

HFUS3 BOU 272200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 301

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 27 OCT 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 26/2100 TO 27/2100Z: SOLAR ACTIVITY WAS VERY LOW. REGION 4587 (N13W07) CONTINUED TO DECAY AND ENDED THE PERIOD WITH NO SPOTS VISIBLE IN EITHER WHITE-LIGHT OR H-ALPHA. NO NEW REGION WAS ASSIGNED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW. RETURNING REGION 4585 (N05, CAR-352) IS EXPECTED AT 28/1100Z. IT PRODUCED ONE SUB-FLARE ON THE ONLY DAY IT WAS OBSERVED, DURING ITS LAST ROTATION, IMMEDIATELY PRIOR TO ROTATING AROUND THE WEST LIMB. IT MAY PROVIDE A VERY SLIGHT CHANCE OF ACTIVITY UPON ITS RETURN. RETURNING REGION 4582 (S05, CAR-337) DIED ON THE DISC, DURING ITS LAST ROTATION, THREE DAYS BEFORE ITS CROSSED THE LIMB. IT OFFERS VERY LITTLE CHANCE OF ANY ACTIVITY UPON THE RETURN OF ITS PRIOR LOCATION.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 26/2100Z TO 27/2100Z: GEOMAGNETIC ACTIVITY WAS UNSETTLED TO QUIET. A SUB-STORM PRODUCED MINOR/MAJOR LEVELS AT HIGH LATITUDES AFTER 27/1200Z UNTIL 1800Z IN THE ALASKAN TO ASIAN REGION.

IIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS EXPECTED TO BE AT UNSETTLED-TO-ACTIVE LEVELS THE FIRST TWO DAYS (28-29 OCT), WITH THE POSSIBILITY OF MINOR STORM LEVELS AT HIGH LATITUDES THE SECOND DAY (29 OCT). THE THIRD DAY (30 OCT) IS EXPECTED TO BE AT ACTIVE-TO-BRIEFLY MINOR STORM LEVELS DUE TO THE ERUPUTIVE PROMINENCE EVENT OF 21/2200Z AT THE SOUTH-EAST LIMB. MAJOR STORM LEVELS ARE POSSIBLE AT HIGH LATITUDES DURING LOCAL MID-NIGHT PERIODS. THIS FORECAST DISTURBANCE IS EXPECTED TO LAST THROUGH THE NEXT DAY OF THE EXTENDED OUTLOOK PERIOD (31 OCT), THEN DECREASE TO GENERALLY ACTIVE LEVELS THROUGH THE SEVENTH DAY (1-3 NOV). THIS PROMINENCE ERUPTION AND CONSEQUENT GEOMAGNETIC DISTURBANCE IS A RELATIVELY NEW FORECASTING TOOL AND BOTH THE MAGNITUDE AND TIMING ARE NOT YET SUBSTANTIATED WITH A LARGE HISTORICAL DATA-BASE.

III. EVENT PROBABILITIES 28 OCT-30 OCT

CLASS M 01/01/01

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 27 OCT 070

PREDICTED 28 OCT-30 OCT 071/072/072

90 DAY MEAN 27 OCT 079

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 26 OCT 011/013

ESTIMATED AFR/AP 27 OCT 009/012

PREDICTED AFR/AP 28 OCT-30 OCT 010/015-011/015-015/025

SOLTERWARN

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