

# “COERCIVE DISSUASION” Through GLOBAL STRIKE

## A Critical Assessment of the Bush National Security Strategy

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NATIONAL STRATEGY TO  
**COMBAT WEAPONS  
OF MASS  
DESTRUCTION**



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# Three (Flawed) Bush Postulates of NSC/WMD

#1: “The possession and increased likelihood of use of WMD by hostile states and terrorists are realities of the contemporary security environment.”

Comment: Note the conflation of “hostile states” with “terrorists” and the groundless suggestion that an “increased likelihood of [WMD] use” by both is a “reality” of the current security environment. This is fantasy masquerading as analysis.

# Flawed Postulates cont...

#2: "We know from experience that we cannot always be successful in preventing and containing the proliferation of WMD to hostile states and terrorists (emphasis added)."

Comment: The world's only actual "experience" with WMD terrorism involved the Aum Shin Rikyo cult's Sarin gas attack on the Tokyo subway.

# Third Bush WMD Postulate

#3: “Today’s threats are far more diverse and less predictable than those of the past.

States hostile to the United States and to our friends and allies have demonstrated their willingness to take high risks to achieve their goals, and are aggressively pursuing WMD and their means of delivery as critical tools in this effort.

As a consequence, we require new methods of deterrence.”

# Proliferation Reality Check

- In 1979 there were 10 countries of nuclear proliferation concern
- Today there are 6, only one of which is a “new” entrant – North Korea.
- Positive Developments:
  - South Africa, Argentina, Brazil, Taiwan and South Korea are off the list
  - NPT indefinitely extended in 1995
  - Nuclear weapons removed from South Korea, Eastern Europe and newly independent states of former Soviet Union.

<b>TEN COUNTRIES</b>	<b>NUCLEAR PROLIFERATION CONCERN IN 1979</b>
Argentina	Secret fuel cycle facilities under control of military dictatorship
Brazil	Importation of fuel cycle facilities and secret nuclear design program under the control of a military government
India	Overt "peaceful" nuclear explosives program outside framework of NPT
Iran	Acquisition of light water reactors and nuclear expertise by unstable military dictatorship, and possible nuclear devolution to radical Islamic state
Iraq	Importation of excessively large "research reactor" from France under the control of a harsh military regime
Israel	Secret nuclear program and deliverable arsenal developed in defiance of NPT, undermining nuclear restraint in a region viewed as critical to Western energy security
Pakistan	Secret nuclear program by military regime outside of NPT
South Africa	Secret nuclear program under control of racist authoritarian regime
South Korea	Secret nuclear weapons program under control of authoritarian military government
Taiwan	Secret nuclear weapons program under control of authoritarian military government

<b>SIX STATES</b>	<b>NUCLEAR PROLIFERATION CONCERN IN 2003</b>
<b>India</b>	Overt nuclear arsenal developed and growing in defiance of the NPT
<b>Iran</b>	Acquisition of light water reactors and nuclear fuel cycle facilities by radical Islamic state within framework of NPT; possible secret nuclear weapon design effort
<b>Iraq</b>	Possible persistence of biological, chemical, and nuclear weapon programs ordered destroyed pursuant to UN Security Council Resolutions
<b>Israel</b>	Secret nuclear program and deliverable arsenal developed in defiance of NPT, undermining nuclear restraint in a region viewed as critical to Western energy security
<b>Pakistan</b>	Overt nuclear weapons program by unstable military regime acquired in defiance of NPT
<b><u>North Korea</u></b>	Failure to implement full-scope safeguards agreement with IAEA following accession to the NPT; recent steps to develop/resume operation of unsafeguarded fuel cycle facilities; likely violation of agreement with South to keep Korean peninsula free of nuclear weapons



# More Positive Developments

- Nuclear-Weapon-Free Zones in place in Latin America and Africa
- Chemical Weapons Convention (CWC) entered into force, April 1997, requiring universal elimination of chemical weapon stocks
- Termination of vast Soviet bio-warfare program and continuing negotiations on verification improvements to the Biological Weapons Convention (BWC).

# Genuine Proliferation Concerns

- Continuing advances and diffusion of bio-chem engineering expertise and technology may facilitate clandestine acquisition of chem-bio capabilities by subnational or multinational terrorist organizations, or military elements or agencies within foreign governments, e.g.
  - Aum Shinrikyo release of Sarin nerve gas, Al Qaeda's interest in chemical weapons.
- NPT regime still allows national acquisition of inherently dangerous nuclear fuel-cycle capabilities under peaceful-use "safeguards."
- Significant quantities of Highly-Enriched Uranium (HEU), directly usable in nuclear weapons of simple design and construction, are stored at various poorly-secured locations around the world in connection with civil nuclear research programs. Returning this material to secure storage in the U.S. or Russia is a high nonproliferation priority.

# Are WMD for Deterrence, or “Tools of Coercion”?

“Some states, including several that have supported and continue to support terrorism, already possess WMD and are seeking even greater capabilities, as tools of coercion and intimidation. For them, these are not weapons of last resort...” –NSCWMD, p. 1.

# Could Foreign WMD Deter US Use of its Conventional Forces?

- “For them [i.e. nameless ‘rogue states’], these are not weapons of last resort, but militarily useful weapons of choice intended to overcome our nation’s advantages in conventional forces and to deter us from responding to aggression against our friends and allies in regions of vital interest.”  
*NSCWMD*– p. 3.

# US Might “Respond” with Nukes in Scenarios Well Short of “Last Resort”

- “The United States will continue to make clear that it reserves the right to respond with overwhelming force – including through resort to all of our options – to the use of WMD against the United States, our forces abroad, and friends and allies.” – public white paper *NSCWMD*, p.3.
- “The United States will continue to make clear that it reserves the right to respond with overwhelming force – including potentially nuclear weapons – to the use of WMD against the United States, our forces abroad, and friends and allies.” – Bush’s classified *National Security Presidential Directive 17*, issued 9/17/2002.

# Does Bush Strategy Itself Envision Preemptive or Coercive Use of WMD?

“U.S. military forces and appropriate civilian agencies [an apparent reference to recent empowerment of the CIA, a “civilian agency,” to carry out extra-judicial killings of suspected terrorists] must have the capability to defend against WMD-armed adversaries, including in appropriate cases through preemptive measures. This requires capabilities to detect and destroy an adversary’s WMD assets before these weapons are used.” – NSCWMD, Dec. 2002.

# Bush Strategy Authorizes US Planning for First Use of WMD

- July 2001 *Report to Congress on “Defeat of Hard and Deeply Buried Targets:”*

“Nuclear weapons have a unique ability to destroy both agent containers and CBW agents. Lethality is optimized if the fireball is proximate to the target...Given improved accuracy and the ability to penetrate the material layers overlaying a facility, it is possible to employ a much lower-yield weapon to achieve the needed neutralization.”

# Bush Plan Pursues R&D of New Nuclear Weapons for Global Strike

- Secret December 2001 *Nuclear Posture Review* cited “limitations in the present nuclear force:”
  - “moderate delivery accuracy, limited earth penetrator capability, high-yield warheads, and limited retargeting capability;”
  - “new capabilities must be developed to: defeat emerging threats such as hard and deeply buried targets; find and attack mobile and relocatable targets, defeat chemical or biological agents, and improve accuracy to limit collateral damage.”



# WHAT IS THE ROLE FOR DIPLOMACY and RULE OF LAW?

- “As the United States Government relies on the armed forces to defend America’s interests, it must rely on diplomacy to interact with other nations....
- As humanitarian relief requirements are better understood, we must also be able to help build police forces, court systems, and legal codes, local and provincial government institutions, and electoral systems. Effective international cooperation is needed to accomplish these goals, backed by American readiness to play our part.

-- *The National Security Strategy of the United States*,  
The White House, Sept. 17, 2002, p. 23.

# BUT: "SOME PIGS ARE MORE EQUAL THAN OTHERS..."

- "We will take the actions necessary to ensure that our efforts to meet our global security commitments and protect Americans are not impaired by the potential for investigations, inquiry, or prosecution by the International Criminal Court (ICC) whose jurisdiction does not extend to Americans and which we do not accept.
- We will work together with other nations to avoid complications in our military operations and cooperation, through such mechanisms as multilateral and bilateral agreements that will protect US nationals from the ICC."

-- *The National Security Strategy of the United States*, The White House, Sept. 17, 2002, p. 23.

# Could US “War on Terror” Run Afoul of the ICC? (Yes)

- US rules of engagement in Afghanistan violated legal norms protecting civilian noncombatants
- Entire villages destroyed from the air because “suspect Taliban/Al Qaeda elements” were believed to be in them
- Massive, indiscriminate responses to perceived SAFIREs (surface-to-air fire)
- At least 3000 civilians killed as a consequence of both deliberate and errant US attacks
- 1000 Taliban POWs murdered by U.S. Uzbek Northern Alliance allies

# “War on Terror” Tactics & the ICC

- CIA has carried out extra-judicial killings of terrorism suspects and their associates
- Captured Taliban commanders and Al Qaeda operatives subjected to beatings, denial of pain medications, “stress and duress” techniques in secret CIA overseas interrogation centers.
- Less important terrorism suspects “rendered,” with list of questions to be answered, to foreign secret services (e.g. Morocco, Syria, Saudi Arabia) with a long record of torturing suspects.

