

# DOWNLOAD PDF SAFETY AND RELIABILITY OF THE U.S. NUCLEAR DETERRENT

## Chapter 1 : How to Protect Our Nuclear Deterrent | Analysis | NTI

*u.s. government printing office cc washington: s. hrg. safety and reliability of the u.s. nuclear deterrent hearing before the subcommittee on international security.*

The NWC is a joint DoD-DOE activity responsible for facilitating cooperation and coordination, reaching consensus, and establishing priorities between the two Departments as they fulfill their dual-agency responsibilities for U. The NWC provides policy guidance and oversight of the nuclear weapons stockpile management process to ensure high confidence in the safety, security, reliability, and performance of U. The NWC is responsible for a number of annual and biennial reports that garner senior-level attention on important nuclear weapons matters. Through the annual authorization and appropriations processes, Congress typically requires multiple, one-time reports on issues of current congressional interest. The NWC is required to report regularly to the President regarding the safety and reliability of the U. The NWC also ensures any significant threats to the continued credibility of the U. The MLC was an executive- or flag-level one-, two-star military organization that served as the authorized channel of communication between the DoD and the DOE on all atomic energy matters related to the military application of atomic weapons or atomic energy, as determined by the DoD. The MLC addressed substantive matters involving policy, programming, and the commitment of significant funds associated with the military application of atomic energy. The MLC was composed of seven members and three official observers. The MLC was the DoD forum for the coordination of policy and the development of unified DoD positions on nuclear weapons-related issues. An action officers AO group, which was composed of AOs representing each of the seven members and each of the three official observers, supported the MLC. Other organizations with a direct interest in nuclear weapons, such as the national laboratories, frequently participated in AO-level meetings and discussions. In the early s, some members of Congress expressed concern about the high cost of funding the U. Under this proposal, the DOE would then execute its nuclear weapons-related activities, using funds provided by the DoD. The goal was to encourage DoD nuclear weapons system acquisition decisions to account for total costs. Although opposed to the proposed transfer, the Secretaries of Defense and Energy supported a study of the issue. The task group issued its final report in July While the task group found the relationship between the DoD and the DOE regarding the management of the nuclear weapons program to be generally sound, it also identified areas for improvement. Specifically, the task group suggested introducing administrative and procedural changes to enhance interdepartmental cooperation and achieve potential cost savings. These changes were intended to result in closer integration between nuclear weapons programs and national security planning without sacrificing the healthy autonomy of the two Departments in the performance of their respective nuclear weapons missions. The task group noted the absence of a high-level, joint DoD-DOE body charged with coordinating nuclear weapons program activities. The MLC had no such mandate. The original purpose of the MLC was to provide a voice for the military in the atomic energy program, which was controlled by the then-powerful AEC. Also, the staff and stature of the MLC had diminished to a point at which it could no longer effectively analyze nuclear weapons cost trade-offs, establish program priorities, or address budget and resource allocation issues. Consequently, the task group recommended forming a senior-level, joint DoD-DOE group to coordinate nuclear weapons acquisition issues and related matters and oversee joint nuclear activities. The task group suggested the new group be named the Nuclear Weapons Council. The task group recommended certain responsibilities for this new organization pertaining to U. The task group believed a dedicated staff drawn from both Departments and reporting to a full-time staff director was necessary to fulfill these new responsibilities. The task group also argued that, regardless of how the MLC was altered, it was important for the Secretary of Defense to maintain a high-level office within the DoD dedicated primarily to nuclear weapons matters. The NWC was created when the U. Congress was concerned about the expense of the U. As nuclear weapons stockpile management has evolved over time, particularly since the end of the Cold

