

Complex Transformation

*and the Future of the U.S.
Nuclear Security Enterprise*

*The Proposed Restructuring of the Nation's Nuclear
Weapons Complex...past, present and future?*

INMM SW Chapter Annual Technical Meeting

May 21, 2009

Taos, New Mexico


**Fourth Annual
Presentation**



Jack Jekowski
Innovative Technology Partnerships, LLC

The Fourth Year of the Saga



2006



The Nuclear Weapons Complex Infrastructure Task Force Report (NWCITF)


Historical Perspectives and Future Implications

INMM SW Chapter Annual Technical Meeting
May 18, 2006
Taos, New Mexico

Jack Jekowski
Innovative Technology Partnerships, LLC



2007



The Road to Complex 2030


A look back, one year later, on the proposed restructuring of the Nation's Nuclear Weapons Complex

INMM SW Chapter Annual Technical Meeting
May 17, 2007
Taos, New Mexico





Jack Jekowski
Innovative Technology Partnerships, LLC

2008





Complex Transformation



Creating the National Security Enterprise

The Proposed Restructuring of the Nation's Nuclear Weapons Complex...past, present and future?

INMM SW Chapter Annual Technical Meeting
May 15, 2008
Taos, New Mexico

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2009



Complex Transformation



and the Future of the U.S. Nuclear Security Enterprise

The Proposed Restructuring of the Nation's Nuclear Weapons Complex...past, present and future?

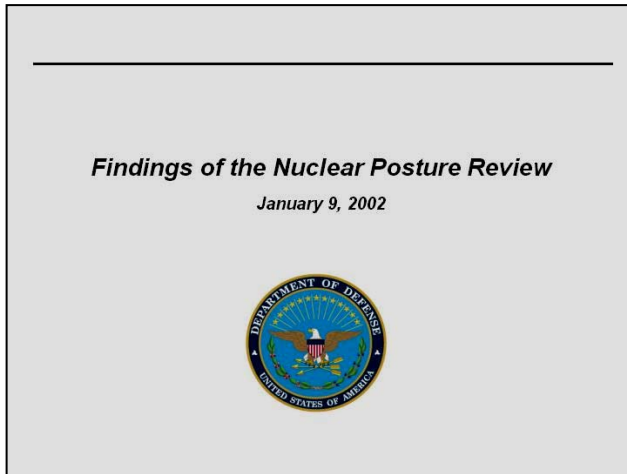
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"Defending our nation against its enemies is the first and fundamental commitment of the Federal Government."

The Historical Driver: The New Triad



NNSA Strategic Plan, November 2004, page 7

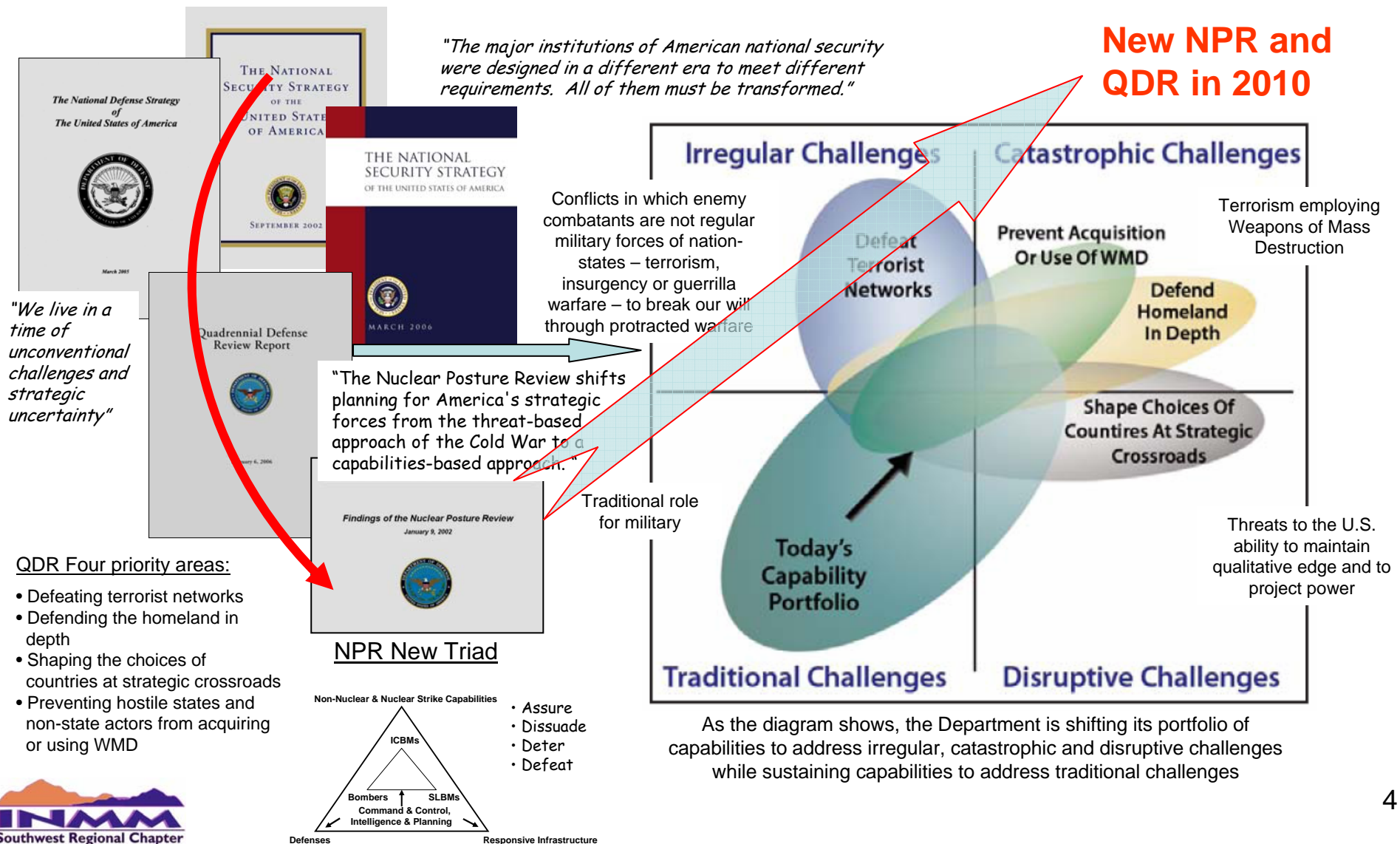
“**The Nuclear Posture Review (NPR)**,^[1] completed in December 2001, concluded that the 21st century presents a national security environment in which threats may evolve more quickly, be more variable in nature, and be less predictable than in the past. It also recognized that the roles of United States (US) nuclear forces and the infrastructure to support those forces must evolve to meet the requirements of the new threat environment. The NPR calls for a transition from a threat-based nuclear deterrent with large numbers of deployed and reserve weapons to a deterrent based on capabilities with a smaller number of stockpiled nuclear weapons and greater reliance on the capability and responsiveness of US infrastructure to respond to threats. A new triad (Figure 1-1) was defined to illustrate how offensive capabilities, defenses, and a **responsive infrastructure** must be balanced to fulfill future security strategy requirements.”

NNSA Transformation Strategy Implementation Plan

[1] Nuclear Posture Review, Report to the Congress in Response to Sections 1041 (as amended) and 1042 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, PL 106-398, December 2001.

"Defending our nation against its enemies is the first and fundamental commitment of the Federal Government."

Strategic Linkages to National Policy



Gates on Stockpile – Pre-Election

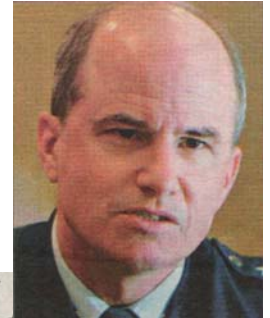
- *“To be blunt, there is absolutely no way we can maintain a credible deterrent and reduce the number of weapons in our stockpile without either resorting to testing our stockpile or pursuing a modernization program”.*



*Robert Gates, Secretary of Defense
Carnegie Endowment for International Peace
October 29, 2008*

Chilton and Others on Stockpile

- General Kevin Chilton, Commander, U.S. Strategic Command:
 - “We recommend pursuing an alternate weapon modernization strategy. This strategy should focus on improved weapon reliability, safety, security and maintainability...USSTRATCOM supports the continuation of the Reliable Replacement Warhead (RRW) Design Definition and Cost Study...” (February 27, 2008)
 - “The U.S. Stockpile...requires the most urgent attention...the weapons continue to age and decay in ways we may not sufficiently understand...we risk a disruption in confidence from unanticipated technical changes...” (March 17, 2009)
- General Everett Thomas, Commander, Air Force Nuclear Weapons Center, KAFB:
 - “Right now, I don’t think we need testing. But, eventually, we will, because no matter what you do, a 1957 Chevy is not going to drive right in 2030. I don’t care how many pieces and parts you replace, you will eventually have to replace that 1957 Chevy – unless you just want it as a historic relic where people can come by and see it.” (November 9, 2008)



The New Era – White House Foreign Policy

- A new Administration focused on eliminating nuclear weapons:
 - **Secure Loose Nuclear Materials from Terrorists:**
 - secure all loose nuclear materials in the world within four years
 - negotiate a verifiable global ban on the production of new nuclear weapons material
 - **Strengthen the Nuclear Non-Proliferation Treaty:**
 - crack down on nuclear proliferation by strengthening the Nuclear Non-Proliferation Treaty
 - **Move Toward a Nuclear Free World:**
 - set a goal of a world without nuclear weapons, and pursue it
 - always maintain a strong deterrent as long as nuclear weapons exist
 - stop the development of new nuclear weapons
 - work with Russia to take U.S. and Russian ballistic missiles off hair trigger alert
 - seek dramatic reductions in U.S. and Russian stockpiles of nuclear weapons and material
 - set a goal to expand the U.S.-Russian ban on intermediate-range missiles so that the agreement is global

The New Era – White House Foreign Policy

- **Keeping Nuclear Weapons Out of the Hands of Terrorists**
 - On April 5, 2009 in Prague, President Obama presented an ambitious strategy to address the international nuclear threat. He proposed measures to: reduce and eventually eliminate existing nuclear arsenals, including negotiations on further nuclear reductions with Russia, ratification of the Comprehensive Test Ban Treaty, and completion of a verified Fissile Material Cutoff Treaty; halt proliferation of nuclear weapons to additional states, and prevent terrorists from acquiring nuclear weapons or materials.
 - We have pledged to work with our partners to achieve the denuclearization of North Korea through the Six-Party process. And we will present a clear choice to Iran to take its rightful place in the community of nations, including its right to peaceful nuclear energy, or continue to refuse to meet its international obligations and fail to seize the opportunity of a positive future.

The New Era – The Prague Speech

- April 5, 2009 – the morning after the DPRK missile launch
 - *“In a strange turn of history, the threat of global nuclear war has gone down, but the risk of a nuclear attack has gone up.”*
 - Reaffirms the Administration goal of a world without nuclear weapons
 - Reduce the role of nuclear weapons in U.S. national security strategy
 - Negotiate a new, verifiable Strategic Arms Reduction Treaty with Russia by the end of the year [when the existing one ends]
 - Pursuit of U.S. ratification of the Comprehensive Test Ban Treaty (CTBT).
 - Pursuit of a Fissile Material Cutoff Treaty (FMCT). See <http://www.fas.org/nuke/control/fmct/> for background information
 - Strengthening the Nonproliferation Treaty (NPT - next conference scheduled for 2010]
 - Strengthening international inspections [IAEA]
 - New framework for civil nuclear cooperation including an international fuel bank
 - Consequences for countries breaking the rules
 - Secure all vulnerable nuclear material around the world within four years - establish the Proliferation Security Initiative, and the Global Initiative to Combat Nuclear Terrorism as durable international institutions



http://www.whitehouse.gov/the_press_office/Remarks-By-President-Barack-Obama-In-Prague-As-Delivered/

The New Era – Comments by Sec. Gates

- *“I think this is an important goal for everyone to have in the world, but I think that it's a long road to get there...President Obama is the fourth president that I have worked for who has said publicly he would like to see an end to nuclear weapons and (have) a nuclear weapons-free world. I think that's a laudable objective.”*



Nuclear Disarmament a "Long Road," Gates Says

Monday, May 4, 2009

U.S. President Barack Obama's dream of a world without nuclear weapons is a worthy goal but not one likely to be reached in the near term, Defense Secretary Robert Gates said yesterday.



http://gsn.nti.org/gsn/nw_20090504_9514.php

Five Months into Presidency

- Unimaginable budget deficits, with more to come
- Negotiation with Russia on new START treaty and missile defense conciliations
- Opening of discussions with Iran, DPRK, Taliban and Syria
- Pursuit of elimination of nuclear weapons – Prague speech
- Pursuit of CTBT
- Abandonment of Yucca Mountain Geologic Repository
- Somalia Pirate attack
- Release of “Torture Papers”
- Pakistan instability



Recent Testimony – House Energy & Water

- House Energy and Water Development Appropriations Subcommittee, 3/17/09
 - Tom D’Agostino
 - Vision: “a smaller, safer, more secure and less expensive enterprise that leverages the scientific and technical capabilities of our workforce to meet all of our national security requirements.”
 - Four Pillars (see next slide)
 - Greatest challenge is absence of national consensus on the Nuclear Posture
 - We must exercise capabilities to retain critical skills
 - Most important resource is people
 - Neither workforce or size of facilities scale linearly with size of stockpile
 - Cannot continue with 50-year-old Cold War infrastructure
 - Richard Garwin
 - Number of nuclear weapons strongly influences the required infrastructure
 - The number of nuclear weapons and the size and structure of the Weapons Complex needs to be done at the National Security Council level, it is not a function of the NNSA, DOE or DoD
 - Most important resource is people
 - Peer review should be formally funded
 - A new design should be undertaken every five years to energize the nuclear laboratories
 - Existing weapons can remain closer to their test pedigree than a replacement weapon
 - A replacement warhead would eventually lead to the need to test
 - Eventually, even current stockpile will need to be verified through a test
 - We should wait on CMRR and plutonium facility for an understanding from the National Security Council of the future of nuclear warhead needs

D'Agostino on Complex Transformation

- Four pillars*:
 - *Transform the nuclear stockpile through the Stockpile Stewardship program in partnership with the Department of Defense*
 - *Transform to a modernized, cost-effective national security enterprise to support needed capabilities in our infrastructure.*
 - *Create an integrated, interdependent enterprise that employs best business practices to maximize efficiency and minimize costs.*
 - *Advance the science and technology base that is the cornerstone of our nuclear deterrence and remains essential for long-term national security.*



Complex Transformation & Strategic Weapons in the 21st Century

<http://www.lanl.gov/conferences/sw/papers08.shtml>

<http://www.lanl.gov/conferences/sw/docs/dagostino-SW21-FINAL-31Jan08.pdf>

*Note: these are very similar to the four overarching strategies for Complex 2030

Recent Testimony – House Energy & Water

- House Energy and Water Development Appropriations Subcommittee, 3/17/09
 - Phil Coyle
 - NNSA should revise their Complex Transformation plan to account for new policy direction – production workload can be cut in half
 - NPR will be influenced by negotiations with Russia – Congressional Commission and NPR will form the basis for planning Complex Transformation, it is futile to proceed without that guidance
 - Pantex stores more than 14,000 pits...no shortage for reuse or recycling if necessary
 - “Adaptive Complex” should be sized for 100 weapons (no tactical weapons are needed)
 - The arms control implications of the proposed NNSA Complex Transformation need to be thought through
 - Ev Beckner
 - The foundation and future of NNSA resides in the competency of the technical staff – they must have challenging work
 - It may be necessary to postpone or re-plan desirable facility acquisitions or improvements
 - Ten major problems to address: 1) NNSA should replan Plutonium Disposition and Conversion Facility (PDCF) at SRP; 2) Defer construction of Uranium Processing Facility (UPF) at Y-12; 3) Re-evaluate strategies and tools for security at sites; 4) Re-plan production requirements for a smaller stockpile; 5) Reduce fee structure for M&O and reduce oversight; 6) Re-emphasize fusion research and find other funding sources; 7) Naval Reactors and NN should pay for its operations Y-12; 8) Coordinate with Congress to modify Record of Decision for smaller complex; 9) Achieve full autonomy for NNSA; and 10) Put new Tritium Recovery Facility at SRP in cold standby for several years.

http://appropriations.house.gov/Subcommittees/sub_ew.shtml

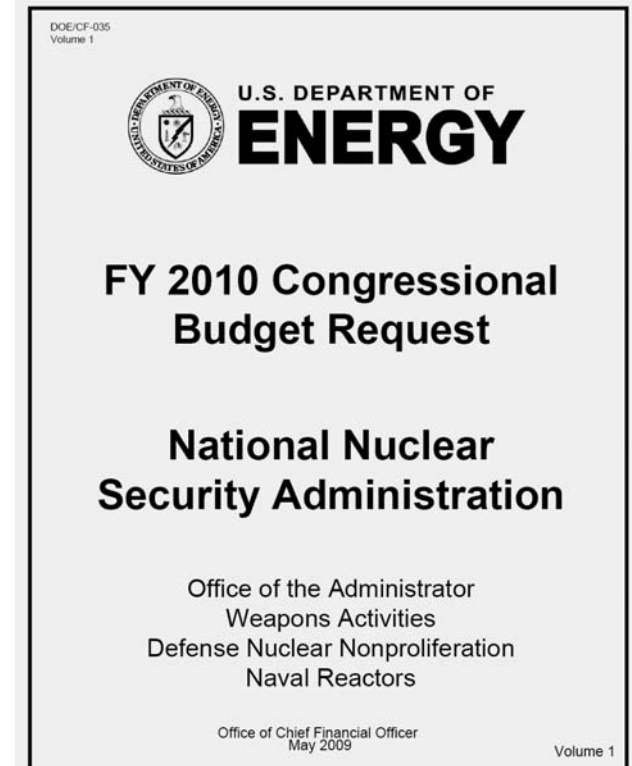
Complex Drivers for The Future

- FY10 and FY11 Authorization and Appropriations
 - Administration policy to eliminate nuclear weapons will play a significant role
 - CTBT and START will be key drivers
 - NGO reports will be used as guides
 - New leadership in NNSA and DOE
- Complex Transformation
 - SPEIS in place...some changes being implemented
 - Will most likely be stalled until FY10 at the earliest
- Contract Strategy for NNSA Weapons Complex
 - Report due in late April, 2009
 - Future Vision for Labs
- Congressional Commission on Nuclear Posture
 - Report released May 6, 2009
- OMB report on moving NNSA to DoD
 - Due September 30, 2009
 - NGO/Defense Science Board reports will be used as guides
- Nuclear Policy and Nuclear Posture (NPR)
 - Nuclear Policy due September 1, 2009
 - Nuclear Posture due March 1, 2010
- Minot-Barksdale and Taiwan nuclear incidents
 - Report impact
 - Standup of Global Strike Command
 - Quadrennial Defense Review (QDR) – Spring 2010
- Nuclear Weapons States Modernization Programs
 - Nuclear Weapons Proliferation (Iran and DPRK)



FY10 Budget

- Much of existing budget sustained for now, with some slow down for the CMRR Nuclear Facility (LANL) and UPF (Y-12) - \$6.38B request
 - RRW not funded, but “Advanced Certification” program funded at \$19.4M
 - MOX Fabrication Facility funding moved back into NNSA - \$654M increase
 - No request for LANSCE refurbishment funding
- Second Line of Defense and Megaports get boost in funding (20-30%)
- FY11 Budget (early February, 2010) will be the turning point for NNSA and labs – will be influenced by the Nuclear Policy/Posture reviews and the QDR



http://www.nnsa.energy.gov/about/nnsa_budget.htm

- Note: not in NNSA, but an indicator of what the new Administration is capable of doing:
- Yucca Mountain Project effectively killed with significant budget reductions (both FY09 and FY10)

NWCITF Future Path Business Case Options

<http://www.seab.energy.gov/publications/NWCITFRept-7-11-05.pdf>



(A Graphical Interpretation by J. Jekowski)

"In summary, the Task Force found a Complex neither robust, nor agile, nor responsive, with little evidence of a master plan"

"The Cold War stockpile and the Complex have served the country well, but neither embodies the characteristics that are important to serve the nation in the future."

