TESTIMONY OF JAMES P. THOMAS
BEFORE THE SENATE ARMED SERVICES COMMITTEE

RESHAPING THE U.S. MILITARY

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Chairman McCain, Ranking Member Reed, and distinguished members of the Committee, I appreciate the opportunity to appear before you today to discuss the security challenges our nation confronts, the urgent need to reshape our military forces, and the attributes our forces will need moving forward. The Chairman's recent white paper, *Restoring American Power*, rightfully argues that reshaping the U.S. military should be given priority over resizing. There is little question that we need to do both, but too often in American force planning discussions, there is a tendency to rush to judgment about the size of the U.S. military before first figuring out what kind of military forces are most appropriate for the strategic circumstances we anticipate. I strongly support the idea that determining the shape of the force—in terms of its desired characteristics, attributes, and organization design—should precede questions of force size.

Our military today remains too rooted in the force design of the early 1990s. The return of great power competitions, however, makes it imperative to reshape the U.S. military to ensure it has an appropriate high-low mix of regionally-tailored forces coupled with a global surveillance and strike "swing force" to deter aggression and deny adversaries their objectives. Moving toward this new force design should be a matter of great urgency for the Pentagon and the Congress.

Origins of the U.S. Military's Present Shape

Understanding why the U.S. military needs to be reshaped warrants a brief review of the current force's origins. In the immediate aftermath of the Cold War, we over-optimized our forces for conventional regional wars akin to Operation DESERT STORM, leaving them less prepared for protracted counterinsurgencies, global counterterrorism, and the expansion of warfare into new domains like cyber and space. We narrowly viewed the revolution in precision weaponry as benefiting the U.S. military, while failing to appreciate how other powers could leverage such capabilities to achieve local air and sea denial, as well as build up missile strike forces to hold our theater bases at risk. We assumed a degree of conventional military overmatch that would last for many decades to come but that we now see is rapidly vanishing. And we have been too slow to walk away from overly rosy force planning assumptions that undergirded the shape of the post-Cold War force, including that:

- Wars would be short, conventional and intense;

- Operating conditions would be fairly permissive—we would have at the outset (or quickly achieve) air superiority, naval supremacy, information dominance, and land control;
- Munitions inventories could be smaller because a single precision-guided weapon could destroy a single target;
- Ground forces could rely more on air forces for assured air superiority and strike, and thereby shed their organic short-range air defenses and indirect fires;
- Combat aircraft could be based ashore close to a potential regional adversary and aircraft carriers could sail just off an enemy's coast;
- Enemy integrated air defense systems (IADS) could quickly defeated;
- Land and air combat forces could largely be based in the continental United States and then surge forward expeditionary-style to evict hostile invaders;
- An increasing share of the Navy's surface fleet could be dedicated to defending against ballistic missiles while sacrificing some of its offensive strike capabilities;
- The submarine force could be allowed to shrink because it would be less relevant in operations against regional states;
- Commercial "just-in-time" logistics could be leveraged to achieve cost savings and efficiencies;
- Communications networks would be assured;
- Space would be a sanctuary that could be exploited freely to gain tactical, operational and strategic advantages; and
- Nuclear weapons could be de-emphasized and replaced by conventional precision strike capabilities.

These assumptions have largely been invalidated by the realities we now face at the end of the post-Cold War era.

Addressing a Panoply of Threats

Today, the United States faces major challenges to world order across three distinct geographic regions on the periphery of Eurasia—Europe, East Asia, and the Middle East. Testifying before this Committee last winter Dr. Henry Kissinger observed, "The United States has not faced a more diverse and complex array of crises since the end of the Second World War." In lieu of a single hegemonic threat as the Soviet Union posed during the Cold War, the United States now confronts a more complex panoply of threats. Great power revisionist states like Russia and China, nuclear outlaw states like North Korea, foes bent on sectarian war like Iran, and transnational Jihadist groups—all have adopted particular asymmetric strategies to circumvent traditional U.S. military strengths while imposing costs on the United States and its allies in ways that are difficult to counter. Smaller states and non-state actors have resorted to irregular warfare and terrorism. Larger powers are exploiting Gray Zone actions below the threshold of war, pursuing conventional precision strike systems to create anti-access / area denial battle networks,

leveraging cyber warfare to hack U.S. systems, and modernizing their nuclear forces for escalation control.

