

HFUS 1 BOU 211300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 294A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 21 OCT 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
20/1200Z TO 21/1200Z: SOLAR ACTIVITY HAS REMAINED LOW. THE
LARGEST EVENT WAS A C7 (X-RAY MAX AT 0746Z) ASSOCIATED WITH A
1N IN REGION 3955 (S09E50) AND A SN IN REGION 3954 (S07E30).
THE FLARE HAD SEVERAL ERUPTIVE CENTERS, STARTING IN THE LEADER
OF REGION 3955 AND EXTENDING WESTWARD INTO REGION 3954. THE
BULK OF THE FLARE EMISSION WAS ALONG THE FILAMENT CHANNEL
SEPARATING THESE TWO REGIONS. THE COMBINED EMISSION WOULD HAVE
MADE THE FLARE A 2N. ONLY MINOR RADIO BURSTS OCCURRED WITH THIS
FLARE. REGION 3955 HAS HAD A STRONG GROWTH IN BOTH AREA AND
NUMBER OF SUNSPOTS. LEARMONTH MAG ANALYSIS INDICATES THE
PROBABLE EMERGENCE OF A DELTA CONFIGURATION IN THE TRAILER
SECTION. REGION 3958 (N10E00) CONTAINS ARCH FILAMENTS AND
CONTINUES ITS GROWTH. OTHER DISK REGIONS ARE STABLE. A LARGE
SPOT AND MODERATE INTENSITY PLAGE, ACCOMPANIED BY SURGING, IS
CROSSING THE LIMB AT NE13. THIS IS THE RETURN OF OLD REGION
3922; WHICH PRODUCED TWO CLASS M EVENTS AND NUMEROUS LESSER
FLARES LAST ROTATION.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
TRANSIT TO A MODERATE LEVEL WITHIN THE NEXT 24-36 HOURS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN UNSETTLED. THE FIELD IS EXPECTED TO REMAIN UNSETTLED UNTIL
THE LATTER PART OF 23 OCTOBER. THE FIELD IS THEN EXPECTED TO BE
ACTIVE TO MINOR STORM LEVEL; RESPONDING TO THE FILAMENT WHICH
ERUPTED ON 20 OCTOBER AND THE HIGH SPEED STREAM FROM A SOUTHERN
CORONAL HOLE.

III. EVENT PROBABILITIES 22 OCT-24 OCT

CLASS M 40/60/70

CLASS X 02/05/05

PROTON 01/01/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 OCT 149

ESTIMATED 21 OCT 158

PREDICTED 22 OCT-24 OCT 169/178/187

90 DAY MEAN 20 OCT 158

V. GEOMAGNETIC A INDICES

OBSERVED AFR 19 OCT 017 AP 20 OCT 017

ESTIMATED AFR 20 OCT 017 AFR/AP 21 OCT 009/012

PREDICTED AFR/AP 22 OCT-24 OCT 010/015-020/020-035/025

SOLTERWARN

BT

HXUS BOU 211300

PREDM 04022 06023 07024

PREDX 00222 00523 00524

PREDP 00122 00123 00524

PCAF 00122

TFNCM 16922 17823 18724

AFRED 01022 02023 03524

AFAPF 01522 02023 02524

KKK 22343 32233 34433

BT

NNNN CVZGVZLVZO UU

KBOU

HFUS 3 BOU 212200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SF NUMBER 294B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 21 OCT 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 21/1200Z TO 21/2100Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 9 HOURS. REGION 3955 (S10E44) APPEARS THREATENING BUT NO FLARES HAVE BEEN REPORTED FROM THERE SINCE 0740Z THIS MORNING. REGION 3958 (N10W07) HAS CONTINUED TO GROW BUT HAS ALSO REMAINED QUIET DURING RECENT HOURS. NEW REGION 3960 (N13E73), NOW SEEN TO BE A C-TYPE GROUP, PRODUCED SOME SMALL FLARE AND SURGE ACTIVITY. AN INVERSION-LINE FILAMENT EXTENDING FROM APPROXIMATELY S15W10 TO S30E30 AT 1500Z HAD ALMOST COMPLETELY DISSIPATED BY FORECAST TIME.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BECOME MODERATE. IF DEVELOPMENT CONTINUES, REGION 3955 SHOULD BEGIN PRODUCING SIGNIFICANT FLARES WITHIN THE NEXT 36 HOURS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED FOR THE PAST 9 HOURS. THE FIELD IS EXPECTED TO REMAIN MOSTLY UNSETTLED UNTIL LATE ON 23 OCTOBER WHEN MINOR STORM CONDITIONS ARE EXPECTED TO COMMENCE IN RESPONSE TO A HIGH-SPEED SOLAR WIND STREAM AND A FILAMENT ERUPTION EVENT.

III. EVENT PROBABILITIES 22 OCT-24 OCT

CLASS M 40/60/70

CLASS X 02/05/05

PROTON 01/01/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 21 OCT 163

PREDICTED 22 OCT-24 OCT 169/173/187

90 DAY MEAN 21 OCT 158

V. GEOMAGNETIC A INDICES

OBSERVED APR/AP 20 OCT 016/017

ESTIMATED APR/AP 21 OCT 008/012

PREDICTED APR/AP 22 OCT-24 OCT 010/015-020/020-035/040

SOLTERWAR N

BT

NNNN SV

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