

HFUS 3 BOU 242200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 024

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 24 JAN 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 23/2100
TO 24/2100Z: THE SOLAR ACTIVITY HAS BEEN AT A LOW LEVEL DURING
THE PAST 24 HOUR PERIOD. REGION 4399 (N13E61) HAS GROWN TO 880
MILLIONTHS IN AREA AND A CLASSIFICATION OF "DKC" WITH A
BETA/DELTA-TYPE MAGNETIC CONFIGURATION. THIS REGION PRODUCED 7
SUB-FLARES WITH 3 ASSOCIATED LOW RANGE CLASS "C" X-RAY EVENTS.
REGION 4398 (N16E38) HAS GROWN TO 490 MILLIONTHS IN AREA AND A
"DKI" CLASSIFICATION AND A BETA/GAMMA/DELTA-TYPE MAGNETIC
CONFIGURATION. IT PRODUCED 5 SUB-FLARES WITH ASSOCIATED LOW
RANGE CLASS "C" X-RAY EVENTS. IT HAD AN ACTIVE DARK FILAMENT IN
PROGRESS LATE IN THE PERIOD. 1 NEW REGION WAS ASSIGNED. REGION
4400 (N08E46) WAS A SIMPLE "AXX" CLASSIFICATION.

FILAMENT

IB. SOLAR ACTIVITY FORECAST: THE SOLAR ACTIVITY IS EXPECTED TO
BE AT A MODERATE LEVEL THROUGHOUT THE FORECAST PERIOD. REGIONS
4399/4398 PROVIDE A VERY SLIGHT CHANCE OF HIGH LEVEL ACTIVITY
DUE TO THEIR COMPLEX MAGNETIC CONFIGURATION AND SIZE.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 23/2100Z TO 24/2100Z:
THE GEOMAGNETIC ACTIVITY HAS BEEN AT AN UNSETTLED LEVEL DURING
THE PAST 24 HOUR PERIOD. VERY BRIEF PERIODS OF ACTIVE LEVELS
AND 1 PERIOD OF STORM LEVEL ACTIVITY WERE RECORDED AT HIGH
LATITUDE SITES. OVERALL, THIS WAS SLIGHTLY BELOW THE RECURRENCE
VALUE AND SLIGHT ENHANCEMENT PREDICTED DUE TO THE CORONAL HOLE
PASSAGE OF CENTRAL MERIDIAN ON THE 20/21ST OF JANUARY.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC ACTIVITY IS
EXPECTED TO BE AT ACTIVE LEVEL THROUGHOUT THE FORECAST PERIOD.
THIS IS BASED ON AN COMBINATION OF RECURRENCE, DELAYED CORONAL
HOLE ENHANCEMENT, AND SLIGHT CONTRIBUTION OF THE INCREASED
SOLAR ACTIVITY DURING THE PAST 3 DAYS. BRIEF PERIODS OF STORM
LEVEL ACTIVITY IS POSSIBLE DURING NIGHT-TIME PERIODS AT MID AND
HIGH LATITUDE SITES.

III. EVENT PROBABILITIES 25 JAN-27 JAN

~~CLASS M 60/60/60~~

CLASS X 05/05/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 24 JAN 133

PREDICTED 25 JAN-27 JAN 137/142/145

90 DAY MEAN 24 JAN 095

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 23 JAN 005/007

ESTIMATED AFR/AP 24 JAN 011/010

PREDICTED AFR/AP 25 JAN-27 JAN 015/020-015/020-015/020

SOLTERWARN

BT