"...A vision for the agile and responsive nuclear weapons Complex of the future...is embodied by the...proposed Consolidated Nuclear Production Center (CNPC)."



\$155B (through 2030) with new Complex/Stockpile

~ 2035
End of current Stockpile's Pit Life

- "Revolutionary Complex Transformation"**
- RRW
 - CNPC
 - Consolidate SNM
 - Dismantlement
 - Office of Transformation

+ \$10B thru 2015

Low Risk

Delay start of CNPC

Curtail or eliminate LEP

CNPC assumes new role – close facilities

Credit for reduction in Security

Outsource non-nuclear components

Reprogram FIRP

Large RIF at Weapon Labs

Continuum of business case options – very sensitive to these assumptions:

- Number and extent of LEP Programs
- Efficiencies of operation at the CNPC
- Reductions in the cost of Security

"The Complex of 2030 should be an integrated, interdependent enterprise"

Very High Risk (not valid)

"Baseline" Status Quo

High Risk

"Complex Transformation in Place"

- Reduce effort at design Labs
- Close all redundant facilities
- Reduce one or more LEP

\$175B (through 2030) with continuing issues

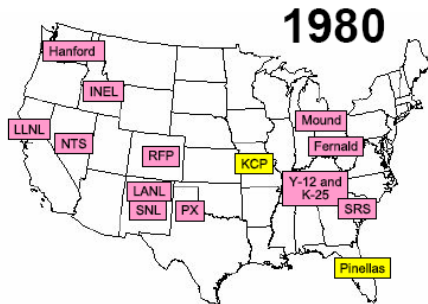
\$170B (through 2030) with no options



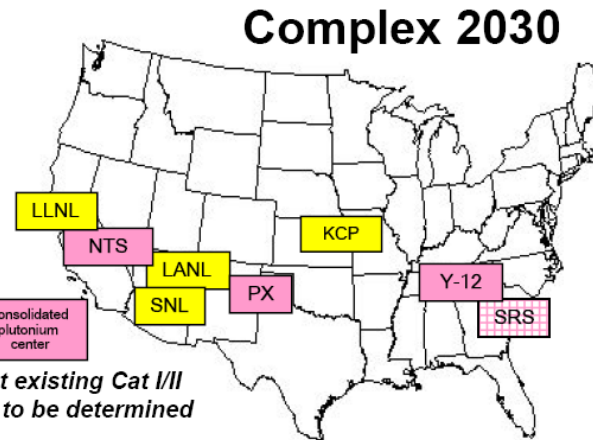
"From a management perspective, the Task Force determined that there is not a unified interdependent nuclear enterprise Vision or set of mission priorities. Instead the following was found:

- DoD does not provide unified and integrated weapon requirements
- DoD does not appear to trust DOE's ability to respond with predictability
- Complex rules and regulations focus on process rather than mission safety
- No cost/benefit, or risk analysis
- Design labs are too independent - they compete and create redundant programs and facilities

NNSA's Response to NWCITF: Complex 2030*

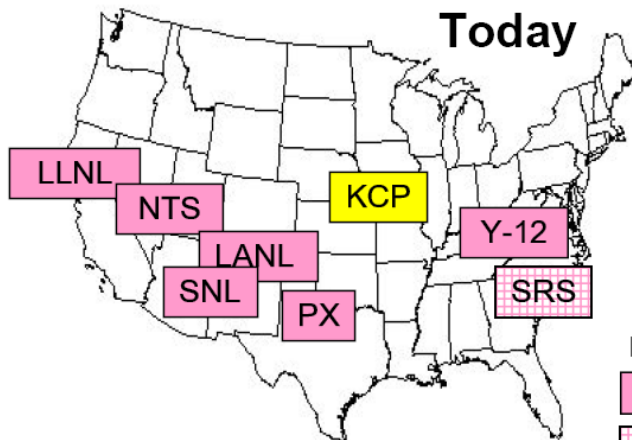


14 independent sites
12 Cat I/II SNM sites



Located at existing Cat I/II SNM site to be determined

- 8 geographical sites
 - modernized
 - reduced footprints
- 1 integrated network
 - contracts consolidated
 - centralized acquisition
 - shared facilities
- 3-4 Cat I/II SNM sites



8 independent sites
6-7 Cat I/II SNM sites

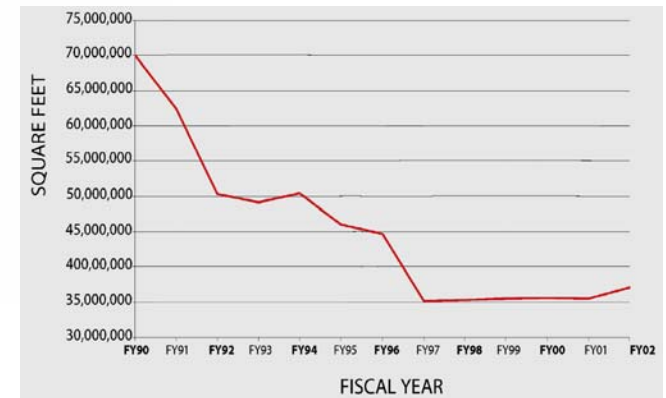
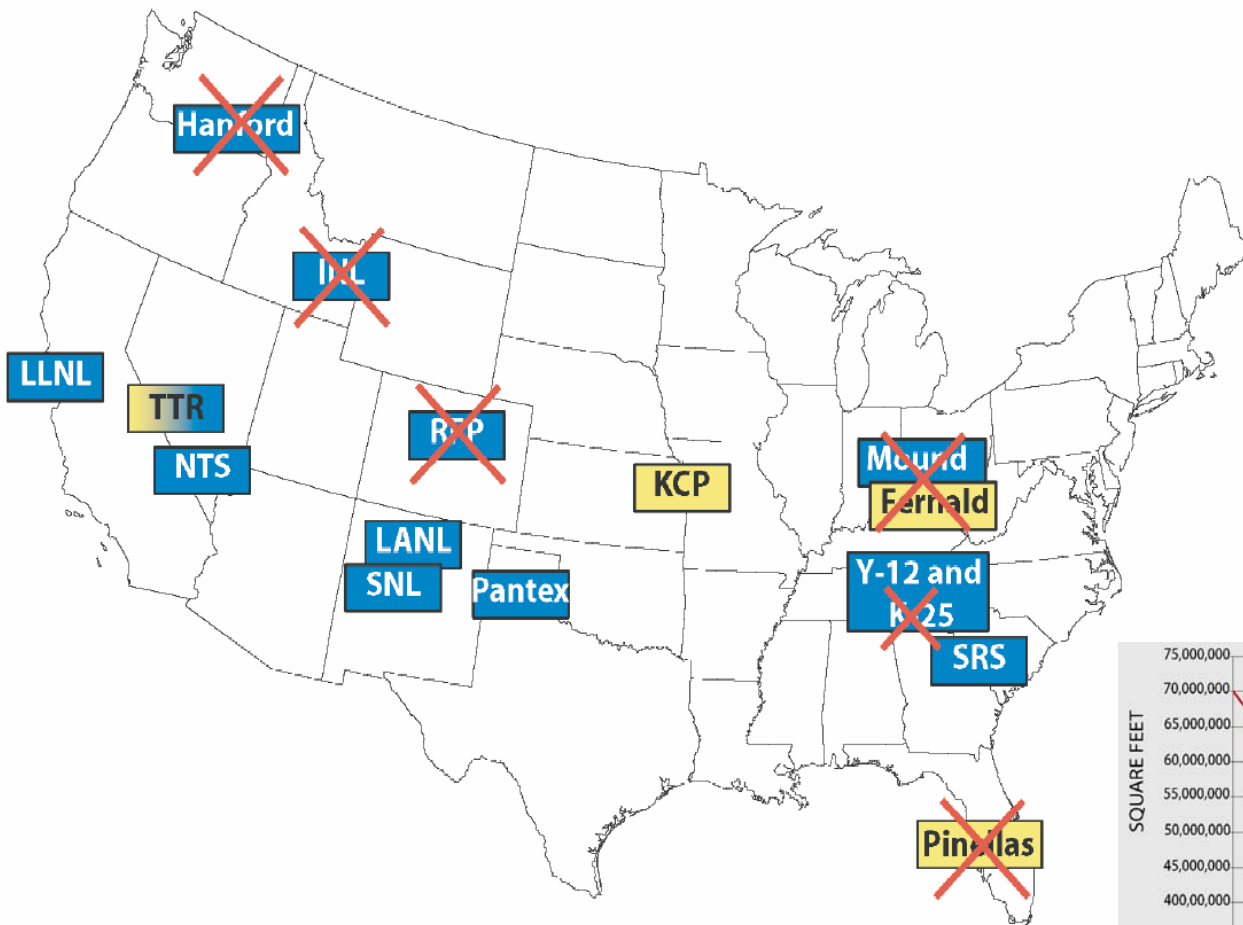
Legend:

- Cat I/II SNM
- Other DOE Cat I/II SNM
- No Cat I/II SNM

Stockpile size	↓
Dismantlements	↑
Complex square footage	↓



Weapons Complex Site Reductions



Footprint Reductions

Final SPEIS Issued in October 2008

- Comprehensive documentation of the complete SPEIS process with detailed discussions of each alternative

Final SPEIS

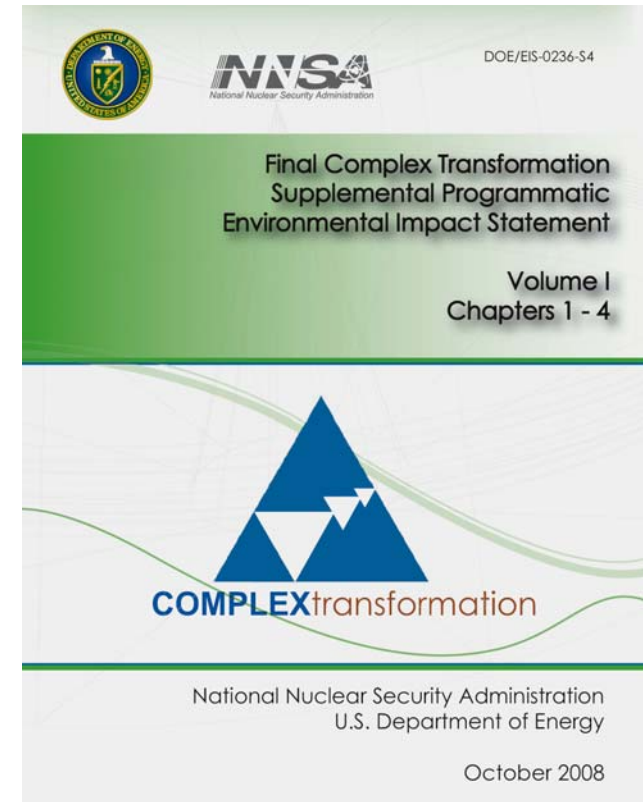
Final Complex Transformation SPEIS

Note: All links below go to PDF documents - Click here to download [Adobe Acrobat Reader](#)

[Dear Interested Party Letter](#)

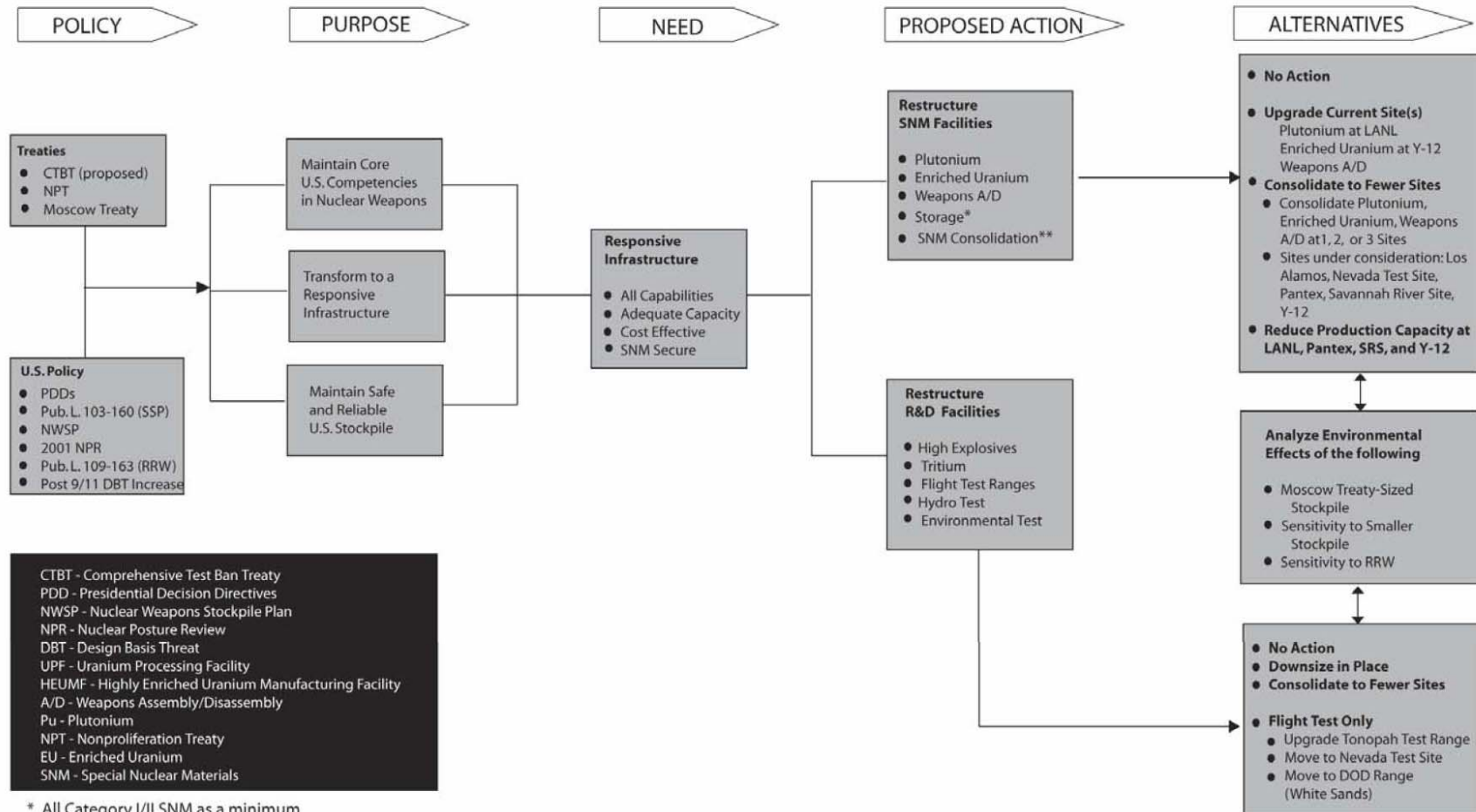
[Summary](#)

Volume I	Volume II	Volume III
Volume I Front Matter and Table of Contents	Volume II Front Matter and Table of Contents	Volume III Front Matter and Table of Contents
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	Chapter 9	Appendix E
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	Chapter 12	
	Chapter 13	
	Chapter 14	
	Chapter 15	



<http://www.complexttransformationspeis.com/project.html>

Policy Perspective of SSP and Transformation

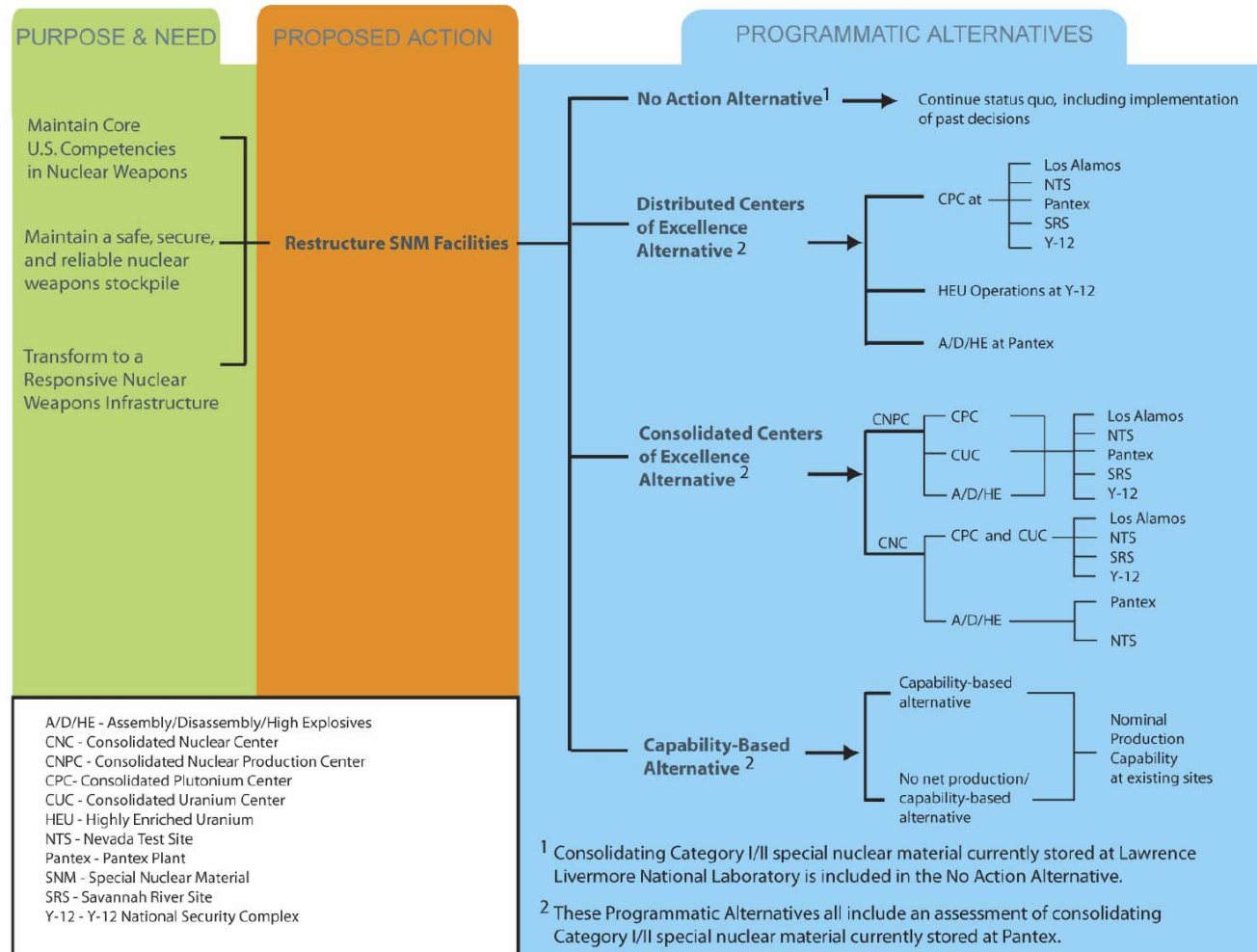


CTBT - Comprehensive Test Ban Treaty
 PDD - Presidential Decision Directives
 NWSP - Nuclear Weapons Stockpile Plan
 NPR - Nuclear Posture Review
 DBT - Design Basis Threat
 UPF - Uranium Processing Facility
 HEUMF - Highly Enriched Uranium Manufacturing Facility
 A/D - Weapons Assembly/Disassembly
 Pu - Plutonium
 NPT - Nonproliferation Treaty
 EU - Enriched Uranium
 SNM - Special Nuclear Materials

* All Category I/II SNM as a minimum
 ** The programmatic alternatives (restructuring SNM facilities) include an assessment of consolidating category I/II SNM currently stockpiled at LLNL and Pantex.

