

## TIGHTENING MILITARY BUDGETS: WHAT IS THE FUTURE FOR MOUNTED VERTICAL MANEUVER?

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USAWC STRATEGY RESEARCH PROJECT

**TIGHTENING MILITARY BUDGETS: WHAT IS THE FUTURE FOR MOUNTED  
VERTICAL MANEUVER?**

by

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## **ABSTRACT**

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The United States national debt is mounting quickly, and if not addressed, could lead to a decline in America's superpower status. In order to minimize the long-term negative effects, every aspect of the national budget should be analyzed for savings. Public concern on the debt crisis is driving lawmakers to re-evaluate national priorities. The political atmosphere is creating debate on the direction of military spending. Secretary of Defense Robert M. Gates has announced that he expects the Department of Defense to show restraint and has informed the armed services to plan for smaller increases than seen in past annual budgets. The fiscally constrained environment will compel the Pentagon to make difficult choices in weapons programs. Reduced funding will challenge the military to balance preparedness today while still preparing for the mission requirements of the future. Affordability will exert more influence over potential new capabilities like the United States Army's Mounted Vertical Maneuver concept. Such a costly investment will require unequivocal evidence of value. Scarce resources will drive the military to find revolutionary ways to use existing means to meet the operational needs of tomorrow.





## TIGHTENING MILITARY BUDGETS: WHAT IS THE FUTURE FOR MOUNTED VERTICAL MANEUVER?

I think the biggest threat we have to our national security is our debt.<sup>1</sup>

—CJCS Admiral Mike Mullen

The United States national debt is currently at \$13 trillion dollars. Last fiscal year the interest payments on the debt exceeded over \$400 billion and the budget deficit reached \$1.3 trillion.<sup>2</sup> If present trends continue, it could lead to an economic crisis for the country. A weakened economy and the financing of two simultaneous conflicts in Iraq and Afghanistan have compounded the debt issue. The financial troubles can cause serious problems to the United States' ability to project national power and exert leadership throughout the globe. Similar to the end of the Vietnam War, United States citizens are genuinely concerned about the potential impacts of an economic disaster that could cripple the standing of the United States, and the nation's leaders are taking notice. According to a recent national poll, terrorism and the federal debt tied as "the most worrisome issues to Americans when they consider threats to the future wellbeing of the United States."<sup>3</sup>

In order to prevent a financial meltdown, the spending habits in every sector of the national budget need to be more modest than current day spending. If measures are taken in the near future, the reduction of expenditures can be dictated on our own terms. The sacrifices will be greater and the nation will assume more risk if deep budget cuts are mandated by a financial crisis in the future. If financial troubles ensue, fewer resources would be available, and the United States' ability to shape the world would be severely diminished. "The country will face a situation of overreach not because it is

taking on too many new commitments abroad, but because it is losing the ability to fund existing commitments.”<sup>4</sup>

### Future DoD Budgets

Defense spending has been a contributing factor to the increase of the national debt. As a result of the 9/11 terrorist attacks, United States military expenditures understandably grew. The defense budget is twice the size it was in 2001. Military spending accounts for 55% of the United States discretionary budget.<sup>5</sup> In fiscal year 2010 the United States spent nearly \$700 billion, which is as much as the next fourteen countries combined.<sup>6</sup>

Secretary of Defense Robert M. Gates has publicly stated that the Department of Defense (DoD) will be required to live within its means, “the culture of endless money that has taken hold must be replaced by a culture of savings and restraint; towards this end, I am directing that any new proposal or initiative – large or small, be it policy, program, or ceremony – come with a cost estimate.”<sup>7</sup> Each branch of service will have to find efficiencies, reduce expenditures, and eliminate overlapping capabilities. Although his initiatives do not call for major decreases, the Services can expect a flat line in upcoming budgets. He acknowledges the fact that the nation needs to support the men and women currently serving in combat. Further, the military establishment must be equipped to defeat future threats beyond the current confrontations. However, he adds that “we must be mindful of the difficult economic and fiscal situation facing our nation.”<sup>8</sup>