# Civilian Death Toll in Iraq

## Invasion is High

- 3,240 civilians killed during first month of invasion, 1,896 in Baghdad
- Based on AP survey of deaths recorded at civilian hospitals
- Does not include deaths of those who were not brought to hospitals. Toll will increase as these deaths are tabulated

# Relax – Bush White House Says Preventive War Strategy is Legal

“The overlap between states that sponsor terror and those that pursue WMD compels us to action. For centuries, international law recognized that nations need not suffer an attack before they can lawfully take action to defend themselves against forces that present an imminent danger of attack.”

“Legal scholars and international jurists often conditioned the legitimacy of preemption on the existence of an imminent threat—most often a visible mobilization of armies, navies, and air forces preparing to attack.”

# Bush Says Attacks on US Military Forces Would “Violate Laws of War”

“We must adapt the concept of imminent threat to the capabilities and objectives of today’s adversaries. Rogue states and terrorists do not seek to attack us using conventional means.

“They know such attacks would fail. Instead, they rely on acts of terror and, potentially, the use of weapons of mass destruction—weapons that can be easily concealed, delivered covertly, and used without warning.

“The targets of these attacks are our military forces and our civilian population, in direct violation of one of the principal norms of the law of warfare.”

•-- *The National Security Strategy of the United States*, The White House, Sept. 17, 2002, p. 12.

# “No Cause Justifies Terror...”

- “The enemy is not a single political regime or person or religion or ideology. The enemy is terrorism – premeditated, politically motivated violence perpetrated against innocents. In many regions, legitimate grievances prevent the emergence of a lasting peace.”
- “Such grievances deserve to be, and must be, addressed within a political process. But no cause justifies terror.”  
-- *The National Security Strategy of the United States*,  
The White House, Sept. 17, 2002, p. 5. (emphasis added).



# ...Except America's Own

"Here's what our mission is: to take credible combat power to the far corners of the earth, to take the sovereignty of the United States of America anywhere we want. Our mission is to give the President options. Our mission is to be able to project combat power....

"It [Sea Power 21, the Navy's strategic vision] is about being the most lethal, mean fighting machine that we know how to be. It's not about negotiating. They try to negotiate all of the solutions. It's good if they can. If they don't, what are we going to do? We're going to bring havoc and destruction."

-- Admiral Vern Clark, Chief of Naval Operations, speaking to sailors aboard the 6<sup>th</sup> Fleet flagship USS La Salle, as quoted in "CNO Says Navy Gives President Options," Story Number NNS0021120-23, 11/2002, 11:06:00 AM, [www.news.navy.mil](http://www.news.navy.mil) (emphasis added)

# “Compressing the Kill Chain”

“With the B-2s [long-range stealth bombers], we’ll take the 16 bombs that they now carry and up that to 80 individually guided weapons.

“Ten B-2 bombers with 80 weapons each will take care of the target decks that we have prepared for conflicts in most parts of the world...The objective is to shorten, as much as we can, the ‘find/fix/track/ target /engage/and assess’ loop, which is our definition of the ‘kill chain’.”

# “Seamless” Target Location

“[The goal] is to be able to accomplish the part of this that relies on our sensors and shooters...in less than 10 minutes...The way you accomplish this is through machine-to-machine interfaces. Some call it ‘Network-Centric-Warfare’ ... It’s done in a seamless way. The person sitting at the console in the airplane gets a cursor over the target – he doesn’t know, doesn’t care, which piece of the puzzle put the cursor over the target.”

-- General John P. Jumper, USAF Chief of Staff, quoted in “Compressing the Kill Chain,” *Armed Forces Journal International*, May 2002, p. 40-42, (emphasis added)

# “Full Spectrum Dominance”

“The AF DCGS [Air Force Distributed Common Ground System] Strategic Plan ... starts by describing a vision of the possibilities:

‘A globally integrated distributed and collaborative information technology enterprise; capable of continuous on-demand intelligence-brokering to achieve full spectrum dominance by enabling America and allied aerospace forces to change the course of events in hours, minutes or even seconds.’ ”

-- Air Force Distributed Common Ground System (AF DCGS) Block 10 System Requirements Document , 5 December 2002.

# Haven't We Heard This "Prevail" Song Before?

- "Proactive counterproliferation efforts...must also be integrated into the doctrine, training, and equipping of our forces and those of our allies to ensure that we can prevail in any conflict with WMD-armed adversaries."
- "Effective consequence management... minimizing the effects of WMD use against our people, will help deter those who possess such weapons and dissuade those who seek to acquire them by persuading enemies that they cannot attain their desired ends."

-- *The National Security Strategy of the United States*, The White House, Sept. 17, 2002, p. 5.

## WMD Defenses and Mitigation Measures Are Part of the Military Mission

“In addition, robust active and passive defenses [a reference to missile and air defenses and CBW protective gear] and mitigation measures must be in place to enable U.S. military forces and appropriate civilian agencies to accomplish their missions, and to assist friends and allies when WMD are used.”

# “It’s Déjà Vu All Over Again”

“It is time to turn the expertise we have in that [civil defense] field— I’m not one [with expertise] – but to turn it loose on what do we need in the line of defense against their [Soviet] weaponry, and defend our population, because we can’t be sitting here – this could become the vulnerable point for us in the event of an ultimatum.”

-- Presidential candidate Ronald Reagan, 1980, quoted in Robert Scheer, *With Enough Shovels: Reagan, Bush, and Nuclear War*, 1982.

# Strategic “Blackmail” Is Back

“For rogue states these weapons [of mass destruction] are tools of intimidation and military aggression against their neighbors.

“These weapons may also allow these states to blackmail the United States and our allies to prevent us from deterring or repelling the aggressive behavior of rogue states.

“Such states also see these weapons as their best means of overcoming the conventional superiority of the United States.”

-- *The National Security Strategy of the United States*, The White House, Sept. 17, 2002, p. 11.



# With “Blackmail” on the Rise, Can “Paralysis” Be Far Behind?

“We don’t want a war and we certainly don’t want a nuclear war. But at the same time we don’t want to be paralyzed by the fear of war as we pursue our economic, political, social, and cultural objectives.”

-- General John W. Vessey, Chairman of the Joint Chiefs of Staff, supporting President Reagan’s nuclear buildup request in testimony before Congress, 1982.

# Rome on the Potomac

"To contend with uncertainty and to meet the many security challenges we face, the United States will require bases and stations within and beyond Western Europe and Northeast Asia, as well as temporary access arrangements for the long-distance deployment of U.S. forces...

"...the goal must be to provide the president with a wider range of military options to discourage aggression or any form of coercion against the United States, our allies, and our friends...

"Our forces will be strong enough to dissuade potential adversaries from pursuing a military build-up in hopes of surpassing, or equaling, the power of the United States."

-- *The National Security Strategy of the United States*, The White House, Sept. 17, 2002, p. 22 (emphasis added)

# White House to China: Military Buildup “Hampers National Greatness”

“In pursuing advanced military capabilities that can threaten its neighbors in the Asia-Pacific region, China is following an outdated path that, in the end, will hamper its own pursuit of national greatness.”

-- *The National Security Strategy of the United States*, The White House, Sept. 17, 2002, p. 20.

# Nuclear Strike Planning

- At DoD News Briefing on March 13, 2002, Secretary of Defense Donald H. Rumsfeld denied that the Pentagon's recently leaked *Nuclear Posture Review (NPR)* referred to “targeting any country with nuclear weapons.”
- Preceding day's news was full of stories that Bush was revising US nuclear war plans to focus on destruction of hardened, deeply buried, and mobile targets associated with “weapons of mass destruction” in non-nuclear weapon states such as North Korea, Iraq, Iran, Syria, and Libya.

# Secretary Rumsfeld's Denial

Rumsfeld: "...Let me also say a few words about the Nuclear Posture Review: There's been some press discussion about leaks from the classified Nuclear Posture Review....Without getting into the classified details of the report, *I can say that the Review says nothing about targeting any country with nuclear weapons(emphasis added).*"

NEWS TRANSCRIPT from the United States Department of Defense, DoD News Briefing, Secretary of Defense Donald H. Rumsfeld (Joint Press Conference with Russian Defense Minister Sergei Ivanov, Wednesday, March 13, 2002 - 11:40 a.m. EST.

# What the Nuclear Posture Review Says About Nuclear Targeting

- “In setting requirements for nuclear strike capabilities, distinctions can be made among the contingencies for which the United States must be prepared. Contingencies can be categorized as immediate, potential, or unexpected ...”
- “North Korea, Iraq, Iran, Syria, and Libya are among the countries that could be involved in immediate, potential, or unexpected contingencies.”

# Current Planning Supports Large Nuclear Strikes

- “The current nuclear planning system, including *target identification*, weapon system assignment, and the nuclear command and control system 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.”

# “Adaptive Planning” Needed for Limited Nuclear Strikes

- “Deliberate planning creates executable war plans, prepared in advance, for anticipated contingencies. Adaptive planning is used to generate war plans quickly in time critical situations.”
- “Deliberate planning provides the foundation for adaptive planning by identifying *individual weapon/target combinations* that could be executed in crises.”



