OVERHAULING THE AIRBORNE INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE SYSTEMS PROCUREMENT PROCESS

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USAWC CLASS OF 2011

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REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. REPORT DATE *(DD-MM-YYYY)*	2. REPORT TYPE	3. DATES COVERED *(From - To)*
18-03-2011	Strategy Research Project	

4. TITLE AND SUBTITLE

Overhauling the Airborne Intelligence, Surveillance, and Reconnaissance Systems Procurement Process

5a. CONTRACT NUMBER

5b. GRANT NUMBER

5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)

Colonel Stuart J. McRae

5d. PROJECT NUMBER

5e. TASK NUMBER

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

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Department of Command Leadership and Management

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

U.S. Army War College
122 Forbes Avenue
Carlisle, PA 17013

10. SPONSOR/MONITOR'S ACRONYM(S)

11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION / AVAILABILITY STATEMENT

Distribution A: Unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

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15. SUBJECT TERMS

UAV, UAS, Unmanned, Joint, Acquisition, Budget

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. TELEPHONE NUMBER *(include area code)*
UNCLASSIFED	UNCLASSIFED	UNCLASSIFED	UNLIMITED	32	

Standard Form 298 (Rev. 8-98)
Prescribed by ANSI Std. Z39.18

USAWC STRATEGY RESEARCH PROJECT

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ABSTRACT

AUTHOR: Colonel Stuart J. McRae

TITLE: Overhauling the Airborne Intelligence, Surveillance, and Reconnaissance Systems Procurement Process

FORMAT: Strategy Research Project

DATE: 18 March 2011   WORD COUNT: 6,166   PAGES: 32

KEY TERMS: UAV, UAS, Unmanned, Joint, Acquisition, Budget

CLASSIFICATION: Unclassified

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OVERHAULING THE AIRBORNE INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE SYSTEMS PROCUREMENT PROCESS

Case for Reduced Defense Budgets and Need for Acquisition Overhaul

Nearly every economic expert believes that the significant increase in U.S. Department of Defense (DoD) spending, which started following the September 11th attacks, will come to an end soon. With the clear need to reduce budgets smartly, the DoD needs to take a hard look at, not only cost reductions, but also new ways of doing business that are more cost effective. One lucrative area for business reform is the DoD's acquisition process, specifically programs like airborne intelligence, surveillance, and reconnaissance (ISR) systems that contain huge amounts of redundant capabilities within them.

Since 2001, the DoD budget has more than doubled from $316 billion to $693 billion in 2010[1]. Using 2010 constant dollars, the increase of the defense budget, including overseas contingency operations (OCO) and non-war supplementary costs between 2001 and 2010, has averaged 6 percent. Compared to this rate, the President's 2010 Defense budget increase of three percent and 2011 proposed budget at two percent send a significant message to the force.

Complicating the budgetary issue, the OCO funds which were only meant to support the cost of the war are likely to be scaled back significantly after the U.S. withdraws from Iraq in 2011[2] With an expected Afghanistan troop withdrawal in 2014, the over 1.1 trillion dollars of OCO funding since 2001 could come to a complete end. The DoD has come to rely heavily on these dollars, which represent nearly a quarter of

the entire budget, to underwrite, not only the cost of its war with Al Qaeda, but other ancillary costs associated with the conflict.

While monetary resources may be decreasing, war-related costs in the form of damaged equipment remain. According to a 2006 report from the Washington Post, the Army and Marine Corps have sent more than 40 percent of their ground equipment to Iraq and Afghanistan since 2001.[3] The costs of reconstituting these vehicles and repairing or replacing the thousands of vehicles that have been destroyed or damaged has jumped dramatically from a pre-war cost of 2.5 to 3 billion dollars per year to between 17 to 19 billion dollars per year for the next several years.[4]

In addition to equipment costs from the war, there remains a bill to be paid in medical costs as well. By 2008, over 1.6 million troops had deployed to Iraq and Afghanistan.[5] With over 300,000 returning troops suffering from major depression or post-traumatic stress disorder and at least 320,000 brain injuries received[6], the costs of reconstituting the force, additional military family programs, and post-deployment medical issues that have not traditionally come out of the annual defense budget will have to be paid for several years to come.