### Balancing Limited Resources

Resource dependent concepts like the Army’s Mounted Vertical Maneuver program will be highly scrutinized due to the financial limitations faced by the military

and the nation. Since lean financial times are on the horizon, the military services are going to have to make some tough choices. Good programs may have to be cut and several may never have the opportunity to be funded from the start. Each service, working with the Joint Staff and the Office of the Secretary of Defense, will have to prioritize the military capabilities that will most likely be needed in future wars. The prioritization must be accompanied by a thorough analysis of the financial burden associated with the particular capability. Although some of this analysis is completed when a program is vetted through the Joint Requirements Oversight Council (JROC), a validated requirement rarely has complete clarity on a program's acquisition cost.

United States foreign policy is relying more on the integrated use of all of the instruments of national power than in the recent past. In order to place a higher priority on the use of diplomacy or "soft power," there is an ongoing shift to move from an over-reliance on the military or "hard power," to applying more soft power. More specifically, the emphasis is being placed on the implementation of "smart power," a strategy that combines hard and soft power and seeks to achieve United States objectives without the use of coercion. "It is an approach that underscores the necessity of a strong military, but also invests heavily in alliances, partnerships, and institutions at all levels to expand American influence and establish the legitimacy of American action."<sup>9</sup> In an effort to save national dollars, smart power is likely to be promoted even more in the future. Just like smart power seeks more efficient ways to address U.S. policy challenges, new methods must be used to fully exploit existing military capabilities. In lieu of a Mounted Vertical Maneuver capability, recent history illustrates how alternative means were used to rapidly position ground forces within close range of the adversary.

## Historical Context

During the initial phase of Operation Enduring Freedom (OEF), the Marine Corps resourcefully developed a barren airstrip, named “Rhino,” located near unfriendly fortifications, which led the way for the U.S. to execute the ground war. The dirt airstrip was initially seized by the 15<sup>th</sup> Marine Expeditionary Unit in late November, 2001. Navy Seabees had very little equipment to keep the primitive runway in a usable condition. However, they creatively formulated a way to use the clay-like soil beneath the surface to keep the runway operational. United States Air Force (USAF) C-17 mobility aircraft flew 43 missions into Camp Rhino landing zone, a 6000 foot long unimproved runway located 85 miles southwest of Kandahar, Afghanistan. Flying “low level” altitudes at night, C-17 Special Operations II aircrews flew deep into hostile territory using Night Vision Goggles (NVGs) to land on the blacked-out dirt landing strip. The C-17s delivered 1,450 tons of heavy equipment and 481 combat troops to the Marine Corps who were fighting nearby Taliban forces.<sup>10</sup> The Marines, who controlled the airfield, reported a total of 800 fixed wing sorties were flown into the austere airfield with the Marine C-130s flying the majority of the missions. Over three million pounds of cargo and fuel were flown in by the Marine Corps.<sup>11</sup> Although labor intensive, the runway was used for nearly two months, before the Marines moved to Kandahar.

In a similar fashion to the OEF example, C-17 Special Operations II crews were called upon at the beginning of Operation Iraqi Freedom (OIF) to quickly insert U.S. military personnel. Special Operations Forces (SOF) wanted to use the outsized cargo capability of the C-17 to deliver ground combat forces and equipment to support their offensive in territory held by the adversary in southwestern Iraq. A C-17 landed on a road and established a Forward Area Refueling Point (FARP) in order to provide the

friendly unit with the fuel it needed to accomplish its mission. The landing area was later used as a SOF staging base for ongoing operations near the location. C-17s also airdropped Heavy Equipment platforms and user personnel during the assault on H-1 Airfield in western Iraq. The C-17 was instrumental in providing assistance to friendly forces and gave them the supplies needed to strike enemy positions in the region. C-17 aircraft continued to distribute fuel and cargo to coalition forces after the forces took control of the airfield. C-17s also transported 10 Army M1A1 tanks into H-1.<sup>12</sup>

Another recent example of quickly moving troops directly into the theater of operations also occurred at the onset of OIF. Aerial delivery was used to open the Iraqi northern front after U.S. ground forces were denied entry from Turkey. Within five days and after flying a total of 62 C-17 sorties, the 173<sup>rd</sup> Airborne Brigade was inserted into Bashur Airfield. In order to secure the airfield for follow-on aircraft to land, the first night employed a 15-ship airdrop that delivered nearly 1000 soldiers and their equipment. Conditions permitted aircraft to land at the airfield during the subsequent four nights, which completed the assembly of the brigade.

