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**SUCCESSFUL THEATER MISSILE DEFENSE: DECENTRAL EXECUTION OF  
NATIONAL PRIORITIES**

by

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**A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.**

**The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.**

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**23 October 2006**

## **Abstract**

### *Successful Theater Missile Defense: Decentral Execution of National Priorities*

The merger of National, Theater and Cruise missile defense into the Integrated Missile Defense (IMD) architecture is flawed in how it addresses the regional threat posed by theater ballistic missiles. Theater ballistic missiles provide little or no prior warning to launch and have significantly shorter flight times than inter-continental ballistic missiles. The centralized command and control system for the IMD architecture is sub-optimized for theater missile threat characteristics. This paper examines two notional cases of a theater threat to investigate this theory. It is proposed that a centrally developed theater engagement priority list, developed by the entity conducting national missile defense with input from Regional Combatant Commanders, be developed and decentrally executed by Regional Combatant Commanders. This architecture will allow the most efficient response to a theater threat by streamlining the engagement timeline and providing Regional Commanders more latitude in the deployment of forces that are OPCON to them.

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## INTRODUCTION

In 2002, the United States altered its Ballistic Missile Defense architecture. The distinctions between National, Theater and Cruise missile defense were merged and the Integrated Missile Defense (IMD) concept was created.<sup>1</sup> The inclusion of Theater Ballistic Missile Defense (TBMD) in this architecture was a mistake. TBMD is a distinctly different problem from homeland defense against Cruise or Inter-Continental Ballistic Missiles; combining these systems into one architecture sub-optimizes short range theater ballistic missile (TBM) engagements. The most effective counter to the TBM threat is centrally planned responses based on national engagement priorities, decentrally executed by Regional Combatant Commanders. Decentral execution accelerates engagement time lines and provides the greatest opportunity for eliminating the threat, thus saving lives of U.S. servicemen, our coalitions partners and countless civilians citizens of our partner nations.

This paper will provide necessary background concerning the existing IMD command and control (C2) structure, basics of ballistic missile theory, and U.S. IMD systems. Then, it will explore two notional TBMD cases. The purpose of examining these cases is to investigate the theory that decentralized execution of BMD priorities provides a more effective means of command and control for TBMD defense. Time required for detection, decision making and interceptor launch will be examined through the lens of various command structures including Functional and Geographic Combatant Commanders.

Strategic cruise missiles are a significant threat defended against through the IMD system. Regional threats examined in this paper do not possess these weapons at present. The argument supporting decentral execution of national engagement priorities by Regional

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<sup>1</sup> President, National Security Presidential Directive, "National Policy on Ballistic Missile Defense, National Security Presidential Directive/NSPD-23" (16 Dec 2002). <http://www.fas.org/irp/offdocs/nspd/nspd-23.htm>

Combatant Commanders is germane for cruise missiles. These missiles will provide little or no warning. Timeliness of response is critical. So while not specifically addressed in this paper, the argument for C2 is the same.

## **BACKGROUND**

### **Current BMD Organization**

The U.S. missile defense organization has undergone significant changes since 2002.<sup>2</sup> U.S. Doctrine previously held that Geographic Combatant Commanders set theater guidance and objectives for missile defense in their area of responsibility (AOR). Joint Force Commanders (JFCs) in that AOR were assigned the responsibility for designating missile defense attack operations inside their JOA. This duty was notionally assigned to the joint force air component commander (JFACC).<sup>3</sup>

The development and fielding of IMD architectural components has now resulted in the achievement of a limited operational capability. During the latest live-fire testing, conducted on 01 September, 2006, a Ground-based Midcourse Defense (GMD) interceptor successfully engaged a ballistic target over the Pacific Ocean under the auspices of Northern Command (NORTHCOM).<sup>4</sup> Even as the system is improving, no final determination has been made as to what the command and control architecture will be. As the system becomes more functional, the relevance of the decision will increase.

The Unified Command Plan (UCP) does not specify who is responsible for BMD defensive engagements. It does state that Geographic Combatant Commanders are responsible for deterring attacks against the U.S., and employing appropriate forces should

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<sup>2</sup> President, "National Policy on Ballistic Missile Defense, National Security Presidential Directive/NSPD-23".

<sup>3</sup> Department of Defense, Joint Pub 3-01.5. *Doctrine for Joint Theater Missile Defense*. (22 Feb 1996).