In February 2010 the President presented his proposed 2011 budget to Congress. In it, every funding line except for defense, which was increased by an additional $15 billion from the previous year's budget, was frozen. When talking to reporters afterward, President Obama remarked on this fact by saying, "Even though the Department of Defense is exempt from the budget freeze, it's not exempt from budget common sense."[7] Outgoing Chairman of the House Armed Services Committee and longtime supporter of a strong military, Representative Ike Skelton also recognized

the need for major finance reform at the DoD stating in June 2010, "The times may dictate big changes."[8]

On August 9, 2010 Secretary of Defense Robert Gates attempted to seize the initiative by announcing the Department's plan to conduct significant, across-the-board cuts in spending. In his statement he outlined a plan to cut 100 billion dollars over the next five years from the defense budget by, among other things, reducing the number of DoD contractors by 10 percent and eliminating the 4-star, Joint Forces Command in Norfolk, VA.[9]

While this is a bold move on the part of the Defense Department, it is too soon to tell if all of these things will actually take place. With over 2,800 military and civilian personnel and an additional 3,000 contractor jobs on the line, Virginia congressmen and senators from both parties have already resisted the need to shut down Joint Forces Command. Citing the 1990 Base Realignment and Closure (BRAC) Act and its requirement to use the BRAC process for closing any command with more than 999 civilian employees, Virginia lawmakers universally believe that JFCOM cannot be dismantled so easily. Virginia is a traditional key swing state in presidential elections so it is debatable whether the incumbent administration will fight for the DoD plan, no matter how appropriate it is.

The average difference in defense spending between inflection points following the Korean War, the Vietnam War, and the Cold War was 32 percent. (see Figure 1.)[10] The current proposed reduction of 100 billion dollars represents only a 14 percent decrease. Even if Secretary Gates' plan is fully implemented, based on the lessons

from past history, there will need to be more cuts.
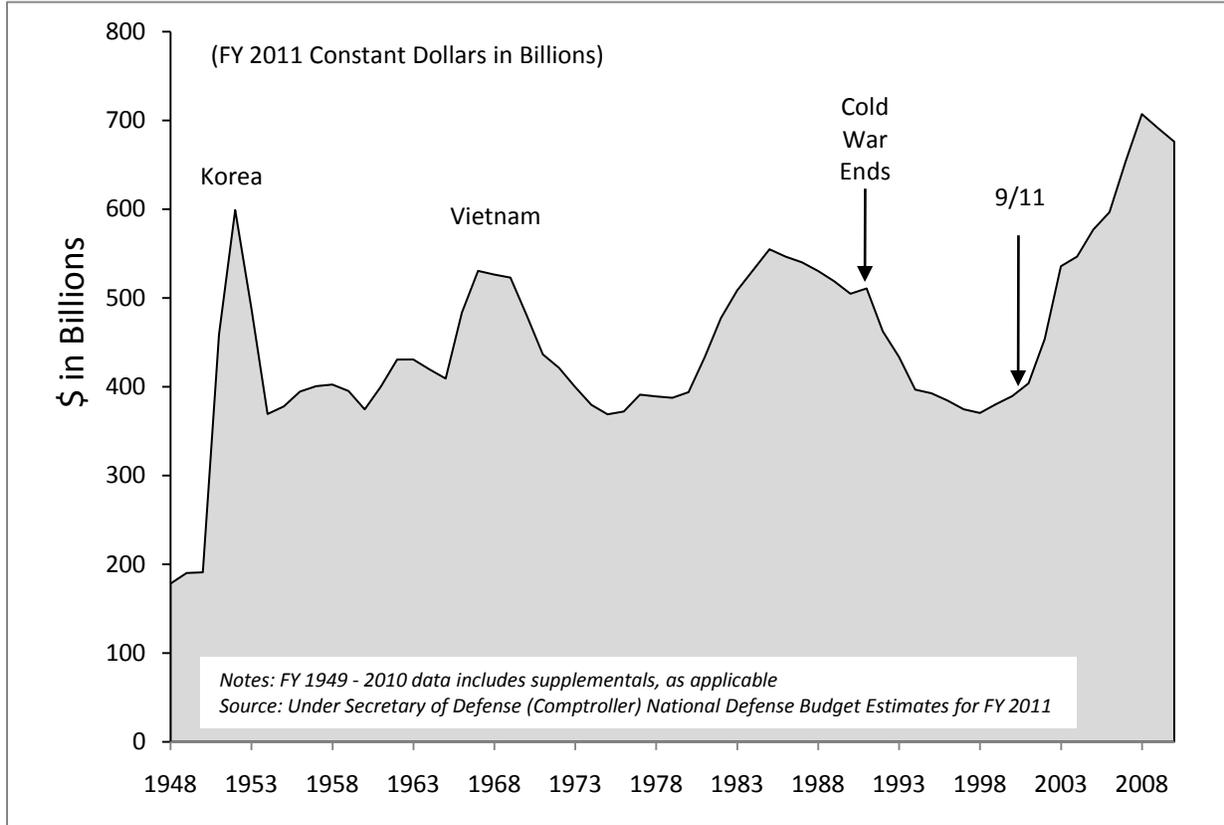
Figure 1. DoD Top-Line Budget 1948-2010

