

HFUS3 BOU 202200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 020

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 20 JAN 1985

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 19/2100Z TO 20/2100Z: SOLAR ACTIVITY WAS AT A VERY LOW LEVEL DURING THE PAST 24 HOURS. REGION 4617 (S10W25) HAS PROPELLED ITSELF INTO POSITION OF BEING THE DOMINANT FEATURE ON THE VISIBLE DISK. THE 24 HOUR GROWTH IN 4617 HAS BEEN NOTHING SHORT OF SENSATIONAL. ITS E TYPE SPOT GROUP IS OF MODERATE SIZE AND THE PENUMBRA THROUGHOUT THE GROUP IS WELL DEVELOPED. THE KITT PEAK MAGNETOGRAM EXHIBITS A WIDE COMPLEX FIELD OF MAGNETIC PATTERNS WITHIN 4617 AND THE H ALPHA PLAGE IS BRIGHT, COMPACT AND WELL STRUCTURED. REGION 4618 (N05E29) HAS ALSO SHOWN SIGNIFICANT GROWTH BUT NOTHING LIKE THAT OF 4617. REGION 4616 (S07W07) IS NEARING COMPLETION OF A QUIET WEST LIMB PASSAGE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO INCREASE SLIGHTLY WITH M LEVEL ACTIVITY BECOMING A DEFINITE POSSIBILITY.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 19/2100Z TO 20/2100Z: THE GEOMAGNETIC FIELD WAS QUIET TO UNSETTLED.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT QUIET TO UNSETTLED LEVELS FOR ANOTHER 24 HOURS. FILAMENT DISRUPTIONS ON 19 AND 20 JAN MAY BE REFLECTED IN THE FIELD STARTING ON 22 JAN.

III. EVENT PROBABILITIES 21 JAN-23 JAN

CLASS M 50/50/50

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 JAN 091

PREDICTED 21 JAN-23 JAN 091/092/092

90 DAY MEAN 20 JAN 075

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 19 JAN 006/009

ESTIMATED AFR/AP 20 JAN 008/010

PREDICTED AFR/AP 21 JAN-23 JAN 007/010-012/020-015/020

SOLTERWARN

BT