

HFUS3 BOU 092200 COR
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 009

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 09 JAN 1985

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 08/2100 TO 09/2100Z: SOLAR ACTIVITY WAS VERY LOW. REGION 4614 (N07E51) REMAINED A SIMPLE ALPHA-TYPE. REGION 4613 (N07W60) RETAINED ONLY A SPOTLESS FAINT, SCATTERED PLAGE. NEWLY ASSIGNED REGION 4615 (N18W16) WAS A SIMPLE BETA-TYPE WITH AN ARCHED FILAMENT SYSTEM MOST OF THE PERIOD. AN ALPHA-TYPE REGION AT S14W00 PRODUCED A WEAK ARCHED FILAMENT SYSTEM AND A REPORTED SINGLE SPOT EARLY IN THE PERIOD BEFORE IT LATER DECAYED. IT DIDN'T SUSTAIN ITS SPOTTED IDENTITY THROUGHOUT MORE THAN ONE-HALF THE PERIOD, SO IT WAS NOT ASSIGNED AN SESO REGION NUMBER.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW. NO REGION IS EXPECTED TO RETURN.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 08/2100Z TO 09/2100Z: GEOMAGNETIC ACTIVITY WAS AT MINOR TO MAJOR STORM LEVELS. THE GLOBAL GRADUAL STORM COMMENCEMENT AT 8/1815Z WAS FOLLOWED BY CONTINUOUS MAJOR STORM LEVELS AT HIGH LATITUDES AFTER 9/0300Z THROUGHOUT THE PERIOD. MID LATITUDES WERE AT MINOR STORM LEVELS FROM 9/0600 THROUGH 1500Z. THIS DISTURBANCE WAS ATTRIBUTED TO DISAPPEARING FILAMENTS CONFIRMED BY THE ICE SATELLITE'S DETECTION OF HIGH DENSITY MATERIAL IN THE INTER-PLANETARY MEDIUM. AS SEVERAL FILAMENT DISAPPEARED BETWEEN 1 JAN AND 6 JAN, IT IS IMPOSSIBLE TO ASCRIBE THIS ACTIVITY TO ANY INDIVIDUAL OR SET OF FILAMENTS. TWO FILAMENTS THAT DISAPPEARED AT 4/1715 AND 2131Z FIT WELL INTO TIME WINDOW ASSOCIATED WITH THE SPEED OF THE MATERIAL, BUT COVERED ONLY A TOTAL OF SIX SOLAR DEGREES IN LENGTH. THEY WERE LOCATED AT S05W16 AND S01W41 RESPECTIVELY AT TIME OF DISAPPEARANCE.

IIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS EXPECTED TO BE AT MINOR STORM TO ACTIVE LEVELS THE FIRST DAY (10 JAN). MAJOR LEVELS ARE PROBABLE AT HIGH LATITUDES NEAR LOCAL MIDNIGHT. THE REMAINING TWO DAYS (11-12 JAN) ARE EXPECTED TO BE AT ACTIVE TO UNSETTLED LEVELS AS THE FIELD RESTABILIZES.

III. EVENT PROBABILITIES 10-12 JAN

CLASS M 01/01/01

CLASS X 01/01/01

PROTON 01/01/01*

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 09 JAN 070

PREDICTED 10 JAN-12 JAN 070/070/070

90 DAY MEAN 09 JAN 075

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 08 JAN 016/020

ESTIMATED AFR/AP 09 JAN 033/050

PREDICTED AFR/AP 10 JAN-12 JAN 020/035-014/020-013/020

SOLTERWARN

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