

HFUS 1 BQU 021300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 245A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 02 SEP 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
01/1200Z TO 02/1200Z:

SOLAR ACTIVITY WAS AT LOW LEVELS DURING THE LAST 24 HOURS.
THERE WERE NO M-CLASS EVENTS, BUT SUBFLARE C-CLASS FLARES HAVE
BEEN OCCURRING FREQUENTLY. REGIONS 3295 (N17W63) AND 3298
(N16W42) WERE THE TWO MOST ACTIVE REGIONS. AN ERUPTIVE PROM-
INENCE WAS OBSERVED ON THE NE LIMB AT 0700 UT EXTENDING TO
0.4 SOLAR RADIUS.

IP. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE. NO X CLASS
ACTIVITY IS LIKELY. REGION 3300 (S11W13) IS RELATIVELY LARGE
(700 MILLIONTHS) BUT HAS BEEN FAIRLY QUIET DURING ITS LIFETIME.
THIS REGION, ALONG WITH 3295, 3298, AND 3310 (S10E35), OFFER
GOOD PROBABILITIES OF M-CLASS ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST:

GEOMAGNETIC FIELD FLUCTUATIONS INCREASED TO ACTIVE LEVELS AT
ABOUT 02/0200UT. K-INDICES OF 3 AND 4 (ACTIVE) SHOULD BE THE
RULE FOR THE NEXT THREE DAYS, WITH A LARGE NORTHERN CORONAL
HOLE AND SOLAR SECTOR BOUNDARY BEING THE CAUSATIVE FACTORS.

III. EVENT PROBABILITIES: 03-05 SEP

CLASS M 90/90/90

CLASS X 20/20/20

PROTON 15/15/15

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 01 SEP 244

ESTIMATED 02 SEP 244

PREDICTED 03-05 SEP 244/244/244

90 DAY MEAN 01 SEP 191

V. GEOMAGNETIC A INDICES

OBSERVED AFR 31 AUG 13 AP 01 SEP 07

ESTIMATED AFR 01 SEP 06 AFR/AP 02 SEP 15/20

PREDICTED AFR/AP 03-05 SEP 15/25 15/20 15/15

SOLTERWARM

BT

NNNNZCZZLOZ

NCZGZLOJ

KBOU

HFUS 3 BOU 022200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 245B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 02 SEPTEMBER 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 02/1200Z TO 02/2100Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST NINE HOURS WITH ONLY LOW LEVEL CLASS C FLARES OBSERVED. REGION 3300

(S12W18) HAS BEEN ENHANCED ALL DAY IN ITS TRAILING PORTION WHERE SMALL ELEMENTS OF EMERGING FLUX HAVE BEEN DETECTED. REGION 3310 (S10E29), WHILE HAVING PRODUCED NO BURST ACTIVITY, HAS REVEALED AN INTENSIFYING DELTA CONFIGURATION WITH A STRONG EAST-WEST NEUTRAL LINE IN THIS AREA. A SMALL REGION EMERGED AT S19E49 AND WAS NUMBERED 3316.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD RESUME MODERATE LEVELS PRIMARILY IN RESPONSE TO RECENT INCREASES IN MAGNETIC STRENGTHS AND COMPLEXITIES IN REGION 3300 AND 3310.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS ACTIVE EARLY IN THIS PERIOD BUT UNSETTLED SINCE APPROXIMATELY 1700Z. SOLAR MAGNETOGRAPH AND 10830 OBSERVATIONS INDICATE THAT THE LARGE CORONAL HOLE IN THE NORTHWEST IS AN EQUATORWARD EXTENSION OF POLAR FIELDS. SINCE THE HOLE RESIDES IN NEGATIVE FIELDS THIS MAY INDICATE THE FIRST MANIFESTATIONS OF NEW CYCLE MAIN FIELD REVERSAL. IT ALSO MAY INDICATE THAT THIS CORONAL HOLE MAY SOON ESTABLISH ITSELF AS A SIGNIFICANT RECURRENT HIGH SPEED SOLAR WIND STREAM SOURCE. ACTIVE GEOMAGNETIC CONDITIONS ARE EXPECTED FOR THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 03 SEPTEMBER - 05 SEPTEMBER

CLASS M

90/90/90

CLASS X

75/15/15

PROTON

15/15/15

PCAF

YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 02 SEPTEMBER 239

PREDICTED 03-05 SEPTEMBER 230/225/218

90-DAY MEAN 02 SEPTEMBER 193

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 01 SEPTEMBER 05/07

ESTIMATED AFR/AP 02 SEPTEMBER 20/20

PREDICTED AFR/AP 03-05 SEPTEMBER 15/25 - 15V20 - 15/15

SOLTERWARN

BT

NNNNZ