# Quicker Nuclear Attack Planning

- “The desire to shorten the time between identifying a *target* and having an option available will place significant stress on the *nuclear planning process* as it currently exists. Presently 12-48 hours is required to develop plan to attack a single *new target*, depending on the weapon system to be employed.”
- “New capabilities must be developed to defeat emerging threats...”

# Deep Underground Targets are Proliferating

- “More than 70 countries now use underground facilities (UGFs) for military purposes... Approximately 1,100 UGFs were known or suspected strategic (WMD, ballistic missile basing, leadership or top echelon command and control) sites.”
- “Updated estimates from DIA [Defense Intelligence Agency] reveal this number has now grown to over 1,400. A majority of the strategic facilities are deep underground facilities.”

# Bush Plan Seeks More Effective Nuclear Earth Penetrator

- “...Current conventional weapons are not effective for the long-term physical destruction of deep, underground facilities.”
- “ ... With a more effective earth penetrator, many buried *targets* could be attacked with a weapon with a much lower yield than would be required with a surface burst weapon.”

# Bush sought and obtained repeal of legal restriction on new Tac-nukes

- In May 2003 Republican-controlled House and Senate each repealed 1993 Spratt-Furse ban on research and advanced development of “low-yield” (<5 KT) nuclear weapons
- Both houses also authorized funding for research and development of a (high-yield) “Robust Nuclear Earth Penetrator” (RNEP) to destroy deeply buried targets.
- Senate-passed bill requires future specific Congressional authorization to proceed to full-scale engineering development or production of either type of weapon.

## “Creating peace in a more effective way...”

SEN. JIM SESSIONS (R-AL): “We should not shut off any study, any evaluation, of nuclear weapons in what we might need in the future, what would be better, what could create peace in a more effective way than the current armament system we have.

“...I believe this country has a moral responsibility to lead in this world and we will not be an effective leader if we don't maintain leadership in all forms of weaponry—yes, including nuclear weaponry. It is just that simple...They say we can't use it against al-Qaida. Maybe we can, maybe we can't. Probably we would not use a nuclear weapon against a group like al-Qaida.”

# “We can stand for right in this dangerous world...”

“...We absolutely cannot make a commitment that we will never do [develop] anything else in the future. That would simply set out a marker that would be the goal any nation could seek to attain, and then they would be on equal power with the United States of America militarily, in terms of nuclear weapons. We should not do that.

“...I can say it with confidence—our Nation stands for peace, prosperity, trade, and freedom in this world. A lot of nations don’t. If somebody in this body is not capable of making that value judgment, then I think they need to go back and study their history a little bit. So we can stand for right in this dangerous world; we simply have to be militarily strong.”

-- Senator Jeff Sessions (R-AL), Chairman of Air-Land Subcommittee, Senate Armed Services Committee, Congressional Record—Senate, May 20, 2003.

# Would Bush Administration use new low-yield nuclear weapons it had them:

SEN JON KYL (R-AZ) [and Chairman of the Senate Republican Policy Committee]: “When a Member of the Senate speaks about low-yield nuclear weapons as ‘nuts,’ we make a grave mistake...The reason low-yield weapons research is being sought is because the world has changed since the time we developed these huge megaton nuclear weapons that can kill millions in just a few seconds. Instead of wanting to use those kinds of weapons, the United States would prefer, if it had to, to use a much smaller weapon, a low-yield nuclear weapon...

“In the most recent conflict in Iraq, we literally saw missiles flying through windows of buildings in downtown Baghdad. The kind of precision we have today enables us to use much smaller yield weapons to achieve the same results that large conventional weapons are being used for today. But they can do so much more effectively.”

## Sen. Kyl cont...

“For example, we know that some so-called conventional bunker busters were used in an attempt to decapitate the Iraqi leadership in the early stages of the war...But it did not do the job...apparently the leadership of the Iraqi regime lived on. So we cannot say we have the capability, even in dealing with that regime, to destroy those kinds of targets.

“What we know from intelligence is that there are a lot of other nations in the world that know one thing: If you get deep enough underground with enough steel and concrete above your head, they can’t get you. That is exactly the kind of facility being built by our potential enemies today. There is only one way to get those, and that is through a precise low-yield nuclear weapon. The design of those weapons is certainly in the mind of our scientists.”

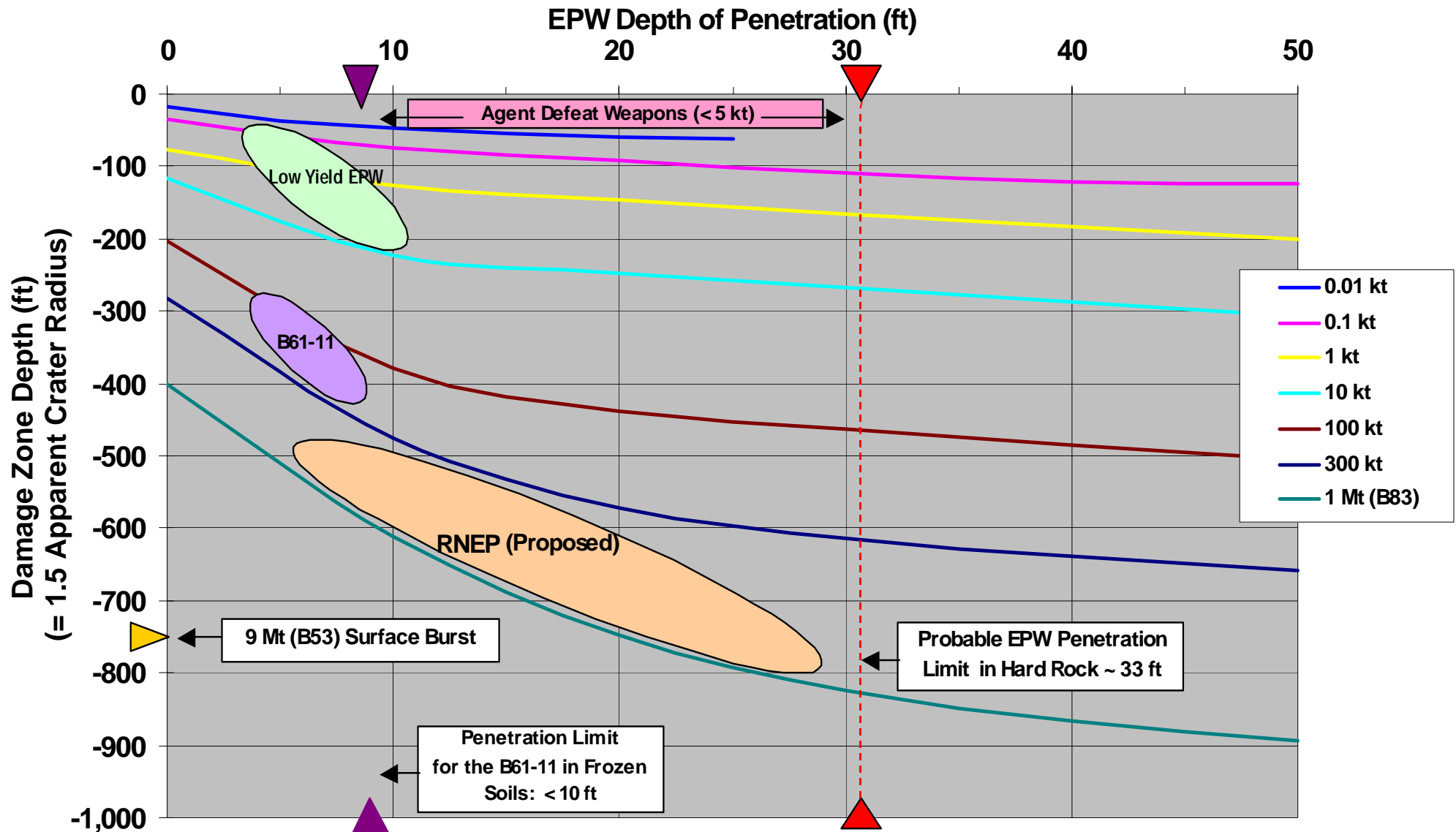
-- Congressional Record—Senate, May 20, 2003.



