Section 4
NATIONAL LASER USERS FACILITY NEWS

National Laser Users Facility (NLUF) activity during the first quarter of FY86 was primarily in three areas: NLUF experiments were conducted on the OMEGA facility; the 1986 NLUF Steering Committee was formulated; and 15 proposals were received for consideration for the 1986–87 funding cycle.

NLUF experiments during this quarter were carried out for **U. Feldman** and **J. Seely** of the Naval Research Laboratory. The experiments, using the UV OMEGA laser at energy levels between 500 and 1600 J, were for characterizing the XUV spectra of Fe, Y, Zr, Nb, Mo, Ru, Rh, Ag, Cd, Sm, Gd, and Eu. The primary objective of this program is to record high resolution ($\Delta\lambda/\lambda < 1000$ spectra) of isoelectronic sequences of interest for possible soft x-ray laser transitions. Rich spectra were observed from all of the elements attempted. Spectra from excited states of F-like and O-like ions were observed in the range of 20 to 300 Å for elements Fe through Cd; interest in the spectra of Sm, Gd, and Eu is stimulated by speculation regarding the possibility of x-ray laser generation on Ni-like ion transitions. The recorded spectra are now being analyzed at the Naval Research Laboratory.

In December 1985, the Department of Energy approved a list of potential members of the next NLUF Steering Committee. The formulation of the Committee and planning for its meeting to consider next year's proposals was under way as of the writing of this report.

In December we received 15 proposals for consideration by the next Steering Committee. The proposed experiments range from fundamental atomic physics to cryogenic fuel implosion.

Proposals for consideration for the FY88 funding cycle are due by 15 December 1986.

For more information regarding proposal guidelines and the resources available at the National Laser Users Facility, please contact:

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