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HFUS 1 BOU 180600

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 108A

JOINT AFGWC/SESC SECONDARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 0600Z 18 APRIL 1974

IA. SOLAR ACTIVITY HAS BEEN LOW TO MODERATE DURING THE PAST 12 HOURS. THE LARGEST EVENT WAS AN M1/SN AT 2321Z FROM REGION 379 WITH AN IMP 1 SWF. ALSO, IMP 2 SID'S WERE REPORTED FROM 0030Z TO 0115Z WITH A SMALL CENTIMETRIC BURST. NO OPTICAL COUNTERPART HAS BEEN REPORTED AND NO X-RAY DATA IS CURRENTLY AVAILABLE. NUMEROUS SURGES, OCCASIONAL LIMB FLARES AND A SMALL LOOP PROMINENCE HAVE BEEN REPORTED WITH REGIONS 383/375 ON THE WEST LIMB. NUMEROUS DEKAMETRIC TYPE III BURSTS, SINGLY AND IN GROUPS, HAVE OCCURRED DURING THE PAST 12 HOURS. CULGOORA REPORTS THE SOURCE OF THE BURSTS IN THE SOUTHWEST. REGION 379 (S13W76) REMAINS COMPLEX, BUT GRADIENTS ARE WEAKENING AS REGION APPEARS TO BE SIMPLIFYING. REGION 384 (S13W32) AND NEW REGION 386 (N02W11) CONTINUE TO GROW WITH ARCH FILAMENT SYSTEMS PRESENT.

IB. SOLAR ACTIVITY IS EXPECTED TO REMAIN LOW TO MODERATE WITH OCCASIONAL CLASS M EVENTS FOR THE NEXT 36 HOURS. A SMALL PROTON EVENT IS POSSIBLE DURING THE FORECAST PERIOD.

II. THE GEOMAGNETIC FIELD HAD BEEN QUIET, BECOMING MODERATELY ACTIVE AFTER 0230Z. THE THULE Z-TRACE FOR 17 APRIL INDICATES MIXED POLARITIES IN THE INTERPLANETARY MEDIUM. MAGSTORM CONDITIONS ARE LIKELY FOR THE NEXT 24-48 HOURS.

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 181400

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 108B

JOINT AFGWC/SESC SECONDARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 1400Z 18 APRIL 1974

IA. SOLAR ACTIVITY HAS AGAIN INCREASED TO A MODERATE LEVEL WITH
5 M CLASS X RAY EVENTS MEASURED BY VELA SINCE 17/2300Z. TWO OF
THESE EVENTS, INCLUDING AN M4 EVENT AT 18/0037Z, DID NOT CORRESPOND
TO ANY KNOWN OPTICAL EVENTS, BUT WEATHER AT SOLAR OBSERVATORIES
AGAIN PREVENTED CONTINUOUS PATROL. REGIONS 376/383 (S10W90)
CONTINUED TO PRODUCE SURGES AND A FEW LIMB FLARES. A BSL AT
SW13 WAS ACCCOMPANIED BY AN M1 X RAY EVENT AT 18/1155Z. REGION
379 (S13W81) HAS SHOWN SOME APPARENT SPOT DECAY, BUT PRODUCED AN
M1 X RAY EVENT AT 17/2332Z. REGION 384 (S13W37) HAS
GROWN RAPIDLY OVERNIGHT AND IS NOW THE BRIGHTEST FEATURE ON THE DISK.
THIS REGION CONTAINS A D TYPE SPOT GROUP AND AN ARCH FILAMENT
SYSTEM. A ØN FLARE FROM THIS REGION AT 18/0609Z WAS ACCOMPANIED
BY AN M1 X RAY EVENT. NEARBY, REGION 385 (S09W33) ALSO CONTAINS
AN ARCH FILAMENT SYSTEM AND APPEARS TO BE GROWING.

IB. CONTINUED GROWTH IN REGION 384 ALONG WITH POSSIBLE INTERACTION
WITH REGION 385 SHOULD RESULT IN ADDITIONAL ENERGETIC ACTIVITY FORM
THIS REGION. ADDITIONAL CLASS M FLARES ARE LIKELY FORM REGION
379, WITH A CONTINUING THREAT OF A PROTON EVENT FROM THIS REGION
OR DEPARTING REGIONS 375/383.

II. A MINOR GEOMAGNETIC STORM BEGAN AT 18/03Z WITH K VALUES OF
5, 6, AND 6 OBSERVED BETWEEN 03Z AND 12Z. MINOR STORM
CONDITIONS SHOULD CONTINUE THROUGH THE FORECAST PERIOD.

III. EVENT PROBABILITIES 18 APRIL - 20 APRIL

CLASS M 85/80/80

CLASS X 25/20/20

PROTON 20/20/20

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 17 APRIL 101

PREDICTED 18 APRIL - 20 APRIL 95/90/85

90-DAY MEAN 17 APRIL 82

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 16 APRIL 02

ESTIMATED AFR/AP 17 APRIL 03/04

PREDICTED AFR/AP 18 APRIL - 20 APRIL 35/51 - 30/42 - 30/42

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HFUS BOU 182200*
FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO
SDF NUMBER 108
JOINT AFGWC/SESC PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 18 APRIL 1974

IA. SOLAR ACTIVITY HAS BEEN MODERATE THE PAST 24 HOURS. A TOTAL OF 7 M EVENTS HAVE BEEN REPORTED: M1 AT 180606Z (ØN, REGION 384), 0904Z, 1138Z; M2 AT 172321Z (ØN, REGION 379), M3 AT 181845Z, M4 AT 180029Z AND M8 AT 1956Z. MOST WERE APPARENTLY ASSOCIATED WITH REGIONS 379 (S13W85) - 375 (S13W105) AS THEY CROSS THE WEST LIMB. REGION 384 (S13W43) HAS SHOWN SIGNIFICANT DEVELOPMENT IN THE PAST 24 HOURS, PRODUCING 6 ØN FLARES, BUT HAS NOW STABILIZED. SEVERAL TYPE III DEKAMETRIC BURSTS HAVE OCCURRED BUT NO REPORTED OPTICAL EVENTS COINCIDED WITH THEM. SEVERAL OF THE ABOVE M EVENTS ALSO HAD MODERATE SPA AND SWF EVENTS.

IB. SOLAR ACTIVITY SHOULD GRADUALLY DIMINISH AS REGIONS 379-375 ROTATE OFF THE DISK, BUT THERE IS STILL A GOOD CHANCE OF AN X EVENT AND/OR PROTON EVENT FROM THESE REGIONS FOR AT LEAST THE NEXT 24 HOURS.

II. A MINOR GEOMAGNETIC STORM BEGAN AT 18/03Z WITH K VALUES AS HIGH AS SIX. MINOR STORM CONDITIONS DURING LOCAL NIGHTTIME AND ACTIVE CONDITIONS DURING LOCAL DAYLIGHT SHOULD CONTINUE THROUGHOUT THIS FORECAST PERIOD.

III. EVENT PROBABILITIES 19 - 21 APRIL

CLASS M 80/50/20

CLASS X 25/10/03

PROTON 25/10/03

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 APRIL 97

PREDICTED 19 - 21 APRIL 92/86/84

90-DAY MEAN 18 APRIL 82

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 17 APRIL 04

ESTIMATED AFR/AP 18 APRIL 25/35

PREDICTED AFR/AP 19 - 21 APRIL 30/42 - 25/33 - 25/33

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