[H.A.S.C. No. 112–87]

FISCAL YEAR 2012 COMBAT AVIATION PROGRAMS UPDATE

HEARING

BEFORE THE

SUBCOMMITTEE ON TACTICAL
AIR AND LAND FORCES

OF THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES

ONE HUNDRED TWELFTH CONGRESS

FIRST SESSION

HEARING HELD
NOVEMBER 2, 2011

U.S. GOVERNMENT PRINTING OFFICE
71–526 WASHINGTON : 2012

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FISCAL YEAR 2012 COMBAT AVIATION PROGRAMS UPDATE

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES,
Washington, DC, Wednesday, November 2, 2011.

The subcommittee met, pursuant to call, at 2:38 p.m. in room 2119, Rayburn House Office Building, Hon. Roscoe G. Bartlett (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. ROSCOE G. BARTLETT, A REPRESENTATIVE FROM MARYLAND, CHAIRMAN, SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES

Mr. BARTLETT. The subcommittee will come to order. The Tactical Air and Land Forces Subcommittee meets today to receive testimony on Navy, Marine Corps and Air Force combat aircraft programs.

I would like to thank our witnesses for being here today. They are Vice Admiral Mark Skinner, a Principal Military Deputy to the Assistant Secretary of the Navy for Research, Development and Acquisition; Lieutenant General Terry Robling, Marine Corps, Deputy Commandant of the Marine Corps for Aviation; Rear Admiral Kenneth Floyd, Navy, Director of the Air Warfare Division, the U.S. Navy; Lieutenant General Herbert J. Carlisle, U.S. Air Force, Deputy Chief of Staff for Operations, Plans and Requirements; Major General Jay Lindell, Air Force, Director of Global Power Programs, Office of the Assistant Secretary of the Air Force for Acquisition.

This is the third in a series of hearings we are holding for the purpose of updating our Members on the budget request for fiscal year 2012. The potential impact of the Budget Control Act of 2011 on our military capability is a major concern of this subcommittee. Today we will address combat aviation programs to hear from our witnesses about potential impacts of budget decisions on our deterrence and combat capability. It would be better had the Department of Defense provided the Services an updated national military strategy and a projection of resources likely to be available so the Services could better plan their programs. Absent this, hearings such as this might be described as an exercise in futility, because we do not know what the national strategy is, and we have no idea how much money we will have to prosecute that strategy.

As I stated before, major reductions in the Federal budget need to be a major element of correcting the Federal deficit. The Department of Defense must share in a fair and balanced way in those reductions, and that process is already taking place under the

Budget Control Act of 2011 with nearly $500 billion in cuts planned for DOD [Department of Defense] over the next 10 years.

Under the sequestration provisions of the Budget Control Act, further cuts, up to a total of $1 trillion over 10 years, could be possible under what Secretary Panetta has called the "doomsday mechanism." Indeed, the Air Force statement for this hearing warns that "reductions imposed by the implementation of sequestration rules would have a significant adverse impact on the ability of the United States Air Force to perform the missions to which it is presently assigned."

We have much to cover today, but a major issue is the strike fighter aviation in the Navy, Marine Corps and Air Force. Much of the future of America's strike fighter aviation hinges on the development and production of the F–35. Through September, overall, the F–35 program, based on the current revised schedule, is ahead of the number of flight test hours and achievements of test points for the F–35A and the F–35C planned for calendar year 2011. The F–35B is slightly behind those benchmarks thus far; however, the F–35B recently completed its initial development sea trials aboard the USS *Wasp*, which reportedly went quite well. But the F–35 program continues to experience additional costs from the elements of concurrent development and production activities, and we continue to feel both the financial effects and the operational effects of this concurrent program. Projecting the costs related to concurrency have proved challenging.

Although funds were appropriated in April for fiscal year 2011 F–35 aircraft procurement, the contract for those aircraft has not been completed between the Government and the contractor. We understand that one of the major reasons for there not yet being a signed contract for fiscal year 2011 is the inability for the Government and the contractor to agree on what the concurrency costs are likely to be, whether these costs should be shared, and, if shared, how should they be shared.

Funding for 35 F–35 aircraft was appropriated for fiscal year 2011, but we understand the Department is likely to procure only 30 aircraft because some funds will be required to pay for cost overruns in the first three production lots and to potentially pay for concurrency modifications expected for the fiscal year 2011 aircraft.

