

# Sandia Supplier Conference

## *Closing Remarks*

**Anthony Medina**

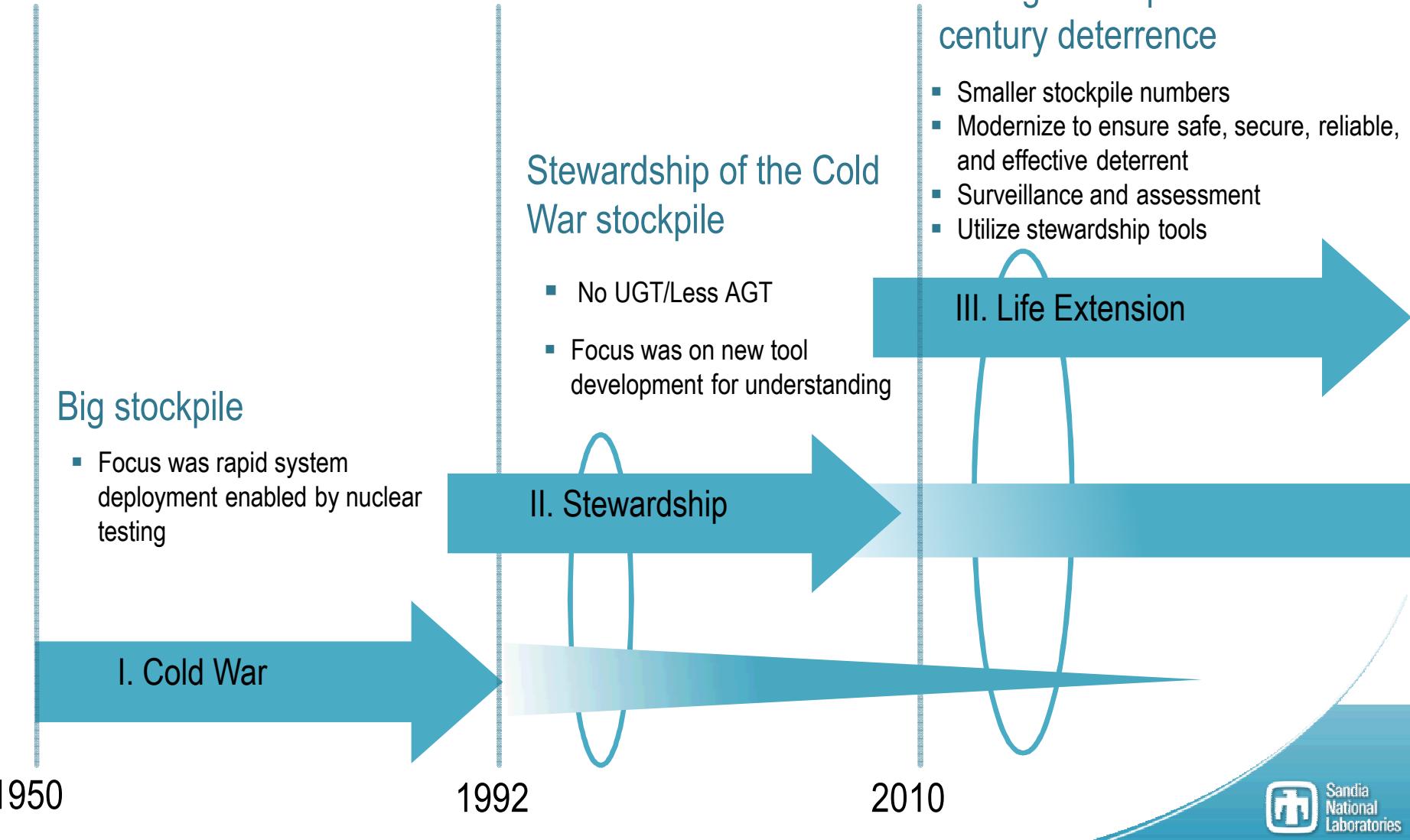
Center Director  
Energetic Component Center



Sandia National Laboratories is a multi program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.



