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“Whither Deterrence”

**Center for Global Security
Research**

2001 Futures Project

**Summaries from the Initial
Workshop**

Washington, DC

May 1-2, 2001

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Threats Working Group Summary

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Threats depend upon role the US takes (depends on US interests)

- Global leader
 - Dominant militarily and share role with others
- Or Balance of Power
- Or Complacency/Self-Deterred
 - Challenge introduced due to need to establish consensus in US
- Changing US diversity (age, ethnicity) can impact US self image and therefore our international role

- Consensus building applies to all issues
- Differentiate establishing consensus vs sustaining consensus; sustaining probably more difficult
- How to sustain when you have a presidential election every four years
- Complacency could be compared to «inter-war» period, i.e. 1930's or post-Spanish-American war
- Economic threats may be independent and significant drivers
- Significance of decisions US makes and impact on others; complex, dynamic responses
- How to incorporate ties to others

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What is Deterrence and what do we want from it?

- Stability vs Security
 - Unintended consequences of security measures
 - Freedom of action vs status quo
- Sustaining viability of US deterrent
- Ensuring credibility
 - Political will
- Toolkit (not just nuclear)
 - Understanding motivations (values) and capabilities of both Adversaries and US (declarations, actions)

- Need to redefine «deterrence»
- What is the dissuasion-deterrence relationship?
 - Is this purely semantic?
- How do our adversaries/partners think about deterrence and act?
 - Russians and Japanese did not have a word for deterrence
 - Need process to clarify and convey meaning
 - Essential to establish a conceptual identity amongst the parties to any agreement, key to policy agreements
- Need to mutual understand our values as well as our adversaries values
 - Additionally need to understand motivations and capabilities
- Credibility linked to fulfilling our commitments, whether fully stated or implied
 - How do others perceive our commitments?
 - What have we done to bind ourselves to those commitments?
- Do we think of deterrence as mainly nuclear, and is it fear based
 - What are the roles for non-nuclear regimes and capabilities?
 - Different tools for different purposes: we understand the use of a tool for it's main purpose, but we don't necessarily understand how the tools work outside their range, i.e. nuclear deterring nuclear, vs nuclear deterring other?
 - Are there any gaps in deterrence? Missing tools: regimes, forces?
- Extended deterrence extremely complicated in multiporal world.

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New Aspects for Deterrence

- One size doesn't fit all
- Failure of Deterrence
- Self Deterrence
- Countering others deterrence strategies
 - Protecting our vulnerabilities
- Multi-polarity introduces complexity
 - multipolar = multi-bipolar?

- Not necessarily all new concepts, but revisiting these concepts in light of the new world
- How we look at failure depends on how we look at consequences
- Larger complication today is understanding what we mean by «success»
- Multi-polarity is at the heart of the threat question

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What happens if deterrence fails?

- Risk management must include this possibility
- Must have response options
 - Escalate? Withdraw?

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Future is uncertain

- Requires managing risk
- Tools must go beyond nuclear
- Option: Scenario-based Planning?
- Increased resistance to US dominance
- Attribution is difficult
- Effectiveness and impact of defense

- Attribution is difficult but with the proper type of intelligence we can target those who «harbor» terrorist
- Need to go beyond «scenario based planning» as this may drive us to the «worst case»

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Some things are certain

- Nukes still major factor
- BW a threat and very uncertain
- Number of players increase
- US deeply involved in global situation
- US dominant in conventional capability but globalization levels playing field
- Difficult to achieve and maintain broad consensus within US (US roles, commitments, forces)
- US viewed as arrogant and unpredictable by adversaries (and even by friends)

- US conventional capability may not be dominant in all cases; adversaries may have niche superiority
- As numbers draw down, other's smaller nuclear arsenals may be more relevant and more of a threat
- Globalization may or may not lead to increased vulnerabilities; US capabilities will improve, but so will others
- What are the transforming events that could shake the world
 - Nuclear use
 - Failed states
 - Nuclear accidents
 - New major players: Korea, Japan
 - BW use
- What are our international economic dependencies?
- Transnational markets and multinational corporations playing in international sphere
- Impact of US dominance and the world opinion is key

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Actor/Threat Grouping

- Russia/China are the major concerns
 - But Russia is not equal to China
- Regional (South Asia, Middle East)
 - Coupled to Russia/China issues
- Rogues
- Terrorists
- High Latent/Existing Capability

- In particular situations, adversaries may be an allies; not necessarily stable groupings
- What are the derivative threats, i.e. situations that do not involve us directly
 - Do we offensively prevent or do we defensively get drawn in?
 - Do we worry about being drawn in too late?
 - Even if we never get involved, how would we be impacted, i.e. Iran/Iraq or India/Pakistan?
- What is the vulnerability of US to the different threats?

