

# **The Bush Nuclear Posture Review's first budget in Congress**

Kathryn Crandall

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The President signed the Bob Stump National Defense Authorization Act of FY 2003[1] (final Act) on December 2, 2002. This annual Act authorizes funds for the Defense Department (DoD) and for the nuclear weapons programs of the Department of Energy's (DOE) National Nuclear Security Administration (NNSA).

The Bush administration proposed its FY 2003 budget in February 2002, fresh on the heels of its new Nuclear Posture Review (NPR), submitted to Congress on December 31, 2001.[2] Throughout this annual defense budget process, some particularly important nuclear weapons policy measures addressed in the NPR were debated – notably policies related to new nuclear weapons development and testing. The Republican-led House version of the bill included nuclear weapons provisions generally in keeping with administration policies, while the Democratic-controlled Senate bill took a different approach on these measures. The final Act reconciling the different versions represents compromises on many nuclear weapons policy issues. This year the Republicans will control both the House and Senate, so it is apparent that the nuclear weapons policies will more closely follow the administration's wishes and the political climate for arms control advocates will be very challenging. [3]

This paper summarizes the outcome of the FY 2003 Defense Authorization Act provisions related to nuclear weapons policies and the NPR, along with some analysis of the process and debate related to these measures along the way to the FY 2003 final Act and some speculation as to what the future may hold for these nuclear weapons issues.

## **The House vs the Senate Defense Authorization Process – an overview**

### **House**

On May 1, 2002 the House Armed Services Committee (HASC) completed the markup of its version of the Defense Authorization Bill (HR 4546). There was a lively debate on a number of nuclear weapons provisions. The HASC mark-up was done in open session, though not recorded.

#### **Sec. 1021 – Sense of Congress on the Strategic Deterrent**

Debate in the House about many of the specific measures addressed below was inspired in large part by a provision inserted in the House bill by HASC Republicans, sec. 1021, "Sense of Congress on Maintenance of a Reliable, Flexible, and Robust Strategic Deterrent" calling for an operationally deployed strategic force of "not less than 1,700," along with "strategic flexibility and capability in accordance with the ... Nuclear Posture Review." In addition, sec. 1021 promoted development of nuclear bunker buster weapons and a plan to "achieve and maintain the capability to resume conducting underground tests of nuclear weapons within one year after a decision is made to resume conducting such tests."

Representatives Ellen Tauscher, D-Calif., and Tom Allen, D-Maine, offered a substitute resolution to this amendment in the committee markup that would have modified the resolution to be "A Sense of Congress on Maintenance of A Reliable And Secure Strategic Deterrent." This substitute resolution would have allowed for less than 1,700 operationally deployed nuclear weapons if determined appropriate by a "subsequent Nuclear Posture Review and or through negotiated bilateral or multilateral agreements." The Democrats' amendment also called for advanced conventional weapons and "enhanced intelligence" rather than nuclear weapons to defeat hardened and deeply-buried targets or weapons of mass destruction facilities. Finally the proposed substitute resolution, would have required a report to Congress on any plans to shorten the lead time and enhance the capability to conduct testing of nuclear weapons including a cost and benefit assessment of any shortened lead time. This amendment offered to substitute for sec. 1021 failed in the HASC. However, other amendments (elaborated below) on the specific elements

such as nuclear earth penetrators, testing and the strategic force structure, were offered and debated in both the committee markup and full House consideration.[4] After the conference reconciliation between the House and Senate versions of the bill, the original sec. 1021 was not included in the final Act.

### **Senate**

In contrast to the HASC, the Senate Armed Services Committee (SASC) conducted its markup in closed session, but held a press conference upon completion on May 10, 2002.[5] While it was apparent that there was a great deal of discussion and controversy over missile defense in the SASC debate, some of the nuclear issues that were so controversial in the House - especially nuclear testing readiness - reportedly were not debated in the Senate committee. Significant consideration of the proposed Robust Nuclear Earth Penetrator (RNEP) did take place in the SASC, as is elaborated below.

A primary controversy during the full Senate consideration of the Defense Authorization Bill in mid-July again was missile defense. There was very little debate on the nuclear weapons issues addressed in this analysis. Nevertheless, the SASC views on nuclear weapons issues were clearly asserted in the conference reconciliation of the House and Senate bills as is particularly apparent on issues related to reporting on nuclear weapons modifications and test readiness postures.

## **The FY 2003 Energy and Water Appropriations – in brief**

While the Defense Authorization Act authorizes funds and addresses policy questions on nuclear weapons programs, funds are appropriated for these programs by the Energy and Water Development Appropriations bill (Energy and Water Appropriations). Along with 11 of the 13 annual appropriations bills, the Energy and Water Appropriations was not enacted in the previous 107th Congress. Instead, the Energy and Water Appropriations was completed by the 108th Congress as part of an omnibus bill containing all 11 spending bills finally passed on February 13, 2003.[6] Largely due to this unusually belated and confused process, there were no significant Floor amendments or debates on nuclear weapons issues as part of the Energy and Water Appropriations process.[7] Nevertheless, there were some developments and reporting requirements arising from Energy and Water Appropriations process. These are noted below, although the primary focus of this analysis is the Defense Authorization process.

## **Nuclear Weapons - New Capabilities/Modifications**

### **Robust Nuclear Earth Penetrator (RNEP)**

#### *Summary of Provisions in the Final Act*

The final Act follows the House approach in funding the administration's \$15.5 million request for the proposed Robust Nuclear Earth Penetrator (RNEP), a new nuclear weapon capability planned to defeat hardened and deeply-buried targets. However, sec. 3146, "Limitation on Obligation of Funds for Robust Nuclear Earth Penetrator Program Pending Submission of Report," requires the Department of Defense, in conjunction with the Secretary of Energy, to deliver a report to the Senate and House Armed Services Committees and wait 30 days before receiving funds for work on the RNEP. The Report must include: the military requirements for the RNEP; the nuclear weapons employment policy for the RNEP; a description of the kinds of targets that the RNEP is to hold at risk; and an assessment of the ability of conventional weapons to defeat the same kinds of targets. It should be noted that while the funds are held until 30 days after the report is

submitted, this measure does not empower Congress to withhold funds based upon an evaluation of the report – the “limitation” is thus temporary.

Two additional reports related to the RNEP are also required by the final Act. Sec. 1032 “Annual Report on Weapons to Defeat Hardened and Deeply Buried Targets,” calls for an annual report from the DoD, DOE, and intelligence community on activities to develop weapons to defeat hardened and deeply buried targets. Sec. 1033, “Report on Effects of Nuclear Earth Penetrator Weapon and Other Weapons,” calls for a National Academy of Sciences (NAS) Study on the anticipated short-term and long-term effects of the use by the United States of a nuclear earth penetrator on both civilians and US military personnel, the short and long-term effects of a non-penetrating nuclear weapon, and the effects of a conventional high explosive attack on an adversary’s facilities for weapons of mass destruction (WMD) storage or production.

#### *The Administration's Request*

The DOE’s National Nuclear Security Agency (NNSA) requested \$15.5 million to begin work on a Robust Nuclear Earth Penetrator (RNEP)— a nuclear weapon to be designed with a new capability to defeat hardened and deeply-buried targets.[8] Pursuit of the RNEP follows suit with recommendations of the NPR[9] as well as an additional Congressionally mandated report that addresses concerns about proliferating hardened and deeply-buried targets.[10]

#### *The House Armed Services Committee*

Rep. Tom Allen, D-Maine, offered an amendment requiring an NAS study on the short and long-term effects of the use of a nuclear earth penetrator. Rep. Curt Weldon, R-Penn., offered a perfecting amendment to the Allen amendment, requiring that the study also include conventional weapons and non-penetrating nuclear weapons. The Allen amendment, as perfected by Weldon, was passed in the HASC by unanimous consent, although Heather Wilson, R-N.M., (with Sandia National Laboratories in her Congressional District) raised concerns about the NAS conducting and publishing a study on highly technical and classified information. Sec. 1033 in the final Act calling for the NAS study does specify that “the report shall be submitted in unclassified form to the maximum extent possible, with a classified annex if needed.”[11]

#### *The House Floor*

When the Defense Authorization bill was considered on the House Floor, Rep. Ed Markey, D-Mass., introduced an amendment to permanently prohibit the use of funds to develop, test or engineer a nuclear earth penetrator and prohibit FY 2003 funds for a feasibility study of a nuclear earth penetrator. This amendment failed by a vote of 172 to 243, but did garner a significant majority of Democrats along with a few Republicans, and allowed for an important debate on the issue. [12]

#### *The Senate Armed Services Committee*

The Senate Armed Services Committee (SASC) shifted the FY 2003 funds requested for the RNEP to a new generation of radiation detection devices.[13] Despite a reportedly sharp partisan disagreement about this issue in the SASC, no amendments were offered on this issue when the bill was considered on the Senate Floor.