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War and the demise of the Soviet Union, so have the responsibilities and administrative procedures of the NWC. NWC membership includes several advisor organizations, in addition to its official members. Though not voting members, these organizations make valuable technical contributions to NWC deliberations. Chief of Staff, U. The NWC currently fulfills four annual reporting requirements: These DoD-only requirements fall within the overarching responsibilities of the NWC and the NWC staff serves as the coordination point for these reports. Presidential direction, congressional legislation, and agreements between the Secretaries of Defense and Energy create additional requirements for the NWC. Many of these are coordinated at the subordinate level and then finalized and approved by the NWC. As a result, the NWC administrative procedures continue to evolve. These procedures ensure the information and data necessary to make informed decisions and recommendations concerning nuclear weapons stockpile management issues reach the members of the NWC efficiently and effectively. To achieve this, the NWC has delegated certain responsibilities and authorities to its subordinate organizations. The NWC usually makes decisions or provides final approval only after thorough review and coordination at the subordinate levels. This assures all views are sufficiently considered and reflected. The flexibility of NWC administrative processes allows for the chairman and members to determine how they wish to document decisions on a case-by-case basis, which may be time- or situation-driven. This may be a combination of voice vote, memoranda for the record, or documentation in the NWC meeting minutes. In theory, each member of the NWC could veto any action or decision. In practice, however, the NWC works to achieve consensus among members before it issues official decisions or recommendations. NWC administrative processes and procedures are designed to ensure consideration of all relevant factors in making decisions and recommendations. Information and data are communicated to the NWC and its subordinate bodies through correspondence, memoranda, reports, and briefings. Decisions and recommendations made at the subordinate levels are always communicated to the NWC through items such as meeting minutes and memoranda. These decisions and recommendations are theoretically subject to modification or repeal by the NWC itself. However, in practice this does not usually occur. This affords the NWC the necessary flexibility to create, merge, or abolish organizations as needed. Established in , the Safety Committee was a joint DoD-DOE senior executive or flag-level committee dedicated to nuclear weapons safety issues. The NWRWG was created to review and prioritize high-level nuclear weapons requirements and define them more precisely, as necessary. While it was active, the CAC provided information and recommendations to the NWC concerning technical requirements for nuclear weapons surety upgrades. In , the Transformation Coordinating Committee TCC was created by the NWC to coordinate the development and execution of a joint strategy for the transformation of the nuclear security enterprise. New committees are created, as needed, by the NWC to respond to issues of the day. In addition to its responsibilities relating to POG oversight, the NWCSSC reviews proposed and ongoing refurbishments for existing weapon systems and production activities for new systems. The NWCSSC is informed on a wide variety of issues related to nuclear weapons stockpile management through informational briefings and other channels of communication. During meetings, NWCSSC members usually hear briefings from various organizations involved with nuclear stockpile management issues. The NWC staff is responsible for coordinating meeting times and places as well as developing meeting agendas, drafting briefings the DASD NM may provide, and drafting the minutes of each meeting. Though most organizations have specific focal points for AO activities, membership is open to those who must keep apprised of NWC activities. When responsible for NWC actions in progress, other agencies and organizations, such as the POGs and the national laboratories, send AOs to participate as observers or invited guests. The AO group is responsible for reviewing nuclear weapons stockpile management issues, ensuring consistent progress, facilitating information dissemination, and preparing nuclear weapons issues for their NWCSSC principals. The NWC staff is responsible for coordinating meeting times and locations as well as developing meeting agendas. During the coordination of official reports, documents, or correspondence, the AO group may comment on initial drafts. This input is considered in the development of subsequent drafts. This process is repeated until a final draft is completed. The primary

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responsibilities of the NWC staff are divided into meetings for planning and follow-up activities and the NWC annual reports and decision memoranda for development, drafting, coordination, and execution. Agenda items derived from this work plan may include decision and informational briefings as well as issues for group discussion. The NWC staff is also responsible for technical activities, including preparing technical content for briefings to the NWC and NWCSSC, developing reports and letters, guiding documents through coordination, and resolving issues within the interagency. The NWC staff facilitates the timely development of the five annual and biennial reports for which the NWC is responsible and the two DoD-only reports. NWC staff activities include publishing report trackers, developing first and subsequent drafts of each annual report, consolidating and reconciling input from various participants, and guiding the reports through the progressive approval channels. Each report has a specific purpose and responds to a separate executive or congressional requirement and communicates unique information. NWC reports are a year-round responsibility, with October to March of each year marking the busiest time.

