

## Prompt Global Strike: Selected Key Issues

Strategic Weapons in the 21<sup>st</sup> Century  
Panel on PGS Doctrine and Operations  
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In 2006, the Department of Defense, with the endorsement of STRATCOM Commander, Gen. James Cartwright, unsuccessfully sought Congressional support for a non-nuclear Trident Missile capability. This Conventional Trident Modification (CTM) program was intended to give the United States a near-term capability for non-nuclear, prompt global strike (PGS--defined as a capability to strike any point within an hour of authorization) against a limited number of targets. Congress denied most of the requested funding for the CTM program except for \$20 million to continue R&D on conventional ballistic missiles and \$5 million to fund a National Academy of Sciences study of the designated mission and possible instruments to support the mission.

The CTM debate—whatever one’s view of the merits or the proposal -- was helpful in surfacing policy, doctrinal and operation issues associated with CTM, PGS, the potential role of ballistic missiles for PGS, and the more general question of “substituting” non-nuclear weapons for nuclear (although DOD identified CTM as a complement to the nuclear force, not a substitute).

The following paragraphs identify some of the issues raise by the prospect of acquiring a capability to use a limited number of ballistic missiles with non-nuclear warheads launched from SSBNs that also carry missiles<sup>1</sup> without commenting on their reasonableness or attempting to address them:

### PGS For Targets Otherwise Drawing a Conventional Response

Are the credible targets? Advocates maintain that it would add significantly to US deterrence and defense capability if we had a mean by which to attack a high value target

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<sup>1</sup> For simplicity, the capability at issue will be referred to as “CTM,” without necessarily implying that it would have all the characteristics of the particular CTM program(s) recently proposed.

anywhere in the world in a very short period – say an hour or less. Categories of possible targets publicly identified for PGS via a strategic ballistic missile included those at static, known – but potentially transient -- locations such as a missile on a gantry, a terrorist meeting house, an individual identified with high confidence as a terrorist leader, a terrorist-occupied building or camp, and fixed but fleeting targets such as an aircraft on apron, a ship in port or a mobile missile launcher plausibly believed to be about to deliver an attack on an important US or allied target.. Is that a plausible class of such targets? Are there others?

System effectiveness. Would CTM actually offer in practice the precision and speed of targeting and response necessary to realize its potential for prompt, high precision long-range attack? What are the critical end to end enablers for non-nuclear PGS, and would they be available within the same timeframe as CTM? For example, would the ISR necessary to support non-nuclear PGS for the purposes identified be available to support CTM? How likely is it that our intelligence could locate the relevant sort of targets with sufficient precision that a conventional warhead would have high confidence of destroying them? Would the system have the needed very rapid retargeting capability? If not, are there superior options for PGS that could be available within the same timeframe as the necessary enablers? To what degree would CTM be of value without an associated fully operable, near-real time ISR capability? How valuable is the capability for PGS given the prospective intelligence, communication and decision-making timelines involved prior to its employment?

Operational issues. Would the advantage of being capable of striking so promptly following authorization be degraded by the other timelines likely to be involved, e.g., for analysis of intelligence, for decision-making, for transmission of execute orders, for necessary preparations to launch? If so, how would that consideration affect the priority given to PGS in general or to CTM vice other, possibly less-provocative, or less controversial, weapons for the same mission?

Alternatives. What alternative existing systems (e.g., air or sea launched cruise missiles, stealth aircraft, SOF) exist or could be developed that would offer equivalent (or greater) effectiveness, less “collateral” problems, and equivalent or nearly equivalent end-to-end attack timelines? Could non-ballistic missile capabilities be developed for this purpose? How do their IOCs compare to CTM, taking into account the difficulties in getting approval to proceed with CTM?

How important is a literally “global” capability? When viewed on a world map, PGS via CTM appears advantageous in principle given the one-hour strike goal and the potential geographic areas therefore denied to slower delivery platforms. Will it be possible in practice to narrow considerably the geographic regions in which appropriate targets would likely to found *and* the US would be prepared to use military force pre-emptively on foreign territory, so that slower delivery systems could be based in ways that would assure equivalent time on target speeds, or nearly so for attacks in those regions? In practice, what priority should be placed on CTM when on at least some occasions actionable intelligence will allow us to anticipate some of the candidate target areas which, in turn, could be within the range of existing slower platforms when forward deployed? To what extent should we anticipate contingencies outside of this description, and what would be the implications of not having such prompt strike capabilities in those contingencies?

Extended deterrence. Would the capability for non-nuclear PGS help to mitigate the concerns expressed recently by some in South Korean and Japan (and that might be expressed by Middle East allies in the aftermath of Iraq) regarding the veracity of the U.S. extended deterrence commitment by increasing the perceived likelihood of a prompt U.S. military response to allied security threats? If so, what priority should be placed on this assurance function? Are the targets most relevant to allies those that CTM could effectively engage? Is the timeline for attacking such targets such that extremely short flight times are a major advantage?

