DEFENSE DOSSIER

February 2014 ISSUE 10

American Foreign Policy Council

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FROM THE EDITORS

Welcome to the February 2014 issue of AFPC's Defense Dossier. In this edition, we return once again to the issue of contemporary missile threats confronting the U.S., and the state of the American response to them.

Today's strategic environment is changing rapidly. Strategic competitors such as Russia and China are forging ahead with the modernization of their already-robust strategic arsenals, even as adversaries like Iran and North Korea broaden their capabilities in the nuclear and missile arenas. As budget constraints increase at home, and political will for missile defense diminishes, the U.S. may soon find itself unable to counter both current and future threats - despite possessing the technical capacity to do so. The future for American missile defense, in other words, is in flux, even as the need for it mounts.

The articles in this Defense Dossier are drawn from presentations featured at AFPC's 2013 Capitol Hill conference on "Missile Defenses and American Security," which took place on December 4, 2013.

Sincerely,

Ilan Berman
Chief Editor

Richard Harrison
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Lessons Learned, and the Road Ahead

ROBERT G. JOSEPH

The United States today is seen by both adversaries and allies as a country in decline—a country withdrawing from regions long considered to be of vital interest. While this perception applies more broadly, it is most evident in the Persian Gulf and East Asia.

Longtime friends in the Gulf have lost confidence in the United States as an ally. Saudi Arabia has been the most outspoken, but others are as concerned with U.S. policies and actions as is Riyadh. The departure from Iraq and the drawdown in Afghanistan are only part of their assessment. The chemical weapons agreement with Syria is seen as a strategic debacle, strengthening the position of Syrian president Bashar al-Assad and of Vladimir Putin's Russia. The so-called "plan of action" with Iran—which permits Teheran to maintain at a minimum a breakout capability for a nuclear weapon and places no constraints on its missile force—is seen as yet another fundamental mistake. U.S. policy toward both Syria and Iran, although declared major diplomatic successes by the Obama administration, are in fact viewed as evidence of American weakness in a region that abhors weakness.

In Asia, despite the 2011 announcement of the "pivot" or "rebalance," allies are also questioning the capability, the credibility and the resolve of the United States. Part of this is a consequence of dramatic reductions in defense spending and the concern or expectation of more cuts to come. But even more significant are disturbing U.S. policies that also translate into the perception of weakness. Just one example: imagine the effect on Tokyo of the recent comment by President Obama's National Security Advisor, Susan Rice, that the United States "does not take a position on the

question of sovereignty" of the Senkaku/Daioyu Islands. Now, imagine the effect on Beijing.

PROVOCATIVE WEAKNESS

If friends are questioning U.S. resolve, imagine what our adversaries and competitors are thinking. In fact, there is no need for imagination; their actions speak volumes.

In 2013, North Korea threatened a nuclear strike on the United States, and has taken numerous other steps to increase its nuclear and missile capabilities. China is undergoing a major force build up and defense modernization across the board. In tandem, it is becoming even more assertive in its territorial claims, most recently with its announced air defense identification zone in the East China Sea and further restrictions on fishing in the South China Sea. The list goes on.

History is replete with examples that demonstrate that weakness—or the perception of it—provokes challenges that lead to conflict. And in the case of North Korea and Iran (and Russia and China) the threat of ballistic missiles will be one means of challenging the United States.

North Korea routinely threatens American allies, and the United States itself, with its growing missile force. Iran, while less vocal, is building its ballistic missile capabilities, already the largest in the region, and could acquire an intercontinental range missile by 2015. China recently conducted a military exercise that highlighted nuclear attacks against U.S. cities. Russia has deployed *Iskander* missiles to Kaliningrad to threaten U.S. allies in Europe in a heavy-handed effort to stop the deployment of missile defenses in Romania and Poland.

HALTING PROGRESS

So what are the principal lessons learned from our experience with missile defenses?

The first one is that—while vision is essential—it is not sufficient. President Reagan's SDI speech thirty years ago

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was truly visionary. Like other visionary speeches, it was ridiculed as simplistic and characterized as dangerous by many U.S. defense intellectuals at the time. This wasn't surprising; Reagan was challenging decades of conventional wisdom that considered the dogma of mutual assured destruction to be above question. Talk of raising the human spirit by not threatening the existence of other nations—and saving lives rather than avenging them—was pure heresy. The President's foresight was derided as fantasy as he called on the best of American scientific and industrial might to pursue new technologies to intercept strategic ballistic missiles before they reach American soil. The theological guardians of the Cold War said it couldn't be done, because it was beyond our technical capacity, and that it shouldn't be done because it would be destabilizing.

For his part, Reagan had complete faith in the potential of American achievement, and no faith in the notion of mutual annihilation. He understood the magnitude of the task ahead, stating it would take years of investment during which time we would have setbacks as well as breakthroughs. And he not only proved his critics wrong; he proved to be right.

But being right is not a guarantee of success. Across the past five administrations, the pattern has been one of progress followed by disappointment, moving forward only to move back. In the second half of the Reagan tenure and the Bush 41 years, the United States pursued serious research and development of strategic defenses, and made real progress in a number of critical technologies, including space-based sensors and interceptors. The first President Bush established GPALS, the global protection against limited strikes, which included Brilliant Pebbles and ground based sites as a deployment goal.

But during the Clinton years, the United States pulled back, cancelling these promising programs and engaging in efforts to negotiate additional constraints on strategic defenses through an ill-advised effort to demarcate the boundaries between theater and national defenses. Dozens of joint statements by President Clinton and his Russian counterparts proclaimed the ABM Treaty to be the "cornerstone of strategic stability"—code for the acceptance of mutual assured destruction and vulnerability to attack.

President George W. Bush reversed course by withdrawing from the ABM Treaty and directing the Pentagon to deploy a capability to defend the U.S. from small scale ballistic missile attack by the end of 2004. And with President Obama, the United States has reversed direction yet again.

While the Obama team proclaims the first priority of its missile defense program is the protection of the United States, its actions suggest something much different. President Obama inherited a robust program that sought to build a layered system, from boost phase to terminal intercepts. At its core were the ground-based midcourse interceptors in Alaska and California. The plan was to deploy 44 interceptors in the United States, and have the capability to increase that force to as many as a hundred or more as the threat grew.

To give up on boost phase technologies because they are challenging is not the answer. This is a vital layer of the multi-tiered system, which is essential in order to meet the threat.

Yet, until March 2013, that number was capped at 30 by the Obama administration. The Obama team also drastically reduced the GMD (ground-based midcourse defense) budget by more than $4 billion over the past four years. The decision to deploy 10 two-stage GMD interceptors at a third site in Poland to augment the defense of the U.S. homeland was similarly cancelled in September 2009, and the proposal to fund an additional site in the U.S. has found no support within the Administration.

What best explains these radical departures in policy—departures that have introduced tremendous inefficiencies into our missile defense programs and have derailed some of the most promising capabilities to defend the U.S. homeland against emerging threats? The answer is the failure to agree on the fundamental means of dealing with the threat from missile attack. The strategic goals set by President Reagan—and their underlying rationale—continue to be rejected by an influential spectrum of the national security community.

WINNING THE INTELLECTUAL FIGHT

This leads to the second lesson: to succeed, missile defense advocates must continue to fight and win the intellectual debate. Specifically, they must overcome the myths—the false and internally inconsistent assertions—that continue to undermine support for strategic missile defenses. Three of these assertions underlie the policies of the Obama administration.

1. Strategic missile defenses are "destabilizing;" trying to deploy defenses to protect the American people from nuclear attack will result in an arms race, provoke the Russians and undercut the prospects for arms control.

The United States must pursue advanced Aegis ship-based boost capabilities and explore the potential of all other basing modes, including space.

The myth that developing defenses to protect the American homeland would produce an arms race was proved false by the Russian reaction to the U.S. withdrawal from the ABM Treaty. On the day of the withdrawal, Russian President Vladimir Putin responded by making a public statement that Moscow did not consider the U.S. withdrawal a threat to Russian security, and that Russia intended to reduce substantially its strategic nuclear forces.