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Discussion – Threats Working Group

- Consensus building applies to all issues
- Differentiate establishing consensus vs sustaining consensus, sustaining probably more difficult
 - How to sustain when you have a presidential election every four years
- Complacency could be compared to «inter-war» period, i.e. 1930's or post-Spanish-American war
- Economic threats may be independent and significant drivers
- Don't fully understand significance of decisions US makes and impact on others
- How to incorporate ties to others

- Need to spend time defining deterrence
- What is the dissuasion-deterrence relationship?
 - Is this purely semantic?
- Do our adversaries/partners agree with us on the meaning of deterrence?
 - Russians and Japanese did not have a word for deterrence
 - Need to have an education or discussion process to agree on meaning
 - Essential to establish a conceptual identity amongst the parties to any agreement, key to policy agreements
- Need to understand our values as well as our adversaries values
 - Additionally need to outline our motivations and capabilities
- Credibility linked to fulfilling our commitments, whether fully stated or implied
 - How do others perceive our commitments
 - What have we done to bind ourselves to those commitments
- Do we think of deterrence as mainly nuclear, and is it fear based
 - What is the role of non-nuclear
 - Are there any gaps in deterrence, nuclear deterring nuclear, vs nuclear deterring other
 - Have different tools for different purposes, we understand the use of a tool for it's main purpose, but we don't necessarily understand how the tools work outside their range, i.e. how does nuclear deter other than nuclear
- Extended deterrence complicates how we think or problems
-
- Not necessarily all new concepts, but revisiting these concepts in light of the new world
- How we look at failure depends on how we look at consequences
- Larger complication today is understanding what we mean by «success»
- Multi-polarity is at the heart of the threat question
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- Attribution is difficult but with the proper type of intelligence we can target those who «harbor» terrorist
- Need to go beyond «scenario based planning» as this may drive us to the «worst case»

- US conventional capability may not be dominant in all capabilities

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- As numbers draw down other nuclear powers may be more relevant and more of a threat
- Globalization may or may not lead to increased vulnerabilities
- What are the transforming events that could shake the world
 - Nuclear use
 - Failed states
 - Nuclear accidents
 - Change in nuclear choice, i.e. Korea, Japan
 - BW US
- What are our economic dependencies
- Transnational markets and multinational corporations
- Impact of US dominance and the world opinion is key

- In any particular situation an adversary may be an ally, not necessarily a stable grouping
- What are the derivative threats, i.e. situations that do not involve us directly
 - Do we offensively prevent or do we defensively get drawn in
 - Do we worry about being drawn in too late
 - Even if we never get involved, how would we be impacted, I.e. Iran/Iraq or India/Pakistan
- What is the vulnerability of US to the different threats

Discussion: What more should be done

- Need to include others who are not nuke advocates, or don't believe nukes are relevant any longer
 - What does the military see as the drawbacks with what they are currently being provided
- With improved guidance, conventional may now be a viable counter to nuclear
- WMD attack may be countered by BMD
- Deterring large scale conventional may be
- Effects based operations links strategic ends to operations
 - New tools, precision, stealth, predicting what our adversaries will do
- What are the implications of planning operations
- Talking down deterrence can change the behavior of our adversaries and allies
 - Morality of use of nukes
 - Coupling between size of stockpile and deterrence
- Integration of groups II and III
- What are others doing in considering their nuclear doctrine
 - Russia, India, etc.