One of the most lucrative areas within defense acquisition that has considerable redundancies between the military departments is the area of airborne intelligence, surveillance, and reconnaissance (ISR) systems. Current projected budgets across DoD of over $8.6 billion for unmanned aircraft systems plus nearly $2 billion for selected, manned airborne ISR systems highlight the importance of this area to the Defense Department. Eliminating redundancies within the military departments for ISR systems could result in significant savings to DoD and the Nation. In order to see these cost benefits, Congress will need to change the law to eliminate unnecessary redundancies.

Evolution of Airborne ISR Systems

Since the development of tethered flight during the Civil War, the United States military has used airborne platforms for surveillance and reconnaissance in order to gain necessary intelligence about the enemy's operations and intentions. Over time, as the various departments have matured into the three that make up the Department of Defense today, airborne ISR programs have developed along two general lines, signals intelligence (SIGINT) and imagery intelligence (IMINT).

Typically, however, these systems tended to follow service specific requirements which were unique from one another. During World War I, as artillery developed beyond the ability of direct fire, the U.S. Army used manned aircraft to spot targets for and assess the effects of indirect fire.[11] In a similar manner, during World War II, the U.S. Army Air Forces used unarmed fighter aircraft, due to their speed, to fly behind enemy lines and conduct photo reconnaissance.[12] Over time, since World War I, the U.S. Navy has changed from using airships[13] to the multi-engine aircraft[14] of today for the mission of maritime patrolling. In the 1950s, the U.S. Air Force employed airborne systems such as the U-2, outfitted with a combination of cameras and electronic sensors, to obtain strategic level intelligence.[15] Likewise, during the Vietnam War, the Army began employing helicopters in a SIGINT role to identify and locate enemy radios on the battlefield.[16]

In the 1980s, unmanned aerial vehicles (UAVs), which had been used in varying degrees since World War I came into their own. By 1990, all of the services were experimenting with various types of UAVs. During Operation Desert Storm, the Army, Navy, and Marine Corps used Pioneer UAVs, later to be typed RQ-2s,

operationally to provide surveillance, conduct battle damage assessment, and to spot targets for naval gunfire.[17] The quality of UAV products and their ability to safely operate in particularly high-threat areas during the more than 500 sorties and 1600-plus hours flown during this conflict led to a significant embrace of the technology by the services and a desire for more unmanned aircraft capability.[18]

Due to the positive UAS experiences from Operation Desert Storm, the newly formed General Atomics Aeronautical Systems, Inc. (GA-ASI) competed for and was awarded a contract to develop the Predator UAV (later designated the RQ-1A) as part of an Advanced Concept Technology Demonstration (ACTD) in 1994.[19] With the Army in the lead for the operational testing portion of the ACTD, the initial phase of the program went from January 1994 through June 1996 and consisted of 12 air vehicles, three ground control stations, and three Trojan Spirit II Satellite terminal systems.[20] The Predators successfully proved the concept during the joint exercise Roving Sands in 1995 such that they were chosen to deploy in support of NATO operations in the Balkans.[21] Following a successful conclusion to the testing, Pentagon leadership determined that the fielded systems should go to the Air Force.[22]

By the onset of Operation Iraqi Freedom in 2003, all of the services were actively using a wide range of unmanned systems for various missions ranging from strategic to tactical. Between 2000 and 2010 the number of UAVs in the Services has grown from less than 50 to over 7,000.[23] However, as the Services sought longer loiter times and the ability to carry weapons, UAVs had to become larger to accommodate these requirements.

In striving to meet this goal, the Army established a program of record for the extended range, multi-purpose (ERMP) UAV. The system chosen for the program was a Predator variant, the MQ-1C named the Gray Eagle by the Army. This version was deemed superior to the Air Force's MQ-1B Predator, the armed version of the RQ-1A, in that it had a greater payload capability, longer endurance, and a more reliable diesel engine capable of running off the same JP-8 fuel that all other vehicles and manned aircraft in the combat zone use.[24]

Although UAVs have proven extremely useful for persistent surveillance purposes, their camera systems can only look in one direction at a time and have been likened to staring at the world through a soda straw. In order to maintain sufficient situational awareness, UAV operators need to continuously slew the camera between targets or have multiple UAVs cover the same target area. This disadvantage combined with the irregular warfare (IW) nature of the conflict in Iraq and Afghanistan has given rise to new manned airborne IMINT platforms over the past 10 years.