#### *What's Next on the RNEP*

Funds for the RNEP have been authorized with the sec. 3146 limitation and funds have been appropriated by the recently completed Energy and Water Appropriations. Thus, it is expected that funds will be available sometime in the spring of 2003. In the FY 2004 budget request made February 3, 2003, the administration requests \$15 million to

further efforts on the RNEP.[14] It is expected that the Republican-led Congress will likely to approve of this.[15] However, continued opposition from many in Congress is also expected. The RNEP reports, particularly the unclassified portions of the NAS report, may provide some additional information useful to the ongoing debate about the RNEP.

### **Low-Yield Nuclear Weapons**

#### *In the Final Act*

The final Act did not include a House provision that would have partially repealed a bar on the development of so-called “mini-nukes” or low-yield nuclear weapons with a yield below 5 kilotons.

#### *The Restriction*

The FY 1994 Defense Authorization Act's, sec. 3136 “Prohibition on Research and Development of Low-yield Nuclear Weapons” has barred research and development of a nuclear weapon with a yield below 5 kilotons.[16] The provision is commonly referred to as the Spratt-Furse restriction, after its legislative sponsors Rep. John Spratt, D - S.C., and Elizabeth Furse (ret.) D - Or., This Spratt-Furse restriction was challenged during the course of consideration of the FY 2001 Defense Authorization Bill, when Senators Allard, R-Colo., (then Chair of the SASC Strategic Subcommittee) and Warner, R-Va. (then Chair of the SASC), attempted to repeal the law. Ultimately their effort was scaled back to requesting a study on defeat of hardened and deeply-buried targets.[17] This study, delivered to Congress prior to consideration of the FY 2003 Defense Authorization bill, has provided information for the RNEP debate as well. The NNSA clarified that its RNEP feasibility study proposed in the FY 2003 budget request would not violate the Spratt-Furse law.[18]

#### *The Weldon Amendment*

When the full House considered the FY 2003 Defense Authorization Bill, Rep. Curt Weldon, R-Penn. (Chair of the HASC Procurement Subcommittee) offered an amendment that would have partially repealed the Spratt-Furse restriction. While the initial amendment that Weldon proposed would have fully repealed the Spratt-Furse restriction,[19] Rep. Spratt worked with Rep. Weldon to modify the amendment. The modified amendment, unlike the initial Weldon amendment, would not have obliterated the Spratt-Furse restriction, but it would have expanded the clearly permitted research and development that the weapons laboratories could do.[20] Rep. Spratt stated that the modified amendment would “broaden the type of research that our labs can do with low-yield weapons...they can do concept definition work, they can do research work, they can do design work, they can build a wooden mock-up, but they cannot bend metal or do fissile component parts. ...”[21] After negotiations and changes worked out by Reps. Spratt and Weldon, the Democratic leadership dropped its opposition to the Weldon amendment. The modified Weldon amendment, which was paired with a number of appealing Russian – US nonproliferation transparency measures (such as lab exchanges and test site visits), passed easily in the House (362 to 53). The measure was opposed by Senate and House Democrats in the Conference and also reportedly was questioned by one House Republican. It was not included in the final Act.

#### *The Future of Restricting Low Yield Nuclear Weapons Development*

Although this year the Weldon amendment was rejected in Conference largely because Senate Democrats were eager to maintain the entire prohibition, Sens. Allard and Warner are now again in the leadership of the SASC (Sen. Allard is Chair of the Strategic Subcommittee, and Sen. Warner is Chair of the full Committee.) These Senators, along with leading House Republicans, are likely to pursue the repeal of the Spratt-Furse

restriction. In fact, a recent House Republican policy statement on nuclear weapons specifically calls upon Congress to “consider repealing this [Spratt-Furse] ban.”[22] Thus maintaining this restriction in its current form is unlikely. However, efforts will be made by leading Democrats and arms control advocates to maintain the restriction and find other ways to limit the development of new nuclear weapons capabilities.

### **Nuclear-Tipped Interceptors**

#### *In the Final Act*

In the final Act, sec. 226 provides a “One-year Limitation on Use of Funds for Nuclear Armed Interceptors.” The final Act dropped a House measure that would have required a NAS study and report on the consequences of a nuclear tipped interceptor.

#### *Administration Explores Nuclear-Tipped Interceptors*

On April 11, 2002 the Washington Post reported that Defense Secretary Donald Rumsfeld had encouraged Defense Science Board exploration of using nuclear-tipped interceptors as part of missile defense plans.[23] Arms control experts reacted with some alarm, pointing out that nuclear armed interceptors would likely require nuclear testing – possibly even tests that would violate the 1963 Limited Test Ban Treaty barring atmospheric, space and underwater nuclear tests. Furthermore nuclear explosions in space would cause significant damage to satellites, electromagnetic fields and serious risk of widespread radioactive fallout. Experts have also noted that exploring nuclear-tipped interceptors would be a tacit admission that hit-to-kill missile technology is not likely to work.[24]

#### *MDA & Defense Appropriations*

Shortly following the Washington Post story at a Defense Appropriations Subcommittee Hearing, Sen. Ted Stevens, R-Alaska and Sen. Dianne Feinstein, D-Calif., both strongly objected to this plan.[25] When questioned at the hearing, Missile Defense Agency (MDA) Director Lt. Gen. Ronald Kadish stated that while “we have no part of our program that involves nuclear-tipped interceptors . . . people do think about those types of things across a broad range dealing with missile defense.” Language in the final Defense Appropriations Bill bars funds for “research, development, test, evaluation, procurement or deployment of nuclear armed interceptors of a missile defense system.”[26] Nevertheless, the Defense Advisory Board reportedly intends to continue its study claiming that since its role is advisory, the legislative prohibition does not pertain to the study.[27]

#### *HASC Report Language*

In contrast to the Senate Defense Appropriations Subcommittee objections, the HASC Subcommittee on Research and Development, then chaired by Rep. Duncan Hunter, R-Calif., included Report language encouraging an “exploration of alternatives” for missile defense technologies:

*The committee understands that the Department may investigate other options for ballistic missile defense nuclear-armed interceptors, blast fragmentation warheads, and directed energy technologies as alternatives to current approaches based predominantly on hit-to-kill technology. The committee would consider such an examination of alternatives to be a prudent step, consistent with the commitment to evaluate all available technological options for this critical mission.*[28]

#### *HASC Debate*

During the HASC markup, Rep. John Spratt, D-S.C., offered an amendment barring the development or deployment of nuclear-tipped interceptors. This amendment failed and provoked a debate with Reps. Hunter, R-Calif., and Weldon, R-Penn., arguing strongly for research to be allowed in this area.

Rep. Tom Allen, D-Maine, offered an amendment requiring a National Academy of Sciences (NAS) study on the effects and consequences of the nuclear tipped interceptors. Rep. Weldon, R-Penn., offered a perfecting amendment to Allen's amendment requiring that the NAS also consider and report on "effects on the civilian population of a major city of the United States, and the Nation as a whole, if a ballistic missile carrying a nuclear weapon is not intercepted and detonates directly above a major city of the United States." [29] The amendment, as perfected, was adopted by the Committee. Ultimately, this provision was removed in the Conference on the final Act.

#### *House Floor Vote*

Prior to House Floor consideration, Rep. Allen put forth an amendment similar to the amendment offered by Rep. Spratt in Committee - an amendment barring development or deployment of nuclear - tipped interceptors. This amendment was not ruled in order. [30] Thus in the early hours of the morning as debate on the Defense Authorization Act was being finalized, Rep. Spratt offered a motion to recommit the bill to the House Armed Services Committee with instructions to report the bill back with language that would ban any funds from being spent to develop nuclear-tipped ballistic missile interception. This motion was rejected, but allowed for some debate on the issue. [31]

#### *Senate Amendment*

During Senate consideration of the Defense Authorization bill, Sens. Stevens and Feinstein offered an amendment similar to the provision they had inserted in the Defense Appropriations bill, barring research, development, test, evaluation, procurement or deployment of nuclear-armed interceptors. [32] This amendment was included in the final Act as sec. 226, with the notable title change that it is to be a one-year limitation.