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Policy and Diplomacy Working Group Summary

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Defining Deterrence

- Still here
- Not just nuclear
- Needs a broad range of capability
- Needs to be tailored to the adversary
- Will is required
- May need to use different terminology
 - Defense
 - Assurance (element of non-proliferation)
 - Dissuasion
- Requirement to deter escalation, not just outbreaks

- Avoid unavowed consequences from adversaries
- Don't always know what will work
- Capabilities always are forward looking, assessing will reflects on the past
- Deterrence is what your adversary believes your capabilities are, not necessarily requiring a demonstration

Graphic in three dimensions:

threats

means

capabilities

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Stability and Security

- Is America prepared to be the world's stabilizer
 - Is this a fundamental change?
 - Where might the US selectively decide to be the stabilizer?
 - Selective geographically, where our interests are
- Tension between stability and security and the role of US power
 - A secure America does not necessarily mean a more secure world
 - "Net" Security
- Not a "zero sum" game
 - But the choices we make impact on others

- To what extent will we play the world's stabilizer and where might we choose to do this
 - Where would we use military force
- Impact in ways that are not necessarily obvious

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Transforming Events

- Use of WMD
- Obsolescence of nukes
 - Emergence of new weapons technology
- Emergence and impact of Information Technology
- Effective missile defense
- Europe
 - Withering of union
 - More independence
- Need to test
- Space deployment

High degree of uncertainty of what the transforming event will be, when it will occur, and where

- Either the world is utterly disturbed or «nothing» happens and the use becomes acceptable
- Need to be prepared to respond politically and decisively
- Jurisdictional issues
- Far East: Korean Unification and impact both from US and Japan
- China adopts Taiwan
- Transforming events precipitated by the US
 - Smart and dumb

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Transforming Events

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Future of Arms Control: US role in "rule-based" institutions?

- Establish rules of the game early-on against BW use
 - May need to act quickly and decisively
 - Need consultation with others
- US participation in international cooperative operations essential but creates constraints
- A multilateral rule-based system will not always be consistent with the US need to behave as a super-power
 - Multilateral actions not always decisive, however
 - US unilateral actions undercut a rule-based system
 - Unilateral actions do not have binding constraints
 - Informal rules can be manipulated to a US disadvantage

Is there a middle ground between rule-based regimes and unilateral (potential anarchy) behavior? Something new is needed.

- Do the rule based institutions have a deterrent value
- Does it only lend a legitimacy for working with our allies?
- Are rule-based institutions only established to harmonize the extreme of adversaries
- Can the most useful rule-based institution include an alliance of «like-minded» individuals
 - Commonality of interests
- What is the international security architecture and where is it going
 - Positive and negative security assurances
 - Alliances
- Use rule based systems to enforce «unenforceable» agreements
- For the rest of the world the greatest uncertainty is the US and in many ways they shape how they respond based on how we behave their perception of our behavior
 - Unintended consequences

Put together a graphic laying out the different options on the continuum of «alliances» and organizations, what we hope to accomplish, how we participate, what the «rules» are

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Extended Deterrence: "Assurance"

- Range of situations
 - Europe: relatively assured complacent allies
 - Turkey (new NATO nations): not confident about security
 - Middle East
 - Asia: high uncertainty
 - India-Pakistan situation
 - Korean unification changes calculus
 - China armament
 - Japan's reactions
 - Taiwan evolution

Are we driven by fear of universal proliferation enough to provide extended protection far more broadly?

- Is there an equivalent capability to tactical nukes that we will offer to our allies
 - BMD
 - Shared intel assets

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Extended Deterrence Methodologies

- Maintaining ambiguity regarding "no first use"
- Extent of MD and TMD
- How far does US commitment extend
 - Geographically
 - To different threats
- Use of non-military resources, e.g. \$ or other aid

- Is there an equivalent capability to tactical nukes that we will offer to our allies
 - BMD
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Other issues

- One certainty is uncertainty
 - How does policy making occur in the face of uncertainty?
- What do we want from deterrence?
 - What level of confidence do we seek?
- Need for advanced intelligence in the broadest sense
 - Training of country/area specialists
 - Don't know what we know
 - Organizing principles

*Need to identify and address the hard choices for today's
policy makers*

- Should we be planning against a specific threat or flexibility to a range of threats
- Should be we looking at confidence against level of deterrence (graphic)
 - Increasing confidence level with increasing deterrence

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Discussion: Policy/Diplomacy Working Group

