Los Alamos Study Group

Stockpile Stewardship

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### Stockpile Stewardship Conference Planning Meeting Minutes

10 January 2003

Pentagon, Room 3C912

0930-1200

- 1. Mr. Fred Celec (ATSD(NCB/NM)) opened the meeting on behalf of Dr. Dale Klein (ATSD(NCB)). A list of attendees is at attachment 1.
- 2. Mr. Celec began by discussing the background leading to the Stockpile Stewardship Conference. The genesis of the conference is the October 2002 memo from the NWC Chairman, Mr. Pete Aldridge (USD (AT&L)), to the NWC on risk in the stockpile stewardship program; specifically, the risk associated with not testing our nuclear weapons. Ambassador Linton Brooks (NWC member and Acting Administrator, NNSA) and General Peter Pace (NWC member and Vice Chairman, Joint Chiefs of Staff) replied to the memo, expressing their support for the conference and offering comments on its expected content. The scope of the conference then evolved to include additional topics associated with the nuclear deterrent in a post-Nuclear Posture Review environment. The Stockpile Stewardship Conference will be used to present the results of the work of four panels to the NWC, and others as appropriate, and to establish recommendations for the way-ahead. Although the conference will consider issues related to nuclear testing, it is not the policy of the Administration to return to nuclear testing.
- 3. ACTION: The Executive Committee members agreed to revise the draft purpose statement.

Purpose: In concert with the NPR, evaluate the issues of maintaining confidence in the nuclear deterrent; evaluate the risks in our current assessment process and ways to reduce those risks, and the current and planned infrastructure capacity and capability.

4. The organization of the conference was discussed. Mr. Aldridge, the NWC Chairman, will chair the conference and Admiral Ellis (STRATCOM) will host it. The preparatory work will be performed by four panels. An Executive Committee (ExCom), chaired by Dr. Dale Klein, will provide oversight, assure that the work of the panels is in alignment throughout the process, integrate the finding of the panels, and plan the conference. To assure alignment of the panels, it was agreed that the ExCom would meet several times during the process to review the progress of the panels. It was agreed that the four panel chairs will be part of the ExCom. The members are:

# ATSD(NCB) – Dr. Klein, Chairman

STRATCOM - RADM Byrd

Joint Staff - RDML Walsh

OSD (P) - Dr. Payne

NNSA - Dr. Beckner

SAG - Dr. Burnett (advisor)

SSP Strategy & Risk Panel Chair- Brig Gen Haeckel (NNSA)

Future Arsenal Panel Chair - Dr. Hardebeck (STRATCOM)

NNSA and DoD Infrastructure Chair - Mr. Beck (NNSA)

Strategy and Policy Panel Chair - Dr. Maaranen (OSD(P))

- 5. Mr. Celec provided some guidelines for selection of panel topics and panel members. Each of the four panels was discussed. The ExCom agreed to a draft list of topics and member organizations for each of the panels. These are at Attachment 2. The ExCom agreed that these lists are a starting point and that the panels should be free to discuss all issues they believe are relevant to their topical area. Consensus on "the answers" is not always necessary. There was some discussion regarding the value of a "common participant" to attend all panel meetings to provide consistency and help avoid duplication. ACTION:

  Member organizations are requested to send the names of their organization's representatives to the panels to Ms. Stoner by January 17, 2003.
- 6. The ExCom agreed that the Panel Chairs are responsible for developing the Terms of Reference (TOR) for their panels. The ExCom will not have a separate TOR, but it will have an over-arching purpose statement. The Panel Chairs are expected to convene their panels to complete this work and report back to the ExCom with their TORs. It was agreed that the possibility of holding the next ExCom meeting in early February would be investigated. ACTION: The Panel Chairs are to provide the ExCom a TOR for their panel at the next meeting, likely to be held in early February 2003.
- 7. ACTION: The ExCom agreed to review the following topics and determine which panel is most appropriate to address them.
  - What should the policy and process be for granting authority to adapt and build small quantities?
    - Evaluate the DoD/NNSA Requirements process. Do we adequately identify requirements, and their priority in existing systems?
- 8. The ExCom agreed that the results of the conference should be reviewed by the NWC and forwarded, as appropriate, to the Secretary of Defense and Secretary of Energy. There was some discussion regarding the form that the results will take. It was decided that a decision briefing to frame the issues and provide a recommendation on the way-ahead would be most useful to the Secretaries. Dr. Maarenen (OSD(P)) pointed out that if the product of the conference is an actual decision briefing on proposed DoD policy, this would require considerable coordination through OSD(P), and would significantly extend the timeline needed for a finalized conference product. The group agreed that the briefing will provide a recommended roadmap and offer suggestions on moving to further coordination.
- 9. Possible dates for the conference, to be held at STRATCOM, were discussed. It was agreed that the possibility of holding it the week of August 4, 2003, would be investigated.

