

# Strategy Research Project

## Patriot: The Army's Over-Committed and Misaligned Strategic Shaping Force

by

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United States Army War College  
Class of 2014

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## **Abstract**

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The U.S. Army's Patriot force is a national strategic asset vital to stability in volatile regions of the world. Patriot deployment to foreign soil sends a strong message of commitment and resolve to protect U.S. national interests. Recently, over one-third of the contingency Patriot force has been committed to enduring Theater Missile Defense (TMD) missions in USCENTCOM and USEUCOM. This level of commitment is unsustainable. The current level of rotational deployments threatens readiness and the success of contingencies which require short-notice Patriot deployment to ensure Joint Operational Access. Additionally, Patriot force organization and rotational schedule do not facilitate unity of command. The Army must enact solutions that will enable the Patriot force to simultaneously deter aggression, ensure a high state of readiness, provide an available pool sufficient to meet short-notice contingency requirements, and ensure unity of command throughout all phases of Army Force Generation (ARFORGEN).



## **Patriot: The Army's Over-Committed and Misaligned Strategic Shaping Force**

The Joint Force will be prepared to confront and defeat aggression anywhere in the world. It will have the ability to surge and regenerate forces and capabilities, ensuring that we can meet any future threats...

—Leon Panetta

The U.S. Army's Patriot force is a national strategic asset vital to stability in volatile regions of the world. The Patriot weapon system, a critical component of a tiered U.S. ballistic missile defense capability, is a combat-proven counter-balance to adversary ballistic missiles that threaten coalition countries and forward-deployed U.S. military forces. The commitment of Patriot forces to foreign soil demonstrates the nation's resolve and a strong will to protect U.S., allied and regional partner national interests. Recently, over one-third of the continental United States (CONUS) based Patriot force has been committed to enduring Theater Missile Defense (TMD) missions within the U.S. Central Command (USCENTCOM) and U.S. European Command (USEUCOM) areas of responsibility. This level of commitment is not sustainable without severe impacts to the readiness of the Patriot force. Current rotational deployment requirements also threaten the success of operational plans (OPLANs) and contingency plans (CONPLANs) in all geographical combatant commands that would require short-notice deployment of Patriot to ensure Joint Operational Access and protection for U.S. forces. Existing Patriot force organization and rotational deployment schedules do not facilitate unity of command during pre-deployment training, deployed operations, and post-deployment activities. The Army must implement strategies that will enable the Patriot force to meet four key objectives. First, continue to deter aggression and communicate resolve in the world's volatile regions where U.S., allied, and regional partner national interests are at stake. Second, ensure a high state of combat

readiness. Third, ensure an available pool of forces sufficient to meet worldwide contingency requirements. Fourth, ensure the most efficient unity of command throughout all phases of Army force generation (ARFORGEN).

### Strategic Environment – The Ballistic Missile Threat

Ballistic missiles provide a swift deep-strike capability that enables adversarial nations to influence a full range of strategic objectives. These strategic weapons, which are difficult to defend against, offer a relatively inexpensive means to conduct far-reaching strikes when compared to the cost to equipping, training and maintaining an air force with comparable capability. They are also easier to conceal and less vulnerable to preemptive or retaliatory strikes than a traditional air force. Ballistic missiles are often employed as political and psychological weapons intended to intimidate or terrorize a foe's population and national leadership. These weapons represent the real potential to disrupt a state's sources of national power through the targeting of economic infrastructure, population centers, and/or seats of national leadership. They also provide a credible anti-access capability that could be employed to prevent or degrade the use of critical lodgments in developing or mature theaters. Potential adversaries have realized that relatively inexpensive investment in ballistic missile anti-access and area denial capabilities can provide a high return.<sup>1</sup>

There are four basic ballistic missiles classes: the short-range ballistic missile (SRBM), the medium-range ballistic missile (MRBM), the intermediate range ballistic missile (IRBM), and the intercontinental ballistic missile (ICBM). The Patriot weapon system, which provides lower-tier defense, is capable of detecting, tracking and intercepting two of these – the SRBM and the MRBM. SRBMs have a range of less than 1,000 kilometers and MRBMs have ranges between 1,000 and 3,000 kilometers.

The vast preponderance of ballistic missiles that are operationally fielded by potential adversaries (such as Iran, Syria and North Korea) fall within the SRBM and MRBM classes. IRBMs and the ICBMs, currently fielded by less adversarial states (such as Russia and China) have ranges beyond 3,000 kilometers.<sup>2</sup> Other U.S. theater missile defense weapon systems that provide upper-tier and mid-course defense are capable of tracking and targeting IRBMs and ICBMs.

### Iran

The Iranian regime has first-hand experience of the intimidating and coercive effects that ballistic missiles can have on a regional adversary. During the later part of the Iran-Iraq War (September 1980 – August 1988), Iraq's ballistic missile force fired some 160 extended-range SCUD missiles against Tehran, and scores more toward cities like Isfahan and Qom. These attacks terrorized the civilian population and contributed to a striking decline in civilian morale. Ballistic missiles outfitted with conventional warheads employed against major population centers, combined with the use of chemical warhead missiles that targeted Iranian ground forces, were credited with bringing Iran to the negotiating table after eight years in which Iranian intransigence had been the norm.<sup>3</sup>

Iran has invested over one billion dollars in its missile programs during the past decade and now has the largest and most diverse ballistic missile force in the Middle East.<sup>4</sup> This force is capable of ranging U.S. military bases and critical partner-nation geopolitical assets in countries such as the Kuwait, Saudi Arabia, Jordan, Bahrain, Qatar, United Arab Emirates, Oman, Turkey and Israel. It is also capable of targeting U.S. military bases throughout Afghanistan. The most likely target of an Iranian ballistic missile attack, however, is their sworn enemy Israel. The Iranian leadership has

repeatedly called for the total annihilation of Israel, and in 2013 threatened to launch a massive missile strike against Israel if the U.S. targeted the Assad regime for using chemical weapons against the Syrian people. The chief editor of the Keyhan Newspaper, a known outlet controlled by Iran's supreme leader Ayatollah Ali Khamenei, warned that the impending confrontation between the West and Syria would "provide the long-awaited opportunity for revenge against Israel and America."<sup>5</sup> An Israeli strike against Iran's developing nuclear program is another prospective spark that could unleash an Iranian ballistic missile response and ignite a full-blown war in the region.