Who, What, How of Deterrence

Questions

- Role of nuclear weapons?
- Clarity vs ambiguity?
- Dissuasion?
- What do we need to know about states we didn't consider in the past?
- Is defense a deterrent
- Webster's defines deterrence as "keeping or instilling fear, anxiety, doubt
- Is it just nuclear?
- How to address the nuclear/conventional balance
- What can be done about other types of retaliation US choice of weapons system
- Best deterrent of CBW is CBW
- Threat of use, but not actual use
- Deterrence has failed if used
- How do we get into the mental process of the threat and prevent action
- Need to focus on capabilities and preparedness of toolkit, not on mental games
- How do we shape the decisions of others by manipulating cost/benefit of others
- Action
- Actor
- Capabilities
- Will to respond
- Communication
- Continuum from compromise to threat to use
- Need define well what we don't want done
- Need to communicate willingness to respond "ultimately"
- What is meant by "ultimately"
- Ability to shape the cost/benefits of a course of action
- Defenses will be vital
- Die
- Not accomplish mission
- Consider American psyche/will or value system
- Militia mentality
- No consensus on vital interest
- Homeland threat could change our response
- What are we deterring
- Is it extended and how
- Has the nature of the threat changed? (BW)
- Could be introduced gradually
- We don't have a response
- Denial, retaliation, dissuasion included?
- Diplomacy needs to be backed up by power
- Bluffing can be used
- What do we want and need to communicate in terms understood by our adversaries
- Distinction between deterring

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- Nuclear
- BW
- Limited use
- Lives lost
- Cost of no action
- May not know
- Conventional
- Holistic, may have applicability to broad spectrum
- Not enough intel investment
- Knowledge based tools not just hardware
- Understand leadership structure
- Ambiguity
- More difficult today
- Good intel needed
- Did we communicate well with SU
- May not have shaped their thought process
- Did communicate how to play game
- Avoided war
- World learned from US/SU interaction
- When vague, favor ambiguity
- US far less parochial today
- Inevitable for US
- Don't understand values of others ("crazies")
- How do we understand
- Do we have the tools to hold the things they value at risk
- Resolve how to communicate
- Deterrence is not credible/reliable – UNCERTAIN
- Must consider defense/punishment (Payne)
- Deterrence is so uncertain we must depend upon defense
- Deterrence is based on threat-retaliation and is likely to fail
- Defense is a tool
- Broaden dissuasion from not only negative to positive (not just "fear, anxiety, doubt")
- "buy-off" incentives
- What are the tools
- What are we trying to dissuade
- Does deterrence hold with either suicidal terrorists or desperate leaders
- Defenses
- Bin Laden
- Get out of the Middle East or get rid of him
- BW
- Deterrence through defenses unreliable
- With SU we underestimated actual willingness of Soviet population to withstand another war on foreign territory following WWII
- Soviet-US model not applicable to the future

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Key Issues

- **Transforming Events**
- **Understanding role of US globally**
 - **How demonstrate political will**
- **Positions US takes in rule-based institutions and regimes**
 - **Arms control**
 - **Multilateral regimes**
- **Stability strategies**
- **Stability-security**
- **Counterproliferation**
- **Elements constituting extended deterrence**
- **What do we want deterrence to do?**
- **Informal Arms Control**
- **What do we do if deterrence fails**
- **Building strategic relationships with China and India (Asia)**

Stability-Security

- Cannot be “zero-sum” game
- Choices we make can impact others
- How US pursues security in the modern era?
 - Actions generate reactions
 - Drives perceptions
 - More secure America does not necessarily mean more world stability
 - How to calculate our “net” security
- Does US power = stability?
 - If US is the ordering power
- Stability in
 - BMD
 - Preemptive options
- Is America prepared to be a world stabilizer?
 - Is this a fundamental change?
- Our ability to project power/threat (prevention proliferation) is more stabilizing
 - Requires active US role
 - Global police
 - When does global proliferation lead to abolition
- Global Health system a stabilizing factor for preventing the spread/use of BW?
- Where might the US want to selectively be the stabilizing power
- Power
 - Political, military, economic
 - Not done alone (unilaterally)
- Consider US as a facilitator

US Role in Rule-Based Institutions

New issues introduced by president

Arms control is not in our interest

Consult with our allies

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New framework beyond the ABM

Reductions – unilateral

Not anarchy, but not rule based

- Establish rule against BW use, especially once first use occurs
 - Use US power to garner support from other countries to make the cost of use high
 - Don't worry about acquisition, control, defense
 - Enforce Geneva protocol
 - Tension between regime of no first use and our own security?
- How do we handle player who don't play by the rules
- US participation in cooperative undertakings
 - UN
 - NATO
- Multipolarity
- Rule based system not balanced with sole "super power" US
- US unilateral actions have impact
- UN security council not decisive
- Is there a middle ground between rule-based regime and unilateral "anarchy"
- Take a unilateral+ or layered approach
- CBM
- CTR
- Formal data exchange
- Where does reciprocity fit in
- Define "legally" binding
- Ratified by other countries
- Can informal rules be manipulated to a US disadvantage
- Need something new to put on the table when we walk away from formal negotiated protocols

