**Integration of Conventionally Armed ICBMs into Theater Combat Operations**

The ability of ICBMs to rapidly strike a target anywhere in the world in a short period of time has made them an integral part of the US nuclear arsenal for over half a century. These same characteristics of range and speed could make a conventionally armed ICBM (CICBM) a key component of a theater commander's arsenal. The CICBM would fill a unique role in a theater commander's war plans, namely the ability to rapidly strike denied targets with minimal support, thus freeing up theater assets to strike other targets. To execute this mission, United States Strategic Command would need to operate in direct support of the theater command. The establishing directive spells out the purpose, effect, and scope of the support relationship. The theater air operations center and continental United States (CONUS) global operations center planning and execution processes would be integrated throughout the air tasking cycle. Of primary importance, theater and CONUS airspace deconfliction would require detailed planning between the two commands. Current doctrine, procedures, and training should be updated to properly support CICBM operations.
FUTURE WAR PAPER

TITLE:

Integration of Conventionally Armed ICBMs into Theater Combat Operations

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF OPERATIONAL STUDIES

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EXECUTIVE SUMMARY

Title: Integration of Conventionally Armed ICBMs into Theater Combat Operations

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Thesis: In order to be used as an integral part of theater operations, conventionally armed intercontinental ballistic missiles (ICBM) require a unique command and control structure.

Discussion: The ability of ICBMs to rapidly strike a target anywhere in the world in a short period of time has made them an integral part of the United States nuclear arsenal for over half a century. These same characteristics of range and speed could make a conventionally armed ICBM (CICBM) a key component of a theater commander’s arsenal. Both the United States Air Force and Navy are working on concepts to develop a conventional prompt global strike capability similar to the CICBM. The CICBM would fill a unique role in a theater commander’s war plans, namely the ability to rapidly strike denied targets with minimal support, thus freeing up theater assets to strike other targets. To execute this mission, United States Strategic Command (USSTRATCOM) would need to operate in direct support of the theater command. The establishing directive spells out the purpose, effect, and scope of the support relationship. The theater air operations center (AOC) and continental United States (CONUS) global operations center (GOC) planning and execution processes would be integrated throughout the air tasking cycle. Of primary importance, theater and CONUS airspace deconfliction would require detailed planning between the two commands.

Conclusion: A direct support command relationship for CICBM operations provides the theater commander (supported) with the appropriate support while allowing USSTRATCOM (supporting) to simultaneously support other theaters. Within the support relationship, planning and execution must be a collaborative process between the theater AOC and CONUS GOC throughout the air tasking cycle. While current doctrine, procedures, and training are adequate to support CICBM operations, improvements should be made in all these areas regardless of the weapon system selected. With the correct command and control structure, the CICBM has the capability to become an integral part of seizing the initiative during theater combat operations.
# TABLE OF CONTENTS

