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FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 035

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 04 FEBRUARY 1980

IA. SOLAR ACTIVITY HAS BEEN MODERATE FOR THE PAST 24 HOURS. A HIGH X-RAY BACKGROUND LEVEL AND NUMEROUS SUBFLARES HAVE CONTRIBUTED TO SEVERAL M-CLASS EVENTS. THE LARGEST OPTICAL FLARE REPORTED TODAY WAS AN M1/2N WHICH OCCURRED IN REGION 2262 (N15W30) AT 1406 UT (MAX). REGION 2271 (N18E10) PRODUCED AN M1/1B AT 1718 UT WHICH WAS ACCCOMPANIED BY A RADIO BURST OF 2100 FU AT 245 MHZ. REGIONS ON THE DISK REMAINED MOSTLY STABLE, WITH SOME SIMPLIFICATION IN REGION 2271 AND GROWTH IN REGION 2272 (N03E12). TWO NEW REGIONS WERE NUMBERED TODAY, 2275 (S28W33), A RAPIDLY DEVELOPING C-TYPE GROUP, AND 2276 (S12E76) WHICH IS RETURNING REGION 2238. REGION 2276 APPEARS TO BE A D-TYPE GROUP OF CONSIDERABLE INTEREST.

IB. SOLAR ACTIVITY IS EXPECTED TO CONTINUE AT MODERATE LEVELS WITH REGIONS 2262 AND 2266 (S15W01) POSSESSING THE HIGHEST PROBABILITIES OF ENERGETIC ACTIVITY, BUT WITH 5 OTHER OF THE 14 SPOTTED REGIONS WITH GOOD FLARE POTENTIAL.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET FOR THE PAST 24 HOURS. THE FIELD IS EXPECTED TO BECOME UNSETLED TO ACTIVE TOMORROW IN RESPONSE TO A SIGNIFICANT FLARE ON 03 FEBRUARY. (HOWEVER, A SMALL PROTON EVENT PREDICTED AS A RESULT OF THAT FLARE DID NOT MATERIALIZE AND IS NOT NOW EXPECTED.) THE PROJECTED MAGNETIC DISTURBANCE SHOULD SUBSIDE BY THE END OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 05 FEBRUARY - 07 FEBRUARY

CLASS M 9/9/9/9/0

CLASS X 25/25/25

PROTON 15/15/15

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 04 FEBRUARY 238

PREDICTED 05-07 FEBRUARY 245/250/250

90-DAY MEAN 04 FEBRUARY 215

V. GEOMAGNETIC INDICES

OBSERVED FREDERICKSBURG 03 FEBRUARY 02

ESTIMATED AFR/AP 04 FEBRUARY 04/05

PREDICTED AFR/AP 05-07 FEBRUARY 15/15 - 20/20 - 10/12

SOLTERWARN

BT