Yet, now ten years later, Moscow is again insisting that U.S. defenses will require it to take countervailing measures in its offensive forces—and the Obama administration is listening. It does so for two reasons. First, it sees Russia as an important partner in its quest for "global zero," or at least further deep nuclear reductions. Second, despite its pronouncements to the contrary, it doesn't believe in missile defenses to protect the U.S. homeland, except perhaps against North Korea or Iran.

2. Strategic missile defense does not work. Or, alternatively, while a limited mid-course capability may be achieved, the U.S. cannot defend against larger-scale threats, such as from China.

The 2012 National Research Council report on missile defense concluded that the United States can deploy effective defenses to protect against attacks from countries like North Korea and Iran. Concerning the protection of the American homeland, the report presents several findings that, in combination, make clear that program decisions made since 2009 have undercut U.S. capabilities to counter such threats. The authors emphasize that "any practical missile defense system must rely primarily on intercept during the midcourse phase of flight." They recommend an additional ground-based interceptor site in the continental United States together with more and better integrated radars. Not only is this observation valid, it is achievable in the near term. Yet these are the very capabilities that the Obama administration has either eviscerated or failed to support.

Perhaps the most controversial, and potentially debilitating, recommendation of the Council report is that the Department of Defense "should not invest any more money or resources in systems for boost-phase missile defense." To the Council authors, the technology and cost barriers outweigh "for the foreseeable future" any prospects for success. This conclusion, however, must be viewed in the context of the decisions taken by the Obama administration to cancel or fundamentally restructure the programs that were designed to overcome the identical constraints identified in the report. Before those decisions, the way forward was to develop boost intercept capabilities such as the KEI fast acceleration interceptor and the Airborne Laser (ABL), along with improved radar discrimination algorithms and the multiple kill vehicle to counter decoys. All of these programs were challenging, but all showed real progress. Indeed, the ABL shot down two boosting ballistic missiles in 2010, only months before it was mothballed.

To give up on boost phase technologies because they are challenging is not the answer. This is a vital layer of the multi-tiered system, which is essential in order to meet the threat. The United States must pursue advanced Aegis ship-based boost capabilities and explore the potential of all other basing modes, including space. Here, the assertions in the Council report about technical feasibility and cost appear to be derived less from analysis than from policy views. If the United States had been dissuaded by hard problems ten years ago, it would never have embarked on the evolutionary program that now provides for the current limited defense. But today's

capabilities are not sufficient. As with all defenses, they will obsolesce as the threat evolves.

It may be that the absence of missile defenses has served to encourage states like Iran and North Korea to build ballistic missiles, because these capabilities would give them an asymmetric advantage over militarily superior states.

3. Strategic missile defense today is unnecessary; because neither North Korea nor Iran possesses long-range missiles and neither would dare attack the United States knowing they would be subject to massive retaliation. Rather, strategic missile defense will provoke North Korea and Iran, motivating them to build more missiles and to develop advanced technologies to evade defenses.

In fact, it may be that the absence of missile defenses has served to encourage states like Iran and North Korea to build ballistic missiles, because these capabilities would give them an asymmetric advantage over militarily superior states. Without missile defenses, even a small force of missiles with only modest accuracy and armed with WMDs can pose a serious threat.

DRIVING FORCE

The third lesson learned is the need for presidential leadership. This leadership was present under President Reagan, but it does not exist today. For the Obama administration, missile defense has never been about technology or even cost. Rather, the emphasis on theater defenses at the expense of protecting the U.S. homeland against missile attack is about policy goals and a worldview grounded in the Cold War—one that not only accepts vulnerability to attack but desires that vulnerability in the name of stability.

Indeed, it is difficult not to conclude that missile defense of the American homeland is seen as trade-bait to achieve what the Administration considers to be higher priorities, such as further deep nuclear reductions, no matter how illusory. Four years ago, President Obama undercut U.S. allies by cancelling the Third Site in Europe—a step that was judged necessary to clear the way for agreement on the New START Treaty and to establish a new baseline to "reset" the U.S.-Russia relationship. In March 2012 in Seoul, he whispered to then-Russian President Dmitry Medvedev that he would have more "flexibility" on missile defense after the presidential election.

This was always the case with the Aegis SM3 IIB interceptor, a program that was devised as a means of not looking weak on missile defense when the Third Site was cancelled. When the opportunity presented itself in the context of the announcement of the intent to deploy 14 more GBIs, Phase IV of the European Phased Adaptive Approach—the II B—was cancelled. This was as predictable as the Russian response, which was to pocket the latest unilateral concession and demand more.

Most recently, Moscow has called for an end to any U.S. missile defense deployments in Europe because, it asserts, the nuclear agreement with Iran has eliminated the threat. This bait will be very tempting for an Administration ideologically committed to further nuclear reductions, even at the expense of once again undercutting U.S. allies.

Without missile defenses, even a small force of missiles with only modest accuracy and armed with WMDs can pose a serious threat.

When missile defenses are traded away, or simply not pursued, the American homeland becomes vulnerable to the real world threats that continue to define today's security setting. The United States must reinstitute an aggressive research, development and deployment effort to defend against the threat. ■

Global Missile Threats to the U.S.

UZI RUBIN

Countries that are openly hostile to the United States are developing missiles and missile technologies that are already threatening U.S. forces and American allies abroad, which may eventually pose a direct threat to the U.S. homeland itself. This review focuses on the incipient and current threats from North Korea and Iran.

Until recently, direct diplomatic efforts to mitigate nuclear threats in East Asia and the Middle East didnot encompass nuclear delivery platforms. There is no evidence of any slowdown in the spread of missiles and missile technologies in both regions. Nor is there any evidence that the major hostile powers in those regions—namely, North Korea and Iran—have ceased to invest in missile technologies that could eventually reach U.S. territory. It seems, however, that those activities are increasingly camouflaged as peaceful space programs, which don't carry the stigma of offensive missiles in Western public perception.

NORTH KOREA'S NASCENT ICBMS

After a protracted development program and following three failed attempts to reach earth orbit, in December 2012 North Korea finally succeeded in orbiting its first satellite via the *Unhaa-3*, a three stage, 100 ton space launcher. The comparatively small satellite, weighing approximately 100 kilograms, did not function properly, and appears to have suffered a major fault during its orbit insertion process. Nevertheless, this does not diminish the significance of North Korea's achievement, with the DPRK becoming only the 10th nation ever to be able to reach space using an indigenous Space Launch Vehicle (SLV).

The December 2012 success was preceded by a protracted development program, which included a failed attempt to orbit a satellite more than 14 years before (in July 1998) using a modified *No Dong* ballistic missile. This initial SLV, dubbed the *Peaktusan 1*, almost made it to space. It would have made more engineering and economical sense for the North Korean to persist with it until success was achieved. Instead, the North Koreans shifted gears completely. After a decade long hiatus, they unveiled a completely different, much larger and more ambitious design, dubbed *Unhaa*. Why they chose to do so remains a mystery. One possibility, though, is that the larger size of the *Unhaa* provided them with the opportunity to develop and test ICBM-class propulsion and control systems under the guise of a "peaceful space program."

Since the North Koreans issued a "Notice to Mariners" specifying the expected impact zones of the discarded 1st and 2nd stage of the *Unhaa 3*, the South Korean and U.S. governments succeeded in recovering the debris from the bottom of the ocean. This debris, including a large chunk of the 1st stage fuel tanks and several of its rocket motors, provided a good insight into the dimensions, performance, design and workmanship of the North Korean vehicle. It turned out that the propulsion system was more sophisticated than expected. It also turned out that the overwhelming majority of the recovered parts were not imported but locally produced within North Korea. The rather coarse workmanship, too, was an indication of local production. This put to rest the theories held by some analysts that North Korea cannot build its own rocket motors, and that it is still relying on smuggled Soviet-era equipment.