### Syria

Syria has historically pursued advanced ballistic missile systems as a key aspect of its national security. The Assad regime developed a large SRBM arsenal over the past several decades as a deterrent to Israel's overmatching military capability. The Syrian government has demonstrated ready willingness to employ ballistic missiles and long-range rockets during its ongoing civil war, to include arming some with chemical warheads. At least 131 missiles were launched against rebel forces in rebel-occupied territory between December 2012 and July 2013.<sup>6</sup> In the deadliest single incident in the civil war so far, sarin nerve agent was used in an attack on the outskirts of Damascus in August 2013. The attack caused an estimated 5,000 casualties, to include over 1,400 deaths, according to a preliminary U.S. government assessment.<sup>7</sup> While this particular chemical agent strike was later found by UN inspectors to be delivered by rocket artillery, all ballistic missiles in Syria's arsenal are capable of delivering chemical warheads.<sup>8</sup>

## North Korea

The Democratic People's Republic of Korea (DPRK) has been isolated from the global community for decades due to its frequent destabilizing behavior and the subsequent international response. The communist regime's primary objective to retain dictatorial power has manifested itself in tyrannical subjugation of the North Korean people and draconian promotion of nationalistic ideology. The DPRK often threatens military aggression against the U.S. and Western-aligned regional neighbors in order to foster this nationalism and divert populist attention away from dire internal conditions. The North Korea regime time and again threatens to initiate conventional and nuclear war against the U.S. and its partners. The DPRK military routinely conducts show-of-force demonstrations of its ballistic missile capability as part of this provocative behavior.

North Korea views ballistic missile development as an investment in its national security and a means to generate revenue. North Korea has one of the most robust missile programs in the world, and is an active exporter of complete ballistic missile systems, components, and technology to other rogue nations. U.S. sources estimate that North Korea has delivered over 600 SRBMs and roughly 250 MRBMs to other states.<sup>9</sup> With its own SRBMs and MRBMs, North Korea can range geopolitical targets in South Korea and Japan. Longer range IRBMs and ICBMs currently being developed by the DPRK will eventually threaten U.S. forward-deployed forces throughout the Pacific, and could potentially strike the Continental United States.<sup>10</sup>

### Patriot's Contribution to Strategic Shaping

The United States has made ballistic missile defense (BMD) a central component of protection for forward-deployed U.S. forces and extended deterrence for allied

security, and has developed a tiered BMD capability in support of this effort. The U.S. tiered BMD includes upper-tier, mid-course, and lower-tier/descent phase systems. Ground-Based Interceptors (GBI) are designed to counter ICBMs aimed at the continental United States, but other systems such as the Aegis SM-3, Theater High-Altitude Air Defense (THAAD), and Patriot are designed to intercept MRBMs and SRBMs in an allied defense and force protection role.<sup>11</sup> Aegis SM-3 and THAAD are respectively upper-tier and mid-course intercept systems. Patriot is specifically a lower-tier/descent phase weapon system.

The U.S. military's Air and Missile Defense (AMD) force structure continues to expand despite the fact that post-conflict force reductions are occurring in all services and most branches of the Army.<sup>12</sup> A primary reason is that AMD force roles and missions align with four of the ten U.S. Armed Forces primary missions outlined in the 2013 strategic landpower white paper. These missions are: 1.) deter and defeat aggression; 2.) project power despite anti-access area denial challenges; 3.) counter weapons of mass destruction (WMD); and 4.) provide a stabilizing presence.<sup>13</sup>

#### Stabilizing Presence to Deter and Defeat Aggression

U.S. BMD capability provides a value-added contribution to regional stability and helps to facilitate stronger ties with partner-nations. Forward-based and forward-deployed Patriot forces have proven essential to reassuring friends and deterring enemies. U.S. Patriot presence limits an aggressor's strategic effects by lessening the "intimidation factor" that lends to coercion, and also diminishes the prospect of a successful missile attack. This, in turn, provides regional partners a mitigation factor that allows them to interact with adversarial nations on a "level playing field."

Four Patriot battalions are permanently based overseas. These include one battalion stationed in Germany assigned to USEUCOM, and three battalions stationed within the U.S. Pacific Command (USPACOM) area of responsibility. Two of the three USPACOM battalions are stationed in Korea, and the third is based in Japan. All three USPACOM Patriot battalions provide active defense against the DPRK ballistic missile threat. The Germany based battalion supports BMD activities within the USECOM area of responsibility.

Patriot presence in the USCENTCOM area of responsibility is supported by rotational units that forward deploy from CONUS on an annual basis. These units serve to ease regional partner fears and counter destabilizing ballistic missile threats posed by regional antagonists. The U.S. has maintained near-persistent Patriot missile defense presence in the region since the beginning of Operation Desert Shield (1990) to defend against Iraqi threats, to present day in order to defend against Iranian threats.

Rotational Patriot units currently support enduring BMD missions in Kuwait, Bahrain, Qatar, and the United Arab Emirates (UAE). Syria's use of SRBMs and rocket artillery during the ongoing civil war has also spurred the deployment of U.S. and NATO Patriot to Jordan and Turkey in order to prevent the war from expanding into a wider regional conflict. Patriot units supporting these missions currently rotate out of CONUS and Europe. U.S. Patriot forces will maintain presence abroad in the foreseeable future to reassure allies and partners, strengthen partnership cohesion, and reinforce deterrence.

#### Countering Anti-Access, Area Denial, and WMD Challenges

Chairman of the Joint Chiefs of Staff General Martin Dempsey identified in the recently published Joint Operational Access Concept that the “ability to gain and maintain operational access is a principle defense challenge in the 21st century.”<sup>14</sup> The

Secretary of Defense (SECDEF) followed up by citing the chairman's Joint Operational Access Concept as a U.S. strategic imperative. In outlining future defense priorities, Secretary Panetta advocated that the United States must maintain its ability to project power to areas in which U.S. access and freedom to operate is challenged.