DISCLAIMER

EXECUTIVE SUMMARY

TABLE OF CONTENTS

ACRONYMS

INTRODUCTION

BARRIERS TO FIELDING

COMMAND AND CONTROL

COMMAND AND CONTROL STRUCTURE

PLANNING

AIRSPACE DECONFLICITION

EXECUTION

ASSESSMENT

ADDITIONAL RECOMMENDATIONS

CONCLUSION

APPENDIX A: Command and Control Decision Tree

APPENDIX B: Command Relationship Definitions

APPENDIX C: Proposed CICBM Command and Control Architecture

APPENDIX D: Joint Air Tasking Cycle

APPENDIX E: Target Definitions

ENDNOTES

BIBLIOGRAPHY
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACA</td>
<td>airspace control authority</td>
</tr>
<tr>
<td>ACM</td>
<td>airspace coordinating measure</td>
</tr>
<tr>
<td>ACO</td>
<td>airspace control order</td>
</tr>
<tr>
<td>ACP</td>
<td>airspace control plan</td>
</tr>
<tr>
<td>AFB</td>
<td>air force base</td>
</tr>
<tr>
<td>AFSPC</td>
<td>Air Force Space Command</td>
</tr>
<tr>
<td>AOC</td>
<td>air operations center</td>
</tr>
<tr>
<td>ATACMS</td>
<td>Army Tactical Missile System</td>
</tr>
<tr>
<td>ATO</td>
<td>air tasking order</td>
</tr>
<tr>
<td>CICBM</td>
<td>conventionally armed ICBM</td>
</tr>
<tr>
<td>COCOM</td>
<td>combatant command</td>
</tr>
<tr>
<td>CONUS</td>
<td>continental United States</td>
</tr>
<tr>
<td>CPGS</td>
<td>Conventional Prompt Global Strike</td>
</tr>
<tr>
<td>CSM</td>
<td>conventional strike missile</td>
</tr>
<tr>
<td>CTM</td>
<td>conventional Trident modification</td>
</tr>
<tr>
<td>ED</td>
<td>establishing directive</td>
</tr>
<tr>
<td>GOC</td>
<td>global operations center</td>
</tr>
<tr>
<td>IADS</td>
<td>integrated air defense system</td>
</tr>
<tr>
<td>ICBM</td>
<td>intercontinental ballistic missile</td>
</tr>
<tr>
<td>JAOP</td>
<td>joint air and space operations plan</td>
</tr>
<tr>
<td>JFACC</td>
<td>joint force air component commander</td>
</tr>
<tr>
<td>JFC</td>
<td>joint force commander</td>
</tr>
<tr>
<td>JFCC GS</td>
<td>Joint Functional Component Command for Global Strike</td>
</tr>
<tr>
<td>JOPPA</td>
<td>joint operation planning process for air</td>
</tr>
<tr>
<td>JP</td>
<td>joint publication</td>
</tr>
<tr>
<td>LCC</td>
<td>launch control center</td>
</tr>
<tr>
<td>MRR</td>
<td>minimum risk route</td>
</tr>
<tr>
<td>OPCON</td>
<td>operational control</td>
</tr>
<tr>
<td>ROZ</td>
<td>restricted operating zone</td>
</tr>
<tr>
<td>SAM</td>
<td>surface-to-air missile</td>
</tr>
<tr>
<td>SecDef</td>
<td>Secretary of Defense</td>
</tr>
<tr>
<td>SLBM</td>
<td>submarine-launched ballistic missile</td>
</tr>
<tr>
<td>SPINS</td>
<td>special instructions</td>
</tr>
<tr>
<td>STOS</td>
<td>strategic operations squadron</td>
</tr>
<tr>
<td>TACON</td>
<td>tactical control</td>
</tr>
<tr>
<td>TLAM</td>
<td>Tomahawk land attack missile</td>
</tr>
<tr>
<td>USSTRATCOM</td>
<td>United States Strategic Command</td>
</tr>
</tbody>
</table>
INTRODUCTION

GS [Global Strike] is defined as responsive joint operations that strike enemy high value / payoff targets (HVTs/HPTs), as an integral part of joint force operations conducted to gain and maintain battlespace access, achieve other desired effects and set conditions for follow-on decisive operations to achieve strategic and operational objectives.

Global Strike Joint Integrating Concept

Intercontinental ballistic missiles (ICBM) have formed an essential part of the United States’ nuclear arsenal for over half a century. Rapid response and global reach capability helped make ICBMs successful in their deterrence mission against the Soviet Union during the Cold War. With the evolving international security environment of the 21st century, the requirement for large numbers of nuclear warheads on alert with ICBMs has decreased as evidenced by the decommissioning of the Peacekeeper fleet and the reduction in number of Minuteman warheads; some have even argued that ICBMs are irrelevant and should be eliminated. Yet, the development of conventional warheads for ICBMs has the potential to transform the ICBM into an effective weapon that can be used in future conventional conflicts. In order to be used as an integral part of theater operations, conventionally armed ICBMs (CICBM) require a unique command and control (C2) structure.