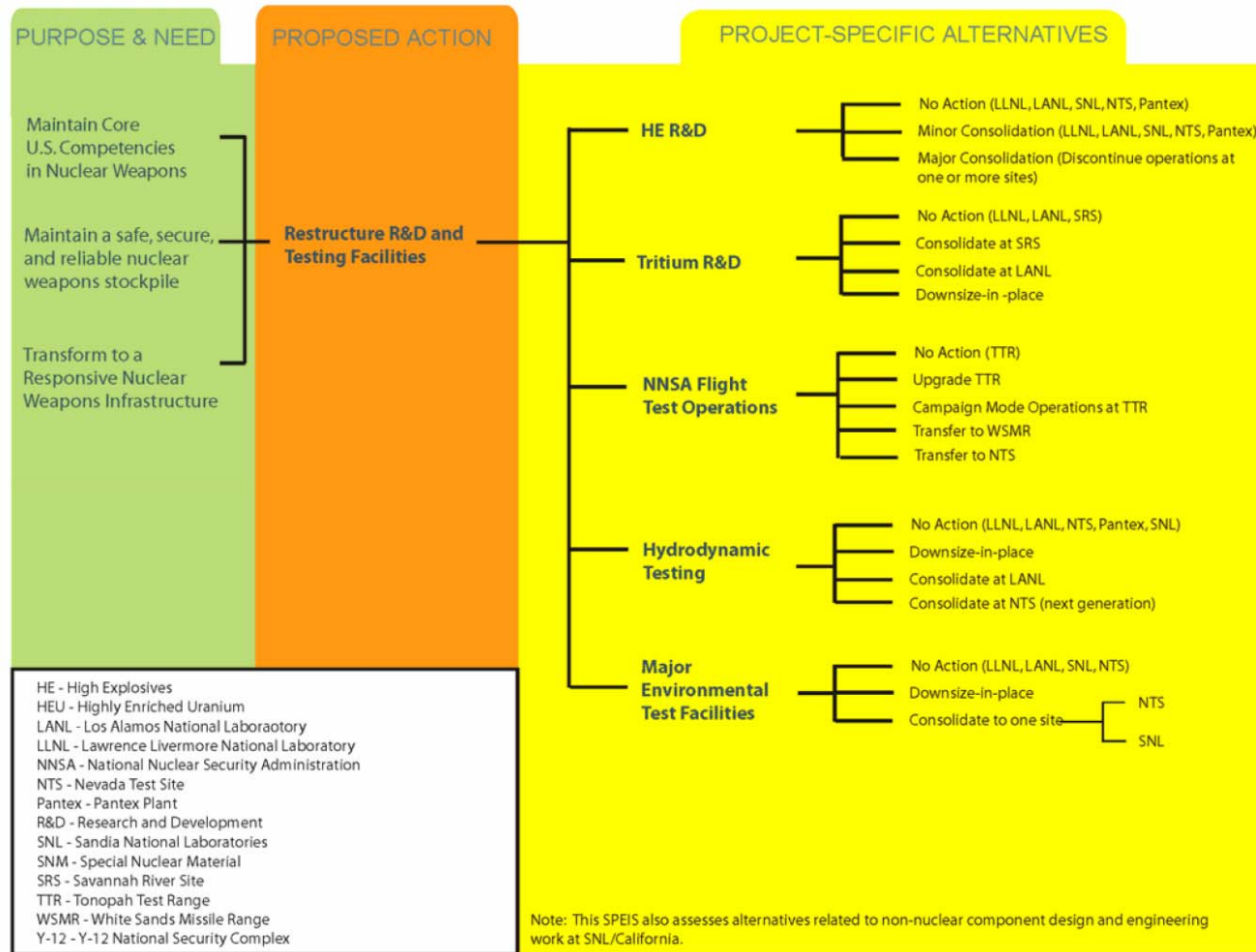
SPEIS Programmatic Alternatives

- Several programmatic alternatives were examined:



SPEIS Project-Specific Alternatives

- Several project-specific alternatives were examined:



SPEIS Preferred Alternatives

- Preferred Alternatives for Restructuring SNM Facilities:
 - **Plutonium manufacturing and R&D:** Los Alamos would provide a consolidated plutonium research, development, and manufacturing capability within TA-55 enabled by construction and operation of the Chemistry and Metallurgy Research Replacement—Nuclear Facility (CMRR-NF). The CMRR-NF is needed to replace the existing Chemistry and Metallurgy Research (CMR) Facility (a 50-year old facility that has significant safety issues that cannot be addressed in the existing structure)...Until completion of anew Nuclear Posture Review in 2009 or later, the net production at Los Alamos would be limited to a maximum of 20 pits per year....
 - **Uranium manufacturing and R&D:** Y-12 would continue as the uranium center producing components and canned subassemblies, and conducting surveillance and dismantlement. NNSA has completed construction of the HEUMF and will consolidate HEU storage in that facility. NNSA would build a Uranium Processing Facility (UPF) at Y-12 in order to provide a smaller and modern highly-enriched uranium production capability to replace existing 50-year old facilities...
 - **Assembly/disassembly/high explosives production and manufacturing:** Pantex would remain the Assembly/Disassembly/High Explosives production and manufacturing center. NNSA would consolidate non-destructive surveillance operations at Pantex.
 - **Consolidation of Category I/II SNM:** NNSA would continue to transfer Category I/II SNM from LLNL under the No Action Alternative and phase out Category I/II operations at LLNL Superblock by the end of 2012. NNSA would consolidate Category I/II SNM at Pantex within Zone 12, and close Zone 4.

SPEIS Preferred Alternatives

- Preferred Alternatives:

Los Alamos National Laboratory

Center of Excellence for Nuclear Design and Engineering; Plutonium will be enhanced by:

- Plutonium pit production and R&D with TA-55 including a Chemistry & Metallurgy Research Replacement (CMRR), Nuclear Facility
- Detonator production and contained high explosives (HE) R&D
- Materials Interaction science materials
- Supercomp

Transformational Changes

- Special nuclear material consolidated to 2 sites, with only 50% reduction nuclear operations footprint
- 20% reduction total building footprint (~2 million GSF reduced) Technology Complex 380K GSF, and Main Admin Bldg 300K GSF
- Over next decade or so, up to 20% fewer staff supporting nuclear weapons activities. These reductions are expected through natural attrition and transfer of personnel to other positions supporting essential national security needs.

Pantex Plant

Center of Excellence for Assembly/Disassembly; High Explosives (HE) Production & Machining will be enhanced by:

- Non-destructive weapon/pit surveillance with existing Weapons Testing Lab
- Updated High Explosives Facility (W)
- Weapon assembly new under storage facility

Transformational Changes

- High Explosives R&D will be enhanced by:
- HE R&D with High Explosive Applications Facility as Center for formulation, processing, and confined testing (<10kg)
- High Explosives Research Physics
- Support

Lawrence Livermore National Laboratory

Center of Excellence for Nuclear Design and Engineering and High Explosives R&D will be enhanced by:

- HE R&D with High Explosive Applications Facility as Center for formulation, processing, and confined testing (<10kg)
- High Explosives Research Physics
- Support

Status Change

Nevada Test Site

Center of Excellence for High-hazard testing will be enhanced by:

- Large-scale, (confined and open-air) high-explosive testing (>10 kg) with Big Explosives Experimental Facility
- Hydrodynamic testing
- Subcritical and plutonium experiments with U1A and Joint Actinide Shock Physics Experimental Research
- Criticality experiments and special nuclear material operations at the Device Assembly Facility
- Maintain Test Readiness Capability for the Nation

Transformational Changes

- Structure as currently planned, however, commissioned and demolished transferred to NSTEC
- 20% fewer staff supporting nuclear weapons activities. These reductions are expected through natural attrition and transfer of personnel to other positions supporting essential national security needs.

Savannah River Site

Center of Excellence for Uranium and Canned Subassemblies will be enhanced by:

- Highly-Enriched Uranium (HEU) storage with HEU Materials Facility (HEUMF)
- HEU Production and R&D with Uranium Processing Facility (UPF)
- Production of remaining non-HEU components with consolidated manufacturing complex (CMC)

Transformational Changes

- Few immediate changes to site infrastructure as currently planned
- Over next decade, up to 5% fewer staff supporting nuclear weapons activities. These reductions are expected through natural attrition and transfer of personnel to other positions supporting essential national security needs.

Sandia National Laboratories

Center of Excellence for Design and Environment will be enhanced by:

- Microelectro Science Agency as engineer
- Weapons engineering TA-3 and other
- Energetic Detonations Explosives
- Neutron generation manufacturing

Transformational Changes

- CAT III special nuclear material removed in 2008
- Transition SNL/CA (410 acres) to multi-agency lab to reduce NNSA footprint
- Revised flight testing strategy for gravity weapons that opens Tonopah Test Range (410 acres) for other uses
- Over next decade or so, up to 20% reduction staff supporting nuclear weapons activities. These reductions are expected through natural attrition and transfer of personnel to other positions supporting essential national security needs.

Y-12 National Security Complex

Center of Excellence for Uranium and Canned Subassemblies will be enhanced by:

- Highly-Enriched Uranium (HEU) storage with HEU Materials Facility (HEUMF)
- HEU Production and R&D with Uranium Processing Facility (UPF)
- Production of remaining non-HEU components with consolidated manufacturing complex (CMC)

Transformational Changes

- Special nuclear material consolidated
- 90% reduction high security area
- 60% reduction nuclear operations footprint
- 60% reduction total building footprint (~3.1 million GSF gone including Production Bldg 9201-05 [613 GSF]; Production Bldg 9212 [440K GSF]; Production Bldg 9204-04 [313K GSF])
- Over next decade or so, up to 20% to 30% fewer staff supporting nuclear weapons activities. These reductions are expected through natural attrition and transfer of personnel to other positions supporting essential national security needs.

SPEIS Preferred Alternatives

- Preferred Alternatives for Restructuring R&D and Testing Facilities:
 - **HE R&D.** NNSA would reduce the footprint of its HE production and R&D related to nuclear weapons; and reduce the number of firing sites. ..NNSA would consolidate weapons HE R&D and testing within the following locations..
 - Pantex would remain the HE production (formulation, processing, and testing) and machining center...HE experiments up to 22 kg HE would remain at Pantex;
 - NTS would remain the testing center for large quantities of HE (greater than 10 kg);
 - LLNL would be the HE R&D center for formulation, processing, and testing (processing capability to handle up to 15 kg and testing less than 10 kg) HE at the High Explosives Applications Facility (HEAF); formulation and processing of HE would be conducted either at a new HEAF Annex built adjacent to HEAF, or at existing Site 300 facilities...
 - SNL/NM would remain the HE R&D center for non-nuclear explosive package components (less than 1 kg of HE) at the Explosive Components Facility (ECF); and
 - LANL would produce war reserve main charge detonators, conduct HE R&D experimentation and support activities, and move towards contained HE R&D experimentation.
 - Each site would maintain one weapons program open-burn and one open-detonation area for safety and treatment purposes.
 - **Tritium R&D.** NNSA would consolidate tritium R&D at SRS. SRS would remain the site for tritium supply management and provide R&D support... Neutron generator target loading at SNL/NM and production of National Ignition Facility targets at LLNL, which involve small quantities of tritium, would continue... NNSA would move bulk quantities of tritium from LANL to SRS by 2009; and remove tritium materials above the 30 gram level from the Weapons Engineering Tritium Facility (WETF) at LANL by 2014.

SPEIS Preferred Alternatives

- Preferred Alternatives for Restructuring R&D and Testing Facilities:
 - **NNSA flight test operations.** Campaign Mode Operation of Tonopah Test Range (TTR)...NNSA would reduce the footprint of TTR, upgrade equipment with mobile capability, and operate in campaign mode. NNSA expects it would not use Category I/II SNM in future flight tests.
 - **Major Hydrodynamic Testing.** By the end of fiscal year 2008, NNSA would contain the hydrodynamic testing (consisting of Integrated Weapons Experiments and Focused Experiments) at LLNL at the Contained Firing Facility (CFF) and at LANL at the Dual-Axis Radiographic Hydrodynamic Test (DARHT) facility... In addition:
 - Hydrotesting at LLNL Site 300 would be consolidated to a smaller footprint by 2015.
 - The goal is to minimize open-air testing at LANL. Open-air hydrotests at LANL's
 - DARHT, excluding SNM, would only occur if needed to meet national security requirements.
 - NNSA would allow open-air firing at LANL TA-36 until adequate radiographic capabilities and associated supporting infrastructure are available for open-air firing at NTS.
 - **Major Environmental Test Facilities.** NNSA would consolidate major environmental testing at SNL/NM and, infrequently conduct operations requiring Category I/II SNM in security campaign mode there. NNSA would close LANL's and LLNL's major environmental testing facilities by 2010... NNSA would move environmental testing of nuclear explosive packages and other functions currently performed in LLNL Buildings 334 and 834 to Pantex by 2012.
 - **Sandia National Laboratories, California Weapons Support Functions.** NNSA would continue operations under the No Action Alternative....

Records of Decision

- Signed December 16, 2008, and published in the Federal Register on December 19, 2008:
 - Provides final decisions on all planned changes to Weapons Complex

Complex Transformation SPEIS

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Records of Decision

- December 19, 2008**
 "Record of Decision for the Complex Transformation Supplemental Programmatic Environmental Impact Statement—Operations Involving Plutonium, Uranium, and the Assembly and Disassembly of Nuclear Weapons"
- December 19, 2008**
 "Record of Decision for the Complex Transformation Supplemental Programmatic Environmental Impact Statement—Tritium Research and Development, Flight Test Operations, and Major Environmental Test Facilities"

77044 Federal Register / Vol. 73, No. 245 / Friday, December 19, 2008 / Notices

DEPARTMENT OF ENERGY
Record of Decision for the Complex Transformation Supplemental Programmatic Environmental Impact Statement—Operations Involving Plutonium, Uranium, and the Assembly and Disassembly of Nuclear Weapons

AGENCY: National Nuclear Security Administration, U.S. Department of Energy.

ACTION: Record of decision.

SUMMARY: The National Nuclear Security Administration (NNSA), a regulatory agency within the U.S. Department of Energy (DOE), is issuing this Record of Decision (ROD) for the environmental impacts of the nuclear weapons complex's (Complex) Transformation Supplemental Programmatic Environmental Impact Statement (SEIS) (DOE/ENR-4026-046) issued on October 24, 2008 (73 FR 63400), comments received on the SEIS; other NEPA analyses as noted, and other factors, including cost-benefit and security considerations, and the mission of NNSA. The SEIS analyzes the potential environmental impacts of alternatives for transforming the nuclear weapons complex into a smaller, more efficient enterprise that can respond to changing national security challenges and ensure the long-term safety, security, and reliability of the nuclear weapons stockpile. The alternatives analyzed in the SEIS are divided into two categories: programmatic and project-specific. Programmatic alternatives involve the restructuring of facilities that use or store significant (i.e., Category I) quantities of special nuclear material (SNM). These facilities produce plutonium components (including called pile's), produce highly enriched uranium (HEU) components (including HEU components), and assemble and disassemble nuclear weapons. The decision announced in this ROD will transform the plutonium and uranium manufacturing aspects of the complex into smaller and more efficient operations while maintaining the capability of NNSA to perform its national security mission. The three major elements of the decision announced in this ROD are: (1) Manufacturing and research and development (RD) manufacturing plantlets will remain at the Los Alamos National Laboratory (LANL) in New Mexico. To support these activities, NNSA will construct and operate the Chemistry and Metallurgy Research Replacement Storage Facility (CMRR-NF) at LANL as a replacement for portions of the Chemistry and Metallurgy Research (CMR) facility, a structure that is more than 50 years old. (2) Manufacturing and research and development (RD) manufacturing plantlets will remain at the Los Alamos National Laboratory (LANL) in New Mexico. To support these activities, NNSA will construct and operate the Chemistry and Metallurgy Research Replacement Storage Facility (CMRR-NF) at LANL as a replacement for portions of the Chemistry and Metallurgy Research (CMR) facility, a structure that is more than 50 years old. (3) Manufacturing and research and development (RD) manufacturing plantlets will remain at the Los Alamos National Laboratory (LANL) in New Mexico. To support these activities, NNSA will construct and operate the Chemistry and Metallurgy Research Replacement Storage Facility (CMRR-NF) at LANL as a replacement for portions of the Chemistry and Metallurgy Research (CMR) facility, a structure that is more than 50 years old.