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## Chapter 2 : B Simulation Facility

*Safety And Reliability Of The U.S. Nuclear Deterrent [United States Congress Senate Committee] on calendrierdelascience.com \*FREE\* shipping on qualifying offers. The BiblioGov Project is an effort to expand awareness of the public documents and records of the U.S. Government via print publications.*

Donate How to Protect Our Nuclear Deterrent The four of us have come together, now joined by many others, to support 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. We do so in recognition of a clear and threatening development. The accelerating spread of nuclear weapons, nuclear know-how, and nuclear material has brought us to a tipping point. We face a very real possibility that the deadliest weapons ever invented could fall into dangerous hands. But as we work to reduce nuclear weaponry and to realize the vision of a world without nuclear weapons, we recognize the necessity to maintain the safety, security and reliability of our own weapons. They need to be safe so they do not detonate unintentionally; secure so they cannot be used by an unauthorized party; and reliable so they can continue to provide the deterrent we need so long as other countries have these weapons. This is a solemn responsibility, given the extreme consequences of potential failure on any one of these counts. Teams of gifted people, using increasingly powerful and sophisticated equipment, have produced methods of certifying that the stockpile meets the required high standards. The work of these scientists has enabled the secretary of defense and the secretary of energy to certify the safety, security and the reliability of the U. The three labs in particular should be applauded for the success they have achieved in extending the life of existing weapons. Their work has led to important advances in the scientific understanding of nuclear explosions and obviated the need for underground nuclear explosive tests. This commission, which submitted its report to Congress last year, calls for significant investments in a repaired and modernized nuclear weapons infrastructure and added resources for the three national laboratories. This scientific capability is equally important to the long-term goal of achieving and maintaining a world free of nuclear weaponsâ€”with all the attendant expertise on verification, detection, prevention and enforcement that is required. Our recommendations for maintaining a safe, secure and reliable nuclear arsenal are consistent with the findings of a recently completed technical study commissioned by the National Nuclear Security Administration in the Department of Energy. This study was performed by JASON, an independent defense advisory group of senior scientists who had full access to the pertinent classified information. Maintaining high confidence in our nuclear arsenal is critical as the number of these weapons goes down. It is also consistent with and necessary for U. By providing for the long-term investments required, we also strengthen trust and confidence in our technical capabilities to take the essential steps needed to reduce nuclear dangers throughout the globe. These steps include preventing proliferation and preventing nuclear weapons or weapons-usable material from getting into dangerous hands. If we are to succeed in avoiding these dangers, increased international cooperation is vital. As we work to build this cooperation, our friends and allies, as well as our adversaries, will take note of our own actions in the nuclear arena. Departures from our existing stewardship strategies should be taken when they are essential to maintain a safe, secure and effective deterrent. Beyond our concern about our own stockpile, we have a deep security interest in ensuring that all nuclear weapons everywhere are resistant to accidental detonation and to detonation by terrorists or other unauthorized users. We should seek a dialogue with other states that possess nuclear weapons and share our safety and security concepts and technologies consistent with our own national security. Shultz was secretary of state from to Perry was secretary of defense from to Kissinger was secretary of state from to Nunn is former chairman of the Senate Armed Services Committee.

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## Chapter 3 : Stockpile Stewardship

*Safety and reliability of the U.S. nuclear deterrent: hearing before the Subcommittee on International Security, Proliferation, and Federal Services of the Committee on Governmental Affairs, United States Senate, One Hundred Fifth Congress, first session, October 27,*