<sup>4</sup> Boeing Corporation, "MDA, Boeing Report Successful GMD Intercept Test," in *Defense Daily* 231, no. 42 (5 Sep.2006): 1 [Database On-line]; available from Proquest.

an attack occur. It also identifies Strategic Command (STRATCOM) as the entity responsible for developing, integrating and coordinating capabilities for global BMD operations.<sup>5</sup>

Based on current UCP authorities, NORHTCOM maintains responsibility for conducting BMD engagements in defense of the homeland. NORTHCOM accomplishes this mission through operations at the Joint National Integration Center.

The recent establishment of a Joint Functional Component Command for Integrated Missile Defense (JFCC-IMD) by STRATCOM is an indication of a possible shift in operational control of the missile defense organization. It appears that STRATCOM, who is developing the system, may also eventually operate it.<sup>6</sup> In further developing the system, STRATCOM has expressed a desire to see the Navy's Aegis Standard Missile-3 (SM-3) platforms and the Army's Patriot Advanced Capability-3 (PAC-3) batteries integrated into the sensors and C2 elements of the strategic missile defense system.<sup>7</sup> Inclusion of these elements in one C2 system is an outgrowth of the decision to integrate all BMD programs. It will facilitate centralized control of assets.

The final determination of the entity controlling IMD has not been made, but will be between NORTHCOM and STRATCOM. Shifting the responsibility for all engagements from the geographic command of NORTHCOM to the functional command of STRATCOM would limit boundary breaches and tasking of assets between Geographic Combatant

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<sup>5</sup> President, Directive, "Unified Command Plan," (05 May 2006).

<sup>6</sup> James Cartwright, "DoD establishes New Missile Defense Authorities; Scales Back Operational Plans," in *Defense Daily* 225, no 27 (11 Feb 2005). [Database On-line]; available from Proquest.

<sup>7</sup> James Cartwright, Boese, "Strategic Decisions: An Interview with STRATCOM Commander General James E. Cartwright," interview by Wade Boses and Miles Pomper, in *Arms Control Today* 36, no. 5 (Jun 2006): 7. [Database On-line]; available from Proquest.



Commanders. This might serve as the proper architecture for countering an ICBM threat, but is not sufficient for regional TBM threats.

The question to be determined is the nature of TBMD. Should the entity conducting national IMD maintain OPCON of all IMD assets and centrally execute the mission, or should they develop centralized engagement priorities for TMD and support decentralized execution of the mission by Regional Combatant Commanders? This paper asserts that decentralized execution is the most effective means of countering TMD threats.

### **Ballistic Missile Basics**

ICBMs and TBMs both pose significant threats to the U.S. and forward deployed forces. ICBMs threaten both the United States and our allies with conventional and / or Weapons of Mass Destruction (WMD) payloads. TBMs are a direct threat to forward deployed U.S. forces and our regional allies. TBMs can also deliver conventional and / or WMD payloads. Only intelligence or detonation will provide the actual nature of the threat. With this in mind, each launch must be the subject of prompt defensive action.

Both ICBMs and TBMs exhibit three distinct phases in their flight. These are illustrated in figure 1. The first is boost. In the boost phase, the missile is accelerating with its booster rocket. This is the only point during the flight when the missile can make significant maneuvers and adjust aim points.

The second phase of flight is known as midcourse. During midcourse, the booster has burned out. Depending on the type of missile, the booster (or tank) may separate from the warhead. Shorter range missiles such as the Scud are composite and remain connected throughout flight. Other more advanced missiles separate. The missile is now on a ballistic trajectory in the exoatmosphere. All parts of the missile, and decoys if they have been

employed, follow the same ballistic trajectory making discrimination of the warhead much more difficult.

The third phase of the flight is the terminal phase. This phase commences on atmospheric reentry. During reentry, the relatively heavy warhead will separate from other ballistic debris as it accelerates through the atmosphere. The lighter objects will slow because of the increased atmospheric resistance and eventually burn up. It is easy to identify the warhead during this phase. The difficulty is that even if it is hit with an interceptor, it will still continue on its ballistic path toward the target unless it is destroyed. The warhead is also accelerating back to earth at three kilometers per second or faster. It will take approximately 40 seconds from atmospheric reentry to impact.<sup>8</sup>

A defense can be mounted in all three phases of ballistic missile flight. The danger is that once the missile has been launched, its payload must either be completely destroyed or it will return to Earth’s surface. A boost phase intercept is the only intercept that provides the possibility of returning the payload to its country of origin.