These findings are highly significant when evaluating the threat to the U.S. Since it is now confirmed that North Korea can produce its own large rocket motor systems, it is reasonable to assume that the recently unveiled giant ballistic missiles rolling down Pyonyang's main thoroughfare on huge 8 axle mobile launchers during military parades represent a real ICBM-class missile

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program, rather than being a mere propaganda hoax. The findings from the *Unhaa* debris unequivocally confirm that such capability does exist—hence an eventual North Korea ICBM-class missile is not implausible.

Another indicator that the North is erecting a viable ICBM-class missile program was recently provided in a North Korean video clip on the life of Kim Jong Il, father of current ruler Kim Jong Un. The "Dear Leader" is shown visiting a missile factory which contains the familiar *No Dong* missile, but also two of the larger, ICBM-class missiles on their huge 8 axle launchers—all purportedly before his death in December 2011, many months before the missiles were first publicly displayed in April 2012. It is hard to believe that Kim Jong Il would bother to inspect mockups of a fictional program. Hence, it stands to reason that the ICBM-class missile program had been launched years earlier, and that Kim was signaling his sponsorship of it by his visit.

At the same time, as analysts like Jeffrey Lewis have pointed out, there is no way to ascertain that the ICBM-class missiles were actually filmed during Kim Jong Il's lifetime. The footage could have been inserted in Kim's commemorative video after his death. Nevertheless, there is no reason to dismiss the significance of this video. It provides yet another piece of circumstantial evidence that North Korea is building an ICBM-class program, even if that program is still a long way from reaching operational deployment. The U.S. would do well to regard it as a potential threat to outlying U.S. territories in Hawaii and Alaska, and eventually to the continental United States as well.

STRATEGIC AMBIGUITY IN TEHRAN

Iran's energetic efforts to develop long-range missiles and space launchers is an issue of concern to the West, and has triggered NATO's decision to adapt missile defense as one of its core military capabilities. In the last two years, however, Iran's efforts appear to have slackened. There have been no known long range ballistic missile tests for nearly three years, and no space launch has been announced since February 2012. Moreover, the customary summertime "Great Prophet" military exercises, in which scores of missiles are routinely fired by the Iranian military, to great media fanfare, did not take place in 2013.

The ostensible slowdown in Iran's visible missile activities is attributed by some analysts to the effectiveness of the international sanctions regime. However, there are convincing indications that the perceived slowdown is an illusion created by the Iranians, who are deliberately reducing the visibility of their program. Underneath this veil of opacity, missile development and deployment continue at the same high pace as before.

The Unhaa provided the North Koreans with the opportunity to develop and test ICBM-class propulsion and control systems under the guise of a "peaceful space program."

The fact that Iran did not announce any new space launch during the last two years does not mean that Iran did not attempt to carry one out. To the contrary, there is decisive photographic evidence that Iran attempted at least three times to orbit satellites (in May 2012, October 2012 and February 2013, respectively). Evidently, all three attempts failed, since no new Iranian satellite was observed in earth orbit. But a failed space launch requires all the human and material efforts of a successful one. So, counting from the successful February 2012 launch, Iran has fired off 4 SLVs within two years—the highest rate ever in its space program. Evidently, there is no slowdown in Iran's space program. If anything, it is ramping up.

Similarly, while no new long range missile tests have been announced by the Iranian regime for quite a while, a glimpse into the continuing tempo of Iran's ballistic missile programs was provided by a televised ceremony at its mobile launcher production line in May 2013. The video clips from this event show at least 24 completed launchers, and approximately eight more in the process of being built. This is not the tempo of stalled programs: mass production of new launchers indicates mass production of new missiles.

Interestingly, the Iranians also permitted a glimpse into their missile survivability doctrine against preemption. Tucked behind the columns of newly-finished launchers was a camouflaged one, outfitted with canvas props to resemble a civilian heavy truck. Other launchers in the

display had frame scaffolds on which the canvas props are to be stretched. The message was that the launchers will be deployed far from their bases and will travel frequently in a "shell game" pattern to confuse the air superiority of prospective enemies, such as the United States.

There are convincing indications that the perceived slowdown is an illusion created by the Iranians, who are deliberately reducing the visibility of their missile program.

Another indication of the continuing tempo of Iran's missile and space programs was provided by the discovery (from non-Iranian sources) of a brand new, giant test range being constructed near the town of Sharoud. Since Iran already possesses a large test range in Semnan (which is currently being expanded to accommodate heavier space launch vehicles), the investment in a second huge test range is indicative of plans to dramatically increase the rate of missile development and testing.

Is Iran engaged in developing ICBM-class technologies? U.S. intelligence agencies have predicted that Iran could test an ICBM by 2015. Recently, Israel's Prime Minister, Benjamin Netanyahu, stated that Iran was developing an ICBM-class missile. This and previous similar statements have been strongly refuted by Iranian leaders, who maintain that although they are capable of developing a global range missile, they refrain from doing so because all of their prospective targets are within the Middle East.

Still, there is compelling circumstantial evidence pointing to such activities. For example, a huge explosion in a secret compound near the town of Bid Kaneh in November 2011 killed Major General Hassan Moqqadam, the "Father of Iran's missile program" and about a dozen members of his team, and utterly destroyed the compound itself. Iranian officials described this event as an ammunition dump explosion, but failed to explain the presence of their chief missile expert at the scene of disaster. American and Israeli sources attribute the event to an accident in a Revolutionary Guard solid propellant production plant. The sheer magnitude of the explosion that rattled windows in Teheran, 50 kilometers away, points at a very large production facility, much larger than what is required to produce the 15-ton *Sejjil* first stage rocket motor. If so, this might indicate Iranian activities in ICBM-class technology development. That the Iranians deny the irintention to develop ICBM-class missiles while continuing to do so clandestinely should not surprise anyone who has followed Iran's double talk on the nuclear issue.

In September 22 2013, just three days before new Iranian President Hassan Rouhani's relatively conciliatory speech in the UN, Iran's Revolutionary Guard Corps held its annual "Sacred Defense Week" parade, replete with even more than the usual number of long range missiles, both of the extended range version of the *Shahab 3* and of the more modern, solid propellant *Sejjil*. Whatever conciliatory message Iran's President was intending to convey at the UN was not evident in the Tehran parade: As usual, huge mobile billboards sported the traditional rallying cry of the Revolutionary Guard: "Death to America" and "Death to Israel."

Thus, the perceived slowdown in Iran's missile programs seems to be illusory, a result of technical difficulties (in the space program) and a deliberate toning down of visibility and rhetoric (in the missile programs). The available evidence indicates that there is no let-up in the pace of Iran's missile development and production, and that Iran may be actually pursuing ICBM-class missile technologies. The continued close collaboration between Iran and North Korea, and the latter's giant ICBM-class missiles rolling down Pyonyang streets, provide a glimpse into what Iran could be planning.

Iran's missiles are already a threat to U.S. forces and allies in the Middle East and Eastern Europe. With the continued growth of Iran's missile expertise and with the suspected development of ICBM class technologies, Iran's missile threat could eventually extend all the way to the U.S. homeland. ■

Reassessing the Phased Adaptive Approach

THOMAS KARAKO

Since the 2001 decision to withdraw from the ABM Treaty, the United States and its allies have made tremendous advances in the politics and technologies of missile defense.

On the political and policy side, we now see widespread and bipartisan support for a range of missile defenses, and for the proposition that missile defenses support rather than undermine the deterrence mission of strategic nuclear forces. Missile defense is also now embraced around the globe; the U.S. alone has missile defense cooperation partnerships with 22 nations and with NATO, whose 2010 *Strategic Concept* established missile defense as a new Alliance mission.

