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US 'Prompt Global Strike' Capability: A New Destabilising Sub-State Deterrent in the Making?

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Key Points:

- US Navy seeking to convert Trident II D-5 SLBMs to carry conventional warheads.
- BASIC recommends that Congress eliminate the \$127 million earmarked in the fiscal year 2007 budget for this purpose and that NATO allies voice opposition to it, both in public and in private discussions with US officials.
- US Energy Department plans massive 'Divine Strake' detonation to model low-yield nuclear weapon.
- 'Prompt Global Strike' initiative to provide US with capability to strike virtually anywhere on the face of the earth within 60 minutes.
- Serious global security implications including high risk of mistaken nuclear first strike and a new arms race in ballistic missiles

What is 'Prompt Global Strike' capability?

The Pentagon is seeking to field a fully operational 'Prompt Global Strike' (PGS) capability by 2020. It is premised on the Pentagon's perception of the need for the United States to be able to convey a "new kind of deterrence"¹ in order to meet contemporary security challenges, such as terrorists armed with nuclear weapons.² The PGS concept, introduced in the Defense Department's *2001 Nuclear Posture Review* and further refined in the *2006 Quadrennial Defense Review*, is a \$500 million project that would see up to 100 of the US Navy's 300 Sea-Launched Ballistic Missiles (SLBMs) re-armed with conventional warheads.³ These weapons would give the US administration the ability to attack targets thousands of miles away with precision-guided, conventional high explosives within 60 minutes of a Presidential order to strike.⁴

In the short term, an interim project would see 24 of the US Navy's Trident II D-5 SLBMs modified to carry non-nuclear, conventional warheads. Each missile would be able to carry four conventional warheads and initially two would be deployed per submarine.⁵ This would "satisfy the immediate desire of US Strategic Command (STRATCOM⁶) for a near-term strike option".⁷

But as Trident's ballistic trajectory is unlikely to meet long-term accuracy requirements,⁸ the Air Force Space Command (AFSPC) has asked industry to submit

designs for new weapons that could “strike globally, precisely and rapidly with kinetic effects against high-payoff, time sensitive targets in a single or multi-theatre environment”.⁹ While candidate systems for the long-term project are likely to include conventional variants of current ballistic missile capabilities, the PGS concept will “open new opportunities for ballistic or hypersonic vehicle technologies”.¹⁰ Any PGS weapons system is likely to have a 7,000-8,000 mile range and there are high hopes among Pentagon officials that a fully operational system can be in place before the 2020 target date.

Rationale behind the PGS concept

The PGS concept is an entirely predictable extension of current US ‘pre-emptive’ strategic thinking. Indeed, its conceptual development from a purely strategic to a viable tactical weapon mirrors the subtle way (since 2002) the Bush doctrine of ‘pre-emption’ has increasingly become one of ‘prevention’. The evolving rationale behind the PGS concept reflects a shift in emphasis away from a ‘one size fits all’ nuclear deterrent to a more ‘tailored deterrence’ designed to counter each individual threat or adversary as or when it should arise.¹¹ A fully operational PGS system would provide military commanders with an ‘on-demand’ force projection capability designed to ‘hold at risk’ a variety of perceived threats, both strategic and tactical. On a strategic level these threats would range from ‘rogue’ regimes and terrorist networks to near-peer competitors and potential major adversaries such as China.

“This weapon would give the US global conventional pre-emption – a strike first capability – in 30 minutes, to attack North Korean or Iranian WMD or leadership facilities”, said William Arkin, a former Army intelligence analyst and independent defence consultant.¹²

On a tactical level, the range and immediacy of the weapon would also permit the US military to take out ‘time-urgent’ or ‘fleeting targets’ – such as enemy WMD being deployed for launch or use – in restricted or ‘anti-access’ environments or environments where the US military has a limited forward-deployed presence. The missile’s payload would also enable the US military to target what are commonly referred to as ‘hard and deeply buried targets’.