Although four of the first operational F–35A aircraft were recently delivered to Eglin Air Force Base, we understand that there is some disagreement within the Department of Defense on whether the operational F–35A aircraft at Eglin Air Force Base are ready to begin an operational utility evaluation that would assess the readiness of the F–35A to begin a training program beyond an initial cadre of operational pilots. We understand that this evaluation had been scheduled to begin this month. Some say there are safety concerns; others say those concerns have been addressed. We hope our Air Force witnesses today can help us understand when the Air Force plans to begin the F–35 operational utility evaluation.

Additionally, most Members will recall that at our National Guard and Reserve component hearing on October 12th, General Wyatt, the Director of the Air National Guard, testified that he had not received the plan for recapitalizing the Air National Guard's fighter fleet, which is of particular concern to those units con-

ducting Aerospace Control Alert missions. As a result, Mr. LoBiondo and I formally requested that the Secretary of the Air Force provide both the committee and General Wyatt with a comprehensive plan before the end of this year for modernizing the Air National Guard's Aerospace Control Alert mission fleet and applicable fighter wings. We hope our witnesses can provide us with an update on the progress of that effort today.

Before we begin, let me call on the ranking member of the subcommittee, Mr. Reyes, for his opening remarks.

[The prepared statement of Mr. Bartlett can be found in the Appendix on page 25.]

STATEMENT OF HON. SILVESTRE REYES, A REPRESENTATIVE FROM TEXAS, RANKING MEMBER, SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES

Mr. REYES. Thank you, Mr. Chairman. And thank you, gentlemen, for joining us here this afternoon.

Today's hearing on combat aviation programs occurs just as the Pentagon is weighing some major strategic decisions that could greatly impact aircraft programs. Among those decisions are how much we are willing to invest in maintaining our current dominance in the air.

No other nation in the world can match us today in terms of our capability to project air power, so most didn't even try. For example, in Afghanistan today, U.S. commanders get close air support—aircraft cover over any target in less than 15 minutes. That remarkable capability doesn't just happen, it requires an array of tanker aircraft, combat search and rescue, communications, and other systems all working in concert.

The United States also fields hundreds of unmanned systems that didn't exist back in 2001. The intelligence provided by those platforms has become an essential part of almost all ground operations in Afghanistan. However, this dominance is not permanent. China, Russia and other nations are developing systems to challenge our current dominance, and in a future conflict, we may not be able to operate like we can today in Afghanistan. So the Air Force, Navy and Marine Corps face the challenge of maintaining today's forces in combat while also laying the groundwork for the future.

In the area of air power, finding this balance can be extremely difficult because it takes many years to design, to field and to learn how to operate new aircraft.

This hearing will also cover DOD's largest single acquisition program, the F–35 Joint Strike Fighter, as the chairman mentioned. Based on testimony, budget documents and reports received by this committee, it is clear that the program is facing significant development challenges. However, despite the program's challenges, I want to go on record as saying I support it. I support the program because in the future there is a very good chance that our military will have to overcome sophisticated air defense systems, and the only way to do that is with a combination of fifth-generation stealth aircraft and other advanced systems.

If we walk away from the F–35 program, we simply won't be able to project power in many areas of the world in the future. To me

that possibility is not acceptable. So I think it is critical that we find a way forward with the F–35 that gets us what we need, which is an affordable fifth-generation aircraft that we can procure in large numbers. That might require changing the program to some degree, but the program has to move forward because the threat to continued American dominance in the air is real, and it is growing. So I look forward to today's hearing and hearing the testimony of our witnesses.

And with that, Mr. Chairman, I yield back.

[The prepared statement of Mr. Reyes can be found in the Appendix on page 28.]

Mr. BARTLETT. Thank you very much.

Without objection, all the witnesses' prepared statements will be included in the hearing record.

Admiral Skinner, please proceed with your opening remark, and you will be followed by General Robling, Admiral Floyd, General Carlisle and General Lindell.

STATEMENT OF VADM W. MARK SKINNER, USN, PRINCIPAL MILITARY DEPUTY TO THE ASSISTANT SECRETARY OF THE NAVY (RESEARCH, DEVELOPMENT, AND ACQUISITION), U.S. NAVY; LT. GEN. TERRY G. ROBLING, USMC, DEPUTY COMMANDANT OF THE MARINE CORPS FOR AVIATION, U.S. MARINE CORPS; AND RADM KENNETH E. FLOYD, USN, DIRECTOR OF THE AIR WARFARE DIVISION, U.S. NAVY

Admiral SKINNER. Chairman Bartlett and Ranking Member Reyes, distinguished members of the committee, it is our honor to appear before you today to discuss the Department of the Navy's aviation procurement programs. My oral remarks will be for myself, Lieutenant General Robling and Rear Admiral Floyd. Testifying alongside me today as we did on March 15th are my colleagues, and with the permission of the committee, I propose to keep our combined Navy and Marine Corps oral remarks brief and submit our combined statement for the record. Following our remarks, General Carlisle will provide opening remarks for the Air Force.