Figure 1. U.S. IMD Components



<sup>8</sup> Stephen Weiner, *Traditional Terminal Defense*, ed. A. Carter and D. Schwartz, *Ballistic Missile Defense* (Washington D.C.: The Brookings Institute, 1984), 74.

Image taken from BMD Handbook<sup>9</sup>

### **BMD Weapon Systems**

The United States is developing and fielding several systems to be integrated in the IMD architecture. Kinetic Energy Interceptors and Airborne Lasers systems are designed to engage in the boost phase. Aegis, GMD and Multiple Kill Vehicles designed to conduct midcourse engagements. Aegis also has the ability to conduct some higher altitude boost phase intercepts. Patriot Advanced Capability-3 and Terminal High Altitude Area Defense systems are designed to counter terminal phase threats.

### **The Threat**

ICBMs, as far as the threat nations addressed in this paper are concerned, are large multi-stage missiles that relatively fragile once built up and placed on the launch pad.<sup>10</sup> They require fixed sites and support facilities for launch. These characteristics provide the opportunity to gather indications and warnings of a potential launch. Upon launch, the missile transitions through its stages achieving speeds up to, and possibly in excess of, 7 km/sec.<sup>11</sup> When the final booster burns out, the warhead follows a relatively simple ballistic path to the intended target. Flight times of sub-orbital ICBM payloads to the United States from North Korea or Iran are both in excess of 20 minutes.<sup>12</sup> While the ICBM poses a significant threat due to its size and payload, it is unlikely to be staged and launched without some forewarning. Additionally, its time of flight provides the opportunity necessary to coordinate and execute defensive actions.

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<sup>9</sup> Missile Defense Agency, *A Day in the Life of the BMDS*, 3d ed. (Washington D.C., 1995): 7. Available from <http://www.mda.mil/mdalink/pdf/bmdsbook.pdf>; Internet; accessed 25 September 2006.

<sup>10</sup> Duncan Lennox, ed., "Korea, North Offensive Weapons: Taep'o-dong I," *Jane's Strategic Weapons Systems* 41 (2004): 125-126.

<sup>11</sup> Richard Garwin, "Holes in the Missile Shield," *Scientific American*, November 2004, 72.

<sup>12</sup> Weiner, *Traditional Terminal Defense*, 50-52.

TBMs pose a significantly different threat. TBMs are generally single or two stage missiles that are relatively rugged in construction. Many of them can be launched from Transporter Erector Launchers (TELs). Their ranges vary from around 300km to 1500km.<sup>13</sup> Their time of flight is from five minutes to around twelve minutes. The mobility and difficulty of detection of many of the TBM variants makes gaining indications and warnings prior to launch much more difficult. Additionally, their short flight periods decrease the reaction time available to commanders to counter the threat.

The general ballistic missile inventories of North Korea and Iran are identified in the tables below. It is apparent from the tables that majority of their inventories pose a regional threat that will provide little or not indications and warning of impending launch. ICBMs are fewer in number and should provide forewarning allowing for defensive system placement.

Table 1. Sample North Korean Missile Inventory							
	SCUD B	SCUD C	SCUD D	No-Dong 1	No-Dong 2	Taep'O-Dong 1	Taep'O-Dong 2
Length	10.94M	10.94M	13.5M	16.2M	16.2M	32M	35M
Diameter	.88M	.88M	.88M	1.36M	1.36M	1.36M	2.1M
Weight	5,860KG	6,095KG	6,400KG	16,500KG	16,500KG	25,700KG	64,000KG
Payload	Single Warhead	Single Warhead	Single Warhead	Single Warhead	Single Warhead	Single Warhead	Single Warhead
Warhead	985KG HE or Chem	770KG HE or Chem	500KG HE or Chem	800KG Nuke, Chem, HE	800KG Nuke, Chem, HE	750KG HE Nuke, Chem, BIO	750KG HE Nuke, Chem, BIO
Guidance	Inertial	Inertial	Inertial	Inertial	Inertial	Inertial	Inertial
Propulsion	Single stage liquid fuel	Single stage liquid fuel	Single stage liquid fuel	Single stage liquid fuel	Single stage liquid fuel	Three stage, 2 liquid, 1 solid	Two Stage Liquid fuel
Range	300KM	500KM	700KM	1,300KM	1,500KM	5,000KM	6,000KM
Accuracy	450M	1,000M	3,000M	2,000M	250M	4,000M	Unknown

North Korean Missile Data taken from Jane's Strategic Weapons<sup>14</sup>

<sup>13</sup> Duncan Lennox, ed., "Korea, North Offensive Weapons," *Jane's Strategic Weapons Systems* 41 (2004): 119-127.; Duncan Lennox, ed., "Iran Offensive Weapons," *Jane's Strategic Weapons systems* 41 (2004): 99-101.