On the technical side, freed from the ABM Treaty and demarcation agreements on interceptor velocity (VBO), American and allied industry actors have made tremendous progress in developing capable systems. Current deployments defending the American people, allies, and deployed forces now include:

- Thirty Ground Based Interceptors based in Alaska and California
- Thirty-two Aegis-equipped BMD Ships
- More than 100 SM-3 IA interceptors
- More than 20 SM-3 IB interceptors
- Three THAAD batteries with 89 interceptors, and
- Eight AN/TPY-2 X-band radars, with five deployed in forward-based mode

Notwithstanding these advances, the state of U.S. missile defense today is not good. The Obama Administration's policy remains unserious, and its policy failures have adversely affected budgets and programs. Even now, we are not on track to deploy homeland or regional defenses sufficient to meet even the needs defined by the current Administration, let alone systems that anticipate future dangers.

POLICY FRAMEWORK

The most comprehensive depiction of Administration missile defense policy remains the 2010 *Ballistic Missile Defense Review* report (BMDR).[1] Mandated by Congress in 2008, the BMDR represents a more mature articulation of the Phased Adaptive Approach (PAA) announced in 2009, when the Administration declared that it would be cancelling its predecessor's plans for a third GBI interceptor site in Poland and a radar in the Czech Republic. Instead, the Obama White House outlined that it would pursue PAA, an organizing principle which may be characterized by:

- focus on short-range threats;
- modest ambitions for programmatic scope;
- increasing reliance on mobile systems;
- reduced missile defense spending;
- acceptance of increased risk for long-range missile threats; and
- reliance upon existing SM-3 short-range interceptors over GBIs and next-generation long-range defenses.

The strengths of the PAA build upon some of the more successful and agile interceptor systems yet tested and fielded, notably the SM-3. Its weaknesses, however, are defenses against longer-range threats.

It bears repeating that the first "A" in "PAA" stands for "Adaptive." Policy decisions since 2009 have now been revealed to be unwise. But instead of adapting to failure, correcting faulty assumptions, and reallocating

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resources where needed, the Administration has been surprisingly rigid and inflexible.

Notwithstanding these advances and deployments, the state of U.S. missile defense today is not good.

THREAT ASSUMPTIONS

One fundamental characteristic of the PAA is assumptions that short-range threats were proliferating and increasing, but long-range threats were far into the future. Unfortunately, threats have developed faster than the BMDR and PAA assumed, most notably the missile capabilities of Iran and North Korea. Both have demonstrated the capability to orbit satellites, respectively aboard the *Unha-3* and *Safir-2*. North Korea launched long-range missiles in 2009 and 2012, and apparently displayed road-mobile ICBMs in April 2012. Since the BMDR, the intelligence community has updated its assessments to say that by 2015, Iran could develop and test an ICBM.[2]

A noteworthy example of a new shorter-range threat is China's development and fielding of large numbers of land attack cruise missiles, short-range ballistic missiles, and DF-21D anti-ship ballistic missiles (ASBMs). ASBMs represent an important anti-access/area-denial threat to the U.S. naval forces, and thus necessitate a qualitative and quantitative increase in demand for missile defenses capable of destroying them at some distance. Both SM-3 upgrades and the newly deployed SM-6s will be essential to meet these threats. China's buildup is one of scale, and we must have interceptors to provide an effective defensive deterrent and guarantee freedom of action.

BUDGETS

A few years ago, President Obama made $487 billion in defense cuts. This was followed by sequestration—another $55 billion cut last year alone. Combined, we confront nearly a trillion dollars in projected defense cuts over the course of ten years. Increased threats, in other words, are being met with decreased funding.

Cuts to missile defense have been remarkably severe. In his first budget submission, President Obama cut $1.16 billion out of the missile defense budget in a single year. The FY13 missile defense submission, for example, was $100 million less than his FY10 submission had projected. Over the course of four years, this has meant nearly $6 billion or 16% less than that slated by President Bush. For Future Years Defense Programs, it is a 26% reduction. Funding for GMD was cut almost in half.

But cuts from some areas and systems within MDA's budget have not come with a reprioritization of funds for more successful systems (as the BMDR had recommended). Instead, the Administration frequently continues to put good money after bad, as with the troubled MEADS program.

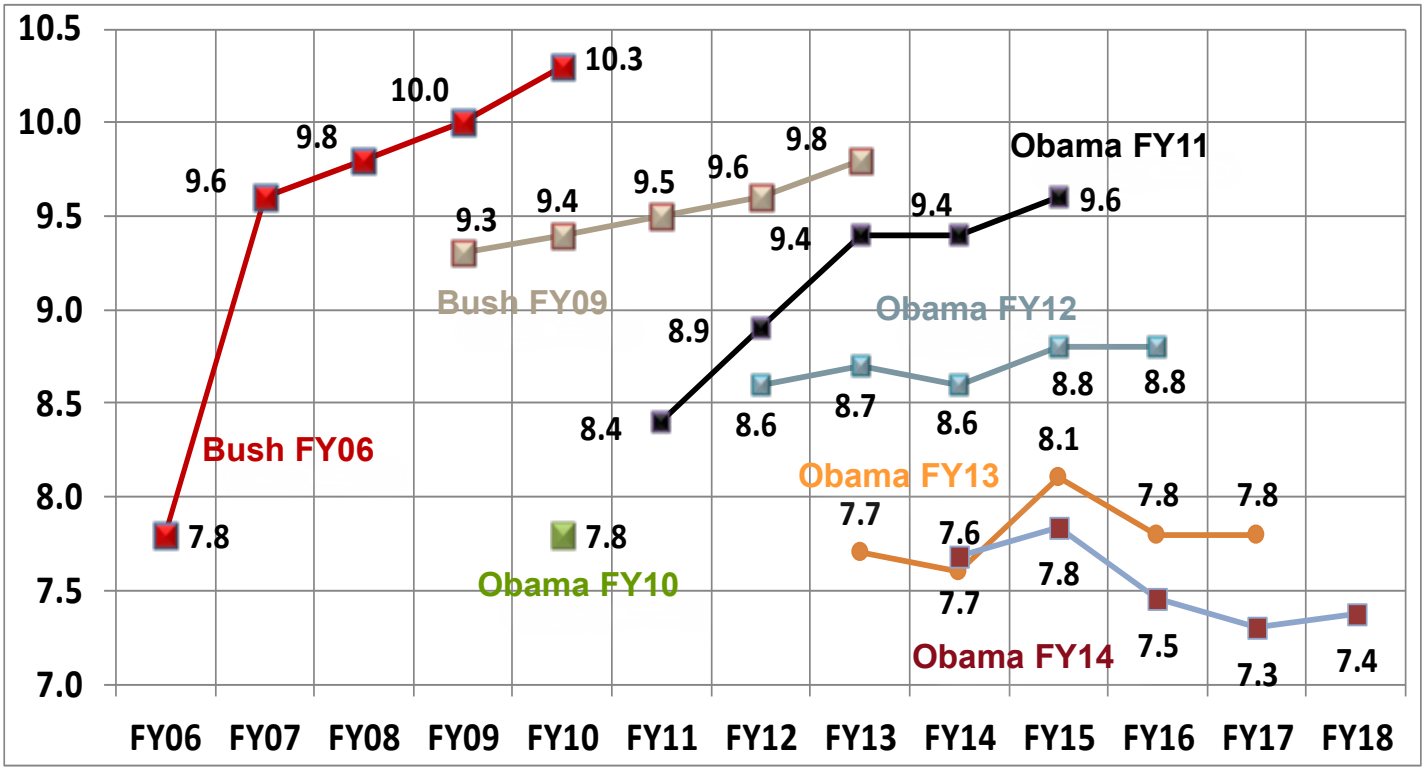
Cooperation with allies furthermore cuts into resources for homeland defense, notably in Europe. First among the BMDR's list of principles guiding regional deterrence and defense is that work with allies and partners "must be built on the foundation of strong cooperative relationships and appropriate burden sharing."[3] Although a significant part of the ever-shrinking MDA budget has been for interceptors to be deployed in Europe, for Europe, our allies are not contributing to that cost.

Anti-ship ballistic missiles represent an important anti-access/area-denial threat to the U.S. naval forces... both SM-3 upgrades and the newly deployed SM-6s will be essential to meet these threats.