For the past 100 years, naval aviation has combined innovation, commitment and courage to build a versatile and formidable force providing this Nation's global presence from the sea and from the air. The President's fiscal year 2012 budget requests funds to develop, procure and sustain naval aviation to meet an ever-changing and complex threat. Many of our existing legacy aircraft and tactical systems are nearing the end of their service life or will not meet tomorrow's threat.

We also recognize our Nation is in the midst of a financial crisis, and we are committed to working more efficiently and cost-effectively in this budget-constrained environment. All areas of the budget are being reviewed, and as the Secretary of Defense has stated, nothing is off the table.

We firmly believe reductions must be implemented thoughtfully, strategically and ever mindful of the lessons of the past. We must not sacrifice the development of advanced technologies and capabilities, procurement of aircraft and integrated systems, and sustainment of the fleet. We will meet our Nation's budget chal-

lenges by integrating better buying-power initiatives and should-cost parameters early in a program's development where tradeoffs can make the most difference in lifecycle costs, and changing contract structure and types, ensuring we get the most product for the warfighter. We are targeting affordability in development, procurement and sustainment. We will ensure that over the next 100 years, we will be as successful as we have been in the past, and remain committed to maintaining our Navy as the world's preeminent maritime force.

It is our privilege today to testify before you, and we look forward to answering your questions.

[The joint prepared statement of Admiral Skinner, General Robling and Admiral Floyd can be found in the Appendix on page 29.]

Mr. BARTLETT. Thank you very much.

Our hearing room is not equipped with the world's best microphones, so for best results, if you will hold it very close and speak directly into it.

General Robling.

General ROBLING. Sir, we are going to use Vice Admiral Skinner's remarks as the statement. I think we can go on to the Air Force.

Mr. BARTLETT. General Carlisle.

STATEMENT OF LT. GEN. HERBERT J. CARLISLE, USAF, DEPUTY CHIEF OF STAFF FOR OPERATIONS, PLANS AND REQUIREMENTS, U.S. AIR FORCE; AND MAJ. GEN. JAY H. LINDELL, USAF, DIRECTOR, GLOBAL POWER PROGRAMS, OFFICE OF THE ASSISTANT SECRETARY (ACQUISITION), U.S. AIR FORCE

General CARLISLE. Chairman Bartlett, Ranking Member Reyes and distinguished members of the subcommittee, thank you for the opportunity to provide an update on Air Force's tactical rotary wing and intelligence, surveillance and reconnaissance aviation programs. I am joined this morning by my good friend Major General Jay Lindell, the Director of Global Power Programs for the Office of the Assistant Secretary of the Air Force for Acquisitions.

With your indulgence, Mr. Chairman, I would like to take a moment to recognize this true patriot, Jay Lindell, who is retiring later this month after 33½ years of dedicated service to our country. Since July 1, 1974, the first day Jay and I actually met each other as freshmen at the U.S. Air Force Academy, it has been my distinct honor and privilege to serve beside this great American.

Thank you, Mr. Chairman. I appreciate that opportunity.

Today the Air Force is fully engaged in operations around the globe supporting the joint fight while simultaneously maintaining our homeland presence in support of Operation Noble Eagle. I could not be prouder of the work our airmen are doing. Just last week General Schwartz presented the Air Force Cross to a combat controller, Staff Sergeant Robert Gutierrez. Although critically wounded, Sergeant Gutierrez continued to direct multiple strafing runs that resulted in the elimination of a high-value target and no American casualties. His story captures the effect air power can bring to the fight. When dedication, professionalism and courage

are paired with technology, there is no limit to what we can achieve.

This story is indicative of what airmen do on a daily basis and how our technical powers can be leveraged against a potential enemy. It is imperative that we maintain that edge through our modernization and acquisition programs. We look forward today to discussing how we can satisfy these requirements in an incredibly fiscally constrained environment to support this great Nation.

Major General Lindell and I thank the subcommittee for allowing us to appear today and for your continued support to our airmen, their families and our entire United States military. We look forward to answering your question, Mr. Chairman.

[The joint prepared statement of General Carlisle and General Lindell can be found in the Appendix on page 47.]