Manned imagery systems are not new to the U.S. armed forces. Reconnaissance aircraft have been used since World War I, but until Operation Iraqi Freedom (OIF), few platform types had been equipped with full motion video (FMV) capability dedicated to intelligence, surveillance, and reconnaissance missions.[25] For many years Air Force, Navy and Marine Corps fighter aircraft have had available to them sensor pods such as the LITENING and LANTIRN, which have FMV capability; however, these systems were not generally used for reconnaissance missions until OIF.[26]

The Army has differed from the other services in how it used manned airborne reconnaissance systems. While the other services had fast moving aircraft such as the RF-4C and the RF-101 aircraft that were capable of Mach-plus flight to outrun adversaries[27], the Army's aircraft were too slow. Consequently, Army aircraft such as the OV-1 Mohawk could use its sensors to look across the forward line of troops (FLOT) but Army doctrine required the aircraft to remain well behind friendly lines. This doctrine in many ways aided the Army in being the first to exploit the insurgency environment of Iraq and Afghanistan. The anti-aircraft threat for fixed-wing aircraft flying at medium altitudes was not critical, thus the environment allowed the Army to quickly convert civilian aircraft with camera balls and other imagery gathering equipment.

Reacting to the need to provide persistent ISR over Iraq's roadways to counter the increased threat of improvised explosive devises, the Army initiated a quick reaction program in 2006 known as Task Force (TF) ODIN, which stands for Observe, Detect, Identify, and Neutralize.[28] The task force consisted of a variety of manned and unmanned aircraft systems combined under a provisional battalion command.[29] This program was considered hugely successful and was replicated by the Army in Afghanistan.

Following the initial combat phase of operations in Iraq, in addition to their inter and intra-theater lift missions, the Air Force continued to employ fighters armed with bombs in what had become an insurgency. In early 2008, Lt Col Mike Pietrucha from the Air Force's Coalition and Irregular Warfare Center of Excellence produced a think piece entitled, "All Over the Chart: A Few Thoughts from an Irregular Warfare Perspective." In it, he opined that "the Army, via TF ODIN, had jumped into the lead

and was assuming traditional USAF roles – and was poised to assume more."[30] He went on to say that TF ODIN is what the USAF should have put into play two years earlier – except the Army did it.[31]

In response to this and perceptions of growing irrelevancy in a counter-insurgency environment, the Air Force developed a TF ODIN-like capability called Project Liberty. The project consisted of 30 aircraft rapidly deployed to bases in both Iraq and Afghanistan between 2009 and 2010 plus an additional 10 aircraft used for training within the Continental United States.[32]

Evolution of U.S. Roles and Missions for Air Operations

Roles and missions cover every aspect of the military, but are especially relevant to airborne ISR operations since every service has air assets that must be able to work together. Like siblings who don't always get along with each other, the three departments within the DoD sometimes find themselves in dispute over their place in the greater hierarchy. Nowhere is that more apparent, than between the Army and the Air Force who come from a common heritage, but often find themselves at odds over redundant capabilities.

One of the main reasons the Army has differed so often with the Air Force on traditional "roles and missions" is because of the perceived tendency on the part of the Air Force to prioritize strategic and operational objectives over tactical aims. Since so much of its success is based on its ability to win the close fight, the Army is not willing to accept anything short of a guaranteed capability for ground tactical commanders when needed. For this reason, when it comes to UAVs, the Army has invested heavily in unmanned systems redundant to those of the Air Force.

Although the Army has a long track record of using light, fixed-wing aircraft in an intelligence gathering role, its decision to purchase a UAV with Predator-like capabilities and its plan to arm it with missiles caused much concern within Air Force circles believing that the Army was violating established roles and missions of the Air Force. In 2005, the Air Force made a quiet but concerted effort to establish themselves as the Executive Agent (EA) for all UAS within the Pentagon. As the EA they would be responsible for the oversight of all DoD unmanned aircraft vehicles. Executive agency efforts would include research, development, test and evaluation activities, procurement, logistics, and training to "achieve efficiencies and gain effectiveness."[33] Because of the sensed dangers to their unmanned aircraft programs the other services universally opposed this course of action. The Army punctuated its opposition by pointing out that it was flying somewhere between 75 and 80 percent of all DoD UAV operations[34]

The Pentagon decided not to make the Air Force the EA. However, two years later in a renewed effort, the Air Force leaked an interservice memorandum signed by then Air Force Chief of Staff General Michael Moseley to Congress before the customary staffing could occur that usually precedes congressional engagement. Feeling that the issue had abated since 2005, this new initiative took Army leaders by surprise when they suddenly began fielding calls from congressional staffers on the subject.