### Assumed Risk

In each instance described above, the air forces understood and accepted the operational risk to aircraft and personnel in order to provide support to the ground forces. The prevailing threats were small arms fire, shoulder launched surface to air missiles, and rocket propelled grenade launchers. Aircrews normally flew under the cover of darkness using NVGs to reduce exposure to enemy forces. The aircrews also flew tactical approaches and could take evasive maneuvers to assist in defeating enemy fire if engaged. At the beginning of OIF, Combat Air Forces assisted with the suppression of enemy anti-aircraft fire and provided protection to Mobility Air Forces

from any potential threats from enemy aircraft. The airlift force has filled a critical role in delivering combat troops directly to the fight and continues to take on demanding missions in support of the combatant commanders.

Since OEF began in 2001, the USAF has rapidly evolved the combat capability of the Air Mobility Command fleet. For example, prior to the beginning of OEF, only a handful of C-17 crews (the special operations crews) were trained to fly using NVGs. Within six-months, the entire C-17 crew force was trained and routinely flying on NVGs, which added significant capability. As a result of the 2001 terrorist attacks on American soil, C-17 and C-130 aircraft have been operating in remote areas of the world sustaining contingency operations in the ongoing effort to defeat violent extremists. Mobility aircraft fly daily combat airdrop missions over hostile areas of Afghanistan supporting ground troops engaged in the counterinsurgency mission. Through careful risk analysis, mobility forces continue to adapt to difficult situations and meet the challenges associated with delivering combat airlift to the warfighter.

### Air Mechanization

Air mechanization theorists argue that limitations in the rapid movement of ground forces jeopardize the Army's ability to conduct offensive action against an adversary. Air mechanization is a concept designed to enhance the speed and maneuver of ground forces using the vertical dimension of movement. No matter the type of terrain, mechanized troops would have the benefit of operating unimpeded in order to gain operational advantage over rival forces. Although air mechanization has been theorized in the U.S. Army since World War II, the idea has not come to fruition for a myriad of reasons, but mainly due to the high cost of implementation. A recent theory

promoting air mechanization, "Air-Mech-Strike," calls for using existing equipment with some modifications. Air-Mech-Strike proposes using the Army's M113 armored personnel carriers because they are considered light weight and are CH-47 and C-130 transportable. The Air-Mech-Strike solution was intended to be an economical approach to achieving an air mechanization capability.<sup>13</sup> The latest development, Mounted Vertical Maneuver, is a refinement of the air mechanization concept that is designed to give the joint force commander a more robust and flexible fighting force compared to Air-Mech-Strike.

### Mounted Vertical Maneuver

Land operations in the rugged mountainous terrain of Afghanistan have highlighted how difficult it can be to maneuver ground forces in challenging topography. Maneuvering conventional forces can also be more complicated when conducting operations on a non-linear battlefield. The Army's Mounted Vertical Maneuver concept of operation was developed in order to bring more flexibility and mobility when transporting land forces to and from any type of battlefield. Mounted Vertical Maneuver is defined as "a form of maneuver requiring insertion/extraction of medium weight armored forces to objectives without the need for fixed airports, airfields, or prepared airheads."<sup>14</sup> The theory advocates that medium weight forces will gain the advantage over the adversary by having the ability to quickly fly in and out of the combat operations area. The freedom to move a combat unit at the time and place of a battlefield commander's choosing will enable the commander to more easily achieve the desired effects against the enemy.