Divine Strake

With this latter objective in mind the US Energy Department wants to model a low-yield nuclear weapon strike against a hardened tunnel at a Nevada test site. Originally planned for June 2, 2006, then delayed until June 23, but now delayed indefinitely due to a pending legal action,¹³ the proposed test raises serious concerns as to the speed at which the Pentagon is pushing ahead with plans to fully implement a tactical PGS capability.¹⁴ The test, dubbed ‘Divine Strake’, to be conducted on behalf of the Defence Threat Reduction Agency (DTRA) for its ‘Tunnel Target Defeat Advanced Concept and technology Demonstration’, will involve detonating a massive 700 tonnes of ammonium nitrate and fuel oil, the equivalent of 593 tons of TNT. The explosion will be nearly 50 times greater than the largest conventional weapon in the US arsenal.¹⁵ It is intended to provide data on how the shock from a low-yield nuclear weapon would damage hardened, underground facilities.¹⁶

“I don’t want to sound glib here but it is the first time in Nevada that you’ll see a mushroom cloud over Las Vegas since we stopped testing nuclear weapons” said

James Tegnalia, head of the Defence Threat Reduction Agency'.¹⁷ (Tegnalia was subsequently forced to apologise for his 'mushroom cloud' remark, describing his choice of words as 'unfortunate'.¹⁸)

While the Agency has since played down the nuclear connection such statements suggest that the US administration may still be harbouring ambitions to develop usable low-yield tactical nuclear weapons.

The 'stand-off' nature of any fully operational PGS system, and therefore lack of risk to US military personnel, at first sight appears to offer any President a military option at a politically acceptable price. However, many US lawmakers are reportedly highly sceptical of the PGS concept and have twice before turned down funding requests for this same concept (once after 9/11 and again in 2003/04). Not only do tests such as 'Divine Strake' suggest a lowering of the nuclear threshold but also the idea of launching conventional SLBMs or Inter-Continental Ballistic Missiles (ICBMs) creates a dangerous international ambiguity.

Implications of PGS on global security

It does not matter whether you are dealing with an intercontinental ballistic missile or an M-16 rifle. If you pull the trigger in war, the second- and third-order effects of intent are always the most difficult things to understand

STRATCOM Commander General James E. Cartwright, Interview in Arms Control Today, June 2006

While the replacement of some nuclear warheads with conventional explosives may at first appear to be a desirable step towards a reduction in deployed US nuclear forces, the reality that presents itself upon a more detailed analysis is far less encouraging. Indeed, the replacement of a nuclear 'deterrent' (which is designed not to be used, however potentially lethal that deterrent may be), with a conventionally-armed SLBM or ICBM capability that the current US administration appears increasingly keen to employ, throws up grave concerns for the future of an international law-based global security paradigm. Key areas of concern include:

- *The absence of transparency and accountability*

There appears to be little, if any, transparency and accountability in any targeting / decision making process for the PGS capability. It seems likely, as with the current policy of targeted assassination of suspected terrorists using missiles fired from pilot less drones,¹⁹ the US administration will act as the sole judge, jury and executioner. The US military establishment is already attuned to accepting civilian casualties—euphemistically termed 'collateral damage'—when attacking high-profile targets in foreign lands. Indeed, there is a very real likelihood that given a desire to utilize, and hence justify, an 'on-demand' force projection capability, detailed intelligence analysis of 'time sensitive targets' would become subservient to a 'strike first, ask questions later' ethos. According to William Arkin:

We are talking here about confidence levels that will allow the President of the United States to decide to preemptively attack a terrorist operation in the middle of a sovereign nation within 30 minutes. Why would we believe that U.S. intelligence could detect this with any level of confidence and yet have failed to detect all of the days, months, or years of preparation to get there?²⁰

This scenario, coupled with technological concerns as to the accuracy of conventionally armed SLBMs and ICBMs, raises the high probability of civilian casualties in any use of a PGS capability. Finally, another interesting question is whether PGS would move the command and/or firing authority lower down the chain of command.

- *The high-risk of a mistaken nuclear first-strike*

The launch of a conventionally armed ICBM brings an inherent risk of triggering a nuclear war. It seems likely, for example, that Russian and Chinese early warning radars would be unable to differentiate between US nuclear and conventional SLBM and/or ICBM launches, as the heat signatures of both would be the same.²¹ The ambiguity, by causing doubt and uncertainty, and possible delay in response, will also inevitably strengthen the capacity for a successful US nuclear first strike. Countries targeted by any ICBM strike would need to treat any attack as a nuclear one if they were to avoid being open to a successful surprise US nuclear first strike. This would contribute to instability, particularly if US commanders may at times be insensitive to the unintentional ramifications of the launch of a conventional ICBM.

- *International legal implications*

The bombing of targets thousands of miles away with a PGS capability raises serious legal implications and questions pertaining to territorial sovereignty. These concerns extend to long-standing treaties covering international and sovereign airspaces that ICBM flyovers would be likely to violate.

