

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.

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

FILAMENT