THE SM-3

Many of the more notable successes in recent years have been with SM-3 interceptors. In 2008, for example, we saw Operation Burnt Frost, in which an SM-3 IA missile shot a satellite out of the sky. In April 2011, the Navy used an SM-3 IA to demonstrate "launch on remote" capability using forward-based radars, rather than organic cueing, to successfully destroy an IRBM.

Missle Defense Agency Budget FY06-18



In March 2013, an SM-3 IA used cueing from satellite sensors to successfully destroy an MRBM.

The SM-3 IB likewise has come online with tremendous success—including three challenging intercepts. In September 2013, an SM-3 IB intercepted an MRBM at record altitude. The SM-3 IA is currently being phased out in favor of the more capable IB, which is now moving into full production. The SM-3 IIA coproduced with Japan has completed critical design review, and will begin flight testing in 2015.

This is all good news. But in light of threat demands, the Administration is not buying interceptors in sufficient quantity.

While the first three phases of the PAA for Europe build upon proven systems, the weaknesses of the PAA have always been with the fourth phase, an "SM-3 IIB" designed to provide homeland defense. These planned capabilities would have been nice to have, but were never much more than a slide deck.

Congress was unconvinced it would work, and the Senate consistently cut its funding. Senator Joseph Lieberman called it a "paper missile."[4] Although the Administration is currently attempting to blame Congress for the cancellation of the SM-3 IIB, the fault ultimately lies with policy decisions dating to 2009. The National Academy of Sciences criticized the program's rationale, and the Government Accountability Office noted that it was not thoroughly vetted before being rolled out for the PAA announcement.[5]

In retrospect, the fourth phase looks to have been little more than an excuse to keep from deploying GBIs. In October 2012, a hot microphone recorded President Obama telling then-Russian President Dmitry Medvedev that after the election he would have more "flexibility" on missile defense.[6] Only a few months later, the U.S. cancelled the SM-3 IIB/Phase IV, a system to which Russia strongly objected. Congress must continue oversight and legislative efforts to preclude the Administration from unilaterally curtailing U.S.

interceptor capabilities or sharing sensitive interceptor data.

Although a significant part of the ever-shrinking MDA budget has been for interceptors to be deployed in Europe, for Europe, our allies are not contributing to that cost.

By cancelling European deployments of both GBIs and SM-3 IIBs, the *Washington Post* editorial page noted in March 2013, the Administration is effectively "decoupling" regional and homeland defense.[7] By further opposing an East Coast site, the Administration is setting up a dangerous and false choice between regional and homeland defense.

HEDGING

Some critics long expected that the SM-3 IIB would never materialize. The BMDR itself pledged that to guard against possible threat developments or technical setbacks, the U.S. would "advance other hedging strategies including continued development and assessment of a two-stage ground based interceptor."[8]

Reading this allusion to unspecified "strategies," Congress in 2010 asked the Administration for clarification. And then Congress waited. Asked regularly when the report might come, Administration officials told Congress it was almost done, that it would come soon—and kept saying the same for four years.

In March 2013, Secretary Hagel announced the cancellation of the SM-3 IIB interceptor and the homeland defense site in Europe. To compensate, it was announced, the Administration would deploy an additional 14 GBIs at Fort Greely, totaling 44 by 2017-18.

A few months later, the Administration delivered a disappointing six-page report (counting the cover page).[9] It rehashed generalities from BMDR, ticked off things already done, and noted that the Administration would be putting 14 more GBIs in the ground in Alaska, ostensibly compensating for the loss of the IIB site in Europe.

The "additional" 14 interceptors, however, represent far less than meets the eye. The Bush Administration had already planned 44 GBIs for Alaska—in addition to a Third Site in Europe. Had the Obama Administration not eliminated these 14 in 2009, they would already be in the ground today, and at lower cost.

Additional Alaskan interceptors also do not augment the battlespace in terms of geographical diversity. They do not compensate for the loss of a GBI or IIB site in Poland which would have provided shoot-look-shoot capability. The additions are still less impressive when considering continuing technical problems with GMD and its unsustainability at current funding levels.

AN EAST COAST SITE

Given the Administration's failure to "adapt" to the failure of EPAA, Congress has taken the lead. Since the Administration has scrapped *both* European-based homeland defense sites without proposing an alternative, Congress is moving towards relocating the site to the East Coast of the United States, an option embraced by the National Academy of Sciences in 2012.[10] Such a location would dramatically add time and space to an intercept against ICBMs from North Korea, Iran, and other threats, permitting shoot-look-shoot capability.

Over Administration objections, Congress in the FY2013 National Defense Authorization Act (NDAA) required the White House to look into such an East Coast site, leaving open what sort of interceptors might be here—GBIs, SM-3 interceptors, or something else entirely. The FY14 NDAA mandates additional small steps toward this capability.

Such a site would probably deploy two- or three-stage GBIs, but other possibilities also remain. To be sure, the VBO on SM-3s would be significantly lower than that of GBIs. There is, for example, the SM-3 IIA+ concept, a slightly faster IIA with a thruster added to the kill vehicle. It is also conceivable that a mix of IIA

and IB deployments could support homeland defense, for either terminal intercept or defense against coastal sea-based threats.

Whatever interceptors are used, it remains important to "augment" existing GBI sites, as the Administration promised in 2009.

GROUND BASED INTERCEPTORS

The United States is currently protected against limited ICBM attacks by the GMD system consisting of GBIs in Alaska and California. By cancelling the PAA's Phase IV, the Administration is effectively doubling down upon the GBI interceptor. But we must ask a difficult question: what kind of protection do GBIs provide? After four years of budget cuts, how hollow has GMD become?

The system was put in place hurriedly, and although it had important early successes, it has been starved the last four years. The GBI tested on July 5, 2013 was a failure, as was the previous test five years ago—a remarkably inadequate testing regime, due to shameless funding cuts.

We have now had failed intercept attempts using both CE-1 and CE-2 kill vehicles. The Pentagon's Missile Defense Agency has suggested creating a new CE-3, a plan the FY14 NDAA advances. As the only means of homeland missile defense, we must prioritize further tests and continued GMD evolution.

The BMDR declared that "defensive capabilities must be adaptable to unexpected threat developments. … It is essential that the United States be well hedged and have a strong posture against unpredicted threat developments."[11] The modest steps announced in March 2013, however, are inadequate to even BMDR's tasking.

MOBILE SYSTEMS

The BMDR also highlighted the previous decade's development and deployment of the SM-3 IA, PAC-3, and AN/TPY-2 radars as important capabilities against short- and medium-range threats. "Because the potential global demand for missile defense assets over the next decade may exceed supply," the Administration committed to "develop capabilities that are mobile and relocatable."[12]

Congress must continue oversight and legislative efforts to preclude the Administration from unilaterally curtailing U.S. interceptor capabilities or sharing sensitive interceptor data.

Mobile defenses and radars can be force multipliers, but not infinite multipliers. While demand continues to rise, we have seen procurement cuts in the very systems the BMDR praised. The number of planned TPY-2 radars, for example, were cut from 18 to 12, reportedly in favor of the Precision Tracking Space System (PTSS) space-based sensors, a problematic concept which has itself now been cancelled.

In March, Defense Secretary Chuck Hagel also announced that the United States would deploy an additional TPY-2 radar in Japan in forward-based mode, i.e., supporting GMD. What neither Secretary Hagel nor the June 2013 hedging report indicated, however, is from whence the additional radar would come. Will deployments of TPY-2 radars in Japan or to the United States require that we take away a radar from a THAAD battery, or relocate one planned for testing? That could be necessary, but we shouldn't face the false choice between testing and operational deployment.

Consistent with the BMDR's emphasis on mobile and flexible assets, and to compensate for PTSS cancellation, the FY15 budget request could restore the baseline plans for 18 TPY-2 radars.