- *Undermining the Hague Code of Conduct Against Ballistic Missile Proliferation: A new arms race in ballistic missiles?*

The PGS capability also raises serious non-proliferation issues. First, it is likely to lead to a new arms race in ballistic missiles and countermeasures as other countries seek to match the US system and/or seek to protect their sovereignty by building weapon systems to counter US capabilities. It seems likely, for example, that other nuclear powers, such as China and Russia, would embark on similar SLBM and ICBM conversion projects. This could in turn ratchet up the potential for major armed conflict in areas, such as the Taiwan Straits, where tensions already run high.

Second, PGS clearly undermines ballistic missile non-proliferation efforts, such as the 2002 Hague Code of Conduct Against Ballistic Missile Proliferation, which calls for greater restraint in developing, testing, using, and spreading ballistic missiles.²² At the signing of the Code, John Bolton, then US Under Secretary of State for Arms Control and International Security, affirmed US support for it, but also highlighted a number of qualifying factors and reservations. One such reservation concerning pre-launch notifications was that the United States ‘reserves the right in circumstances of war to launch ballistic missile and space-launch vehicles without prior notification’.²³ If the US administration is also asserting its ‘right’ to pre-emptive launch of a PGS capability the Code is as good as dead and buried.

Third, it will lower the threshold of use for such weapons. And as Steve Andreason, a former US Nation Security Council staffer has pointed out: “Long-range ballistic missiles have never been used in combat in 50 years”. But once the United States starts indicating that it views these missiles as no different than any other weapon, “other nations will adopt the same logic”, he said.²⁴

- *The cost to US taxpayers*

Is the estimated \$500 million cost of the PGS project morally or ethically justifiable or indeed a wise investment of US taxpayers' money? While PGS may provide a limited deterrence against threats posed by state actors, it offers little viable defence against 'asymmetric' threats posed by non-state actors where there is no, or an unproven, 'return address'. Some of the most devastating attacks against the United States, such as the Oklahoma City bombing and the attacks of 9/11, have occurred on home soil. Conventionally armed ICBMs would do nothing to deter similar attacks in the future and it is unlikely that they could realistically shape a military response to future attacks perpetrated in the same vein.

Conclusion and Recommendations

The desire of one power for absolute security means absolute insecurity for all the others.

Henry Kissinger.

The Pentagon's desire to field a PGS capability marks yet another dangerous precedent in recent US defence policy. As the Bush administration continues in what has been described as its 'quest for absolute security', serious questions must be asked not only regarding the feasibility of such a quest, but also as to the toll in terms of real security that projects such as PGS have on the rest of the international community.²⁵

In its pursuit of a unilaterally shaped global security paradigm the present US administration threatens to destroy an international order that 'has been patiently built up for 50 years'.²⁶ In turn, this not only de-legitimises US power, but also creates in the process a world that is ever more insecure. The complex range of security dilemmas that the international community is faced with requires a multilateral and international law-based response that takes into account the security concerns of the community as a whole. The PGS capability is born of a narrow neo-realist perspective and seeks to buy security at the end of a \$500 million missile system. Such an approach will further antagonise US allies and also create a heightened sense of global insecurity. And the more 'rogue' elements of the international community will already be preparing their own asymmetric response to this latest proposed big stick in the US arsenal.

The Bush administration has requested \$127 million in the Fiscal Year 2007 budget request to modify 24 of the US Navy's Trident II D-5 SLBMs to conventional warheads. This is clearly an unwise investment of US taxpayers dollars at time when there are other more pressing US defence priorities: global port security; National Guard and Army Reserve forces; and Nunn-Lugar programs to dismantle WMD stockpiles to prevent them getting into the hands of terrorists in the first place. US lawmakers also seem to think so.

The Senate Armed Services Committee has insisted that the administration report on how it would mitigate the risk of a mistaken nuclear first strike before money can be spent to manufacture or deploy the missiles. Similarly, the House Armed Services Committee has asked Defense Secretary Donald Rumsfeld to report on discussions that have been held with other nations on this issue and to provide a detailed explanation of how the weapons would be used. Russian Foreign Minister Sergey

Lavrov has already warned that the proposal poses a threat to strategic stability.²⁷ The House committee also sought to slow the programme by cutting the entire \$50 million procurement request and more than half of the \$77 million sought for the research and development of the new warhead.