#### Attachment 1

## List of Attendees

Mr. Beck, NNSA

Dr. Burnett, SAG (Advisor)

Dr. Younger, DTRA

Ms. Montie, DTRA

Dr. Hardebeck, US STRATCOM

RADM Byrd, US STRATCOM

Dr. Immele, LANL

Dr. Goldstone, LANL

Dr. McMillan, LLNL

Dr. Goodwin, LLNL

Dr. Beckner, NNSA

Brig Gen, Haeckel, NNSA

Dr. Maaranen, OSD(P)

Mr. Victory, OSD(P)

Col Blessing, JS

CAPT Sigg, US STRATCOM

Mr. Celec, OSD/AT&L (NM)

Ms. Stoner, OSD/AT&L (NM)

Mr. Steinhoff, OSD/AT&L (NM) (NNSA)

Mr. Hatch, OSD/AT&L (NM)

Dr. Wolkerstorfer, OSD/AT&L (NM)

Mr. Wade, NNSA

Mr. Bentley, SNL/NNSA

Mr. Schoenbauer, NNSA

Col Wilmoth, OSD/AT&L (NM)

Ms Hood, OSD/AT&L (NM)

CAPT Manaskie, JS

Dr. Stichman, SNL

Brig Gen Smolen, AF/XON

Dr. Mullins, AF/XON

Dr. Hannah, Navy SSP

Mr. Williams, OSD(P) Consultant

Invited but did not attend:

Dr. Harvey, NNSA

Dr. Payne, OSD(P)

### Attachment 2

## Panels: Draft Topics Lists and Members

## SSP Strategy and Risk Panel

#### Major Topics:

- (1) How well do we quantify risk in our current assessment of nuclear weapons [warheads and those aspects of the delivery systems that impact the risk associated with the warheads] in the stockpile?
- (2) What existing, and new SSP tools coming on-line could provide enhanced capabilities to quantify and minimize performance risk both for the legacy stockpile, and potential new or modified weapons?
  - (a) What are the anticipated limits of the extent to which improved understanding of weapon physics is basis for confidence?
  - (b) In consideration of new weapons that might be needed in a post-NPR environment, are the tools we have the right ones or do we need to develop new tools?
- (3) Are there stockpile performance issues that we cannot now or may not in the future be able to address fully, or for which developing SSP capabilities are less certain? What are the risk mitigation measures for these existing and potential gaps in our understanding?
- (4) What can we do to strengthen the process for reducing the risk in assessing the military effectiveness of our current and future stockpile?
  - (a) What is the overarching strategy for managing risks in the SSP?
  - (b) Are there alternative (foreign) approaches to managing risks that should be examined?
- (5) What is the role of nuclear testing in reducing risk in the stockpile? What parts of those risks are associated with the absence of nuclear testing, in comparison to the risk associated with a 150kt threshold or a low-yield test program? What is the uncertainty in confidence and potential risk threshold for a test recommendation---what would demand a test?
- (6) Assess the following with regards to the certification infrastructure:
  - (a) What will be the impact on (5) of the operation of the NIF over the next 5 15 years? Similarly, what would be the impact of the operation of AHF in 10 15 years?
  - (b) What are the demands on the capabilities and capacities of the Certification Infrastructure over time?
  - (c) At what level, over time, can the certification (also R&D assessment) infrastructure being develop and tested with current deliverables be transferable and agile for changing priorities?
- (7) Do we need to change the rebuild strategy for QART consumed warheads?
- (8) Is the current Annual Certification Process sufficient, or does it need to be modified to take into consideration political considerations regarding testing?

(9) What are the lessons we've learned since the Stockpile Stewardship Program began? In the decades when we were testing, tests sometimes revealed surprises. What have we learned from this?

## SSP Strategy and Risk Panel Membership

Member Name	Organization	
Ron Haeckel, Chair	NNSA	
David Rehbein	STRATCOM	
Gary Betourne	OSD(P)	
Dave Crandall	NNSA	
Bruce Goodwin	LLNL	
Ray Juzaitis	LANL	
Doug Henson	SNL	
Susan Stoner	NM	
Don Wolkerstorfer	NM	
Frank Grand	DTRA	
Rod Miller	AF	- 50
Mike Maglich	Navy	

