

HFUS 1 BOU 011300  
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 274A  
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
ISSUED 1300Z 01 OCT 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 30/1200Z TO 01/1200Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS. REGION 3922 (N15W18) PRODUCED 7 C-CLASS X-RAY FLARES BUT THE LARGEST WAS ONLY A C5/1B ON 30 SEPTEMBER AT 1356Z. HOWEVER, 3922 IS CONTINUING SIGNIFICANT GROWTH ESPECIALLY IN ITS TRAILER PORTION WHERE A MAGNETIC DELTA IS REPORTED. REGION 3919 (S12W33) IS THE NEXT MOST INTERESTING SPOT GROUP. IT IS GROWING IN ITS LEADER PORTION AND HAS PRODUCED SEVERAL SMALL FLARES AND DARK SURGES IN RECENT HOURS. REGION 3917 (N16W30) IS UNDERGOING OVERALL DECAY ALTHOUGH IT STILL HAS A GOOD MAGNETIC GRADIENT. REGION 3921 (S19W07) HAS GROWN RAPIDLY IN ITS CENTER SECTION AND MAY HAVE A SMALL DELTA IN ONE OF ITS INTERIOR SPOTS. THERE IS AN ACTIVE DARK FILAMENT NEAR N10E30. NO ACTIVITY HAS BEEN OBSERVED ON EITHER SOLAR LIMB.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE WITH A GOOD PROBABILITY OF ANOTHER SIGNIFICANT FLARE FROM 3922. ISOLATED M-CLASS FLARES ARE POSSIBLE FROM REGION 3919, AND ERUPTIVE (C-CLASS) EVENTS ARE EXPECTED FROM 3917 AND 3921.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED FOR THE PAST 24 HOURS. GENERALLY UNSETTLED CONDITIONS ARE EXPECTED TO GIVE WAY TO A MINOR GEOMAGNETIC STORM WITHIN THE NEXT 12 HOURS IN RESPONSE TO A SIGNIFICANT FLARE NEAR THE SOLAR CENTER DISK ON 30 SEPTEMBER. THE STORM SHOULD SUBSIDE BY 03 OCTOBER BUT THE FIELD IS EXPECTED TO REMAIN AT ACTIVE LEVELS THROUGH 04 OCTOBER.

III. EVENT PROBABILITIES 02 OCT-04 OCT

CLASS M 55/55/55

CLASS X 10/10/10

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30 SEP 202

ESTIMATED 01 OCT 202

PREDICTED 02 OCT-04 OCT 200/198/195

90 DAY MEAN 30 SEP 167

V. GEOMAGNETIC A INDICES

OBSERVED AFR 29 SEP 009 AP 30 SEP 015

ESTIMATED AFR 30 SEP 012 AFR/AP 01 OCT 017/015

PREDICTED AFR/AP 02 OCT-04 OCT 040/030-025/030-020/025

SOLTERWARN

BT

NNNN CVZG VZL VZO UU

KBOU

HFUS 3 BOU 012200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 274B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 01 OCT 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 01/1200Z TO 01/2100Z: SOLAR ACTIVITY HAS BEEN LOW. REGION 3922 (N15W23), APPEARS TO HAVE NEARLY CEASED ITS GROWTH TREND AND IS MUCH QUIETER IN MOST PARAMETERS TODAY. THE DELTA CONFIGURATION REMAINS IN THE TRAILER AND MAGNETIC GRADIENTS THERE ARE NEARLY EQUAL TO THOSE MEASURED YESTERDAY. A LARGE AMOUNT OF LEADER GROWTH HAS OCCURRED IN 3919 (S12W39) AND BRIGHT PLAGE HAS BEEN EVIDENT ALL DAY. A SMALL DELTA MAY BE FORMING IN THE TRAILER OF REGION 3921 (S19W16). TWO SMALL REGIONS ARE EMERGING NEAR 3922 AND HAVE BEEN NUMBERED 3929 (N24W19) AND 3930 (N13W12). 3930 APPEARS TO BE EMERGING RAPIDLY. ANOTHER SMALL REGION APPEARED AT N17E04 AND WAS NUMBERED 3931.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD BECOME MODERATE WITH INFREQUENT CLASS M FLARES EXPECTED FROM 3922 AND POSSIBLY 3919. THE EMERGENCE OF 3929 AND 3930 COULD RESULT IN INCREASED FLARE ACTIVITY IN NEARBY 3922 BUT CONTINUED GROWTH IN THESE TWO REGIONS SEEMS REQUIRED. NO SIGNIFICANT ACTIVE REGIONS ARE EXPECTED TO RETURN TO THE EAST LIMB DURING THE FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE BUT SOLAR WIND AND MAGNETOMETER DATA DO NOT INDICATE THIS DISTURBANCE TO BE RELATED TO THE M3 FLARE EARLY ON 30 SEP. THE GEOMAGNETIC FIELD IS STILL EXPECTED TO BE AT MINOR STORM LEVELS TOMORROW, RETURNING TO ACTIVE FOR 03-04 OCT.

III. EVENT PROBABILITIES 02 OCT-04 OCT

CLASS M 5.5/55/55

CLASS X 10/10/10

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 01 OCT 205

PREDICTED 02 OCT-04 OCT 208/206/202

90 DAY MEAN 01 OCT 168

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 30 SEP 013/015

ESTIMATED AFR/AP 01 OCT 020/015

PREDICTED AFR/AP 02 OCT-04 OCT 035/030-025/030-020/025

SOLTERWAR N

BT

NNNN SV

UU