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HFUS 1 BOU 071300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 341A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 07 DEC 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 06/1200Z TO 07/1200Z: SOLAR ACTIVITY HAS BEEN AT LOW TO MODERATE LEVELS. ONE M-CLASS EVENT WAS OBSERVED THIS PERIOD, AN M1/SN EVENT FROM REGION 3485 (N20W18). IN GENERAL, THERE HAS BEEN GROWTH IN THE AREAL SIZE OF SEVERAL OF THE SPOTTED REGIONS ON THE DISK. IN PARTICULAR, REGION 3492 (N19E18) AND REGION 3496 (N08E18) MAKE AN IMPRESSIVE WHITE LIGHT PAIR, EACH HAVING AN AREA OF OVER 600 MILLIONTHS. NEW REGION 3505 (S06E80) HAS BEEN SURGING AT THE EAST LIMB AND MAY TURN OUT TO BE A VERY IMPRESSIVE REGION.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO CONTINUE AT MODERATE LEVELS. THE SUN'S EAST LIMB HAS SEEMED TO BE AN ENDLESS SOURCE OF NEW REGIONS, AND NOW MANY OF THESE REGIONS NUMBERED OVER THE LAST FEW DAYS ARE STARTING TO GROW. IN ADDITION TO 3492 AND 3496, REGIONS 3487 (N05W10), 3504 (S15E66), AND 3497 (S21E24) SHOULD BE WATCHED.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN QUIET FOR THE LAST 24 HOURS. THE FIELD IS FORECAST TO BECOME ACTIVE ON 08 AND 09 DEC.

III. EVENT PROBABILITIES 08 DEC-10 DEC

CLASS M 80/80/80

CLASS X 10/10/10

PROTON 01/01/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 06 DEC 270

ESTIMATED 07 DEC 275

PREDICTED 08 DEC-10 DEC 280/275/270

90 DAY MEAN 06 DEC 218

V. GEOMAGNETIC A INDICES

OBSERVED AFR 05 DEC 009 AP 06 DEC 006

ESTIMATED AFR 06 DEC 008 AFR/AP 07 DEC 006/012

PREDICTED AFR/AP 08 DEC-10 DEC 015/014-015/014-010/012

SOLTERWARN

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1302

HFXUS 3 BOU 072200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 341B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 07 DEC 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 07/1200Z TO 07/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE. NEW REGION 3505 (S06E72) HAS PRODUCED CLASS M FLARES AT 07/1336UT AND 07/1447UT. THIS REGION EXHIBITS A COMPACT SPOT DISTRIBUTION AND APPARENTLY IS IN A GROWTH STAGE. REGIONS 3496 (N08E12) AND 3492 (N19E10) CONTINUE TO GROW AND A CONFIRMED DELTA EXISTS IN THE TRAILER OF 3496. REGION 3503 (N10E50) IS GROWING RAPIDLY AND HAS BEEN NEAR FLARE BRIGHT FOR THE PERIOD. A C9/SB FLARE WAS OBSERVED FROM REGION 3502 (S14W59) AT 07/1906UT. THIS SMALL REGION IS EXHIBITING SPOT ROTATION.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE MODERATE. REGIONS 3492, 3496, 3504, AND 3505 SHOULD BE THE PRIME FLARE PRODUCERS. THE LIKELIHOOD OF A MAJOR FLARE AT THIS TIME IS NOT HIGH BUT CONTINUED GROWTH IN 3492, 3496, AND 3505 COULD CHANGE THAT PERCEPTION. PREVIOUSLY ACTIVE LONGITUDES ARE TO RETURN TO THE EAST LIMB DURING THE FORECAST PERIOD WHICH SHOULD ADD TO THE FREQUENCY OF CLASS M FLARE PRODUCTION.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD CONTINUES QUIET. NO SIGNIFICANT FLARES OR CORONAL HOLES HAVE OCCURRED OR ARE VISIBLE CURRENTLY. THE SECTOR BOUNDARY PASSAGE EXPECTED TOMORROW SHOULD BE A WEAK REVERSAL AND LITTLE RESULTANT ACTIVITY IS FORECAST. QUIET TO SLIGHTLY UNSETTLED CONDITIONS ARE FORECAST FOR THE NEXT TWO DAYS. CURRENT AND EXPECTED FLARE ACTIVITY COULD RESULT IN SLIGHTLY ACTIVE CONDITIONS ON 10 DECEMBER.

III. EVENT PROBABILITIES 08 DEC-10 DEC

CLASS M 90/95/95

CLASS X 10/15/15

PROTON 05/10/15

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 07 DEC 288

PREDICTED 08 DEC-10 DEC 295/300/305

90 DAY MEAN 07 DEC 218

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 06 DEC 002/006

ESTIMATED AFR/AP 07 DEC 003/007

PREDICTED AFR/AP 08 DEC-10 DEC 006/010-008/012-015/014

SOLTERWARN

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HFXUS BOU 072200

PREDM 09008 09509 09510

PREDX 01008 01509 01510

PREDP 00508 01009 01510

PCAF 00108

TENCM 29508 30009 30510

AFRED 00608 00809 01510

AFAPF 01008 01209 01410

BT