This paper proposes a framework for the C2 of CICBMs in support of a theater commander’s campaign plan. The paper begins with a description of several scenarios that call for a CICBM. Next, the paper describes the development of conventionally armed long-range ballistic missiles along with methods that help prevent misinterpretation of the use of a CICBM as a nuclear strike. The paper then describes the C2 details involved with integrating a CICBM into theater combat operations while proposing an outline for the C2 structure that is responsive to the theater commander’s operations. Finally, the paper provides recommendations on where to focus efforts for implementation of the proposed C2 structure.
REQUIREMENTS

The ability of a CICBM to rapidly strike a target anywhere in the world in a short time period lends itself to several situations that may not be possible using other weapons. First, a CICBM could be used to strike a fleeting time-critical target when other conventional assets cannot be brought to bear in a timely manner. Examples of this type of scenario include identification of key terrorist leaders or a rogue country preparing to launch their own ICBM against the United States. This scenario would likely be controlled at the national level and not involve detailed integration with theater commanders. This paper will thus not discuss the limited strike scenario further but will focus on a scenario where CICBMs can be used in support of a theater operation.

A CICBM provides the ability to strike key targets deep within a country or protected by a robust integrated air defense system (IADS). Moreover, due to the high velocities involved, a CICBM can provide the required kinetic energy to strike a hardened, deeply buried target. While a theater commander may have the capability to strike these targets, it may cause him to devote a significant portion of his aircraft and missiles. The use of a CICBM allows a theater commander to rapidly strike these targets at the onset of a campaign and then move on to other lucrative targets. For example, a CICBM strike against the critical nodes of an advanced IADS or C2 center would allow air assets to immediately advance to targets that support the overall campaign objectives rather than first focusing on defeating the anti-access capabilities of the adversary.

Furthermore, the use of a CICBM within a theater conflict would not come with the same political baggage as the previously discussed limited strike scenario; in short, adversaries would be unlikely to confuse a CICBM strike for a nuclear attack if it is on the leading edge of conventional forces. The CICBM thus brings a unique capability to a theater commander to
reliably and rapidly penetrate a modern IADS. This will be the focus of the C2 architecture proposed in this paper: that is, integrating a CICBM with the theater commander’s operations.

DEVELOPMENT

The Department of Defense has pursued several capabilities to attack targets under the umbrella of Conventional Prompt Global Strike (CPGS).\textsuperscript{2} The US Navy received funding to pursue a conventional variant of its Trident submarine-launched ballistic missile (SLBM) known as conventional Trident modification (CTM). CTM employment concepts envisioned placing several conventional Trident missiles on Ohio class ballistic missile submarines in line with the nuclear armed missiles. Concern from Congress over employment of conventional and nuclear missiles from the same platform led to elimination of funding for the CTM.\textsuperscript{3} However, planning for a CPGS capability continues within the US Air Force.

The Air Force has proposed the conventional strike missile (CSM) as a material solution to the US Strategic Command’s (USSTRATCOM) CPGS mission need, which includes the ability to rapidly strike global targets regardless of anti-access threats, including advanced air defenses.\textsuperscript{4} The CSM concept consists of a solid-propellant booster which deploys a hypersonic glide payload delivery vehicle (PDV) which is capable of downrange and cross-range maneuvering.\textsuperscript{5} The PDV would be capable of carrying a variety of weapons to meet mission needs. The predicted first weapon would be kinetic energy projectile. The CSM Enabling Concept projects a limited capability of a single launch vehicle at Vandenberg Air Force Base (AFB), CA, with launch control from USSTRATCOM at Offut AFB, NE, after 2012.

Although the Navy and Air Force have both developed a specific concept, CTM and CSM respectively, for a global strike, the remainder of this paper will use the more generic term CICBM to proffer a command and control structure. The notional CICBM possesses a less
sophisticated warhead than the CSM, flying a ballistic path to the target. In addition, much of
the focus of the CTM and CSM has been on “global-range attack and a viable strategic deterrent
without the need for forward deployment of equipment and personnel.” Not using the terms
CTM or CSM will keep the focus on integrating effects into the theater commander’s plan rather
than fighting independently of the theater commander. Regardless of the weapon selected or
terms used for CPGS, the C2 challenges will be similar.

