

HFUS 1 R0U 221230

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 265A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 1300Z 22 SEPTEMBER 1981

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

21/1200 UT TO 22/1200 UT:

SOLAR ACTIVITY HAS BEEN MODERATE SINCE 21/1200 UT DUE TO AN M1/1B FLARE FROM REGION 3359 (S09E65) AT 22/0846 UT. THIS FLARE WAS ACCCOMPANIED BY A TYPE II RADIO SWEEP, A SHORT WAVE FADE, AND NUMEROUS RADIO BURSTS. REGION 3359 APPEARS TO BE THE RETURN OF OLD REGION 3300. REGIONS 3347 (S07E09) AND 3349 (N19W67) HAVE BEEN INACTIVE THIS PERIOD, BUT MAINTAIN THEIR POTENTIAL FOR SMALL FLARES. REGION 3344 (N11W03) IS A MATURE, FRUPTIVE REGION WHICH HAS UNDFRGONE LITTLE CHANGE.

I B. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE, DUE PRIMARILY TO THE APPEARANCE OF ACTIVE REGION 3359. REGION 3344 HAS FEATURES INDICATING SOME MODERATE FLARE POTENTIAL MAY STILL EXIST.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS QUIET UNTIL BECOMING ACTIVE DURING THE 03-06 UNIVERSAL TIME PERIOD. ACTIVE CONDITIONS ARE EXPECTED TO SUBSIDE LATE THIS UT DAY, BECOMING UNSETTLED FOR THE NEXT THREE DAYS. TERRESTRIAL EFFECTS ARE NOT EXPECTED FROM THE M1/1B FLARE DUE TO LIMB PROXIMITY.

III. EVENT PROBABILITIES: 23 - 25 SEPT

CLASS M 50/60/60

CLASS X 02/05/05

PROTON 01/02/05

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 20 SEP 190

ESTIMATED 22 SEP 185

PREDICTED 23 - 25 SEP 180/175/180

90 DAY MEAN 21 SEP 209

V. GEOMAGNETIC A INDICES

OBSERVED AFR 20 SEP 08 AP 21 SEP 08

ESTIMATED AFR 21 SEP 05 AFR/AP 22 SEP 14/16

PREDICTED AFR/AP 23 - 25 SEP 10/13 12/15 10/14

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HEUS 3 POU 222200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO  
SDF NUMBER 265B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 22 SEPTEMBER 1981

TA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 22/1200Z TO 22/2100Z: SOLAR ACTIVITY RETURNED TO THE LOW LEVEL DURING THE PAST NINE HOURS FOLLOWING THIS MORNING'S M1/1R IN REGION 3359. ACTIVITY DURING THE PERIOD CONSISTED OF ONLY SMALL C-CLASS EVENTS. REGION 3359 (S09E60) IS A SMALL C-TYPE SPOT GROUP WITH A SIMPLE MAGNETIC STRUCTURE. REGIONS 3344 (N10W08) AND 3347 (S07E04) ARE MORE COMPLEX (BOTH BETA-GAMMA), BUT BOTH ARE DECAYING SLOWLY AND HAVE BEEN STABLE. NEW REGION 3360 (S16E78) IS LOCATED JUST BEHIND REGION 3359 AND EXTENDS TO THE EAST LIMB WHERE SURGING HAS BEEN OBSERVED.

TR. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN LOW. REGION 3359'S M-CLASS FLARE THIS MORNING (0845Z) APPEARS TO HAVE BEEN AN ISOLATED EVENT BASED ON THE REGION'S SIZE AND COMPLEXITY. THE PRESENT DISK REGIONS SHOULD PRODUCE ONLY C-CLASS EVENTS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS UNSETTLED DURING THE PAST NINE HOURS FOLLOWING THE ACTIVE CONDITIONS EARLY IN THE ZULU DAY. UNSETTLED CONDITIONS ARE EXPECTED TO CONTINUE THROUGH THE NEXT 24 HOURS.

III. EVENT PROBABILITIES 23 SEPTEMBER - 25 SEPTEMBER

CLASS M 40/40/40

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 22 SEPTEMBER 182

PREDICTED 23-25 SEPTEMBER 175/172/175

90-DAY MEAN 22 SEPTEMBER 209

V. GEOMAGNETIC INDICES

OBSERVED AFR/AP 21 SEPTEMBER 05/08

ESTIMATED AFR/AP 22 SEPTEMBER 11/16

PREDICTED AFR/AP 23-25 SEPTEMBER 10/13 - 12/15 - 10/14

SOLTERWARN

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