The proposal argued that the Air Force should earn the executive agency role as part of a larger plan to "optimize" intelligence, surveillance and reconnaissance (ISR) collection in Iraq. ISR assets were in high demand. On the operational end, Moseley

would have all UAVs flying higher than 3,500 ft. operate under the control of the Combined Forces Air Component Commander (CFACC) who controls air activities throughout the entire theater.[35]

After learning of the Air Force's new proposal, the Army's G3/5/7 Aviation Director, Brigadier General Stephen Mundt was incensed. "We absolutely disagree. And every other service does too, and the Joint Staff does as well," he said, adding, "My helicopters fly above 3,500 ft. That does not mean they belong to the Air Force. Air Force airplanes fly below 3,500 ft. and that doesn't mean they belong to the ground force component commander."[36] Meanwhile, the Army's continued increase in total number of UAVs and its plans to use them as attack platforms does require reflection on where roles and missions should go in the future.

In order to resolve airborne ISR roles and missions disputes of today, it is important to understand how roles and missions have evolved since 1947. Prior to the advent of manned flight, roles and missions was not an issue. The basic physical characteristics of the planet of land and sea separated the two main services –The Army and the Navy. In 1947 with the introduction of the U.S. Air Force as a co-equal service under its own department, each of the services had to determine how operations in and control of the air would be conducted. To varying degrees every service felt a need to have an aviation capability. The challenge for military leaders and lawmakers alike was how to ensure the least redundancy in capability given the finite resources available. Very early in this debate, military leaders saw that, especially in the aviation realm, the determination of the roles and missions for aviation would drive how the departments were funded. According to Alfred Goldberg,

The military services were aware that their future would be influenced in large measure by the division of funds among them–and these funds were severely limited prior to the Korean War. After 1947, therefore, the defense dollar was one of the major factors of military life in Washington.[37]

Although money was and continues to be an influence on strategy within the Departments, it is not the sole factor. With the advent of the U.S. Air Force, there was a concern from the Navy in particular regarding the loss of its air mission–and there was precedence for this apprehension. John Correll points out that,

> Navy leaders feared that naval aviation might be lost in unification, as had been the case in Britain in 1918 when London merged the Royal Naval Air Service into the Royal Air Force. The apprehension was not completely baseless. Gen. Carl A. Spaatz, the postwar Chief of the Army Air Forces, had expressed interest in naval aviation joining the new Air Force, although he soon dropped the idea.[38]

In 1918, Great Britain's choice to consolidate the Royal Naval Air Service with the Army's Royal Flying Corps was due fundamentally to competition between the two services for critical supplies, chiefly engines.[39] Although other means to rectify the supply challenges were used by the British government between 1916 and 1917 including a Joint War Air Committee chaired by Lord Derby, along with separate Air Boards headed by Lords Curzon Cowdray, they all pointed to the same conclusion. A Short History of the Royal Air Force points out that, "All were very much concerned with the supply problems, but it became increasingly clear that some form of unity was needed if the supply problem was to be overcome."[40]

President Truman hoped the departments could find a unified solution, but when that failed to happen, in 1946, he forged ahead with his own plan which was seen by naval proponents as limiting naval air power. He stated that naval aviation should be given every "opportunity to develop to its maximum usefulness," yet land-based planes for naval reconnaissance, anti-submarine warfare, and protection of shipping should be

manned by Air Force personnel.[41] In the end, due to a counter proposal drafted by and

agreed to by the Army and the Navy, concessions were made in which the Navy was

allowed to keep its complete air service[42].

Even though it had just released the Air Force from its ranks, the U.S. Army still

had a significant stake in maintaining an independent air arm. From its experiences

coming out of the Korean War, many Army leaders felt that future conflicts would

require substantial tactical air support, including tactical airlift and did not believe that

the newly formed Air Force provided such support.[43] "Many ground commanders

continued to feel that the Army should have exercised more control over the air units.

