JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
SDF NUMBER 272 ISSUED AT 2200Z ON 29 SEP 1993
IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 28/2100Z TO 29/2100Z: SOLAR ACTIVITY WAS LOW. REGION 7590 (N12E50) PRODUCED ONLY A FEW LOW-LEVEL C-CLASS EVENTS IN SPITE OF ITS IMPRESSIVE SIZE (1140 MILLIONTHS) AND MAGNETIC COMPLEXITY (BETA-GAMMA-DELTA). THE DELTA IN THE LEADER DECAYED AS THE MAGNETIC INVERSION LINE JUST EAST OF THE LARGE LEADER SPOT APPEARED TO RELAX. THERE IS A WEAK DELTA IN THE TRAILER SPOTS AND THIS PART OF THE GROUP WAS MOST ACTIVE DURING THE PERIOD. FREQUENT TYPE III RADIO SWEEPS WERE OBSERVED DURING THE PERIOD. THE REMAINING GROUPS ON THE DISK WERE QUIET AND STABLE.
IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE BECAUSE OF THE CONTINUED FLARE POTENTIAL IN REGION 7590.
IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 28/2100Z TO 29/2100Z: THE GEOMAGNETIC FIELD WAS MOSTLY QUIET TO ACTIVE. THE ACTIVE CONDITIONS BEGAN AFTER 0600Z AND CONTINUED FOR THE REMAINDER OF THE PERIOD. SOME ISOLATED MINOR TO MAJOR STORM PERIODS WERE OBSERVED AT HIGH LATITUDES. THE MOST LIKELY SOURCE FOR THE INCREASE APPEARS TO BE A CORONAL HOLE.
IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE PREDOMINANTLY ACTIVE FOR THE NEXT THREE DAYS DUE TO CORONAL HOLE EFFECTS.
III. EVENT PROBABILITIES 30 SEP-02 OCT
CLASS M 65/65/65
CLASS X 10/10/10
PROTON 10/10/10
PCAF GREEN
IV. PENTICTON 10.7 CM FLUX
OBSERVED 29 SEP 116
PREDICTED 30 SEP-02 OCT 115/110/110
90 DAY MEAN 29 SEP 093
V. GEOMAGNETIC A INDICES
OBSERVED AFR/AP 28 SEP 004/007
ESTIMATED AFR/AP 29 SEP 013/015
PREDICTED AFR/AP 30 SEP-02 OCT 016/025-025/025-020/012
VI. GEOMAGNETIC ACTIVITY PROBABILITIES 30 SEP-02 OCT
A. MIDDLE LATITUDES
ACTIVE 35/35/35
MINOR STORM 15/15/15
MAJOR-SEVERE STORM 10/10/10
B. HIGH LATITUDES
ACTIVE 35/35/35
MINOR STORM 20/20/20
MAJOR-SEVERE STORM 10/10/10