

HFUS 1 BOU 011300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 182A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 01 JULY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 30/1200Z
TO 01/1200Z:

SOLAR ACTIVITY HAS REMAINED LOW DURING THE PAST 24 HOURS WITH ONLY
C-CLASS SUBFLARES OBSERVED FROM REGIONS 3180 (S15E00) AND 3170
(N14W83). REGION 3180 HAS UNDERGONE STRUCTURAL AND MAGNETIC CHANGES
BUT AS YET HAS NOT SHOWN ANY SIGNIFICANT SIGNS OF DECAY. IT RETAINS
A STRONG MAGNETIC GRADIENT AND DELTA MAGNETIC CONFIGURATION. REGIONS
3185 (S16E16) AND 3186 (S04E20) WHICH FORMED ON THE DISK YESTERDAY,
ARE BOTH GROWING. NEW DEVELOPMENT ON THE DISK IS OCCURRING AT
S24E01 AND N09E23.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO RETURN TO THE MODERATE LEVEL WITH
THE LIKELY OCCURRENCE OF M-CLASS X-RAY EVENTS FROM REGION 3180.
FURTHER DEVELOPMENT IN REGION 3185 COULD INDICATE M-CLASS FLARES
POSSIBLE ALONG WITH INTERACTION WITH REGION 3180.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS UNSETTLED THROUGH MOST OF THE PAST 24
HOURS, BUT BECAME ACTIVE SHORTLY AFTER 01/0100UT WITH K VALUES OF
4 OBSERVED AT MID-LATITUDES. THIS RESPONSE IN THE FIELD IS THE
PROBABLE RESULT OF A WEAK CORONAL HOLE AND FLARE ACTIVITY ON 29 JUN.
UNSETTLED CONDITIONS ARE EXPECTED THROUGH THE FORECAST PERIOD.

III. EVENT PROBABILITIES: 02 JULY - 04 JULY

CLASS M	75/70/60
CLASS X	15/10/10
PROTON	15/10/10
SCAF	YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 30 JUNE 173

ESTIMATED 01 JULY 169

PREDICTED 02-04 JULY 162/158/160

90 DAY MEAN 30 JUNE 192

V. GEOMAGNETIC A INDICES

OBSERVED AFR 29 JUNE 31 AP 30 JUNE 12

ESTIMATED AFR 30 JUNE 12 AFR/AP 01 JULY 16/15

PREDICTED AFR/AP 02-04 JULY 08/10 10/10 12/15

SOLTERWARN

BT

HFUS 3 RCU 012200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 182B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 01 JULY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 01/1200Z TO 01/2100Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS. REGION 3180 (S15W06) CONTINUES LARGE AND WITH MANY SPOTS AND IT HAS A WEAK DELTA CONFIGURATION. THE SLOW RATE OF EVOLUTION AND THE LOW FLARE PRODUCTION INDICATE A MUCH REDUCED POTENTIAL FOR LARGE FLARES. MINOR GROWTH CONTINUES IN REGION 3183 (S07W21) BUT ITS SIZE AND STRUCTURE REMAIN MINOR. NEW REGIONS HAVE EMERGED AT S23W05 (REGION 3187) AND N12W46 (REGION 3188). AN ACTIVE EMBEDDED FILAMENT SEPARATES CLOSELY SPACED SPOTS IN TINY REGION 3178 (N19W32).

IB. SOLAR ACTIVITY FORECAST: AN ISOLATED CLASS M EVENT IS LIKELY FROM REGION 3180 AND REGION 3178. INFREQUENT CLASS C EVENTS WILL DOMINATE THIS PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE TO UNSETTLED. ACTIVITY IS EXPECTED TO REDUCE TO SLIGHTLY UNSETTLED FOR MOST OF THIS PERIOD.

III. EVENT PROBABILITIES 02 JULY - 04 JULY

CLASS M: 75/70/60

CLASS X: 10/10/10

PROTON: 10/10/10

PCAF: GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED: 01 JULY 170

PREDICTED: 02-04 JULY 162/158/160

90-DAY MEAN: 01 JULY 192

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP: 30 JUNE 18/12

ESTIMATED AFR/AP: 01 JULY 18/20

PREDICTED AFR/AP: 02-04 JULY 10/10 - 10/10 - 12/15

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