

# **NUCLEAR MISSION CREEP**

## **The Impact of Weapons of Mass Destruction Proliferation on U.S. Nuclear Policy and Planning**

**Presentation by**

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**To**

**The Program on Science and Global Security**

**Princeton University**

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# Thesis:

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The ending of the Cold War and the 1991 Gulf War triggered a proliferation hype which broadened terminology and guidance for threats and doctrine, resulting in an expanded nuclear policy and planning which mirrored Soviet-style deterrence onto post-Cold War enemies.

9/11 exacerbated this development by triggering guidance and new nuclear (and conventional) strike planning to destroy WMD targets preemptively.

The result is a nuclear posture that is at lower levels but more “option-hungry” than at the height of the Cold War.

# Overview

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- Cold War end and the 1991 Gulf War
- STRATCOM and updating deterrence
- Upgrading targeting plans and capabilities
- Bringing guidance up to speed
- Conclusions and observations

# Cold War end and the 1991 Gulf War

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- Soviet mobile ICBMs
- Soviet demise shifts focus to regions
- Shock over Iraq's nuclear progress
- "Rogue" ballistic missiles against allies and US forces become new enemy
- Threat is more than nuclear: WMD

# Cold War end and the 1991 Gulf War

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## Two immediate changes

- Change in terminology: Cold War *nuclear* threat was replaced with Weapons of Mass Destruction (nuclear *as well as* chemical, biological, radiological and ballistic missiles)
- “Prudent” military planning: war planners began to identify new targets and broaden capabilities to strike them

# Cold War end and the 1991 Gulf War

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Change in terminology: WMD and “third world” enemies incorporated early into key guidance

- JCS Net Military Assessment (March 1990)
- OSD (Cheney) testimony (June 1990)
- JCS New Military Assessment (March 1991)
- National Military Strategy (1992)
- NUWEP-92 (Nuclear Weapons Employment Policy)
- Regional Defense Strategy (January 1993)
- Doctrine for Joint Nuclear Operations (April 1993)

# Cold War end and the 1991 Gulf War

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## “Prudent” military planning

- Reduction in Soviet/Russian targets
- Mobile Russian (and later Chinese) forces
- Preparing new capabilities to target “rogue states” anywhere on the globe
- “Living SLOP” and adaptive Planning

