

HFUS 1 BOU 2222 00

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, COLO

SDF NUMBER 022

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 22 JANUARY 1980

IA. SOLAR ACTIVITY HAS BEEN LOW. REGION 2247 (S14W12) HAS SHOWN CONSIDERABLE GROWTH IN NUMBER OF SPOTS AND AREA SOUTH OF THE H-TYPE SPOT THAT HAD PREVIOUSLY BEEN IDENTIFIED AS 2247. THIS NEW GROWTH MAY POSSIBLY BE NEW EMERGENCE IN THE OLDER FIELDS OF REGION 2247; HOWEVER, WE WILL CONSIDER THIS AREA AS ONE REGION FOR CONTINUITY PURPOSES. REGION 2247 APPEARS TO BE STILL A SIMPLE BETA MAGNETIC CLASS D-TYPE GROUP, BUT IT HAS HAD SEVERAL C-CLASS X-RAY FLARES DURING THE PERIOD. THE OTHER REGIONS HAVE APPEARED STABLE DURING THE LAST 24 HOURS.

IB. SOLAR ACTIVITY IS FORECAST TO REMAIN LOW DURING THE NEXT 24 HOURS. HOWEVER, WITH THE CONTINUED GROWTH OF REGION 2247, THE POTENTIAL FOR MODERATE - CLASS X-RAY FLARES COULD INCREASE.

II. THE GEOMAGNETIC FIELD WAS AT QUIET LEVELS DURING THE PAST PERIOD. THE FIELD IS EXPECTED TO INCREASE TO UNSETTLED LEVELS IN THE NEXT 24 HOURS. THIS FORECAST INCREASE IS SUPPORTED BY RECURRENCE SEEN DURING THE LAST SEVERAL ROTATIONS. A HIGH LATITUDE CORONAL HOLE PASSING THE SOLAR CENTRAL MERIDIAN AND A SOLAR SECTOR BOUNDARY PASSAGE MAY CONTRIBUTE TO THE HIGHER LEVELS.

III. EVENT PROBABILITIES 23-25 JANUARY

CLASS M 30/30/35

CLASS X 01/05/05

PROTON 01/01/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 22 JANUARY 165

PREDICTED 23-25 JANUARY 168/171/178

90-DAY MEAN 22 JANUARY 217

V. GEOMAGNETIC INDICES

OBSERVED FREDERICKSBURG 21 JANUARY 05

ESTIMATED AFR/AP 22 JANUARY 05/07

PREDICTED AFR/AP 23-25 JANUARY 10/10-12/12-15/15

SOLTERWARN

BT