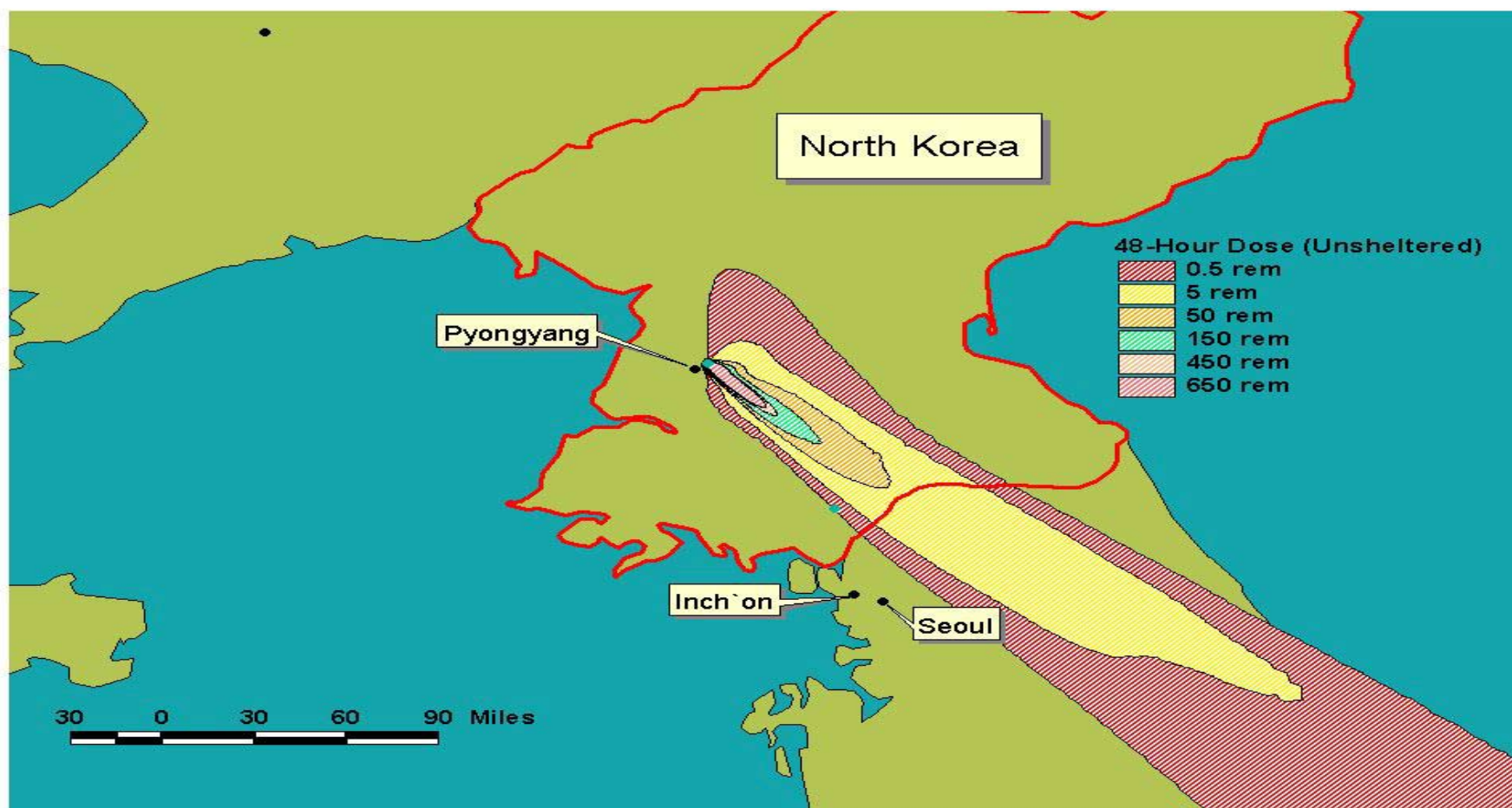
“If you get deep enough underground ...there is only one way to get those, and that is through a precise low-yield nuclear weapon.”

- Like many Republican pro-defense hawks, Sen. Kyl talks first, and asks questions later
- A “low-yield” nuclear weapon that can destroy deep underground targets does not exist, and cannot be developed using known laws of physics.
- To destroy a command center buried 600 feet deep under layers of hard rock would require a nuclear weapon with a yield of 300 -1000 Kilotons!
- Such a weapon would inundate an area of 1900 to 4,800 square kilometers with potentially lethal fallout (150 rem contour boundary at 48 hours)

**Figure 5: Earth Penetrator Weapon (EPW) Targeted Against  
a Hardened Underground Bunker in Hard Rock**  
**Damage Zone Depth as a Function of Nuclear Yield and Depth of Penetration**



Radioactive fallout from B-2 bomber attack  
(using B61-11 (300 kt) EPW at depth of 30ft) on  
military command center buried 800 feet in mountain  
immediately west of Pyongyang, North Korea.  
**Casualties:** HPAC code calculates 430-550 thousand



# New Tools Wanted for Building Nuclear Strike Plans in Crises

- Shifting emphasis from large preplanned nuclear strikes on Russia to flexible global limited nuclear strike strikes is prompting:
  - overhaul of Pentagon's "Strategic Warfare Planning System"
  - multi-billion dollar expenditures on nuclear command, control, communications, computers, and intelligence (C4I) upgrades.
  - "This includes improving the tools used to build and execute strike plans so that the national leadership can adapt pre-planned options, or construct new options, during highly dynamic crisis situations."

# Bottom Line: “Rogue States” ARE Targets

- Despite Rumsfeld denial, Bush team is spending billions to reinvigorate Limited Nuclear Options capability with a rapid global reach;
- Any state deemed “hostile” to US interests and suspected of having chemical, biological, or nuclear weapon stocks or facilities is a potential target for US nuclear weapons;
- Formerly nuclear deterrent “Strategic Forces” are becoming dual-capable, long-range “global strike” forces.

# Could OBL Have Crippled Nuclear Command System?

- Pentagon believes September 11 identified “the need to expand the current nuclear command and control (C2) architecture to a true national command and control conferencing system.” (NPR, p. 26)
- Immediate upgrades to aircraft for national leadership after 9/11, but much more is in the works.

# GEMS RFI/Industry Day



## Ground Element Minimum Essential Emergency Communications Network (MEECN) System (GEMS)

6 August 2002

Strategic and Nuclear Deterrence Command and Control System Program Office  
Electronic Systems Center – Air Force Materiel Command (AFMC)  
Hanscom Air Force Base, MA 01731



# Why GEMS?

- GEMS provides worldwide nuclear survivable communications nodes
- Integrates Extremely High Frequency (EHF), Very Low Frequency/ Low Frequency (VLF/LF) and Ultra High Frequency (UHF) communications into one operational system that can:
- “perform both fixed and transportable strategic and sub-strategic nuclear execution forces’ missions.”



# GEMS For “Post Attack Connectivity”

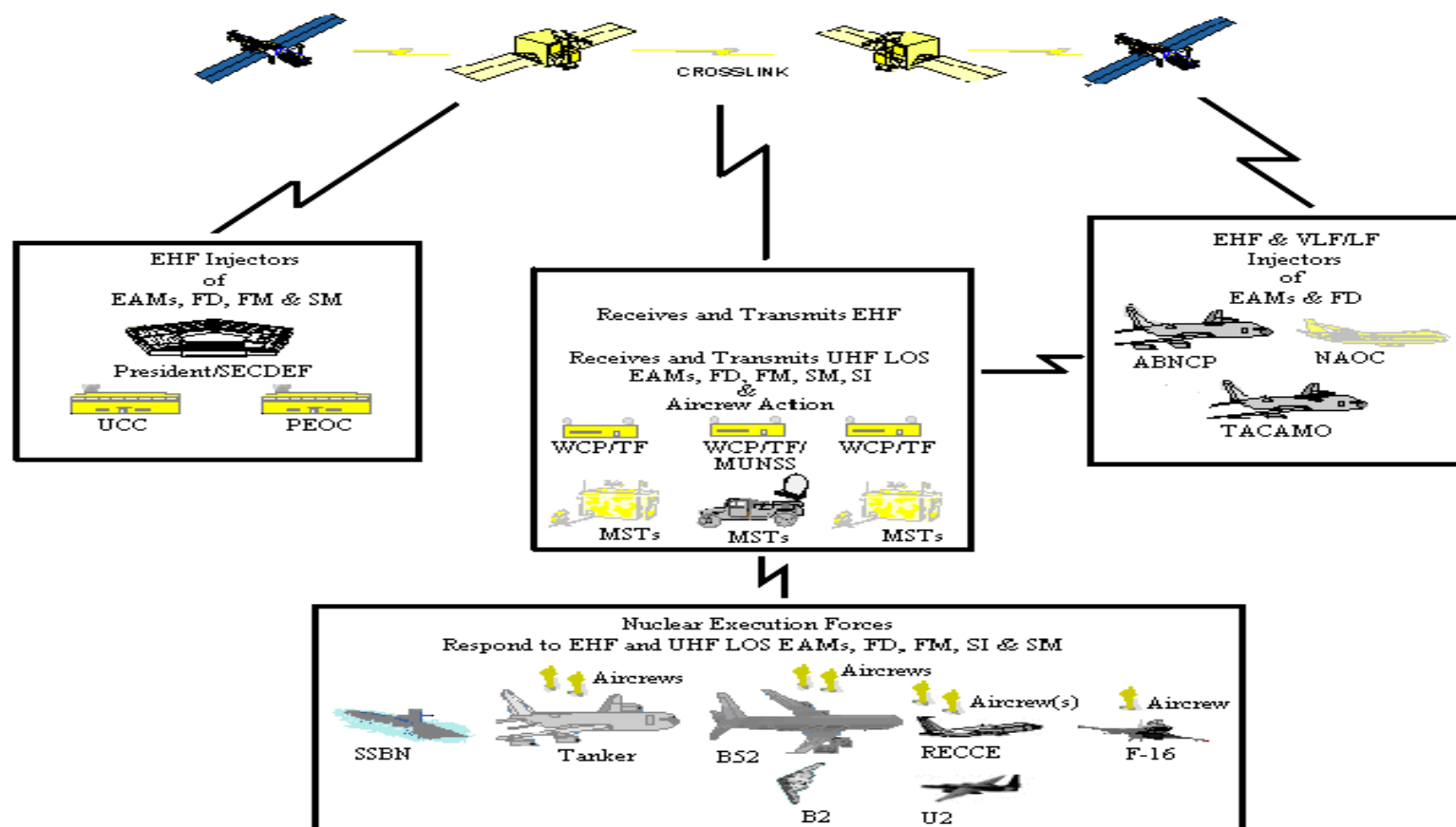
- “GEMS, using EHF, Aircrew Alerting, and VLF/LF will provide pre-, trans-, and post attack connectivity to the nuclear execution forces.”
  - Combat Air Forces (CAF) – Air Mobility Command (AMC) ORD-408-00-I, 1 August 2002



