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FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 275A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 02 OCT 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 01/1200Z TO 02/1200Z: SOLAR ACTIVITY HAS BEEN LOW DURING THE PAST 24 HOURS. X-RAY BURSTS HAVE CONSISTED OF OCCASIONAL C-CLASS EVENTS FROM A VARIETY OF REGIONS, BUT NONE OF THESE HAVE BEEN LARGER THAN C2 CLASS. REGION 3922 (N15W31) IS THE LARGEST AND MOST COMPLEX OF THE DISK REGIONS, BUT IS ALSO THE MOST DISAPPOINTING, PRODUCING ONLY THREE MINOR SUBFLARES DURING THE PERIOD. ITS RAPID GROWTH OF YESTERDAY HAS ALL BUT STOPPED WITH AN OVERALL DULLING OF ITS PLAGE AND AN APPARENT WEAKENING OF ITS MAGNETIC DELTA. THE MOST ACTIVE OF THE DISK REGIONS HAS BEEN REGION 3919 (S12W47) WITH OCCASIONAL SUBFLARES AND FLUCTUATING PLAGE OBSERVED DURING THE PERIOD. SLOW GROWTH IN THIS REGION CONTINUES WITH STRONG ARCH FILAMENTS VISIBLE. THE NEW REGION NUMBERED YESTERDAY, 3931 (N17W04), IS GROWING RAPIDLY AND HAS PRODUCED SEVERAL FLARES IN RECENT HOURS. ITS PROXIMITY TO 3922 COULD CAUSE SOME INTERACTION IN THE NEAR FUTURE. THE REMAINING DISK REGIONS HAVE SHOWN LITTLE CHANGE. THE EASTERN HALF OF THE SUN IS NOW ALMOST VOID OF ACTIVITY WITH NO EVIDENCE OF RETURNING REGIONS ON EAST LIME.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE PREDOMINANTLY LOW, HOWEVER, ISOLATED M-CLASS EVENTS FROM REGION 3922 ARE LIKELY IF THIS REGION BEGINS ANY SIGNIFICANT RESTRUCTURING. OTHER REGIONS APPEAR CAPABLE OF ONLY C-CLASS EVENTS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE THROUGH MOST OF THE PERIOD WITH MINOR STORM CONDITIONS OBSERVED DURING THE LAST THREE HOUR PERIOD (09-12Z, K-INDEX OF 5 AT BOULDER). THESE MINOR STORM CONDITIONS ARE EXPECTED TO PERSIST INTERMITTENTLY THROUGH THE NEXT 24 HOURS FOLLOWED BY A GRADUAL QUIETING TREND TOWARDS ACTIVE LEVELS ON THE THIRD DAY.

III. EVENT PROBABILITIES 03 OCT-05 OCT

CLASS M 55/55/50

CLASS X 10/10/05

PROTON 10/10/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 01 OCT 205

ESTIMATED 02 OCT 208

PREDICTED 03 OCT-05 OCT 206/202/198

90 DAY MEAN 01 OCT 168

V. GEOMAGNETIC A INDICES

OBSERVED AFR 30 SEP 013 AP 01 OCT 024

ESTIMATED AFR 01 OCT 020 AFR/AP 02 OCT 030/030

PREDICTED AFR/AP 03 OCT-05 OCT 025/030-020/025-015/015

SOLTERWARN

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HFUS 3 BOU 022200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 275B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 02 OCT 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 02/1200Z TO 02/2100Z: SOLAR ACTIVITY CONTINUES LOW BUT THE FREQUENCY OF CLASS C FLARE ACTIVITY HAS INCREASED FROM SEVERAL SOURCES. REGION 3922 (N15W36) AND STILL RAPIDLY GROWING 3930 (N13W26) HAVE BEEN FLARING COINCIDENTLY INDICATING INTERACTION BETWEEN THESE TWO GROUPS. THE TRAILER OF 3917 (N16W49) ALSO SEEMS TO BE INVOLVED IN THESE FLARES. SLOW PROPER MOTION OF THE UMBRAE IN THE TRAILER OF 3922 MAY BE OCCURRING. REGION 3919 (S12W52) IS STILL GROWING AND A WEAK DELTA MAY BE FORMING IN THE TRAILER. MT WILSON DATA ALSO INDICATE DELTAS HAVE FORMED IN THE TRAILERS OF 3921 (S18W27) AND 3917. A MODERATE SIZE CLASS H SPOT WITH FAINT PLAGE HAS BEEN OBSERVED AT SO9E76 AND WAS NUMBERED 3932. TWO OTHER SMALL REGIONS WERE NUMBERED TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD BECOME MODERATE FOR THE FORECAST PERIOD. FLARE PREDICTORS BASED UPON ACTIVE REGION EVOLUTION ARE EVIDENT IN SEVERAL REGIONS ON THE DISK. THE 3922/3930 COMPLEX APPEARS TO BE THE MOST LIKELY SOURCE FOR CLASS M FLARES BUT OTHER REGIONS SHOULD ALSO CONTRIBUTE. AT THIS TIME, THE LIKELIHOOD OF A MAJOR FLARE FROM 3922/3930 DOES NOT APPEAR TO BE EXCEPTIONALLY HIGH.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE DURING THE PAST NINE HOURS. MINOR STORM CONDITIONS ENDED EARLIER THAN EXPECTED. GENERALLY ACTIVE CONDITIONS SHOULD BE EXPERIENCED DURING THE NEXT THREE DAYS WITH LOCAL NIGHTTIME LATE ON 02 OCT AND EARLY ON 03 OCT BEING THE MOST DISTURBED PERIODS.

III. EVENT PROBABILITIES 03 OCT-05 OCT

CLASS M 70/70/70

CLASS X 10/10/10

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 02 OCT 218

PREDICTED 03 OCT-05 OCT 225/220/210

90 DAY MEAN 02 OCT 169

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 01 OCT 020/024

ESTIMATED AFR/AP 02 OCT 022/030

PREDICTED AFR/AP 03 OCT-05 OCT 020/030-015/025-015/015

SOLTERWAR N

BT