Mounted Vertical Maneuver could support future military operation by:

- “Rapidly introducing and exploiting tactical movement advantages over a less mobile enemy to deny their ability to concentrate while exposing their flanks
- Conducting forcible entry and operational maneuver from strategic distances using organic force projection assets to the objective area without the need for improved infrastructure
- Exploiting deployment momentum gained with intra-theater operational maneuver to enable the Joint Forces Commander to seize the initiative across the range of military operations, from sea or land
- Quickly close the gap between early entry and follow on forces
- Improve the operational significance and viability of Seabasing
- Enabling continuous sustainment from strategic providers to forward elements across discontinuous lines of communication”<sup>15</sup>

### Limitations with Mounted Vertical Maneuver

Opponents of Mounted Vertical Maneuver note several limitations with the concept. First, they describe how problems developed during the Army’s 1999 effort to “rapidly deploy and quickly engage” a brigade size force to Albania in support of Operation Allied Force. Two Apache helicopter squadrons were airlifted into the area of operations from Germany as part of Task Force Hawk. It took over two weeks to move the relatively light force.<sup>16</sup> Task Force Hawk demonstrated that it takes considerable time to deploy, arrange, and prepare even a modest size unit for combat operations. Even if an airlift platform existed today that supported the Mounted Vertical Maneuver theory, it probably would not be able to deliver the required amount of ground forces fast enough to achieve an operational military advantage against an advancing enemy.

The second limitation focuses on the enemy air threat near the landing zone. Regardless of the flying characteristics of the airlift platform, the airframe is likely to be reasonably large and vulnerable to attack especially at the slower speeds during the landing phase of the flight profile. Small arms, shoulder fired anti-aircraft missiles, and rocket propelled grenades will all be a concern to the landing aircraft. Army casualties



were high and a significant amount of helicopters were lost throughout the Vietnam War when troops were flown into hostile areas where nearby North Vietnamese forces were positioned. Similarly, plans to use Army attack helicopters in a “deep attack” role during OIF quickly ended when the risks were found to be too great due to vulnerabilities from enemy threats from the ground. After several helicopters were severely damaged from Iraqi ground fire, Army commanders consequently did not employ the attack helicopters in the deep attack role for the remainder of the campaign. Aircraft involved in a Vertical Mounted Maneuver role would likely encounter the same setbacks met by the rotary wing element that have performed in the air assault mission during earlier military conflicts.

Finally, opponents argue that technological gaps and fiscal reality are serious problems for the development of an airlift platform suitable for the Vertical Mounted Maneuver mission. Rough estimates predict an aircraft cost of \$250 million dollars with a need for 300 aircraft in order to move a brigade size force. Research and development would cost up to \$135 billion and there would also be an additional expense for the new infrastructure needed for the housing and long-term care of the aircraft. Due to the affordability within a service’s budget, the annual production rate would be around 15 aircraft per year. If a program was started today, estimates predict it would be the year 2040 before one half of a brigade size force could be used in Vertical Mounted Maneuver taking into consideration a 10 year research and development period.<sup>17</sup>

### Joint Heavy Lift

The Joint Heavy Lift proposal was the Army’s original plan to support the Mounted Vertical Maneuver concept. Joint Heavy Lift was intended to be an airframe

that was capable of transporting medium weight ground vehicles using a vertical takeoff and landing solution. Initial proposals that the Army favored was a quad tilt-rotor design similar to that currently used on the CV-22 Osprey. The Army planned to use the Joint Heavy Lift platform to transport the Future Combat Systems (FCS) vehicle and the Stryker combat vehicle. The United States Marine Corps was initially interested in the program to replace its aging MH-53 helicopter fleet with the stipulation that the airframe would have to be able to operate on the deck of ship to have utility for the Marines.<sup>18</sup> As a result of the conflicts in Iraq and Afghanistan, the Army determined that the FCS and Stryker vehicles would need additional armor. This additional requirement changed the scope and size of the Joint Heavy Lift Platform. The Marine Corps decided to opt out of the program due to the larger than anticipated design.