Sophisticated adversaries will use anti-access capabilities, to include ballistic and cruise missiles, to "complicate our operational calculus in these areas."<sup>15</sup>

Operational access is defined as the ability to project military force into an operational area with sufficient freedom of action to accomplish the mission. A military that cannot gain the operational access needed to bring force to bear loses utility as an instrument of national power.<sup>16</sup> Unopposed operational access will be less likely in the future, as potential enemies will develop, resource, and adopt anti-access and area denial strategies against U.S. forces. Anti-access actions tend to target forces approaching by air and sea predominantly, and area denial refers to those actions and capabilities designed to limit freedom of action within the operational area.<sup>17</sup> Conditions created prior to hostilities will largely determine the degree of challenge presented by opposed access. Preparing the operational area will be a continuous priority effort for combatant commanders, commencing well in advance of combat and continuing after combat begins. These actions include engagement activities such as bilateral and multinational exercises to improve multinational operations, key leader engagements, and missions to train, advise, and equip foreign forces to improve their national ability to contribute to regional access. The endeavor to shape advantageous access conditions is part of a larger, long-term effort to improve security cooperation in a region.<sup>18</sup> The

enduring presence of forward-based and forward-deployed Patriot contributes to all these shaping efforts.

The Joint Operational Access Concept identifies thirty operational capabilities the future joint force will likely need to gain operational access in an opposed environment. Five of these capabilities apply directly to the Patriot force. These include the ability to leverage cross-domain cueing to detect and engage in-depth to destroy enemy systems. Second is the ability to defeat enemy targeting systems. Third is the ability to provide expeditionary missile defense to counter the increased precision, lethality, and range of enemy anti-access/area denial systems. Fourth is the ability to protect bases and other infrastructure required to project military force, to include points of origin, ports of embarkation and debarkation, and intermediate staging bases. Fifth is the protection of forces and supplies deploying by sea and air.<sup>19</sup>

#### Current Patriot Force Organization and Commitments

The Patriot battalion is the basic operational-level fighting force capable of independent air and missile defense operations. This is comparable to the Brigade Combat Team (BCT) constituting the Army's fundamental maneuver formation. The standard Patriot battalion, manned, equipped and organized with four subordinate firing batteries, a headquarters battery, and a maintenance company, is capable of conducting independent air and missile defense operations while simultaneously linking into the joint network for information sharing and engagement control operations.

The U.S. Army currently has a total of fifteen Patriot battalions, all within the active duty force. Four of the fifteen battalions are forward-based overseas as previously mentioned. The remaining eleven battalions are home-stationed across CONUS and are assigned to one of four brigades organic to the 32d Army Air and

Missile Defense Command (AAMDC). These eleven CONUS based battalions and four brigade headquarters constitute the Patriot force pool available to deploy worldwide in support of directed and contingency operations. Recently, four of eleven CONUS based battalions have been committed to directed missions within the USCENTCOM region. Sourcing for the USCENTCOM missions is routinely supported from the eleven CONUS based battalions, and involves 12-month rotational deployments. One of the four ADA brigade headquarters also deploys forward to provide command and control for the deployed battalions. Currently, the forward-deploying brigade headquarters units deploy for 9-month rotations, versus the battalion 12-month rotations. Also, brigade headquarters and battalion deployments are not aligned so that a brigade deploys with its organically assigned battalions.

#### Recommended Way Ahead

This paper recommends six initiatives for the Patriot force: 1.) Transition from a battalion-centric to a brigade-centric rotational deployment scheme; 2.) Reorganize and grow the contingency Patriot force; 3.) Minimize enduring forward presence in the USCENTCOM area of responsibility; 4.) Increase emphasis on building partner capability; 5.) Avoid employing contingency Patriot forces to enduring USEUCOM missions, and 6.) Modify the Patriot ARFORGEN cycle to meet readiness and mission requirements that are unique to the Patriot force. These changes will enable the Patriot force to better plan, prepare, and execute current and future world-wide mission requirements.

#### Brigade Centric Deployments & Contingency Patriot Force Reorganization and Growth

To meet USCENTCOM enduring mission requirements, Patriot unit rotations should transition from battalion-centric to brigade-centric deployments. This change will

help the Patriot force achieve unity of command and synergy throughout the AFORGEN process. It will require the reorganization of CONUS-based Patriot brigades, the addition of a twelfth Patriot battalion to the contingency force pool, and an increase in brigade headquarters' deployed time-periods from nine to twelve months.

The CONUS ADA brigades do not currently have equal numbers of organically assigned Patriot battalions. The 11th ADA Brigade has four assigned Patriot battalions, the 69th ADA Brigade has three, and the 31st ADA Brigade and 108th ADA Brigade have two each (see Figure 1).

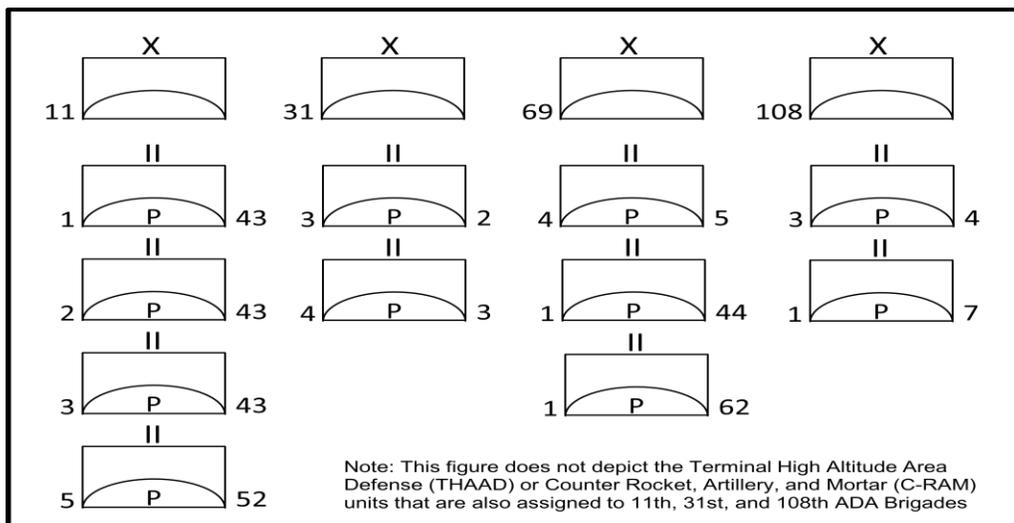


Figure 1.

Standardization of ADA brigade Patriot composition will support a better-synchronized and consistent force management process. Reorganization with each brigade having three organic Patriot battalions assigned will require the reassignment of one battalion from 11th ADA Brigade to either 31st or 108th ADA Brigade. The 108th ADA Brigade may be the better option as the relocating battalion can likely utilize facilities vacated by an inactivated BCT at Fort Bragg, NC (see Figure 2). A twelfth

Patriot battalion for the Patriot contingency force is also needed. Relocating one of the three forward-based battalions from USPACOM to CONUS is not feasible due to the real and present ballistic missile threat posed by the DPRK. The only acceptable way to meet this requirement is to stand up another Patriot battalion, bringing the total force to sixteen battalions.

