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# **Joint Acquisition Program Management: A Requirement for Joint Capability?**

by

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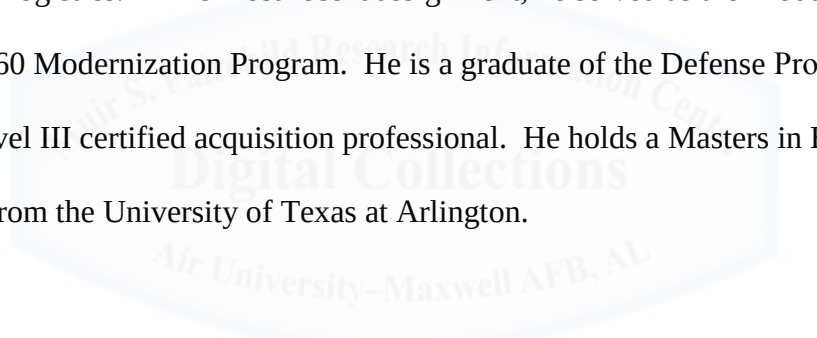
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## **Biography**

Lieutenant Colonel Gerald R. Davis Jr. is an Air War College student at Maxwell Air Force Base, Alabama. An Army Aviator, he has served in both ground and Air Cavalry units. He began his acquisition career as an Assistant Program Manager (APM) with the CV-22 program. He has also served as APM for the Joint Tactical Radio System (JTRS), Department of the Army System Coordinator (DASC) and Executive Officer within Assistant Secretary of the Army Acquisition, Logistics & Technology (ASA(ALT)). He has also served as an Acquisition Program Analyst within the Office of the Undersecretary of Defense for Acquisition, Technology and Logistics. In his most recent assignment, he served as the Product Manager for the Army's UH-60 Modernization Program. He is a graduate of the Defense Program Manager's Course and a Level III certified acquisition professional. He holds a Masters in Business Administration from the University of Texas at Arlington.



## **Introduction**

Our military forces have been conducting operations overseas for more than nine years. These continuous operations have put tremendous pressures on our forces and our capabilities. The number of services and coalition forces involved in these operations has forced the military to rely on more joint capability than ever in our history. While the 1980s were a decade of thinking jointness and the 1990s were a decade of transitioning to jointness, today we are operating as a joint force. At the same time, domestic economic pressures and climbing debts are forcing decrements in the overall defense budgets. As we continue to pay for the overseas military operations, we are seeing the cost of health care climbing for our soldiers wounded in these operations as well as care for military retirees. These are just some of the pressures that are shrinking the dollars available for development, modernization and procurement of needed capabilities. Therefore, I believe that future strategic planning and resources will dictate a continued reliance on successful joint operations.

The growing strategic demand for joint capability and the expectation of less budget to acquire this capability leads many people to say that we need more joint acquisition programs. Historically, though, we have not fully realized the expected benefits from our joint acquisition programs. In fact, we have seen joint programs with troubled schedules and performance. While there have been some successful joint acquisition programs, many face several pitfalls not common to single service acquisition efforts.

Although we require joint capabilities, the “joint acquisition” process is not always the most efficient way in which to develop and procure these capabilities. There are frequently stumbling blocks that do not support the establishment of a joint program. Many times the priorities of each service do not align. While one service may prioritize a capability in the top

ten, another service that needs a similar capability may not prioritize the capability above the “cut line.” That would have a significant impact on the overall funding available to support the acquisition efforts. Similar to the prioritization, there are times when services’ need dates for a capability do not align. While one service may have a capability gap and require a capability in the next two years, another service may have an older system that will not retire for another six-eight years that provides a similar capability. Therefore one service has a high priority, near term need, while another service has a future need that has a lower funding priority. Another scenario may be that two services have identified a “similar” capability gap, but their requirements may not properly align for a joint program.

In this paper, I will look at the history of joint programs in defense acquisition. I will look at some of the pitfalls of joint programs and provide examples of programs that have struggled. Finally, I will also look at reasons why I believe that the single service acquisition process can provide capabilities that operate in a joint environment.

