

HFUS 3 BOU 152200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 135

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 15 MAY 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 14/2100 TO 15/2100Z: SOLAR ACTIVITY WAS HIGH THIS PERIOD DUE TO A X2/2B EVENT FROM 4173 (S11W88) AT 0837UT. THE "X" EVENT WAS ACCCOMPANIED WITH STRONG RADIO, 4000 FLUX UNITS AT 2695MHZ, HOWEVER NO TYPE II/IV SWEEPS WERE OBSERVED. REGION 4173 ALSO PRODUCED A M2/SN EVENT AT 0637UT, ONLY MINOR RADIO WAS RECORDED WITH THIS EVENT. REGION 4171 (S31W38) CONTINUES AS A BETA GAMMA BUT MINOR DECAY HAS BEEN REPORTED IN WHITE LIGHT. REGION 4172 (S12W40) HAS EXHIBITED RAPID GROWTH AND IS NOW A BETA GAMMA. REGION 4174 (N09E25) HAS SHOWN MINOR GROWTH BUT NOW CONTAINS A STRONG DELTA IN THE EASTERN PORTION OF ITS LEADER SECTION. TWO NEW REGIONS WERE NUMBERED TODAY 4180 (N14E48), SIMPLE "A" TYPE, AND 4181 (S23E77) REPORTED AS A "D" TYPE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH UNTIL REGION 4173 IS TWO DAYS PAST THE WEST LIMB. REGIONS 4171/4172/4174 MAY BECOME PRODUCERS OF MODERATE ACTIVITY IF CHANGE IN THE REGIONS CONTINUES.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 14/2100Z TO 15/2100Z: THE GEOMAGNETIC FIELD HAS BEEN GENERALLY ACTIVE THIS PERIOD. WITH ONLY A FEW SHORT PERIODS, AT THE HIGH LATITUDE SITES, WHERE THE FIELD REACHED MINOR STORM LEVELS. NO PROTONS HAVE BEEN OBSERVED AT SATELLITE LEVELS DUE TO THE "X" EVENT OF 15 MAY.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT GENERALLY UNSETLED LEVELS UNTIL 18 MAY WHEN THE EFFECTS OF THE "X" EVENT ARE FORECAST TO ARRIVE. THE FIELD IS EXPECTED TO BE AT ACTIVE LEVELS ON 18 MAY, MINOR STORM AT THE HIGH LATITUDE SITES.

III. EVENT PROBABILITIES 16 MAY-18 MAY

CLASS M 90/60/60

CLASS X 15/10/10

PROTON 10/05/05

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 15 MAY 143

PREDICTED 16 MAY-18 MAY 140/138/138

90 DAY MEAN 15 MAY 121

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 14 MAY 022/030

ESTIMATED AFR/AP 15 MAY 017/020

PREDICTED AFR/AP 16 MAY-18 MAY 014/020-013/020-018/025

SOLTERWARN

BT