BASIC recommends that:

- 1. Congress eliminate the \$127 million earmarked in the Fiscal Year 2007 budget to modify 24 of the US Navy's Trident II D-5 SLBMs to conventional warheads; and**
- 2. NATO Member States and other US allies help Congress to eliminate this proposal by voicing opposition to it, both in public as well as in private conversations with US officials.**

Endnotes

¹ U.S Strategic Command (STRATCOM) Commander Gen. James Cartwright cited by Ruppe, D., 'U.S Command Declares Global Strike Capability', Global Security Newswire, 2 December 2005. Available at <http://www.nti.org>

² See, for example, the argument of two former US Secretaries of Defence: Brown, Harold and James Schlessinger, *A Missile Strike Option We Need*, The Washington Post, 22 May 2006; for the counter argument, see Arkin, William M., Early Warning Blog, *A New Trident II is an Illusion of Defense*, http://blog.washingtonpost.com/earlywarning/2006/05/a_new_trident_ii_is_an_illutio.html#21378

³ Hess, P., 'Work Begins On Arming Trident Submarines with Non-Nuclear Weapons', Washington (UPI), 4 April 2006. Available at: http://www.spacewar.com/reports/Work_Begins_On_Arming_Trident_Submarines_With_Non_Nuclear_Weapons.html

⁴ The Pentagon's budget request for this capability was confirmed by Senator Jeff Sessions in the recent Hearing of the Subcommittee on Strategic Forces of the Senate Armed Services Committee, Global Strike Plans and Programs in Review of the Defence Authorisation Request for fiscal year 2007. 'The capability to strike virtually anywhere on the face of the earth within 60 minutes could provide the president with the means to pre-empt dangerous threats to the United States and its allies and could well become one of the more important deterrent tools in our nation's strategic arsenal'. Full transcript available at: <http://www.fmsg.com/search.htm?op=s&newsearch=on&allrealm=on&query=senate+armed+services>⁺

⁵ To fund this interim project \$127m has been requested from congress for fiscal year 2007. *Ibid.*

⁶ STRATCOM was established in 1992 following the closure of Strategic Air Command (SAC) and the Joint Strategic Target Planning Staff (JSTPS). SAC had been established in 1946 to manage US long-range nuclear bombers; and the JSTPS was created in 1960 to oversee planning and targeting of all US nuclear forces. STRATCOM is responsible for implementing the Bush administration's 2001 Nuclear Posture Review, which proposed a transformation in the roles and structure of US strategic forces.

⁷ FlightInternational.com cited by Sieff, M., 'BMD Focus: Rumsfeld's first strike vision', 9 February 2006. Available at <http://www.upi.com>

⁸ Trimble, S., 'Global strike concept raises hopes and fears', 7 February 2006. Available at www.flightinternational.com

⁹ US Air Force cited in Grossman, E., 'Air Force Wants 'No-Warning' Strike Force', InsideDefense.com, 3 February 2006. Available at <http://www.military.com>

¹⁰ Trimble, op. cit.

¹¹ Cartwright, General James E., Commander United States Strategic Command (STRATCOM), 'Statement before the Strategic Forces Subcommittee Senate Armed Services Committee on Global Strike Plans', p11, 29 March 2006. Available at:

<http://armed-services.senate.gov/statemnt/2006/March/Cartwright%20SF%2003-29-06.pdf>

Also see 'Strategic Decisions: An Interview with STRATCOM Commander General James E. Cartwright' in *Arms Control Today*, June 2006,

http://www.armscontrol.org/act/2006_06/CartwrightInterview.asp

¹² Arkin, William M., cited in Capaccio, T., 'U.S May Arm Subs With Conventional Warheads for Quicker Strike', Bloomberg News, 17 January 2006. Available at

<http://www.bloomberg.com>

¹³ Ritter, Ken, *Mushroom cloud blast in Nevada delayed indefinitely*, Associated Press, 26 May 2006.

¹⁴ Ruppe, D., 'U.S. Test To Model Low-Yield Nuclear Bomb Effects', Global Security Newswire, 4 April 2006. Available at:

<http://www.nti.org/d%5Fnewswire/issues/2006/4/4/34757f44%2D51cd%2D4998%2Daf51%2D137b84f37a66.html>

As Ruppe notes the Tunnel Target Defeat program is undoubtedly part of the Bush administration's wider effort to develop a capability to hold 'all potential adversarial targets at risk, as an integral part of the nation's policy of deterrence.' *Ibid*.

¹⁵ Gehrke, Robert, *Test Blast in Nevada: A nuclear rehearsal*, The Salt Lake Tribune, 18 April 2006.

¹⁶ Ruppe, D., 'U.S. Test To Model Low-Yield Nuclear Bomb Effects' Op.Cit.