For its part, the United States finds itself approaching these challenges with a narrower margin of military advantage but with far greater fiscal constraints, and a less unified set of allies and partners than it had during the Cold War or its immediate aftermath. The viability of America's traditional means of projecting military power abroad is waning, while its ability to check regional aggression by potential adversaries is limited. A survey of the three major theaters of concern to the United States demonstrates these deficiencies:

In Europe, Vladimir Putin's Russia is attempting to reestablish itself as a great power and restore its historic sphere of influence to the maximum extent over its "near abroad." To achieve this vision, the Chief of the Russian General Staff, Valery Gerasimov, has outlined what he calls "New Generation Warfare," blurring the distinctions between peace and war, while blending covert action, political and economic warfare, conventional military force, radio-electronic combat, and cyber warfare, as well as nuclear and other forms of strategic attack to prevail in full-spectrum conflicts and long-term great power competitions. It has fielded ground-launched cruise missiles in violation of the 1987 Intermediate Nuclear Forces (INF) Treaty. Russia's particular style of confrontation, moreover, exploits the minority status of ethnic Russians in neighboring states as a pretext for undermining the sovereignty of those states while potentially providing sanctuary for Russian regional power projection (as already demonstrated in eastern Ukraine). Moscow has ordered large-scale snap exercises close to the Baltic states and Poland, flexing its muscles in the form of armor and rocket artillery, in sharp contrast with the paucity of comparable NATO forces on the territory of allied frontline states. Russia, moreover, has concluded some of these exercises with simulated tactical nuclear strikes on NATO cities. The Russian military has steadily modernized both its strategic and tactical nuclear forces and adopted a doctrine that envisages the early use of tactical nuclear weapons to "escalate to deescalate" and thereby prevail in local wars, exploiting favorable asymmetries in interest, geographic proximity and time. Beyond its nuclear forces, Russia is also expanding its other options for strategic attacks on the United States ranging from political warfare and active measures, to cyber warfare, to attacks on America's undersea infrastructure and offensive space control operations.

In East Asia, China's sustained economic growth has propelled a massive defense build-up of advanced conventional air, missile and naval capabilities for the past twenty years that dwarfs comparable efforts by Russia in all but its strategic nuclear force modernization. In turn, China's growing military strength has backstopped its diplomatic assertiveness over unilateral claims in the East and South China Seas. It has steadily expanded its air and sea denial capabilities while improving its ability to hold the small number of U.S. air and naval bases in the Far East at risk and thereby impede the ability to flow additional forces into the theater and force the United States to fight from range. China has built up a sizable inventory of mobile-launched,

precision-guided, intermediate- and medium-range conventional ballistic missile forces, advanced air combat and naval strike forces, as well as integrated network and electronic warfare capabilities it believes are needed to prevail in a short, unrestricted local war against a distant, "informationized" enemy like the United States. Underneath the aegis of its "anti-access/area denial" shield, it can employ non- and paramilitary forces, including its fishing fleet and coast guard, to expand its maritime presence in the East and South China Seas, while constructing and militarizing reefs with artificial land features in the latter. Finally, China has achieved a credible second-strike nuclear deterrent and recently tested an intercontinental range ballistic missile dispensing multiple independently targeted warheads.

While North Korea is by no means a great power, it nevertheless presents an acute threat to the United States and its proximate neighbors—particularly, but not limited to, our close allies Japan and South Korea—through its pursuit of increasingly survivable intermediate- and intercontinental-range ballistic missiles, coupled with the continued expansion of its nuclear weapons inventory. North Korea represents the most salient case where deterrence may not hold, given the erratic behavior of its ruler, Kim Jong Un. North Korean leaders may believe that if they were able to demonstrate a credible capability to mate and deliver a nuclear warhead with an intercontinental ballistic missile, that they could attack South Korea or Japan with impunity while deterring the United States from intervening for fear of nuclear strikes against the U.S. homeland.

In the Middle East, the United States is confronted not so much by a great power hegemonic threat as by the prospect of further disorder and disintegration as the longstanding political order melts down. As a latent nuclear (albeit not a classic great) power Iran poses the greatest military threat to U.S. interests in the region. It has improved its ability to wage unconventional warfare and support proxy conflicts throughout the region, for example by using the Quds Force and its Lebanon-based surrogate Hezbollah in the Syrian conflict. It is building up advanced deep strike missile forces, aerial drones and other unmanned strike systems, as well as anti-ship weapons. And Iran has the potential to breakout from international monitoring efforts and acquire a nuclear weapon within a few years. At the same time, Jihadist organizations like Al Qaeda and the quasi-state of ISIL present very different sorts of threats, coupling hybrid warfare (unconventional uses of advanced weaponry) with terrorism. The nuclear and unconventional threats posed by Iran on the one hand, and the insurgent and terrorist threats posed by al Qaeda and ISIL on the other, will present the United States with counter-proliferation and counter-terrorism challenges for many years to come.