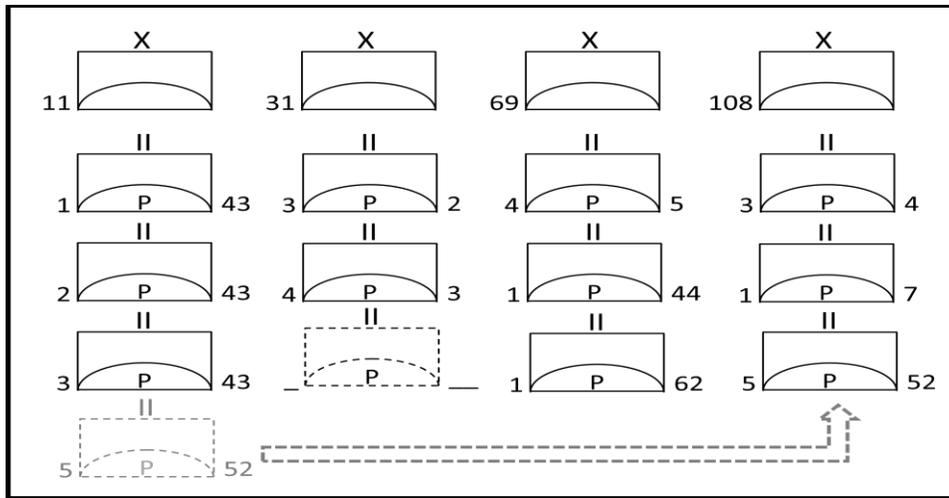


Figure 2.

Minimize Forward Presence & Increased Emphasis on Building Partner Capability

The contingency Patriot force cannot sustain an enduring four battalion forward presence in the USCENTCOM area of responsibility without threatening long-term readiness and the success of contingency plans in other geographical combatant command regions. This paper recommends that enduring USCENTCOM mission requirements fulfilled by the 32d AAMDC be limited to only two Patriot battalions and a brigade headquarters for command and control. These two battalions should be employed to protect critical force projection infrastructure such as airbases and seaports, as future enemies can be expected to attack these critical access nodes as

part of an anti-access/area denial strategy. Increased partner-nation BMD capability will enable U.S. Patriot force reduction while maintaining acceptable levels of risk.

Secretary Hagel advocated the U.S. military's role in advancing partner nation capability during the most recent Manama Dialogue security conference.<sup>20</sup> In his speech to statesmen and senior military leaders from the Arabian Gulf states of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the UAE, the SECDEF called for closer multilateral coordination to include a unified focus on missile defense through the regional Air and Air Defense Chiefs' Conference, which meets several times a year.<sup>21</sup> A major line of effort for the in-theater Patriot force must be a robust security cooperation program aimed at building regional partner missile defense capacity in order to mitigate the smaller enduring U.S. military presence in the region.

The rotational ADA brigade headquarters must play an increased role in the theater security cooperation (TSC) effort, with emphasis on developing partner-nation AMD planning skills and force readiness oversight. This will first require brigade headquarters deployments to increase from 9-month to 12-month rotations akin to current battalion year-long rotational periods. The most beneficial aspect of a 12-month deployment, in regards to the TSC program, will be increased time for individual brigade commanders to foster solid working relationships with host-nation counterparts. Reduced transitional friction and the opportunity to synchronize brigade and battalion deployment schedules are also benefits of extending brigade headquarters deployments.

## Avoid Contingency Expeditionary Force Employment to Fulfill Enduring USEUCOM Mission Requirements

NATO recently agreed to a Turkish government request to extend for another year the deployment of Patriot to protect Turkey's troubled border with Syria due to continuing "serious threat."<sup>22</sup> U.S. participation in this NATO mission, also involving the deployment of German and Dutch Patriot units, was initially sourced from a 32d AAMDC contingency expeditionary force (CEF) Patriot battalion. The enduring Patriot presence in Turkey should be sourced solely by USEUCOM or non-U.S. NATO Patriot units. The second year-long U.S. Patriot rotational force contribution is being sourced with elements of 5-7 ADA stationed in Kaiserslautern, Germany.<sup>23</sup> However, the third year-long rotational unit is once again scheduled for sourcing by the 32d AAMDC.

## Modify the Patriot ARFORGEN Cycle

Patriot force rotational deployments, equipment modernization/refurbishment efforts, crew certification process, contingency force requirements, and pre-deployment training validation requirements, all combined, necessitate an adjusted force generation model different from the current Army three-phased, three and a half year cycle standard. This paper recommends a modified Patriot ARFORGEN model with four distinctive year-long phases, with each of the four ADA brigades in one of the phases at a given time. The four recommended phases are Deployed Expeditionary Force (DEF), Contingency Expeditionary Force (CEF), Train/Ready, and RESET (see Figure 3).

	<b>ARFORGEN PHASE</b>	<b>READINESS LEVEL</b>	<b>MISSIONS &amp; TRAINING</b>
	<b>DEPLOYED EXPEDITIONARY FORCE (DEF)</b>	<b>A-1</b>	<b>DIRECTED MISSION (DM)</b> <b>*CEF 3 BN</b>
	<b>CONTINGENCY EXPEDITIONARY FORCE (CEF)</b>	<b>C-1 to C-2</b>	<b>DRB</b> <b>CEF 1 BN</b> <b>CEF 2 BN</b> <b>EDRE</b> <b>MRE / CTE</b>
	<b>TRAIN / READY</b>	<b>C-2</b>	<b>INTERM. GUNNERY</b> <b>ADV. GUNNERY</b> <b>JOINT EXERCISES</b> <b>TEST SUPPORT</b>
	<b>RESET</b>	<b>C-3 to C-5</b>	<b>PME</b> <b>BASIC GUNNERY</b> <b>RESET / RECAP</b> <b>MODERNIZATION</b>
<p>* CEF 3 battalion sourced by DEF brigade if directed mission requirement is reduced to two battalions. If not, CEF 3 sourced out of DRB.</p>			

Figure 3.