<sup>14</sup> Lennox, "Korea, North Offensive Weapons," 119-127.

Table 2. Sample Iranian Missile Inventory					
	Fateh	Shahab 1	Shahab 2	Shahab 3	Tondar 69
Length	8.86M	10.94M	10.94M	16.58M	10.8M
Diameter	.61M	.88M	.88M	1.38M	.65M
Weight	3,450KG	5,860KG	6,095KG	17,410KG	2,650KG
Payload	Single Warhead	Single Warhead	Single Warhead	Single Warhead	Single Warhead
Warhead	500KG HE or Chem	985KG HE or Chem	770KG HE or Chem	1,200KG HE or Nuke or Chem	250KG HE or Chem
Guidance	Inertial / GPS	Inertial	Inertial	Inertial	Inertial w/ Command update
Propulsion	Single Stage Solid Fuel	Single stage liquid fuel	Single stage liquid fuel	Single Stage liquid fuel	2 Stage Solid Propellant
Range	210KM	300KM	500KM	1,300KM	150KM
Accuracy	100M CEP	450M	1,000M	2,500M	UNK

Iranian Missile Data taken from Jane's Strategic Weapons<sup>15</sup>

Ballistic missiles are easily identifiable upon their launch. They produce a very large thermal signature. There is, however, significant ambiguity in their aim point. As is identified in the tables above, these missiles have inertial guidance. They can maneuver up until the point of booster burnout. It is at this point they become a ballistic object following a relatively fixed trajectory. Therefore, as the missile approaches the end of its powered flight, the target becomes apparent.

The type of missile launched is not readily apparent upon launch. ICBMs, however, are limited to relatively few fixed launch facilities. A launch from one of these facilities must be treated at least initially as an ICBM launch. The missile has to finish burn-out to determine what type missile has been launched and what its target may be. The risk is that in waiting to define ballistic data and determine an aim point, the opportunity to eliminate the missile during the boost phase may be missed. Regional Combatant Commanders can execute centrally planned priorities rapidly vice waiting for information and engagement commands to travel up and down the chains of command from national centers.

## DISCUSSION / ANALYSIS

### North Korean Scenario

<sup>15</sup> Duncan Lennox, ed., "Iran Offensive Weapons," *Jane's Strategic Weapons systems* 45 (2006): 65-71.

As is shown in table 1, North Korea possesses a varied arsenal of theater and inter-continental ballistic missiles. It is also closely situated to two of the United States' most important regional allies: South Korea and Japan. Geography is a key feature in this scenario. A sea serves as a strategic separation between Japan and North Korea. Because of this, missiles targeting Japan will require a longer period of exoatmospheric flight. South Korea is more at risk. Seoul is closely situated to the heavily defended boarder region and on a relatively small peninsula.<sup>16</sup>

This geography will drive North Korean missile launches in a Southerly direction for South Korean targets and Easterly to target Japan or the United States. The small size of the peninsula will enable ground based systems in South Korea, as well as sea and air based systems, to participate in threat engagements.

Missile flight times will be on the order of five to eight minutes for Japanese and South Korean targets respectively. Missiles targeting the United States will have flight times in excess of twenty minutes.<sup>17</sup> We will receive initial indications of the launch approximately one minute after it occurs.

One minute after launch, watchstanders will be alerted to the existence of a threat in the area. Based upon the intended aim point, the missile could be four minutes away from a target in South Korea, seven minutes from Japan or nineteen from the U.S. Assuming an interceptor was positioned within 500km and ready for launch, it could intercept the missile in 200 seconds.<sup>18</sup> If launched immediately upon identification of a threat, the intercept would

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<sup>16</sup> Department of Defense, Report, *Report to Congress on Theater Missile Defense Architecture Options for the Asia-Pacific Region* (Washington D.C., 1999), 7-10; available from <http://www.defenselink.mil/pubs/tmd050499.pdf>; Internet; accessed on 03 September 2006.

<sup>17</sup> Richard Garwin, "Holes in the Missile Shield," *Scientific American*, November 2004, 72.

