

HFUS3 BOU 212200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 111

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 21 APR 1985

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 20/2100
TO 21/2100Z: SOLAR ACTIVITY WAS VERY LOW. REGION 4647 (N05E59)
PRODUCED SEVERAL SUB-FLARES WITH ASSOCIATED B-LEVEL X-RAY
EVENTS IN ADDITION TO A C2/0B EVENT AT 21/1624Z. IT DEVELOPED
INTO A DRI CLASSIFICATION IN WHITE-LIGHT WITH 16 SPOTS. AN AREA
OF 60 MILLIONTHS, AND AN EXTENT OF SEVEN DEGREES LONGITUDE. IT
REMAINED A BETA-TYPE BUT PRODUCED A STRONG ARCHED FILAMENT
SYSTEM, DARK SURGES AND AN ACTIVE DARK FILAMENT. REGION 4646
(S07E24) DECAYED TO A SPOTLESS AREA WITHOUT ANY SIGNIFICANT
ACTIVITY. NO NEW REGION WAS ASSIGNED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
VERY LOW.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 20/2100Z TO 21/2100Z:
GEOMAGNETIC ACTIVITY WAS AT MINOR TO MAJOR STORM LEVELS. THIS
DISTURBANCE WAS POSSIBLY DUE TO SEVERAL SMALL DISAPPEARING
FILAMENTS OF 14-16 APR ONLY BY THE FACT THAT NO OBSERVATIONS OF
EITHER FLARE NOR CORONAL HOLE WERE OBSERVED IN THE PAST TWO TO
EIGHT DAYS. A SOLAR SECTOR BOUNDARY PASSAGE OF 17 APR AND AGAIN
18 APR MAY HAVE ALSO CONTRIBUTED. BRIEF SEVERE STORM LEVELS
(A-INDEX EQUAL TO OR GREATER THAN 100) OCCURRED AT 21/0300 AND
0900Z AT BOTH MID AND HIGH LATITUDE LOCATIONS.

IIIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS
EXPECTED TO BE AT ACTIVE TO MINOR STORM LEVELS THE FIRST DAY
(22 APR) AS THE CURRENT DISTURBANCE SUBSIDES. THE SECOND AND
THIRD DAYS (23-24 APR) ARE EXPECTED TO RE-STABILIZE AT UNSETTLED
TO ACTIVE LEVELS.

III. EVENT PROBABILITIES 22 APR-24 APR

CLASS M 01/01/01

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 21 APR 077

PREDICTED 22 APR-24 APR 081/082/083

90 DAY MEAN 21 APR 073

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 20 APR 044/063

ESTIMATED AFR/AP 21 APR 080/120

PREDICTED AFR/AP 22 APR-24 APR 025/030-014/020-013/020

SOLTERWARN

BT