Extended Deterrence – "Assurance"

- Consider maintaining ambiguity around "no first use"
- Recognize differences between:
 - Europe
 - Reassured, complacent allies
 - Turkey
 - Not calm
 - Asia
 - Korean reunification changes calculus
 - Role of China
 - Japan's role
- Strength alone not sufficient
- Role of NMD
- Deterrence with respect to non-nuclear threats with our allies
- How far does the commitment go?
- Uses of \$ and other tangible resources in precipitating events, driving policy
- Extend?

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- Punishment
- Defense
- Protection
- Are we driven by fear of universal proliferation enough to provide extended protection far more broadly?

Transforming Events

- Use of WMD
- Impact both in regions of primary interest to US and of secondary interest
- Nukes become legacy systems
- Other systems are more viable
- Emergence of new technology
- Withering EU
- How does IO impact our deterrence
- Space deployment
- US needs to conduct a nuclear test

Remaining Issues

- Need for enhanced intel
- Understand what we want from deterrence and what level of confidence do we attach
- Need to ID the hard choices for the policy community
- Consider producing a write-up without the use of the word deterrence, i.e. assurance
- How does policy making occur in the face of uncertainty

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Weapons, Operations, and Infrastructure Working Group Summary

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The Deterrent

- Nuclear weapons
- Advanced conventional weapons
- Defenses: active and passive (BW, CW)
- Infrastructure (including people)
- Planning tools (need to use them)
- Reconstitution (time line important)
- Operations and training
- ISR: Intelligence, surveillance, reconnaissance
- Alliances and friendly capabilities
- Information warfare
- Detection and attribution
- Demonstrations

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First: Need to figure out what we want to accomplish (targets, timelines, capabilities)

- Counterforce
 - HDBT
 - Industry
 - Military
 - Leadership
 - Space Assets
- Countervalue
- Defend ourselves (defend others)

Operational and political objectives may need/lead to different capabilities

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2020 Nuclear Capability

- Status Quo
 - SLBM
 - ICBM?
 - Bombers (if modernized)?
 - ~~Dual-capable aircraft?~~
 - ~~SLCM?~~
- Possible
 - New platforms
 - New warheads

- Not able to think about what we would like to have
- Need policy group to say what the requirements will be
- What kind of things should we be able to hit and what kind of timelines
- Policy diversity will be needed; need to present the range of policy decisions
 - Policy including the industrial and technology base, including the readiness
 - Policy we need specific to situations we will face
- Weapons options then need to be developed to match to policy requirements
- Where are the gaps in the systems?
- Future needs and weapons capabilities
- Technological menus for infrastructure and platform capability
- Is policy everything other than the weapons?

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2020 Conventional

- Aggressive development underway
- Need superb ISR
 - Threat awareness
 - Target location and assessment
 - Model adversaries
 - More complex representation including Information Operations, not just physical domain

- Tremendous opportunity in conventional
- Goal is to deliver the nuclear-like capability
 - Both technology and operational use
- Efforts needed by US to protect principal assets
- Too little effort in using policy and technology to improve our defense posture

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2020 Defenses

- Perfection is beyond us, but.....
- Can have operational capability soon
- Very capable by 2020
 - Raise the ante for those who would threaten US
 - Eliminate accidental/unauthorized launch threat

The better is the enemy of the good

- Prize for best ideas for deterrence, strategies, policies, weapons
- One of the reasons for considering conventional is that some of the threats cannot be credibly deterred by nuclear
- Lacking \$ and support for deterrence; \$ cut and going to defense