### **History of Joint Programs**

Problems with acquisition efforts and a rash of fraud, waste and abuse in the early 1980s led President Ronald Reagan to form a commission to look at ways of improvement. The commission, led by David Packer, a former Deputy Secretary of Defense, addressed some major areas of acquisition inefficiencies resulting in cost growth, schedule delays, performance shortfalls and also an unclear chain of authority for program managers.<sup>1</sup> The information from this report fed into some of the provisions in the Goldwater-Nichols Act of 1986. In addition to calling for more jointness among the services, two of the stated intents of the law were to provide

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<sup>1</sup> David Packard, *President’s Blue Ribbon Commission on Defense Management, A Quest for Excellence: Final Report to the President*, Washington, D.C., June 30, 1986.

for more efficient use of defense resources and to enhance the effectiveness of military operations and improve the management and administration of the Department of Defense.<sup>2</sup>

One of the most significant changes resulting from Goldwater-Nichols was the creation of the position of Undersecretary of Defense for Acquisition. This position was designated as the Defense Acquisition Executive and is the principal advisor to the Secretary of Defense on all matters pertaining to the Department of Defense acquisition system.<sup>3</sup> The law gave sole responsibility for acquisition to the Secretary of each military department. It further stipulated that Service Secretaries designate a single organization within the Secretary's office to manage the function of acquisition. The intention was to improve acquisition oversight while simplifying the acquisition reporting chain.

Although the law had streamlined the acquisition chain of responsibility, it did not call for outright joint acquisition processes to align with the jointness that it was seeking in the management of military officers and in conducting joint operations. However, there have been many efforts to press for more joint acquisition programs since the Goldwater-Nichols Act. Many believe that because we are operating more jointly today, that we must need more joint programs to provide joint capabilities. The latest Defense Acquisition Guidebook (DAG) states, "In today's Joint environment, the integration across systems of systems is necessary to achieve a fully networked Joint war fighting capability. The warfighter requires a fully networked environment and must be able to operate efficiently and effectively across the continuum of systems from initial recognition of the opportunity to engage through to mission completion."<sup>4</sup> While we need capabilities that are interoperable on the battlefield to accomplish this task, this

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<sup>2</sup> Public Law 99-433-OCT. 1, 1986.

<sup>3</sup> Public Law 99-433-OCT. 1, 1986.

<sup>4</sup> Defense Acquisition University, "Defense Acquisition Guidebook." (Fort Belvoir, VA: Defense Acquisition University Press, August 2010), p. 475.

does not necessarily mean that we need to acquire the capability through a joint program. If a system is truly interoperable, then it will work in a joint environment.

One problem we have when we seek joint programs is that we do not all have a common definition of what defines a true joint program. The 2010 DAG defines two aspects of "jointness" to consider when discussing joint program management: the jointness of the capability and the jointness of the development and production of the system.<sup>5</sup> It further states that "as part of the Joint Capabilities Integration and Development System (JCIDS), the Joint Staff J-8, with the assistance of the DoD Components, will evaluate all JCIDS documents, regardless of Acquisition Category or previous delegation decisions or Joint Potential Designation decisions, to determine whether the proposal has joint force implications."<sup>6</sup> Almost all programs will have a "joint force implication" because they will have to interoperate with current systems from other services, but only a small number of programs should be designated as joint programs.

The DAG currently defines a joint acquisition as "any acquisition system, subsystem, component, or technology program with a strategy that includes funding by more than one DoD Component during any phase of a system's life cycle."<sup>7</sup> Under this definition, if one service does all of the research, development, testing, provisioning and procurement of a system, but another service wants to buy the system as a "government off the shelf (GOTS) system, then the system should be designated as a joint system. I think this takes the definition of "joint program" too far. In contrast, others define joint programs more restrictively. For example, during a hearing on November 8, 2007 on the Mine Resistant Ambush Protected (MRAP) Vehicle Program,

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<sup>5</sup> Ibid, p. 874.

<sup>6</sup> Ibid, P. 875.

<sup>7</sup> Ibid, p. 875.

Chairman Neil Abercrombie stated, “One other issue that the MRAP program has highlighted that is of continuing concern, is fundamental to the broader issue of joint programs. Many of the current defense acquisition programs are called joint programs. However, when you peel back a layer you find the program is really “joint” only in name. While MRAP vehicles are being procured jointly, there is a lack of standardization among the mission essential equipment being integrated into the vehicles.”<sup>8</sup> He later goes on to say, “It’s imperative that the civilian leadership in the department effectively address the problem of joint acquisition programs that are joint in name only.”<sup>9</sup> This implies a far different definition of a joint program than what is defined in the DAG.