# STRATCOM and updating deterrence

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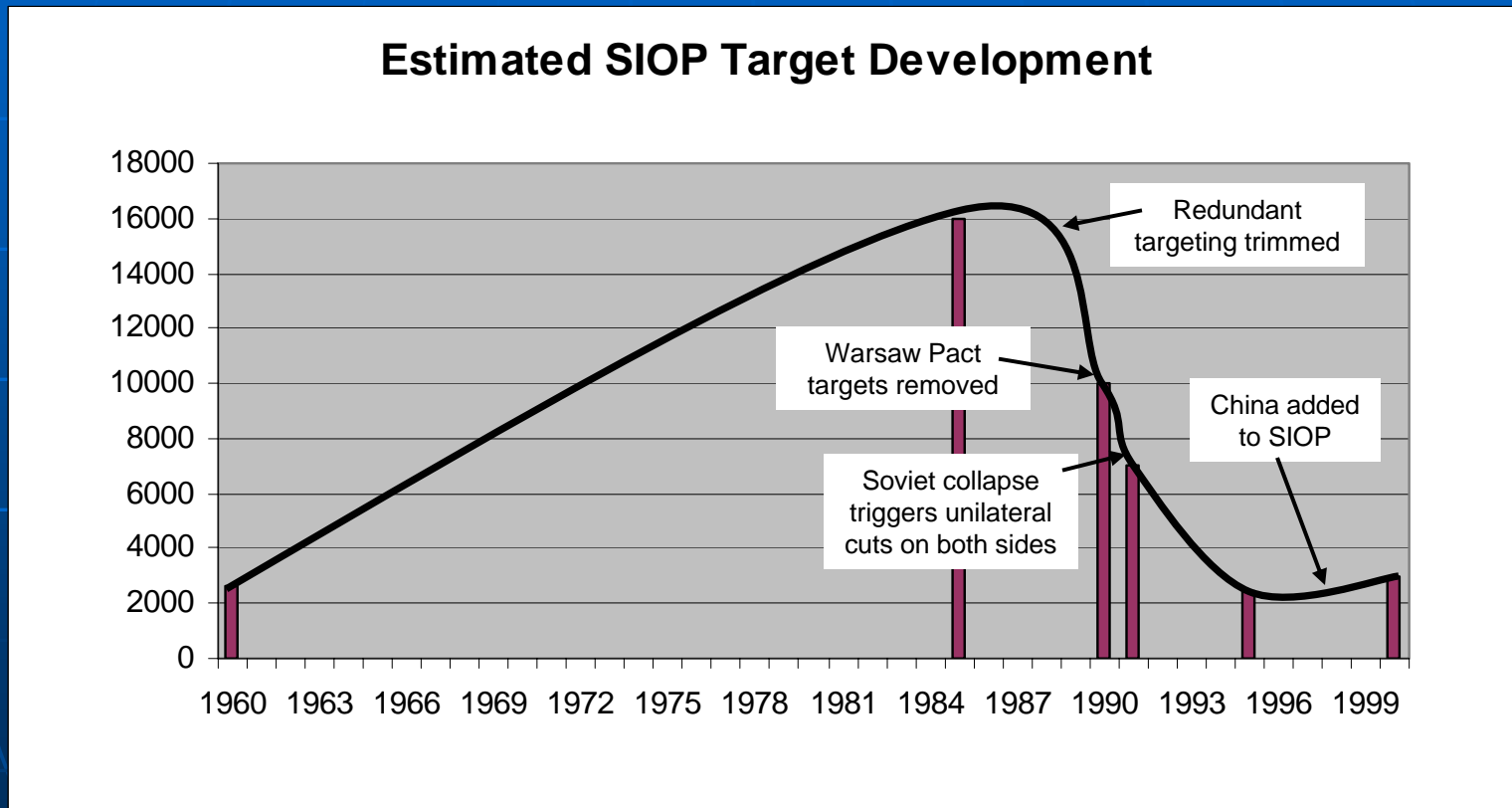
STRATCOM created “super” nuclear command

- Saw unilateral cuts as danger to stability
- Set out to restore order in US nuclear policy and “educate” civilian decision makers
  - Force structure studies in 1990s reaffirmed Cold War deterrence and force structure
  - Penalty for capability lost: nuclear warfighter drive
  - Devised ~2000 strategic warhead level as limit to how low the US can go
- Mirrored Soviet deterrence onto new enemies



# STRATCOM and updating deterrence

First challenge: arms control and reduction of targets



# STRATCOM and updating deterrence

## Targets (facilities) drive warhead requirement

Warhead to Target Ratio <sup>a</sup>			
Posture framework	Warheads	Aimpoints (DGZ) <sup>b</sup>	Installations (targets) <sup>c</sup>
START I	6000	2400	2500-3500
START II	3500	1400	1450-2000
START III	2500	1000	1050-1430
<b>SORT high</b>	<b>2200</b>	<b>880</b>	<b>926-1257</b>
<b>SORT low</b>	<b>1700</b>	<b>680</b>	<b>716-971</b>
START IV	1500	600	630-860
START V	1000	400	420-570

<sup>a</sup> Based on 1991 Phoenix Study example of 20 warheads per 8 aimpoints, or 2.5 warheads per aimpoint.

<sup>b</sup> There are more warheads than aimpoints due to layered targeting and because some warheads will fail to reach their targets for various reasons.

<sup>c</sup> There are more installations than aimpoints because targeting involves grouping installations in the National Target Base (NTB) into aimpoints where the minimum number of weapons (even a single warhead) will achieve guidance-directed Probability of Damage (PD) against individual installations or groups of installations.

