

HFUS 1 BOU 16130Z

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 289A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 16 OCTOBER 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
15/1200Z TO 16/1200Z:

SOLAR ACTIVITY HAS BEEN MODERATE. REGION 3403 (S11E33) PRO-
DUCED M2/1B EVENT AT 0641Z AND A SLOW RISE AND FALL M1/1B AT
0914Z (MAX). THE ASSOCIATED GIANT SPOT GROUP CONTINUES COMPLEX
WITH DELTA CONFIGURATION AND A BRILLIANT COMPACT PLAGE. REGION
3396/3397 (S18E31) IS MERGING NOW WITH REGION 3402 (S20W14) TO
FORM A GREAT SPOT GROUP NEARLY 30 DEGREES IN EXTENT. THE SPOT
GROUP AND PLAGE HAVE BECOME LESS COMPACT AND FLARE ACTIVITY HAS
BECOME LESS INTENSE. THE STRUCTURE, SIZE AND DYNAMICS OF THIS
REGION STILL SUGGEST PROTON-FLARE POTENTIAL. REGION 3406
(S10E57) IS A COMPACT BUT SMALLER REGION BUT HAS STRUCTURE
APPROPRIATE FOR MODERATE FLARE ACTIVITY. REGION 3409 (N14W23)
HAS GROWN RAPIDLY TO A CLASS D SPOT GROUP AND IS PRODUCING
BRIGHT SUBFLARES. SPOTS AND BRIGHT PLAGE MARK A SIGNIFICANT NEW
REGION AT S10E80 (REGION 3410). SMALL NEW REGIONS HAVE FORMED AT
S20E08 (REGION 3411) AND S19E62 (REGION 3412).

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD DIMINISHED FROM MINOR STORM TO QUIET CONDI-
TIONS DURING THE PAST 24 HOURS. QUIET TO SLIGHTLY UNSETTLED CONDI-
TIONS ARE EXPECTED UNTIL OR UNLESS ANOTHER MAJOR EVENT OCCURS.
A RESUMPTION OF STORM CONDITIONS WOULD FOLLOW 36-48 HOURS AFTER
THE NEXT CLASS X EVENT. THE SATELLITE-LEVEL PROTON EVENT IS
EXPECTED TO DROP BELOW EVENT THRESHOLD (10 PARTICLES/SEC/CM2/-
STER AT GT 10-MEV) BY 16/2400Z. THE POLAR CAP ABSORPTION EVENT
ENDED AT 15/1500Z.

III. EVENT PROBABILITIES:

CLASS M 90/90/90

CLASS X 40/40/40

PROTON 40/40/40

PCAE YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 15 OCTOBER 289

ESTIMATED 16 OCTOBER 292

PREDICTED 17-19 OCTOBER 296/296/280

90 DAY MEAN 15 OCTOBER 220

V. GEOMAGNETIC A INDICES

OBSERVED AFR 14 OCTOBER 39 AP 15 OCTOBER 18

ESTIMATED AFR 15 OCTOBER 20 AFR/AP 16 OCTOBER 08/12

PREDICTED AFR/AP 17-19 OCTOBER 08/15 15/15 20/20

SOLTERWARN

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HFUS 3 BOU 162200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 2898

JOINT USAF/NCAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 16 OCT 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY

FROM 15/1200Z TO 16/2100Z:

SOLAR ACTIVITY HAS BEEN MODERATE DURING THIS PERIOD. THE LARGEST EVENT WAS A M2/2B EVENT FROM REGION 3397 (S19W40) AT 1428 UT. A TENFLARE OF 400 FLUX UNITS WAS RECORDED WITH A SB/M1 FROM 3390 (S16W07) AT 1232 UT. NEW REGIONS TODAY 3410 (S11E68), 3411 (S20W04), 3412 (S20E48) AND 3413 (N05E26) ARE GENERALLY SIMPLE GROUPS.

IP. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN SLIGHTLY UNSETTLED. THE GEOMAGNETIC FIELD IS EXPECTED TO BE UNSETTLED THE FIRST PORTION OF THE PERIOD THEN ACTIVE THE REST OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES: 17 - 19 OCT

CLASS M 90/90/90

CLASS X 40/40/40

PROTON 40/40/40

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 16 OCT 305

PREDICTED 17 - 19 OCT 296/292/280

90 DAY MEAN 16 OCT 221

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 15 OCT 21/18

ESTIMATED AFR/AP 16 OCT 10/12

PREDICTED AFR/AP 17 - 19 OCT 08/15 15/15 20/20

SOLTERWARN

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