They were supported in this belief by Marine and Navy critics, who argued that that their

own system of tactical air support was superior."[44] The Marine Corps tactical air system

had its beginnings in World War I and evolved into a doctrine in which air power was

considered an extension of Marine artillery. Current Marine doctrine states that

"aviation increases the firepower and mobility of Marine Air-Ground Task Forces

(MAGTFs) and makes up for their lack of weapons. Aviation relieves some of the

burden on ground combat units to move and carry large amounts of ordnance."[45]

The solution crafted entitled the Army to have whatever aircraft it required

stipulating that the Army would use its aircraft "as an integral part of its components for

the purpose of expediting and improving ground combat and logistical procedures within

the combat zone."[46] It defined the combat zone as "that part of the theater of operations

required for the conduct of war by the fielded forces," and understood that the combat

zone would not normally exceed 50 to 75 miles in depth.[47]

With the general understanding that the Army would not use this freedom to duplicate the already existing Tactical Air Force, the Army opted to invest heavily in helicopters as their air arm though they retained a few light fixed-wing assets for Artillery spotting, ISR, and leadership transport. The Army by and large kept to this policy until the Vietnam War in which, once again, the Army and the Air Force differed on mutual understandings of roles and missions. The Army's use of the OV-1 Mohawk aircraft, originally conceived as a photo observation and electronic reconnaissance aircraft[48], changed as the Army created a JOV-1 variant in order to conduct forward air controller functions (see Figure 2). Along with the JOV-1, the Army fielded the CV-2 Caribou and its turbo-prop successor the CV-7 Buffalo and began to perform more and more missions that the Air Force felt were its responsibility.

Army Chief of Staff Gen Harold K. Johnson and Air Force Chief of Staff Gen John P. McConnell settled the issue of intra-theater, tactical airlift with the signing of the McConnell-Johnson Agreement on 6 April 1966. By terms of the agreement, the Army

Figure 2. The Army's JOV-1 Armed Mohawk

relinquished its claim to the de Havilland CV-2, the CV-7 Buffalo, and all future fixed-wing aircraft designed to fulfill the tactical airlift role. In return, the Air Force would

relinquish all claims for rotary-wing aircraft designed and operated for intra-theater movement, fire support, and supply and resupply of Army Forces.[49]

Discussion of Issues

The issue of redundant procurement programs has not gone unnoticed through the years. Several times, Defense organization and procedures have been targeted for reform, but owing to timing, politics, personalities, or other factors, these changes have not been affected. In 1945, prior to the creation of either the Department of Defense or the Department of the Air Force, Democratic Senator Edwin C. Johnson of Colorado proposed a bill for a single Department of Military Security. In his bill he recommended six separate divisions, each with their own Under Secretary. Key to his ultimately unsuccessful bill was a separate secretariat for joint acquisition.[50]

Removing redundancies in systems doesn't always imply cost savings, but often in large programs, elimination of duplicative research and development and the reduction of personnel overhead can result in reduced expenses.

With an eye towards cost savings for these programs, one of the five guiding principles of the 2011 DoD Budget Overview is to seek joint, not single military department solutions. Specifically it says, "Where different modernization programs within the Military Services exist to counter roughly the same threat, or accomplish roughly the same mission, we must look more to capabilities available across the Services."[51]

Along the same lines Under Secretary of Defense for Acquisition, Technology, and Logistics, Dr. Ashton Carter laid out 23 principal actions within five major areas in a September 2010 memorandum to improve efficiency and reduce excessive costs.

Within the area of targeting affordability and controlling cost growth, the principle of eliminating redundancy within warfighter portfolios seeks to reduce costs,[52] but only targets redundancies within a single military department.

With the exception of Public Law 99-661 which created a unified command for special operations forces (SOF) and included the capability to conduct its own acquisition program, Title 10 of the U.S. Code places the responsibility for equipping their respective forces upon the three military departments. This is the authority upon which the military departments are allowed to purchase required equipment for their individual department based on organizational and operational necessity. Simply put, it gives each of the military departments checkbooks with which to pay for necessary equipment and the mandate to ensure they equip their forces.

Having a checkbook, however, does not necessarily mean that you are allowed to write the checks. The Joint Capabilities Integration and Development System (JCIDS) is the formal United States DoD process which generates acquisition requirements and evaluation criteria for future defense programs. In short, it is the system that serves to try and provide oversight to and eliminate redundancy from the three military departments equipping programs; it is the trust account for the services' checking accounts.