While the Army was formulating the Joint Heavy Lift concept, the USAF had been considering a replacement for the C-130 cargo airplane. The requirements for the new Advanced Joint Air Combat System included a short take-off and landing capability along with the ability to fly considerably faster than the C-130. Since the new airframes that the Army and Air Force were both considering had overlapping requirements, the Joint Staff recommended the two services combine their efforts. Major General Virgil Packett, Army aviation branch chief, says, "what's happened with this Joint Theater Lift piece is that the Air Force has become the administrative agent for intratheater lift. Now, as we try and come together, we are doing a lot of blending of requirements."<sup>19</sup>

#### Joint Future Theater Lift

After the termination of the Joint Heavy Lift program, the Army and Air Force teamed up on the development of the Joint Future Theater Lift (JFTL) platform. The requirements for the JFTL would be an aircraft capable of airlifting a payload consisting

of at least one medium weight (approximately 30 tons) armored vehicle into the designated combat zone. The lift platform would be required to deliver fully combat ready Stryker vehicles, Mine Resistant Ambush Protected Vehicles (MRAPs), and FCS vehicles. Military planners have stipulated a requirement for the aircraft to have the ability to take-off and land on an unprepared surface no greater than 1500 feet. If the solution set included a “vertical” take-off and landing (VTOL) capability, the characteristics would be similar to that of a helicopter. If the solution set included a “short” take-off and landing (STOL) capability, the characteristics would be similar to that of a fixed wing aircraft. The aircraft would also need to be equipped with defensive systems, giving it the ability to operate in a medium threat environment.

The Joint Future Theater Lift platform is still conceptual. Extensive research and development is required to develop a capability that is able to deliver a ground vehicle with the parameters described within the principles of Mounted Vertical Maneuver. “The mounted aerial maneuver lift objectives, as established by the Army, are extremely challenging. Developing and producing aircraft and ship designs to deploy and sustain even battalion-sized FCS forces with primitive enclaves is a massive undertaking. The parameters that pose the greatest challenge are payload weight (30 tons), mission range (250 nautical mile threshold; 500 nautical mile objective) and enclave aircraft handling capability.”<sup>20</sup>

Funding for the JFTL program will not be easy to come by in today’s fiscally conservative environment. As mentioned earlier, difficult choices will have to be made and an operational balancing act will have to be taken over the long-term. Budget worries, technology concerns, operational feasibility, high cost estimates, and

the recent FCS cancellation are some compelling reasons to reconsider the need to make such a large investment when there are other capabilities that the military has an immediate need for. Although a JFTL Analysis of Alternatives (AoA) is expected to be conducted sometime in the near future, the DoD's Future Years Defense Program does not include funding for the program now. The AoA will be a useful tool for senior leaders to make more informed decisions about the direction of the program in the future. The AoA will "focus on identification and analysis of alternatives, measures of effectiveness, cost, schedule, concepts of operations, and overall risk, including the sensitivity of each alternative to possible changes in key assumptions or variables."<sup>21</sup> The AoA will focus only on the airframe; it will not discuss the merits of Mounted Vertical Maneuver.

### Changing Environment

Acquisition and fielding of the FCS was a key consideration in some of the specifications linked with the design of the JFTL. The ground vehicles related to FCS development were designed to support the Army's transformation effort to become a "lighter, more agile" fighting force. However, OIF and OEF illustrated the need for additional armor in order to overcome some of the vulnerabilities that Soldiers and Marines were encountering with landmines and Improvised Explosive Devices. The Army, alongside the Marines, quickly fielded MRAPs and sent the new, heavier vehicles to the theater of operation since they were considerably more capable of withstanding roadside attacks than the armored Humvees that were previously in use. This experience also caused the Army to increase the overall size and weight of the FCS ground vehicles that were still on the drawing board in order to provide more protection

to its Soldiers in future conflicts. In June 2009, the Secretary of Defense cancelled the FCS program due to “concerns that the portion of the FCS program to field new manned combat vehicles did not adequately reflect the lessons of counterinsurgency and close quarters combat in Iraq and Afghanistan.”<sup>22</sup> The termination of FCS has caused the Army to review and reconsider the design of its next generation of ground combat vehicles.