# We are transitioning to a new era for our nuclear deterrent.



# Strategic Dialogue and Global Engagement

Starting in April 2009 with the Obama NW Vision speech in Prague...



## America's Strategic Posture

America's Strategic Posture Report  
- Perry, Schlesinger, 05/2009

## THE WALL STREET JOURNAL

What's Next for Nuclear Deterrent  
- Perry, Schlesinger, 05/2009

Department of Energy  
FY 2011 Congressional  
Budget Request

## NUCLEAR POSTURE REVIEW REPORT

## Los Angeles Times

## TREATY WITH RUSSIA ON MEASURES FOR FURTHER REDUCTION AND LIMITATION OF STRATEGIC OFFENSIVE WEAPONS

## The New York Times

## U.S. FACES CHOICE ON NEW WEAPONS AND START TREATY

## 111TH CONGRESS 1ST Session

## HOUSE OF REPRESENTATIVES

## NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2010

## CONFERENCE EDITION

## Los Angeles Times

## FY 2011 Stockpile Stewardship and Management Summary

April 22, 2010  
Concurrence Draft

National Nuclear Security Administration  
United States Department of Energy  
1000 Independence Avenue, SW  
Washington, D.C. 20585

NASA

General Nuclear Energy Corporation  
Washington, D.C. 20585

How to Protect Nuclear Deterrent  
- Schultz, Perry, Kissinger, Nunn, 01/2010

The President's Nuclear Vision  
- VP Biden, 01/2010

DOE FY11 Congressional Budget Request  
- NNSA, 02/2010

Nuclear Posture Review  
- DoD, 04/2010

A Comprehensive Nuclear Arms  
Strategy  
- VP Biden, 04/2010

New START  
- 04/2010

How to build on the START treaty  
- Perry and Shultz, 04/2010

New START Treaty Framework &  
Nuclear Force Structure Plans (1251)  
- House of Representatives, 05/2010

The Case for the New  
START Treaty  
- Gates, 05/2010

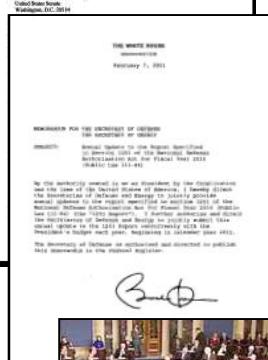
FY11 Stockpile Stewardship and  
Management Plan  
- NNSA, 05/2010