The ADA brigade in the DEF phase would be the deployed brigade fulfilling rotational directed missions assigned to the 32d AAMDC. If the directed mission requirement is reduced to the recommended two-battalion effort in USCENTCOM, the

third organically assigned Patriot battalion would fulfill a CEF 3 requirement. CEF 3 is defined as contingency force with a prepare to deploy order (PTDO) upon 14 days notice. Having the third battalion assigned the CEF 3 requirement, versus the CEF 1 with a 96-hour from notification PTDO requirement, would allow the DEF brigade added flexibility in certified crew and low density personnel management, as well as resource and training prioritization. The deployed brigade headquarters would retain all aspects of warfighting readiness oversight and authority for all three battalions.

The ADA brigade in the CEF phase would also be known as the Deployment Ready Brigade (DRB). The three battalions within the DRB would rotate assumption of CEF 1 (96-hour PTDO) and CEF 2 (7-day PTDO) responsibility on a revolving basis throughout the 12-month period. The battalion not fulfilling a CEF responsibility would be available for advanced collective training events such as emergency deployment readiness exercises (EDRE) and mission rehearsal exercises (MRE). The DRB brigade headquarters and subordinate battalions would be required to achieve and maintain a high readiness posture in core functions and designated capabilities (C-level). At a minimum, DRB units would need to attain and sustain C-1 or C-2 readiness ratings as outlined in DA PAM 220-1, Defense Readiness Reporting System – Army Procedures.<sup>24</sup> (see Figure 4).

<b>C-Level</b>	<b>Readiness Assessment</b>
<b>C-1</b>	The unit possesses the required resources and is trained to undertake the mission for which it is designed (that is, accomplish core functions and provide designed capabilities).
<b>C-2</b>	The unit possesses the required resources and is trained to undertake most of the mission for which it is designed (that is, accomplish core functions and provide designed capabilities).
<b>C-3</b>	The unit possesses the required resources and is trained to undertake many, but not all, portions of the mission for which it is designed (that is, accomplish core functions and provide designed capabilities).
<b>C-4</b>	The unit requires additional resources or training to undertake its designed mission (that is, accomplish core functions and provide designed capabilities), but it may be directed to undertake some portions of its mission with resources on hand.
<b>C-5</b>	The unit is undergoing a HQDA-directed resource action (for example, reconstitution) and is not prepared, at this time, to undertake the full spectrum mission for which it is designed (that is, accomplish core functions and provide designed capabilities).

Figure 4.

The ADA brigade within the Train/Ready phase would be primarily focused on generating a high state of training readiness. During this phase, all certified crews within the brigade would complete intermediate-level and advanced-level gunnery certifications as outlined in FM 3-01.86, Air Defense Artillery Brigade Gunnery Program. Key training milestones for each crew during this phase would include Table VIII gunnery certification, externally graded Standardized Patriot Evaluation and Readiness (SPEAR) evaluation, and Table XII gunnery certification. Battalions within this brigade would also support Joint exercises and test requirements tasked by the 32d AAMDC. The target readiness level for units within the Train/Ready brigade would be a minimum of C-2, meaning the units would possess the required resources and be trained to undertake most of their assigned mission essential tasks.<sup>25</sup>

Upon redeployment, brigades would transition from the DEF to the RESET phase. This Patriot RESET phase would differ from the Army-standard RESET phase primarily by time allotted, from a 6-month to a 12-month period. The additional six months are needed to support the lengthy Patriot equipment refurbishment program conducted at the Letterkenny Army Depot. Historically, many Patriot units have transitioned from the 6-month RESET to the Train/Ready phase without having received all equipment back from Letterkenny. This premature transition without all required equipment has created significant challenges in the timely regeneration of warfighting readiness.<sup>26</sup> The RESET phase would be a heavy personnel transition period in order to support professional military education (PME) and permanent change of station (PCS) moves. Training would be focused primarily on fundamental skills at the individual, crew, and section level. Key milestones for the Patriot RESET phase should include the completion of equipment refurbishment and/or modernization programs, and Patriot gunnery Table IV certification for individual crew members. Overall unit readiness levels would remain within the lower tiers; from C-5 to C-3 ratings.

#### Analysis, Associated Risks and Mitigation

A significant risk associated with the recommendations outlined in this paper is the reduction in U.S. forward-deployed Patriot in the Middle East. Potential negative impacts of a smaller deterrence presence are two-fold. First, it could embolden Iranian destabilization efforts. Iran could capitalize with propaganda touting that the reduction in U.S. presence signaled wavering commitment to the region. Conversely, Iran could step up its rhetoric and actions as the purported rightful dominant power in the region. However, it is unlikely that reduced Patriot presence alone would result in armed conflict. A second related risk would be that our regional partners might believe the

Iranian claim that U.S. commitment in the region is in decline. This risk must be mitigated with a concerted strategic communications message that assures our partners and prevents Iran from miscalculating U.S. resolve.

The SECDEF has declared that a reduction in resources as the U.S. military enters the post-conflict era will require innovative and creative solutions to maintain U.S. support for allied and partner interoperability and build partner capacity. Reduced resources will require thoughtful choices regarding the location and frequency of these operations.<sup>27</sup> To mitigate reduced forward presence of Patriot, efforts to provide partner nations with their own capacity to defend against Iran's ballistic missile threat must be invigorated. The reduction in U.S. forward presence should likewise compel these partners to devote additional resources to bolster their own defense capabilities. The two arms of this initiative are foreign military sales (FMS) and theater security cooperation. Most U.S. partners in the Gulf Cooperation Council (GCC) are wealthy nations that can afford to invest in advanced U.S. missile defense weapon systems. Many of these nations have in fact already purchased, or plan to purchase, Patriot, THAAD, and other advanced radars.

Saudi Arabia's purchase and operational fielding of Patriot is one success story illustration. Saudi Arabia purchased and fielded eighteen Patriot batteries between 1990 and 2000. U.S. Army Patriot units remained in Saudi Arabia throughout this period and until the defeat of the Iraqi Army during Operation Iraqi Freedom. Since 2003 the Saudi Arabian military has been responsible for ground-based BMD operations within the kingdom.<sup>28</sup> Kuwait and the UAE have also purchased and fielded U.S. BMD systems,

and are developing capability and capacity in partnership with the U.S. military. Qatar has communicated the desire to purchase and field U.S. BMD weapon systems as well.