How to protect our nuclear deterrent How to protect our nuclear deterrent By George P. The four of us have come together, now joined by many others, to support 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. We do so in recognition of a clear and threatening development. But as we work to reduce nuclear weaponry and to realize the vision of a world without nuclear weapons, we recognize the necessity to maintain the safety, security and reliability of our own weapons. They need to be safe so they do not detonate unintentionally; secure so they cannot be used by an unauthorized party; and reliable so they can continue to provide the deterrent we need so long as other countries have these weapons. This is a solemn responsibility, given the extreme consequences of potential failure on any one of these counts. Teams of gifted people, using increasingly powerful and sophisticated equipment, have produced methods of certifying that the stockpile meets the required high standards. The work of these scientists has enabled the secretary of defense and the secretary of energy to certify the safety, security and the reliability of the U. The three labs in particular should be applauded for the success they have achieved in extending the life of existing weapons. Their work has led to important advances in the scientific understanding of nuclear explosions and obviated the need for underground nuclear explosive tests. This commission, which submitted its report to Congress last year, calls for significant investments in a repaired and modernized nuclear weapons infrastructure and added resources for the three national laboratories. This scientific capability is equally important to the long-term goal of achieving and maintaining a world free of nuclear weaponsâ€”with all the attendant expertise on verification, detection, prevention and enforcement that is required. Our recommendations for maintaining a safe, secure and reliable nuclear arsenal are consistent with the findings of a recently completed technical study commissioned by the National Nuclear Security Administration in the Department of Energy. This study was performed by JASON, an independent defense advisory group of senior scientists who had full access to the pertinent classified information. Maintaining high confidence in our nuclear arsenal is critical as the number of these weapons goes down. It is also consistent with and necessary for U. By providing for the long-term investments required, we also strengthen trust and confidence in our technical capabilities to take the essential steps needed to reduce nuclear dangers throughout the globe. These steps include preventing proliferation and preventing nuclear weapons or weapons-usable material from getting into dangerous hands. If we are to succeed in avoiding these dangers, increased international cooperation is vital. As we work to build this cooperation, our friends and allies, as well as our adversaries, will take note of our own actions in the nuclear arena. Departures from our existing stewardship strategies should be taken when they are essential to maintain a safe, secure and effective deterrent. Beyond our concern about our own stockpile, we have a deep security interest in ensuring that all nuclear weapons everywhere are resistant to accidental detonation and to detonation by terrorists or other unauthorized users. We should seek a dialogue with other states that possess nuclear weapons and share our safety and security concepts and technologies consistent with our own national security. Shultz was secretary of state from to Perry was secretary of defense from to Kissinger was secretary of state from to Nunn is former chairman of the Senate Armed Services Committee. The objective is to galvanize global action to reduce the risk of a nuclear weapon being used by increasing understanding, awareness, support and action by policymakers, policy experts and the public around the world for purposefully and significantly changing direction and reducing nuclear dangers.

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## Chapter 4 : W50 (nuclear warhead) - Wikipedia

*The U.S. nuclear deterrent has been the cornerstone of the United States' strategy to keep the American people safe and secure for more than 70 years, as well as a significant contributor to global stability.*

Vayl Oxford [view bio] Mr. This includes helping ensure the U. Air Force officer and then as a DoD civilian. Oxford spent a short time in private industry after 35 years of public service that combined time in the military and as a government civilian employee, almost all of it focused on countering weapons of mass destruction. Appointed by President George W. Prior to his appointment to DHS, Mr. He chaired the interagency working group for Operation Iraqi Freedom to develop policies for combating WMD in Iraq, to include developing the initial concept for WMD exploitation and elimination, and the plan for foreign consequence management to protect civilian populations from potential Iraqi use of WMD. Oxford has numerous military and civilian awards, including the Presidential Meritorious Rank Award and the Distinguished Public Service Award for his contributions to Homeland Security. Prior to joining the Department of Defense, Dr. Ball applied Laboratory expertise in hypersonics to address critical A2AD challenges. He was responsible for an innovative program to utilize technologies associated with the nuclear weapons stockpile program for use by conventional forces to close critical capability gaps and enhance US air superiority. He has served as an intelligence officer in the US Navy Reserve since He was the director of the Navy Element, U. Army Command and General Staff College. He was the commanding officer of the U. Forces, Japan, during Operation Tomodachi. Southern Command from to Close Threat Reduction and Arms Control The Deputy Assistant Secretary of Defense for Threat Reduction and Arms Control is the principal advisor to the ASD NCB for acquisition oversight, implementation, and compliance with nuclear, biological, and chemical treaties; cooperative threat reduction; chemical demilitarization programs; and building global partner capacity to counter weapons of mass destruction. Visit the Threat Reduction and Arms Control website. DTRA employees are WMD subject matter experts, with skillsets and abilities that address the entire spectrum of chemical, biological, radiological, nuclear and high yield explosive threats. Strategic Command Center for Combating Weapons of Mass Destruction synchronizes combating weapons of mass destruction efforts across the U. Making the World Safer. The MLC functioned as the authorized channel of communication between the Department of Defense DoD and the Department of Energy DOE on all atomic energy matters relating to the military applications of atomic weapons or atomic energy. The committee addressed matters of policy, programming, and commitment of funds to the military application of atomic energy. In , this position was re-designated under DoD Directive From , the role of the ATSD AE expanded to include issues associated with chemical and biological weapons, the implementation of arms control treaties and agreements, counterproliferation programs, and the coordination of the Cooperative Threat Reduction CTR Program, which assists in the elimination of weapons of mass destruction WMD in the former Soviet states. Congress, however, maintained that the position was necessary to ensure appropriate senior-level policy oversight and implementation guidance within the Department. From June until August , Dr. In August , The Honorable Mr. On May 18, , the Honorable Andrew C. Roberts was sworn in as the current Assistant Secretary.