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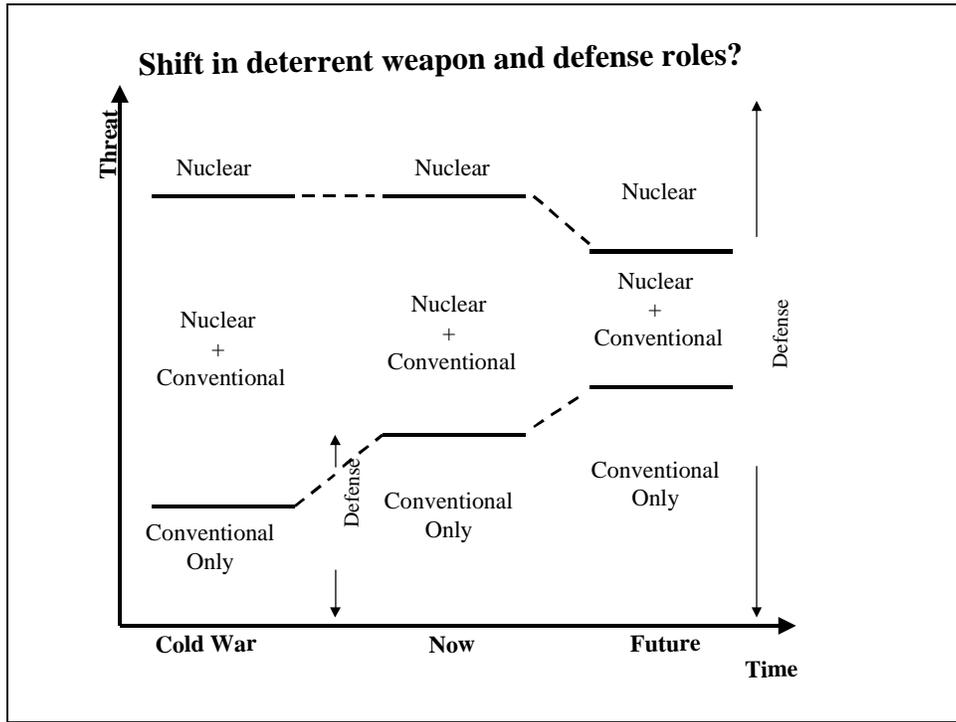
Nuclear Weapons Use

- Deter attributable nuclear attack on CONUS
- Deter attributable WMD attack on US
- Deter large scale conventional attack
- Use against HDBT, BW storage
(«boutique» weapons)
- ABM warheads against BW ballistic warhead

- Need to include other biological dimensions
- Defenses can play a larger role

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Additional Needed US Capabilities

- Attribution and detection for NBC
- BW Defense
 - Detection, response, mitigation
- Operate in both conventional/nuclear environment
- Information warfare defense
- Missile defenses (BM and CM)

Alliance Participation?

- Information warfare both offense and defense needed

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Costs will matter

- New nukes
- Conventional offense/defense
- Unconventional delivery
- ABM/NMD
- Reconstitution

Cost/Benefit Tradeoffs

- Costs cannot be considered in a vacuum without considering costs of alternative choices or making no choice
- Consider surge capabilities; examine investments and reconstitution costs

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Discussion: Weapons/Operations

- The tools of deterrence
 - Not just war fighting
 - Intelligence
 - Forensics
 - Complex adaptive systems
 - Planning tools
 - CAPS
 - HDBT planning
 - Hardware
 - Operations
 - Decades or short term
- Technology base and strategies
 - Industrial base
 - Latent weapons
- Tools we give others
 - e.g. Taiwan
- What demonstrations are needed?
 - Testing (i.e. flight, nuclear)
- Targeting
 - ISR part of tool kit
- Decision making capability
- Credibility of tools
- Alliance participation
- Casualties
 - Imposed or suffered
- Warning—what to do about it?
 - How to handle a lot of information
 - How to recognize it
 - How to discriminate intelligence d
 - How planning can allow it
- Threats:
 - Concern: threats that fall between the cracks or organizations
- What nuclear weapon capability by 2020?
 - Current thinking
 - How to maintain what we h

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- Nuclear Mission Management Plan (NMMP)

Tom Troyano

- Tom Troyano presentation (see his VGs)
 - Assume START II numbers -- approximately 3500
 - Subs
 - Modularity
 - Smaller diameter SLBMs
 - General capabilities
 - What if 1500 warheads?
 - Preserve platforms
 - Download warheads
 - Reduce number of tubes
 - Goal: Survivability and flexibility
 - Issue: test assets
 - Flight
 - Assets out (used up) in 2017
 - Nuclear
 - 2020 target date for operational capability of new ICBM
 - Issue: nuclear role of B52s and B2s
 - No new bomber by 2020
 - Issue: If no tactical aircraft for Europe, then need to pull back weapons
 - 2015-2020 end dates for aircraft
 - 2012 end date for TLAMN
 - Radiation hardening
 - Had been going out of business
 - 2.5 generations behind the market
 - DTRA concerned about turning this around
- History: 1 new strategic system every 2 years
 - Question: are we ready to field new systems at this rate?
 - At half this rate?
 - By 2011 or 2012?
 - By 2020?
- How much hedge is possible?
 - Primarily systems, but maybe warheads too
 - Do we need to do this?
- Organizing principle: what we need in infrastructure and capability to get somewhere at some time.