### USAF Need for Modernization & Recapitalization

Like the other services, the USAF will be working with a smaller budget in the future. This comes at a time when all of the services are feeling the effects of engaging in nearly ten years of persistent combat after 9/11. The high operations tempo is shortening the expected service life of military equipment. As a result, the USAF needs to modernize and replace its aging fleet of aircraft in order to have the ability to accomplish its distinctive capabilities in the future. Within the last few years, the USAF attempted to reduce manpower by several thousand personnel to help pay for recapitalization efforts, but still fell short by nearly \$20 billion.<sup>23</sup> At the direction of the Secretary of the Air Force (SECAF), Michael B. Donley, the USAF continues to strive to reach the optimal balance between available resources and maintaining the ability to defend the nation today and in the future;

“We still face significant challenges, such as the need to accommodate new requirements for missile defense, cyber, and greater situational awareness in space; the recapitalization of satellites; and modernizing our aging aircraft inventories by bringing on the F-35, trainers, bombers, and - especially – tankers.”<sup>24</sup>

In a recent speech, the SECAF gave the Air Force fiscal guidance on controlling expenditures:

- “Don't get over-extended with more programs and resource commitments than we can afford
- Concentrate on the top few modernization programs essential to each Core Function, and provide sufficient funding to ensure success
- Don't leave broken, underfunded programs and disconnects for the next budget cycle
- Re-emphasize program stability, and don't break programs to fix other programs
- Make the hard choices now”<sup>25</sup>

This guidance will make “new start” programs like JFTL an uphill battle for the Air Force especially when there is an urgent need to start replacing 500 KC-135 Eisenhower era air refueling aircraft.

### Budgetary Tradeoffs

Even if conclusive data on the utility of the Mounted Vertical Maneuver concept existed, the question of affordability in light of the nation’s fiscal concerns still looms. As the cost of developing and producing new technology soars, it is becoming quite clear that difficult tradeoffs are going to be part of the military’s budgetary decision process in the foreseeable future. Hard choices will have to be made between seeking new equipment and sustaining legacy systems that are needed to maintain the modern day advantage. The 2010 Quadrennial Defense Review states “we must also ensure that only essential systems are procured, particularly in a resource-constrained environment. There are too many programs under way. We cannot afford everything we might desire; therefore, in the future, the Department must balance capability portfolios to better align with budget constraints and operational needs, based on priorities assigned to warfighter capabilities.”<sup>26</sup> The economic outlook for the country will require ingenuity and creative thinking to maximize the expenditure of resources. Making prudent budget

choices today will soften the difficulties throughout the lean days ahead and still supply the military with the tools needed to provide for the defense of the nation.

### Recommendations

DoD should lead the nation in regards to economic reform in order to reverse the negative trends that a large national debt poses to the long-term strength and influence the United States has on the world stage. There would be disastrous consequences if the United States defaulted on its debt payments.<sup>27</sup> Strong leadership is needed right away to make some difficult adjustments to all areas of the United States budget. Since military spending is equivalent to one fifth of the overall national budget, most Americans will expect to see at least a modest decline in military spending before there is a reduction in social security, health care, or any other non-discretionary expenditures. Careful analysis of assumed operational risk will have to be thoroughly examined before making reductions in any particular area of national defense. In order to maintain a resilient military, DoD cannot shoulder the burden alone. This national problem can only be resolved by developing an overall national strategy to reduce the country's debt to manageable levels.

The military should carefully review and study the viability of affordable alternatives before making large investments in a new concept or idea. Delivering a brigade sized force using the JFTL aircraft supporting the contested Mounted Vertical Maneuver concept is an expensive venture for the Army and Air Force. In light of the FCS program cancellation, additional analysis through an independent research institution should be completed on the potential utility of Mounted Vertical Maneuver. Environmental scanning documents such as the Joint Forces Command *Joint Operating*

*Environment* report and Joint Staff *Capstone Concept for Joint Operations* reviews trends and likely future areas of military conflict that would be helpful in the new study.