DEPARTMENT OF ENERGY
Record of Decision for the Complex Transformation Supplemental Programmatic Environmental Impact Statement—Tritium Research, Development, Flight Test Operations, and Major Environmental Test Facilities

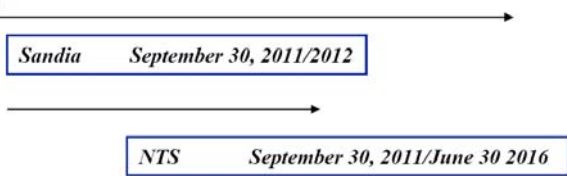
AGENCY: National Nuclear Security Administration, U.S. Department of Energy.

Records of Decision

- No major changes from recommendation in SPEIS
 - Provides final decisions on all planned changes to facilities supporting NNSA activities, including:
 - Consolidate high-security special nuclear material to five NNSA sites and at fewer locations within these sites will continue;
 - Plutonium operations will be consolidated at NNSA's Los Alamos National Laboratory in New Mexico;
 - Uranium operations will be consolidated at NNSA's Y-12 National Security Complex in Tennessee;
 - Assembly and disassembly of nuclear weapons and high explosives production and manufacturing will remain at NNSA's Pantex Plant in Texas;
 - Tritium operations will be consolidated at the Savannah River Site in South Carolina;
 - Flight testing operations will continue at Tonopah Test Range in Nevada in a more limited scope that relies on a reduced footprint for NNSA operations.
 - Major environmental test facilities, where weapon components are exposed to different temperatures and mechanical stresses typical of the different types of environments they would be exposed to, will be consolidated at Sandia National Laboratories in New Mexico.

Contract Strategy for Weapons Complex

<i>Pantex</i>	<i>September 30, 2010</i>
<i>Y-12</i>	<i>September 30, 2010</i>
<i>KC</i>	<i>December 31, 2010</i>



<i>LANL</i>	<i>September 30, 2013/September 30, 2026</i>
<i>LLNL</i>	<i>September 30, 2014/September 30, 2027</i>

<u>SITE</u>	<u>M&O CONTRACTOR</u>	<u>START DATE</u>	<u>END DATE WITHOUT AWARD TERM</u>	<u>LATEST END DATE WITH AWARD TERM</u>
Pantex Plant	BWXT Pantex	1/31/2001	9/30/2010	NA
Y-12 Plant	BWXT Y-12	9/30/2000	9/30/2010	NA
Kansas City Plant	Honeywell Federal Manufacturing and Technologies	1/1/2001	12/31/2010	NA
SNL	Lockheed Martin	3/30/1993	9/30/2008	9/30/2012
Nevada Test Site	National Security Technologies (NSTec)	7/1/2006	6/30/2011	6/30/2016
LANL	Los Alamos National Security (LANS)	6/1/2006	9/30/2013	9/30/2026
LLNL	Lawrence Livermore National Security (LLNS)	10/1/2007	09/30/2014	9/30/2027
SRS Tritium Operations	Savannah River Nuclear Solutions LLC	6/16/08	7/13/2013	With Option 7/13/2018

Objectives:

1. More uniform program execution with improved integration of resources and priorities
2. Increased standardization of technical processes and application of best practices to improve process results and capabilities including safety and security
3. Improved inter-site coordination, cooperation, information sharing and technical integration
4. Improved workforce planning, maintenance of critical skills, and human capital management
5. Reduced cost and improved performance through streamlining of the organization with reduction of management layers, elimination of unnecessary redundancies, outsourcing appropriate activities, and integration and leveraging of technical and business expertise at multiple sites
6. Increased contractor authority and accountability in accomplishing the NNSA mission
7. Sustained Competition
8. Determine requirements for having transparency and consistency of data reporting for financial information
9. Feasibility of Implementation for NNSA
10. Optimization of return on investment at the NNSA enterprise level

Contract Strategy for Weapons Complex

• Options Analyzed

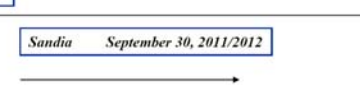
1. Status Quo Options for Y-12, Pantex, Kansas City, SNL and LANL Production
2. Y-12 and Pantex Option (nuclear production) (RFI A-1)
3. Y-12 and Pantex to include SR Tritium (RFI B-1)
4. Y-12 and Pantex to include SR Tritium and LANL Nuclear Production (*as time allows*) (RFI B-2*)
5. Y-12 and Pantex to include LANL Production
6. Kansas City and SR Tritium
7. Kansas City and SNL Production (RFI B-4*)
8. Kansas City and SNL Production and SR Tritium (non-nuclear production) (RFI B-3)
9. Functional Areas-Down Select (RFI D*) Functional areas are Construction Management, Information Technology, Security

Notes: SR Tritium added to KC production and SNL production, Full SNL scope not analyzed. * Options 4, 7, and 9 above were RFI recommendations

Options NOT Analyzed

1. Kansas City and Full SNL scope Option (RFI A-2)
2. Any inclusion of NTS or LLNL Work
3. Any LANL activities not included in production
4. The COCO Option (RFI C-1 and C-2)

Pantex	September 30, 2010
Y-12	September 30, 2010
KC	December 31, 2010



Sandia September 30, 2011/2012

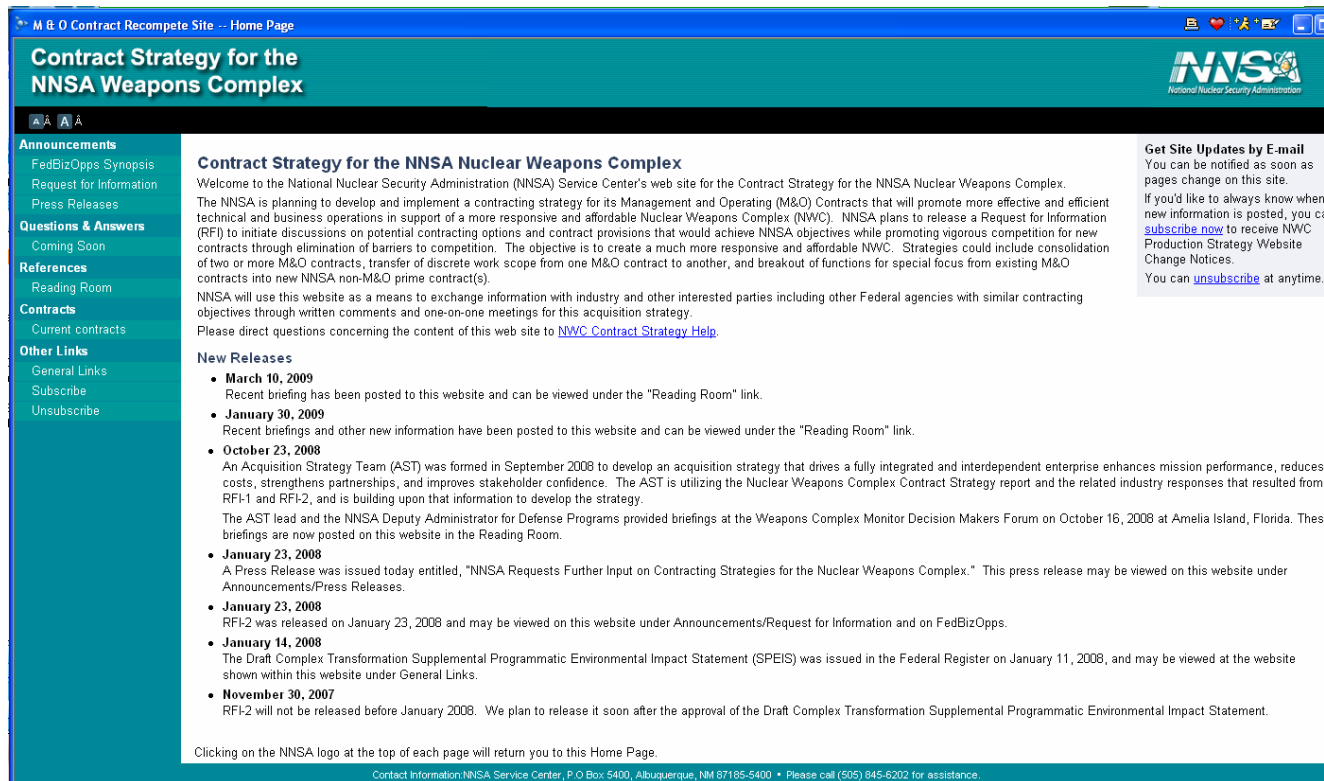


NTS September 30, 2011/June 30 2016

LANL	September 30, 2013/September 30, 2026
LLNL	September 30, 2014/September 30, 2027

Contract Strategy for Weapons Complex

- Request for Information – released September 10, 2007*
 - Solicit input from the public
 - *“We are open to consideration of a facilities-based approach (perhaps combining two or more sites under a single contract) and/or a function-based approach (providing to some or all locations such capabilities as purchasing, financial management, information technology services and management, etc.).”*



The screenshot shows the homepage of the NNSA Contract Strategy for the Weapons Complex. The page features a navigation menu on the left with categories like Announcements, Questions & Answers, and Other Links. The main content area is titled "Contract Strategy for the NNSA Nuclear Weapons Complex" and includes a welcome message, a description of the NNSA's contracting strategy, and a "New Releases" section with dates from March 2009 back to November 2007. A right-hand sidebar offers an email subscription service.

Contract Strategy for Weapons Complex

- Original Request for Information - September 10, 2007
 - “The NNSA is planning to develop and implement a contracting strategy for its Management and Operating (M&O) Contracts that will promote more effective and efficient technical and business operations in support of a more responsive and affordable Nuclear Weapons Complex (NWC)... The objective is to create a much more responsive and affordable NWC. Strategies could include consolidation of two or more M&O contracts, transfer of discrete work scope from one M&O contract to another, and breakout of functions for special focus from existing M&O contracts into new NNSA non-M&O prime contract(s).
- Second Request for Information was issued – January 23, 2008
- Subsequently an Acquisition Strategy Team (AST) was formed in September 2008 to develop an acquisition strategy that drives a fully integrated and interdependent enterprise enhances mission performance, reduces costs, strengthens partnerships, and improves stakeholder confidence. The AST is utilizing the Nuclear Weapons Complex Contract Strategy report and the related industry responses that resulted from RFI-1 and RFI-2, and is building upon that information to develop the strategy.
- The AST lead is Ms. Patty Wagner (Sandia Site Office Manager, on special assignment to this effort)
- Release is imminent, but not expected to contain a specific approach – instead will offer options

DOE/NNSA on The Future Vision for Labs

- Congressional Testimony by Lab Directors and “Media Roundtable” in June, 2008
 - Reaffirms Work for Others (WFO) mission for Labs and NTS
 - Establishes “Future Vision” for National Security Laboratories

A Future Vision for NNSA’s National Security Laboratories

“Transforming the Nuclear Weapons Complex into a National Security Enterprise”

The Department of Energy’s (DOE) National Nuclear Security Administration (NNSA) laboratories employ world-class scientists and engineers and maintain truly unique national assets. These laboratories have led science, technology, and engineering efforts that enabled major changes in the U.S. national security posture. As the Nation faces a changed world in which monolithic threats no longer dominate, the means to disrupt an increasingly technology-based society are rapidly multiplying. As a consequence, NNSA and its national security laboratories have been called upon even more than before to devote their immense capabilities to responsibilities that are not limited solely to the historic nuclear weapons core mission, but are more expansive and encompass a spectrum of national security missions.

NNSA National Security Laboratories

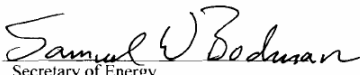
- Los Alamos National Laboratory
- Sandia National Laboratories
- Lawrence Livermore National Laboratory
- Nevada Test Site (User Facility)

Commitment

The Department of Energy is committed to invest in the people and the Nation’s scientific infrastructure in order to enhance essential capabilities used by the Nation to solve defense, energy and other critical security issues. To contribute its unique capabilities, NNSA will partner with other segments of DOE and other agencies with national security responsibilities to direct and enhance the underlying science, technology, and engineering capabilities available to the Nation.

National Security Laboratory Centers of Excellence

Enhancing this broadened national security role requires leadership and support from NNSA and the other elements of the Department as well as investments by the broader national security community. Each laboratory and the Nevada Test Site will maintain a broad multidisciplinary portfolio of competencies and may develop centers of excellence in specific technical areas to more effectively contribute to the Nation’s current requirements. This broadened current national security role for NNSA and its laboratories will require continuity and stability for their core nuclear-deterrent mission as they continue to evolve to provide the Nation a critical advantage in meeting security challenges in the 21st century.



Secretary of Energy

19 June 08

Date

D'Agostino on The Future Vision

- “To respond to the evolving 21st century global security threats, NNSA will bring our science, technology and engineering enterprise to bear on solving large, urgent national security challenges.”
 - Supporting war fighter needs in Iraq with IED modeling and analysis;
 - Assisting in the safe recovery and securing of a potential radiological device or a lost or stolen U.S. nuclear weapon;
 - Helping identify, among other things, the source of a nuclear device, its effects, and the persons or groups responsible using technical nuclear forensics;
 - Developing and deploying integrated systems for countering aerosolized bioterrorist releases and bio-decontamination technologies; and
 - Developing and deploying portal detector technology to prevent smuggling of illicit nuclear materials.

Some Hope?

- Recent letter to Secretary Chu from Senator Udall asking for a recommitment to the future vision:

"On the heels of this statement, several Strategic Partnership Agreements (SPA's) between NNSA and other agencies have either been signed or are currently under negotiation. The SPA's represent in real terms the early realization of the vision elucidated in the statement signed last year. However, this simply marks the beginning. In order to allow other federal agencies to benefit from the expertise and capabilities developed at the NNSA labs, I believe additional resources and commitment should be devoted to expanding the mission in general, and as part of that effort, specifically to the vision statement and agreements between NNSA and other agencies.

With that in mind, I respectfully urge you to compile a similar statement and lend your support to the establishment of additional SPA's. By doing so, you will be signaling that these national labs must continue to serve our nation, and must do so in a multitude of disciplines. It is quite clear that each of these labs has recognized the need to diversify their missions, and I firmly believe that we should encourage that diversification, otherwise we risk losing many of the scientists and much of the research that is so crucial and to critical for our national interests."

The Honorable Steven Chu
Secretary
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Secretary Chu:

Congratulations again on your appointment and confirmation as Secretary of the U.S. Department of Energy (DOE). Our nation is in the midst of an energy crisis that requires substantial attention, and I am certain that you bring the necessary expertise, leadership and ambition that will serve President Obama and the nation well.

As you know, the National Nuclear Security Administration (NNSA) within the DOE provides not only surety for our nuclear arsenal, but acts as one of the strongest scientific research and development engines in the nation. Yet, while our laboratories have continued to support a broad national security objective beyond the core mission of the Stockpile Stewardship Program (SSP), almost all activities of the NNSA are supported fundamentally by a shrinking budget of that core mission. This has led to wide concern that the budget and mission constraints of the NNSA could lead to its being unable to provide the very necessary capabilities that are so critical to our nation.

In response to this growing concern, last year Energy Secretary Samuel Bodman, DOE Undersecretary for Nuclear Security Thomas D'Agostino, DOE Undersecretary for Science Roy Orbach, and the heads of four NNSA facilities (please see the attached letter) signed a four page "Future Vision" statement outlining a path forward for the NNSA labs to move towards a more encompassing national security mission. The purpose was not only to describe an evolving role of the labs, but also to foster a new environment of cooperation between the labs and other agencies.

"The scientific capabilities and infrastructure developed for the nuclear weapons mission have been utilized by many national security agencies," the letter states, "and are recognized as essential to fulfilling their responsibilities. Maintenance of a strong infrastructure – both the workforce and the facilities – will require joint support from these national security agencies, as well as careful planning and budgeting by NNSA and its national laboratories, to enable this broader national security mission."

On the heels of this statement, several Strategic Partnership Agreements (SPA's) between NNSA and other agencies have either been signed or are currently under negotiation. The SPA's represent in real terms the early realization of the vision elucidated in the statement signed last year. However, this simply marks the beginning. In order to allow other federal agencies to benefit from the expertise and capabilities developed at the NNSA labs, I believe additional resources and commitment should be devoted to expanding the mission in general, and as part of that effort, specifically to the vision statement and agreements between NNSA and other agencies.

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Several studies are currently being conducted related to the NNSA labs, from the recently released Stimson Report (which encouraged mission diversity and broad investment in the labs by other agencies), to the soon to be released report from the Congressional Commission on Strategic Posture of the United States, to the upcoming Nuclear Posture Review. The confluence of these studies marks what you already know; our national labs are at a crossroads. As such, I believe this represents an historic opportunity to ensure our labs continue to play a critical role in securing our nation from threats not imagined at their birth.

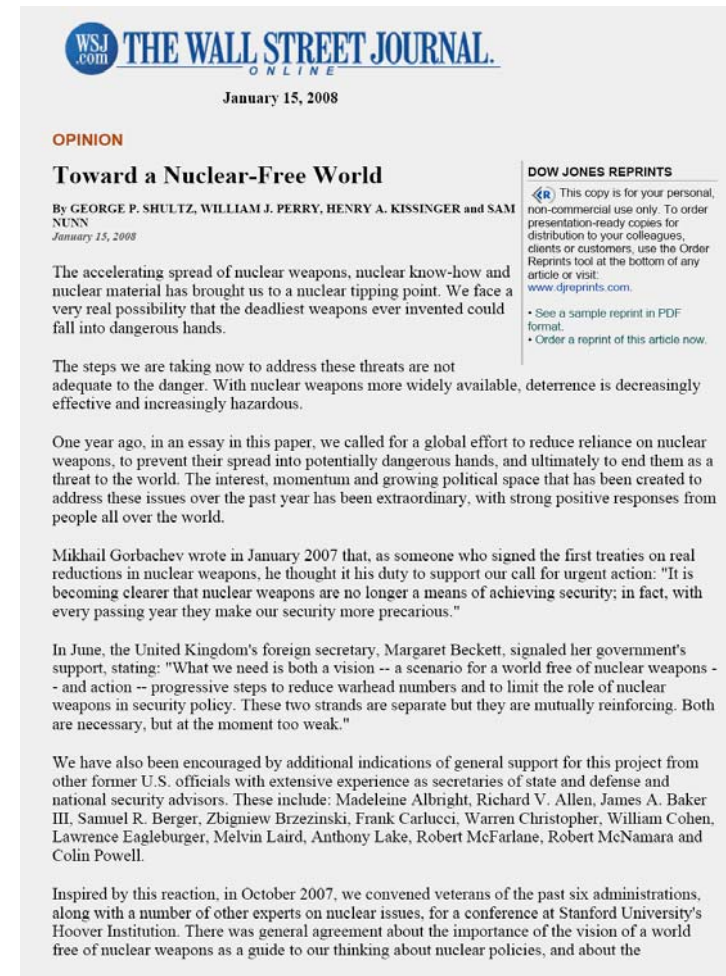
The signatories to last year's statement underscored how important it was for these labs to transform into national security labs, stating "[w]e will advocate for and enable a broader national-security role for NNSA and its laboratories... The nation's ability to respond to as yet unknown challenging national security problems in the future demands nothing less." I wholeheartedly echo this sentiment and respectfully ask that you consider lending your crucial voice in support of this effort.