BEYOND EUROPE

Although the Administration's focus on European deployments addresses some threats, it falls far short of the comprehensive approach promised in 2009. The

BMDR declared that the U.S. would pursue "a phased adaptive approach to missile defense within each region that is tailored to the threats and circumstances unique to that region."[13] Thus far, we have heard only of the "phases" for Europe. Despite even the Administration's trumpeted "pivot to Asia," future goals and capability milestones remain unstated for both Asia and the Middle East.

In the spring of 2013, news reports suggested that Secretary of State John Kerry offered to remove U.S. missile defense assets from the Pacific in exchange for Chinese pressure on North Korea.[14] Together with an unclear defensive policy, the retirement of the nuclear-capable *Tomahawk* cruise missile (TLAM-N), and doubts about congressional funding for the B61 gravity bomb, Pacific allies could come to doubt extended deterrence capabilities.

ASSESSMENT

As the above reconsideration suggests, current missile defense policy has failed even in the terms articulated by the 2009 PAA and 2010 BMDR. To remedy and mitigate these failures, Congress and the Administration must scrutinize current policy and ensure that precious future dollars are spent well.

The next dollar should go to make GMD better. The Obama Administration's apparent starvation strategy for GMD needs to be reversed, especially in light of SM-3 IIB cancellation and increased reliance upon GMD. We need to conduct another flight test of the GBI this fiscal year, improve existing GMD kill vehicles and develop the CE-3, and renew work on the Multiple Kill Vehicle (MKV) project cancelled in 2009.

Given significant successes of the SM-3 family, their procurement should be restored to higher past levels. Additional work should begin to advance both the SM-3 kill vehicle and booster effectiveness. In the absence of PTSS, planned levels of other mobile capabilities should also be restored.

We must also restart next-generation work. Intercepts by the Airborne Laser (ABL) project before its 2009 cancellation, and successes in other fields, suggest that directed energy should be revisited. The high ground of space remains an important domain from which to cue intercepts and to kill missiles in boost phase.

Finally, given this Administration's cancellation of two homeland defense sites in Europe and their inability to articulate a robust hedging strategy, we must move forward on an East Coast site to protect the U.S. homeland from ballistic missile attack. ■

ENDNOTES

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Critical Vulnerabilities for Missile Defense

PAULA A. DESUTTER

According to Chinese philosopher Sun Tzu, "The art of war teaches us to rely not on the likelihood of the enemy's not coming, but on our own readiness to receive him, not on the chance of his not attacking, but rather on the fact that we have made our position unassailable."

The logic of Sun Tzu's admonition will resonate with most Americans, who are a sensible people. Their focus is on their families and homes, on enjoying what they have achieved and hope to achieve, and on meeting their responsibilities. They would rather not have enemies, either foreign or domestic, but when they do, they want their enemies thwarted. They want their families to be unassailable.

Sun Tzu's logic will not resonate as strongly with two factions located primarily in and around the Capital Beltway. The first includes the over-educated pseudo-intellectuals, especially those who have spent their careers pursuing arms control ideologies, known as the "arms control apologentsia" (a phrase coined by Dr. Manfred Eimer, the first Assistant Director of the Arms Control and Disarmament Agency for Verification and Intelligence). The second includes ever-pragmatic bureaucrats.

For the first faction, the goal of America made unassailable through our own actions, programs, and policies is dangerous and undesirable. The pseudo-intellectual arms controllers always keep their fingers on the pulse of our enemies, and our enemies would not like us to be unassailable. Moreover, the freedom of action America would gain through such enhanced security might lead us to pursue policy objectives with which they disagree, because too many of this faction see America as a dangerous actor in the world. Finally, this faction opposes an unassailable America because it would reduce their worth, diminishing the need for arms control conferences and negotiations.

For the second faction, the ever-pragmatic bureaucrats, an unassailable America is simply unattainable, and therefore to focus on such a goal is undesirable. Its members focus on budget discussions first and foremost. In discussions of costs and benefits, they focus only on costs, on the difficulties and road-blocks that stand between the present and a proposed goal. Only goals that are "affordable" and "readily achievable under current constraints" are worthy of effort. And, aside from items already budgeted and fully funded, no goals are deemed to be "affordable" or "readily achievable under current constraints." The notion that a benefit, such as an unassailable America, might be valuable enough to change the cost/benefit calculation, is inimical to their worldview.

REAGAN'S VISION

President Ronald Reagan understood the American people, but was also keenly aware of the influence of the arms control apologentsia and the ever-pragmatic bureaucrats. Therefore, in March 1983, when he decided to pursue missile defenses aimed at making America's position unassailable, he sought to capture and excite the sensible but visionary American people rather than seeking the approval of the arms controllers and bureaucrats.

In the two decades since President Reagan's speech on the Strategic Defense Initiative (SDI), America has begun the journey, but has thus far failed to achieve its goals, thanks in no small part to those two constituencies. It is worth recalling Ronald Reagan's

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vision for missile defenses, as laid out in his historic March 1983 address:

> Wouldn't it be better to save lives than to avenge them? Are we not capable of demonstrating our peaceful intentions by applying all our abilities and our ingenuity to achieving a truly lasting stability? I think we are. Indeed, we must.
>
> ...I believe there is a way. Let me share with you a vision of the future which offers hope. It is that we embark on a program to counter the awesome Soviet missile threat with measures that are defensive. Let us turn to the very strengths in technology that spawned our great industrial base and that have given us the quality of life we enjoy today.
>
> What if free people could live secure in the knowledge that their security did not rest upon the threat of instant U.S. retaliation to deter a Soviet attack, that we could intercept and destroy strategic ballistic missiles before they reached our own soil or that of our allies?
>
> I know this is a formidable, technical task, one that may not be accomplished before the end of this century.
>
> Yet, current technology has attained a level of sophistication where it's reasonable for us to begin this effort. It will take years, probably decades of effort on many fronts. There will be failures and setbacks, just as there will be successes and breakthroughs. And as we proceed, we must remain constant in preserving the nuclear deterrent and maintaining a solid capability for flexible response. But isn't it worth every investment necessary to free the world from the threat of nuclear war? We know it is.

Without diminishing the significance of technical challenges to missile defense, the political vulnerabilies pose a far more significant threat, since they threaten not only the technical capacity to address vulnerabilities but whether or not America will even seek to become unassailable at all.

President Reagan acknowledged that achieving an unassailable America would be a formidable task. Critical technical challenges and vulnerabilities to missile defenses remain. Missile defenses could be overwhelmed either numerically or by penetration aids that the system is unable to distinguish from real targets. Subtle or not-so-subtle sabotage, including cyber methodologies or attacks on ground stations, could be used to degrade our missile defense components and systems. Or our systems could be attacked with an electromagnetic pulse (EMP) burst.

Without diminishing the significance of these technical challenges, however, the political vulnerabilities pose a far more significant threat, since they threaten not only the technical capacity to address vulnerabilities but whether or not America will even seek to become unassailable at all. The critical vulnerabilities are especially significant in this regard are insufficient or inefficient resources, and the lack of will.

RESOURCE GAP

Psychologist Abraham Maslow famously wrote: "… it is tempting, if the only tool you have is a hammer, to treat everything as if it were a nail." For the arms control apologentsia, policies, programs and actions contrary to U.S. national security interests taken by other nations are nails to be addressed by the hammer of negotiations and arms control, although in this case the analogy would be better if we considered a feather duster as the tool.

While there are circumstances in which negotiations and arms control are useful, this is so only when these tools are employed with four national security caveats. First, a clear sense of U.S. national security interests and, importantly, the willingness and capability to ensure that our national security is demonstrably strengthened as a result. Second, realistic assessments of the goals and motivations of the other party or parties. Third, verification appropriate to the level of risk to the U.S. of undetected or uncorrected violations of the resulting agreement. Finally, the ongoing robust application of other tools, including U.S. policies, programs and actions to ensure that

violations or other risks to U.S. national security are fully mitigated.

The Obama administration's "reset" with Russia, billed as a vehicle for gaining Russian support for U.S. policies in the international security arena, has instead been a path to Moscow obtaining Washington's capitulation to Russian policies and programs that are contrary to U.S. objectives.