BARRIERS TO FIELDING

Possibly the biggest hurdle to implementation of a CICBM is the potential for
misinterpretation as a preemptive nuclear strike, potentially causing an escalation of the conflict
to the nuclear arena or involving other countries not previously tied to the conflict. As
previously noted, this is what doomed the Navy’s conventional Trident program. However,
several methods can be employed to alleviate this concern and allow a CICBM to be used in a
conventional conflict. First, the United States could base conventional ICBMs at locations that
are separate from the nuclear ICBM fields found on the front range of the Rocky Mountains and
northern plains. The United States can use existing ICBM and space launch facilities at
Vandenberg AFB, CA and Cape Canaveral, FL. Vandenberg AFB is already used as the site for
ICBM test launches. Next, the United States could allow inspection of conventional ICBM sites
by other countries or international organizations to verify the conventional payload, as currently
done with nuclear forces. Depending on the warhead selected, CICBM flight profiles could be
modified to differ from nuclear payloads. Finally, a procedure could be established to notify
other countries of impending CICBM launches. And, as alluded to earlier, the commitment of
United States ground forces into the conflict area should alleviate concerns regarding the use of
nuclear weapons. Thus, the United States could implement sufficient procedures to prevent mistaking a CICBM for a preemptive nuclear strike.

COMMAND AND CONTROL

The overall CICBM architecture must accommodate two distinct C2 structures: the theater commander, responsible for the campaign, and the continental United States (CONUS) based USSTRATCOM, responsible for CICBM operations. Before describing how these two organizations work together, a discussion of the two sides of the equation is warranted.

Theater C2

The theater joint force commander (JFC) typically designates responsibility for deep strike attack planning to the joint forces air component commander (JFACC). Using the JFC’s guidance, the JFACC plans strategic attack missions for the JFC’s area of operations. Although usually an Air Force officer, the JFACC integrates strike assets from all services in execution of the strategic attack mission to include naval aircraft, Tomahawk Land Attack Missiles (TLAMs), and Army Tactical Missile System (ATACMS). One of the primary concerns of the JFACC is to defeat adversary anti-access capabilities, notably the IADS, before pursuing other targets. The proliferation of advanced Russian “double-digit” surface to air missiles (SAM), and the emergence of radars that can counter modern stealth aircraft, will make the JFACC’s task of defeating an IADS increasingly difficult and time consuming. Although JFACCs have used global strike assets in the past, such as B-2s flying from Whiteman AFB, MO, future use of a CICBM necessitates modification to existing theater C2 processes.

CONUS C2

Much like the theater, USSTRATCOM has functional components used to operationalize its assigned missions. As part of its mission statement, the Joint Force Functional Component
Command for Global Strike (JFCC GS) provides global strike capabilities that can defeat adversaries through global kinetic effects. “JFCC GS plays a critical role in integrating USSTRATCOM global capabilities into theater operations. JFCC GS provides a unique ability to command and control global strike capabilities.” USSTRATCOM has many years of experience with nuclear ICBM operations in addition to other global strike missions like the previously mentioned B-2. Future employment of a CICBM will necessitate capitalizing upon this expertise.

**Command Relationships**

Of primary importance is the establishment of a command arrangement that ensures unity of effort and supports both planning and execution. As this paper deals only with a theater conflict, the theater combatant commander is assumed to be the supported command and USSTRATCOM the supporting command. As a permanently CONUS-based weapon system, USSTRATCOM would retain combatant command (COCOM) and operational control (OPCON) of the CICBM forces. Command relationship options available to the theater commander are thus tactical control (TACON) and support (see Appendix B for Joint Publication 1 command definitions).

Figure 2-2 in Air Force Doctrine Document (AFDD) 2-2.1, *Counterspace Operations*, provides a good model for deciding the appropriate command relationship (see Appendix A). Although AFDD 2-2.1 pertains to space forces, it presents a paradigm in which a global asset is available to provide effects to multiple theaters as well as for national taskings. A CICBM force would follow a similar construct: being available to deliver warheads in support of multiple theaters and national strategic objectives. While both TACON and support provide the level of control needed by the theater commander, TACON would impose adverse restrictions upon a
CICBM unit. TACON of the CICBM unit by a theater commander may limit the unit’s ability to support other theaters and national missions. Thus, the recommended command relationship between STRATCOM and the theater commander for CICBMs should be one of support because the CICBM squadron remains in CONUS and can produce effects in multiple theaters.

Of the four types of support, direct support most accurately describes the type of support required: “A mission requiring a force to support another specific force and authorizing it to answer directly to the supported force’s request for assistance.” If used, CICBMs will undoubtedly prove an essential enabler for follow-on actions, and, in that regard, the theater commander must have the assurance that he will get the required effects. Inherent in the support relationship is the development of an establishing directive to “specify the purpose of the support relationship, the effect desired, and the scope of the action to be taken.”