The Department of Defense has been procuring capability through “joint programs” for many decades now. The Government Accounting Office (GAO) has done many studies on the successes, failures, problems and pitfalls of joint program acquisition. The latest joint program to be studied and highlighted for management issues is the Joint Strike Fighter program, which was reviewed by GAO in March 2010. Another study completed in May 2007 looked at a cross comparison of single and joint acquisition efforts. The results of this study “suggest that joint programs, whether large or small, in development or production, and irrespective of age, are statistically more likely to encounter programmatic breaches than their single system counterparts.”<sup>10</sup> Even the 2004 Joint Program Managers Handbook warns of the schedule stretch for joint programs. It provides these words of wisdom from a former Joint Program Manager,

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<sup>8</sup> Neil Abercrombie, “Mine Resistant Ambush Protected Vehicle Program.” Hearing of Joint Seapower and Air and Land Subcommittees, November 2007, [http://armedservices.house.gov/list/speech/armedsvc\\_dem/abercrombieos110807.shtml](http://armedservices.house.gov/list/speech/armedsvc_dem/abercrombieos110807.shtml) (accessed 28 July 2010).

<sup>9</sup> Ibid.

<sup>10</sup> Mary M. Brown, Flowe, Robert M., Hamel, Sean P., “The Acquisition of Joint Programs: The Implications of Interdependencies.” The Journal of Defense Software Engineering, May 2007.



“Every event in a joint program takes longer by at least one third, and that extra time needs to be included in the program schedule. Extra time for coordination is necessary to keep everyone in line, informed, and in agreement.”<sup>11</sup> With so much experience and so many lessons learned, why are joint programs having so much difficulty?

### **Pitfalls of Joint Programs**

There are several factors that play into the problems of joint acquisition. First, formal criteria must be developed for defining a joint program. If we go back to the DAG definition, then anytime two services plan to spend money on the same acquisition system, subsystem, component, or technology program during any phase of a system's life cycle, then it is a joint program. Second, requirements must be defined as “joint” early and they must be clearly understood by all services. Third, the urgency, or need date, for the capability should be compatible for all participants. Finally, a successful program needs to have a stable funding profile that is not subject to changes based upon each service’s priorities. Next, I will look at each of these factors in greater detail.

First, the department currently does not have a formal set of criteria established to determine whether or not a program should be established as a joint program. As previously noted, as part of the JCIDS process, a determination is made whether a requirement has joint force implications. If it is determined to have joint implications, then the DAG states, “Acquisitions that contribute to joint capabilities may be managed as joint acquisition programs.” This statement is vague and open for interpretation. If a clear set of criteria were established, then everyone would understand when the capability would be developed and procured under a joint acquisition process.

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<sup>11</sup> Defense Acquisition University, “Joint Program Management Handbook,” (Fort Belvoir, VA: Defense Acquisition University Press, July 2004), p. 20.

In addition, many programs are not deemed “joint” until later on in the acquisition process, and some have more factors that would lead to joint program success than others. Not establishing a program as joint at program initiation only increases the opportunities for problems during its lifecycle. In order for a joint program to have an opportunity for success, it should be identified as a joint program upon identification of the capability gap. If not, then requirements begin to be developed that may or may not be “joint.” Additional pitfalls for joint programs exist when the requirements are not jointly developed and approved by all services involved starting from program initiation. First, they are not always fully developed and approved for all services involved at the same time. Second, when they are not jointly developed, they may be interpreted differently by each service. Finally, developing a capability to meet all services requirements may drive up the cost of “unnecessary” capability for one service or another.

A program that highlights both of these pitfalls is the Aerial Common Sensor (ACS) program. In 2003, as the Army’s ACS program was just completing Technology Demonstration, the Chief of Naval Operations directed that the Navy enter into a joint program with the Army.<sup>12</sup> The system would allow the retirement of both the Army’s Guardrail/Common Sensor (GR/CS) and Airborne Reconnaissance Low (ARL) aircraft systems as well as the Navy’s EP-3E aircraft fleet. While the Navy considered the Army’s Operational Requirements Document (ORD) to meet approximately 98% of their operational requirements, the Army agreed to add two additional manned workstations.<sup>13</sup> The remaining Navy requirements were captured in the Navy

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<sup>12</sup> Steven Drake, “Pitfalls of the Defense Acquisition System – Experience is the Key to Success.” Research Paper (U.S. Army War College, Carlisle Barracks, PA, May 2007), p. 14.

