

***IMPACTS OF FY12 HOUSE-PROPOSED REDUCTIONS ON  
THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY (JEFFERSON LAB)  
JUNE 2011***

Thomas Jefferson National Accelerator Facility in Newport News, Virginia is one of ten Office of Science national laboratories in the Department of Energy. The mission of the laboratory is primarily the provision of facilities for and execution of an accelerator-based nuclear physics research program. The laboratory is currently engaged in the 12 GeV Upgrade Project to enhance the facility and provide for the next decade and more of world leading research. FY12 is a critical year for the project.

The House-proposed reduction of \$616M for the DOE's Office of Science (compared with FY12 request) will impact the Jefferson Lab mission and future as a world leading nuclear physics research facility, as one of Virginia's major economic and innovation engines, and as a training ground for scientists in a key field necessary to address our nation's energy independence and security.

DOE's requested full-year FY12 budget for Jefferson Lab is \$84M for its base program, \$66M for the 12 GeV Upgrade Project (a \$310M construction project), and \$12.3M for the Technology Engineering and Development Facility (TEDF, a \$72M construction project).

The House bill cuts the 12 GeV Upgrade Project for Jefferson Lab by \$26M, a 40% cut for FY12 project funding, which has major impacts on the project and manpower.

FY12 is a critical construction year for the 12 GeV Upgrade Project. Critical procurements occur in the first quarter and ramp up in preparation for the twelve-month machine shutdown installation period which starts in the third quarter. Reduction of \$26M will result in the following impacts:

- **a dramatic reduction in jobs on the 12 GeV Project**
- **increase of Total Project Cost by ~\$22 - \$25M, and**
- **delay of project completion and the subsequent beginning of experimental operations by ~15 to 18 months.**

The budget shortfall will necessitate a dramatic reduction in manpower on the 12 GeV Project, some of whom are full JLab employees (~50) and others who are term contract laborers (~50). In the case of a 6-month continuing resolution the Jefferson Lab labor impact would be increased to ~80.

## ABOUT JEFFERSON LAB

Jefferson Lab, in Newport News, VA, is a facility unique in the world for nuclear physics research serving an international user community of nearly 1300 scientists from 36 states and 40 countries. In addition, the lab provides world leadership in superconducting technology and in free electron lasers for defense, science and industrial applications.

Jefferson Lab's primary electron accelerator acts as a probe, allowing scientists to "see" inside matter in order to understand how ordinary matter is put together.

New Experimental Hall D awaiting equipment installation



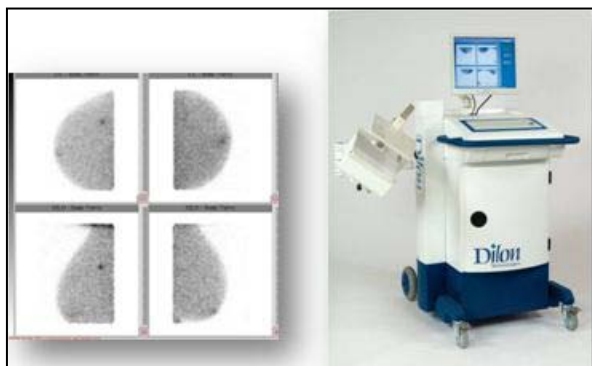
Aerial View of Jefferson Lab Site

Jefferson Lab outcomes include:

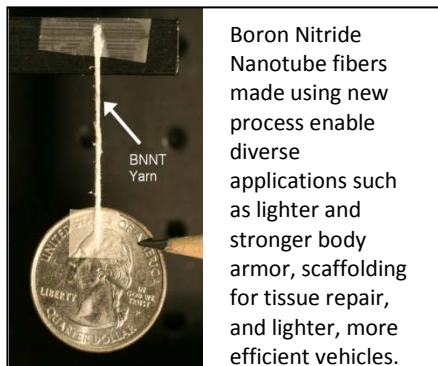
- New insight into matter at the most fundamental level
- A dynamic future at the forefront of science and technology
  - Technologies that are being applied for national defense, medical imaging, and environmental research
- Contributions to the education of the next generation through enhanced science awareness, K-12 programs that reach 12,000 students and 1,000 teachers per year, and undergraduate and graduate studies
- Excellent corporate citizenship and partnership with the local community



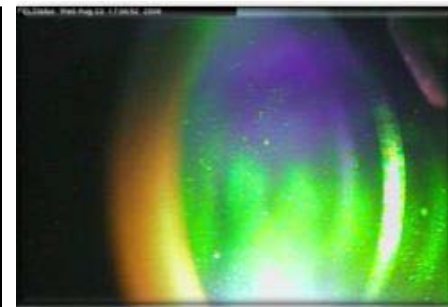
Superconducting cavities for 12 GeV Upgrade



Breast Specific Gamma Imaging based on JLab detector technology



Boron Nitride Nanotube fibers made using new process enable diverse applications such as lighter and stronger body armor, scaffolding for tissue repair, and lighter, more efficient vehicles.



JLab's record-breaking Free Electron Laser lasing at 3rd and 4th harmonics.