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## Chapter 5 : NMHB - Appendix A: Nuclear Weapons Council and Annual Reports

*Strengthening global security. The central mission of the Laboratory is to ensure the safety, security, and reliability of the U.S. nuclear deterrent while reducing the global threat of nuclear, chemical, and biological weapons.*

This article was originally published by the Wall Street Journal. The four of us have come together, now joined by many others, to support 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. We do so in recognition of a clear and threatening development. The accelerating spread of nuclear weapons, nuclear know-how, and nuclear material has brought us to a tipping point. We face a very real possibility that the deadliest weapons ever invented could fall into dangerous hands. But as we work to reduce nuclear weaponry and to realize the vision of a world without nuclear weapons, we recognize the necessity to maintain the safety, security and reliability of our own weapons. They need to be safe so they do not detonate unintentionally; secure so they cannot be used by an unauthorized party; and reliable so they can continue to provide the deterrent we need so long as other countries have these weapons. This is a solemn responsibility, given the extreme consequences of potential failure on any one of these counts. Teams of gifted people, using increasingly powerful and sophisticated equipment, have produced methods of certifying that the stockpile meets the required high standards. The work of these scientists has enabled the secretary of defense and the secretary of energy to certify the safety, security and the reliability of the U. The three labs in particular should be applauded for the success they have achieved in extending the life of existing weapons. Their work has led to important advances in the scientific understanding of nuclear explosions and obviated the need for underground nuclear explosive tests. This commission, which submitted its report to Congress last year, calls for significant investments in a repaired and modernized nuclear weapons infrastructure and added resources for the three national laboratories. This scientific capability is equally important to the long-term goal of achieving and maintaining a world free of nuclear weapons—“with all the attendant expertise on verification, detection, prevention and enforcement that is required. Our recommendations for maintaining a safe, secure and reliable nuclear arsenal are consistent with the findings of a recently completed technical study commissioned by the National Nuclear Security Administration in the Department of Energy. This study was performed by JASON, an independent defense advisory group of senior scientists who had full access to the pertinent classified information. Maintaining high confidence in our nuclear arsenal is critical as the number of these weapons goes down. It is also consistent with and necessary for U. By providing for the long-term investments required, we also strengthen trust and confidence in our technical capabilities to take the essential steps needed to reduce nuclear dangers throughout the globe. These steps include preventing proliferation and preventing nuclear weapons or weapons-usable material from getting into dangerous hands. If we are to succeed in avoiding these dangers, increased international cooperation is vital. As we work to build this cooperation, our friends and allies, as well as our adversaries, will take note of our own actions in the nuclear arena. Beyond our concern about our own stockpile, we have a deep security interest in ensuring that all nuclear weapons everywhere are resistant to accidental detonation and to detonation by terrorists or other unauthorized users. We should seek a dialogue with other states that possess nuclear weapons and share our safety and security concepts and technologies consistent with our own national security.

## Chapter 6 : How to Protect Our Nuclear Deterrent

*In the s, the U.S. nuclear weapons program shifted emphasis from developing new designs to dismantling thousands of existing weapons and maintaining a much smaller enduring stockpile.*

## Chapter 7 : How to protect our nuclear deterrent

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*The U.S. currently relies on non-yield-producing laboratory experiments, flight tests, and the judgment of experienced nuclear scientists and engineers to ensure continued confidence in the safety, security, effectiveness, and reliability of its nuclear deterrent.*

### Chapter 8 : Los Alamos National Laboratory 30 Bikini Atoll Dr Los Alamos, NM - MapQuest

*The United States ceased underground nuclear testing, and the Department of Energy created the Stockpile Stewardship Program to maintain the safety, security, and reliability of the U.S. nuclear.*