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- Active defenses
- Conventional capabilities
- Nuclear
- At what quality?
 - Need to do the best we can do
- Need capability for “newness”, not just quantity
- Suggestion: Start at operational capability end (i.e. what is needed)
 - History shows that many systems did not fit the operational concept
 - e.g. B1 bomber, Pershing
 - Political purpose vs. operational purpose
 - Often a fuzzy distinction
- Maintain upload capability
 - Address production capability needed
 - Need to look at operational needs
- Issue: Global changes can lead to need for new systems
 - This is contrasted against need for rapid response in deployment
- Refer to Troyano VG
 - What will be capabilities?
 - How much pessimism?
- Silicon Valley revolution
 - What is the impact?
- NMMP does not include what we need for the mission
- Nuclear deterrence worked because we could shut things down in a day
 - Conventional weapons headed toward decapitation
 - Also information warfare
 - What can we do beyond nuclear weapons?
- More discussion on Tools: nuclear, ISR, conventional, information warfare, defense
- Challenge: What new tools can we do in 10 years?
 - Important to be able to model the adversary
 - Important to do exploration
 - Important to do experimentation
- We are further ahead in weapons than in targeting

Biological Weapons

- Revolution in biological weapons
 - Mad Cow, viruses, spinoffs from genome research

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- Need capability to attribute a BW attack
- Need capability to counter BW
- How deter BW?
 - US use of BW?
 - US defense against BW?
 - US dissuasion?
- DTRA looking at detection in civil sector

Usefulness of Nuclear Weapons

- What are nuclear weapons useful for?
- Deter NW use against US
- Deter irrational behavior
- Deter attributable WMD attack
- Deter large scale conventional attack
- Attack actual deployments: HDBT and BW storage sites
 - We understand 1-4. We need to do more work on 5.
- History of utility of NWs
 - Conventional attack: Germany in Cold War
 - BW: Deter Saddam Hussein in Desert Storm
- The potential for NW use impacted the adversary
- Change in Russian “no-first-use” policy
- In what cases are we better off with weapons we would actually use?
- In targeting, we need to address what weapons can be used for what roles
 - To what degree counter value targeting?
 - When conventional vs nuclear?
 - How do we operationally make the transition?
- Policy/investment options for the major powers
 - What role for conventional weapons. Two parts:
 - Would conventional capabilities play a role in an exchange involving nuclear?
 - What intermediate role for conventional weapons?
- How the customer views the roles of nuclear vs conventional weapons
 - Time is of the essence
 - Some roles where nuclear weapons are necessary

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- Conventional weapons are always the first option --- Cheney and Powell
- The intellectual thinking on deterrence is a desert
 - Do not think about new uses for nuclear weapons
 - Do not develop the people
- Need to look at examples of past failures
 - NASA (Mars)
 - NIF
- During the Cold War, the beginning of Fulda gap engagements was conventional. We now need to consider:
 - Impacts of nuclear weapons on conventional capabilities
 - What to do if we run out of conventional weapons (e.g. cruise missiles)
 - What role for nuclear weapons in such scenarios
- Colin Powell commentary on the Iraqi case in Desert Storm:
 - Nuclear weapons were not necessary and too many would have been needed. But what now?
 - Use a few nuclear weapons against counter value targets (the view of some)
 - Tactical uses, e.g. against space assets
- What about combined use of nuclear and conventional weapons?
 - War plans need to account for this
- Issue is whether conventional weapons can substitute for nuclear.
 - In past, nuclear compensated for conventional weaknesses. This now appears to be changing
 - Data point. Gulf war showed how well conventional could work
 - Need to consider Russian and Chinese response to US conventional power
- Roles:
 - Nuclear: Last resort, deterrence
 - Conventional: War fighting rather than deterrence
 - Is there a continuum between the two?
- Danger in talking about precision weapons without talking about ISR
 - What if ISR and precision weapons are super capable?
 - What about counter value?
 - What about attacking their military assets?
- Would new nuclear weapon developments support the middle area?
- The discussion is timely in view of the Bush NDU speech
 - New threats