# High Level CONOPS



**SND C2 SPO**



ABNCP - Airborne Command Post  
FD - Force Direction  
MSTs - Mobile Support Teams  
PEOC - Primary European Operations Center  
SM - Situation Monitoring  
TF - Task Force

EAMs - Emergency Action Messages  
FM - Management  
MUNSS - Munitions Support Squadron  
SECDEF - Secretary of Defense  
SSBN - Strategic Submarine Ballistic Nuclear  
UCC - Unified Combatant Command  
VLF/LF - Very Low Frequency/Low Frequency

EHF - Extremely High Frequency  
GEMS - Ground Element MEECN System  
NAOC - National Airborne Operations Center  
SI - Strategic Intelligence  
TACAMO - Take Charge and Move Out  
UHF LOS - Ultra High Frequency Line-of-Sight

# GEMS for “Non-Strategic Execution”

- “GEMS provides [nuclear]command posts, Munitions Support Squadrons, and Mobile Support Teams with the flexibility to ... conduct mission requirements through the full spectrum of nuclear warfare using EHF and VLF waveforms.”
- “We need systems that ensure reliable, secure, and responsive communications are maintained between the President, the SECDEF and our nuclear execution forces and associated commands involved in strategic and non-strategic execution.”

# GEMS for “Endurable Phase of a Nuclear Conflict”

- “[GEMS] terminal data flow must [provide]\_for directed terminal reconfigurations during the endurable phase of a nuclear conflict.”
- “In the pre- nuclear environment, transportable GEMS setup/teardown times, to include antennas, shall take no more than two hours; one hour is desirable.”

# Soldiers Get a Break in the “Post-Nuclear Environment”

- “In the trans- and post nuclear environment, transportable GEMS setup/teardown times do not apply to personnel wearing Military Operational Protective Posture (MOPP) IV gear.”

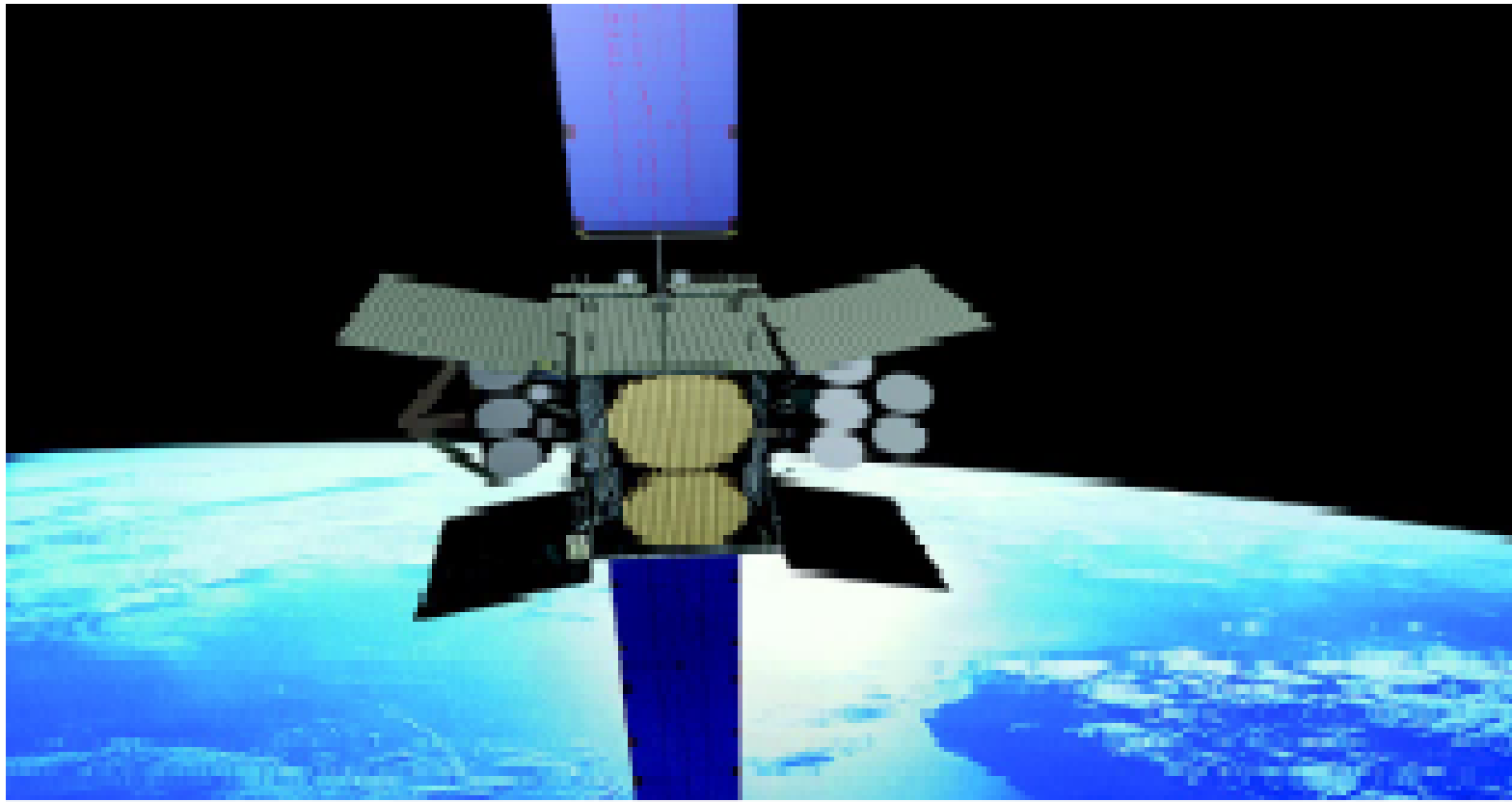
# GEMS Must Also Operate in Chem-Bio Environments

- GEMS shall be protected to withstand the effects of biological, chemical and radiological events. GEMS shall be capable of operations, maintenance and setup/teardown by personnel wearing MOPP IV gear
- For EHF, GEMS shall be configured ...to support global protected communications and for en-route threat and target updates for both conventional and nuclear operations

# GEMS is Just the Tip of “Global Strike” C3I Iceberg

- System: Advanced Polar EHF Satellite Communication (SATCOM)
  - Cost: \$ billions? Still in early stages of development
  - Mission: Bush Nuclear Posture Review called for development of new SATCOM system “primarily for national and strategic users requiring nuclear-protected communications in the mid-latitude and polar regions, with a planned first launch during FY 09.”
  - “Survivable, jam-resistant, secure voice conferencing among principal nuclear C2 decision makers remains essential to facilitate discussions of tactical warning and assessment, response options, and force management.”

# Wideband Gapfiller Satellite (WGS)

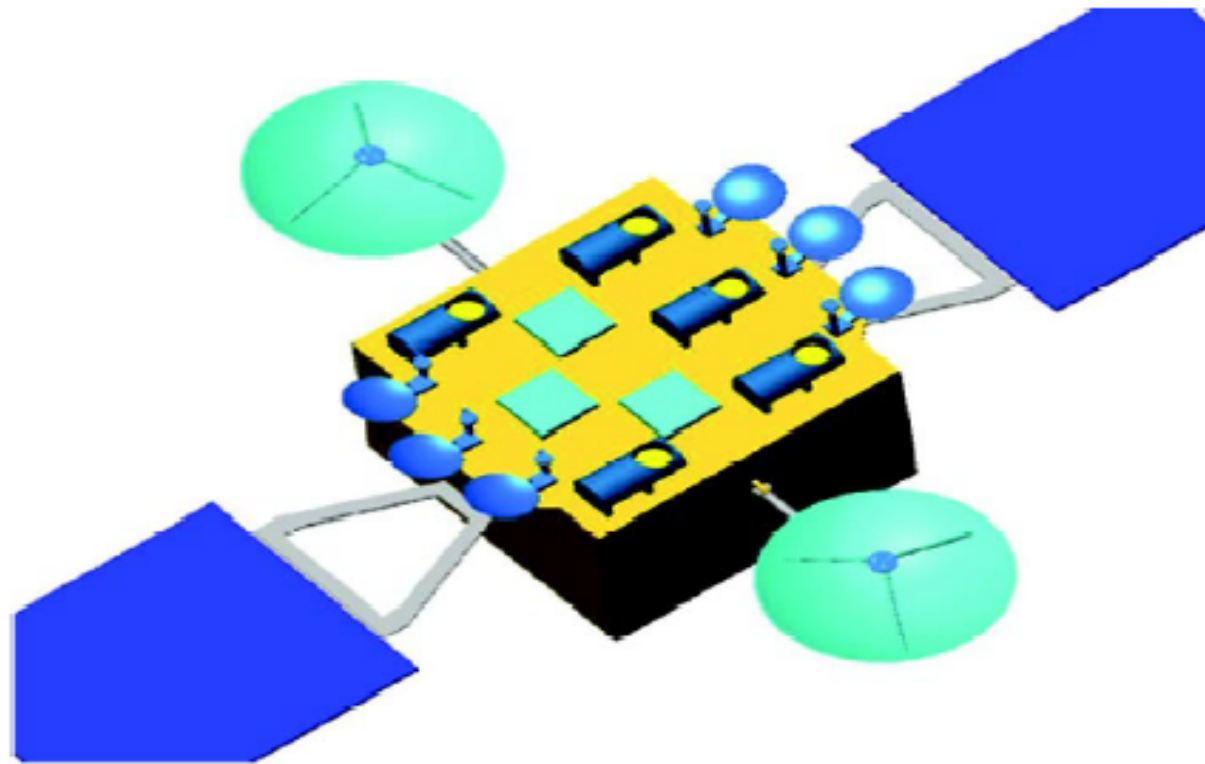


Source: WGS Program Office.