The military must continue to use existing weapons systems in ground-breaking ways to fill capability gaps. Recent history shows how necessity generated new methods of employing the present day force structure. “The true test of military effectiveness in the past has been the ability of a force to diagnose the conditions it actually confronts and then quickly adapt. In the end, it will be our imagination and agility to envision and prepare for the future, and then to adapt to surprises, that will determine how the Joint Force will perform over the next twenty-five years.”<sup>28</sup>

Adaptability in delivering combat troops to the battlefield was demonstrated in Iraq and Afghanistan using the C-17 and C-130 aircraft. Through the use of innovation and warrior spirit, these airframes were used in a manner quite differently than they had been used before. Mobility aircraft have proven themselves to be valuable assets in getting the Soldiers and Marines to the fight and will continue to do so when called upon in the future.

Acquisition funding efforts must focus on recapitalizing and modernizing the weapon systems that are essential for the immediate future. The campaigns in Iraq and Afghanistan are accelerating the expected service life of the military’s equipment, causing the equipment to wear out sooner than originally expected. The Army and Marines are in need of replacing equipment that has been destroyed or damaged in battle, the Air Force is in need of recapitalizing and sustaining an aging fleet, and the Navy is working to improve its readiness in areas such as missile defense.<sup>29</sup> Since budgetary constraints will more than likely limit new acquisition programs for quite some



time in the future, DoD should concentrate on shoring up the fundamental weapons programs that have an obvious need to sustain the full spectrum of military operations.

The JROC will need to provide more scrutiny before approving a potential major defense acquisition program. When an operational capability such as the Mounted Vertical Maneuver concept is initially vetted through the Joint Capabilities Integration and Development System (JCIDS), the joint services body may concur with the service owner that a capability gap exists. The JCIDS process will not normally review a funding plan until much later in the requirements cycle. Although a capability gap may be real, a green light should not be automatically given to a military department to move forward with a program until a cost-benefit analysis is accomplished. In a time of shrinking budgets, it is more important than ever to get a suitable return on a large scale investment.

### Conclusion

The economic threat to the United States is real and should be addressed before the situation permanently weakens the ability of the nation to lead and influence world events. All of the warning signs indicate a need for immediate restraint in spending. Serious measures must be taken to control the growing expenditures within the national budget. The country's leaders and lawmakers must be willing to make difficult choices for the benefit of the entire nation. Parochialism must be set aside in order to truly manage the mounting debt crisis. Many of the choices that will eventually need to be made will not be popular. When national budgets are tight, the military is typically the first area that is reduced. However, to maintain even a modest force, DoD cannot make up all of the massive ground on its own. The increasing United States debt issue has to be a national priority and only through unity of effort will the matter be resolved.

Secretary Gates has informed all of the military services that the considerable growth seen in the recent military budgets is over. He has also indicated that DoD will do its part to help resolve the fiscal crisis that the nation is facing. As budgets tighten, it will be more important to balance limited resources with current and future threats to national security. DoD will need to prioritize capabilities and decide where some risk will have to be taken. As the future environment becomes more complex in dealing with non-state actors and asymmetric warfare, it will be important than ever to analyze the likelihood of potential danger before assuming risk in a particular area.

While there are some potential advantages to Mounted Vertical Maneuver, the concept and other ideas like it will more than likely become cost avoidance areas unless there is overwhelming evidence that shows that the military cannot function without the given capability. In order to meet Secretary Gates' charter to reduce spending, the Services will have to continue to leverage each other's existing capabilities so they can meet mission requirements. Cash-strapped budgets will require ingenuity and creative thinking to fill gaps and balance risks associated with executing a combat mission. Although the current operational environment is burdened with many adversarial challenges threatening the American way of life, the nation's debt is also a formidable problem that is quickly adding up to an unacceptable level of risk that will create a catastrophe if not appropriately addressed. A balanced approach must be applied as DoD plans for the inevitable contingencies of the future.

## Endnotes

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<sup>17</sup> Ibid.

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