US Senate  
Testimony - 3 Lab  
Directors - 07/2010



VP Biden memo to  
Senator Kerry  
- 09/2010

1251 Report  
Updates  
- 11/2010  
- 02/2011

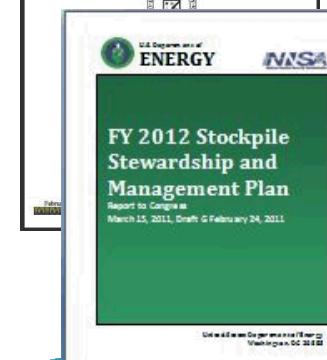


New START  
Ratification  
- US Senate, 12/2010  
- Russian Duma,  
01/2011

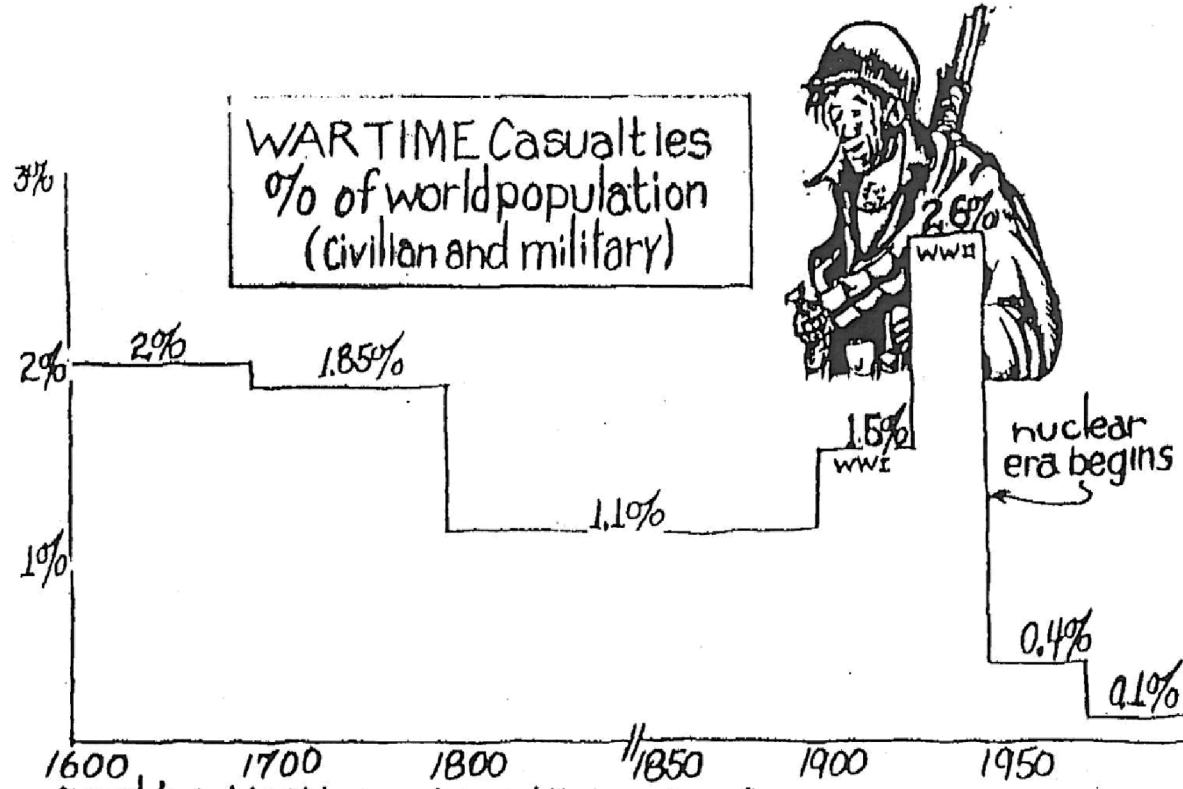
DOE FY12  
Congressional  
Budget Request  
- NNSA, 02/2011