Together, these challenges suggest the United States is entering a new strategic era characterized by the return of great power competitions overlaid on a map where regional nuclear dangers and the persistent threat posed by violent transnational Jihadist movements are already prominent terrain features. These can no longer be considered future challenges, and we can no longer afford to defer efforts to reshape

the U.S. military to address them. Similarly, there is no single approach or strategy that can effectively address all of these challenges. Instead, as the Chairman McCain noted in *Restoring American Power*, the Department of Defense will need to fashion regionally tailored strategies and force packages, suited to the unique requirements of these different challenges and the military capabilities required to address them.

Reshaping the Military for a New Strategic Era

Addressing these threats effectively will require a new high-low mix of capabilities. On the "low" side, the key attributes will be reduced procurement and sustainment costs and the ability to field large numbers of weapons and platforms for steady-state operations in relatively permissive environments. Many of our legacy forces and capabilities already fit this bill. For instance, we have built up a large fleet of non-stealthy remotely piloted vehicles over the past decade that will continue to have utility in many areas of the world where enemy air defense threats are non-existent or rudimentary.

Conventional deterrence of great powers like Russia and China, however, will necessitate reshaping a large portion of our forces to ensure they can deploy, operate and be sustained in far less permissive operating environments than they have faced since the end of the Cold War. Force planning for the high-end should assume that: (1) forces will operate in denied communications environments; (2) space will be contested; 3) neither our forward bases nor our homeland will be sanctuaries; (4) adversaries will be able to deny us the degree of local air and sea control to which we have grown accustomed; (5) only the most survivable aircraft and munitions will be able to penetrate and conduct surveillance and strikes over hostile territory ringed with advanced air defenses; (6) large surface combatants will be at risk near a hostile coast; and (6) large land formations will run far greater risks entering contested theaters in crisis or after a war has begun.

Consistent with these assumptions, the high-end force can be divided into two basic elements: highly survivable and lethal regionally-tailored forces to counter local power projection by potential adversaries, and a globally fungible surveillance and strike "swing force" that can operate from long ranges to penetrate denied areas and hold at risk large numbers of hostile military forces and other targets with conventional, nuclear, or non-kinetic weapons.

Regionally-tailored forces in Europe and Asia would place a premium on permanently stationed ground forces because it may be too risky to deploy them in crisis or time of war or they may be too slow arriving to make a difference. Rather than serving simply as local "tripwire" forces as in the Cold War, U.S. ground forces working side-by-side local allied forces should be far more capable of repelling invading forces by dominating the land approaches, denying hostile forces aircover, holding enemy ships at risk, and preventing an enemy's effective use of the electro-magnetic spectrum. Unmanned ground vehicles would be particularly useful for a forward-stationed force in Europe as they would increase the lethality of the force

while helping to minimize the risks to Soldiers in close proximity to numerically superior enemy strike forces. Given Russia's ability to overrun the small Baltic states in a matter of hours, the United States should give serious consideration to the permanent forward stationing of several multi-domain combat brigades on the territory of the Baltic states. These forces should be armed with multi-mission missile launchers to conduct air defense, counter-battery, deep strike, electronic warfare and anti-ship strikes armed with a deep magazine of various munitions to repel military attacks or incursions against the frontline NATO states. Similarly, Special Forces should be stationed in the Baltics and Poland to work with local territorial defense militias, training, advising, assisting them in resistance tactics and air-ground integration employing short-range precision-guided mortars, artillery and rocket systems to hold at risk invading or occupying foreign forces.

The United States should also reconsider long-standing arms control conventions such as the INF Treaty, which proscribes land-based missiles with ranges between 500-5,500km. INF-class missiles could play a greater role in maintaining regional military balances in the coming years, particularly given that Russia is already violating the treaty while China, North Korea and Iran are building up sizable arsenals of missiles with those ranges. Allowing the U.S. Army to re-enter the long-range strike enterprise would be a game changer in great power competitions and greatly complicate the calculations of potential adversaries.

At the same time, the globally fungible long-range surveillance and strike element of the force will need to emphasize air and naval platforms as well as munitions with the ability to: respond rapidly to threats globally while operating from long-range with large sensor and weapons payloads; penetrate into denied areas; evade detection and persist to strike elusive targets; conduct electronic and cyber attacks; and sustain with minimal theater basing or logistical support.