I welcome the opportunity to work with you on this and the many other challenges facing our nation. Please do not hesitate to contact me to discuss further.

Sincerely,
Tom Udall
United States Senator

Toward a Nuclear Free World

- Op-Ed in Wall St. Journal – January 15, 2008
 - Authored by George Schultz, William Perry, Henry Kissinger, and Sam Nunn
 - Followed Op-Ed in January 2007 entitled “A World Free of Nuclear Weapons” that was supported by a subsequent Op-Ed from Mikhail Gorbachev entitled “The Nuclear Threat”
 - Discusses the “nuclear tipping point”
 - Makes several recommendations toward a nuclear-weapons free world



WSJ.com THE WALL STREET JOURNAL ONLINE
January 15, 2008

OPINION

Toward a Nuclear-Free World

By GEORGE P. SHULTZ, WILLIAM J. PERRY, HENRY A. KISSINGER and SAM NUNN
January 15, 2008

The accelerating spread of nuclear weapons, nuclear know-how and nuclear material has brought us to a nuclear tipping point. We face a very real possibility that the deadliest weapons ever invented could fall into dangerous hands.

The steps we are taking now to address these threats are not adequate to the danger. With nuclear weapons more widely available, deterrence is decreasingly effective and increasingly hazardous.

One year ago, in an essay in this paper, we called for a global effort to reduce reliance on nuclear weapons, to prevent their spread into potentially dangerous hands, and ultimately to end them as a threat to the world. The interest, momentum and growing political space that has been created to address these issues over the past year has been extraordinary, with strong positive responses from people all over the world.

Mikhail Gorbachev wrote in January 2007 that, as someone who signed the first treaties on real reductions in nuclear weapons, he thought it his duty to support our call for urgent action: "It is becoming clearer that nuclear weapons are no longer a means of achieving security; in fact, with every passing year they make our security more precarious."

In June, the United Kingdom's foreign secretary, Margaret Beckett, signaled her government's support, stating: "What we need is both a vision -- a scenario for a world free of nuclear weapons - - and action -- progressive steps to reduce warhead numbers and to limit the role of nuclear weapons in security policy. These two strands are separate but they are mutually reinforcing. Both are necessary, but at the moment too weak."

We have also been encouraged by additional indications of general support for this project from other former U.S. officials with extensive experience as secretaries of state and defense and national security advisors. These include: Madeleine Albright, Richard V. Allen, James A. Baker III, Samuel R. Berger, Zbigniew Brzezinski, Frank Carlucci, Warren Christopher, William Cohen, Lawrence Eagleburger, Melvin Laird, Anthony Lake, Robert McFarlane, Robert McNamara and Colin Powell.

Inspired by this reaction, in October 2007, we convened veterans of the past six administrations, along with a number of other experts on nuclear issues, for a conference at Stanford University's Hoover Institution. There was general agreement about the importance of the vision of a world free of nuclear weapons as a guide to our thinking about nuclear policies, and about the

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U.S. Strategic Posture Commission

- Established by House Armed Services (H.R. 1585, Sec. 1062)
 - Tasked to submit a report by December 1, 2008 that includes a detailed review of nuclear weapons policy and strategy and an examination of non-nuclear alternatives to nuclear weapons



March 25, 2008 - CISAC, FSI Stanford News

CISAC's Perry to head congressional commission examining nation's strategic weapons posture

Former U.S. Defense Secretary **William Perry**, co-director of CISAC's Preventive Defense Project, has been named chair of a Congressional bipartisan commission nominated March 19 to examine America's strategic military posture, including the "appropriate role" of nuclear weapons. The 12-member commission also will assess the role of nonproliferation programs and missile defenses in U.S. strategic policies. The group is expected to present a set of recommendations on future U.S. strategic policies to Congress and President George W. Bush by Dec. 1, 2008.

"A sound strategic posture and a healthy nuclear complex are vital to America's national policy," said Duncan Hunter, (R-CA), ranking member of the Strategic Forces Subcommittee. "We look forward to receiving [the commission's] recommendations on how we can improve our strategic posture and ensure the

longterm sustainability of our nuclear complex."

Subcommittee Chairman Ellen Tauscher, (D-CA), said the commission is needed, "to get the nation's nuclear policy back on track. For too long we have missed the forest for the trees, and I am hopeful this commission will encourage a vital national discussion that is both open and transparent about the appropriate role of nuclear weapons in our national security."

Strategic Posture Commission Members

The members nominated to the commission by the House Armed Services Committee are:

- William Perry, commission chairman, former Secretary of Defense;
- John Foster, director emeritus of Lawrence Livermore National Laboratory;
- Lee Hamilton, former Congressman and vice chair of the 9/11 Commission;
- Keith Payne, CEO and president, National Institute for Public Policy;
- Ellen Williams, University of Maryland distinguished professor;
- Harry Cartland, former physicist, Lawrence Livermore National Laboratory.

The members nominated by the Senate Armed Services Committee include:

- James Schlesinger, commission vice chairman, former Secretary of Energy and Secretary of Defense;
- John Glenn, former senator and NASA astronaut;
- Fred Ikle, former director, Arms Control and Disarmament Agency;
- Morton Halperin, former deputy assistant secretary of defense for International Security Affairs;
- James Woolsey, former director, Central Intelligence Agency;
- Bruce Tarter, former director, Lawrence Livermore National Laboratory.

U.S. Strategic Posture Commission - Status

- Interim Report issued December 11, 2008
 - Funding and other issues delayed process
 - “The smaller the size of the stockpile, the more important it will be to have confidence in its reliability.”
 - 19 Interim Findings
 - Reflects a carefully considered set of external drivers within the context of different agendas
 - It is possible to move toward a goal of eliminating nuclear weapons while maintaining and ever increasing our security
 - Final Report was expected late April, 2009 – issued on May 6, 2009 during Congressional Testimony

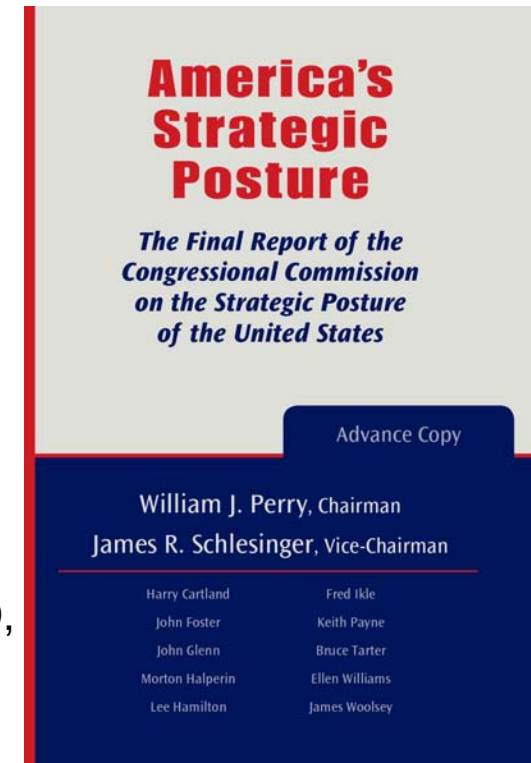
<http://armed-services.senate.gov/Webcasts/2009/May/05-07-09Webcast.htm>

<http://armedservices.edgeboss.net/wmedia/armedservices/fc2050609.vvx>

http://www.usip.org/strategic_posture/final.html

Strategic Posture Commission Report

- The Commission generally supports the Obama Administration's policies, but was split on some key issues such as ratification of the CTBT
- The Commission:
 - Recommends the separation of the NNSA from DOE with respect to funding and regulations
 - The arrangement would be that of an independent agency, much like FERC. The Secretary could comment on, but not disapprove of the NNSA budget request.
 - Provided unanimous support for strengthening the Labs, making them "National Security" rather than "Nuclear Weapons" Labs, and giving them greater freedom to do work – NRC would replace DNFSB
 - Favored creating an "ownership" of the labs by DOE, DoD, DHS and the DNI by making the health of the Labs a joint responsibility of those agencies and encouraged:
 - Providing direct access to the Intelligence Community
 - Continuing to apply common sense, cost-effective solutions to security posture, including the implementation of the new graded security protection strategy
 - Strengthening the intellectual infrastructure (human resource) at the Labs
 - Favored the completion of the CMRR first over the Y-12 UPF if funding was an issue



"As we take each new weapon into its life extension program, we should be open to a variety of approaches on how it can be done. If it can be done through the life extension techniques of the past, it should be done that way. If it involves mining other weapons for components, we should do it that way. If it involves a new design, we should be open to that also. The decision should be made on technical necessity." – *William Perry*

Strategic Posture Commission Report

- Additional findings/recommendations:
 - The U.S. should reduce nuclear dangers that balances deterrence, arms control, and nonproliferation. Nuclear terrorism against the U.S. and other nations is a very serious threat. This requires a U.S. led international response.
 - The surest way to prevent nuclear terrorism is to deny terrorist acquisition of nuclear weapons or fissile materials. An accelerated campaign to close or secure the world's most vulnerable nuclear sites should be a top national priority.
 - Substantial stockpile reductions would need to be done bilaterally with the Russians, and with other nuclear powers. It is essential that we pursue cooperative, binding measures with others.
 - Pursue a step-by-step approach with Russia on arms control, ensuring a successor to the START I before the end of 2009 .
 - The United States could maintain its security while reducing its reliance on nuclear weapons.
 - Guarantees to its allies and the NPT regime is integral to the achieving U.S. nonproliferation objectives.
 - The U.S. should maintain talks on denuclearization of the entire Korean peninsula, and do nothing that seems to accept North Korea's status as a nuclear power.
 - Negotiation and entry into force of FMCT would be a valuable addition to the global nonproliferation regime.
 - The United States requires a stockpile of nuclear weapons that is safe, secure, reliable, and credible.
 - The United States should develop and, where appropriate, deploy missile defenses against regional missile threats...defenses against these limited threats should avoid giving Russia or China reason to increase their strategic threats to the United States or its allies.
 - The United States must maintain the six-decade tradition of non-use of nuclear weapons.

OMB: Examine NNSA Move to DoD

- OMB request to DOE and DoD to examine the possibility of moving the U.S. Nuclear Complex into the Defense Department (Feb. 2009)
 - Would reverse over 60 years of “civilian” control of nuclear design and manufacturing
 - Would “fit” within philosophy of allowing DOE to concentrate on Energy research and development (aligned with new Secretary of Energy’s interests)
 - Some suggest could send the wrong message to the global community – the militarization of our stockpile from design to deployment
 - Strongly opposed by New Mexico Congressional Delegation

Military Control Of Labs Studied

Move Would End Civilian Management

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By JOHN FLECK
Journal Staff Writer

The Obama administration's Office of Management and Budget is studying the possibility of moving the U.S. nuclear weapons design and manufacturing program, including Los Alamos and Sandia labs, out of the Department of Energy and into the Defense Department.

Labs Study Draws Fire

N.M. Delegation Criticizes Possible Move to Pentagon

Critics mounted Wednesday against any plan to move the nation's nuclear weapons program into the Defense Department, and the Obama administration's Office of Management and Budget is studying the possibility of moving the U.S. nuclear weapons design and manufacturing program, including Los Alamos and Sandia labs, out of the Department of Energy and into the Defense Department.

Sen. Jeff Bingaman, D-N.M., said even further, saying he would urge the energy secretary to begin consideration of dismantling the National Nuclear Security Administration and putting the program back under the Department of Energy.

The NNSA, created as a quasi-independent agency eight years ago to manage nuclear weapons design and manufacture, has been a thorn in the Obama administration's side since it was created.



LEFT: Nuclei Bradbury will try to 2009. RIGHT: A P...



Researchers in clean rooms at Sandia National Laboratories.

Sandia National Laboratories
EMPLOYEES: 11,167
TOTAL BUDGET: \$2.3 billion
NUCLEAR WEAPONS BUDGET: \$1.5 billion

Los Alamos National Laboratory
EMPLOYEES: 11,233
TOTAL BUDGET: \$2.1 billion
NUCLEAR WEAPONS BUDGET: \$1.8 billion

Change of NNSA Control Opposed

By JOHN FLECK
Journal Staff Writer

Members of New Mexico's congressional delegation and a group of prominent U.S. senators sent letters Wednesday criticizing a proposed study of moving the U.S. nuclear weapons laboratories to the jurisdiction of the Defense Department.

In a memo obtained by the Journal last month, the Obama administration's Office of Management and Budget called for a study of the possibility of moving the U.S. nuclear weapons design and manufacturing program, including Los Alamos and Sandia labs, out of the Department of Energy and into the Defense Department.

One of the letters, from Sen. Jeff Bingaman, D-N.M., and four other senators, expressed "our firm opposition to the transfer of the NNSA to the Department of Defense."

It was signed by Bingaman, chairman of the Senate Energy and Natural Resources Committee, as well as Bingaman's Republican counterpart on the Energy and Natural Resources Committee and the leaders of two other key Senate committees with jurisdiction over the nuclear weapons program.

"Shifting to military control could be a dangerous precedent," said a second letter from the New Mexico congressional delegation.

Paul Robinson on the Future of the Complex*

- *“Establish at a national level the purpose and sizing of the US arsenal of nuclear weapons- appropriate to the threats we and our allies most likely face going forward*
- *Reorganize the management structure of the complex to have a nuclear weapons enterprise that is coherently managed and budgeted for*
- *The fact has been well established that the Federal government is incapable of “managing the advancement of science.”*

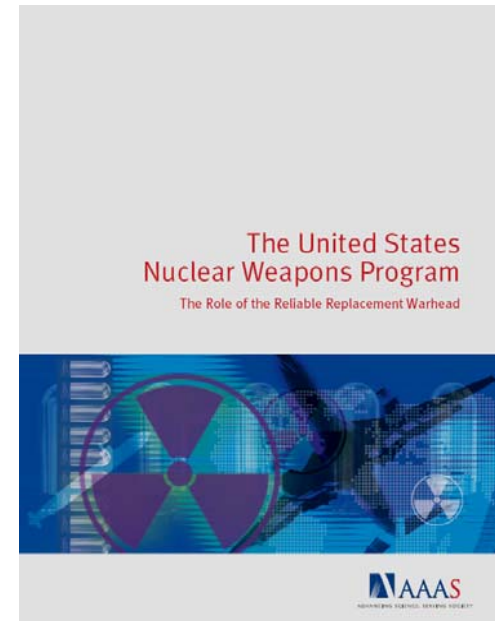
“My deeply held conviction is that the GOCO model has deteriorated so far, that it must now either be eliminated or drastically rejuvenated (with a new agency and a “clean sheet of paper”)”

Paul Robinson on the Future of the Complex*

“Personally, and after many years of believing that it was important to keep the nuclear weapons design, development, and production separate from the Defense Department, I have now reached the point that I believe it is worth considering removing the weapons responsibilities from DOE and placing it as a new agency within the DoD. The presence of a uniformed military could provide a continuity that has been lacking as different administrations came and went. The nation’s nuclear deterrent has only suffered from these short-term upheavals in what must be a long-term commitment.”

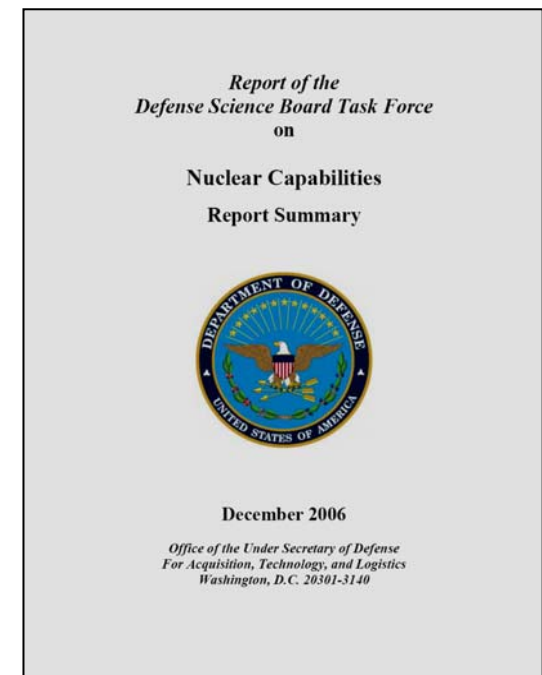
AAAS Report Highlights

- A very complex report – April 2007
 - “The independent designs for RRW could lead to a final design that is certifiable without a nuclear test”
 - “The full engagement of the DoD is necessary to set the conditions under which an RRW can be introduced into the arsenal”
 - “RRW and Complex 2030 will have a number of international impacts”
 - “There are no Presidential or Cabinet-level statements...that argue the case for the RRW”
 - ***“Only Presidential leadership can create the bipartisan program necessary to transform the nuclear weapons complex on a path that may take well over two decades.”***



Defense Science Board Report - 2006

- Three Key Issues identified:
 - Need for a national consensus on the nature and the need for and role of nuclear weapons
 - The Nuclear Weapons Complex and the approach to sustaining a reliable, safe, secure and credible set of nuclear weapons
 - The organization and management of the NWC enterprise – DOE and DoD
- Recommendations suggested for:
 - Assessing progress in developing integrated strike capabilities in the New Triad
 - The structure, organization and management of the Nuclear Weapons Enterprise
 - Sustaining the Nuclear Weapons Stockpile

