

Section 4

NATIONAL LASER USERS FACILITY NEWS

This report covers the activities of the National Laser Users Facility (NLUF) during the quarter January to March 1981. In this period we have conducted design reviews of equipment to be used on laser experiments, received eight new proposals for the next years, appointed a new NLUF Steering Committee to review proposals, and participated in two scientific meetings to acquaint scientists with the opportunities of research at the NLUF.

The purpose of the design reviews is to guarantee the interface of user equipment on the OMEGA system. The first review finalized the design of a spectrometer for the Physics International experiment (Dr. Glen Dahlbacka). This spectrometer will measure the alpha particles and protons from a DT filled target irradiated by the OMEGA system. The second review was for the University of Illinois (Dr. George Miley). Their review covered the preliminary design of a spectrometer to also measure the alpha and proton reaction product spectra.

The NLUF received eight new proposals during this period, submitted by universities and industries. We now have 15 proposals to be reviewed by the NLUF Steering Committee. The proposals are in the fields of plasma diagnostics, spectroscopy, basic plasma physics, astrophysics, gas breakdown, x-ray diagnostics, physical chemistry, material studies, and laser physics.

The NLUF Steering Committee will meet on April 28. Its purpose is to provide scientific review and merit ranking of proposals and recommend the order of funding for DOE-supported user research funds. Membership of the committee includes scientists from the fields of atomic physics, biophysics, x-ray astrophysics, plasma physics, materials, and laser fusion. A report from the Steering Committee will be available in the next issue of the LLE Review.

The NLUF was represented at two scientific meetings to inform researchers of the opportunities for user experiments at LLE. NLUF was a participant at the invited poster session on national facilities as part of the American Physical Society meeting in Phoenix on March 18. This type of session attracted many useful discussions and interest in potential experiments at NLUF. The facility was also represented at the Third Topical Conference on High Temperature Plasmas in Baton Rouge on February 26.

NLUF now has six ongoing user experiments in various stages of work, from design of diagnostics to experimental data collection.

Further information on NLUF is available from two publications:

- i) Experiments with Very High-Power Lasers, The Report of a Workshop,
- ii) NLUF Users Handbook, 1981.

These publications can be obtained by writing to:

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