

# A federal laboratory needs a policy-driven mission accomplished by doing big science

## Mission

- Ensure safety and reliability of nuclear stockpile
- Work against proliferation of nuclear weapons



## Policy

- No nuclear testing

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## Report Documentation Page

<b>Report Date</b> 26032001	<b>Report Type</b> N/A	<b>Dates Covered (from... to)</b> -
<b>Title and Subtitle</b> A federal laboratory needs a policy-driven mission accomplished by doing big science	<b>Contract Number</b>	
	<b>Grant Number</b>	
	<b>Program Element Number</b>	
<b>Author(s)</b>	<b>Project Number</b>	
	<b>Task Number</b>	
	<b>Work Unit Number</b>	
<b>Performing Organization Name(s) and Address(es)</b> Unknown	<b>Performing Organization Report Number</b>	
<b>Sponsoring/Monitoring Agency Name(s) and Address(es)</b> NDIA (National Defense Industrial Association 2111 Wilson Blvd., Ste. 400 Arlington, VA 22201-3061	<b>Sponsor/Monitor's Acronym(s)</b>	
	<b>Sponsor/Monitor's Report Number(s)</b>	
<b>Distribution/Availability Statement</b> Approved for public release, distribution unlimited		
<b>Supplementary Notes</b> Proceedings from National Summit on U.S. Defense Policy: Acquisition, Research, Test and Evaluation, 26-30 March 2001 sponsored by NDIA.		
<b>Abstract</b>		
<b>Subject Terms</b>		
<b>Report Classification</b> unclassified	<b>Classification of this page</b> unclassified	
<b>Classification of Abstract</b> unclassified	<b>Limitation of Abstract</b> UU	
<b>Number of Pages</b> 7		

# To us, big science refers to projects of large scale and impact



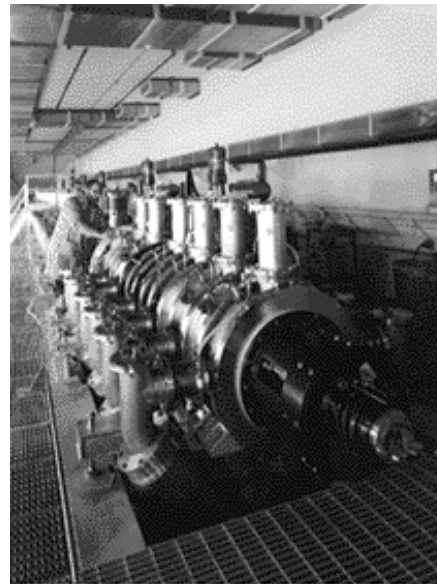
**Advanced Strategic Computing Initiative (ASCI): massively parallel teraflop supercomputing**



**Nova inertial fusion laser**



**Flash x-ray (FXR) radiography machine**



# **Big science requires the construction of large facilities**



## **National Ignition Facility (NIF)**



**Defines state-of-the-art  
in optics industry**

- ★ **A large fraction of its construction budget goes to industry**
- ★ **Industrial partners critical to LLNL mission**

## **The Lab is characterized by highly committed multidisciplinary teams**



**Our multidisciplinary teams support the big science we've been doing since LLNL began in 1952**

# Our mission determines the nature and scope of our science and technology



**Weapons: warhead for Polaris missile**



**Remote sensing: star tracker camera used on Clementine spacecraft that mapped the moon's surface**



# **Big science forms the foundation for stable, long-term industrial participation**



**Almost 50 years of close  
partnering with industry**



# Conclusion: A federal lab needs a policy-driven mission accomplished by doing big science



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