<sup>13</sup> Ibid.

ACS ORD Annex that was not approved by the JROC until May 2004.<sup>14</sup> What the program learned was that if requirements are not jointly developed and accepted from the program inception, then differing interpretation of requirements is likely. This agreement needs to be accepted down to the requirement thresholds and objectives level.<sup>15</sup> This differing interpretation of requirements led to an inability to agree upon tradeoffs on the program when it began experiencing performance shortfalls. Ultimately, the contract was cancelled in 2005.<sup>16</sup> If this program had successfully continued as a joint program, the cost of the two additional manned workstations, that were not an Army requirement, would have driven up the procurement and maintenance cost of each of the Army's platform, as this was not a common requirement among the services.

Even when the requirements are agreed upon, the urgency of need for all participants involved may be an obstacle. If one service has a legacy system providing a similar capability, but another service does not have the capability at all, the capability need dates may not be compatible for a joint program. If one service needs the capability within the next two years, but others do not need the capability for at least five or more years, then the need dates may be incompatible. This difference in need date sometimes becomes a hurdle for a joint program's ability to maintain a stable funding profile.

By definition, a joint program has funding from two or more services. If all of the services involved do not have the same need date, then the priority for funding the program will likely differ among the services. This becomes a problem if the priority of one service decides to cut funding for a joint program due to a higher priority program or requirement elsewhere.

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<sup>14</sup> Ibid.

<sup>15</sup> Ibid, p. 29.

<sup>16</sup> Ibid, p. 17.

There may also come a time when a service decides to no longer participate in a joint program due to a change in service priorities. All of these situations can have a major impact to the stability of the funding profile on a joint program. A recommendation to solving stable funding problems would be for DoD to “fence” the total program funding in the budget and only allow a unanimous vote by all participants involved to adjust the funding level down. Close coordination would have to be made with each service and the Congress to ensure that everyone understands and supports the plan. This still may not provide a completely stable funding profile, but it would be much more stable than under the current conditions.

A program that highlights these latter two difficulties is the Joint Cargo Aircraft program. The Army had an immediate need and pressed for a fixed wing replacement aircraft, Future Cargo Aircraft, to replace the aging C-23 Sherpa aircraft providing mission relief for CH47 helicopters that were executing re-supply missions in both Iraq and Afghanistan. In 2005, the Joint Requirements Oversight Council (JROC) approved the Army’s requirement, but combined it with an Air Force future requirement that was not yet fully defined and mandated a program name change to Joint Cargo Aircraft.<sup>17</sup> In 2007, the Army placed \$113M in their annual budget to begin procurement of the aircraft, while the Air Force only budgeted for \$15M because that did not need the aircraft as soon as the Army required them. During congressional testimony, when asked about the status of the procurement, the Air Force response was that they were nowhere near ready to begin procurement. As a result, the Senate cut \$109M from the Army

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<sup>17</sup> Todd Lopez, “Air Force, Army agree on plans for joint cargo aircraft.” Air Force Print News, June 2006.

budget for the program.<sup>18</sup> The Department of Defense has since transferred the program to the Air Force and it is now managed as a single service acquisition program.<sup>19</sup>

### **Single Service Acquisition Process**

A solution to overcome some of these pitfalls is to use a single service to acquire a capability. It is not necessarily joint systems that the warfighter needs, but it is capability that is interoperable across the battlefield. If the system is truly interoperable, then it will work in a joint environment. Therefore, if a requirement is defined and approved by the Joint Requirements Oversight Council to be joint, then the single service acquisition of that capability can be leveraged to provide a system that can be used by multiple services. Unfortunately, deficiencies with the JCIDS process are making this even more difficult.

The Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3710.01G dated 1 March 2009, states, “The JCIDS process was created to support the statutory responsibility of the JROC to validate joint warfighting requirements.”<sup>20</sup> The Defense Acquisition University further states, “The Joint Chiefs of Staff established JCIDS to assess and resolve gaps in military joint warfighting capabilities.”<sup>21</sup> Because all requirements are vetted with each of the services, they have the opportunity to change a requirement if they believe that it is not capable of operating in a joint environment. Provided that requirements are defined properly and measurable test parameters are identified, then all systems currently being developed and

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<sup>18</sup> “The JCA Program: Key West Sabotage?” Defense Industry Daily, accessed on 28 September 2010, <http://www.defenseindustrydaily.com/the-jca-program-key-west-sabotage-02257/>.