**Establishing Directive**

Because the support relationship is vague yet flexible by design, the establishing authority (common superior commander) must ensure that both the supported and supporting commanders understand the level of authority granted to the supported commander. The establishing directive (ED) is the mechanism used to specify the details of the support relationship and should include:

1. The forces and resources allocated to the supporting effort;
2. The time, place, level, and duration of the supporting effort;
3. The relative priority of the supporting effort;
4. The authority, if any, of the supporting CDR to modify the supporting effort in the event of exceptional opportunity or an emergency; and
5. The degree of authority granted to the supported CDR over the supporting effort.

For CICBM operations in support of a theater, the Secretary of Defense (SecDef) would establish the direct support relationship between USSTRATCOM and a theater JFC and approve the ED. The respective functional components, JFACC and JFCC GS, would execute the
support relationship. Of primary importance to the JFC and the designated JFACC is identification of the number of missiles/weapons available to the theater and C2 procedures within the ED. The JFC must be aware of the relative priority of the supporting effort with respect to the limited stock of CICBMs. Depending on the number of CICBMs in the inventory, the JFC may lose support if STRATCOM must strike a higher priority target to meet national objectives.

COMMAND AND CONTROL STRUCTURE

Within the support command relationship, the theater’s Air Operations Center (AOC) and USSTRATCOM’s Global Operations Center (GOC) will be the key nodes for C2 of the CICBM (see Appendix C for graphical depiction of the proposed architecture). Under JFACC direction, the AOC staff would plan and execute joint air operations, including strategic attack, in support of the JFC’s objectives. Correspondingly, JFCC GS would exercise operational C2 of global strategic forces through the GOC, including execution of global strike missions. Although the ED provides guidance on operations, the theater command and USSTRATCOM would be required to place liaison personnel within the opposite C2 nodes to provide “planning and tasking expertise, coordination capabilities, and the ability to deconflict component operations and joint air operations.”

Launch Control

The Air Force Space Command (AFSPC) Enabling Concept envisions the 625th Strategic Operations Squadron (STOS) at Offut AFB, NE, operating the launch control center (LCC) for the CSM. Accordingly, this paper retains the 625 STOS as the LCC for the proposed CICBM C2 architecture. When the CICBM reaches full operational capability with numerous missiles, the STOS will have the ability to simultaneously support national and multiple theater taskings.
For this reason, communication from theater to CONUS should be limited to the GOC and not the STOS. The STOS should operate with a standardized set of procedures: in this case, receiving direction from the GOC, not from each theater independently. Because every theater conducts C2 for its campaigns in a different manner, the GOC would interface with each theater and translate support requests, as appropriate, into standardized direction to launch and range operations. Additionally, the GOC would determine priorities among competing taskings in accordance with applicable EDs and provide unified direction to the STOS LCC. Upon receipt of direction, the STOS would execute launch of the distributed CICBMs.

**PLANNING**

AOC planners, with the aid of USSTRATCOM liaison officers, would integrate CICBM capabilities during the joint operation planning process for air (JOPPA) as outlined in JP 3-30, *Command and Control for Joint Air Operations* (see Appendix D for the joint air tasking cycle).

The JOPPA produces a Joint Air Operations Plans (JAOP) in support of JFC operation plans (OPLANs) during contingency planning, or works in concert with other theater planning during crisis action planning.\(^\text{15}\) Notably for the CICBM, the JAOP would achieve the following:

1. Integrate the efforts of joint air capabilities and forces;
2. Identify objectives and tasks;
3. Identify measures or indicators of success used to determine whether air operations are meeting assigned objectives;
4. Account for current and potential adversary offensive and defensive COAs;
5. Synchronize the phasing of air operations with the JFC’s plan;
6. Establish what air capabilities and forces are required to achieve joint air objectives; and
7. Develop specific procedures for allocating, tasking, exercising, and transitioning C2 of joint air capabilities and forces.\(^\text{16}\)

The CICBM C2 procedures developed within the JAOP should nest within the procedures outlined in the governing ED. If, during the course of JAOP development, conflict arises, changes in the ED must be requested through the establishing authority (i.e., the SecDef). As a
supporting plan to the JAOP, the Airspace Control Plan (ACP) would be developed simultaneously. As discussed below, the ACP will integrate the CICBM into theater airspace. The JAOP, thus, provides the basis for further detailed planning in the joint air tasking cycle.