There are other positive implications for a reduced U.S. Patriot forward presence in the Middle East. Foremost is reduction in ideological tensions created by a visible U.S. military presence. Ground based missile defense systems are often highly visible to the local populations being protected. Western military force presence in the Arab world is a point of contention for many because it serves as a reminder of past empirical and colonial domination.<sup>29</sup> Palpable U.S. air and missile defense forces contribute to these anti-Western sentiments. Prolonged U.S. military presence in the region is used by some violent extremist organizations in an attempt to undermine partner-nation regimes. These extremists, motivated by Arab nationalism and Islamic revivalism, often promote propaganda that Western-partnered Arab rulers depend on U.S. military support to retain power and protect national sovereignty. They also make claims that the U.S. military presence indicates the ruling government is merely a puppet government of U.S. These circumstances represent a “catch-22” situation for the host nation. In response, local-national governments sometime appear less than willing to fully support U.S. military operational activities as an attempt to demonstrate sovereign authority and alleviate domestic misperceptions. These periodic restrictions, however, often hinder U.S. support and defense of critical host-nation geopolitical assets. The ultimate goal is inherent BMD capacity within partner-nation militaries throughout the Middle East. In particular, creating GCC ballistic missile defense capacity enables these governments to showcase to their populace the ability to defend national sovereignty without foreign assistance.

Another risk mitigation strategy for reduced Patriot forward presence would be to conduct regularly scheduled rapid deployment exercises in which contingency Patriot forces alert, marshal and deploy on short-notice to predetermined defended asset locations. This same concept, known as Return of Forces to Germany (REFORGER), was exercised to deter Soviet aggression in Europe during the Cold War. In 1967, the United States announced plans to withdraw 28,000 troops, roughly two divisions, from Europe in the following year. To demonstrate its continued commitment to NATO, the U.S. agreed to a large scale force deployment of not less than three brigades of a single division to Europe in an annual exercise. Thus was born REFORGER, which tested the ability of conventional forces to fight in a conventional war scenario and demonstrated U.S. determination. REFORGER was conducted from 1969 – 1988.<sup>30</sup> A more recent and regionally aligned force projection example would be the biannual Bright Star exercise. Bright Star was a Joint Chiefs of Staff (JCS) directed, USCENTCOM scheduled joint/coalition exercise designed to increase regional involvement in pursuit of improved security and defense capabilities. It was a multi-national exercise conducted in Egypt and co-hosted by Egypt and the U.S. The exercise had been USCENTCOM's premier exercise, and was designed to improve readiness and interoperability and strengthen relationships between US, Egyptian and participating forces. It validated training and demonstrated U.S. capability to respond to various contingencies.<sup>31</sup> Critical to the success of future rapid deployment exercises would be the maintenance of vacated Patriot site footprints within USCENTCOM, and the development of other contingency sites identified in existing OPLANs for all global combatant command areas.

Reduced Patriot contingency force forward presence also has implications for USEUCOM. A primary mission for the Patriot battalion stationed in Germany is rapid deployment and defense of Israeli critical assets during crisis. If this battalion is committed to supporting the NATO mission in Turkey, it will not be available for missile defense operations in Israel. There are two mitigating solutions for this dilemma. First, Israel BMD capabilities have rapidly improved over the past decade largely due to U.S. funding and defense industry cooperation between U.S. and Israeli aerospace corporations. Israel possesses a highly capable, tiered air defense protection capability with Iron Dome, David's Sling, Arrow Weapon System (AWS), and Patriot weapons systems.<sup>32</sup> Most of these weapon systems are fully fielded and combat tested as demonstrated during the recent conflicts with Hezbollah and Hamas. The Israeli military's heavy emphasis on missile defense, coupled with their continued development of advanced anti-missile technology, makes them much less dependent on U.S. Patriot contingency force support. Lastly, if U.S. Patriot support in Israel is required, the CONUS based deployment ready brigade would be available to provide it.

Tiered readiness is a risk factor for Patriot, as well as the entire Army. Vice-Chief of Staff of the Army Lieutenant General Campbell announced that the Army may have to keep many units at lower levels of readiness for years, and that this is not a short-term expedient but new policy. This policy is widely supported inside and outside of the Pentagon as many defense analysts and think tanks see no other way than to sacrifice readiness levels to guarantee the military's ability to develop and buy new weapons.<sup>33</sup> The Patriot force must be an exception and kept at a higher readiness state relative to the rest of the Army. Army leadership should accordingly commit to maintaining Patriot

readiness within the upper end of the “progressive readiness continuum” despite dwindling resources. This precedence was set in early 2013 when the Army’s Deputy Chief of Staff, G4 Lieutenant General Raymond Mason issued waiver guidance that exempted Patriot from reduced maintenance standards. In a memorandum to all major commands regarding fiscal uncertainty, he authorized “commands and organizations to begin maintaining ground systems, including missile systems (less Patriot missile systems), communications and electronic systems and watercraft at Fully Mission Capable Plus Safety (FMC Plus Safety)”.<sup>34</sup> The Patriot DRB readiness should be on par with other rapid deployment units, akin to units that compose the Global Response Force (GRF). Incorporation of the Patriot DRB into the GRF pool is a likely solution to ensure the Patriot DRB receives the appropriate prioritization and resourcing required for top tier readiness.

Personnel manning will be a critical aspect of readiness. The proposed Patriot ARFORGEN cycle calls for units in the Train/Ready brigade to achieve a C-2 readiness rating, which equates to a personnel level (P-Level) of at least P-2. This means that these units should have 89 to 80 percent available strength, with 84 to 75 percent available military occupational specialty qualification by duty position (DMOSQ) and senior grade strength.<sup>35</sup> Emphasis must be placed on fire control and engagement operations crew member positions, with the goal of stabilizing these personnel for a three-year period beginning when units transition out of the RESET phase. Patriot crew military occupational specialty (MOS) forecasting, management, and retention to adequately support the Patriot ARFORGEN cycle must be a top priority for Army Human Resource Command.

Increasing the U.S. Patriot force from fifteen to sixteen battalions is the most ambitious and costly recommendation due to the current fiscal environment and force downsizing effort. A constrained approach option could involve an iterative process in which the sixteenth battalion is initially stood up without newly fielded firing batteries. Instead, a battalion within the other three brigade formations would donate one of their four firing batteries to the newly forming battalion. This would result in the four CONUS brigades having three organic battalions, with one of the three battalions only outfitted with three Patriot firing batteries instead of the standard compliment of four. It is important to distinguish that there still remains significant up-front cost associated with fielding the new battalion's Headquarters-and-Headquarters Battery (HHB) and the maintenance company. As further funding becomes available and equipment procurement activities progress, round-out firing batteries can be fielded to the battalions having only three (See Figure 5). The nature of the Patriot force as a strategic deterrence tool makes the sourcing of an additional Patriot battalion a sensible investment in conflict avoidance. An additional contingency force battalion, coupled with a customized ARFORGEN cycle, increases the Army's capability to generate and manage combat ready Patriot brigades.