Flexibility. How valuable is the fact that CTM would not require permission for overflight of third country territory or tanker support from bases in other countries (as was necessary for US action in. e.g., the 1973 Yom Kippur War and Eldorado Canyon)? Is there a meaningful legal, diplomatic, or political distinction between overflight by missiles and overflight by air-breathing system? How valuable is that fact that, with minor current exceptions, a CTM attack would not be vulnerable to active defense, or place air crews at risk? If the targets identified for PGS are of sufficient urgency to warrant use of a strategic ballistic missile, what consideration should be given to these types of factors?

#### Factors Exogenous to the CTM Attack Itself

Misinterpretation as nuclear attack To what extent could the employment of CTMs pose a risk that Russia or some other nation possessing a capability to detect the launch or flight of a ballistic missile from an SSBN would fail to distinguish a CTM attack on other parties from the initiation of a strategic nuclear attack on them? What mitigation measures would be required to reduce, or ideally eliminate, this concern? What effect would such measures have on the nuclear deterrent mission of the SSBNs carrying CTM? If this is a reasonable concern in principle, what are the “crisis instability” implications? What confidence could we have – or would decision-makers require – that such mitigation measures would assure that the launch of a CTM would not be mistaken as a nuclear attack, and to what extent could concern about the effectiveness of mitigation measures limit the operations and potential value of a CTM capability, including the willingness of decision-makers to use the capability

Temptation to use irresponsibly. To what degree would the potential benefits of CTM be overshadowed by the possibility that its employment would be “too easy,” given its immediacy and limited collateral effects, and therefore provide opportunities for incautious or “reckless” U.S. strikes that otherwise would be less likely? Are such concerns significantly greater with CTM than with other relatively prompt, high precision

attack capabilities? Should this possible regret be considered—and if so, how?—when assessing the potential value of CTM?

Encouragement of proliferation long range ballistic missiles. To what degree would the potential benefits of CTM be overshadowed by the possibility that employment of CTM would destroy an established “norm” against the use of strategic missiles, thereby contributing to the incentives for missile proliferation (including of missiles with sharply different missions from those of CTM) and to the increased likelihood of future strategic missile employment.

Risks to US of encouraging/legitimizing similar – or allegedly similar -- capabilities in other countries. To what degree would potential development of similar capabilities by Russia or China pose the concerns for the U.S. or its allies, on missile proliferation or other, grounds? Should these possible regrets be considered when assessing the potential value of CTM?

#### Non-nuclear Weapons In Nuclear Attacks

Up to this point, the issues identified have been those associated with possible development, deployment and use of CTM for attacking a very limited number of targets strictly with non-nuclear weapons, as an alternative to striking them with other non-nuclear means, such as cruise missiles. There is a separate – and very different -- issue of what might be the role for non-nuclear weapons in the context of a nuclear conflict?

To what extent should our overarching policy goal be to substitute, where feasible, non-nuclear capabilities for any strikes previously to be executed only by strategic nuclear ballistic missiles?

What are the (currently) nuclear targets for which such substitution is feasible?

Are there situations in which such substitution would significantly reduce the undesirable effects of a nuclear attack, e.g., fallout on non-target areas, “nuclear winter,” broad radiation contamination, civil recovery time?

Is there a general moral and political imperative to use non-nuclear means when they will be likely to achieve military objectives for whose achievement we would otherwise be prepared to use nuclear weapons?

What degree of increased uncertainty about weapon effectiveness would we be prepared to accept as a consequence of using a non-nuclear weapon?

Are there political and perception costs to responding to extreme (but not immediately existential) provocation (e.g., a large scale chemical or biological attack or a highly costly terrorist operation) with non-nuclear means, given our prior reservation of the option of a nuclear response to such attacks?

Is there a risk the having some non-nuclear weapons in an attack option that included nuclear weapons would reduce the inhibitions on executing the option? Would that reduced inhibition, if it existed, be an advantage from the point of view of deterrence?

When does the value of preserving the “norm” against nuclear employment take precedence over the higher level of lethality against targets typically attributable to nuclear weapons and the power of a nuclear response to underscore resolve and the risks of future such provocations?

How should the foreseeable force requirements for assurance, dissuasion, deterrence and defeat in the 21<sup>st</sup> Century and the potential for regional WMD use against us or our allies affect our thinking on this matter?

Under what conditions would actual employment of a nuclear weapon in response to severe provocation provide important assurance, deterrence or dissuasion advantages against future repetitions, as compared to the effect of use of non-nuclear weapons,

assuming that the non-nuclear weapons would be fully adequate to accomplish the immediate military objectives of the strike? I.e., in the context of nuclear deterrence, is there a degree of unique value attributable to nuclear weapons beyond their immediate military effect.

There are numerous additional issues associated with the goal of having a non-nuclear capability for PGS, the potential to support PGS with non-nuclear strategic missiles such as CTM, and the potential to substitute non-nuclear for nuclear strike options for PGS. The above list focuses on those that became apparent during the recent Congressional debate over CTM. There may well be other issues, particularly in the context of consideration of substitution of non-nuclear weapons as part of an overall attack that would include nuclear weapons.