Negotiators and the arms control apologentsia usually pay at least some lip-service to these four caveats. However, their track record—in earlier administrations but especially in the current one—demonstrates a willingness to sacrifice on all of these fronts to secure agreement. Under the Obama White House, this has been true whether the negotiating partner is the UN, Russia, Syria, Iran, or the Muslim Brotherhood. But the most grievous and obvious examples of the willingness to sacrifice national security caveats for a deal are those made and being made with and for Russia.

The Obama administration's "reset" with Russia, billed as a vehicle for gaining Russian support for U.S. policies in the international security arena, has instead been a path to Moscow obtaining Washington's capitulation to Russian policies and programs that are contrary to U.S. objectives.

In the missile defense arena, in pursuit of Russian agreement, missile defenses have been slashed or terminated under the guise of budgetary and programmatic decisions. President Obama's abrupt September 17, 2009 termination of the Third Site deployment in Poland and the Czech Republic, for example, is widely understood as being intended to help secure Russian agreement to the New START Treaty, then being negotiated. Russia's demands were met, and New START was signed in April 2010.

Cancellation of the Third Site missile defense deployment was accompanied by the announcement that the U.S. would begin the European Phased Adaptive Approach (EPAA) and by Administration statements of absolute commitment to missile defense—including commitment to deploy all four phases of the program. But in the spring of 2013, Secretary of Defense Hagel announced the SM-3 IIB program, a core component of the EPAA, and the one most opposed by Russia, was to be "restructured." This restructuring was in fact a cancellation of the program. The Europeans, the Russians, and Iran understand that budgets were not the primary motivating force for the decision.

LACK OF WILL

Far from making the United States unassailable from the threat of ballistic missile attacks, President Obama and his arms controllers are ensuring Russia and others can defeat our missile defense systems and successfully attack America with their ballistic missiles. They have terminated or curtailed ballistic missile defense elements opposed by the Russians, have agreed to provide sensitive information on our capabilities that will provide our opponents the ability to design their systems to defeat our missile defenses, and have done so in ways that circumvent Congress and deny the public full disclosure of their actions.

The Obama administration's proclivity to circumvent Congress through executive orders has been adopted by its arms control apologentsia. The Administration has sought to move beyond formal treaty negotiations more easily scrutinized by Congress and the public by discussing missile defense limitations in "technical discussions," "discussions of cooperation," and discussions of "confidence building measures." To circumvent the Senate's constitutionally-mandated advice and consent responsibilities for treaties, which focus the attention of Members and the public on verification and the impact of an agreement on U.S. national security, they pursue Executive Agreements that are not submitted to the Senate for advice and consent.

A few members of Congress have sought valiantly to thwart these efforts. Perhaps the most concise statement of their commitment to doing so was the March 26, 2012 letter to President Obama from Congressman Michael Turner, Chairman of the House Armed Services Committee's Subcommittee on Strategic Forces:

> Congress has made exquisitely clear to your Administration and to other nations that it will block all attempts to weaken U.S. missile defenses. As the Chairman of the Strategic Forces Subcommittee, which authorizes U.S. missile defense and nuclear weapons policy, I want to make perfectly clear that my colleagues and I will not allow any attempts to trade missile defense of the United States to Russia or any other country.

But the opportunity cost of fighting to preserve our current missile defenses and pave the path for robust future defenses are high. Without support from colleagues and constituents, the success of efforts of Cong. Turner and like-minded lawmakers is not assured. Ensuring America is unassailable requires technical capabilities and budgetary support. But it also demands the will to pursue and achieve it. Sadly, the Obama administration, the arms control apologentsia and the ever-pragmatic bureaucrats have neither.

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PEOPLE POWER

It is not obvious that the American people currently have the requisite will either, since few are aware of the choices described herein. Sensible people, unless persuaded otherwise, reasonably decide that life is too short to follow the arcane world of arms control or the mind-numbing world of budgetary debates. They cannot be persuaded by the arrogant, but can be persuaded by explanations of vision, goals, and most of all the cost to their children of failure.

If persuaded of the importance of becoming unassailable, the American people will generate the will necessary to accomplish it. They will also demand it of their elected officials, or find elected officials who will meet their demands. ■

Missile Defense for Today and Tomorrow

REBECCAH HEINRICHS

Missiles have become the weapon of choice for many hostile regimes, making it impossible to credibly argue that the U.S. does not need a missile defense system. Even so, no one in Washington can argue that America's ballistic missile defenses are as capable as we would like them to be. While current capabilities are very good, they are still not good enough. Systems have not been tested as often as they needs to be, and promising ones have been cancelled. Meanwhile, the demand from military leaders for more interceptors has been met with shortfalls. As for America's allies, they seek greater cooperation on missile defense, yet a number of important opportunities have been cancelled.

The good news surrounding missile defense today is also the bad news. The hurdles impeding greater success for our efforts are largely political in nature. This means that the problems are entirely solvable, but require a large measure of prudence and determination. It also means that supporters of missile defense must push for ambitious yet achievable objectives to improve the system in the near term, even as they keep in mind a long-term agenda of adaptable, survivable systems that utilize all domains and target missiles in all phases of flight.

THE LONG VIEW

If America's current missile defense system is to mature sufficiently to the point where it is useful in the future, the U.S. must end its policy of defending against only rogue state missile attack, and develop and deploy boost-phase defense (including space based interceptors, or SBI).

The Missile Defense Agency (MDA) follows the guidance found in the *Missile Defense Act of 1999* (P.L. 106-38), which states that "It is the policy of the United States to deploy as soon as is technologically possible an effective National Missile Defense system capable of defending the territory of the United States against limited ballistic missile attack (whether accidental, unauthorized, or deliberate)…" The key word "limited" means the U.S. is not developing a system designed to handle the kinds of missile assaults that countries like Russia or China are capable of launching.

This policy of limited protection has been reinforced *ad nauseam* in diplomatic conversations. For example, in 2012, when China expressed its objection to the U.S. deployment of an Aegis radar to Japan, then-Secretary of Defense Robert Gates spent quite a bit of energy trying to allay Chinese concerns that U.S-Japanese missile defense plans would diminish Beijing's offensive threat to the U.S. and Japan. This has been the American *modus operandi* in dealing with Russian objections as well. The Bush administration tried, without success, to convince the Russians that its plans to deploy powerful long-range interceptors and radars in Poland and the Czech Republic, respectively, would not and could not weaken Russian offensive missile threats to U.S. allies or the U.S. homeland. The Obama administration has continued trying, and failing, to allay Russian concerns regarding U.S. missile defense plans to deploy SM-3 interceptors in Eastern Europe.

None of the existing plans to deploy missile defense systems in Europe or the U.S. have the ability to protect against Russian or Chinese missile attack. The

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problem is not that the Russians and Chinese don't believe this; rather, it is that the U.S. continues to entertain Moscow and Beijing's arguments that they have some sort of right to hold the U.S. and our allies at risk of nuclear attack.

By continuing to concede the argument that there is a threshold at which U.S. missile defense systems become provocative—and by purposefully limiting our system to only defend against the most primitive of missile threats—the U.S. is still functioning under the policy of Mutually Assured Destruction (MAD). Implicit in this notion is the fallacy that, should the U.S. develop missile defenses to the point that it diminishes Russian or Chinese offensive nuclear weapons, it would threaten global stability. The solution—maintaining peace by allowing Moscow and Beijing to hold the American population at risk of nuclear attack—is both foolish and immoral.

Supporters of missile defense must push for ambitious yet achievable objectives to improve the system in the near term, even as they keep in mind a long-term agenda of adaptable, survivable systems that utilize all domains and target missiles in all phases of flight.