#### *Nuclear-tipped Interceptors in FY 2004*

Representative Duncan Hunter, R-Calif., is the new HASC chair for the 108th Congress and is expected to continue his advocacy for exploring research and development on nuclear-tipped interceptors. On the other hand Sen. Stevens, R-Alaska, will be chair of the Senate Appropriations Committee and Defense Subcommittee of Appropriations and he will certainly maintain his strong opposition to nuclear-tipped interceptors. It is expected that the issue will be raised again and is likely to provoke a lively debate.

### **Advanced Concepts - New Nuclear Weapons Capabilities**

#### *In the Final Act*

The final Act includes the Senate provision Sec. 3143, "Requirements for Specific Request for New or Modified Nuclear Weapons." This provision requires the DOE to specifically request funds for activities involved in work on new nuclear weapons or modified nuclear weapons. This requires a specific line item for research and development on modified and new nuclear weapons at an earlier phase of development than was previously required and will provide the Congress, as well as other observers, with more transparency on development of new nuclear weapons capabilities.

#### *Senate on Modifications and New Nuclear Weapons Development*

The Armed Services Committee Senators were very concerned about being able to understand and provide appropriate oversight for the research and development on new nuclear weapons capabilities. For example, the specific budget request for the RNEP was listed in the broader budget category of "Supporting Research and Development." Not until Dr. Beckner testified before the SASC in April was it clear that \$15.5 million was requested for the RNEP as part of the NNSA's "Advanced Concepts Initiative." [33] Senator Jack Reed (D-RI) then Chair of the Strategic Subcommittee of the SASC, with primary

jurisdiction over most nuclear weapons programs stated during Senate debate on the Defense Authorization bill:

*We would ask that the Department of Energy specifically request funds for any new or modified nuclear weapons. ... I think at this juncture we have to go on record to ask for that type of specific information and not rely upon finding it buried in some larger account. It is an important issue. It is a critical issue. After the tensions between Pakistan and India, that have not yet subsided totally, no one needs to be reminded about the horrendous impact of the potential use of a nuclear weapon. Therefore, it is vitally important that this Congress be informed of any potential developments of new weapons by the United States.[34]*

#### *Energy and Water Appropriations/ GAO Report*

Tracking the specific funding for modifications of nuclear weapons has also been a concern for the Energy and Water Development Appropriations Subcommittee - particularly the House subcommittee. In the previous FY 2002 Energy and Water Appropriations bill, the House subcommittee had added a requirement for reports that would detail nuclear weapons refurbishments and modification work in similar manner to the Department of Defense "Selected Acquisition Reports." In the House Report for the FY 2003 Energy and Water Appropriations, the subcommittee noted that it is not yet satisfied with the reports being made. The House Energy and Water Report references a US General Accounting Office report titled NNSA: Nuclear Weapons Reports Need to be More Detailed and Comprehensive, [35] and details the format that the FY 2004 reporting should take. The final Energy and Water Appropriations states "the conferees direct NNSA to submit Selected Acquisition Reports to Congress in fiscal year 2004 and subsequent fiscal years in an identical manner to those submitted by the Department of Defense." [36] The more detailed reporting requirements are complementary to the Defense Authorization Act sec. 3143 requirements and will likely provide more information about nuclear weapons modifications that may be planned.

#### *New Nuclear Weapons Capabilities FY 2004 and Beyond*

While funds for the Advanced Concepts Initiative were not clearly delineated in the FY 2003 Budget Request (although administration testimony later elaborated some plans - only cost estimates for the RNEP were presented[37]), in the FY 2004 budget request, a total of \$21 million is requested for the Advanced Concept Initiative, which includes \$15 million for the RNEP and \$6 million for "additional exploratory studies." [38] Furthermore the House Republicans recent policy statement for Congress to "support the revitalization of the nuclear weapons advanced development program consistent with the capabilities based approach for national security." [39] While the administration pushes forward its advanced concepts with likely Republican support, Congressional oversight committees can be expected to seek continued clarification about plans with the above reporting requirements and may also put some limits on the kinds of new capabilities that are pursued.

#### **Test Readiness and Certification/ Assessment**

##### *In the Final Act*

There are two significant sections related to steps leading down the path to resumption of full-scale nuclear weapons tests. Sec. 3141, "Annual Assessments and Reports to the President and Congress Regarding the Condition of the United States Nuclear Weapons Stockpile," provides for new assessments and reports to be made as part of the annual process to certify that the stockpile is safe and reliable. Under sec. 3141, assessments are to include identification of any underground tests that might be necessary and also "an identification of the specific underground nuclear tests, which, while not necessary,

might have value in resolving any such issues and a discussion of the anticipated value of conducting such tests.” Also assessments are to include a “determination as to the readiness of the United States to conduct the underground nuclear tests.” The assessments under sec. 3141 are to be made in classified form.

Sec. 3142, “Plans for Achieving Enhanced Readiness Posture for Resumption by the United States of Underground Nuclear Weapons Tests,” calls for DOE to prepare plans including budget requirements for nuclear test readiness postures ranging from 6 to 24 months. Sec. 3142 required these plans to be submitted as part of DOE’s FY 2004 budget request. While the FY 2004 request was made on February 3, 2003, the plans required by sec. 3142 have not been prepared. However, the FY 2004 budget request does state that “the DoD and NNSA agreed to transition to an 18-month test readiness posture while continuing to review the optimum posture.” [40]

In addition to these two provisions, it is also notable that the final Act contains sec. 3175, “One-Year Extension of Panel to Assess the Reliability, Safety and Security of the United States Nuclear Stockpile.” This extends a provision established by sec. 3159 of the FY 1999 Defense Authorization Act calling for the panel to make three annual reports assessing the nuclear weapons stockpile. The so-called Foster panel (after the head of the panel, John Foster), which sec. 3175 extends for another year, has made a number of recommendations regarding the nuclear weapons complex – including recommendations that helped to shape sec. 3141. In presenting what was planned to be the last of the three required reports under the initial FY 1999 requirement, Foster stated that the panel was unanimously recommending “test readiness of three months to a year, depending on the type of test.” [41]

#### *The Current Status and Administration Position*

The United States has not conducted a full-scale nuclear weapons test explosion since September 1992.[42] The Bush administration maintains an ambiguous policy with regard to testing. While the administration announced shortly after taking office that it would not ask the Senate to reconsider ratification of the Comprehensive Test Ban Treaty (CTBT), which was rejected in October 1999 after a hasty and highly partisan debate, the administration continues to insist that it has no immediate plans to resume testing.[43] At a press briefing in January 2002, Assistant Secretary of Defense J.D. Crouch stated that the NPR represented “no change in the administration’s policy at this point on nuclear testing. We continue to oppose CTBT ratification. We also continue to adhere to the testing moratorium.” [44]

The current test readiness requirement is 24-36 months for a “fully diagnosed test.”[45] This means that a test must be prepared and conducted within 24 to 36 months after the President has declared it necessary to conduct a test. The NPR states that the 2-3 year posture may be “too long” and calls for shorter test readiness posture, referencing recommendations from the Foster Panel (from the 2001 report) of less than one year.[46]

Many experts question whether it is possible to prepare and conduct a “fully diagnosed test” within a period as short as three months as suggested by Foster.[47] Certainly such a short test readiness period would require an enormous focus of resources on a full-scale testing program. A test-readiness requirement of less than one year would also likely require the Congress to set forth the specific terms and conditions for any test that would happen during that fiscal year. Such a Congressional debate would not, to put it mildly, provide other nations with confidence in US plans to continue adherence to a test moratorium.