# STRATCOM and updating deterrence

## Second challenge: mobile targets



~~SECRET~~  
DEPARTMENT OF DEFENSE  
UNITED STATES STRATEGIC COMMAND

Subject: SAG Policy Subcommittee Meeting - 11 Jan 96 (U)

...choices,  
choices...

(1) (U) The group again agreed that mobile strategic systems are inherently stable because they make the adversaries invulnerable to a first strike, thereby removing the incentive to strike first. Each adversary may then decide independently how vulnerable they want to be.

(2) (U) From the US perspective, we want the Russians to abandon their mobile ICBM programs because as warfighters we find them difficult (and expensive) to counter. However, since the U.S. essentially negotiated the Russians into a mobile ICBM force structure, it would be extremely optimistic to believe we could negotiate them out of this force structure.

(3) (U) The group reached consensus that USSTRATCOM, as the warfighter, should continue to pursue methods of countering strategic mobiles.

# STRATCOM and updating deterrence

## Third challenge: China

**UNCLASSIFIED**

### CHINA SCENARIOS

- **2 POTENTIAL US/CHINA ADVERSARIAL SCENARIOS IDENTIFIED**
- **1ST SCENARIO DEPICTS A US/NK/CHINA EXCURSION**
  - REGIONAL AS OPPOSED TO GLOBAL CONCERN
  - CALLS FOR AN ADAPTIVELY PLANNED RESPONSE AGAINST NK
    - » NOT A FULL SCALE ATTACK AGAINST CHINA
  - DPF, NSNF, OR CONVENTIONAL (CALCM/TLAM-C) RESPONSE MORE APPROPRIATE SOLUTION
- **2ND SCENARIO FOCUSES ON A CHINA/CONUS CONFRONTATION**
  - IMPLIES A NEED FOR A MAJOR-ATTACK RESPONSE PLAN

**UNCLASSIFIED** **USSTRATCOM**

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STRATCOM, "Sun City Extended," 1994

# STRATCOM and updating deterrence

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## Fourth challenge: targeting the new enemies

- “The possibility that Third World nations may acquire nuclear capabilities has led the Department to make adjustments to nuclear and strategic defense forces and to the policies that guide them.” (Dick Cheney, February 1992)
- “Our focus now is not just the former Soviet Union but any potentially hostile country that has or is seeking weapons of mass destruction.” (Gen. George Lee Butler, January 1993)
- The post-Cold War target base would consist of “fewer but more widespread targets.” (STRATCOM, 1993)

# STRATCOM and updating deterrence

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...targeting the new enemies

- CINCSTRAT's Strategic Advisory Group (SAG) work
- Policy Subcommittee (Paul Robinson, SNL) studies
- Essentials of post-Cold War Deterrence (1995)
- Test it on Iran, "no do North Korea instead"
- Reaffirmed ambiguity in nuclear policy
- Provided conceptual basis for expansion of doctrine to deter also chemical, biological, radiological weapons and ballistic missile

# STRATCOM and updating deterrence

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## So who is the Strategic Advisory Group?

Charles E. Allen  
Michael R. Anastasio  
John Robert Beyster  
John H. Birely  
William B. Black Jr.  
James R. Burnett  
Brig Gen (USAF Ret) John L. Clay  
John C. Crawford  
Victor A. DeMarines  
Bran Ferren  
VADM (USN Ret) David E. Frost  
Sydell P. Gold  
Priscilla E. Guthrie  
Keith R. Hall  
Richard L. Haver  
MGen (USAF Ret) Ralph H. Jacobson  
Gen (USAF Ret) James P. McCarthy

George H. Miller  
Gen (USAF Ret) Thomas S. Moorman Jr.  
VADM (USN Ret) George Peter Nanos Jr.  
John H. Nuckolls  
Keith B. Payne  
Victor H. Reis  
Paul Robinson  
Richard T. Roca  
Thomas P. Seitz  
Robert W. Selden  
RADM (USN Ret) John F. Shipway  
John P. Stenbit  
Richard L. Wagner Jr.  
Gen (USAF Ret) Larry D. Welch  
RADM (USN Ret) Robert H. Wertheim  
Michael O. Wheeler  
Stephen M. Younger

# STRATCOM and updating deterrence

## Essentials of post-Cold War Deterrence

(Tasking for the Policy, Weapons, and Intelligence Requirements Subcommittees):

[The Policy Committee was requested to prepare a Terms of Reference that could be used as a baseline for the other subcommittees to use in expanding the concept of Deterrence of the Use of Weapons of Mass Destruction.]

