGE FLARE OF 29/2055Z.
SEVERAL LIMB EVENTS HAVE BEEN OBSERVED WEST OF THE REGION 082
(N10W80).

IB. NO CHANGE

II. THE MINOR GEOMAGNETIC DISTURBANCE CONTINUES. THE PROTON LEVELS
FROM SATELLITE READOUTS APPEAR TO HAVE REACHED MAXIMUM BETWEEN
30/0400-0500Z.

III. NO CHANGE

IV. NO CHANGE

V. NO CHANGE

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HFUS 1 BOU 301300

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 120B

JOINT AESU/SESC SECONDARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 1300Z 30 APRIL 1973

IA. SOLAR ACTIVITY HAS BEEN MODERATE. REGION 085 (S07W25) PRODUCED
A 1B FLARE AT 30/0555Z WITH ASSOCIATED SHORT WAVE FADES. REGION
082 (N10W82) HAS PRODUCED ONLY ONE SUBFLARE IN THE PAST 12 HOURS
BUT REMAINS COMPLEX.

IB. ENERGETIC EVENTS UP TO CLASS X ARE EXPECTED FROM REGION 082
DURING THE NEXT 72 HOURS. SURGES NEAR SE11 INDICATE THE POSSIBLE
RETURN OF OLD REGION 077.

II. THE GEOMAGNETIC FIELD HAS BEEN DISTURBED TO MINOR STORM INTENSITY
DURING THE PAST 36 HOURS AND IS EXPECTED TO BE ACTIVE ON 30 APRIL.
A GEOMAGNETIC STORM DUE TO SOLAR ACTIVITY IS EXPECTED TO BEGIN BY
02/0000Z. A NEAR EARTH PROTON ENHANCEMENT IS IN PROGRESS. PROTON
LEVELS ON ATS-1 REACHED MAXIMUM BETWEEN 30/0400-0500Z AND ARE NOW
DECLINING. SIGNIFICANT POLAR CAP ABSORPTION IS EXPECTED 30 APRIL -
02 MAY.

III. EVENT PROBABILITIES 30 APR - 02 MAY

CLASS M 85/85/80

CLASS X 15/15/10

PROTON 100/05/05

PCAF RED

IV. OTTAWA 10.7 CM FLUX

OBSERVED 29 APR 109

PREDICTED 30 APR - 02 MAY 109/109/108

90-DAY MEAN 29 APR 102

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 28 APR 19

ESTIMATED 29 APR 29

PREDICTED 30 APR - 02 MAY 22/25/45

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HFUS 1 BOU 301300

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 120B

JOINT AESU/SESC SECONDARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 1300Z 30 APRIL 1973

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IV. OTTAWA 10.7 CM FLUX

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V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 28 APR 19

ESTIMATED 29 APR 29

PREDICTED 30 APR - 02 MAY 22/25/45

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HFUS 2 BOU 301800

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

JOINT AESU/SESC EXTENDED PERIOD REPORT ISSUED AT 1800Z 30 APRIL 1973

THIS MESSAGE IN THREE PARTS.

PART I. THIS FORECAST ISSUED AT 1800Z EACH MONDAY IS VALID FOR A 27 DAY PERIOD. A 27-DAY MEAN VALUE OF 2800 MHZ FLUX DENSITY IS GIVEN WITH THE INCLUSIVE DATES OF EXPECTED SIGNIFICANT DEVIATIONS FROM THE MEAN. SEE 02 APRIL FORECAST FOR DEFINITIONS.

PART II. 27-DAY 2800 MHZ FLUX DENSITY FORECAST:

A. MEAN 102

B. SIGNIFICANT DEVIATIONS: NONE

PART III. 27-DAY SOLAR EVENT FORECAST:

A. CLASS M SOLAR EVENTS SIX TO TEN

CLASS X SOLAR EVENTS NONE OR ONE

B. EXPECT MOST ACTIVITY:

01-07 MAY

15-19 MAY

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HFUS BOU 302200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 120

JOINT AESU/SESC PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 30 APRIL 1973

IA. THE MAJOR SOLAR FLARE AT 29/2055Z FROM REGION 082 (N10W87) HAS BEEN RECLASSIFIED AS OPTICAL IMPORTANCE 2B. THE X-RAY CLASS WAS GREATER THAN X9. SOLAR ACTIVITY HAS BEEN MODERATE SINCE THIS EVENT. REGION 082 HAS PRODUCED A FEW SUBFLARES AND AN IMPORTANCE 1B FLARE OF X-RAY CLASS M2 OR GREATER AT 30/1725Z. REGION 085 (S02W30) HAS PRODUCED A FEW SUBFLARES AND AN IMPORTANCE 1B CLASS M4 EVENT AT 30/0551Z. BOTH CLASS M EVENTS PRODUCED SHORT WAVE FADEOUTS. REGION 092 (S02W30) THE PROBABLE RETURN OF REGION 077, HAS PRODUCED 3 SUBFLARES.

IB. ALTHOUGH REGION 082 WILL SOON BE CROSSING THE WEST LIMB, IT IS JUDGED CAPABLE OF PRODUCING ENERGETIC ACTIVITY WITH EFFECTS OBSERVABLE AT EARTH FOR THE NEXT 48 HOURS. ADDITIONAL CLASS M EVENTS ARE POSSIBLE FROM REGION 085. NO SPOTS HAVE YET BEEN OBSERVED IN REGION 092 AND ITS STAGE OF EVOLUTION AND POTENTIAL CANNOT BE EVALUATED.

II. THE GEOMAGNETIC FIELD HAS BEEN SLIGHTLY ACTIVE. THE NEAR-EARTH PROTON ENHANCEMENT FOLLOWING THE 29/2055Z FLARE HAS BEEN MINOR. THE PEAK 21-70 MEV FLUX OCCURRED AT ABOUT 30/0300Z AND WAS ONLY ABOUT 100 TIMES BACKGROUND. THE 5-21 MEV FLUX DID NOT EXCEED 30 TIMES BACKGROUND. PROTON FLUXES ARE NOW DECAYING. THE THULE 30 MHZ RIOMETER OBSERVED SLIGHTLY MORE THAN 1 DB EARLY ON 30 APRIL AND ABOUT 0.5 DB SINCE. THE NEAR-EARTH PROTON FLUX IS EXPECTED TO DECAY STEADILY AND NO SIGNIFICANT PCA IS NOW EXPECTED. A WEAK GEOMAGNETIC SUDDEN COMMENCEMENT IS POSSIBLE AT ABOUT 01/2100Z BUT THE SUBSEQUENT DISTURBANCE IS NOW EXPECTED TO BE MINOR.

III. EVENT PROBABILITIES 01 MAY - 03 MAY.

CLASS M 80/80/75

CLASS X 15/10/05

PROTON 15/10/05

PCAF YELLOW

IM. OTTAWA IPPMU CM FLUX.

OBSERVED 30 APR 107

PREDICTED 01 MAY - 03 MAY 105/104/103

90-DAY MEAN 30 APR 102

V. GEOMAGNETIC A INDICES.

OBSERVED FREDERICKSBURG 29 APR 36

ESTIMATED 30 APR 15

PREDICTED 01 MAY - 03 MAY 12/13/12

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