FY12 Stockpile  
Stewardship and  
Management Plan  
- NNSA,  
03/2011

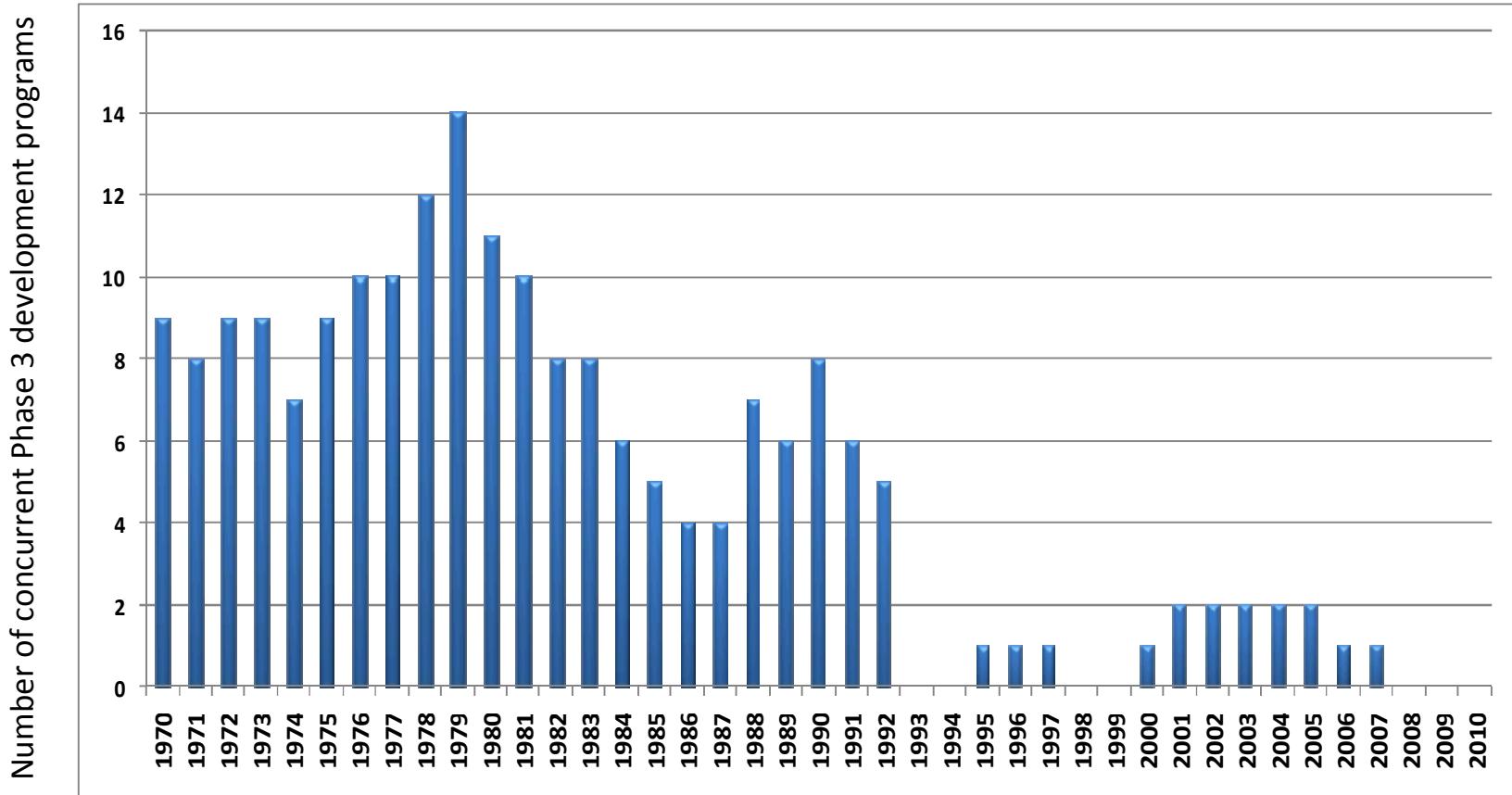


Sandia  
National Laboratories



Sivard: 'World Military and Social Expenditures'  
Washington 'World Priorities', World Almanac '94

# The end of the Cold War brought a fundamental change to the engineering environment at Sandia.



# Life Extension Programs

Notional Stockpile Workload Activities ---- Planning Schedule is Subject to Change Pending NPR Implementation Strategy																																				
Fiscal Year	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30															
Major Life Extensions at Pantex & Y-12	Submarine Launched Ballistic Missile Warhead (W76)	Nuclear Explosive Package (NEP) / Arming, Fuzing, and Firing (AF&F) Assembly																																		
	Tactical/Strategic Bomb LEP (B61-3/4/7/10)	6.2-6.2A		6.3-6.5					NEP, AF&F, & Surety (Pending Approval)																											
	Intercontinental Ballistic Missile Warhead (W78)		6.1	6.2-6.2A	6.3-6.5							NEP, AF&F, & Surety (Pending Approval)																								
	Submarine Launched Ballistic Missile Warhead (W88)					6.1	6.2-6.2A		6.3-6.5																	NEP & Surety (Pending Approval)										
	Cruise Missile Warhead (W80-1)																		6.1	6.2-6.2A	6.3-6.5															
	Air-Delivered Bomb Warhead (B61-11/B83-1)																																			
	Intercontinental Ballistic Missile Warhead (W87)																																			
Startup of design activites for one of these systems is anticipated in mid 2020s.																																				
Limited Life Component Exchange	W80-1												NG																							
	B83-1												NG & Alt 353																							
Field Refurbishments (Beyond Tritium Requirements)	W87					NG																														
	W88																								NG (AF&F)											
Field Refurbishments (Beyond Tritium Requirements)	B61-3/4/10	Alt 356																																		
	B61-11																								(NG)											
	W78																																			
	W87																																			
Authorized										Phases					Refurbishments (6.6)																					
										6.1 - 6.5					Field					Pantex Major					Pantex Minor											
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# Sandia's Unique Nuclear Weapons Role