### Essentials of Post-Cold War Deterrence

1995

#### Introduction

Over the period of the Cold War, both the United States and the Soviet Union developed an understanding of deterrence and its role in preventing war with one another. With the end of the Cold War and the spread of Weapons of Mass Destruction, deterrence takes on a broader multinational dimension. This paper addresses the broader view of deterrence and the question, "How do we deter nations, other than the Former Soviet Union, from using Weapons of Mass Destruction?"



# STRATCOM and updating deterrence

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## ...Essentials of post-Cold War Deterrence

- Argued that rogue leaders are not undeterrable
- Argued that deterrence of the Soviet Union “never depended on having ‘rational’ leaders.”
- Negative Security Assurances are counterproductive
- Hold at risk the those targets that are valued the most
- No-first-use policy undercuts deterrence
- Irrational U.S. streak should serve “the essential fear” that makes deterrence work
- Elimination of nuclear weapons only in the context of complete and general disarmament
- Nuclear weapons cannot be “uninvented”
- Nuclear weapons will remain “the centerpiece” of US strategic deterrence for foreseeable future

# STRATCOM and updating deterrence

## ...Essentials of post-Cold War Deterrence

- New level of imagination needed in post-Cold War era

The story of the tactic applied by the Soviets during the earliest days of the Lebanon chaos is a case in point. When three of its citizens and their driver were kidnapped and killed, two days later the Soviets had delivered to the leader of the revolutionary activity a package containing a single testicle—that of his eldest son—with a message that said in no uncertain terms, “never bother our people again.” It was successful throughout the period of the conflicts there. Such an insightful tailoring of what is valued within a culture, and its weaving into a deterrence message, along with a projection of the capability that can be mustered, is the type of creative thinking that must go into deciding what to hold at risk in framing deterrent targeting for multilateral situations in the future. At the same time this story illustrates just how much more difficult it is for a society such as ours to frame its deterrent messages—that our society would never condone the taking of such actions makes it more difficult for us to deter acts of terrorism.

# STRATCOM and updating deterrence

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## ...Essentials of post-Cold War Deterrence

- Deterrence template scheduled for test on Iran in 1995
- STRATCOM decided to use on North Korea instead

### Real-World Use in 1995

Congress: What role have nuclear weapons played in preventing WMD from being used by Rogue states?

“In my view, sir, it plays a very large role. Not only was that message passed in 1990 by the President [to Iraq], that same message was passed to the North Koreans back in 1995, when the North Koreans were not coming off their reactor approach they were taking [sic].”