For combat air forces, unmanned long-range penetrating surveillance and strike aircraft could help the U.S. military operate more effectively in the face of growing threats China could pose to close-in airbases. Similarly, sea-based surveillance and strike aircraft will need to operate from beyond the reach of enemy anti-ship sensor and strike capabilities, be capable of aerial refueling at the outer edge of an enemy's own maximum fighter range, and be sufficiently survivable to penetrate sophisticated air defenses in order to locate and strike mobile fleeting targets in coastal areas, including enemy air defenses. Given the demands of endurance, high-end combat air forces should be unmanned.

A greater proportion of naval high-end standoff strike capability will need to migrate undersea to perform close-in missions in contested maritime areas. Submarines and unmanned underwater vehicles, which are among the most fungible elements of the Joint Force, may also take on new cross-domain missions such as suppressing enemy air defenses, holding high-value aircraft at risk, and disrupting an enemy's long-range sensors to "open" a theater for other naval and joint forces. At the same time, 100+ ton displacement unmanned underwater

vehicles could complement manned submarines to achieve a more distributed undersea surveillance and strike constellation and perform riskier combat missions. Puncturing enemy-imposed air and sea denial areas may also place a greater premium on cyber warfare and electro-magnetic operations conducted by naval and amphibious forces to create a multitude of false target apparitions that overwhelm the processing capabilities of enemy sensor nets.

The U.S. military's space posture, which by its nature is inherently fungible, will also need to be modernized to support regionally tailored forces and global surveillance and strike with strategic early warning; persistent and resilient surveillance; and protected long-haul communications systems. In turn, this will necessitate exploration of innovative low-cost means of accessing space, disaggregating some sensor systems to improve their resiliency, and fielding larger constellations of smaller satellites to more frequently revisit and survey targets.

A key metric for munitions in the past several decades has been the probability of kill, which was largely a function of precision. Confronting enemies possessing advanced air defenses, future munitions will need a higher probability of arrival at the target, which will be a function of their survivability and/or return to larger, massed raid salvos that can saturate enemy air defenses. New classes of weapons—including cooperative weapons systems that can swarm targets, longer-range air-to-air munitions that out-range those of enemy fighters, survivable standoff nuclear and conventional cruise missiles, hypersonic weapons, and high-power microwave cruise missiles—will be needed to strengthen the effectiveness of the global surveillance and strike component of the force.

As Russia, China and Iran seek to circumvent or avoid traditional U.S. military conventional strength, they are turning increasingly to the use of Gray Zone active measures short of armed conflict, influence operations and covert action, propaganda and disinformation, as well as financial or economic warfare to achieve their own strategic aims. The United States will need to take account of such threats and devise both military and non-military means for deterring or defeating them. Special operations forces (SOF) will have a critical role to play. As they pivot from the counter-terrorism missions of the past decade, SOF will need to expand their capacity for special warfare missions including unconventional warfare, foreign internal defense, psychological warfare, and train/advise/assist.

Renewed great power rivalries—alongside continued global Jihadism and the disintegration of the Middle East—also suggest that strategic competitions will be highly protracted in character. And in the remote case of potential conflict with China, the possibility that combat that could stretch for many months or years means that we must have: (1) far deeper munitions magazines at the ready long before war begins; (2) a greater margin for attrition in our land, air, and naval combat systems than we have since the end of the Cold War; (3) far more robust combat logistics forces capable to sustaining our forces under attack for many months; and (4) well-defended, "warm" production lines for weapons systems in

our defense industrial base. In particular, stockpiling munitions and conducting exercises that demonstrate American preparedness for protracted warfare may strengthen deterrence by reducing an adversary's calculation that it could win quickly or at low cost.

Finally, the range of potential strategic attacks that could be conducted against the U.S. homeland, its space constellation, or its undersea infrastructure, particularly through the increasing employment of cyber or electro-magnetic attacks, is increasing. Major strategic challengers all have at least some capability to affect U.S. homeland security. Russia and China, in particular, are pursuing capabilities in less mature domains like cyber, the electro-magnetic spectrum, space and undersea. To address these threats, the United States will need to reshape its forces to ensure a range of new defensive and offensive measures. The Department of Defense should ensure, above all, that its nuclear command, control and communications are safeguarded during peacetime, crisis or war and that the credibility of America's most devastating military response options are beyond question. The Pentagon will also have to consider how to conduct new missions, such as the defense of its undersea infrastructure or the protection of its land-based space launch and ground segment infrastructure as it reshapes the U.S. military.

Conclusion

Reshaping the U.S. military should be treated as an urgent matter. Increasing the size of our legacy force—even at the highest state of readiness—will simply be inadequate to meet the military challenges we face across Europe, Asia and the Middle East, and will squander previous resources in the process. Now is the time to make the transition and begin to reshape a portion of our military so that we can effectively deter or prevail across a range of competitions and conflicts over the next several decades.