

HFUS 1 BOU 021300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 061A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 02 MAR 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 01/1200Z TO 02/1200Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS WITH ONLY SMALL C-CLASS X-RAY EVENTS BEING RECORDED. REGION 3625 (N14W08) APPEARS TO BE STABILIZING AND REGION 3628 (N17E10) IS DECAYING. REGION 3629 (S20E34) IS GROWING AND HAS INCREASED IN MAGNETIC COMPLEXITY. REGION 3631 (S13E34), WHICH SHARES A MAGNETIC INVERSION LINE WITH 3629, IS GROWING RAPIDLY AND HAS AN ARCH FILAMENT SYSTEM, A COMPACT, FLUCTUATING PLAGE, AND NEAR-CONTINUOUS BRIGHT POINTS. A FILAMENT WHICH WAS PRESENT ON THE H-ALPHA PHOTO FOR 28 FEB WAS NO LONGER PRESENT ON 01 MARCH. THIS FILAMENT WAS LOCATED ON 28 FEB ON A NEUTRAL LINE LYING EAST OF REGION 3618 (S07W49) AND CROSSING THE SOLAR EQUATOR. NEUTRAL LINE RESTRUCTURING APPEARS TO HAVE OCCURRED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW WITH THE POSSIBILITY OF AN ISOLATED M-CLASS FLARE FROM REGION 3625 OR 3629.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN AT MAJOR STORM LEVELS DURING THE PAST 24 HOURS. THE STORM BEGAN WITH AN SSC 01 MARCH AT 1139Z WHICH WAS SEEN 33 MINUTES EARLIER AT THE ISEE-3 SPACECRAFT. THIS DELAY TIME EXTRAPOLATES TO A SOLAR SOURCE EARLY ON 27 FEB, WHICH COINCIDES WITH A FILAMENT DISAPPEARANCE REPORTED BY CULGOORA, AUSTRALIA. THEY REPORTED A LARGE, DARK FILAMENT LOCATED FROM N20E30 TO N50E90 WHICH LIFTED AND DISSIPATED BETWEEN 01/0000Z AND 01/0140Z FORMING AN ARCH ABOVE THE LIMB VISIBLE OUT TO .15 R. THERE IS NO APPROPRIATE FLARE SOURCE OR ACTIVE REGION WHICH HAS RECENTLY CROSSED THE WEST LIMB. THERE IS NO CORONAL HOLE ASSOCIATION. ISEE-3 DATA INDICATES THAT THE INTERPLANETARY DISTURBANCE IS WEAKENING AND THE STORM IS EXPECTED TO END WITHIN THE NEXT 24 HOURS. HOWEVER, A NEW DISTURBANCE ORIGINATING WITH TODAY'S FILAMENT DISAPPEARANCE IS EXPECTED TO IMPACT ON 04 MARCH AND SHOULD KEEP GEOMAGNETIC CONDITIONS ACTIVE THROUGHOUT THE FORECAST PERIOD.

III. EVENT PROBABILITIES 03 MAR-05 MAR

CLASS M 40/40/40

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 01 MAR 236

ESTIMATED 02 MAR 235

PREDICTED 03 MAR-05 MAR 240/235/230

90 DAY MEAN 01 MAR 200

V. GEOMAGNETIC A INDICES

OBSERVED AFR 28 FEB 010 AP 01 MAR 045

ESTIMATED AFR 01 MAR 050 AFR/AP 02 MAR 065/065

PREDICTED AFR/AP 03 MAR-05 MAR 019/020-025/020-015/012

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HFUS 3 BOU 022200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 061B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 02 MAR 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 02/1200Z TO 02/2100Z: SOLAR ACTIVITY HAS BEEN LOW DURING THIS PERIOD WITH ONLY SMALL C-CLASS EVENTS BEING RECORDED. THE LARGEST EVENT THIS PERIOD WAS A C5/SN 02 MAR 1842UT FROM REGION 3625 (N14W10). NO NEW REGIONS WERE OBSERVED TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN LOW DURING THIS FORECAST PERIOD. REGIONS 3625 AND 3622 (S20E27D) MAY PRODUCE AN ISOLATED M-CLASS EVENT IF RAPID CHANGE OCCURS IN THE REGIONS. LITTLE ACTIVITY HAS BEEN NOTED ON THE EAST LIMB.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN AT MAJOR STORM LEVELS DURING MOST OF THIS PERIOD. AURORA WAS OBSERVED AS FAR SOUTH AS 35 DEGREES NORTH DURING THE MAIN PHASE OF THE STORM. THE FIELD IS EXPECTED TO BE AT OR NEAR MINOR STORM LEVELS UNTIL EARLY ON 03 MARCH WHEN GENERALLY ACTIVE CONDITIONS ARE EXPECTED. A NEW DISTURBANCE IS EXPECTED TO ARRIVE ON 04 MARCH WITH ACTIVE TO MINOR STORM CONDITIONS WITH ACTIVE CONDITIONS EXPECTED FOR THE REST OF THE PERIOD.

III. EVENT PROBABILITIES 03 MAR-35 MAR

CLASS M 40/40/40

CLASS X 01/01/01

PROTON 01/01/01

RCAF GREEN

IV. OTTAWA 10.7 CM FLUX 238

OBSERVED 02 MAR 38

PREDICTED 03 MAR-05 MAR 240/235/230

90 DAY MEAN 02 MAR 200

V. GEOMAGNETIC A INDICES 066

OBSERVED AFR/AP 01 MAR 00/6/045

ESTIMATED AFR/AP 02 MAR 073/090

PREDICTED AFR/AP 03 MAR-05 MAR 0.9/025-025/025-015/015

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