Recent events make future conflict a plausible scenario. Senior Russian officials have made threats to employ nuclear weapons against the U.S. or our allies more than a dozen times since 2008. Former undersecretary of defense Michele Flournoy, note that, "If you read recent Russian military doctrine… they are actually increasing their reliance on nuclear weapons, the role of nuclear weapons in their strategy."[1] Meanwhile, China's opaqueness surrounding its missile and nuclear programs, combined with what we do know about its emphasis on strategic weaponry, should also give policymakers a healthy amount of skepticism regarding China's "peaceful rise." Under Secretary of Defense James Miller put it this way: "the lack of transparency surrounding China's nuclear programs—their pace and scope, as well as the strategy and doctrine that guide them—raise questions about China's future strategic intentions."[2]

By limiting our capabilities in an effort to acquiesce to Russian and Chinese demands, we have also limited the system against other threats. Even though Iran and North Korea do not currently have the capability to launch long-range attacks against the U.S., they soon could. In fact, some in the intelligence community believe North Korea already has reached that ability, despite its frequent failed test launches. If this is true, one can deduce it will not take long for Iran to have the ability as well, since the two countries have collaborated in depth on their missile programs. And if Tehran and Pyongyang master the technology to deliver long-range missiles, one can surmise they will work toward mastering the technology to deliver missiles with decoys and counter-measures.

These current and emerging threats require a robust defensive capability. The boost phase of a missile's flight is the ideal time to intercept it because the offensive missile would have yet to deploy decoys or counter-measures. Currently, however, the U.S. has no mature boost phase system to speak of. Although other boost phase programs could be worth supporting, even if just to develop a program of record, having interceptors in space would give the U.S. the most cost-effective solution for intercepting in the boost phase.

A number of studies, including a February 2011 report by the Institute for Defense Analyses (IDA), have affirmed that currently available technology has reached a sufficient level of maturity for space-based intercepts. Deploying SBI, however, still remains almost if not entirely impossible in the current political environment. This is due to a White House and Senate hostile toward U.S. space weaponry, or for that matter any missile defense system that gives the U.S. a great strategic advantage, and a Republican controlled House that lacks agreement on national priorities.

Consequently, missile defense supporters should work now to stave off bad initiatives that, if implemented, would make it more difficult for wiser future administrations and Congresses to deploy SBI. One such bad initiative is a Code of Conduct for Outer Space, or any other iteration of an arms control agreement that would place limits on U.S. missile defenses. Missile defense supporters, while keeping this "long view agenda" in mind, should also proactively discuss the merits and wisdom of developing boost phase defenses, including SBI, and in breaking away from the policy of MAD in order to rally the American people and their representatives behind such initiatives.

NEAR TERM PRIORITIES

Although the current political environment is not conducive to deploying the most robust missile defense system technically possible, we can and should build on the system we have. Toward this end, there are five major, near-term and politically achievable concrete objectives for missile defense.

Current and emerging threats require a robust defensive capability. The boost phase of a missile's flight is the ideal time to intercept it because the offensive missile would have yet to deploy decoys or counter-measures.

First, Congress must mitigate the effects of sequester. Current budgetary levels are not sustainable after this year, and the Missile Defense Agency (MDA) budget is not enough to deliver what the Ballistic Missile Defense Review (BMDR) lays out as the national priorities, nor is it enough to implement the MDA director's objectives for the next couple of years. The bipartisan budget deal negotiated by Republican Congressman Paul Ryan and Democratic Senator Patty Murray in December relieved pressure on the Pentagon for FY14 and FY15. It does not, however, affect the automatic and indiscriminate defense cuts for the years beyond that.

For some context, the congressionally authorized MDA budget for the current year hovers around $7.7 billion. This is close to what it was for FY13, but far lower than what the Bush administration had planned to spend for the year: around $9.8 billion for FY13. Indeed, the MDA budget can be considered to have been underfunded every year that President Obama has been in office. Members of Congress who generally support missile defense, meanwhile, have started to accept that sequester can't be helped—and as a result have looked to the MDA budget to cut one program to pay for another. Some expect the MDA budget to drop below $7 billion in FY15. This is unacceptable; supporters must insist that the MDA budget sees real increases, and should not tolerate such disastrously low figures.

Second, the U.S. must fill the gaps in the homeland defense piece of BMDS. The Ground-based Midcourse Defense (GMD) system has experienced problems with its various elements. These are technically fixable, but Republicans and Democrats must work together to see the program succeed by allowing it to experience more frequent tests, even if those tests entail missed intercepts. Moreover, the system must receive the funding necessary not only for sustainment but also for modernization.

Congress has mandated that the Pentagon examine possibilities for a third homeland defense site on the East Coast of the U.S. This would greatly enhance the coverage provided by the GMD system by giving operators another location and angle to shoot at incoming missiles. The Bush administration recognized the need for such a third site, as the Obama administration did initially, and devised a plan to deploy a new missile interceptor site in Poland. But the Obama White House since has cancelled both plans, and so the third site must finally move from a "plan" to a reality.

Third, the U.S. must fulfill its commitments to U.S. allies. Obama administration officials have repeatedly tried to assure the Romanians and the Poles that the U.S. commitment to deploy SM-3 missiles on their

territories by 2016 and 2018, respectively, is "ironclad." Yet, despite such public promises, the White House will be tempted to abandon these commitments in an effort to appease Russia—in much the same way it cancelled plans in to deploy GMD in Poland in 2009, and subsequently tabled plans to deploy the SM-3 IIB missile there in 2013. The U.S. must hold firm to its commitments, begin site development, and the Congress must work to provide the necessary funding for deployment.

It is unacceptable to allow Moscow and Beijing to dictate what we can and cannot deploy to defend against current limited threats.

Fourth, policymakers should devise a strategy for building on regional missile defense architectures in Asia and the Middle East. Secretary of Defense Chuck Hagel announced in December 2013 that the U.S. plans to cooperate with the GCC on missile defense.[3] This is a positive step, and policymakers should support this initiative. In Asia, South Korea and Japan are already receiving missile defense assets and support from the U.S, but more should be done along those lines. For example, South Korea has the very capable PAC-2 system and is looking at several programs to boost its defensive posture, one of which is the Arrow system. This makes sense, considering Seoul has two Green Pine radars, the same radars supporting the Arrow system already deployed in Israel. Press reports indicate[4] Seoul is hesitant to deploy more robust systems like Arrow out of a fear of China's objections, despite the reality that China is building its own missile defense systems. Policy-makers must encourage these timely improvements, which would significantly bolster South Korea's defensive posture and increase regional stability.

Finally, the U.S. must deny Russia and China the ability to coerce us and our allies regarding missile defense deployments. Although a U.S. policy to develop defenses with the ability to intercept Chinese and Russian missiles might not be in the cards in the near future, it is unacceptable to allow Moscow and Beijing to dictate what we can and cannot deploy to defend against current limited threats. Additionally, the U.S. must never provide sensitive missile defense technology to either country in an effort to appease them. The recently passed *National Defense Authorization Act* (NDAA) is proof that there is bipartisan consensus on the subject. Sections 1246 and 1251 of the NDAA outline Congress' commitment to ensuring the Executive Branch not share sensitive missile defense technology including "hit to kill" and telemetry data with the Russian Federation, and prohibiting any cooperation with the Russians that could result in the limiting of U.S. or NATO missile defenses. Congress should continue putting this kind of pressure on the Executive Branch, and follow-up on related Congressionally-mandated reporting requirements to hold the White House accountable.

AN IMPERATIVE FOR PROGRESS

Today's political and fiscal realities make improving the America's ballistic missile defense system challenging. The U.S. must build on the great work that has already been accomplished, both politically and technically, if it is to guarantee the freedom to pursue its own interests and security, rather than resign itself to a world in which hostile regimes have the ability to blackmail and coerce the U.S. with nuclear armed ballistic missiles."■

ENDNOTES

[1] Daniel Dombey, "Nuclear Doctrine of Moscow under Fire," *Financial Times* (London), March 19, 2010, http://www.ft.com/intl/cms/s/0/e69b4902-32f6-11df-bf5f-00144feabdc0.html#axzz2rbvnzemt.

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