<sup>18</sup> Ibid.

occur roughly 40 seconds prior to impact in South Korea or 220 seconds from impact in Japan.

Any delay in the chain of events leading to the engagement places significant strains on the intercept timeline. In the above scenario, an interceptor is launched from a notional range of 500 km at the moment the target becomes known. The resulting defensive action culminates in the intercept just as the threat begins to reenter the atmosphere.<sup>19</sup> Any delays in engagement authorization stretch the timeline further and may result in the target becoming unengagible. Point defense systems may provide an additional layer of protection but must be located within a few kilometers of the aim point.<sup>20</sup>

Who is responsible for conducting the intercept if there is a launch in North Korea? U.S. Forces Korea will want to act in the defense of their region as a Sub-Unified Command. U.S. Forces Japan will also want to act for the same reason. NORTHCOM / STRATCOM may also desire to take action in the interest of U.S. homeland protection. These are questions which must be addressed in developing an appropriate command and control architecture.

The Regional Geographic Commander can execute the mission in accordance with engagement priorities set at the national level. This allows the fastest reaction time to defend against a TMD threat. If the threat turns out to be an ICBM launched at the United States, the Regional Combatant Commander will have attempted to defeat it. If the Regional action fails to intercept the threat, then the National IMD architecture will have another opportunity to intercept via GMD and point defense systems.

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<sup>19</sup> Stephen Weiner, *Traditional Terminal Defense*, ed. A. Carter and D. Schwartz, *Ballistic Missile Defense* (Washington D.C.: The Brookings Institute, 1984), 74.

<sup>20</sup> *Ibid.*, 72.

A Functional Combatant Commander or centrally controlled NORTHCOM effort, with operational control (OPCON) of all missile defense assets, acting against the same threat would produce much the same result. The reason this command and control arrangement is not desired, is that regional missile defense assets are multi-mission systems. A centrally controlled IMD organization with OPCON of units across the globe will prioritize missile defense assets against all possible ballistic missile threats. These assets are high demand, low density systems required to accomplish a wide variety of regional missions. Regional Combatant Commanders must maintain OPCON of these units to accomplish other regional missions as well. With published national missile defense engagement priorities, the Regional Commander can best position his assets to meet all missions.

The Regional Combatant Commander is also better able to engage and leverage other regional partners. The Regional Commander can better foster mutual defense agreements with partner nations because there is an existing working relationship. Our regional partners have a vested interest in defeating TBM threats. They stand to lose the most from a TBM threat. Continued cooperation through the Regional Commander can foster unit of effort Regional partner nations and act as a force multiplier.

PACOM is best situated to serve as the executing agent for TMD actions in the Pacific AOR. PACOM can position forces to accomplish existing missions and support TMD requirements based national TMD engagement priorities. PACOM should designate a JFC and assign the responsibility for designating missile defense attack operations inside their JOA. This is the same organization that existing prior to the enactment of NSPD 23.<sup>21</sup>

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<sup>21</sup> Department of Defense, Joint Pub 3-01.5. *Doctrine for Joint Theater Missile Defense*. (22 Feb 1996).



This arrangement should also be coordinated multi-laterally with our partner nations in the area. This command structure will allow for more efficient use of a limited number of multi-mission platforms and assets as well as maximizing flexibility for dealing with regional threats. Coordination with partner nations will ensure that all concerned parties understand U.S. goals and intentions. A Regional Combatant Commander will be better able to coordinate this action with his JFCs and partner nations than would a Functional Combatant Commander, or NORTHCOM headquartered on the U.S. mainland.

### **Iranian Scenario**

As is shown in table 2, Iran also possesses a varied arsenal of short and intermediate range theater ballistic missiles. Iran is also situated close to several of our allied nations including Saudi Arabia and Israel. Geographically Iran poses a more difficult TBMD problem than North Korea. The majority of Iran's launches will originate in the continental land mass and may traverse over land vice over water. They are located relatively close to forward deployed U.S. forces. Based on the mobile nature of Iran's TBM inventory, there will most likely be little or no indications and warning of impending launches. The lack of forewarning and relatively short flights indicates that CENTCOM will also be faced with tight engagement timelines.

There can also be significant ambiguity in the target of an Iranian launch. There are potential targets in almost any direction. A significant factor in CENTCOM TBM engagements will be to address the threat without straining other political relationships in the region. A perception of providing more protection to one side or the other in the Arab / Israeli conflict is one example of this. As most of the missiles are short or intermediate range, quick response is vital and multilateral coordination is critical.