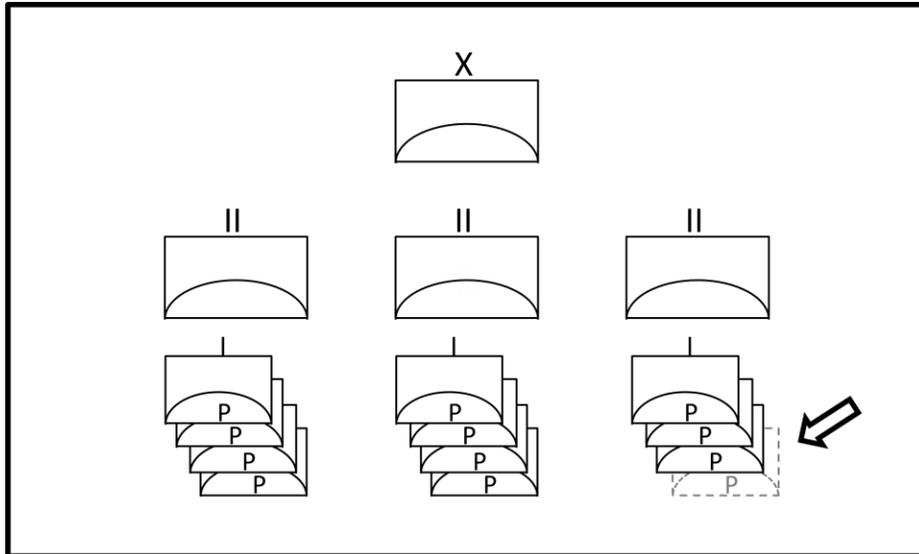


Figure 5.

Cost-offsetting measures are available. As mentioned earlier, the sixteenth Patriot battalion can occupy facilities vacated by deactivating units in order to save short-term facilities costs. Equipment modernization represents a longer-term cost savings measure. Patriot is a legacy system that largely remains 1970s technology based. Originally designed as an anti-aircraft surface-to-air missile system, Patriot has evolved to perform an anti-ballistic missile role as its primary mission. Major software and hardware upgrades over the past two and a half decades have been required to support the transition to an anti-ballistic missile role. Today, new construction Patriot systems sold through the FMS program have many upgrades not available on the older U.S. systems. Specifically, many components have been upgraded from analog to digital. Modernizing the current U.S. Patriot fleet with upgrades such as digitized engagement control stations and radars with more advanced and fewer data processing components will save costs over time through decreased sustainment expenditures.

Equipment modernization also has added advantages of increased operational readiness rates, training time, and overall Patriot force readiness.

### Conclusion

The U.S. Army's Patriot force is a proven national-level asset that typically requires Presidential approval prior to commitment abroad. Its employment signals unwavering U.S. resolve to maintain regional stability in volatile regions of the world. Unfortunately, Patriot's ability to deliver all-important strategic effects has resulted in unsustainable commitments to enduring missions overseas. This over-commitment risks the long-term readiness of the Patriot force, as well as the success of contingency OPLANs that rely on short-notice, rapid deployment of Patriot to ensure joint operational access and protection for critical U.S. and partner nation assets. The Patriot contingency force currently has an organizational structure and rotational scheme that does not facilitate unity of command throughout all phases of the Army's force generation cycle. Failure to address these challenges will adversely affect our nation's ability to ensure regional stability against destabilizing ballistic missile threats, or to meet worldwide short-notice contingency ballistic missile defense requirements.

This paper recommends solutions to enable the Patriot force to meet current and future challenges. A transition from battalion-centric to brigade-centric rotational deployments would support unity of command and operational synergy. Growth of the 32d AAMDC's Patriot contingency force from eleven to twelve battalions, reorganized into four standardized brigades, would be the force structure benchmark to achieve superior force generation and readiness management. Implementation of a customized ARFORGEN cycle would ensure adequate time to meet unique manning, equipping, modernization and training requirements to achieve a combat ready Patriot force.

Minimizing forward presence in the USCENTCOM area of responsibility, coupled with increased emphasis on building partner capability through FMS and theater security cooperation, would provide the Defense Department with a flexible and robust ballistic missile defense response force to meet anti-access and area denial environments anywhere in the world on short notice.

Each recommendation comes with a degree of risk that requires thoughtful mitigation. These proposals would require the Department of the Army's commitment to resource Patriot readiness at a higher level relative to most other Army units. The Army would also need to invest in modernization efforts as a long-term cost saving measure, but more importantly, in order to meet a technologically evolving threat. Adherence to these recommendations will enable to Patriot force to better plan, prepare, and execute current and future mission requirements.

## Endnotes

<sup>1</sup> U.S. Joint Chiefs of Staff, *Joint Operational Access Concept*, version 1.0 (Washington, DC: U.S. Joint Chiefs of Staff, 17 January 2012), ii.

<sup>2</sup> U.S. Government Accountability Office, *GAO-13-432 Missile Defense* (Washington DC: U.S. Government Accountability Office, April 2013), 3-4.

<sup>3</sup> Thomas L. McNaughter, "Ballistic Missiles and Chemical Weapons: The Legacy of the Iran-Iraq War," *International Security* 15, no. 2 (Fall 1990): 5.

<sup>4</sup> Michael Elleman, "Iran's Ballistic Missile Program", October 2010, <http://iranprimer.usip.org/resource/irans-ballistic-missile-program> (accessed November 12, 2013).

<sup>5</sup> Reza Kahlili, "Iran: 'Thousands of Missiles' to Rain on Israel," August 28, 2013, [www.wnd.com/2013/08/iran-thousands-of-missiles-to-rain-on-israel](http://www.wnd.com/2013/08/iran-thousands-of-missiles-to-rain-on-israel) (accessed November 23, 2013).

<sup>6</sup> "Syria: Ballistic Missiles Killing Civilians, Many Children," August 5, 2013, <http://www.hrw.org/news/2013/08/04/syria-ballistic-missiles-killing-civilians-many-children> (accessed November 23, 2013).

<sup>7</sup> "Syria Chemical Attack: What We Know," September 24, 2013, <http://www.bbc.co.uk/news/world-middle-east-23927399> (accessed November 23, 2013).

