JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
SDF NUMBER 351 ISSUED AT 2200Z ON 17 DEC 1993
IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 16/2100Z TO 17/2100Z: SOLAR ACTIVITY BECAME LOW DUE TO A LONG DURATION C2/SN FLARE AT 17/2029Z FROM REGION 7635 (N02E39). AT PRESS TIME, A REPORT WAS RECEIVED FROM THE CULGOORA OBSERVATORY THAT A TYPE IV MAY ACCOMPANY THIS FLARE. NO SUNSPOT DYNAMICS WERE OBSERVED IN THIS REGION AND THE MIXED POLARITIES OBSERVED YESTERDAY WEAKENED. REGION 7637 (N07W18) CEASED THE GROWTH NOTED ON 16 DEC AND STABILIZED.
IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD RETURN TO A VERY LOW LEVEL. THE LONG DURATION C2 FLARE MENTIONED ABOVE IS CHARACTERISTIC OF A DECAYING REGION AND ADDITIONAL OR LARGER EVENTS ARE NOT LIKELY.
IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 16/2100Z TO 17/2100Z: THE GEOMAGNETIC FIELD WAS UNSETTLED TO ACTIVE FOR THE ENTIRE PERIOD AS THE CORONAL HOLE RELATED DISTURBANCE SLOWLY SUBSIDES. AGAIN TODAY, SOME HIGH LATITUDE STATIONS EXPERIENCED MINOR TO MAJOR STORMING.
IIB. GEOPHYSICAL ACTIVITY FORECAST: UNSETTLED TO ACTIVE CONDITIONS SHOULD BE EXPERIENCED THROUGH 18 DEC AS THE CURRENT CORONAL HOLE DISTURBANCE DECAYS. A FILAMENT RELATED DISTURBANCE IS EXPECTED TO BEGIN ON 19 DEC AND CONTINUE INTO 20 DEC RESULTING IN MOSTLY ACTIVE LEVELS FOR THAT INTERVAL.
III. EVENT PROBABILITIES 18 DEC-20 DEC
CLASS M 01/01/01
CLASS X 01/01/01
PROTON 01/01/01
PCAF GREEN
IV. PENTICTON 10.7 CM FLUX
OBSERVED 17 DEC 084
PREDICTED 18 DEC-20 DEC 080/082/082
90 DAY MEAN 17 DEC 098
V. GEOMAGNETIC A INDICES
OBSERVED AFR/AP 16 DEC 019/019
ESTIMATED AFR/AP 17 DEC 015/016
PREDICTED AFR/AP 18 DEC-20 DEC 012/016-020/022-015/020
VI. GEOMAGNETIC ACTIVITY PROBABILITIES 18 DEC-20 DEC
A. MIDDLE LATITUDES
ACTIVE 30/30/25
MINOR STORM 10/20/10
MAJOR-SEVERE STORM 01/05/05
B. HIGH LATITUDES
ACTIVE 30/30/25
MINOR STORM 10/20/10
MAJOR-SEVERE STORM 05/10/05