<sup>19</sup> Potts, Anthony W., COL, USA, Bellows, Roderick A., “The Joint Cargo Aircraft (JCA) – Transfer of an Acquisition Category (ACAT) 1D Program to the U.S. Air Force.” *Army AT&L*, April-June 2010.

<sup>20</sup> CJCSI 3710.01G, Joint Capabilities Integration and Development System, 1 March 2009.

<sup>21</sup> “DoD Decision Support Systems,” Defense Acquisition University, accessed on 12 March 2011, <https://dap.dau.mil/aphome/Pages/Default.aspx>.

procured should be interoperable. In a Government Accounting Office (GAO) study in September 2008, they found that the JCIDS process has not yet been effective in identifying and prioritizing warfighting requirements from a joint perspective.<sup>22</sup> They concluded that continuing to approve capability proposals that lack a joint perspective cost the department opportunities to improve joint warfighting capabilities.<sup>23</sup> If this requirements definition process is not working to properly identify joint capabilities that are interoperable, then the system should be fixed.

Today, we currently have many systems that were developed and procured by a single service and yet still provide interoperable capability on the battlefield. Some of these systems are even used by multiple services. One example of such capability is the Single Channel Ground/Airborne Radios System (SINCGARS) radio system. This is a communications capability that was developed by the Army in the 1980s and first fielded in the early 1990s. Today, it is used by most vehicles on the battlefield and is employed by all services.<sup>24</sup> Another such capability is the Enhanced Position Location and Reporting System (EPLRS). This is another capability that was developed and procured by the Army and has since been adopted by the other services because of the great interoperable capability that the system provides on the battlefield.<sup>25</sup>

There are some instances where capabilities developed through single service programs may provide a common platform for other services to use with a different mission package. The H-60 Helicopters are a great example of this approach. A variant of this platform is used by the

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<sup>22</sup> Government Accounting Office Report, Defense Acquisitions: DOD's Requirements Determination Process Has Not Been Effective in Prioritizing Joint Capabilities, September 2008.

<sup>23</sup> Ibid.

<sup>24</sup> CJCSM 3320.01B, Joint Operations in the Electromagnetic Battlespace, 25 March 2006.

<sup>25</sup> Army Website, "Army's radio inventory provides depth of versatile solutions to combat scenarios," <http://www.army.mil/-news/2009/07/28/25032-armys-radio-inventory-provides-depth-of-versatile-solutions-to-combat-scenarios/>.

Army, Navy, Air Force, Special Operations Command (SOCOM) and the United States Coast Guard (USCG). They all use a common platform, but each has a unique special missions package to support their unique service requirements. The helicopter was first developed in the 1970s to support an Army requirement and was fielded in 1979.<sup>26</sup> The Air Force liked the platform capability, but had different mission requirements than the Army. Thus, they took the Army's platform and modified it with a mission support package to meet their requirements and fielded their first aircraft in 1982.<sup>27</sup> The Navy followed a similar strategy and fielded their first capability in 1983.<sup>28</sup> This strategy met the individual timelines for service need dates and also met the service capability requirements. Although each service developed and tested their own capability, the department has benefited through the multi-year procurements of these platforms. The Army negotiates and administers the multi-year contracts to buy the platforms for each of the services. In addition, the Army leads a working group that includes representatives from each of the services, as well as SOCOM and USCG. The working group shares both logistical and technical issues and benefits from shared information and common solutions to issues. All of this has been accomplished without a joint program office or joint program management processes.

### **Potential Joint Acquisition Force**

Some experts have argued that because our forces are operating more jointly, we should combine our service's separate acquisition forces into a single joint acquisition force. Many

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<sup>26</sup> Army Website, "United States Army Fact File,"  
<http://www.army.mil/factfiles/equipment/aircraft/blackhawk.html>.

<sup>27</sup> Air Force Website, "United States Air Force Fact Sheet,"  
[http://www.af.mil/information/factsheets/factsheet\\_print.asp?fsID=107&page=6](http://www.af.mil/information/factsheets/factsheet_print.asp?fsID=107&page=6).