CICBM planning would occur throughout the six stage joint air tasking cycle in the AOC (see Appendix D). The joint air tasking cycle is a systematic process that matches “available capabilities and forces with specific targets to achieve the JFC’s objectives.”\(^\text{17}\) The first two stages identify objectives, effects, guidance, and targets. Although AOC and GOC planners interact throughout the process, the third stage of the joint air tasking cycle, weaponeering and allocation, would involve the most detailed integration between the AOC and GOC. During this stage “all approved targets are weaponeered, to include recommended aimpoints, weapon systems and munitions, fusing, target identification and description, desired direct effects of target attack, probability of creating the desired effect, and collateral damage concerns.”\(^\text{18}\) The fourth stage of the air tasking cycle produces the air tasking order which directs execution of CICBM operations. Using the execution orders, the GOC planners perform detailed weapon system planning. The last two stages, execution and assessment, will be discussed later in this paper.

**Target Types**

Targeting for CICBMs should occur within the nominal air tasking cycle and thus be limited to planned targets, both scheduled and on-call (see Appendix E for target definitions).\(^\text{19}\) Scheduled targets would be listed on the air tasking order (ATO) with a designated time on target. On-call targets have a known location, but not a designated time on target, and can still be planned within the ATO cycle. This allows CICBM planners, both in theater and in CONUS, to develop an execution plan for on-call targets which requires only a time to be complete. Once
the time is selected during ATO execution, the pre-built plan for the on-call target would be executed. CICBMs should not be considered for targets of opportunity that arise during ATO execution. The complexity of planning, principally the need for deconfliction, precludes striking targets of opportunity with a CICBM. If the target of opportunity can only be reached by a CICBM, it should be included in the next available ATO using the process for planned targets.

AIRSPACE DECONFLICTION

Airspace deconfliction would be required both at the CONUS launch location and in-theater. This paper will focus on the in-theater aspect; however, a brief synopsis of launch deconfliction is warranted.

Launch Deconfliction

Basing the CICBM at existing launch locations, notably Vandenberg AFB, allows for leveraging of existing launch ranges and procedures. In addition to establishing a safe air corridor for the CICBM launch, range activities will require the clearing of road and rail traffic in the vicinity of the launch site. Limiting CICBM operations to planned targets within the ATO cycle will facilitate CONUS deconfliction. Working collaboratively with the AOC, GOC planners should identify any potential CONUS launch deconfliction issues during weaponeering and allocation and adjust scheduled target planning accordingly. Because on-call targets do not have a time on target, GOC planners would need to identify any no-shoot windows caused by launch space deconfliction so that AOC operators know when they cannot use a CICBM during the ATO.

Theater Deconfliction

The JFACC, as the Airspace Control Authority (ACA), controls the airspace in the combat zone in a manner that seeks to ensure joint force effectiveness while facilitating unity of
The JFACC details how the airspace will be used in the ACP and the airspace control order (ACO). The ACP provides general guidance and establishes airspace coordinating measures (ACM) to be used in the operational areas while the ACO, normally issued with the ATO, implements ACMs for specific periods. As with launch location deconfliction, limiting CICBM operations to planned targets, allows inclusion of applicable ACM within the ACO.

In a manner similar to the US Army Tactical Missile System (ATACMS) and Tomahawk land attack missiles (TLAM), CICBM operations should use procedural control ACMs rather than positive control ACMs. The small radar cross section, unique flight profile, and high speed would make CICBMs difficult to track with theater radar units used to conduct positive control. “Procedural ACMs for theater missiles [e.g. conventional air launched cruise missiles, ATACMS, and TLAM] normally include the establishment of restricted operations zones (ROZs) from launch point to target, air corridors, and time deconfliction.” The terminal flight profile of the chosen warhead will govern the dimensions and types of ACMs used. Specifically, the Surface-to-Surface Missile System (SSMS) ACM would define the airspace required for the CICBM impact point. A ballistic impact profile would not require an air corridor while a flat profile would require the same. Times and associated ACMs would be listed for all scheduled targets in the ACO. ACMs for all on-call targets must be listed in the ACO as well. The combat operations division of the AOC would activate ACMs as required for the on on-call taskings.