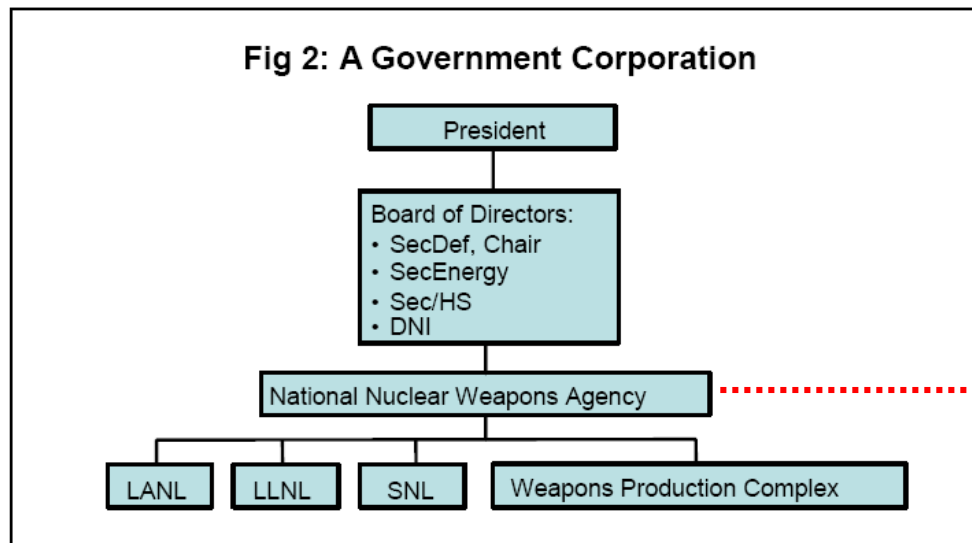
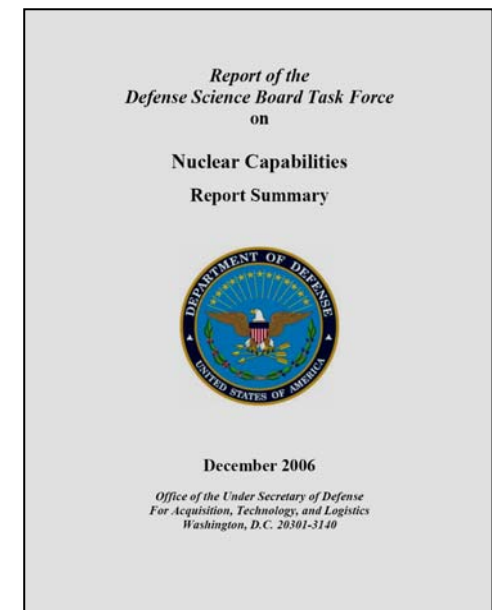


http://www.acq.osd.mil/dsb/reports/2006-12-Nuclear_Capabilities.pdf

Defense Science Board Report - 2006

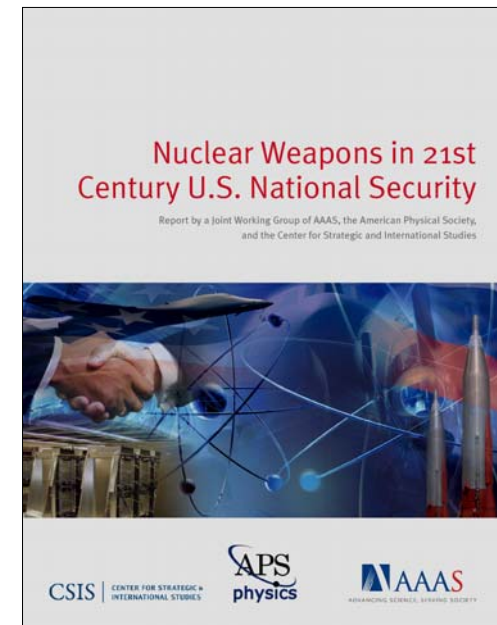
- Proposed “government corporate” structure
 - Create National Nuclear Weapons Agency with administrator reporting to President
 - Board of Directors including Secretaries of Defense, Energy Homeland Security and the Director of National Intelligence
 - Core will be three national nuclear weapons labs and weapons production complex

http://www.acq.osd.mil/dsb/reports/2006-12-Nuclear_Capabilities.pdf



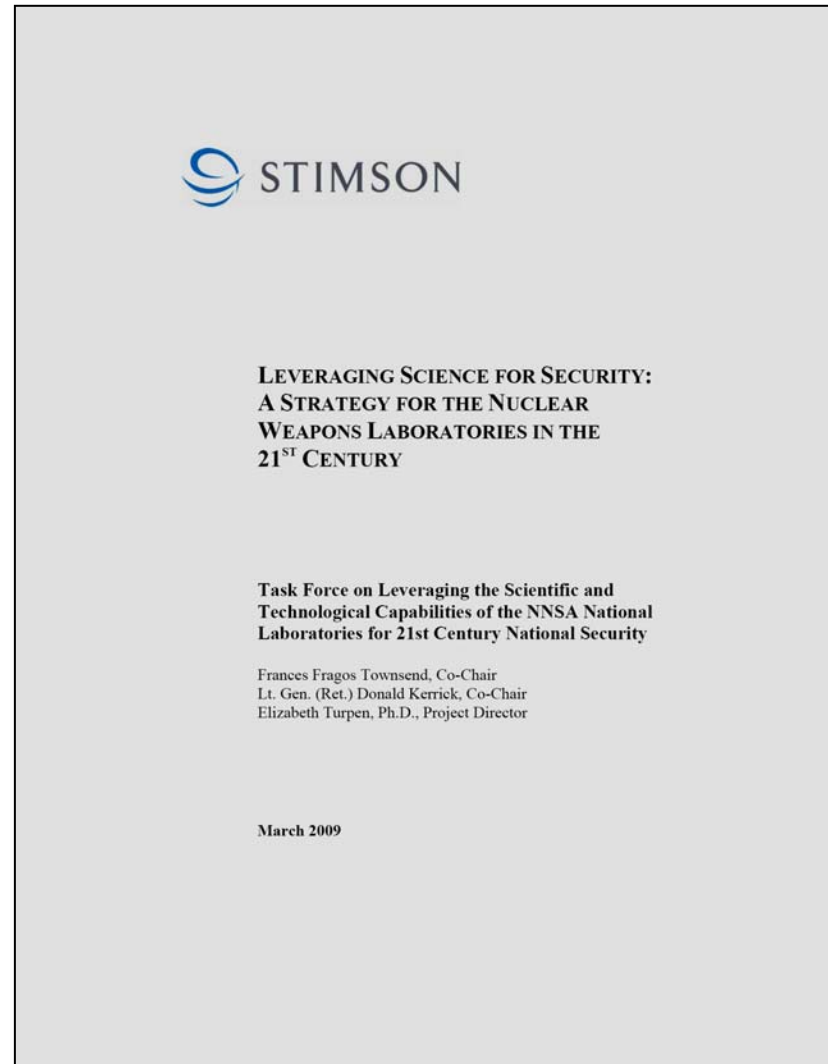
AAAS 2008 Report

- Issued after the election to inform the new Administration
- Collaboration among the American Physical Society (APS), The American Association for the Advancement of Science (AAAS) and the Center for Strategic and International Studies (CSIS)
- Addresses three nuclear pressing issues:
 - Preventing the spread of nuclear weapons
 - Securing and reducing global inventories
 - Reversing Russia's apparent increasing reliance on nuclear weapons
- Proposed basis for a new policy:
 - The U.S. must re-establish its global leadership in nuclear nonproliferation, arms control and disarmament matters
 - The U.S. must ensure a credible nuclear deterrent for as long as is needed through steps that include continuing to refurbish and update its nuclear stockpile and infrastructure as necessary without creating any new nuclear weapons capabilities



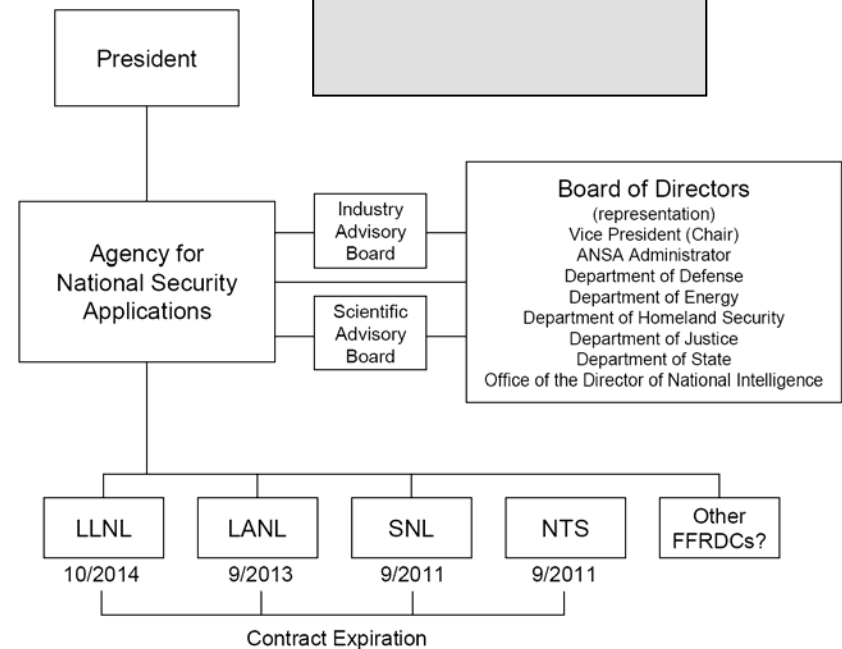
Stimson Report

- Updated perspective similar to DSB report – but from an NGO (non-governmental organization)
- Stimson Center, NTI, Pugwash and other similar groups have the “ear” of the Administration



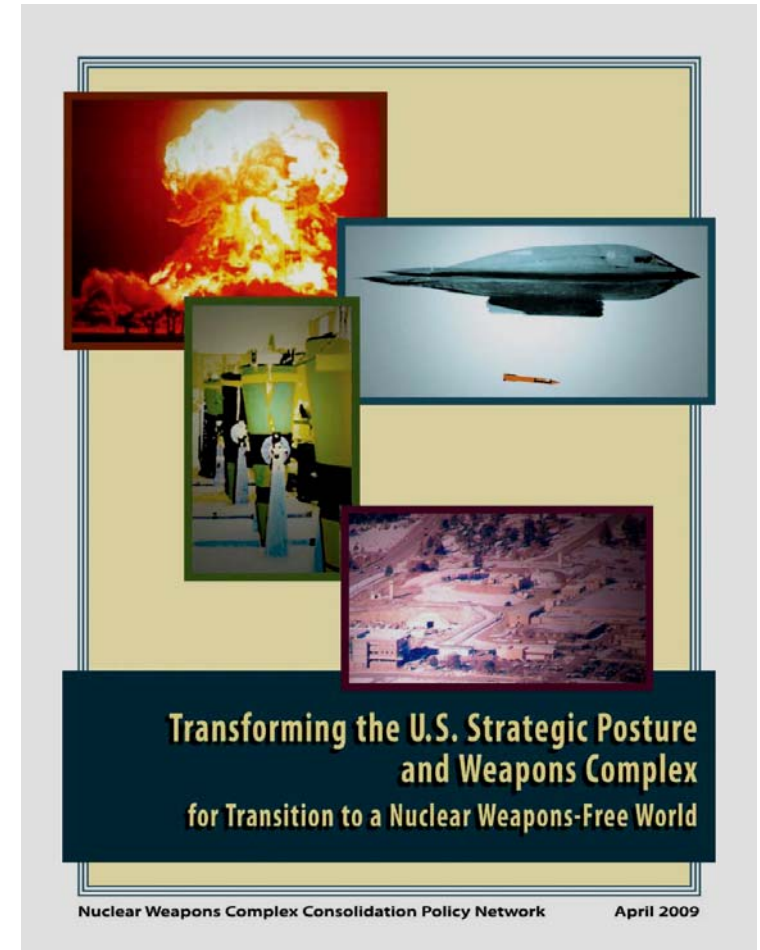
Stimson Report

- Recommends creating a fully independent agency for national security science and technology – the Agency for National Security Applications (ANSA)
 - Reports to the President
 - Is jointly funded by several agencies including the DOE, DoD, DHS and Intel community to facilitate “WFO”
 - Enjoys special relationship with industry to facilitate technology transfer



NWC Consolidation Policy Network Report

- Prepared by coalition of anti-nuclear organizations
 - Natural Resources Defense Council
 - Nuclear Watch New Mexico
 - Tri-Valley CAREs
 - Just Peace of Texas
 - Physicians for Social Responsibility
 - POGO
- Proposes shrinking Weapons Complex to three sites and establishing a “curatorship” role for the stockpile
- Many initiatives align with current Administration policy areas
- Does not provide data or analysis behind proposals, other than “feel good” agenda
- Builds on premise that the NNSA Complex Transformation analysis and decisions are based on “an obsolete ‘Nuclear Posture Review’ that the Bush Administration conducted in 2001.”



<http://www.nrdc.org/nuclear/>

http://docs.nrdc.org/nuclear/files/nuc_09040701a.pdf

NWC Consolidation Policy Network Report

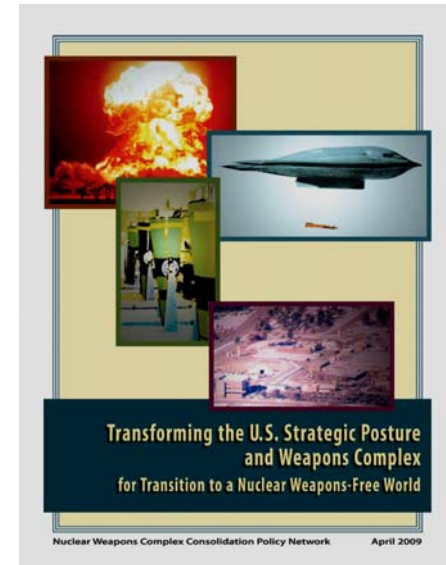
Nuclear Weapons Complex Consolidation Policy Network

Our Plan for Shrinking the Complex from Eight Sites to Three by 2025



Residual Capabilities in a 3-site Nuclear Weapons Complex Supporting 500 Warheads

[Note: In "Environmental Testing" the Labs subject nuclear weapons to extremes of temperature, vibration, shock and radiation to mimic the conditions of delivery to the target and ensure their performance during a nuclear war.]



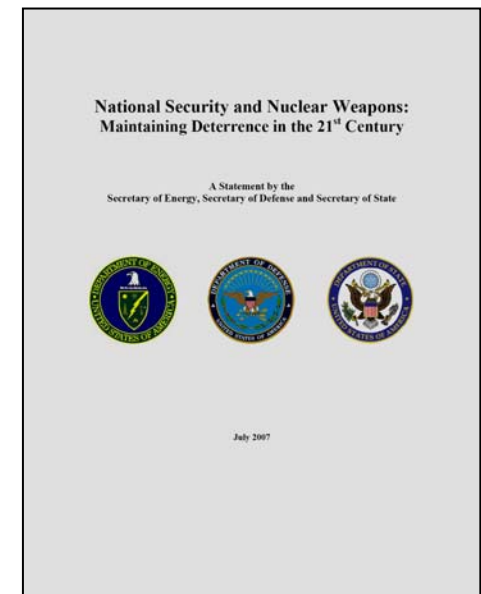
<http://www.nrdc.org/media/2009/090407a.asp>

Proposal:

- Dramatically reduce stockpile and devalue nuclear weapons as instruments of national security
- Freeze all current designs and drastically reduce nuclear weapons research and development activities
- Pursue a strategy to a verified and enduring elimination of nuclear weapons throughout the world
- De-alert all U.S. nuclear forces
- Ratify the CTBT
- Ban fissile material production
- Secure global stockpile and fissile material
- Shrink the Weapons Complex to three sites
- Become curator for existing stockpile
- Cease all sub-critical tests

Joint Statement on Nuclear Policy

- Policy Statement by Secretaries of Energy, Defense and State (July 2007)
 - “The extension of a credible U.S. nuclear deterrent has been critical to allied security and removed the need for many key allies to develop their own nuclear forces.
 - “It is the policy of this Administration to achieve an effective strategic deterrent at the lowest level of nuclear weapons consistent with our national security and our commitments and obligations to allies.”
 - “The ‘new triad’...reduces U.S. reliance on nuclear weapons while mitigating the risks associated with drawing down U.S. nuclear forces.”
 - “We are at a critical juncture that requires the U.S. to invest now in the capabilities needed to maintain a credible deterrent at the lowest level of nuclear weapons.”
 - “The skills and technologies needed to refurbish and maintain these older weapons designs are increasingly difficult to sustain or acquire.”
 - “Delays on RRW also raise the prospect of having to return to underground nuclear testing to certify existing weapons.”
 - **Detailed report to follow**



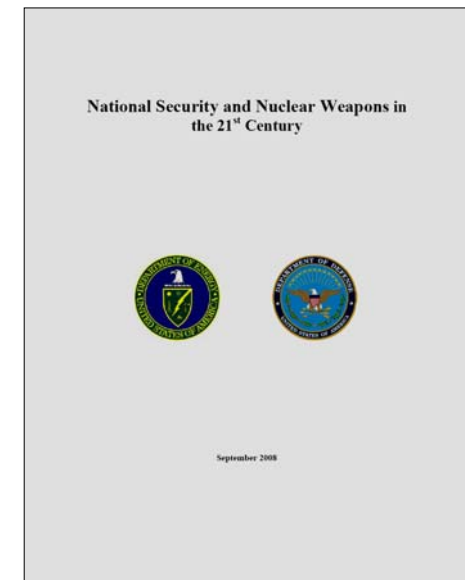
<http://www.nnsa.doe.gov/docs/factsheets/2007/NA-07-FS-04.pdf>

Final Joint (almost) Statement (Detailed Report)

- Consensus with Department of State could not be reached following July 2007 Joint Statement
 - Final joint DoD/DOE report issued in September 2008
 - Based upon 2001 NPR and prior work, including “lead and hedge” strategy of the Clinton Administration
 - U.S. would take lead in nuclear reductions
 - U.S. would hedge by maintaining an inventory of non-deployed warheads and delivery force structure
 - **Recommends continuation of the RRW program**
 - Points out that all Nuclear Weapons States are revitalizing their nuclear complexes and forces
 - Discusses concept of “nuclear umbrella” for allies
 - Assurance, Dissuasion, Deterrence and Defeat
 - Assure allies
 - Dissuade adversaries, potential adversaries and near-peers
 - Deter adversaries
 - Defeat adversaries
 - Requires a responsive infrastructure and sufficient force structure to address future threats

U.S. Strategic nuclear Force for 2012:

- 450 Minuteman III ICBMs
- 14 Ohio class SSBNs
- 20 B-2 and 56 B-52 bombers
- 1,700 to 2,200 warheads



Nuclear Policy and Posture Review Act

- S.1914
 - Requires President to conduct a nuclear policy and Posture review
 - Submit report on *Nuclear Policy Review* by September 1, 2009
 - Coordinated by National Security Advisor with Secretaries of State, Energy, and Defense; Directors of National Intelligence, Office of Management and Budget, and Office of Science and Technology Policy
 - Submit report on *Nuclear Posture Review* by March 1, 2010
 - Conducted by Secretary of Defense in collaboration with the Secretaries of Energy and State, the Director of National Intelligence, and the National Security Advisor
 - No funds may be appropriated for RRW for FY08, FY09, or FY10 until reports have been submitted to Congress

S.1914

Nuclear Policy and Posture Review Scope

- Nuclear Policy Review
 - Address role and value of nuclear weapons
 - Set short and long term objectives
 - Recommendations for strengthening NPT
 - Examine nonproliferation and arms control objectives
 - particularly w/r to Article VI of the NPT
 - Examine START and Moscow Treaties and recommend successor treaty with verification provisions
 - Provide guidance for follow on Posture Review

S.1914

Nuclear Policy and Posture Review Scope

- Nuclear Posture Review
 - The role of nuclear forces including extent to which conventional forces can assume roles previously assumed
 - Requirements and objectives to maintain a safe, reliable and credible nuclear deterrence posture
 - Targeting strategy
 - Levels and composition of delivery systems
 - Examine nuclear complex including any plans to consolidate, modernize or modify
 - Active and inactive stockpile and plans for replacing or modifying warheads
 - Posture options examined and reasons for selection

Restructuring of DoD Nuclear Command

- Minot-Barksdale nuclear asset incident
- Taiwan nuclear fuse incident

MILITARY U.S. Air Force punishes 17 officers for shipment of fuses to Taiwan

LOLITA C. BALDOR
Associated Press Writer

WASHINGTON — The U.S. Air Force and U.S. Army have disciplined 17 senior officers, including the three-star general in charge of logistics, for poor

Speaking to reporters during a Pentagon press briefing, Donley said that, in taking into consideration the future needs of the Air Force, two major generals in the group have been asked to stay on in their jobs.

gistics Agency and were in charge of the military's 26 shipping centers. Army spokesman Paul Boyce said that while neither officer was directly responsible for the shipping error, they had not fully corrected problems in the

February 19, 2008 | Section, 8 Pages | www.lamonitor.com | 50

"It was indeed a wake-up call and I suspect this will mean that the procedures and the care that all the people put into it will be carefully done for quite a while now."