<sup>28</sup> Navy Website, "United States Navy Fact File,"  
[http://www.navy.mil/navydata/fact\\_display.asp?cid=1200&tid=500&ct=1](http://www.navy.mil/navydata/fact_display.asp?cid=1200&tid=500&ct=1).

contend that service parochialism inhibits the acquisition of interoperable capability to the warfighter. One study goes as far as to provide two possible options for a joint acquisition force: 1) Integrate each services Program Executive Offices or their equivalent organizations into the U.S. Joint Forces Command organization modeled on U.S. Special Operations Command's acquisition and logistics organization; 2) Establish a Joint Acquisition Executive within the office of the Chairman of the Joint Chiefs of Staff.<sup>29</sup> I do not recommend pursuing either of these options.

There are several drawbacks to the establishment of a joint acquisition force under either of these two options for development and procurement of capability for our services. First, it is the services themselves that have the statutory responsibility for training and equipping their forces. US Code Title 10 would have to be changed in order for this responsibility to be given to another organization other than the services themselves. Along with the responsibility change, the funding process would also have to change, as acquisition dollars currently are allocated to each of the services. Finally, while addressing concerns with joint development and procurement, unique service requirements may be adversely impacted. There is also data from other countries suggesting that these approaches should not be pursued.

In March 2004, Center for Strategic and International Studies released results of a study called Beyond Goldwater-Nichols: Defense Reform for a New Strategic Era.<sup>30</sup> In the report, the team looked at joint acquisition approaches that were not service-centric. This study included a look at the British Defence Ministry's approach, which has joint capability managers to define requirements, and a central procurement office for all weapons acquisition. However, their

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<sup>29</sup> Theodore L. Jennings, "An Evolving Joint Acquisition Force." Research paper (Carlisle Barracks, PA: U.S. Army War College, May 2004).

<sup>30</sup> Clark A. Murdock and Richard W. Weitz, "Beyond Goldwaters-Nichols: New Proposals for Defense Reform." Joint Forces Quarterly, (Third Quarter 2005).



analysis showed that, contrary to the British approach, the services remain the single best source for coherent and integrated budgets within their respective domain.<sup>31</sup>

## **Recommendations**

Although we require joint capabilities, the “joint acquisition” process is not always the most efficient way in which to develop and procure these capabilities. We have seen several stumbling blocks that do not support the establishment of a joint program. If these stumbling blocks are properly addressed, there may be some instances in which joint acquisition programs can succeed.

If we are to use the joint acquisition process and gain the projected benefits, we must set them up to be successful from program initiation. In order to do this, I recommend that we make several changes to the joint acquisition process. First, we must develop an accurate definition for a joint acquisition program that everyone can agree upon. Second, we must establish well defined formal criteria for joint program determination. This is key to ensure that we are not just creating a joint program under the assumption that all joint programs save time and/or money. It is also critical for avoiding some of the pitfalls historically associated with troubled joint programs. Third, we must leverage the Joint Capabilities Integration and Development System (JCIDS) process that is already established to identify joint capability requirements. If a joint capability requirement is defined properly, then it should not matter whether it is procured through a joint program or a service program. Finally, we must fence funding for joint programs. This will provide greater stability for the program and give it greater opportunity for

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<sup>31</sup> Ibid, p. 36.

success. Implementation of these recommendations is a must if we are to realize assumed benefits of joint acquisition.

## **Conclusion**

As we move forward, domestic economic pressures and climbing debts will continue to provide pressures on the overall defense budgets, at least in the foreseeable future. This pressure, combined with a growing strategic demand for joint capability, forces our acquisition community to develop and procure required capability in an efficient manner. This should not necessarily lead us to seek more joint acquisition programs. While there have been some successful joint acquisition programs, many face several pitfalls not common to single service acquisition efforts. We must develop specific criteria to identify programs that would have a high probability of success if managed as a joint acquisition program. If a program does not meet these criteria, then the capability should be developed, tested and procured under a single service program. If a program meets the defined criteria, we must set the conditions early to ensure a more realistic probability of success for realizing the expected benefits of joint acquisition programs. The bottom line is the warfighter deserves a capability that is both suitable and effective in a joint operating environment. Delivering this capability at a reasonable cost and in a timely manner is a challenge that must be met, regardless of the process.

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