EXECUTION

Upon receipt of the ATO, JFCC GS would conduct detailed mission planning for all scheduled and on-call targets. This planning would occur at both the GOC and STOS. Although the ATO constitutes the execution authority for scheduled targets, the GOC and the theater AOC would be required to maintain positive communication in order to accommodate on-call targets.
in accordance with procedures outlined in the ATO special instructions (SPINS). Notification of
deviations from the scheduled ATO would have to flow between GOC and the theater. Delays,
aborts, or flight deviations with the CICBM launch might cause the theater to delay strike
packages or modify ACMs. Delays in theater operations might similarly dictate a slip in the
CICBM launch times, which may or may not be possible due to CONUS range restrictions.
Viewing the CICBM as an integral part of a conventional air package would contribute to the
establishment of minimum force requirements and acceptable levels of risk. Finally, monitoring
execution status should take place in a collaborative environment where the GOC could monitor
ATO progress while the theater AOC would have visibility on the status of allocated CICBMs.

ASSESSMENT

As it would be simply another weapon in the joint force commander’s arsenal,
assessment of strategic and operational mission accomplishment, the final step of the air tasking
cycle, should not significantly be affected by CICBM use. However, the CICBM brings with it
specific combat assessment requirements. JFCC GS would have to express its requirements for
both battle damage assessment (BDA) and munitions effectiveness assessment (MEA) to the
theater for collection. The limited numbers and high cost of CICBMs would place a high
priority on combat assessment so that JFCC GS planners could make adjustments before
subsequent strikes. The third component of combat assessment, re-attack recommendation,
would not be affected by CICBM use and will follow established theater procedures.

ADDITIONAL RECOMMENDATIONS

While a CICBM can be successfully employed within existing procedures and doctrine,
improvements would be required to streamline CICBM operations. USSTRATCOM would
accordingly be required to develop necessary launch procedures when the weapon is fielded.
The focus of doctrinal improvements should be on the interaction between CONUS and the theater. Furthermore, all joint and service doctrine documents that intersect ICBM operations should be updated. Updated training, tactics, techniques, and procedures for AOC and GOC personnel must also be exercised at operational level exercises such as the Air Force’s Blue Flag. Finally, communications systems will likely need updating so that USSTRATCOM and theater systems are compatible. For example, the GOC should be able to monitor ATO execution while the AOC should be able to see, in real time, the status of supporting CICBM weapons.

Although this paper focused on the C2 of a notional CICBM in support of theater operations, it leads to several recommendations regarding the technical aspects of weapon development. Development of any CPGS capability should not forgo the critical ability to penetrate current or near future IADS. Depending on the technology, using a hypersonic cruise profile over a traditional ballistic reentry may make the weapon susceptible to a robust IADS. Thus, maintaining the ability to counter an IADS will enable the weapon to not only support theater operations but also meet any national taskings. Finally, while a land-based missile might be the first feasible system, the concept could apply equally to a ship-based platform or one that is air-launched.

CONCLUSION

This week we achieved a major milestone in the activation of Air Force Global Strike Command. The command will bring together our strategic nuclear forces under a single commander, and will provide combatant commanders with the forces to conduct strategic nuclear deterrence and global strike operations through intercontinental ballistic missiles, B-2 (Spirit) and B-52 (Stratofortress) operations.

Air Force Secretary Michael B. Donley
7 August 2009

Under the CPGS concept, the Department of Defense continues to develop weapons that can rapidly and precisely strike targets anywhere on the globe without having to resort to nuclear weapons. Two proposals have been at the forefront of this effort. The Navy’s CTM has fallen
out of favor with Congress while the Air Force continues to press forward with the CSM. Most advocates of CPGS envision using it to quickly strike a fleeting target beyond the reach of any forward deployed force; however, this scenario places great stress on intelligence to develop actionable targeting information. A weapon developed for CPGS, however, might be more readily applied in seizing the initiative of major theater combat operations. Integrated with theater operations, the CPGS weapon could be a key enabler in support of theater-based weapons by disabling key nodes in adversary IADS or C2 structure.