- Joint Air Force-Army program for communications “during all levels of conflict short of nuclear war”
- Cost: \$1.7 billion for five satellites; based on Boeing commercial satellite technology, but production cost is rising, due to prior commercial contract cancellations
- Bridge to Advanced Wideband System (AWS)



# ADVANCED WIDEBAND SATELLITE (AWS)



Source: U.S. Air Force.

# AWS is Integral to Prompt Global Strike Capability

- Supplements AEHF satellite system and replaces current Milstar system;
- “Improved survivable jam-resistant worldwide secure communications” for DOD, NASA, and intelligence community
- First satellite launch: December 2009
- Current Program Cost Estimate: \$8.2 billion (\$2.05 billion per satellite)
- New hurry-up “National Security Space Acquisition” process makes no distinction between end of technology development and start of product development.

# Advanced Extremely High Frequency (AEHF) Satellites

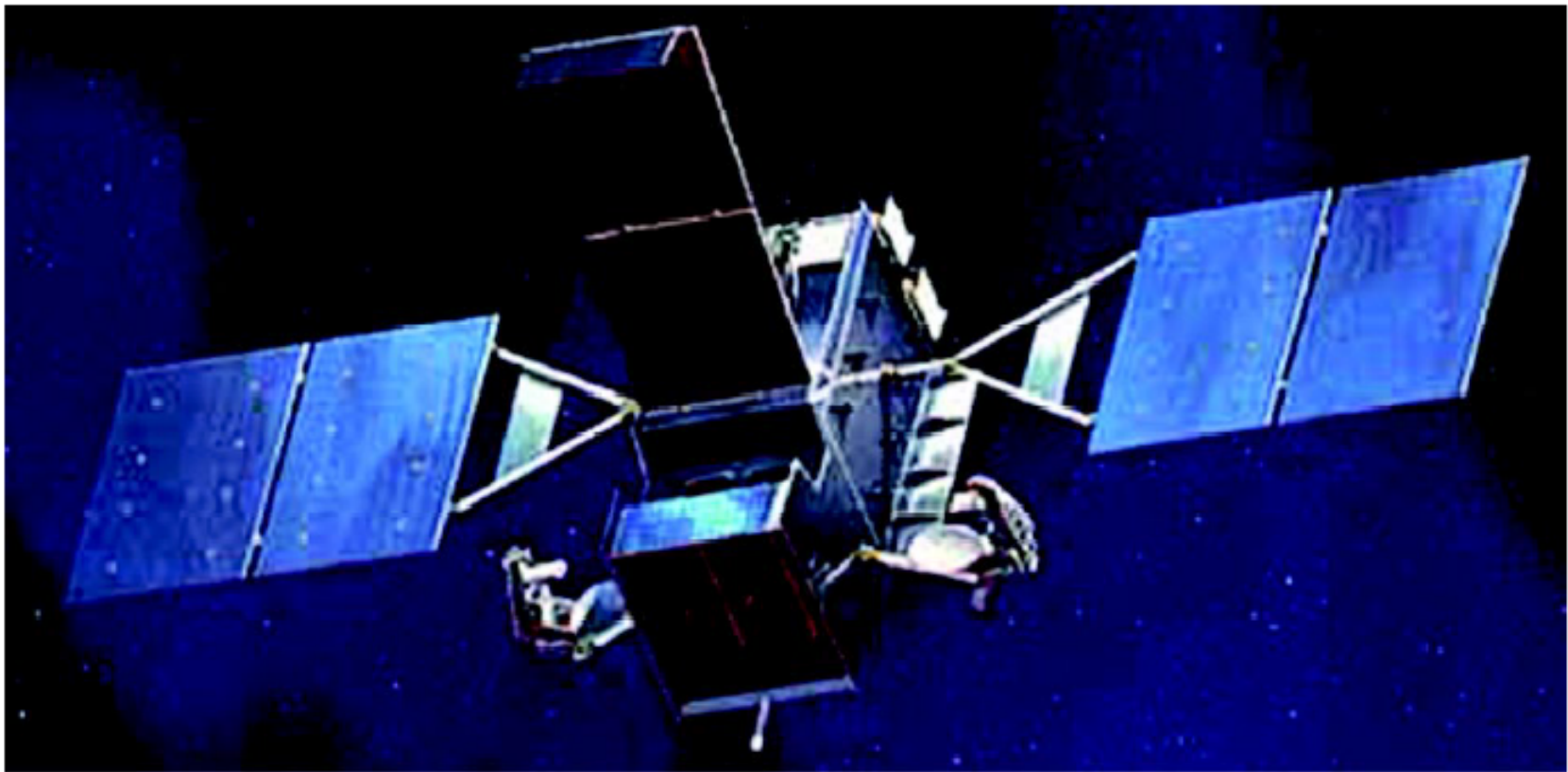
- First of 3 launches in 2006
- Contractor: Lockheed-Martin
- Cost: at least \$1.7 billion per satellite



# Nuclear C3 for Strategic/Tactical Warfighting

- System: Advanced Extremely High Frequency (AEHF) Satellites
  - Cost: \$5.6 Billion (three satellites)
  - Mission: Initial Operating Capability (IOC) for three satellites in FY2008 will provide nuclear-survivable, anti-jam, low and medium data rate communications to strategic and tactical users.
  - Developments costs increased \$1.8 billion last year, “due primarily to additional requirements needed to fulfill warfighting requirements.”

# Space-Based Infrared System High (SBIRS)



Source: Lockheed Martin.

# SBIRS High for Missile Warning and Defense, “Battlespace Characterization”

- Contractor is Lockheed-Martin
- Program cost has doubled since March 1998: five satellites will cost at least \$8.25 billion, or \$1.65 billion per satellite
- Rumsfeld is building first two satellites using research and development funding
- First launch in FY 2007.

# Other Important Bush-Rumsfeld Changes in US Strategic Posture

- Bush unilaterally withdrew US from the ABM Treaty (June, 2002)
- Republicans have doubled Missile Defense spending (to \$9 billion/yr) while systematically reducing Congressional and independent oversight of iterative “spiral development” program
- Announced “emergency deployment” of an unproven ground-based midcourse hit-to-kill system in Alaska and California by October 2004

# More important changes...

- Special Operations Forces are being enlarged and equipped with more powerful weapons
- US Global Basing Structure is expanding again
- The former nuclear Strategic (Air) Command and Space Command merged in 2002 to form a new unified Strategic Command (STRATCOM) with a huge mission portfolio:
  - Deterrence of Nuclear Attack
  - Global conventional and nuclear strikes
  - Missile Defense
  - Space Control and “Defense”
  - Information Warfare