John Birely

SAG advisor

#### Future Arsenal Panel

### Major Topics:

- (1) What are the warhead characteristics and advanced concepts we will need in the post-NPR environment?
  - (a) Establish methodology for making choices
  - (b) Strategy for selecting first "small builds"
  - (c) Requirements for low-yield weapons, EPWs, enhanced radiation weapons, agent defeat weapons
  - (d) Effects modeling capabilities to effectively plan for these weapons
  - (e) What forms of testing will these new designs require?
  - (f) What obvious weaknesses exist in our ability to attack targets and assess target damage for present and future targets and weapon systems?
- (2) How do we link service-provided platform requirements for the arsenal?
  - (a) What is the testing strategy for weapons more likely to be used in small strikes?
  - (b) Does a requirement for higher confidence in small strikes drive larger test asset inventories?
  - (c) Hardness and compatibility of conventional and dual use platforms
    - (i) How do we institutionalize these requirements?
  - (d) Leverage on existing SAGSAT efforts on dual-use platforms
  - (e) Reliability requirements
  - (f) Other requirements (e.g. precision)
- (3) Given the size and composition of the operationally deployed stockpile, are our assumptions correct as we size the stockpile? (Leverage on existing US STRATCOM and NWC work.)
  - (a) Reliability replacements
  - (b) Augmentation quantities
  - (c) Reserve
- (4) Plans for modernization of delivery platforms
  - (a) Are these plans consistent with the SSP and NMMP?
  - (b) Is the LEP schedule tuned to DoD needs?
- (5) Regarding guidance requirements and assumptions on availability of GPS:
  - (a) Is GPS, or other advanced systems, available for all plans or just special cases?
  - (b) Do we put GPS on all systems, or just a few?

#### Future Arsenal Panel Membership

Member Name	Organization
Ted Hardebeck, Chair	US STRATCOM
Pat Stanton	OSD(P)
	NNSA
Hank O'Brien	LLNL
John Immele	LANL
Steve Rottler	SNL
Steve Hatch	NM
Tom Troyano	S&TS
George Manaskie	JS
Bill Mullins	AF
Barry Hannah	Navy
Douglas Bruder	DTRA

George Miller

SAG advisor

#### NNSA and DoD Infrastructure Panel

[ Note from Fred Celec: As we circulated these draft minutes to ensure we fairly and accurately captured the discussion, we received several comments to the effect that the NWC has no legal responsibility for DOD infrastructure, and therefore the Infrastructure panel was misnamed and it's proposed work program too broad. Since we had discussed this issue at the meeting, I felt there was a good understanding within the group that DOD infrastructure discussions were limited to the DOD infrastructure that directly supported the SSP in general and the LEPs in particular. That said, I realized that to the outside reader or observer, the distinction between DOD and NNSA infrastructure to be examined by the panel was not that clear. We have attempted to more clearly draw that distinction in order to satisfy the more casual reader. If upon reading these minutes you feel we have failed to do so, do not hesitate to contact either myself or Susan Stoner.]

#### **Major Topics**

- (1) Assess the adequacy and robustness of assessment and planned capability and capacity at and NNSA design, assessment, test, and production sites and appropriate DoD facilities. Determine if the NNSA and DoD infrastructures are agile enough to support a 'small build' strategy. [Panel should look at DoD infrastructure where it impacts NNSA's ability to do its tasking—flight testing, ranges, simulators, etc.]
- (2) Examine the balance and flexibility between design, research and development, production, maintenance, and small builds.
  - (a) What is most stressing task?
  - (b) Are the required skill sets transferable and agile for changing priorities?
  - (c) Can we cover plausible unforeseen stockpile emergencies?
  - (d) What are the tradeoffs between maintenance of production capability/capacity and the supporting R&D base?
- (3) Comment on the success of implementing the Chiles Commission Recommendations and on the

health, experience, and training of design, engineering, and military staffs.

(4) What recommendations can be made as to how NNSA's SSP and DoD's programs can be better harmonized?

## NNSA and DoD Infrastructure Panel Membership

Member Name	Organization
Dave Beck, Chair	NNSA
David Rehbein	US STRATCOM
Pat Higgins	NNSA
Glenn Mara	LLNL
Don McCoy	LANL
Don Cook	SNL
Lew Steinhoff	NM
Eric Jackson	DTRA
Leonard Zentz	Navy
Roberta Carlisle	AF
	S&TS
	Production Complex Reps

Tom Seitz

SAG advisor

## Strategy and Policy Panel

#### **Major Topics**

- (1) The contribution of nuclear forces to each of the four principal defense goals: assurance, dissuasion, deterrence, and defeat
- (2) The proper relationship of nuclear forces to the non-nuclear strike and missile defense elements of the Triad
- (3) Qualitative differences in nuclear forces that may be needed to implement the strategy
- (4) Policy guidance and policy issues that must be resolved to facilitate the necessary changes in nuclear forces and infrastructure
  - (a) Reexamine the policy issues of the various levels of testing. Should the US adjust its policy on nuclear weapons testing?
  - (b) How do we frame the explanation of emerging policy to show the deterrent the value of reduced-collateral damage, precision, agent defeat, and penetrating nuclear capabilities in meeting our national security objectives?
- (c) What should be the policy and process for granting authorities to adapt and build small quantities?

Member Name	Organization
Steve Maaranen, Chair	OSD(P)
Frank Dellerman	OSD(P)
David Rehbein	US STRATCOM
John Harvey	NNSA
George Manaskie	JS
Donald Minner	DTRA
Dan Wilmoth	NM
John Immele	LANL
Michael Callahan	SNL
Ron Lehman	LLNL
	S&TS

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