¹⁷ Tegnelia, J., cited in Fleck, J., 'Blast to Simulate Nuke Explosion', ABQ Journal, 2 April 2006. Available at:

<http://www.abqjournal.com/news/state/446953nm04-02-06.htm>

¹⁸ Batt, T., 'Official apologizes for 'mushroom cloud' remark: Description of 700-ton explosion set for June 2 called 'unfortunate'', Las Vegas Review Journal, 7 April 2006. Available at:

http://www.reviewjournal.com/lvrj_home/2006/Apr-07-Fri-2006/news/6750940.html

¹⁹ Targeted assassination of suspected terrorists using missiles fired from pilot less drones is already an established tool in the US counter-terrorism toolbox. In January 2006, for example, at least 13 civilians were killed in such an attack at Damadola, a remote village in the Bajaur district of Pakistan near the Afghan border. The air strike was aimed at al-Qaida's deputy leader, Ayman al-Zawahiri, although it is now thought that he was probably not in the area at the time. The attack was widely reported as a CIA-inspired operation, using the same type of remote-controlled drone aircraft and Hellfire missiles that killed six suspected Islamic militants in Yemen in November 2002. See: http://news.bbc.co.uk/1/hi/world/south_asia/4614486.stm

By way of recompense Condoleezza Rice later kindly offered to 'address their [Pakistani] concerns' regarding the strike. See http://news.bbc.co.uk/1/hi/world/south_asia/4617196.stm

²⁰ Arkin, William M., Early Warning Blog, *A New Trident II is an Illusion of Defense*, Op.Cit.

²¹ This is clearly a major area of concern and one raised by Stan Norris, senior analyst for the Natural Resources Defence Council, 'How would Russian early warning radars differentiate between conventional missile attacks aimed at say al-Qaeda caves on the Afghan-Pakistan boarder and those aimed at Russian missile silos?' Would the US 'notify Russia or China of an impending attack to avoid the possibility of Russian or Chinese misinterpretation?' Cited in Capaccio, T., *op. cit.* The degraded state of Russian air defence systems can only exacerbate such concerns.

However, these concerns seem to be nothing less than trivial for many in the current Bush administration, as reflected in the evidence given to the Senate Armed Services Committee by Peter Flory, Assistant Secretary of Defence for International Security Policy at the end of March 2006. In response to a question from Senator Nelson as to how other people would know that they were not facing an incoming nuclear warhead Mr Flory replied:

"I think there are a number of ways. First of all, there are the observable characteristics, which, as General Cartwright said, would fairly quickly -- it would fairly quickly become clear, say to the Russians, that this was not something that was going to Russia. It would also be one or maybe two systems -- two weapons coming at them, and I think that the Russians, first of all, would be able to discriminate that. They'd understand that this was a very small number of weapons, and I think they would understand, particularly in the context of a possible pre-notification from the United States, that not only have we told them that this was not an all-out attack on Russia, but from the fact that there are only a couple of missiles in the air, it wouldn't look like any kind of all-out attack that they might,

you know -- it wouldn't look like the way they would imagine us conducting an attack against Russia if we decided to make an attack against Russia."

He further added that 'I don't think that you need a lot of pre-notification.' Full transcript available at:

<http://www.fnsg.com/search.htm?op=s&newsearch=on&allrealm=on&query=senate+armed+services+>

While this testimony indicates the scant regard that the Bush administration has so far paid towards any serious warning / safeguard system regarding the PGS concept—a rather serious oversight considering the 'thermonuclear' stakes—others have been eager to paint a more responsible picture. STRATCOM Commander General James Cartwright in his interview in *Arms Control Today*, June 2006 (*Op.Cit.*) argues that pre-publication of launches and other transparency measures will minimize the risks, but still concludes by saying, "you can never guarantee how an adversary interprets something".

²² See Ian Davis, *BASIC Notes*, 'Low Key Launch of Hague Code of Conduct Against Ballistic Missile Proliferation', 3 December 2002. Available at:

<http://www.basicint.org/pubs/Notes/2002HagueBM.htm>

²³ *Ibid.* It is also unclear how this reservation in circumstances of war to launch ballistic missiles without prior notification sits with General Cartwright's commitment to pre-launch transparency (see Endnote 21 above).

²⁴ Quoted in Gordon, Michael R., 'Pentagon Seeks Nonnuclear Tip for Sub Missiles', *New York Times*, 29 May 2006.

²⁵ Hendrickson, David C., 'Toward Universal Empire: The Dangerous Quest for Absolute Security', *World Policy Journal*, Vol. 19 (Fall 2002), p1-2.

²⁶ *Ibid.*

²⁷ *Russia protests U.S. missile-deployment plans*, Associated Press, 7 June 2006

<http://www.navytimes.com/story.php?f=1-292925-1853584.php>