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- Need to enrich the discussion
 - What beyond deterrence?
 - Need to dissuade adversaries
 - Initially need robust capability to dissuade
 - How adjust our Cold War nuclear posture to address new threats?
- High technology conventional forces and details
- Advanced conventional weapons. Who wants to recommend first use?
 - Scenario where attribution would be a factor
 - When would nuclear weapons have deterrent value?
 - What else do we have that can be used?
- Defenses
 - Non nuclear defenses not effective against BW
- Can there be a combination of nuclear and conventional tools that have the same effect as nuclear weapons?
 - What are uses of 100 ton all uranium weapon?
 - Need to give the President the option

Rich Wagner showed VG

- Substitution vs complementary roles of conventional vs nuclear
- During Cold War, NATO conventional forces the “defense”
- Nuclear weapon and conventional weapons now complement each other differently than during the Cold War
- Different “niches” for nuclear weapons today
 - But still need complementarity
 - Militarily and politically
 - One “niche” is defenses
- What is the “niche”
 - Tons vs KT
 - Some have a big problem with niches, but it is discussed a lot
- What is everybody else’s nuclear threshold?
- Perception exists that US is self-deterred by lack of nuclear weapon capabilities
- Question: Does anybody in the room believe there is no role for new nuclear weapons?
 - Depends on the money available for non nuclear weapons
- Decision to go nuclear will not be easy
 - Last resort?
 - If other side uses WMD?
 - Something has gone dramatically wrong?
- What counter value capability do we need?

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- What needed to minimize collateral damage?
- What can conventional weapons contribute to this?
- Money should not be the limiting factor for this discussion
- Do not want our opponents to climb up the learning curve
- What provokes?
 - Do forward troop deployments provoke our adversaries?
 - Does flying alongside China provoke?
 - Is NMD provocative?
 - How does all this fit in with deterrence?
 - Agreed to hand this issue off to Group II
- What does counter value mean to China?
- Role of information operations
 - In dealing with HDBT, is there an option to attack assets with information operations?
- What makes sense regarding conventional weapons vs the superpowers?
 - The issue of deterring nuclear use against the US
- To achieve credibility: need the means to counter success against the US--make the price too high
 - Would have a steep or flat escalatory ladder, whichever works best
- Does nuclear war have to be Armageddon?
 - What if conventional weapons are not adequate?
 - Is there a gap between the two?
- Counter force vs counter value
 - Casualties are a strong function of targeting
 - As numbers decline, do we go to counter value?
 - At small numbers, it will be counter value
- India vs Pakistan
 - How does each country view the role of its nuclear weapons?
 - Counter value? Military targets?

Defense

- What available in 2020?
 - Safeguard an immediate option
 - In 6-10 years, more will be in the cards
- Could have significant defense if we want them
 - In 2020, we could have a multilayer defense against ballistic missiles

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- Not a defense against the threat, but against the delivery means
 - Ballistic missiles?
 - Cruise missiles?
 - Cargo ships?
- Where should we put our resources?
 - Need freedom to mix offenses and defenses
 - Can trade offenses and defenses
- First deployment of defenses will have impacts, e.g. backscatter radars
- We lack a solid understanding of the offense-defense relationship
 - Target coverage
 - Force exchange ratios
 - Favors first striker
 - Complication of first strike by defenses
 - It was pointed out that the last 2 bullets are contradictory
 - Does it up the threshold?

 - All of the above bullets have different implications for the offense-defense relationship
- Cannot trade off defense against one threat for offense against another threat
- Issue of rogues:
 - Must make sure we do not exacerbate the US-Russian relationship
- Must consider the dual use nature of offense-defense
- C4-ISR enhancements will lead to an incentive to attack C4-ISR
- Idea of D5 booster with defensive war heads for mid course applications
- Need a BW program to understand the threat
- The role of precision weapons for “assassination mode”
 - Attack financial/monetary assets
- Information warfare -- will it work?
 - Attack works well
 - Defense does not work
 - US especially vulnerable

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