Mr. BARTLETT. Thank you very much. And thank you all for being here.

As is my usual habit, I will reserve my questions until last, hoping that they will have all been asked by other members of our subcommittee.

Mr. Reyes.

Mr. REYES. Thank you, Mr. Chairman.

Thank you for your testimony. I guess I will start off by asking a very basic fundamental question, but very important question, because most of us on this committee are very concerned that if the committee of 12 [Joint Select Committee on Deficit Reduction] does not come to some agreement that gives us an opportunity to vote, then automatically sequestration will take place. So if I can ask each one of you to paint a picture of exactly what will happen if, in fact, we don't get an agreement and we have to go to that sequestration process. And remember, we want to know exactly what areas, and what programs, and what capabilities are going to be impacted by that across-the-board cut.

Admiral SKINNER. Well, sir, I will lead off. Sequestration, as we understand it, would result in 5- to $600 billion of additional cuts to the Department of Defense budget. Certainly from an acquisition perspective and the way that the cuts would be implemented across our multiple accounts, it would be difficult to maintain certain of our acquisition programs. So we are looking at those contingencies now. As I mentioned in my opening statement, all of our programs are on the table to take a look at that.

We know, though, from just a general nature that certainly we would have changes in our major acquisition programs, perhaps layoffs in our civilian workforce, and our industrial base would feel the impact of that. We would have contractual implications, perhaps breaking multiyear contracts and things of that nature. So sequestration from an acquisition perspective, at least from the Department of the Navy, would have serious consequences.

Mr. REYES. What kinds of operational consequences would it create for the Navy, for instance, in terms of being able to deploy, keep a presence in all of the different strategic parts of the globe?

Admiral SKINNER. Well, from an operational perspective, certainly as we took cuts across our readiness accounts and our sustainability accounts, that would have an impact on how we deploy, but until we got the idea of how much those cuts would be and

then take a look at some of our contingency plans, to give you specifics would be difficult at this point in time. It is predecisional until we put the budget together and present it here to the Hill in February. But certainly with the defense cuts that we have taken to date, the cuts imposed by sequestration would have an impact on our budget.

General ROBLING. Ranking Member Reyes, thank you for that question. I think all of the folks at this table will have a similar answer because we have all been going through budget drills for the last 6 to 8 months on the current budget problem that we are facing. And the chairman said $500 billion. I can tell you $500 billion for DOD, while we understand that that is, you know, a part of what we need to do for our Nation, to take those cuts is very difficult. It is painful.

The Commandant of the Marine Corps went through his own Force Service Review Group, Structure Review Group. He decided on a middleweight force that would be 186,800. That included 24 battalions, 21 Active Duty squadrons, 3 Reserve squadrons, 16 vertical-lift squadrons, 8 heavy-lift squadrons, and 8 HMLA [Marine Light Attack Helicopter] squadrons, along with, as you know, the EFV [Expeditionary Fighting Vehicle] was cancelled, and we are looking for a replacement for that at the ACV [Amphibious Combat Vehicle]. So when you talk about sequestration going well below or past those $500 billion cuts, starts not only cutting into capacity, but it also cuts into capabilities.

I think Marine Corps plays at both ends of the spectrum, both the high—even though we are the middleweight force, we play at the high end of the spectrum, and some of the op plans out in the Pacific Asia area, and, of course, out in the Middle East right now, and then, of course, the low end where we do security cooperation, and COIN [Counter-Insurgency] operations and those kind of things.

So I think further cuts will be very, very difficult for the Marine Corps, and it will be a widely different Marine Corps than you have right now.

Admiral FLOYD. Thank you for the question, sir. And I echo my seniors' comments that they just made. I know it is frustrating, it is difficult to be specific not knowing exactly what the numbers come to be, but we know that it is going to be very—a significant impact across the board in amount of presence in our force structure, in our readiness, our training, shore infrastructure, travel, all the way through to personnel, which will be major impacts. So I think that that is—that would be kind of my thoughts on it based on what we have already heard.

General CARLISLE. Thank you, Member Reyes. Thanks for the question. Again, as my good friend Terry Robling said, we will all probably pretty much say the same thing.

We are still struggling with the current cut, the $450 billion cut that was laid in as part of the top line of DOD. We haven't got there yet, and it is incredibly challenging to get to that level. To think of something that would be a next level above that at even a greater reduction, the specifics would be draconian, in our opinion.