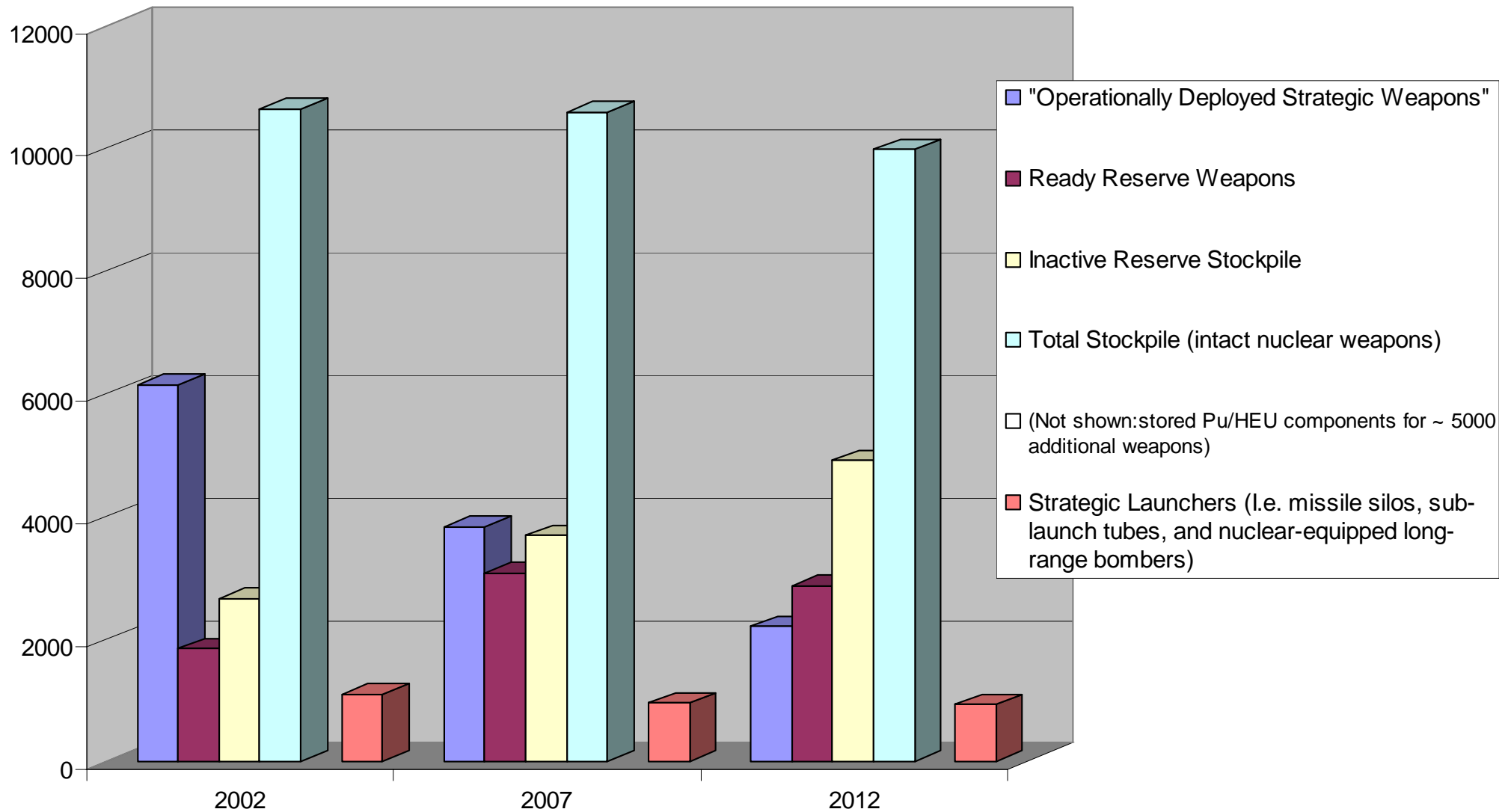
# More important changes...

- Republicans have created new Pentagon post of Undersecretary for Intelligence.
- This official (currently Rumsfeld mandarin Stephen Cambone) has been given direct control over the Defense Intelligence Agency (DIA), National Security Agency (NSA), National Reconnaissance Office (NRO), and the National Imagery and Mapping Agency (NIMA).
- Change reduces authority and influence of CIA Director, and further compromises independence of intelligence process.

# Defense Industry Consolidation

- \$140 billion annual defense R&D and procurement spending now largely shared by five huge firms (underlined) which have incestuous “teaming” and subcontracting arrangements:
  - Lockheed-Martin-Loral-Comsat
  - Northrop-Grumman-Litton-Newport News Shipbuilding-TRW
  - Boeing-Rockwell Int. Aerospace-McDonell Douglas
  - Raytheon-Hughes Aircraft-E Systems-TI Defense
  - General Dynamics-Bath Iron Works-GTE Government Systems
- In the 1999/2000 election cycle, these 5 firms alone donated more than \$1.4 million to the campaigns of Senate and House Armed Services Committee members.
- Dozens of former senior executives and board members from these companies populate the top defense management jobs in the Bush Administration.

## BUSH PLAN FOR US NUCLEAR FORCES 2002 - 2012



# Bush Plan Keeps Huge Force

- Nuclear Posture Review (NPR) projects indefinite retention of large modern, diverse nuclear forces:
- In 2013, US President would still command a massive force:
  - 954 strategic launchers
  - 3000 “operational” strategic and “substrategic” weapons
  - 2100 “active reserve” weapons ready for re-deployment
  - 4900 intact but “inactive” reserve weapons (not ready).
  - nuclear components for ~ 5000 additional weapons
- Total potential for 15,000 weapons.

# Bush Nuclear Force Structure Reductions Are Exceedingly Modest

- Deactivation and removal of 50 deployed MX/“Peacekeeper” ICBMs began October 1 and is scheduled to be completed in three years.
- Secret NPR report explains leisurely pace by noting that MX elimination is phased to correspond with introduction of the Trident II (D-5) missile in the Pacific sub fleet.
- MX remaining during the elimination period are being kept on alert “to provide a necessary contribution to the U.S. portfolio of capabilities.”

# *“Necessary Contribution?”*

## *What “portfolio of capabilities?”*

- President says US is no longer targeting Russia with nuclear missiles.
- If true, does this mean nuclear missiles are being kept “on alert” without targets?
- If so, what’s the point? Who, and what is being “deterred” by these alert missiles? China?
- Bottom Line: Somebody is Lying, or Else Wasting a Great Deal of Money – probably both.

# Nothing Gets Eliminated

- Bush plan calls for MX silos to be retained, rather than destroyed as specified in START II Treaty;
- MX missile stages also retained, with no controls in SORT over future military use of analogous Russian missiles;
- 500 W87 MX warheads (300 kt) will be shifted to single-warhead variant of Minuteman III ICBM;
- MM III missile is being rebuilt and modernized at a cost of some \$6 billion.

# Bush Plan Modernizes/Extends Life of SLBM Force

- From now to 2013, Pentagon will spend at least another \$10.4 billion on the Trident II missile system, including:
  - additional 115 Trident II missiles (\$4.3 billion)
  - improved guidance systems and missile electronics (\$4 billion)
  - Pacific deployment with Mk5/W88 silo-busting warhead



# Trident Sub Conversion

- Bush program implements 1994 planned cut in Trident ballistic missile submarines from 18 to 14 by FY 2007.
  - Four older subs will be converted to carry Special Operations Forces and up to 154 conventional cruise missiles per boat
  - Of 14 Tridents remaining in service, first will not retire until 2029, some *60 years* after the United States ratified its NPT Article VI obligation.
  - Navy is already studying concepts for a replacement that would begin development around 2016.

# No further reductions planned in nuclear force structure

- Following these gradual and modest reductions in deployed ICBM's (9%) and Trident launchers (22%), Bush's secret plan states:
- “No additional strategic delivery platforms are scheduled to be eliminated from strategic service.”

# Bush Plan “Revitalizes” US Nuclear Weapons Complex

- Bush wants modern capacity to:
  - upgrade existing nuclear weapons
  - “surge” production of weapons
  - develop and field entirely new weapons.
- Bush’s desired nuclear arsenal of the future would have capability to target and destroy:
  - mobile and “re-locatable” systems
  - hard and deeply buried targets
  - chemical and biological stocks (“Agent Defeat”).

# Bush Plan Keeps US Nuclear Weapons Research at High Level

- Current Bush FY 2004 funding request of \$6.6 billion for nuclear “Weapons Activities” account is about 65% HIGHER than Cold War average level (~\$4.1billion per yr. in current 2003 dollars)
- 23% higher than last Clinton-era budget (FY2001)
- Plans underway to expand Pantex nuclear weapon assembly plant capacity to 600 warheads per year, up from current 350 wh/yr.

# No Time For Disarmament

## Pantex Fully Booked with “Double-Shift” Warhead “Refurbishments”

- No capacity available to dismantle any warheads that might be retired under Moscow Treaty;
- “Any plan to increase dismantlements prior to at least FY 2014 would compete for resources with critical refurbishment or evaluation work.” -- NNSA, Aug. 1, 2002.

# Bush Plan Resurrects “Advanced Concepts” Nuclear Design Teams

- “Advanced Concepts Initiative” ongoing at all three nuclear weapons labs:
- Purpose is “to energize design work on advanced concepts,” according to NPR Report.
- Work focuses on “evolving DoD requirements:
  - Defeat “Hardened and Deeply Buried Targets
  - “Agent Defeat Weapons” to attack chem-bio warfare sites; High-Power Microwave weapons to disable power grids, communication networks
  - Reduce collateral damage via improved accuracy, reduced and variable yields

# Bush Plan Calls For New Plutonium Pit Factory

- Nuclear Posture Review projects need for
  - “Modern Pit Facility (MPF),” to deal with the “large-scale replacement” of plutonium components and “new production.”
  - MPF would cost on the order of \$2-4 billion and have a modular expandable capacity of 125 to 500 pits per year
  - Candidate sites are Los Alamos or Carlsbad, N.M.; Amarillo, TX; Aiken, SC; and the Nevada Test Site (NTS).

# Bush Administration may accelerate MPF to produce new weapons

- \$1.7 billion modernization of Los Alamos pit production facilities is already ongoing; designed to provide (doubleshift) capacity for up to 50 pits per year by 2007.
- However, according to DOE, “lack of a permanent plutonium pit production facility is a critical issue in defense readiness” since it “deals directly ...with our ability to keep our nuclear stockpile safe, reliable, and secure.”
- But DOE also say new facility, if approved, “will reestablish the capability to manufacture current and future pit types for the nuclear stockpile by 2020.”
- A Republican-inspired advisory panel, chaired by John Foster, is pressing that this date be moved to “within the next 10 years.



