goals through a vigorous program of stockpile stewardship.

In developing a safer, more secure stockpile consistent with national policy

I continue to believe that there are viable technical approaches to manage and sustain

system.

cost, maintain the importance of improvements in nuclear, safety and security,

because the areas of the most significant risks vary, and over time, have to do with

For any potential future expansion programs, all potential approaches should be examined

assess the health of the stockpile.

a mix of all three approaches. The same level of technical rigor is required to

components or replacement of the wartime. Most of expansions will actually involve

based on an evaluation of the existing wartime, reuse of previously

is compared to the potential approaches. Independent of whether the approach is

there are significant scientific and technical certification challenges to managing the

risk

to achieve a vigorous program of stockpile stewardship. That program is currently at

and subjecting experts. The nation's nuclear stockpile has always, and will continue

stamina and maintain the country's nuclear weapons stockpile.

would like to start with a few overarching perspectives on the general subject of

Before responding specifically to your request for my comments on the JASON report, I

11, 2009.

Expansion Program (LEP) and documented in their report JSP-09-3-45, dated September

Upon the P09 summary study on the National Nuclear Security Administration's

requesting the observations' findings, and reemphasized the need for the ASON's

As you requested in your letter dated December 9, I am pleased to provide my comments

Dear Representative Turner:

Washington, DC 20515

United States House of Representatives

The Honorable Michael R. Turner

January 7, 2009
Findings - JASON Life Extension Program (LEP) Executive Summary

In response to your request, the key observations, findings, and recommendations provided in the JASON's declassified Executive Summary are included below with my comments on each, as requested.

I. JASON finds no evidence that accumulation of changes incurred from aging and wear-and-tear have increased risk to certification of today's deployed nuclear warheads.

2. Life times of today's nuclear warheads could be extended for decades, with no accelerated loss in confidence by using approaches similar to those employed in LEP to date.

LEP to date:
- Significant reductions in life extension capabilities by using approaches similar to those employed in LEP to date.
- Life times of today's nuclear warheads could be extended for decades, with no accelerated loss in confidence by using approaches similar to those employed in LEP to date.

The Honorable Michael R. Tuma
We agree that implementing smoother, features inside the nuclear explosive package.

4. Implementation of Initiating (inside the nuclear explosive package) Survey

- Common warhead standards.

Syntaics would result in significant gains in safety when compared to some stockpile systems which are not designed to enhance safety features. This would mean systems that are designed to improve safety features and security features. The current LEF approach cannot provide the necessary safety and security features. These are largely based on experience. Perhaps most importantly, the current LEF approach can only provide a minimal improvement in these features. Other approaches are needed to achieve significant improvements.

Thus far, we have been able to rely on confidence in warhead safety and security features. These features are critical to the performance of existing warheads. Experience has shown that at least certain warheads were not introduced into the stockpile (whether they were identified or not). Certain reliability and security issues are identified in the current warhead systems. The accumulation of small changes in these systems is significant. The accumulation also affects our assessments of the risks to the stockpile.

The Honorable Michael R. Turner
experimental underpinnings that support the QML methodology. A considerable effort to further our knowledge of scientific, computational, and suitable frameworks for assessment and certification and continue to devote We agree that QML is a framework of Marins and uncertainties (QML) and QML provides a suitable framework for assessment and certification.

8. Quantification of Marins and Uncertainties (QML) provides a suitable framework for assessment and certification.

If their skills are not exercised regularly, they become increasingly more difficult to preserve this base of human capital. Informed in assessment and certification that we rely on the most, it will inform and educate us on the quality of people they exercise and the need for advanced experiential and simulation capabilities. Certification of the stockpile is necessary to reinforce the idea that it is an important step and has the potential to enhance public confidence and understanding and appreciation for the stockpile.

Science, understanding, and results from experiments.

7. The basis for assessment and certification is in the area of understanding and experimental results from experiments.

extension

Included in these workshops are those who are not involved in full. Improvements over the current situation. Intrinsic survey would be useful while not providing a complete picture of this situation, other extensions on some aspects of the work. These are additional approaches that have previously undergone the extensions or are not scheduled for the near future. We are developing approaches to incorporate intrinsic surveys into workshops as they underlie full extent of extension. For workshops on specific issues, we are developing surveys to incorporate intrinsic surveys into workshops. We are developing approaches to incorporate intrinsic surveys into workshops as they underlie full extent of extension. For workshops on specific issues, we are developing surveys to incorporate intrinsic surveys into workshops as they underlie full extent of extension. 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Program

Stockpile stewardship requires implementation of a revised surveillance program.

13. The surveillance program is becoming inadequate. Continued success of our
   stewardship program is threatened by lack of program elements, lack of
   understanding of baselines, and too little time to perform needed improvements.
   We agree with this finding.

12. Continued success of stockpile stewardship is threatened by lack of program elements, lack of understanding of baselines, and
   too little time to perform needed improvements.

We agree with this finding.

nuclear testing.

11. Certification of certain nuclear facilities, not simple or straightforward.

We agree with this finding.

Replaces.

10. Assumptions and certification challenges depend on design details and
    associated uncertainties.

SSP is currently under considerable funding stress and impacts on ability
    underpin the current and any future nuclear deterrent. STFE within the
    SSP is critically important. We agree that the STFE (SSP)

9. Increased scientific understanding enables reduced reliance on calibration.

Enhanced predictive capability, and improved quantification of margins and uncertainties.

The Honorable Michael R. Turner
additional clarifications if that would be helpful.
I would be happy to meet with you or your staff personally to provide any

require additional study and analysis.

are working with NNASS to identify those recommendations that may
for some time. An initial study of number nine began more recently. We
work on recommendations one, two, three, and four have been underway
limitations to address some of these recommendations. In particular

These recommendations have been provided to NNASS for their review and

Summation
Recommendations-JASON life extension program (LEP) executive

and future program needs.
NNASS to identify a new/modified surveillance program that meets current

Dear Mr. Turner,

Sincerely,

George E. Miller

Director