Using the Joint Staff J8/Deputy Director for Requirements (DDR) as the gatekeeper within the JCIDS process ensures a formal review to guarantee jointness in programs whenever and wherever possible. If there is an inherent flaw in this system it is that the military departments can withdraw from agreements if they are willing to proceed unilaterally on a program. According to Mr. Dyke Weatherington, Deputy

Director, Unmanned Warfare in the Office of the Under Secretary of Defense

(Acquisition, Technology and Logistics),

> Although agreements are made within the constraints of the JCIDS process, in the end, when resources are constrained, it's difficult to keep teams together. Often one service or more will drop out of a joint procurement program leaving its partner to go it alone.[53]

Although cost savings can be found at the macro level, one military department

or the other will often end up paying for attributes that it doesn't need or want and will

opt out of the program. Currently, there exist few incentives to make a military

department stay in a program once it has committed to it in the Joint Requirements

Oversight Committee (JROC).

In the nine years since the attacks on the World Trade Center and the Pentagon,

Overseas Contingency Operations have spawned an innumerable number of manned

and unmanned airborne ISR assets and programs most of which are designed to

primarily provide reconnaissance, surveillance, and target acquisition (RSTA). One has

to go no further than a local Wal-Mart store and see more than 50 active camera

systems operating to illustrate the wide spread use of this technology in a nonmilitary

setting. The insatiable desire in a combat theater for persistent surveillance exists for

the same reason it is popular in the business world. RSTA provides leaders with real

time information to make strategic decisions.

Most of the manned systems were built on already existing C-12C and D model

aircraft, some over 30 years old and nearing the end of their lifespan. Due to the high

operations tempo of the TF ODIN aircraft, replacements will be required soon. The

Army is now looking at purchasing aircraft to replace the aging Medium Altitude

Reconnaissance and Surveillance System (MARSS) planes with an enhanced version

or EMARSS. Cost estimates for these systems range up to $29.5 million per aircraft.

Project Liberty consists of nearly 40 aircraft and cost estimates are around $950 million

due to the sole-source nature of the contract. "Speed is of the essence," according to

Brigadier General Blair Hanson, Director of ISR Capabilities for the Air Force, was the

guiding principle behind the decision to only use one supplier.[54]

The Joint Unmanned Aircraft System Center of Excellence (JUAS-COE)

CONOPS groups unmanned aircraft systems into five different categories based on

weight, operating altitude, and speed. All of the military departments have UASs in

several of the categories. In many cases, considerable redundancy exists in these

systems. For example, the Army's Gray Eagle system is, in reality, a heavy fuel engine

version of the Air Force's Predator A, as both systems are manufactured by the same

company – General Atomics. Each program was developed independently and each

required separate testing, despite the fact that both programs came through the same

contractor.

The main reason these redundancies exist in these manned and unmanned

programs is that the Army lacks confidence in the Air Force's commitment to maintain

these programs and have them available when and where the Army needs them.[55]

Critics say, "The U.S. can't afford the trend of building parallel fleets of Army and Air

Force aircraft."[56] A spokesperson for the Office of the Secretary of Defense, said in

defense of this practice, "In many cases, the services have common configurations

even though their requirements and mission areas are different."[57] However, one

congressional staff member said the statement that the military departments have

common configurations tuned to specific requirements and mission areas "is the

standard canard used by the services to justify duplicate capabilities."[58]

Separate missions and requirements may require duplication in procurement, but

with similar aircraft series that are similarly equipped there is little need for redundant

research and development (R&D) efforts. Yet, all too often, that is what occurs. The

MQ-1A Predator and the MQ-1C Gray Eagle UAV programs are good examples of this.

Using 2010 constant dollars, between fiscal years 1994 and 2011, the Air Force's

Predator program spent over 645 million dollars in R&D.[59] Starting in 2004; the Army's

Gray Eagle program spent just over 625 million dollars.[60] This is largely due to the

resistance between the two departments in coordinating with each other. As he left

office in 2009, former Undersecretary of Defense for Acquisition, Technology, and

Logistics John Young was critical of both the Army and the Air Force for simply not

communicating with each other on the two similar UAV programs.[61]

Courses of Action

Congress or DoD should take action to reduce the redundancy in current

programs and restore confidence that the systems purchased are fitting a unique niche.

Aside from the option of doing nothing, three main courses of action provide alternatives

for consideration:

The first course of action is to require the military departments to adhere more

rigidly to agreements made in the JROC; empower a joint organization with the

necessary authorities to direct what programs are purchased and how they are

purchased for all the military departments; or establish executive agency for

procurement of all airborne ISR for the military departments with one of the departments.