*Gen Eugene Habiger, CINCSTRAT, 1997*

# Upgrading targeting plans and capabilities

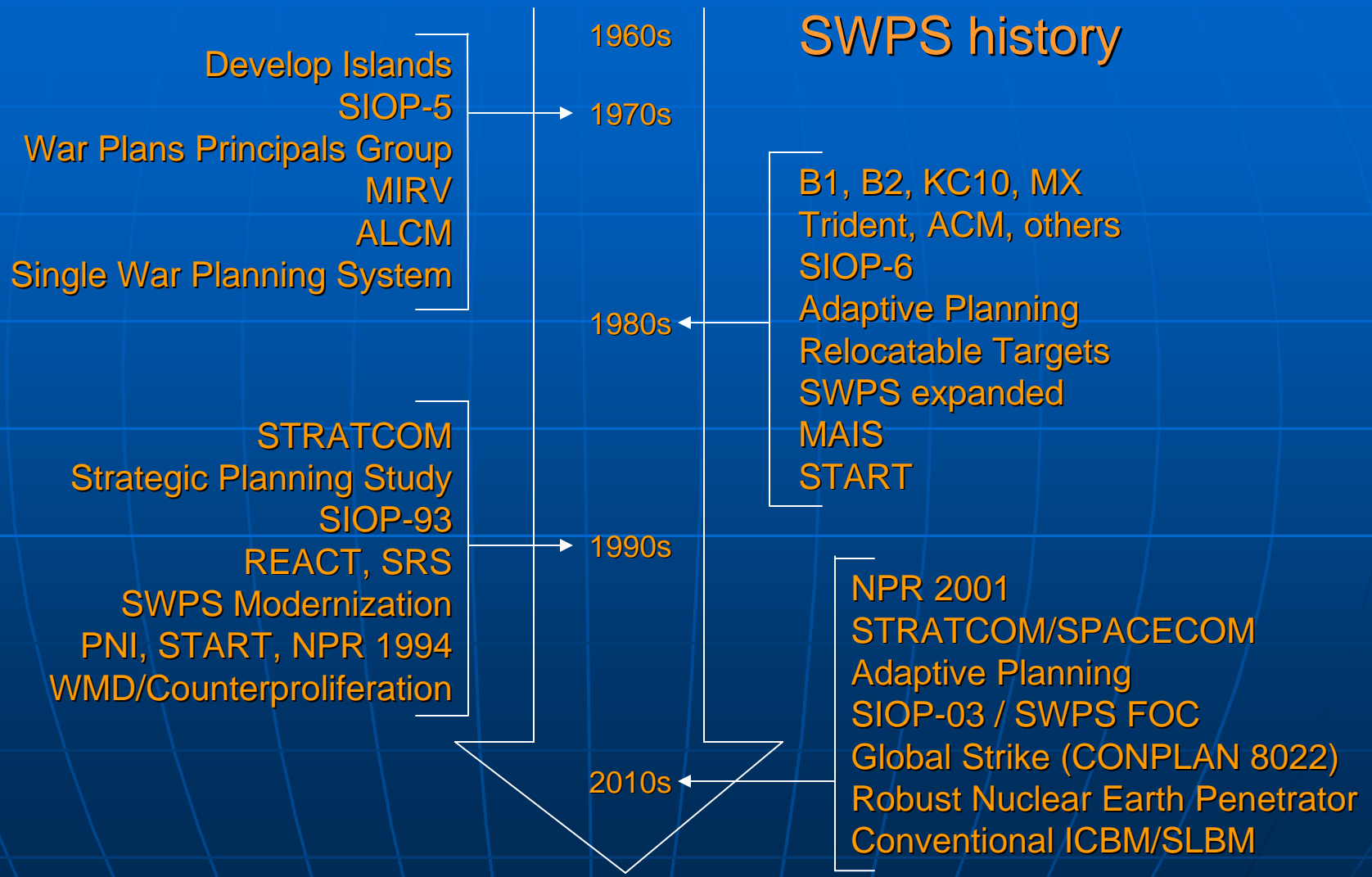
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## Modernization of the Strategic War Planning System

- Declining target base but expanding globally
- Basic war plan plus additional options
- Flexibility stressed in guidance
- Shorter planning cycles (reduce from 18 to 6 months)
- Rapid Adaptive Planning for small attacks
- Impact from changing/declining force structure
- Fewer ballistic missiles with MIRV
- Changing role for bombers (backup)
- Constrained funding and manpower

Modernized SWPS objective: a “Living SIOP”

# Upgrading targeting plans and capabilities



# Upgrading targeting plans and capabilities

## SWPS modernization (1993-2003)

- Strategic Modernization Plan (1993)
- Initial Operational Capability late 1998
- Full Operational Capability 2003
- Interfaces with regional planning systems
- Incorporate non-strategic nuclear forces (TLAM/N and DCA)
- Non-nuclear application (TLAM/ALCM-C)

## Followed by another modernization plan (2004-2014)

- 2001 NPR
- Integrate nuclear, conventional, space, MD, IW
- Adaptive/crisis planning focus

# Upgrading targeting plans and capabilities

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## NPR States New Capabilities Are Needed:

“The current nuclear planning system, including target identification, weapons systems assignment, and the nuclear command and control systems requirements, is optimized to support large, deliberately planned nuclear strikes. In the future, as the nation moves beyond the concept of a large, Single Integrated Operational Plan (SIOP) and moves toward more flexibility, adaptive planning will play a much larger role.”

