JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
SDF NUMBER 072 ISSUED AT 2200Z ON 13 MAR 1993
IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 12/2100Z TO 13/2100Z: SOLAR ACTIVITY WAS LOW. REGION 7448 (N16E40) PRODUCED TODAY'S LARGEST FLARE, A C5/SF AT 1536Z. THIS GROUP SHOWED MODEST GROWTH OVER THE LAST 24 HOURS AND APPEARS TO HAVE A BETA-GAMMA MAGNETIC CLASS WITH A LONG EAST-WEST INVERSION LINE. THE GROUP PRODUCED ADDITIONAL SMALL FLARES DURING THE DAY. REGION 7440 (S04W69) LOOKS SIMILAR IN STRUCTURE TO YESTERDAY, BUT WAS COMPARITIVELY QUIET AND COULD ONLY MUSTER A COUPLE OF C3 FLARES DURING THE PERIOD.
IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MOSTLY MODERATE, WITH A CONTINUED CHANCE FOR AN ISOLATED MAJOR FLARE OR PROTON PRODUCING EVENT. ACTIVITY LEVELS AND BACKGROUND LEVELS SHOULD DECLINE NOTICABLY WITH THE DEPARTURE OF REGION 7440 FROM THE VISIBLE DISK LATE ON THE 15TH.
IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 12/2100Z TO 13/2100Z: THE GEOMAGNETIC FIELD WAS MOSTLY UNSETTLED TO ACTIVE FOR THE PAST 24 HOURS. SOME ISOLATED PERIODS OF MINOR STORM LEVEL CONDITIONS WERE OBSERVED. THE GREATER THAN 10 MEV PROTON EVENT WHICH BEGAN AT 12/2010Z REACHED A MAXIMUM OF 44 PFU AT 13/0155Z AND ENDED AT 13/1245Z.
IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT MINOR TO MAJOR STORM LEVELS FOR THE NEXT TWO DAYS AS A RESPONSE TO YESTERDAY'S LONG DURATION M7 FLARE FROM REGION 7440. CONDITIONS SHOULD SUBSIDE TO UNSETTLED TO ACTIVE LEVELS BY THE THIRD DAY.
III. EVENT PROBABILITIES 14 MAR-16 MAR
CLASS M 75/75/65
CLASS X 20/20/15
PROTON 25/25/10
PCAF YELLOW
IV. PENTICTON 10.7 CM FLUX
OBSERVED 13 MAR 142
PREDICTED 14 MAR-16 MAR 140/135/130
90 DAY MEAN 13 MAR 136
V. GEOMAGNETIC A INDICES
OBSERVED AFR/AP 12 MAR 028/020
ESTIMATED AFR/AP 13 MAR 020/028
PREDICTED AFR/AP 14 MAR-16 MAR 040/050-035/040-015/020
VI. GEOMAGNETIC ACTIVITY PROBABILITIES 14 MAR-16 MAR
A. MIDDLE LATITUDES
ACTIVE 15/10/25
MINOR STORM 35/35/10
MAJOR-SEVERE STORM 45/50/05
B. HIGH LATITUDES
ACTIVE 10/05/30
MINOR STORM 30/35/10
MAJOR-SEVERE STORM 50/55/05