Again, who is responsible for conducting the intercept if there is a launch in Iran? CENTCOM will want to act in defense of their region and forces deployed therein. What if other nations attempt to engage the threat? Their engagements will complicate air space management, possibly cause mutual engagement interference and intercepts may occur over the heads of U.S. forces in the region. Will a national command structure want to run the engagement because of the strategic importance of the region? As in the North Korean scenario, these questions must be answered in developing a coherent TBM defensive strategy.

A Regional Combatant Commander will be able to better position his forces to meet a number of requirements while also leverage existing defense cooperation with regional partners. We can assure our allies and add to stability in the region through face to face cooperation in countering this threat.

## **CONCLUSIONS**

The optimum command and control architecture is centrally planned responses decentrally executed by Regional Combatant Commanders. The entity conducting national missile defense should centrally coordinate national priorities for TBM defensive actions with input from all regions. As previously stated, cruise missiles were not addressed in this paper, but should be incorporated into a national engagement priority for theater response. Regional Combatant Commanders can then leverage their assets to meet all missions and execute the nations' TBM and cruise missile engagement priorities. This will provide the greatest level of flexibility for employing scarce resources to accomplish a myriad of required missions.

There are those that favor a centralized command and control organization for all ballistic missile defensive actions. A positive attribute of a centralized C2 is that all BMD assets may be centrally coordinated and positioned to focus on a specific problem. The downside is that the U.S. military, no matter how capable, is resource limited. High demand low density assets must be employed a number of missions and not limited to one. Placing these assets OPCON to a central C2 authority and employing them exclusively for BMD will result in greater operational tempo and strain on the rest of the military.

Another argument for centralized C2 is that prioritization of assets is enhanced. This is true for national BMD engagements. ICBM flight profiles provide the time required for coordination and defense in depth. TBM profiles, as discussed in the cases, do not provide requisite times for C2. A prioritization of engagement criteria decentrally executed will enable the quickest reaction time to deal with this type of threat.

Some argue that IMD should be optimized for national defense. This will create political difficulties with our allies. The nature of threat ICBMs in regional conflicts, as discussed previously, allows for indications and warnings prior to launch. This prior warning allows the repositioning of assets to counter the threat. This threat characteristic enables regional commanders to accomplish their missions and reposition assets as required to defend against ICBM launches.

There is also a loss of time while employing a centralized command and control structure. There is an inherent loss of time as contact parameters and orders travel up and down regional and national chains of command. This loss of time is unacceptable when considering the exceedingly short engagement window that exists for a TBM or cruise missile. A ballistic missile launch is easily discernable when detected. Nothing is gained by

employing a lengthy chain of command and valuable time is lost. The recognized launch of a ballistic missile from a threat country is an obvious threat. Centrally planned responses should be executed in a decentralized manner to maximize the engagement window. This is the best opportunity for countering a TBM threat with our current technology. We must empower those with the know-how and means to act rapidly as a threat develops.

Theater Ballistic Missile defense should be addressed separately from National Missile Defense. This assertion is based on the inherent differences in the event horizons of the threat and the international political tension mishandling a regional event may cause. TBMD should be centrally planned based on national policy and decentrally executed by forces with the know-how and means. Decentralized execution of commanders' guidance will provide the rapid reaction required to successfully counter TBM threats. Regional Combatant Commanders should be given the latitude to position assigned forces to meet all existing requirements while also counter ballistic missile threats.

### **RECOMMENDATIONS**

A single entity should be explicitly designated in the Unified Command Plan as the responsible agent for conducting BMD actions in defense of U.S. territory. By designating one responsible command, a coherent strategy for dealing with BMD can be developed in accordance with national guidance and priorities. This action will enhance the unity of effort across combatant commands with regard to missile defense. It will also enhance the understanding our allies have of our intended actions.

Based on the two cases examined above, it is recommended that theater missile defense be assessed in a different manner than national missile defense. Event horizons for the two types of missile defense are very different and drive the separation.

National priorities for TBM engagement should be developed by the entity conducting national IMD with input from the Regional Combatant Commanders. Successful theater missile defense will hinge on prompt action by forward deployed forces. Regional commanders are better positioned, more in touch with the regional political atmosphere, and the most capable of dealing with the threat. Regional commanders already have assets assigned and can leverage their BMD capabilities while accomplishing their other assigned missions. National guidance on threat priorities and engagements will allow the commander the greatest flexibility in securing his AOR.

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