<sup>8</sup> Anthony H. Cordesman, "Syrian Weapons of Mass Destruction: An Overview," June 2, 2008, [http://csis.org/files/media/isis/pubs/080602\\_syrianwmd.pdf](http://csis.org/files/media/isis/pubs/080602_syrianwmd.pdf) (accessed November 23, 2013).

<sup>9</sup> Linked from *The Nuclear Threat Initiative Home Page* at "Country Profiles / North Korea / Missile," September 2013, <http://www.nti.org/country-profiles/north-korea/delivery-systems/> (accessed November 23, 2013).

<sup>10</sup> United States Department of Defense, "Annual Report to Congress: Military and Security Developments Involving the Democratic People's Republic of Korea 2012," May 2013, [http://www.defense.gov/pubs/report\\_to\\_congress\\_on\\_military\\_and\\_security\\_developments\\_involving\\_the\\_dprk.pdf](http://www.defense.gov/pubs/report_to_congress_on_military_and_security_developments_involving_the_dprk.pdf) (accessed February 5, 2014).

<sup>11</sup> Ian E. Rinehart, Steven A. Hildreth, and Susan V. Lawrence, "Ballistic Missile Defense in the Asia-Pacific Region: Cooperation and Opposition", (Washington, DC: Congressional Research Service, June 24, 2012) 8-9.

<sup>12</sup> Based on the author's personal knowledge, the Army's current air and missile defense force structure expansion effort is centered on the establishment of the eighth Terminal High Altitude Air Defense (THAAD) battery in the Total Army Analysis (TAA) 2016-2020. The last Patriot battalion to complete activation was 1-62 ADA Battalion on October 16, 2011 at Fort Hood, TX. There is currently no funded plan to expand U.S. Army Patriot beyond the current fifteen battalions currently on active duty. However, the Army will compete for additional Patriot battalions in TAA 2017-2021. The Navy is also expanding its Aegis sea-based and land-based force.

<sup>13</sup> Strategic Landpower Task Force, "Strategic Landpower: Winning the Clash of Wills," May 2013, [http://www.ausa.org/news/2013/Documents/Strategic\\_Landpower\\_White\\_Paper\\_May\\_2013.pdf](http://www.ausa.org/news/2013/Documents/Strategic_Landpower_White_Paper_May_2013.pdf) (accessed December 5, 2013).

<sup>14</sup> U.S. Joint Chiefs of Staff, *Joint Operational Access Concept*, ii.

<sup>15</sup> United States Department of Defense, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*, 4-5.

<sup>16</sup> U.S. Joint Chiefs of Staff, *Joint Operational Access Concept*, 2.

<sup>17</sup> *Ibid*, i.

<sup>18</sup> *Ibid*, 18-19.

<sup>19</sup> U.S. Joint Chiefs of Staff, *Joint Operational Access Concept*, 33-35.

<sup>20</sup> Karen Parrish, "Hagel Outlines U.S. Posture, Way Ahead in Middle East," December 7, 2013, linked from the *Department of Defense Home Page* at "News / AFPS Articles," <http://www.defense.gov/News/newsarticle.aspx?ID=121299> (accessed December 9, 2013).

<sup>21</sup> Ibid.

<sup>22</sup> Fulya Ozerkan, "Turkey Asks NATO to Extend Patriot Near Syria Border," November 13, 2013, <http://www.defensenews.com/article/20131113/DEFREG01/311130029/> (accessed December 12, 2013).

<sup>23</sup> Staff Sgt. John Zumer, "10<sup>th</sup> AAMDC Air Defense Soldier Deploy to Turkey," November 22, 2013, linked from the *Defense Video & Imagery Distribution System Home Page* at "News," [http://www.dvidshub.net/news/117208/10th-aamdc-air-defense-soldiers-deploy-turkey#.Uqogw\\_RDuSp](http://www.dvidshub.net/news/117208/10th-aamdc-air-defense-soldiers-deploy-turkey#.Uqogw_RDuSp) (accessed December 12, 2013).

<sup>24</sup> U.S. Department of the Army, *Defense Readiness Reporting System – Army Procedures*, DA PAM 220-1 (Washington DC: U.S. Department of the Army, November 16, 2011), 18.

<sup>25</sup> Ibid.

<sup>26</sup> These are the author's personal observations during service as the 1-44 ADA Battalion Commander and as the Deputy Commander for the 108th and 69th ADA brigades.

<sup>27</sup> United States Department of Defense, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*, (Washington, DC: U.S. Department of Defense, January 2012), 5-6.

<sup>28</sup> Anthony H. Cordesman, *Saudi Arabia: National Security in a Troubled Region*, (Washington DC: Center for Strategic and International Studies), 231.

<sup>29</sup> Jillian Schwedler and Deborah J. Gerner, eds., *Understanding The Contemporary Middle East*, 3rd Edition, (Colorado: Lynne Rienner, 2008), 387-388.

<sup>30</sup> Linked from the *GlobalSecurity.org Home Page* at "Military / Operations / Exercises / EUCOM / REFORGER," <http://www.globalsecurity.org/military/ops/reforger.htm> (accessed December 27, 2013).

<sup>31</sup> Linked from GlobalSecurity.org Home Page at "Military / Operations / Exercises / CENTCOM / BRIGHT STAR," <http://www.globalsecurity.org/military/ops/bright-star.htm> (accessed December 27, 2013).

<sup>32</sup> Linked from Jewish Virtual Library.org Home Page at "Fact Sheets / Missile Defense," [http://www.jewishvirtuallibrary.org/issue/talking/88\\_missiledefense.html](http://www.jewishvirtuallibrary.org/issue/talking/88_missiledefense.html) (accessed February 5, 2014).

<sup>33</sup> Sydney J. Freedberg, "Army Adopting 'Progressive,' AKA Tiered Readiness: Vice-Chief Campbell," August 26, 2013, <http://breakingdefense.com/2013/08/army-adopting-tiered-readiness-vice-chief-campbell/> (accessed December 27, 2013).

<sup>34</sup> Deputy Chief of Staff, G4 Lieutenant General Raymond V. Mason, "Waiver Guidance Based on Fiscal Uncertainty," memorandum for Department of the Army Principle Officials Headquarters, Major Command (MACOM) Commanders, U.S. Military Academy Superintendent, and Director, U.S. Army Acquisition Support Center, Washington, DC, February 13, 2013.

<sup>35</sup> U.S. Department of the Army, *Defense Readiness Reporting System – Army Procedures*, 40.