#### *Why Test?*

The NPR’s call for new nuclear weapons capabilities and the NNSA’s work on “advanced concepts” may drive a need or desire for new nuclear weapons tests. Indeed, in the past,

nuclear weapons tests were conducted primarily as part of developing and deploying new nuclear weapons. While some modifications that could result in new capabilities, such as the RNEP, may be carried out without nuclear weapons testing required, other new capabilities may require more significant design changes. It is unlikely that new weapons designs would be deployed without testing.[48]

Some officials and experts such as the Foster panel have raised concerns about the ability to continue to certify the current aging US stockpile as safe and reliable. As John Foster has stated “confidence in the nuclear-test ‘pedigree’ is deteriorating.”[49] This line of thinking is the apparent motivation for sec. 3141, and an October 2002 memo of the Nuclear Weapons Council (publicly obtained later in the year) urges “the laboratories to readdress the value of a low-yield testing program” to determine “how might such a program increase confidence now.”[50]

One former laboratory director, Siegfried Hecker, recently stated: “We’re still able to sign these certification letters today, but we can’t do this indefinitely without testing.”[51] On the other hand current NNSA officials don’t seem to think that a failure in the ability to certify the safety and reliability of the stockpile is inevitable without a return to testing. Dr. Beckner, NNSA’s Deputy Administrator for Defense Programs has stated: “We are aware of no issue that would currently require a test. Test readiness is maintained as a contingency in the event of an unforeseen future technical surprise in the stockpile.”[52]

A recent National Academy of Sciences study addressing “Technical Issues Related to the Comprehensive Nuclear Test Ban Treaty” (NAS Study) concluded: “No need was ever identified for a program that would periodically subject stockpile weapons to nuclear tests,” and further elaborated:

*The argument that improvements in the capabilities that underpin confidence in the absence of nuclear testing will inevitably lose the race with the growing needs from an aging stockpile—underestimates the current capabilities for stockpile stewardship, underestimates the effects of current and likely future rates of progress in improving these capabilities, and overestimates the role that nuclear testing ever played (or would ever be likely to play) in ensuring stockpile reliability.[53]*

Doubtless, weapons scientists could learn something from US weapons tests, but broader security analyses indicate that other countries have much more to learn from nuclear tests than the United States. After 1030 nuclear weapons tests conducted from 1945-1992, the United States has an overwhelming and sophisticated nuclear arsenal. If the United States were to conduct tests, almost certainly other countries would follow – and the US strategic advantage would be put at risk along with the increased threat to security presented by proliferation of more sophisticated nuclear arsenals worldwide. The recent NAS study concludes:

*A future no-CTBT world, then, could be a more dangerous world than today’s, for the United States and for others. In particular, the directions from which nuclear attack on the United States and its allies would have become conceivable—and the means by which such attack might be carried out...would have multiplied alarmingly.[54]*

#### *The FY 2003 Request*

The NNSA’s FY 2003 budget request contained two specific requests for test readiness: the “Nevada Test Site Readiness” request was \$36.592 million and an additional request titled “Enhanced Test Readiness” was made for \$15 million.[55] In its FY 2003 budget request NNSA states:

*As part of the recently completed Nuclear Posture Review (NPR), DoD and the NNSA are directed to refine test scenarios and evaluate cost/benefit tradeoffs to determine, implement and sustain the optimum test readiness time that best supports the New Triad. Within the FY 2002 appropriation, a study is underway to implement that direction from the NPR. The conclusions of that study will lead to a final determination on the specific*

*test readiness posture to be implemented through a National Security Policy Directive.* [56]

Furthermore the FY 2003 budget request stated, “pending completion of the study ... and a specific policy change, the FY 2003 budget contains \$15 million to begin implementing that change in FY 2003.” There was not much clarification given beyond this as to exactly how this \$15 million would be spent, although there are a number of activities that contribute to test readiness, including subcritical experiments and some suggested activities that would be added to enhance readiness were suggested.[57] While work on this test readiness study was apparently shared within the administration and Congress, it has not been publicly disclosed and may now be superseded or incorporated into the congressionally required plans under sec. 3142.

#### *Energy and Water Appropriations – Funding Test Readiness*

There was no significant debate or effort to challenge NNSA's \$15 million request for enhanced test readiness activities in the Defense Authorization process. While reportedly some Democrats on the House Energy and Water Appropriations Subcommittee raised objections about these funds, in the end the House Subcommittee's report approved the request from the administration.[58] The Senate Energy and Water Appropriations approach was different, adding additional money for specific Nevada Test Site readiness activities and indicating support for enhanced readiness.[59] In the final Energy and Water Appropriations Conference Report, \$60 million is provided to maintain Nevada Test Site readiness and \$15 million for enhanced test readiness, but the DOE is instructed to notify the Appropriations Committees before these funds are obligated.[60] With the unusual delay in completion of the Appropriations measures for FY 2003, the FY 2004 budget request was completed prior to the FY 2003 Appropriations was completed. It is notable that the FY 2004 budget request states that the “the actions necessary for moving to the 18-month [test readiness] posture are expected to begin upon enactment of the FY 2003 appropriation,” [61]even though the 18-month posture was not explicitly stated in the FY 2003 budget request.

It should be noted that the Nevada Test Site activities were probably strongly supported by the Subcommittee's Chair at the time, Sen. Harry Reid, D-Nev. While Sen. Reid voted for the Comprehensive Test Ban Treaty and claims to support the current test moratorium, he also supports activities at the Nevada Test Site. While The FY 2003 budget request blended the two issues and budget categories – Nevada Test Site activities with activities that enhance Test Readiness, the FY 2004 budget request a bit more clearly divides the two sets of activities.[62]

#### *House Defense Authorization*

In the HASC there were two amendments offered on test readiness and the test moratorium. Duncan Hunter, R-Calif., (and the incoming chair of the HASC for the 108th Congress) offered an amendment that would have required the test readiness posture to be no more than 1 year. - i.e. the DOE must ensure that they could conduct a test no later than one year after the President makes the decision to test. The amendment would have also required the DOE to include budget plans and note the required funding to achieve this test readiness posture. This amendment passed with a hand vote in the HASC, but it was not made part of the final Act.

Rep. John Spratt, D-S.C., offered an amendment requiring that the President notify Congress at least one year before conducting a nuclear test - i.e. a test could not be conducted until at least one year after the President notified Congress. The intent of this notification requirement was to protect the current test moratorium from being breached by the administration without an opportunity for Congress to debate the issue and play its proper oversight role. This amendment failed in the committee and a similar amendment offered for the full House debate was not ruled in order. No test readiness posture

provisions were considered by the full House.

#### *Senate Defense Authorization*

In the SASC, reportedly there was no discussion of the test readiness posture, nor was this issue raised during the full Senate consideration of the Defense Authorization Act. Many supporters of the moratorium and the CTBT believed that raising the issue could run the risk of eroding the moratorium. This was especially a concern because at the very time the Defense Authorization bill was being considered, there were questions being raised about Russian test site activities. Administration officials were holding classified briefings reportedly sharing intelligence indicating that Russia was preparing to resume nuclear weapons tests.[63] Russian officials denied that they were planning to resume tests and most observers agree that Russia was likely engaging in subcritical experiments (as it has in the past) and other general test site readiness activities similar to regular US preparedness activities.[64] Nevertheless, the concerns made supporters of the test moratorium even more wary of raising testing issues for debate.

#### *Conference*

Despite the Senate's quiet demeanor on testing during consideration of the Senate bill, the Democrats in the SASC (with the support of House Democrats) clearly asserted their views in the Conference reconciliation of the House and Senate versions of the bill. The Hunter provision offered in the House markup requiring a one year test readiness posture as well the sec. 1021 provision including a sense of Congress also urging a one year test readiness posture, were replaced with sec. 3142, requiring a report on a range of options along with analysis of costs and benefits.

In addition, the final Act's sec. 3141, "Annual Assessments and Reports to the President and Congress Regarding the Condition of the United States Nuclear Weapons Stockpile," is a modified version of the House provision sec. 3144, "Annual Certification to the President and Congress on the Condition of the United States Nuclear Weapons Stockpile." Both secs. 3141 and 3144 include calls for "an identification of the specific tests...which might have value and the anticipated value of conducting such tests." Sec. 3141 however tempers this by also including a clear requirement that the report also include a determination of tests that would be necessary to resolve stockpile problems and a discussion of why problems requiring a test cannot be resolved with other options. This change may seem subtle, but is likely relevant since pro-testing advocates would be less able to gain support for testing that might be useful but is not necessary.[65]

#### *What's Next for Nuclear Testing?*

Testing advocates in Congress such as the new Chair of the HASC, Rep. Hunter, will likely pursue efforts to reduce the lead time for testing and listen carefully to pro-testing advocates such as John Foster who are sure to continue raising concerns about certification of the nuclear weapons stockpile without testing. Sec. 3175 (extending the Foster Panel) will assist in giving the Foster Panel a platform to raise these issues. Also, it should be noted that the Senate Armed Services Committee is now led by Republicans who opposed the Comprehensive Test Ban Treaty (CTBT).

Further, indications are that the administration's ambiguous policy is moving closer toward serious consideration of the resumption of testing. For example, the Aldridge Nuclear Weapons Council memo calling for consideration of a low-yield testing program[66] was followed up by a Nuclear Weapons Council planned "Stockpile Stewardship Conference." According to a leaked copy of notes planning for this conference, it was developed to look at the "risk in the stockpile stewardship program; specifically, the risk associated with not testing our nuclear weapons." Further, the notes state: "Although the conference will consider issues related to nuclear testing, it is not

the policy of the Administration to return to nuclear testing.”[67] Critics aptly point out that so carefully looking at testing options puts a great deal of pressure toward changing the current policy of not testing. Indeed, the planning notes state that a key question to be raised at the proposed Conference is: “Should the United States adjust its policy on nuclear weapons testing?”