— Robert Selden, former director of National Security Studies

Decline in focus led to nuclear incident



Science and Technology
A B-52 bomber loaded with six nuclear warheads flew for more than three hours over several states last week.

B-52 Mistakenly Transports Nukes

FROM PAGE A1

proliferation.

The plane was carrying advanced cruise missiles from Minot Air Force Base, N.D., to Barksdale Air Force Base, La., on Aug. 30, said officials.

The missiles, which are being decommissioned, were mounted onto pylons on the bomber's wings, and it is unclear why the warheads had not been removed beforehand.

According to the officials, the weapons are designed with multiple safety features



A B-52 bomber loaded with six nuclear warheads flew for more than three hours over several states last week.

U.S. Air Force Generals Punished for Nuke Parts Foul-Up

By MICHAEL HOFFMAN and WILLIAM H. MCGRAW

Colonels faulted in a report following Aug. 2006 shipment of classified ballistic missile components to Taiwan. Two Army generals were similarly disciplined by Air Force authorities.

Three generals and two colonels have put in for retirement, but the rest will stay in the Air Force as the service tries to cure its nuclear ills.

While both the Air Force and Army actions were administrative in nature, the Air Force actions were far more serious.

BAFB first choice for new unit

■ Air Force Global Strike Command could result in 1,000 or more personnel.

By John Andrew Prime
jprime@airnet.com

Barksdale Air Force Base and its supporters scored a coup Thursday with the Air Force announcing its selection as the preferred home of the new Air Force Global Strike Command.

The selection, with the caveat pending completion of a formal environmental impact process, could result in 1,000 or more personnel and their families

arriving here by year's end, state political leaders said.

U.S. Sens. Mary Landrieu, a Democrat, and John Vitter, a Republican, campaigned energetically with freshman 4th District Rep. John Flennig and Gov. Bobby Jindal for the mission, as well as for the headquarters of the new 24th Air Force, successor to the provisional Air Force Cyber Command that is still forming at Barksdale.

"This is great news for north-west Louisiana," Jindal said, noting the new unit combining control of the Air Force's strategic bomber and missile missions "will provide a significant boost to the economy (and) generate increased business

investment in the area" in addition to the jobs that will justify the \$107 million investment in Barksdale support in recent years by state and local governments.

"The decision by the Air Force to put this unit in north-west Louisiana highlights the importance of our state investment," Jindal said. "The strong state and local commitment to strengthening the base is not only helping to retain jobs in the area, but creating even more opportunities for our people and positioning Barksdale and Louisiana at the forefront of our nation's security efforts."



Bossier City Mayor Lorenz Walker comments on the fact that Barksdale Air Force Base has been announced as the first choice for the Global Strike Command by the U.S. Air Force.

USAF Struggles To Explain Nuke Mistake

By MICHAEL HOFFMAN

Aeromedical error — mistakenly loading six nuclear warheads onto a B-52 bomber — was the result of a series of mistakes by Air Force personnel, according to a report released by the Air Force's inspector general.

"Nothing like this has ever been reported before, and we have been assumed for decades that it was impossible," said Brig. Gen. Markley, D-Mass., co-chair of the House Republican Task Force on Nuclear Proliferation.

The Air Force didn't discover the mistake until the bomber landed in South Carolina after a three-and-a-half-hour flight. Four nuclear warheads ended up in the hands of Air Force personnel on the flight line, and three others were close to the situation.

The Air Force immediately launched a service-wide investigation of the incident, the first time in almost 40 years that nuclear warheads were transported on a

For the warheads to have been correctly loaded onto the B-52, ACUs are specifically designed to be inserted by 100 strategic bombers. They carry a W80 100-kiloton warhead with a yield of 100 kilotons — eight times more powerful than the bombs used by Nagasaki and Hiroshima, Japan.

The Air Force lost track of the warheads around the time of the 2006 shipment to Taiwan.

Even before the shipping error, a 2006 report by the House Appropriations

Headquarters U.S. Air Force

Integrity • Service • Excellence

AIR FORCE

BLUE RIBBON REVIEW

OF NUCLEAR WEAPONS

POLICIES AND PROCEDURES

Major General Polly A. Pritchett

8 February 2008

The Defense Science Board Permanent Task Force

on

Nuclear Weapons Surety

Report on the Unauthorized Movement of Nuclear Weapons

February 2008
(Revised April 2008)

Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics
Washington, D.C. 20301-1104

Southwest Regional Chapter

Why USAF's Top Two Were Forced Out

Why USAF's Top Two Were Forced Out

By MICHAEL HOFFMAN

Why USAF's Top Two Were Forced Out

Beheaded USAF Braces for Change

Firings Leave Acquisition, Funding Questions Hanging

By GARY S. PUTCH

The department of Defense and the Air Force are in a difficult epoch in Air Force history, one that has beheaded the traditional flight of nuclear warheads across the country, the retirement and long-anticipated transfer of secret nuclear fuses to Taiwan, the discovery of a corrupt \$80-million contract for the "Thunderbolt" air defense and more than \$60 billion in Air Force contracts targeted in

Headquarters United States Air Force

Integrity • Service • Excellence

Before the House Appropriations Committee
King and Afghanistan
"This has been a period, starting with former Defense Secretary Donald Rumsfeld, where the Air Force has not been heard from."

Reinvigorating the Air Force Nuclear Enterprise

Major General Polly A. Pritchett

8 February 2008

Report of the Secretary of Defense Task Force on DoD Nuclear Weapons Management

Phase II:
Review of the DoD Nuclear Mission

December 2008

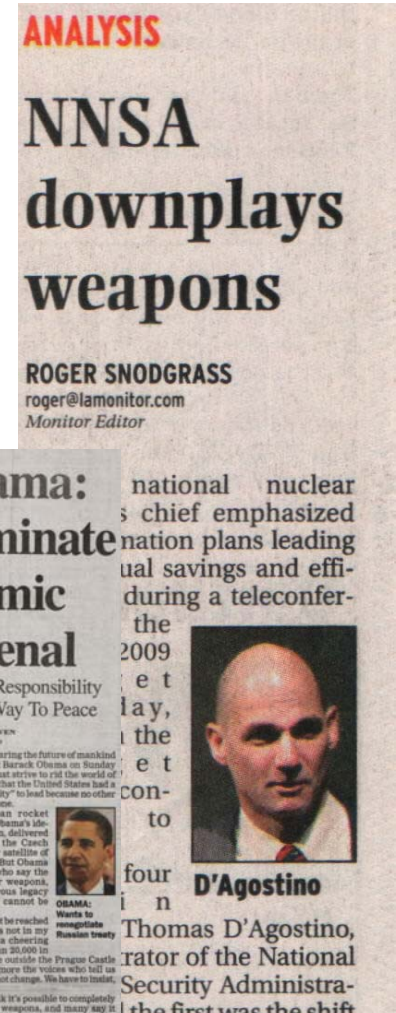
Report of the Secretary of Defense Task Force on DoD Nuclear Weapons Management

Phase I:
The Air Force's Nuclear Mission

September 2008

What's Wrong With This Picture?

- The U.S. is re-examining its nuclear weapons Policy and Posture
 - Funding for RRW and other elements of the transformed Complex has not been forthcoming
 - Congressional actions usurping leadership role of NNSA and Laboratories
 - Critical technical resources are retiring while the “pipeline” is not being filled due to budget and policy decisions
- All of the other Nuclear Weapons States are enhancing their stockpiles and delivery systems
- Proliferation of nuclear weapons technology continues in several countries
- Over 40 developing countries from the Persian Gulf to Latin America have announced intentions to pursue nuclear power options to satisfy energy demand



Meanwhile...The Dominoes Continue to Fall

- Revitalization of NWS stockpiles
- Nationalistic moves in Russia
- Iran, DPRK, GCC, Syria, Egypt, others move toward nuclear options

Telegraph.co.uk | Print version

China modernising nuclear weapons arsenal

By Richard Spencer in Beijing
Last updated: 9:14 PM BST 08/05/2008

China is undertaking a dramatic overhaul of its nuclear weapons in an effort to modernise and expand its arsenal.

One of the world's leading Chinese military had real behind those of other major powers by potential advantage.

Bates Gill, head of the St Institute (SIPI), said the delivery systems, including to use multiple warheads.

"Among the major nuclear modernise, expand and I said in Beijing today.



MEET THE PRES. Left: Barack Obama (second from left) and other officials at a press conference in Washington, DC, on Monday, January 20, 2009.

Pit delivery celebrated

Groups say nothing to cheer about

Jordan Expresses Interest in Atomic Program

By Maria Femenias
The Associated Press
JERUSALEM — Jordan's King Abdullah II said on Tuesday that his country wants to use atomic power, a development he said came in response to energy expressed by other countries in the region to help meet their needs.

Abdullah II said his country was interested in nuclear power, a development he said came in response to energy expressed by other countries in the region to help meet their needs. He said his country was interested in nuclear power, a development he said came in response to energy expressed by other countries in the region to help meet their needs.

New nuclear warhead design chosen

WASHINGTON — The U.S. military has chosen a new nuclear warhead design for its next generation of nuclear weapons, a move that could help reduce the risk of nuclear war, according to a report from the U.S. House of Representatives.

Blair unveils nuclear sub proposal

By Neil Martin
LONDON — British Prime Minister Gordon Brown unveiled a proposal on Tuesday for the United Kingdom to build a new class of nuclear submarines to replace its aging fleet.

Bush approves civilian nuclear trade with India

WASHINGTON — President Bush today signed a civilian nuclear deal with India, allowing fuel and know-how to be shipped to the world's largest democracy even though it has not subscribed to full international inspections.

Arab states look at atomic power

By Associated Press
The Associated Press
RABAT, Morocco — Arab states are looking for peaceful uses of nuclear power, according to a report from the U.S. House of Representatives.

Researchers See Higher Risk of Nuclear War

By Karl Ritter
STOCKHOLM, Sweden — Researchers in Sweden say the risk of nuclear war has increased in the last decade, according to a report from the U.S. House of Representatives.

Bush Defends Missile System

WASHINGTON — President Bush today defended his decision to build a missile defense system in Eastern Europe, saying it was a good deal because it would provide international oversight for part of a program.

Putin Warns U.S. About Defense Plan

By Nicolas Winfield
The Associated Press
ROME — Russian President Vladimir Putin warned that U.S. plans to build a missile defense system in Eastern Europe would force Moscow to target its weapons against Europe.

Iran To Push Ahead With Nukes

By Nasser Karimi
The Associated Press
TEHRAN, Iran — Iran vowed Tuesday to press ahead with uranium enrichment despite U.S. economic sanctions aimed at forcing a halt to its nuclear program, and hard-line President Mahmoud Ahmadinejad warned that the penalties would hurt the West more than Iran.

Administration renews bid for warhead project

By Roger Smedley
The Associated Press
WASHINGTON — The Bush Administration has sent a summary document to Congress affirming the place of nuclear weapons in national security policy. The summary was made public on Tuesday, promising a more detailed report in the future.



Keeping track of dragons' teeth

By Roger Smedley
The Associated Press
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Experts: Israeli strike linked to nuclear site

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WASHINGTON — Experts say the Israeli strike on a nuclear site in Iraq was linked to the site's role in the 1960-68 Iraq-Iran war.

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France Should Keep Nukes, Report Says

By Pierre Trépo
PARIS — France should retain its nuclear arsenal and nuclear power plants, according to a report from the U.S. House of Representatives.

Putin Talks Arms, Nuclear Power in Gulf Visit

By Associated Press
WASHINGTON — Russian President Vladimir Putin said he would discuss arms and nuclear power with U.S. officials during his visit to the Gulf region.

Aviation Week & Space Technology

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U.K.

http://www.mod.uk/NR/rdonlyres/AC00DD79-76D6-4FE3-91A1-6A56B03C092F/0/DefenceWhitePaper2006_Cm6994.pdf

- \$1.75B upgrade to AWE
- Development of *High Surety Warhead* – U.K. version of RRW
- \$30B - \$40B upgrade to Trident fleet proposed
- Life Extension Program for Trident II D-5 SLBM

MISSILE ENGINEERING

Sub Plot

Submarine deterrent remains favorite to meet future need as Britain's nuclear narrative unfolds

DOUGLAS BARRIE/LONDON

Ostensibly all options are still being explored, but the most likely outcome is that Britain will remain one of five nations to deploy nuclear ballistic-missile submarines in the strategic deterrent role.

The British government and Defense Ministry have been working on options to identify a successor to the Trident II D5 missile and its Vanguard-class boats for at least the past 3-4 years.

A Defense Ministry White Paper, due out this year, will "set out the conclusions of our analysis on future risks and threats, the extent of any enduring requirements for a minimum deterrent, the possible options and costs."

The government makes considerable public play of maintaining that any decisions have yet to be made. Senior ministers, however, have been seen setting to sustain a nuclear capability for at least 2025, and possibly beyond.

The U.S. Navy now plans to retain the Trident II missile until 2040, rather than 2025. The D5 Life Extension program will see obsolescent elements of the missile out, with the inventory upgraded to the latest state with the production of 115 additional missiles.

The U.K. missiles are drawn from a common pool with the U.S. Navy. They are fitted out with British-manufactured heads before being deployed on board the Vanguard-class boats for patrols. The U.K. government has had to think about the U.S. shift to the D5 LE.

The British warhead can be sustained into the future according to the Defense Ministry, with only "minor" refurbishment during the first half of the century. The planned life of the missile, which entered service in 1994, is 25 years.

Similarly, the four Vanguard-class submarines year design life. The first entered service in 1995, followed in 1998 and 2001. The Defense Ministry has studied possibly extending the life of the boats to maintain a capability until around 2025, rather than withdrawing them from the fleet at the end of their 30-year design life.

The D5 LE option gives the government the choice of a financially and politically delicate mission from a full-cost replacement of the Trident II fleet. The option could be portrayed as being an expedient life-extension program—implications of no long-term commitment.

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The Future of the United Kingdom's Nuclear Deterrent

Presented to Parliament by The Secretary of State for Defence and The Secretary of State for Foreign and Commonwealth Affairs

July 25, 2006 *Defence News 5*

The Herald

http://www.theherald.co.uk/news/news/display.var.1661681.0.britain_in_topsecret_work_on

Britain in top-secret work on new atomic warhead

Exclusive by IAN BRUCE, Defence Correspondent

Scientists are secretly working on the design of a revamped British nuclear warhead. The new device, designated the High Surety Warhead is understood to be the top Atomic Weapons Establishment at Aldermaston in Berkshire.

The top-secret project is being run in conjunction with US efforts to build "failsafe" nuclear firepower for its own submarine-launched Trident missile. The Campaign for Nuclear Disarmament (CND) claims the research is a breach of international disarmament and non-proliferation treaties.

News of the research has leaked out less than a year after a succession of plans to upgrade or refurbish the Royal Navy's existing stockpile of warheads to about 160 weapons.

U.K. To Improve Nuclear Facilities, Boost Staffing

By ANDREW CHITTEL, LONDON

Government officials say the new investment merely signals the intent to retain the current warheads safety in service for the next two decades, not a plan to build a new generation of nuclear warheads. Such a decision likely would be controversial, particularly among elements of the ruling Labour Party.

Still, the MoD is already studying options for deploying nuclear weapons beyond the early 2020s.

Government officials say a decision on whether to replace its four ballistic-missile nuclear submarines is expected to be made during this Parliament, which is due to end by 2010. The decision likely will be forced by the age of the four in-service Vanguard-class subs, the first of which will retire in 2020, and

not by the need to replace their U.S.-supplied Trident missiles, which could remain in U.S. service past 2008, according to several sources at the July 6 Royal United Services Institute conference on the future of British strategic deterrence.

Photo: The HMS Victorious is one of four Royal Navy ballistic-missile nuclear submarines whose future is being debated in Parliament.

Photo: The HMS Victorious is one of four Royal Navy ballistic-missile nuclear submarines whose future is being debated in Parliament.

Blair unveils nuclear sub proposal

By Ian Brady

LONDON — British Prime Minister Tony Blair on Monday unveiled a bold new proposal to extend the life of the United Kingdom's nuclear submarine fleet to 2025, a move that has drawn criticism from disarmament activists.

The prime minister said that the new proposal would see the fleet of four Vanguard-class submarines extended to 2025, rather than the current plan to replace them by 2020. The proposal would also see the development of a new nuclear warhead, the High Surety Warhead, which would be used on the extended fleet.

Blair said the proposal would cost about \$10 billion over the next five years. He said the proposal would ensure that the United Kingdom would remain one of the five nuclear powers that have the capability to launch nuclear weapons from submarines.

Disarmament activists, however, have criticized the proposal. They said the proposal would be a breach of international disarmament treaties and would increase the risk of nuclear war.