*NPR Report 2001, p. 29.*

# Upgrading targeting plans and capabilities

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...actually, already extensive incorporation of adaptive planning over the last decade:

- 1993 Strategic War Planning System (SWPS) study
- SWPS Modernization completed 2003
- Created “Living SIOF”
- Reduced complete overhaul from 18 to 6 months
- Major plan production in 4 months
- Limited options in 24 hours



# Upgrading targeting plans and capabilities

Some adaptive planning capability already existed  
10 years ago...

“Within the context of a regional single or few warhead  
detonation, classical deterrence already allows for  
adaptively planned missions to counter any use of  
WMD.”


*STRATCOM, answer to 1994 Nuclear Posture Review  
Working Group Five.*

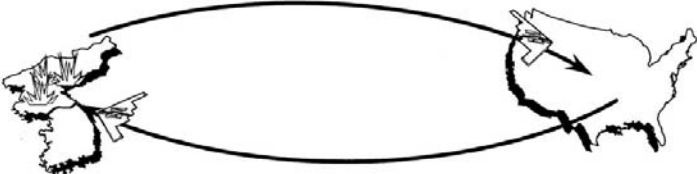
...but adaptive planning is underpinning  
everything today and will proliferate the number  
and character of strike options

# Upgrading targeting plans and capabilities

## Example of new planning capability: B-2

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~~SECRET~~

 **CONUS TO CONUS  
EMPLOYMENT**



- Most responsive option for contingency or short warning
  - Theater basing rights not required
- CONUS operations limited by maximum flying hours

UNCLASSIFIED  
~~SECRET~~

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October 1, 1997: B-2 replaces B-1 in SIOP (SIOP-98)

- Planning and processing of a single SIOP sortie took “well over” 24 hours to complete
- November 1998: STRATCOM orders new timelines incorporated into B-2 planning documents
- Deliberate planned missions: no more than 24 hours
- Adaptive planned missions: no more than 8 hours

# Upgrading targeting plans and capabilities

## Example of new planning capability: SSBN



October 2003: Navy completes deployment of submarine-launched ballistic missile retargeting system (SRS) on strategic submarines:

- enables SSBNs “to quickly, accurately, and reliably retarget missiles to targets” and “allow timely and reliable processing of an increased number of targets” (!)
- will “reduce overall SIOB processing” time and “support adaptive planning”

# Upgrading targeting plans and capabilities

## Example of new planning capability: targeting

### Support of Regional CINCs and NATO:

- Theater Nuclear Support mission
- SILVER Books (1993-1995)
- NATO Nuclear Planning System (NNPS)
- ISPAN (2003-)