However, it is likely to be quite expensive to dramatically reduce the lead-time for testing and increase testing preparedness activities. These costs in conjunction with the ongoing extensive stockpile stewardship program including weapons refurbishment may be more than the Congressional appropriators - particularly in the House - are willing to fund. The NNSA is also likely to be unwilling to trade the funding required for a dramatically shorter test readiness posture for cuts in other stockpile stewardship activities.

In addition, advocates of the Comprehensive Test Ban Treaty (CTBT) and the current US testing moratorium will strongly object to measures likely to lead to the resumption of testing. Rep. Spratt has included this on his agenda for the coming year and stated recently:

*To lead the world away from nuclear weapons, we not only need money and the clout that comes with being the sole surviving superpower, we need moral authority, we need moral stature, and if we can't ratify the CTBT, which it's apparent we can't, at least we can codify and give some stature to the notion of a testing moratorium, particularly if we ensure only that it means that Congress will get one year, one legislative cycle to consider any deviation from that policy.* [68]

Rep. Markey, D-Mass., leader of the House Nonproliferation Caucus and a strong advocate of the CTBT, has already initiated a letter to the President, signed by 89 Members of Congress, calling for a continuation of the US moratorium on testing.[69] Arms control advocates will also strongly oppose efforts leading toward resumption of testing and the international community, including our strongest allies who have ratified the CTBT, will certainly strongly object to any US resumption of testing.

## **Strategic Reductions**

### *In the Final Act*

The final Act includes sec. 1031, “Strategic Force Structure Plan for Nuclear Weapons and Delivery Systems.” The plan to be prepared jointly by the DoD and DOE is to define the force structure for nuclear weapons and nuclear weapons delivery systems for fiscal years 2003 through 2012. The plan is to be reported to Congress by March 1, 2003. The report is to analyze current plans for strategic force structure – defining the missions, delineating a baseline and describing the activities and budget required to execute the defined missions of the strategic nuclear force. Sec. 1031 also requires an evaluation of options for reaching the NPR's level of 1,700 - 2,200 prior to 2012, as well as the advantages and disadvantages of achieving that posture by 2007.

Sec. 1031 is a modified version of an amendment offered by Rep. Ellen Tauscher, D-Calif., during the full House consideration of the Defense Authorization Bill. The amendment had strong bi-partisan support and was passed with a voice vote.[70]

### Senate Concerns

On the Senate side, concerns about the strategic force structure described in the NPR were raised following the NPR release. Sen. Carl Levin, Chair (at the time) of the SASC said at a February 2002 Armed Services Committee hearing considering the NPR:

*Secretary of Defense Donald Rumsfeld said in a speech at the National Defense University just two weeks ago that, quote, “through our Nuclear Posture Review, we adopted a new approach to strategic deterrence that increases our security while” – his words– “reducing the numbers of strategic nuclear weapons.”*

*But the recommendations of the Nuclear Posture Review may not, in fact, reduce the*

*actual number of nuclear warheads in the US arsenal, because instead of destroying warheads, as Presidents Clinton and Yeltsin envisioned under a START III agreement, the Nuclear Posture Review proposes to shift some or all of the warheads removed from missiles, bombers, and submarines to a responsive force, in other words, a backup force. Instead of being irreversible, those warheads could be re-deployed in a matter of weeks or months.*

*The Nuclear Posture Review proposes simply to move those warheads from one location to another. But just as Enron couldn't make its debts disappear by moving them from one set of books to another, we are not going to make nuclear warheads go away by moving them from launchers to warehouses. [71]*

#### *NPR & SORT*

The Senate has further considered the strategic force structure during hearings on the Strategic Offensive Reductions Treaty (SORT) signed by Presidents Bush and Putin in May 2002 (Also referred to as the Moscow Treaty). The treaty follows the approach of the NPR setting a limit of 1,700-2,200 operationally deployed strategic weapons to be achieved by 2012.[72] There is nothing in the treaty that requires any dismantlement of nuclear weapons. At one hearing, Dr. Beckner, from NNSA stated this most clearly: "The Moscow Treaty does not limit the size of the stockpile. Moreover with the overall warhead limits imposed by the Moscow Treaty, both the United States and Russia can determine for themselves the composition and structure of their respective strategic forces." [73] Setting aside whether this is a reason to criticize the treaty,[74] neither SORT nor the NPR clarify activities or costs required for maintaining the nuclear stockpile, but rather allow maximum flexibility for the administration to develop the strategy as it goes along.

#### *Energy and Water Appropriations*

The House Energy and Water Appropriations Subcommittee was adamant in its criticism of the NPR/SORT approach, stating in its FY 2003 Report:

*The Administration's Nuclear Posture Review has created great uncertainty within the Department of Energy and in Congress on the exact nature, rationale, scope, and duration of every strategic nuclear weapons modernization program. It does not appear that cost or cost-effectiveness were criteria considered during the review ... Without a more definitive understanding of the nature of the suggested nuclear reserve force, and the investments that would be required to implement it, there is great risk that the Department of Energy will needlessly spend funds on weapons that will never be used. Meanwhile, NNSA has great infrastructure and other needs that are unmet, as does the nation as a whole. The Committee believes that much more work needs to be done during the next year by the Nuclear Weapons Council, a joint Departments of Defense and Energy organization, to better rationalize and articulate the requirements for future strategic weapons modernization.[75]*

The final FY 2003 Energy and Water Appropriations requires the Department of Energy in conjunction with the Defense Department to provide a report by March 15, 2003 of a "specific inventory objective for each nuclear weapon system and in total through 2012." This inventory is to indicate the "likely number of warheads that must be modernized and why" along with the expected cost of these modernization activities.[76]

#### *Dismantlement and Production Requirements*

One concern that should be addressed by the reports required by sec. 1031 and Appropriations reporting requirements is the cost and savings to the nuclear weapons complex of weapons dismantlement and production plans. While it would seem reasonable to expect that the NPR/SORT reductions would result in reductions in nuclear weapons production activities and costs, that does not seem to be the case. In the course

of consideration of SORT, Sen. Joseph Biden, D-Del., then Chair of the Foreign Relations Committee requested a Congressional Budget Office estimate of costs and savings from implementing the Moscow Treaty (CBO Study). The CBO noted:

*CBO currently has insufficient information to estimate the effects that dismantling (instead of storing and maintaining) warheads might have on needed tritium and pit production capacities. But because the NNSA's current plans are based on maintaining an inventory consistent with levels under START, dismantling a significant fraction of that inventory ought to imply a concomitant reduction in needed steady-state tritium and pit production activities.*[77]

While increased dismantlement is possible (though not required) under SORT, the NNSA has clearly conveyed that it does not intend to increase dismantlement of warheads prior to 2014 because doing so would interfere with its ongoing weapons refurbishment program.[78] Further there are no plans in the near-term (next several years) to slow planned tritium production and NNSA plans a modern pit facility (to produce nuclear weapons primaries) to be operational by 2018 with a capacity to "provide a minimum single-shift capacity of 250 pits per year." [79]

#### *What's Next for Reductions*

The SORT Resolution for ratification has been completed and the Senate is expected to begin Floor consideration the week of February 24, or shortly thereafter. Although serious concerns about the Treaty may be raised during the debate on the Resolution of Ratification, including concerns about the lack of actual dismantlement of weapons, it is expected that the Treaty's ratification will be strongly supported and easily garner the required two-thirds (67votes) super-majority approval. It is apparent, however that Congress in its annual budget process will continue to question the requirements and costs for the strategic force structure and the nuclear weapons complex infrastructure. Rising costs may lead Congress to urge dismantlement and warhead reductions even if they're not required under SORT or clearly planned for in the NPR. The planned Modern Pit Facility in particular, will likely raise cost concerns.

## **Conclusion**

The administration is well on its way to implementing its Nuclear Posture Review with its approved FY 2003 activities, but the Congressional budget process raised some serious questions that will have to be addressed in the FY 2004 and future years' budgets. While the administration may have an easier time pursuing its agenda with the 108th Congress' supportive Republican leadership in both the Senate and House, it should also be expected that Congress will continue to raise issues of cost and transparency and seek to assert its role in shaping nuclear weapons policy and approving funds for nuclear weapons activities.

## **Endnotes**

[1] Bob Stump National Defense Authorization Act for Fiscal Year 2003, Public Law 107-314.