In conclusion, this paper proposed a C2 structure (illustrated in Appendix C) to support integration of a notional CICBM into major theater combat operations. Establishing a direct support command relationship would provide the theater commander with the appropriate support while allowing JFCC GS to simultaneously support other theaters. The ED would prescribe the details of the support relationship and build the foundation for the C2 structure. Theater agencies would work with USSTRATCOM throughout the planning process, from OPLAN development to ATO transmission, to ensure that CICBMs are effectively integrated with theater operations and support the JFC’s objectives. Collaborative efforts between CONUS and theater will continue through execution and assessment. While current doctrine, procedures, and training are adequate to support CICBM operations, improvements should be made in all these areas regardless of the weapon system selected. With the correct C2 structure, the CICBM has the capability to become an integral part of seizing the initiative during theater combat operations using the appropriate C2 structure. Development of CPGS weapons and procedures should take this into account.
APPENDIX A: Command and Control Decision Tree

APPENDIX B: Command Relationship Definitions

**Operational Control:** Operational control is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions; it does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training.

**Tactical Control:** Tactical control is the command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed direction and control of movements or maneuvers within the operational area necessary to accomplish assigned missions or tasks.

**Support:** A support relationship is established by a superior commander between subordinate commanders when one organization should aid, protect, complement, or sustain another force. An establishing directive normally is issued to specify the purpose of the support relationship, the effect desired, and the scope of the action to be taken. There are four defined categories of support that a commander may direct over assigned or attached forces to ensure the appropriate level of support is provided to accomplish mission objectives.

**Categories of Support:**
- **General support:** That support which is given to the supported force as a whole and not to any particular subdivision thereof.
- **Mutual support:** That support which units render each other against an enemy, because of their assigned tasks, their position relative to each other and to the enemy, and their inherent capabilities.
- **Direct support:** A mission requiring a force to support another specific force and authorizing it to answer directly to the supported force’s request for assistance.
- **Close support:** That action of the supporting force against targets or objectives which are sufficiently near the supported force as to require detailed integration or coordination of the supporting action with the fire, movement, or other actions of the supported force.
APPENDIX C: Proposed CICBM C2 Architecture
APPENDIX D: Joint Air Tasking Cycle

APPENDIX E: Target Definitions

**On-call target**: planned target upon which fires or other actions are determined using deliberate targeting and triggered, when detected or located, using dynamic targeting.

**Planned target**: Target that is known to exist in the operational environment, upon which actions are planned using deliberate targeting, creating effects which support commander’s objectives. There are two types of planned targets: scheduled and on-call.

**Scheduled target**: planned target upon which fires or other actions are scheduled for prosecution at a specified time.

**Target of opportunity**: a target identified too late, or not selected for action in time, to be included in deliberate targeting that, when detected or located, meets criteria specific to achieving objectives and is processed using dynamic targeting. There are two types of targets of opportunity: unplanned and unanticipated.

**Unanticipated target**: a target of opportunity that was unknown or not expected to exist in the operational environment.

**Unplanned target**: a target of opportunity that is known to exist in the operational environment.

ENDNOTES

1 Capitalization of acronyms throughout this paper is in accordance with JP 1-02, Department of Defense Dictionary of Military and Associated Terms, 12 April 2001, as amended through 21 October 2009, or other applicable document.


5 Downrange maneuvering refers to maneuvers in line with the missile’s flight path which make the missile’s flight longer or shorter. Cross-range maneuvering refers to maneuvers perpendicular to the missile’s flight path.

6 Enabling Concept, 22.


9 Joint Publication 1, B-1.

10 Joint Publication 1, IV-10.

11 Joint Publication 1, IV-10.

12 Joint Functional Component Command for Global Strike.


14 Enabling Concept, 13.

15 Joint Publication 3-30, III-14

16 Joint Publication 3-30, III-4

17 Joint Publication 3-30, III-21

18 Joint Publication 3-30 III-24


21 Joint Publication 3-52, II-6.

22 Joint Publication 3-52, III-7.

Definitions extracted from Joint Publication 1.
Definitions extracted from Joint Publication 3-60.