The first course of action requires significant overhaul of the JCIDS process and may require Congress to adjust the way that money is allocated to the military departments for procurement. Circumstances can change requiring a need for corresponding flexibility in the systems that are purchased, but no mechanism exists to force the military departments to work together and find acceptable compromises.

In 2006, the Navy withdrew from a joint program to modernize and merge the Army's RC-12 and the Navy's EP-3 systems with the Aerial Common Sensor platform. Their decision was based on their preference for a different platform than the one the Army favored. Proceeding alone has resulted in program delays for both services and significantly higher costs for redundant capabilities.

The second course of action would be for procurement of airborne ISR systems to be done by an organization other than the Departments. The types of organizations suitable for this course of action could include an existing joint headquarters or agency or it could be a headquarters created solely for this purpose. Having an independent organization arbitrate what each of the military departments can and cannot purchase may result in each department having to accept some capabilities that they did not want in order to accommodate the needs of every service but will likely result in overall cost savings to the DoD. This option requires a significant change to Title 10 in order to transfer control of these dollars to a joint headquarters. There are many ways this can be done.

A JROC memorandum in 2005 established the Joint UAS Center of Excellence (JUAS COE) to provide joint unmanned aircraft oversight and to serve as a unifying process for operational issues. As a designated command, it was authorized personnel and funding. It met its initial requirements and continues to provide joint operational solutions. Although, as a result of the decision to close Joint Forces Command, the JCOE is slated for closure in 2011, it contains the requisite unmanned systems representation and expertise from each of the Services to provide appropriate joint oversight. This organization was not set up to oversee procurement issues, but given the proper new authorities and procurement expertise, it could provide that function very well.

Another option exists in USSOCOM's Center for Special Operations Requirements and Resources, an organization with a proven track record of joint purchasing experience. Leveraging their familiarity in joint acquisition programs by vesting them with greater authority could provide for acceptable joint solutions to the military departments at a lower cost at the DoD level. Although a successful joint procurement agency, by expanding its responsibilities, could distract it from its core mission to support US Special Operations Command.

Still another option would be to create a joint organization from scratch, as was done in 1993 with the creation of the Defense Airborne Reconnaissance Office. Responsible for senior management attention, oversight, and acquisition expertise for airborne reconnaissance systems, it served until its functions were transferred to the Defense Intelligence Agency in 1997.[62] It consisted of just over 100 personnel, both DoD and contractors, who were responsible for overall budget preparation and

oversight for the Defense Airborne Reconnaissance Program. This shows that an essentially joint organization does not have to be large while providing unbiased leadership for programs where there is inherent mistrust between the military departments.

The third course of action would be to tie the financial authorities to the Joint Staff. This would allow the consolidation of effort at one location within the Pentagon, but has several negative aspects. First, if involved in procurement issues, the perception of the Joint Staff as inherently non-partisan might be compromised, making it less effective in other matters. This possible perception of bias could obscure the Joint Staff's legitimacy when they are called upon to resolve department differences at the Joint Chiefs of Staff level. Additionally, since the Joint Staff is the highest level for joint planning and execution, making it the primary decision-making body does not allow for any appeals from the Services if the decision made is felt to be improper.

The final course of action proposed has been presented many times in the past, but, due to the inter department mistrust that exists regarding this issue, has never come to fruition. Nevertheless, it is a viable option. If one department was vested as the executive agency (EA) for all airborne ISR procurement, it could eliminate the redundancies that currently exist. Due to the fact that one department would control the purse strings, however, this solution would always be viewed as skewed to the department designated as EA.

Recommendation

The Department of Defense and the United States would best be served with a joint headquarters solution. Particularly, since the vast majority of funding in this area is

in the unmanned arena, an organization like the JUAS-COE is particularly well suited for this role. A joint headquarters organized for this role is able to determine each military department's procurement requirements in terms of both the joint and service oriented concept of operations (CONOPS) and it is extremely familiar with all unmanned programs. Given the similar mission of Project Liberty and Task Force ODIN to those of unmanned aircraft systems, a joint headquarters can very easily add manned airborne ISR programs to their portfolio. The broader implications of this recommendation are significant and should be thoroughly studied prior to acting. This decision would fundamentally change the way in which we have always funded acquisition. With the exception of the decision to authorize USSOCOM its own ability to procure equipment, no other joint headquarters has ever been in control of procurement funding. Doing so would require a change to public law, specifically the Title 10 authority for service procurement within each department. Changing the system will not be a simple process since there is equipment unique to each Service that might not be appropriately managed under a joint procurement policy. However, if the government is to effectively deal with the burgeoning cost of defense, it must be willing to rethink how it operates.

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