[2] US Department of Defense, Nuclear Posture Review Report [excerpts] URL <<http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm>>, version current Feb. 20, 2003.

[3] See Crandall, K., "The Republican Victory in Congress, What Will It Mean for Nuclear Weapons and Missile Defense Policies." BASIC Note, Nov. 14, 2002. Also note, House Policy Committee, Subcommittee on National Security and Foreign Affairs, "Differentiation

and Defense: An Agenda for the Nuclear Weapons Program," Feb. 2003. URL <<http://wilson.house.gov/Media/Photos/NuclearReport.pdf>>, version current on Feb. 20, 2003.

[4] See Ruppe, D., "United States I: Lawmakers Challenge Nuclear Weapons Policies," Global Security Newswire, May 9, 2002.

[5] "Senate Armed Services Committee Completes Markup of National Defense Authorization Bill for Fiscal Year 2003," United States Senate Committee on Armed Services (SASC), May 10, 2002, URL <[http://www.senate.gov/~armed\\_services/press/03mark.pdf](http://www.senate.gov/~armed_services/press/03mark.pdf)>, version current on Feb. 20, 2003.

[6] H.J. Res. 2, Joint Resolution Making Consolidated Appropriations for the Fiscal Year Ending September 30, 2003. See Conference Report Text and Joint Explanatory Statements – Division D-2, URL <[http://www.house.gov/rules/108\\_hjres2cr\\_text.htm](http://www.house.gov/rules/108_hjres2cr_text.htm)>, version current on Feb. 20, 2003.

[7] Note that funding for the Nuclear-Tipped Interceptors falls under the jurisdiction of the Defense Appropriations Subcommittee rather than the Energy and Water Development Appropriations Subcommittee (as the other nuclear weapons programs discussed here). The Defense Appropriations bill was completed in October 2002.

[8] Department of Energy's FY 2003 Budget Request to Congress, National Nuclear Security Agency, Weapons Programs, Directed Stockpile Work, Stockpile Research and Development, Supporting Research lists funds for a Phase 6.2 –6.2A Cost and Feasibility Study on the Robust Nuclear Earth Penetrator. See URL <<http://www.mbe.doe.gov/budget/03budget/content/weapons/dsw.pdf>>, version current Feb. 20, 2003. Although a specific line item amount for the RNEP is not listed in the budget category ("Supporting Research and Development"), Dr. Everet H. Beckner, Deputy Administrator for Defense Programs in testimony before the Senate Armed Services Committee, April 10, 2002 stated "the initial focus of the Advanced Concepts Program will be the Robust Nuclear Earth Penetrator, for which \$15.5 million is requested in FY2003 as part of the Directed Stockpile Research and Development activity." (p. 4) URL <[http://www.senate.gov/~armed\\_services/statemnt/2002/April/Beckner.pdf](http://www.senate.gov/~armed_services/statemnt/2002/April/Beckner.pdf)>, version current Feb. 20, 2003. A listing of the Nuclear Weapons Life Cycle Management Phases can be found in the Department of Energy's FY 2002 Budget Request to Congress, National Nuclear Security Agency, Weapons Programs, Directed Stockpile Work, URL <<http://www.mbe.doe.gov/budget/02budget/weapons/dsw.pdf>>, version current Feb. 20, 2003.

[9] US Department of Defense, Note 2, pp. 7, 12-13, 34-35.

[10] Rumsfeld, D. (Secretary of Defense), Abraham, S., Report to Congress on the Defeat of Hardened and Deeply Buried Targets (July, 2001). The report was required by the National Defense Authorization Act of FY 2001, sec. 1044. For in-depth analysis of the RNEP and new nuclear weapons development, see Bromley, M., Grahame, D., and Kucia, C., "Bunker Busters: Washington's Drive for New Nuclear Weapons," BASIC Research Report 2002.2, July 2002.

[11] National Defense Authorization Act for FY 2003, Sec. 1033(b).

[12] Roll Call Vote number 141, May 9, 2002. Republicans voting for the amendment included James Leach, R-Iowa, Constance Morella, R-Md., (who lost her seat in the recent election) and Christopher Shays, R-Conn. Debate on the Markey amendment can be found in the Congressional Record May 9, 2002 beginning p. H 2339. URL <<http://thomas.loc.gov>>

[13] "Senate Armed Services Committee Completes Markup of National Defense Authorization Bill for Fiscal Year 2003," United States Senate Committee on Armed Services (SASC), May 10, 2002, URL <[http://www.senate.gov/~armed\\_services/press/03mark.pdf](http://www.senate.gov/~armed_services/press/03mark.pdf)>, (pp. 10-11) version current on Feb. 20, 2003. The SASC Strategic Subcommittee "prohibited the use of any funds for the development of the Robust Nuclear Earth Penetrator and directed the Secretary of Energy to clearly and specifically identify any funds requested in the future for new or modified nuclear weapons" p. 11. The SASC

Emerging Threats Subcommittee provided \$15.5 million for “a new generation of radiation detectors,” p. 10. Reportedly Sen. Jeff Bingaman, D-N.M., offered an amendment in the closed SASC markup to shift the \$15.5 million funds from the RNEP to the radiation detectors, which narrowly passed along party lines.

[14] Department of Energy’s FY 2004 Budget Request to Congress Budget Justifications: NNSA/ Weapons Activities/ Directed Stockpile Work/ Research and Development/ Supporting Research and Development URL <<http://www.mbe.doe.gov/budget/04budget/content/weapons/DSW.pdf>>, version current on Feb. 20, 2003

[15] House Policy Committee, Subcommittee on National Security and Foreign Affairs, “Differentiation and Defense: An Agenda for the Nuclear Weapons Program,” Feb. 2003, p. 7. URL <<http://wilson.house.gov/Media/Photos/NuclearReport.pdf>>, version current on Feb. 20, 2003.

[16] National Defense Authorization Act of FY 1994, sec. 3136. This provision is printed on the Friends Committee on National Legislation web site at URL <[http://www.fcni.org/issues/arm/sup/tesban\\_nukfurse\\_2.htm](http://www.fcni.org/issues/arm/sup/tesban_nukfurse_2.htm)>, version current on Feb. 20, 2003.

[17] National Defense Authorization Act for FY 2001 (As Adopted by the Senate Armed Services Committee), S. 2549, section 1018. “Report on the Defeat of Hardened and Deeply Buried Targets.” National Defense Authorization Conference Report for FY 2001, Sec.1044. “Report on the Defeat of Hardened and Deeply Buried Targets.” A comparison of all legislation is provided by the Friends Committee on National Legislation at URL <<http://www.fcni.org/issues/arm/minnukeindx.htm>>, version current Feb. 20, 2003

[18] Beckner, E.H., Senate Armed Services Committee Statement, April 10, 2002, p. 4. “This work [the RNEP feasibility study] complies with existing legislation, including Section 3136 of the FY 1994 National Defense Authorization Act.” URL <[http://www.senate.gov/~armed\\_services/statemnt/2002/April/Beckner.pdf](http://www.senate.gov/~armed_services/statemnt/2002/April/Beckner.pdf)>, version current on Feb. 20, 2003.

[19] Initial amendment offered by Rep. Curt Weldon, R-Penn. on May 9, 2002 to the FY 2003 Defense Authorization Bill HR 4546 (House Version) – this measure was modified prior to being debated and voted upon. A copy can be found in the Congressional Record for May 9, 2002, H2333. URL <<http://thomas.loc.gov>>

[20] The below modified Weldon amendment was debated and agreed to 362 to 53, roll call vote 142, this can be found in the Congressional Record, May 9, 2002, p. H2335.

Modification to Part A Amendment No. 1 Offered by Mr. Weldon of Pennsylvania: strike section 3146 as proposed to be inserted by the amendment and insert the following:

**SEC. 3146. PROHIBITION ON DEVELOPMENT OF LOW-YIELD NUCLEAR WEAPONS.**

- (a) **UNITED STATES POLICY** – It shall be the policy of the United States not to conduct development which could lead to the production by the United States of a new low-yield nuclear weapon, including a precision low-yield warhead.
- (b) **LIMITATION** – The Secretary of Energy may not conduct, or provide for the conduct of, development which could lead to the production by the United States of a low-yield nuclear weapon which, as of the date of the enactment of this Act, has not entered production.
- (c) **EFFECT ON OTHER DEVELOPMENT** – Nothing in this section shall prohibit the Secretary of Energy from conducting, or providing for the conduct of, development necessary—
  - (1) to design a testing device that has a yield of less than five kilotons;
  - (2) to modify an existing weapon for the purpose of addressing safety and reliability concerns; or
  - (3) to address proliferation concerns.
- (d) **DEFINITION** – In this section—
  - (1) the term “low-yield nuclear weapon” means a nuclear weapon that has a yield of less than five kilotons; and
  - (2) the term “development” does not include concept definition studies, feasibility studies, or detailed engineering design work.
- (e) **CONFORMING REPEAL** – Section 3136 of the National Defense Authorization Act for Fiscal

Year 1994 (42 U.S.C. 2121 note) is repealed.