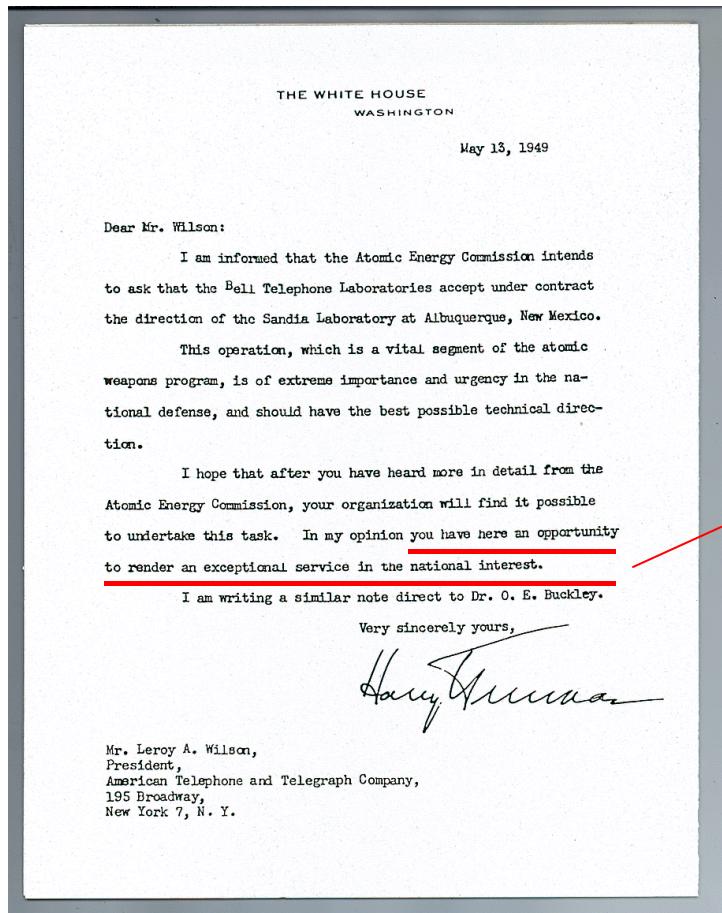
- We weaponize the nuclear explosive package to create a militarily effective and logistically sustainable US Nuclear Deterrent
- We deliver to highest standards of quality, driven by
  - Very high reliability requirements – must always work when authorized by the President
  - Exceptional safety and security requirements – must never work in all other circumstances
  - Extremely complex and often harsh environmental requirements
  - Long dormancy periods (lifetimes of ~ 30 years) coupled with high alert/readiness levels
  - Utmost confidence in the enterprise required for Presidential command and control
- This requires systems engineering underpinned by deep science – together with demonstrated product delivery

# Key Points of Sandia's Mission

- Due to an aging stockpile, we are entering a challenging era of **stockpile modernization**.
- Sandia is uniquely responsible for warhead **systems engineering and integration**, i.e. weaponization of the nuclear explosive package to create a militarily effective and logically sustainable US nuclear deterrent.
- We have the primary role in modernizing the stockpile, with **responsibilities for five core products**: system engineering and integration (SE&I); arming, fuzing, and firing systems (AF&F); surety systems; gas transfer systems (GTS); and neutron generators (NG).
- We apply an **underpinning science base** to address stockpile issues associated with end-of-life of the existing stockpile as well as to the LEPs and ALTs of the future stockpile.

- **Sandia is committed to its unique role in the Nation's nuclear weapon program**
- **Sandia will continue to partner with its commercial supply base to provide needed component technologies to the NW Program**
- **Sandia needs a strong and committed set of suppliers willing to meet the stringent quality and performance requirements needed for weapon components**

# Sandia: Strategic Intent



“ ... you have here an opportunity to render an exceptional service in the national interest.”

May 13, 1949

Ltr., Pres. Truman to Mr. Wilson, Pres. AT&T