# Plan Modernizes Thermonuclear Component Factory

Bush plans includes 7-8 year, billion-dollar project to expand the capacity and capability of the Y-12 “National Security Complex” at Oak Ridge, Tennessee, to meet the planned workload for replacing thermonuclear warhead secondary stages and other uranium components.

# Tritium Boost Gas Production to Resume in Fall 2003

- “There will be no near-term reduction in the demand for tritium.” – NNSA, Aug. 1, '02.
- NNSA completing construction and will soon begin operation of a new \$507 million Tritium Extraction Facility (TEF) at the Savannah River Site “so that tritium can be delivered to the stockpile in advance of need.”
- Producing a decaying asset (- 5.5%/yr) “in advance of need” makes no sense.

# Bush Plan Seeks “Enhanced Readiness” for Nuclear Tests

- Bush Administration is shortening period needed to field fully-diagnosed nuclear tests to “within 18 months” of a decision to resume testing, by:
  - “replacing key underground-test-unique components”
  - “modernizing certain test diagnostic capabilities”
  - “augmenting key personnel and increasing their operational proficiency”
  - “conducting test-related exercises of appropriate fidelity,” and
  - “decreasing the time required to show regulatory and safety compliance.”

# Pentagon seeking broad “review” of “risks” in “Stockpile Stewardship”

Bush review of nuclear posture states:

- “While the US is making every effort to maintain the stockpile without additional nuclear testing... problems in the stockpile...have already been identified...judgments about capability in a non-testing environment will become far more difficult.”
- “Each year the DoD and DOE will reassess the need to resume testing...”

# Will Testing Resume after November 2004?

- “Underground nuclear testing could begin at the Nevada Test Site in the next decade...Dr. Dale Klein ...Rumsfeld’s assistant for nuclear chemical and biological defense programs, said that the nation may need hard data to check the weapons.
- ‘As time goes on there will likely have to be some tests performed beyond the small scale...We didn’t think they would be in the stockpile this long.’ ” – *Las Vegas Sun*, Aug 14, 2002

# Where does all this leave nuclear arms control?

- Answer: Somewhere between a dead letter and a charade.
- Bush Administration opposes any further limitation on the development, testing, production or deployment of nuclear weapons
- Supported non-binding “Moscow Treaty,” ratified earlier this year:
  - calls for reduction to not more than 2200 “operationally deployed strategic weapons” by December 31, 2012.

# IS THE “STRATEGIC OFFENSIVE REDUCTIONS TREATY” A SHAM?

- *Reagan’s “Doverai no Proverai”* – a longstanding mantra of pro-defense conservatives -- is DEAD.
- SORT lacks verification and inspection provisions of any kind.
- President Bush did not deliver on his pledge to make the force reductions “legally binding.”
- Effective date of the treaty’s only constraint – a reduction in “operationally deployed strategic” weapons which must occur “by December 31, 2012,” – lags by a microsecond the expiration of the overall treaty, which remains in force only “until December 31, 2012.”

# No Interim Milestones

- Moscow Treaty lacks interim milestones for implementing reductions and assessing compliance.
- Bush article-by-article analysis:
  - “...Prior to December 31, 2012 each Party is free to maintain whatever level of strategic nuclear warheads it deems appropriate...”
- Same is obviously true on or after 31 Dec 2012 – treaty expires before the reductions are required to take effect.



# SORT Eliminates Nothing

- Treaty does not require the elimination of a single nuclear missile silo, submarine, missile, warhead, bomber or bomb.
- Allows unlimited production and deployment of new nuclear warheads, and delivery systems, tactical and strategic.
- Lacks agreed definition of what, if anything, is being “reduced.”

# No Limit on Warheads in Overhaul

- Voluntary treaty “limit” on “operationally deployed strategic weapons” does not apply to systems in overhaul, but:
- Treaty contains no cap on the number of “deployed” warheads that may be claimed to be in overhaul at any given time;
- Result: 1700-2200 warhead “limit” is not merely “flexible” – it’s unenforceable.

# Permissive Withdrawal Clause

- Standard is lowered from “extraordinary events that require withdrawal” to a mere “exercise of national sovereignty.”
- What difference can a standard make?
- Secretary Rumsfeld has already threatened U.S. withdrawal from the treaty if the Congress doesn’t fully fund the President’s Missile Defense program.

# “Pay Up, or We Bail Out”

- “The proposals with respect to 1,700 and 2,200 are premised on some investments that need to be made in missile defense and investments that need to be made in infrastructure ...”
- “Investments in these and many other transformational capabilities in the 2003 budget should allow the U.S. over time to reduce our reliance on nuclear weapons and enact the reductions contained in the treaty.”
  - Defense Secretary Donald Rumsfeld, July 25, 2002.

# Bottom Line on SORT

- Moscow Treaty erodes very concept of negotiated binding arms control agreements as a means of reducing the nuclear threat and enhancing international security.
- That is the Administration's real purpose, and the treaty's main "accomplishment."
- Senate should have declined to act on treaty. It provides misleading PR cover for assertive Bush nuclear posture, without reducing future nuclear risks in any way.

# In the Short Term: Deeper Real Stockpile Reductions Are Feasible

- Move beyond SORT by implementing a permanent, verified two-thirds reduction in U.S. and Russian aggregate nuclear stockpiles
- Matches promised two-thirds cut in “operationally deployed” strategic weapons
- 3500 total US stockpile weapons by 2007, rather than 10,000 in 2012.
- Dedicate huge, modern, and mostly unused Device Assembly Facility (DAF) at Nevada Test Site to warhead dismantlement and Pu component storage.

# Bush policy poses triple threat to nuclear arms reduction/NPT:

- Moscow Treaty is a non-binding sham that fails to create technical/political basis for deep verifiable nuclear arms reductions;
- Bush program for modernizing nuclear forces & weapon design/production complex is excessive & appears designed to lead to a resumption of testing
- Worldwide preventive/preemptive strike doctrine & nuclear contingency planning will spur rather than discourage proliferation.

# US Nonproliferation Policy is on Life Support, Fading Fast

- Article VI arms control agenda from 1995 NPT Extension Conference no longer supported.
- Nominal interest in fissile material cutoff survives, but in a form designed to advantage US and obstruct consensus on a negotiating mandate.
- BWC: two years wasted trashing other parties efforts; Bush now claims to support “identification and promotion of constructive and realistic measures to strengthen the BWC...,” but opposes formal negotiations before 2006.



## Sole new Bush nonproliferation “initiative” is wildly counter-productive

“As outlined in the National Energy Policy, the United States will work in collaboration with international partners to develop [plutonium] recycle and fuel treatment [i.e. reprocessing] technologies that are cleaner, more efficient, less waste-intensive, and more proliferation resistant.”

– NSC/WMD, Dec. 2002, p. 4-5.

# Bush Energy Program Promotes Civil Use of Plutonium

- Bush-Cheney, Congressional Republicans, and DOE's Office of Nuclear Energy are pushing:
  - Generation IV (“Gen-IV”) Nuclear Reactors, including 3 types of plutonium breeders
  - Advanced Fuel Recycle Initiative (“AFRI”) would provide \$400 million over four years for two pilot reprocessing plants
  - Goal is construction of world's largest commercial reprocessing plant by 2015 to recover 20,000 kg of plutonium per year (enough material for 5-10 thousand nuclear bombs)

# Offer Russia a Plutonium Breeder to Dump Iranian Bushehr Project??

- Moscow is resisting US pressure to cease construction of the Bushehr nuclear plant in Iran;
- Condi Rice knows that Russia's Ministry of Atomic Energy (Minatom) LOVES Plutonium breeders reactors;
- SOLUTION: "The US, she indicates, ...is holding out the possibility of help for Russia's energy industry - in particular in the development of a new generation of fast-breeder reactors."  
-- Rice interview with *Financial Times* 09/23/02

# Conclusions

- Bush National Security Strategy policy is not merely misguided – it is hypocritical, incoherent, and dangerous:
  - Rehabilitates limited and tactical nuclear warfare
  - Extends U.S. preemptive nuclear use threats to non-nuclear weapon states, violating longstanding US security assurances to NPT member states “suspected” of acquiring chemical or biological weapons
  - Erodes political/technical basis for continuing process of deep verified nuclear arms reduction;
  - Wastes huge sums maintaining and modernizing excessive nuclear forces that would be better spent on nonproliferation initiatives, improved nuclear safeguards, retrieving/securing HEU worldwide.

## Conclusions - 2...

- Bush policy has abandoned verification improvements to BWC, & obstructs implementation of CWC inspections
- Moscow Treaty designed to end – not accelerate – US-Russian nuclear arms control process
- Counter-proliferation strategy based on global military threat of preventive strikes is unworkable – e.g. North Korea – violates acceptable use-of- force provisions of United Nations Charter, and will produce international chaos if widely imitated.

# Conclusions - 3

- New preemptive/preventive attack doctrine mindlessly conflates special force operations against terrorists with conventional and even nuclear disarming first strikes against “hostile” sovereign states that possess, or are thought to be acquiring, nuclear, chem- or bio-weapon capabilities;
- Bush doctrine incorrectly equates possession/use of nuclear, chem- and bio-weapons, when military civil, and geopolitical consequences of such weapons vary widely.