[21] Congressional Record, May 9, 2002, page H2335.

[22] House Policy Committee, Subcommittee on National Security and Foreign Affairs, "Differentiation and Defense: An Agenda for the Nuclear Weapons Program," Feb. 2003 pp. 8, 14. URL <<http://wilson.house.gov/Media/Photos/NuclearReport.pdf>>, version current on Feb. 20, 2003.

[23] Graham, B., "Nuclear-Tipped Interceptors Studied – Rumsfeld Revives Rejected Missile Defense Concept," Washington Post, April 11, 2002, p. A 2.

[24] See, "Nuclear Experts Blast Idea of Arming Missile Interceptors with Nuclear Warheads," Arms Control Association Media Advisory, April 17, 2002, URL <<http://www.armscontrol.org/pressroom/2002/mdadvapril02.asp>>, version current on Feb. 20, 2003.

"Briefing Book on Ballistic Missile Defense, Chapter 5 Nuclear Tipped Interceptors." Center for Arms Control and Non-proliferation, June 19, 2002. URL <<http://www.armscontrolcenter.org/nmd/briefbook02/chapt5.html>>, version current on Feb. 20, 2003. Kraig, M. and Roston, M., "Nuclear-tipped Foolishness," Foreign Policy in Focus Global Affairs Commentary, May 21, 2002. URL <[http://www.fpif.org/commentary/2002/0205nuke\\_body.htm](http://www.fpif.org/commentary/2002/0205nuke_body.htm)>, version current on Feb. 20, 2003.

[25] Ruppe, D. "US Plans I: Senators Criticize Proposed Study of Nuclear Interceptors," Global Security Newswire. April 18, 2002.

[26] Department of Defense Appropriations Act, FY 2003 H.R.5010.ENR, section 8134.

[27] "US Plans: Nuclear Study Continues Despite Congressional Ban," Global Security Newswire, Nov. 6, 2002.

[28] Bob Stump National Defense Authorization Act For FY 2003 (House version), Report of the Committee on Armed Services, House of Representatives on H.R. 4546, Report 107- 436, Title II, Research Development, Test and Evaluation "Exploration of Alternative Approaches," May 3, 2002, p. 230.

[29] FY 2003 Defense Authorization Bill HR 4546 (House Version), Sec.1019.

[30] The Rules Committee determines which amendments offered will be "ruled in order" and made part of the rule for debate on a bill. There are often many amendments offered that are not ruled in order and not debated.

[31] Motion to recommit was rejected 193-223: Roll call vote 157, May 10, 2002. In the Congressional Record, May 9, 2002, p. H2383-H2384.

[32] Senate Amendment 4135 to S. 2514 Defense Authorization Bill for FY2003 (Senate version).

[33] Department of Energy's FY 2003 Budget Request to Congress. Note 8.

[34] Congressional Record, June 20, 2002, p. S.5800.

[35] "NNSA: Nuclear Weapons Reports Need to be More Detailed and Comprehensive", GAO-0889R United States General Accounting Office, July 3, 2002. House Energy and Water Development Report 107-681.

[36] H.J. Res. 2, Joint Resolution Making Consolidated Appropriations for the Fiscal Year Ending September 30, 2003. See Conference Report Text and Joint Explanatory Statements – Division D-2 Atomic Energy Defense Activities, National Nuclear Security Administration URL <[http://www.house.gov/rules/108\\_hjres2cr\\_text.htm](http://www.house.gov/rules/108_hjres2cr_text.htm)>, version current on Feb. 20, 2003.

[37] Department of Energy's FY 2003 Budget Request to Congress. Note 8.

[38] U.S Department of Energy FY 2004 Budget Request, National Nuclear Security Administration/ Weapons Activities/ Direct Stockpile Work/Supporting Research and Development. URL <<http://www.mbe.doe.gov/budget/04budget/content/weapons/DSW.pdf>> , version current on Feb. 20, 2003.

[39] House Policy Committee. Note 22.

[40] US Department of Energy FY 2004 Budget Request, NNSA/ Weapons Activities/ Readiness in Technical Base and Facilities/ Program Readiness/ Test Readiness. URL

<<http://www.mbe.doe.gov/budget/04budget/content/weapons/rtbf.pdf>>, version current on Feb. 20, 2003.

[41] Foster, J.S. Jr., for the Panel to Assess The Reliability, Safety, and Security of the United States Nuclear Stockpile, testimony before the House Armed Services Committee Special Oversight Panel on Department of Energy Reorganizations, United States House of Representatives, March 21, 2002, URL <<http://armedservices.house.gov/openingstatementsandpressreleases/107thcongress/02-03-21foster.html>>, version current Feb. 20, 2003. The 1999 National Defense Authorization Act created the Panel to review and assess (1) the annual process for certifying stockpile reliability and safety, (2) the long-term adequacy of that process, and (3) the adequacy of the criteria to be provided by the Department of Energy for evaluating its science-based Stockpile Stewardship Program.

[42] The US conducted its last nuclear explosion test on Sept. 23, 1992. The Hatfield-Exon-Mitchell amendment halted US testing for at least nine months and was afterward extended. See URL <<http://www.clw.org/coalition/hatfiled.htm>> for the text of the amendment. Sec. 1064 of S.13949.

[43] For an excellent analysis of the current status of the Comprehensive Test Ban Treaty (CTBT) including the US role see, Kimball, D. and Kucia, C., "The International Security Value of the Nuclear Test Ban Treaty," Arms Control Association, November 2002. URL <<http://www.armscontrol.org/factsheets/ctbtissue.asp>>, version current Feb. 20, 2003.

[44] Crouch, J.D., "Special Briefing on the Nuclear Posture Reivew," Defenselink, Jan. 9, 2002.

[45] NNSA representatives have referred to the lead time required for "fully diagnosed tests" in Congressional Hearings. See, for example, Beckner, E.H., Senate Armed Services Committee Statement, April 10, 2002, p. 4 URL <[http://www.senate.gov/~armed\\_services/statemnt/2002/April/Beckner.pdf](http://www.senate.gov/~armed_services/statemnt/2002/April/Beckner.pdf)>, version current Feb. 20, 2003, and Gordon, J.A., National Nuclear Security Administration, before the House Armed Services Subcommittee on Procurement, June 12, 2002. URL <<http://armedservices.house.gov/openingstatementsandpressreleases/107thcongress/02-06-12gordon.html>> version current on Feb. 20, 2003, "... A study examining the aspects of reducing test readiness lead time below the existing 24 to 36 month requirement for a fully diagnosed test is nearing completion."

[46] US Department of Defense, Nuclear Posture Review Report [excerpts] pp. 35-36 URL <<http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm>>, version current Feb. 20, 2003.

[47] Foster, Note 41. Foster stated that "prudence requires that every President have a realistic option to return to testing, should technical or political events make it necessary." It may be that the type of test Foster advocates be prepared within three months would be a political test with less emphasis on the technical diagnostic information.

[48] Siegfried Hecker, former Director of Los Alamos National Laboratory quoted in a recent article:

"Some of the more exotic ideas [for new nuclear weapons] would require testing" he said, adding that members of the nuclear weapons complex would "never field a significantly new design without testing." Bender, B. "US Testing: Nuclear Testing May Need to Resume Soon, Official Says," Global Security Newswire. Jan. 17, 2003. Also note "Technical Issues Related to the Nuclear Test Ban Treaty," National Academy Press, 2002. URL <<http://www.nap.edu/books/0309085063/html/>>, version current on Feb. 20, 2003: Unless by accepting a substantial reduction in the confidence in weapon performance associated with certification up until now, or a return to earlier, simpler, single-stage design concepts, such as gun-type weapons ... testing would be essential to certifying the performance of new designs at the level of confidence associated with currently stockpiled weapons.

[49] Foster, Note 41.

[50] Aldridge, E.C., "Memorandum for Members of the Nuclear Weapons Council, Subject: Improved Understanding of Nuclear Weapons Risks and Uncertainties" URL <[http://www.fcnl.org/issues/arm/sup/nuclear\\_weapons\\_memo.htm](http://www.fcnl.org/issues/arm/sup/nuclear_weapons_memo.htm)> version current on Feb. 20, 2003.