# Upgrading targeting plans and capabilities

## Example of new planning capability: STRATCOM

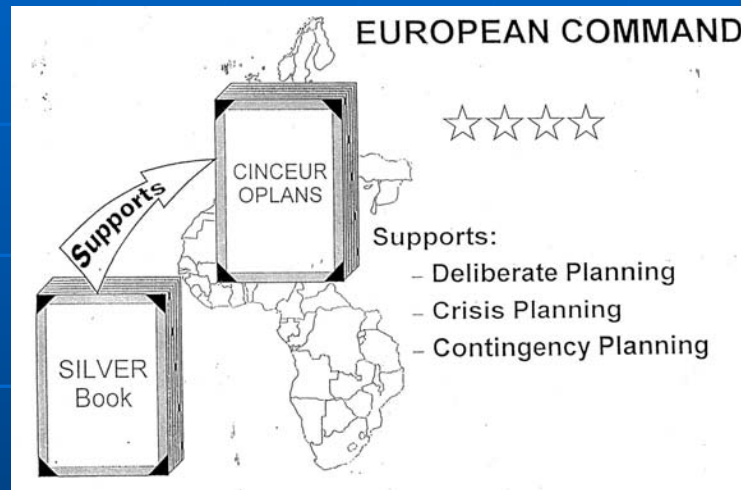


### Theater Nuclear Support System:

- Assist regional CINCs with designing and maintaining theater nuclear strike plans
- Mission assigned to STRATCOM in June 1994: Joint Strategic Capabilities Plan nuclear Annex C (JSCP CY 93-95)
- JSCP CY 93-95 included also guidance for CINCs “requesting preplanned targeting outside their own AOR”

# Upgrading targeting plans and capabilities

## Example of new planning capability: STRATCOM



### SILVER Books (1993-1995):

- SILVER = Strategic Installation List of Vulnerability Effects and Results
- “the planning associated with a series of “silver bullet” missions aimed at counterproliferation“
- Targets: nuclear, chemical, biological and command, control and communications (C3) installations
- SILVER Book for EUCOM/PACOM
- Jan 2005: STRATCOM asked to coordinate all military efforts to oversee WMD destruction capabilities

# Upgrading targeting plans and capabilities

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## Example of new planning capabilities: NATO

### NATO Nuclear Planning System (NNPS):

- “designed to automate NATO’s coordinated adaptive nuclear planning process”
- Enables dispersed users to access the NNPS server at SHAPE Headquarters via remote fixed and mobile PC workstations
- Develop Major Contingency Options and Selective Contingency Option plans (target development, DGZ construction, force application, aircraft route planning, timing and deconfliction, and consequences of execution)
- Prepare planning products and messages for external commands and agencies

# Upgrading targeting plans and capabilities

## Example of new planning capabilities: STRATCOM

### ISPAN (Integrated Strategic Planning and Analysis Network)

(previously Strategic War Planning System)

- Contract awarded in 2003 to Lockheed Martin for 10-year modernization (continues SWPS modernization from 1993-2003)
- Nuclear/conventional strike and missile defense planning

“the system will assess a given situation and present DOD decision-makers with potential courses of action. For each option, the war planning system will determine the probability of success, potential collateral damage, timing and other details. Military officials can then execute one of the options, or change the planning parameters to see a new set of options based on different requirements.”

*Lockheed Martin, May 2003*



# Upgrading targeting plans and capabilities

## Example of new planning capabilities: STRATCOM

### Changing the nuclear war plans

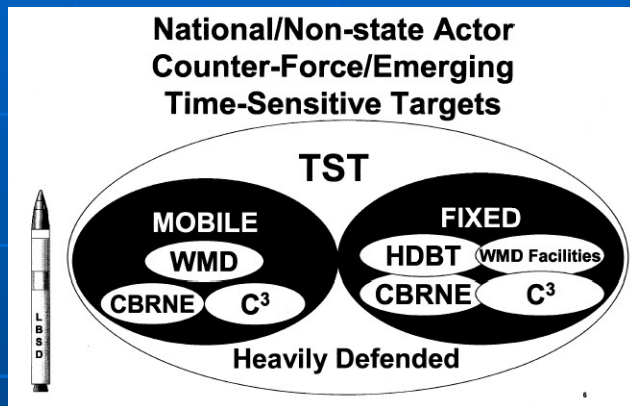
“STRATCOM has revised our strategic deterrence and response plan that became effective in the fall of 2004. This revised, detailed plan provides more flexible options to assure allies, and dissuade, deter, and if necessary, defeat adversaries in a wider range of contingencies.”

CJCS General Myers, February 2005

- SIOP is dead; since 2003 Operations Plan 8044
- Global Strike (CONPLAN 8022) entered into effect in April 2003
- Prompt strike (minutes to hours) against targets not included in deliberate (preplanned) plans.

