JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
SDF NUMBER 080 ISSUED AT 2200Z ON 21 MAR 1993
IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 20/2100Z TO 21/2100Z: SOLAR ACTIVITY WAS MODERATE. REGION 7448 (N18W59) WAS RESPONSIBLE FOR THE MAJORITY OF FLARE ACTIVITY. IT PRODUCED AN M2/1N FLARE AT 21/0340Z ASSOCIATED WITH A SIGNIFICANT TYPE IV SPECTRAL RADIO BURST AND A 140 SFU TENFLARE. THIS REGION MAY BE SHOWING SIGNS OF SLOW DECAY IN THE FORM OF OVERALL PENUMBRAL FRAGMENTATION, BUT THIS WAS DIFFICULT TO PIN DOWN DUE TO WEST LIMB PROXIMITY. AN ERUPTIVE PROMINENCE REACHING 0.44 SOLAR RADII WAS OBSERVED NEAR N07W90 AT 21/1110Z. NEW REGIONS 7455 (N19W37) AND 7456 (N05E21) WERE NUMBERED.
IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MOSTLY LOW. REGIONS 7448 AND 7452 ARE EXPECTED TO PRODUCE C-CLASS SUBFLARES. REGION 7448 COULD ALSO PRODUCE AN ISOLATED M-CLASS FLARE.
IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 20/2100Z TO 21/2100Z: THE GEOMAGNETIC FIELD HAS BEEN AT QUIET TO ACTIVE LEVELS FOR THE PAST 24 HOURS. MINOR TO MAJOR STORMING WAS OBSERVED AT SOME HIGH LATITUDE STATIONS FROM 21/1200-1800Z. THE ACTIVE TO STORM LEVELS WERE PROBABLY DUE TO A WELL PLACED CORONAL HOLE.
IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT ACTIVE TO MINOR STORM LEVELS ON THE FIRST DAY DUE TO CONTINUING CORONAL HOLE EFFECTS. QUIET TO UNSETTLED LEVELS ARE EXPECTED FOR THE REMAINDER OF THE PERIOD.
III. EVENT PROBABILITIES 22 MAR-24 MAR
CLASS M 25/20/20
CLASS X 01/01/01
PROTON 01/01/01
PCAF GREEN
IV. PENTICTON 10.7 CM FLUX
OBSERVED 21 MAR 131
PREDICTED 22 MAR-24 MAR 130/130/125
90 DAY MEAN 21 MAR 134
V. GEOMAGNETIC A INDICES
OBSERVED AFR/AP 20 MAR 018/018
ESTIMATED AFR/AP 21 MAR 025/030
PREDICTED AFR/AP 22 MAR-24 MAR 020/030-015/015-005/010
VI. GEOMAGNETIC ACTIVITY PROBABILITIES 22 MAR-24 MAR
A. MIDDLE LATITUDES
ACTIVE 35/25/10
MINOR STORM 25/15/05
MAJOR-SEVERE STORM 15/05/01
B. HIGH LATITUDES
ACTIVE 25/35/15
MINOR STORM 30/15/10
MAJOR-SEVERE STORM 20/05/05