[51] Bender, Note 48.

[52] Beckner, E.H., Memo on DOE/IG Draft Report on National Nuclear Security Administration's Test Readiness Program forwarded on July 12, 2002.

[53] "Technical Issues Related to the Nuclear Test Ban Treaty," Note 48.

[54] "Technical Issues Related to the Nuclear Test Ban Treaty," Note 48.

[55] There are other line items within the NNSA weapons budget that include activities that contribute to test readiness. For example, subcritical nuclear weapons experiments – explosions that are designed to stop short of criticality (and are thus allowed under the Comprehensive Test Ban Treaty) are conducted underground at the Nevada Test Site where they contribute to maintaining test readiness. Subcriticals are funded under the "Campaigns" category. US Department of Energy's FY2003 Budget Request to Congress - National Nuclear Security Agency, Weapons Activities, Campaigns, Science Campaigns, Primary Certification, Subcritical Experiments, URL <<http://www.mbe.doe.gov/budget/03budget/content/weapons/Campaign.pdf>>, version current on Feb. 20, 2003.

[56] US Department of Energy's FY 2003 Budget Request to Congress - National Nuclear Security Administration.

[57] Beckner; Gordon. Note 45.

[58] Energy and Water Development Appropriation House Report, FY 2003, 107-681, (See Atomic Energy Defense Activities National Nuclear Security Administration Readiness in Technical Base and Facilities – Program Readiness.)

[59] Energy and Water Development Appropriation Senate Report, FY 2003, 107-220, (See Atomic Energy Defense Activities National Nuclear Security Administration Readiness in Technical Base and Facilities – Program Readiness.)

Within available funds \$64,201,000 is provided for test site readiness including archiving, resumption planning, activities required for enhanced test readiness planning including test scenarios and cost/benefit trade offs. Funds are also provided for Testing Drillback Borehole management as well as experimental and direct stockpile activities included in DSW and campaigns which contribute to the test readiness posture."

Thus, making the total appropriation \$ 64.201 million or approximately \$12.6 million more than the NNSA request for Nevada Test Site Readiness and Enhanced Readiness line items combined."

[60] See: Text of the Conference Report to H.J. Res. 2 Making Further Continuing Appropriation for the Fiscal Year 2003 – Text of the Joint Explanatory Statement of the Committee of Conference, Division 2-A URL <[http://www.house.gov/rules/108\\_hjres2cr\\_text.htm](http://www.house.gov/rules/108_hjres2cr_text.htm)>, version current on Feb. 20, 2003. (See Atomic Energy Defense Activities National Nuclear Security Administration Readiness in Technical Base and Facilities.)

[61] US Department of Energy FY 2004 Budget Request. Note 40.

[62] US Department of Energy FY 2004 Budget Request, NNSA/ Weapons Activities/ Readiness in Technical Base and Facilities/ Program Readiness/ Test Readiness and Nevada Site Readiness URL <<http://www.mbe.doe.gov/budget/04budget/content/weapons/rtbf.pdf>>, version current on Feb. 20, 2003. Two budget categories are listed in the FY 2004 Request - Nevada Site Readiness and Test Readiness, the Nevada Site Readiness item states: "Includes activities required to maintain the Nevada Test Site (NTS) that are not unique to the test readiness mission, but do support the stockpile stewardship mission. "

[63] Shanker, T., "Administration Says Russia Is Preparing Nuclear Tests, " New York Times, May 12, 2002, p. 4.

[64] See Bleek, P., "US Officials Claim Russia Preparing for Nuclear Test" Arms Control Today, June 2002. M. Jasinsky, C. Chuen, and C. Ferguson, "Renewed US - Russian Controversy Over Nuclear Testing," Research Story, Center for Nonproliferation Studies Monterey Institute of International Studies, May 27, 2002. URL <<http://www.cns.miis.edu/pubs/week/020527.htm>>, version current on Feb. 20, 2003.

[65] See FY 2003 Defense Authorization Bill, HR 4546 (House Version)

*Sec. 3144 (d) REPORT ACCOMPANYING CERTIFICATION- Each official specified in subsection (b)(1) shall submit with each such certification a report on the stockpile stewardship and management program of the Department of Energy. The report shall include the following: . . . (3) An assessment of the need of the United States to resume testing of nuclear weapons and the readiness of the United States to resume such testing, together with an identification of the specific tests the conduct of which might have value and the anticipated value of conducting such tests.*

Vs.

*FY 2003 Defense Authorization Act (PL 107-314).*

(d) Report <<NOTE: Deadline.>> on Assessments – Not later than December 1 of each year, each official specified in subsection (b) shall submit to the Secretary concerned, and to the Nuclear Weapons Council, a report on the assessments that such official was required by subsection

(a) to complete. The report shall include the following:

(1) The results of each such assessment.

(2)(A) Such official's determination as to whether or not one or more underground nuclear tests are necessary to resolve any issues identified in the assessments and, if so –

(i) an identification of the specific underground nuclear tests that are necessary to resolve such issues; and

(ii) a discussion of why options other than an underground nuclear test are not available or would not resolve such issues.

(B) An identification of the specific underground nuclear tests which, while not necessary, might have value in resolving any such issues and a discussion of the anticipated value of conducting such tests.

(C) Such official's determination as to the readiness of the United States to conduct the underground nuclear tests identified under subparagraphs (A)(i) and (B), if directed by the President to do so.

[66] Aldridge, Note 50.

[67] "Stockpile Stewardship Conference Planning Meeting Minutes" Jan. 10, 2003. These Meeting Minutes were obtained and released by the Los Alamos Study Group. See URL <<http://www.lasg.org/NuclearWeaponsConference.htm>>, version current on Feb. 20, 2003.

[68] Representative John Spratt, D-S.C., Remarks at the Arms Control Association Annual Membership Luncheon, Jan. 13, 2002 URL <<http://www.armscontrol.org/events/spratt.asp>> version current on Feb. 20, 2003.

[69] Letter to President Bush, Feb. 5, 2003, URL <[http://www.house.gov/markey/iss\\_nonproliferation\\_ltr030205.pdf](http://www.house.gov/markey/iss_nonproliferation_ltr030205.pdf)>, version current on Feb. 20, 2003.

[70] There are some differences between secs. 1014 and 1031. For example, sec. 1031 requires options for achieving the 1,700-2,200 level of deployed strategic weapons prior to 2012 and prior to 2007 while sec. 1014 in FY 2003 Defense Authorization Bill, HR 4546 (House version) had required "for each of fiscal years 2006, 2008 and 2010 , an assessment of the options for achieving such posture as of such fiscal year."

[71] Senate Armed Services Committee Hearing on the Nuclear Posture Review, Feb. 14, 2002.

[72] Text of Strategic Offensive Reductions Treaty, see URL <http://www.whitehouse.gov/news/releases/2002/05/20020524-3.html>, version current on Feb. 20, 2003

[73] Beckner, E.H. (Deputy Administrator for Defense Programs, National Nuclear Security Administration) Testimony before the Senate Armed Services Committee Strategic Subcommittee, August 1, 2002

74] While it is true that previous treaties have not included requirements to dismantle nuclear weapons, or reduce warheads, they have called for the elimination of delivery platforms. The SORT treaty does not. Prior to SORT, negotiations were underway with Russia on START 3 – Strategic Arms Reduction Treaty – which would have addressed warhead reduction requirements.

[75] Energy and Water Development Appropriation House Report FY 2003, 107-681, (See Atomic Energy Defense Activities - National Nuclear Security Administration).

[76] Text of the Conference Report to H.J. Res. 2 Making Further Continuing Appropriation for the Fiscal Year 2003 – Text of the Joint Explanatory Statement of the Committee of Conference, Division 2-A URL <[http://www.house.gov/rules/108\\_hjres2cr\\_text.htm](http://www.house.gov/rules/108_hjres2cr_text.htm)> -(See Atomic Energy Defense Activities National Nuclear Security Administration “Strategic Weapons Modernization”), version current on Feb. 20, 2003.

[77] “Estimated Costs and Savings from Implementing the Moscow Treaty,” Congressional Budget Office, Sept. 2002.

[78] Beckner. Note 73.

[79] “Estimated Costs and Savings from Implementing the Moscow Treaty,” Note 77, citing NNSA’s written responses to questions asked by Congressional Budget Office staff on July 22, 2002. See also NNSA’s web site on the ongoing Major Pit Facility Environmental Impact Statement, URL <<http://www.mpfeis.com/>>, version current on Feb. 20, 2003.