# Upgrading targeting plans and capabilities

## Global Strike Integration: New ICBM



- Credible & effective Land-Based Strategic Deterrent (LBSD) required in 2020-2040
  - 2001 Nuclear Posture Review
  - USSTRATCOM Directive 8044 and 8022
  - Space Force Applications Mission Area Plan
  - Peacekeeper retirement (2007)
  - Minuteman III service life expiration (2020)

US Air Force, Land-Based Deterrence  
Capability Concept of Operations, 2004

- “Elite” Minuteman III
  - Payload options: W78 / W87, “newly designed reentry vehicle” with “low or multiple yield weapons.”
- Next-generation ICBM
  - Initiated by 2001 NPR
  - Mission need statement Jan 2002
  - Deployment 2018-2040
  - Nuclear and conventional
  - Very wide range of targets including surface, sub-surface, and non-state actors
  - Global reach
  - Real-time & in-flight retargeting capability

# Bringing guidance up to speed

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## Clinton disengaged and guidance late

- 1990: JCS Net Military Assessment (WMD)
- 1992: National Military Strategy (WMD)  
NUWEP-92 (Nuclear Weapons Employment Policy)  
JSCP (Joint Strategic Capabilities Plan) (WMD)
- 1993: Doctrine for Joint Nuclear Operations
- 1994: Nuclear Posture Review
- 1995: Doctrine for Joint Nuclear Operations
- 1996: JSCP
- ▪ 1997: Presidential Decision Directive (PDD-60)
- 1999: NUWEP-99
- 2000: JSCP

# Bringing guidance up to speed

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## But Bush administration has been busy:

- 2001      QDR, NPR, 9/11 set stage
- 2002      Jun 28: Contingency Planning Guidance  
              Jun: NSPD-14, “Nuclear Weapons Planning Guidance”  
              Sep 14: NSPD-17, “National Strategy to Combat Weapons of  
                  Mass Destruction” (secret)  
              Sep 17: National Security Strategy of the United States  
              Oct 1: JSCP FY 2002  
              Dec 10: “National Strategy to Combat Weapons of Mass  
                  Destruction” (public)  
              Dec 16: NSPD-23, “National Policy on Ballistic Missile  
                  Defense”
- 2003      Mar: “Nuclear Posture Review: Implementation Plan”  
              Apr: CONPLAN 8022-01  
              Jun 4: CONPLAN 8022-02

# Bringing guidance up to speed

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## ...Bush administration has been busy:

- 2004
  - Defense Planning Guidance 2004-2009
  - Feb: "Strategic Deterrence Joint Operating Concept."
  - Mar 13: National Military Strategy of the United States
  - Mar 15: Strategic Planning Guidance FY 2006-2011
  - Apr 19: NUWEP
  - May 24: ACC Global Strike CONOPS
  - May: NSPD-34, "Fiscal Year 2004-2012 Nuclear Weapons Stockpile Plan"
  - May: NSPD-35, "Nuclear Weapons Deployment Authorization" (Europe)
  - Nov: "Strategic Deterrence Joint Operating Concept."
  - Dec 31: JSCP Annex C FY05
- 2005
  - Jan 10: Global Strike Joint Integrating Concept, Version 1
  - Aug: Doctrine for Joint Nuclear Operations (JP 3-12)

# Conclusions and observations

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## Significant numerical warhead reductions, but...

- Geographical expansion of US nuclear deterrence reach beyond Russia/China to “rogue” states and “non-state actors”
- Target expansion beyond nuclear to CBRNE (chemical, biological, radiological, nuclear, advanced high-explosives)
- Role of nukes not lessened; size of posture has lessened but scope and utility has been expanded and reaffirmed
- Cold War posture maintained (Triad): “New Triad” increases profile of conventional and defense in addition to nukes
- Vastly more flexible and adaptive nuclear war planning system (responsiveness is core)
- Capability-based (vs. threat-based) planning: technology driven
- Arms control disconnected from national security equation
- Option-hungry doctrine drives strike planning: deterrence will fail and nuclear role becomes increasingly expeditionary