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France

- \$10B M51 upgraded MIRV'd Ballistic missile development
- New warheads – TNO and TNA – will replace older TN75's and TN81's – to be designed using Megajoule Laser
- \$1.5B Megajoule Laser for simulation tests
- Advanced ASMP-A cruise missile entering service this year
- New Triomphant-Class Submarine – Le Terrible – is under construction to enter service in 2010 with new SLBM (M-51)



France Should Keep Nukes, Report Says

By PIERRE TRAN, PARIS

France should retain its submarine and airborne nuclear forces despite the annual 2 billion euro (\$4 billion) cost and deep changes in the world order and public opinion, the think tank Centre d'Etude et Prospective Stratégique (CEPS), says, in a new report.

The report, "Defense in general and nuclear in particular," is intended as a discussion paper to stimulate debate on defense policy issues ahead of the spring national election, said Luc Tibot, La Sphère, CEPS' chief executive.

Gen. Charles de Gaulle set nuclear weapons at the heart of defense policy when he committed France to building an atomic army because "Paris could no longer count on the U.S. umbrella," Tibot La Sphère said.

But with the end of the Cold War and the conjuring away of the threat of a massed Russian tank at

destroys whole cities; the media and nongovernmental organizations play a larger role in informing public opinion, which demand an accounting for military action.

■ Since the Sept. 11, 2001, attacks and the adoption of U.S. National Security Strategy 2002, the credibility of nuclear deterrence has eroded; any use of French atomic weapons has "decoupled" from a potential U.S. follow-on strike in support of France.

■ Financial constraints mean the 2015 model force structure adopted in the late 1990s is beyond reach, and France must focus on core defense missions.

The report concludes that given the multitude of threats in the world, a renunciation would leave France vulnerable to countries that have atomic weapons, without the means of responding to a nuclear threat.

Yes Boyer, deputy director of the think-tank Fondation de Recherche Stratégique, here, agreed with the need to retain nuclear weapons.

"They are a minimum insurance in a very fluid world, where it is impossible to foresee what the circumstances will be in 20 to 30 years," Boyer said.

With potential proliferating countries such as North Korea and Iran, possession of such weapons

Rafale's Role: France is developing an ASMP-A missile to arm its Rafale jet.

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Nuclear Lite

Facility will simulate nuclear warhead blasts, making testing redundant

MICHAEL A. TAVERNA/LE BARP, FRANCE

runworkers are preparing to top out construction of a gigantic inertial confinement fusion facility here intended to enable France to simulate the reliability and safety of its nuclear arsenal without resorting to testing.

Paris imposed a unilateral moratorium on nuclear testing in 1992, ending a long campaign initiated in 1960 in its South Pacific territories. The tests were a political liability at that site—the government last month issued a new report assuring local authorities that long-term effects of the trials will be limited—and that few geographically or politically suitable alternatives are available.

Tests on MIRVs, begun in 1985, ended to develop a miniaturized warhead, the TN75, that forms the basis for this generation of French nuclear weapons.

Those operations were resumed in 1995 to gather additional data to allow a new generation of TN75-based weapons—the advanced ASMP-A cruise missile and the new M51 submarine-launched weapon—to be reliably tried out on a simulator.

The ASMP-A is set to enter service in 2007 with the Mirage 2000N fighter, and a year later with the Rafale F3 (AW&ST July 3, p. 20). The M51 will join the arsenal in 2010 on board the Terrible, the fourth and last of a new class of ballistic missile launch submarines.

France ceased testing in 1996 and ratified the comprehensive test ban treaty (CTBT). The decision was accompanied

Construction work on the Megajoule Laser is nearing completion. The \$1.5-billion facility is expected to be ready by 2011.

Russia

- New road-mobile and silo-based *Topol-M* (SS-27) ICBM
- New MIRV'd SS-27 (RS-24)
- New *Bulava* (SS-30) SLBM
- New *Borey*-class SSBN
- New long-range cruise missile (KH-102)
- Modernized Blackjack (Tu-160) heavy bomber

INTERNATIONAL Herald Tribune

Russia's defense minister lays out ambitious plans for new weapons purchases

The Associated Press
 Wednesday, February 7, 2007
 MOSCOW

Russia's defense minister on Wednesday laid out an ambitious plan for building new intercontinental ballistic missiles, nuclear submarines and possibly aircraft carriers, and set the goal of exceeding the Soviet army in combat readiness.

Sergei Ivanov's statements appeared aimed at raising his profile at home ahead of the 2008 election in which he is widely seen as a potential challenger to President Medvedev.

Ivanov told parliament that the plan envisages the deployment of 50 such missiles mounted on mobile launchers.

THE COLD WAR REVISITED

Using its oil revenues, Russia is moving aggressively to distance itself from the United States and regain control over parts of the former Soviet empire

Energy Is Russia's New Power

By LAWRENCE KANE, King Publishing Co.
 WASHINGTON — Russia alone has been able to achieve what it should be noted, has caused consternation among his supporters by dropping his support of extreme action on climate change to urge a more voluntary approach like that favored by President Bush.

To stimulate its growing dependence on Russia, Europe has thrown itself behind wind power and now has the most advanced wind turbine developments in the world. But they still produce very little electricity. Instead, an enthusiastic proponent of wind power, gets only 3 percent of its supply from wind, for example.

The story is much the same across the rest of Europe, where wind has been subsidized and where offshore wind farms have government support. Britain has an energetic offshore program, but few believe that wind will substantially dent the demand for natural gas.

All of Europe knows that Russia can be a contentious trading partner in the best of cases, but global warming, rise, Russia will have leverage it has never had in history over its European neighbors. Future European political administrations will worry less about whether their policies sit well with Washington than whether they sit well with Moscow.

Europe's energy starvation changes the global equation, with consequences yet to be imagined. This is a major crisis, and it is one to which the United States has no role to play.

The Russian bear is on the prowl, and American multinationals can draw a bead on him.

Lawrence Kane is chairman and CEO of King Publishing Co., www.kingpublishing.com, publisher of the *Energy* industry magazine, Energy Daily, Copyright, King Publishing Co.

Russia to deploy new-generation nuclear weapons system: Putin

President Vladimir Putin served notice that Russia intended to remain a major nuclear power by deploying a new weapon in the coming years that other states lack and are unlikely to develop in the near future.

"We have not only conducted tests of the latest nuclear rocket systems," Putin told a meeting of the Armed Forces' leadership. "I am sure that in the coming years we will deploy them."

"Moreover, these will be things which do not exist and are unlikely to exist in other nuclear powers," he added.

Putin failed to specify what type of complex he was referring to, but Russia has been seeking to upgrade its nuclear arsenal after the United States announced plans in 2001 to deploy a missile defense shield in abrogation of its 1972 ABM Treaty with Moscow.

China

- CSS-5 Mod 1 (DF-21) and CSS-5 Mod 2 (DF-21A) medium range ballistic missiles
- CSS-5 based JL-1 SLBM
- Developmental JL-2 SLBM
- New class of SSBN (Type 094)
- CSS-2 (DF-3A) IRBM, and multiple ICBM models
- Ballistic anti-carrier missile technology

Telegraph.co.uk | Print version

China modernising nuclear weapons arsenal

By Richard Spencer in Beijing
Last updated: 9:14 PM BST 08/05/2008

China is undertaking a dramatic overhaul of its nuclear weapons in an effort to modernise and expand its arsenal.

One of the world's leading experts in arms control said today that the



EPA

Chinese nuclear weaponry has fallen behind those of other major powers

18 DefenseNews March 30, 2009 THE AMERICAS www.defensenews.com

DoD Report: China Arming for Unclear Purposes

By WILLIAM MATTHEWS

With its annual military spending at an all-time high, China is rapidly acquiring advanced weapons and is striving to solidify its dominance over Asia, the U.S. military says in a new report.

China's military budget may be more than \$150 billion a year, enabling the People's Liberation Army to build better ballistic missiles and spy satellites, develop new submarines, expand its surface navy and construct fourth-generation fighters.

From nuclear weapons to cyber warfare capabilities, a "comprehensive transformation" of the Chinese military is under way, according to the Pentagon's latest annual report on Chinese military power.

But it's unclear what China intends to do with its new might, the report says.

The People's Liberation Army — which includes ground, air and naval forces — is being transformed from a force designed to fight long wars of attrition on its own territory to a force capable of winning short, high-intensity conflicts against high-tech adversaries on China's periphery.

But China has used some of those same capabilities to assist in international peacekeeping, humanitarian and disaster relief efforts. And in January, Chinese destroyers joined an international fleet off Somalia to counter pirates.

In the past, U.S. assessments of Chinese power and intentions have focused on Taiwan and China's determination to reclaim the island, and that's in the new report. But there also is substantial attention paid to the importance of China's rising economy.

"Sustaining economic growth and development" is a top Chinese strategic priority, the report says. And China's growing military power may be intended in part to sustain economic growth.

China's "dependence on secure access to markets and natural resources, particularly metals and fossil fuels, has become an increasingly significant factor shaping China's strategic behavior," the Pentagon says.

The "anti-access/denial" strategy that U.S. analysts have associated with China's desire to retake Taiwan may also help China ensure access to energy and raw materials, said Nirav Patel, a scholar at the Center for a New American Security.

"Anti-access will show up in commerce and energy," he said.

China's navy — now 260 ships — may prove valuable at keeping sea lanes open for oil shipments to China from Saudi Arabia, Africa and East Asia. A blue-water navy could also maintain Chinese access to contested natural gas deposits in the South China Sea, Patel said.

That's not to diminish the importance of Taiwan to China. Despite reduced tensions following the election of a new president in Taiwan last year, China remains obsessed with the possibility of U.S. military intervention on behalf of Taiwan, the report says.

To keep U.S. aircraft carriers and other naval forces at bay, China is investing in anti-ship ballistic and cruise missiles, surveillance satellites, mines, submarines and maritime strike aircraft.

China's improved ability to conduct cyber operations might be a more immediate concern for the United States, Patel said. There has been an increase in the number of cyberattacks on the U.S. Defense Department and intelligence agencies, he said, many of them apparently from China.

"The Chinese keep poking us," he said.

In the past, they seemed to be searching for weaknesses in computer networks and systems. Now they appear to be actively exploiting the weaknesses, he said.

The Pentagon report says the intrusions "focused on exfiltrating information," but the skills needed to break into systems and steal data are the same as those needed to conduct computer network attacks.

"It remains unclear if these intrusions were conducted by, or with the endorsement of, the Chinese military or government. But "developing capabilities for cyberwarfare is consistent with authoritative [Chinese] military writings," the report says.

China also is making rapid progress in military-related space. During 2008, it conducted 11 space launches that put satellites into orbit, including four reconnaissance satellites, the Pentagon says.

Space-based capabilities include intelligence, surveillance, reconnaissance and communications. As increasing these, China is developing a "multidimensional program" to limit the use of space by potential adversaries.

In addition to the January 2008 demonstration that China can destroy a ground-based missile, it is developing "space-based missile defenses, laser-based micro-wave beam weapons for anti-satellite operations, space-based missile launchers, high-powered microwave lasers, high-powered micro-wave beam weapons for anti-satellite operations," the report says.

The pace and scale of Chinese modernization is "broad and sweeping," the Pentagon says. But the new technology "remain untested in modern combat." This lack of operational experience casts outside assessment of the pace of China's military transformation.

Despite modernization, U.S. intelligence agencies say the Chinese military can't yet defeat a moderate-sized force and it will not be able to sustain military units far beyond China's borders before 2015.

E-mail: bmattew@defensenews.com



DIGITAL GLOBE

China has secretly built a major underground nuclear submarine base that could threaten Asian countries and challenge American power in the region, it can be disclosed.

Uncertainties Posed Last Year

- ✓ • Waning Congressional and public support for Nuclear Stockpile
 - Can Administration, DoD and DOE/NNSA articulate a convincing national policy for nuclear weapons in the post 9/11 environment?
- ✓ • Budget deficits and the Long War on Terrorism
 - RRW and transformation will take additional funding or require potentially detrimental modification to current LEP and other programs
- ✓ • Continuing security and management problems at DOE/NNSA and the Laboratories
- ✓ • Next generation of weapons designers, researchers
- ✓ • The asymmetric global terrorism threat
- ✓ • The rise of China as a peer superpower
- ✓ • Energy crisis
 - Global expansion of nuclear power and related technology
 - *Global Warming*

New Uncertainties to Ponder

- Global non-proliferation efforts
- Iran, DPRK nuclear weapons status
- Expansion of nuclear technology in Third World
- Stability of Pakistani Government
- Israeli-Palestinian issues
- Loss of Domenici and New Mexico Congressional Delegation seniority – as well as other Congressional leaders
- Iraq War/Afghanistan build-up
- Viability of Complex Transformation concept
- DOE/NNSA contracting concepts – results from RFI
- New Administration push toward Global Zero
- Nuclear Posture Review and QDR 2010

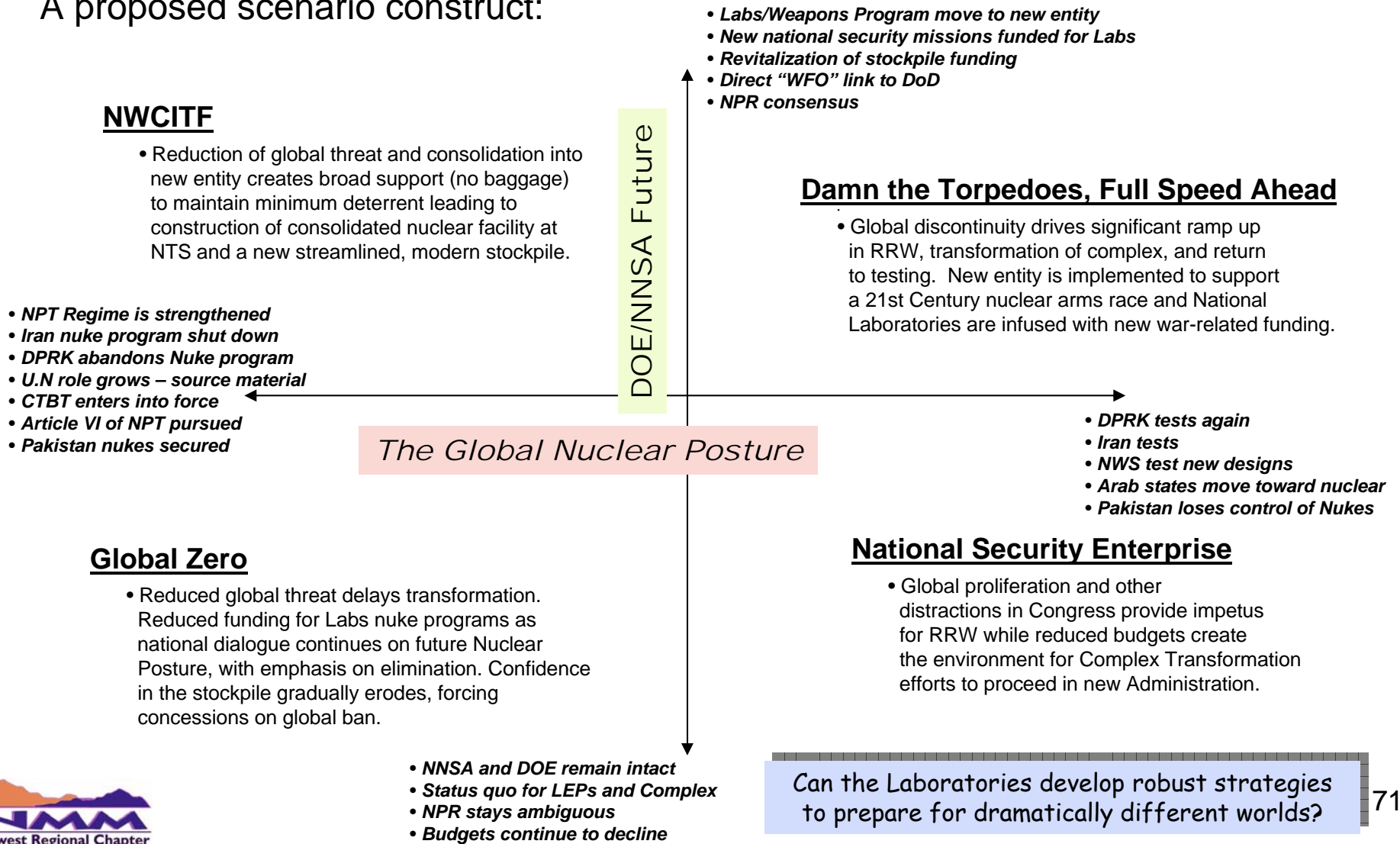
Events Impacting the Weapons Labs

- Retirement of Senator Domenici
- Loss of Reps. Wilson and Pierce
- New Administration with focus on eliminating nuclear weapons
- Iranian and North Korean nuclear ambitions
- India nuclear technology agreement
- Barksdale and Taiwan nuclear incidents
- Stimson Report
- Congressionally established U.S. Strategic Posture Commission
- Interest by UAE and others in nuclear technology
- Continuing negative press coverage and Congressional criticism
- Lack of national consensus on the future of the nuclear deterrent



What is the Future Path?

A proposed scenario construct:

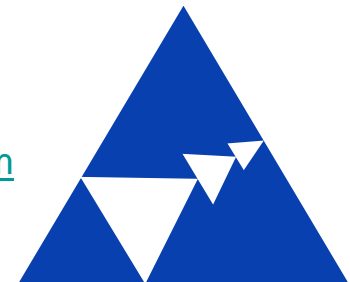


What Lies Ahead: *Complex Transformation*

- Report on Contract Strategy for Weapons Complex by Acquisition Strategy Team, led by Patty Wagner – May/June?
- Development of national consensus on stockpile
 - Congressional action
 - Follow on to Strategic Posture Commission Report released May 6, 2009 and related FY10 budget hearings – Summer 2009
 - Nuclear Posture Act required reports September 1, 2009 (Nuclear Policy) and March 1, 2010 (Nuclear Posture)
 - Quadrennial Defense Review - 2010
- OMB report on NNSA move to DoD – September 2009
- Further development of integrated *National Security Enterprise* concept based upon guidance from Administration
- START Treaty replacement – December 2009
- FY11 budget – February 2010
- NPT Conference – May 2010

http://nnsa.energy.gov/defense_programs/complex_transformation.htm

<http://www.complextransformationspeis.com/>



The Transformation of the U.S. Nuclear Weapons Complex



Past, Present and...

Future?

These are historic times...we need to use all of our collective knowledge, wisdom, and imagination, to ensure that there is no question mark at the end of the road...our national security hangs in the balance

IT IS 5 MINUTES TO MIDNIGHT

The threat of a second nuclear age and the expected consequences of climate change push the Doomsday Clock closer to midnight.



For electronic copies of this presentation email Jack Jekowski: jjekowski@aol.com or visit ITP's website (<http://www.itpnm.com>) and click under "What's New". Previous presentations on this subject, including the 2006, 2007 and 2008 INMM presentations can be found at: <http://www.itpnm.com/whats-new-archives/whatsnew-archive-popup-may-15-2008.htm>