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HFUS 1 BOU 091300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 343A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 09 DEC 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 08/1200Z TO 09/1200Z: SOLAR ACTIVITY HAS CONTINUED AT MODERATE LEVELS WITH FIVE M-CLASS EVENTS, FROM FOUR DIFFERENT REGIONS, BEING RECORDED. THE LARGEST WAS A M4/1B FROM REGION 3492 (N18W10) AT 09/0352UT. REGION 3504 (S15E39) PRODUCED AN M3/1B AT 09/0647UT. THREE M1 EVENTS OCCURRED AT 08/1525UT, UNCORRELATED, 08/1803UT REGION 3477 (SW08) AND 08/1838UT REGION 3502 (S13W81). REGIONS 3502 AND 3504 HAVE BOTH DOUBLED IN SIZE DURING THIS PERIOD. REGIONS 3492, 3496 (N09W10), 3503 (N11E28) AND 3505 (S06E56) ALSO CONTINUE TO GROW ALTHOUGH AT A SLOWER RATE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO CONTINUE AT MODERATE LEVELS DURING THE FORECAST PERIOD. AN ISOLATED CHANCE OF AN X-CLASS EVENT FROM REGION 3492 OR 3496 CONTINUES. NO NEW ACTIVE REGIONS ARE EXPECTED TO ROTATE OVER THE EAST LIMB FOR THE NEXT 36-48 HOURS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN GENERALLY UNSETLED WITH PERIODS AT ACTIVE LEVELS. WITH THE NUMEROUS M-CLASS EVENTS THAT HAVE OCCURRED DURING THE PAST THREE DAYS THE GEOMAGNETIC FIELD IS EXPECTED TO CONTINUE AT UNSETLED TO ACTIVE LEVELS DURING THE FORECAST PERIOD.

III. EVENT PROBABILITIES 10 DEC-12 DEC

CLASS M 90/90/90

CLASS X 10/10/10

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 08 DEC 297

ESTIMATED 09 DEC 300

PREDICTED 10 DEC-12 DEC 305/305/295

90 DAY MEAN 08 DEC 219

V. GEOMAGNETIC A INDICES

OBSERVED AFR 07 DEC 002 AP 08 DEC 013

ESTIMATED AFR 08 DEC 011 AFR/AP 09 DEC 012/012

PREDICTED AFR/AP 10 DEC-12 DEC 012/014-014/018-012/020

SOLTERWARN

HFUS-3 RCU 092200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 343R

JOINT USAE/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 09 DECEMBER 1981

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

09/1200Z TO 09/2100Z:

SOLAR ACTIVITY HAS BEEN MODERATE. A M5/3B COMPLEX FLARE REACHED X-RAY MAX AT 1918Z. A LARGE CRESCENT-SHAPED FILAMENT NORTH OF THE LEAD SPOT OF REGION 3496 (N09W15) ERUPTED AND ACTIVATED THE OPTICAL FLARE. THE FLARE WAS A PARALLEL RIBBON. THE NORTHERN RIBBON RAN FROM WEST OF THE LEADER OF 3496 TO THE LEADER OF REGION 3492 (N19W16). UMBRAL COVERAGE OCCURRED IN THE LEADER OF REGION 3492. THE SOUTHERN RIBBON WAS IN THE MAIN STRUCTURE OF REGION 3496. DISK LOOPS WERE ALSO REPORTED. THE ASSOCIATED RADIO BURSTS WERE COMPLEX, OCCURRING IN THE DECIMETRIC AND MICROWAVE FREQUENCIES. THE MAXIMUM BURST AT 2695 MHZ WAS 610 FU. SUNSPOT GROWTH AND/OR RESTRUCTURING HAS OCCURRED IN REGION 3492, 3496, 3487 (N06W46), 3504 (S15E34), AND 3505 (S07E52). NEW REGION 3507 (S06E21) AND 3508 (N10E28) HAVE ERUPTED QUICKLY DURING THE LAST 24 HOURS.

II. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE WITH SEVERAL OF THE COMPLEX DISK REGIONS CONTRIBUITING TO THE ENERGETIC FLARE PRODUCTION.

III. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED TO ACTIVE. THESE CONDITIONS ARE EXPECTED TO CONTINUE UNTIL NEAR 11/1200Z. THE FIELD IS THEN EXPECTED TO GO INTO MAGSTORM CONDITIONS AS A RESULT OF TODAYS 3B FLARE. A MINOR PROTON EVENT IS EXPECTED TO COMMENCE NEAR THE BEGINNING OF THE ZULU DAY ON 10 DECEMBER.

IV. EVENT PROBABILITIES: 10-12 DEC

CLASS M 95/95/95

CLASS X 15/15/15

PROTON 20/20/20

PCAF 11/11/11 YELLOW

V. OTTAWA 10.7 FLUX

OBSERVED 09 DEC 305

PREDICTED 10-12 DEC 310/307/295

90 DAY MEAN 09 DEC 219

VI. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 08 DEC 15/13

ESTIMATED AFR/AP 09 DEC 11/13

PREDICTED AFR/AP 10-12 DEC 12/14 35/35 20/22

SOLARFLARE WARN

PT