

Section 3

NATIONAL LASER USERS FACILITY NEWS

National Laser Users Facility (NLUF) activity during the fourth quarter of FY87 centered on a users' workshop and support of experiments on the OMEGA and glass development lasers (GDL).

On 14-15 July a workshop was held to familiarize more scientists with the facilities available at LLE. Representatives from industrial, government, and university laboratories were shown the current capabilities of the OMEGA and GDL lasers. User support available at LLE was outlined and the process of proposal submission and evaluation was explained. In addition, current users presented data from experiments done with the OMEGA and GDL lasers. The formal presentations were interspersed with discussion sessions to allow people new to LLE the opportunity to ask questions of the LLE staff and of current users.

Juan Marino and **Sam Goldsmith** from **Hans Griem's** group at the University of Maryland conducted experiments on the OMEGA laser from 8 September through 14 September. Targets were manufactured and irradiated to study the propagation of the laser-initiated heat front into spherical targets. The primary diagnostics used were the NRL-NASA 3-m XUV spectrograph and the LBL SPEAXS time-resolved spectrograph. This data is now being analyzed at the University of Maryland.

A group of scientists from the University of California at Los Angeles, headed by **Prof. Chan Joshi**, conducted experiments on

GDL during the week of 14 September. Special targets were constructed at UCLA to study filamentation of high-intensity laser irradiation of flat targets. A combination of optical and x-ray diagnostics was used to measure laser-irradiated thin foils.

John Apruzese, Philip Burkhalter, and John Seely from Naval Research Laboratory (NRL) used both OMEGA and GDL to study the effect of collisional pumping with hot electrons on ionization states of tin and silver. GDL was propagated to the OMEGA target chamber in the infrared and used with ultraviolet irradiation from OMEGA to generate plasmas with and without hot electrons. Data were collected with x-ray crystal spectrographs, the NRL-NASA 3-m XUV spectrograph, x-ray imaging systems, and the SPEAXS time-resolved spectrograph. These measurements were conducted during the week of 21 September.

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