Our Chief will tell you that when you look at the range of military operations that we all participate in, by definition the $450 billion cut, we will be able to do a lot less of that. Our capacity across the United States military will go down with the current budget that we are trying to struggle with for 2013. The comment that our Chief and Secretary make often is if you think of last March when we were in Afghanistan and Iraq, we are doing a swap-out of some pretty big combat power there. At the same time we are supporting our Japan neighbors with their earthquake and tsunami, and we started operations in Libya. It is entirely possible when this budget goes into effect, we couldn't do that again. If that happened in 2015, we probably couldn't do what we did this past March.

If we go into the sequestration, the question that we are struggling with within the Air Force is what are we going to stop doing? What of that range of military operations—because if we take capacity down across the board, eventually none of it will be effective. We will get to such a small capacity that we can't really accomplish the missions that we are given, so we would have to pick mission areas and stop doing them. You also heard our Chiefs talk about if we got to that point, we would have to take entire fleets of airplanes down. Instead of just a few of a bunch of different types, we would have to take an entire—potentially an entire fleet down. So when we think about sequestration, we think about things that would be asked of us in the future that we would no longer be able to do.

General LINDELL. Ranking Member Reyes, if I could just restate what Secretary Donley has commented, that we will definitely be a less capable, less modernized, undermanned and used the term "hollow force." And a hollow force means that when General Carlisle and I started flying jets in our Air Force—and we entered at the same time as he commented, in 1980—when we were on Active Duty in a mission-ready squadron, there was a 50 percent chance when we stepped to our jets that we would get in the air. And that was due to lack of parts, lack of engines, lack of ability to maintain the aircraft. So when we start talking about this sort of cuts that we have all commented on and potentially a hollow force, we are talking about a much less capable Air Force.

Mr. REYES. Thank you, gentlemen, for that candid assessment. I yield back, Mr. Chairman.

Mr. BARTLETT. Thank you.

Mr. LoBiondo.

Mr. LOBIONDO. Thank you, Mr. Chairman, very much. And I would like to start off by echoing what my colleagues have said and thanking you for your many years of service to our Nation and your leadership that you have provided.

Generals Carlisle and Lindell, as Chairman Bartlett indicated, he and I sent a letter to Secretary Donley last week outlining our concern for the lack of a formal plan to recapitalize the Air National Guard's Aerospace Control Alert mission fighter jet fleet. It is an issue we have been talking about for years and years and years, and we are trying to zero in on this for what we think is the sake of the Nation.

With that said, we have requested that Secretary Donley present this subcommittee and General Wyatt with a hard copy version, not a promise that there is a plan, but something that we can actually look at and something that we can actually read to address this issue by the end of the year. I am hoping and assuming that this issue is already being discussed, and if that is so, is it possible to give us some insight into what we can expect to see in this plan with respect to the number of ACA [Aerospace Control Alert] units in the Air National Guard, and should the Air National Guard expect to have to maintain—how do they do this in the outyears? I will start with those two. I have got a series of follow-up questions. I will see how my timing goes.

General CARLISLE. Congressman LoBiondo, thank you very much for that question. In fact, I understand exactly what you are talking about. We very recently had a very in-depth work with—in a fairly high-level meeting that was just this past week with the Secretary, the Chief, the Director of the Air National Guard, the Director of the National Guard. General McKinley was there, General Stenner was there. And that is exactly the point we got to, and that is how we are going to modernize across the National Guard as well as the Air Force Reserve, how we are going to maintain that capability as the Reserve fleet for the United States Air Force.

You will hear in the not-too-distant future the announcement of the plans of probably close to 350 airplane service life extension program for the F–16 fleet, as well as the modernization program for the F–16 fleet. As you well know, in the 2012 budget, there is money to do a service life extension program, to start the RDT&E [Research, Development, Test and Evaluation] and buy the first three ship sets, and also start doing the RDT&E on the avionics upgrades to these airplanes as well.

So that plan is, in fact, as you had asked for, sir, is being worked very diligently, and how those—based on what we believe, we will have—the other thing that will aid this is the integrated master schedule for the F–35 program is—will be out fairly shortly, combining the F–35 with the SLEP [Service Life Extension Program] of the F–16s and how we are going to integrate the F–35 into the Guard and Reserve, as well as how we are going to modernize the legacy fleet of the F–16s.

So the answer is, yes, sir, we will. As you well know, again, there is 18 ACA sites, and 17 of them are Air National Guard, and that is the plan that we are taking forward.

Mr. LOBIONDO. These preliminary options that may be on the table are extremely important for newer upgraded iron into these strategic wings. Obviously like the 177th that I represent and beyond the latest service life extension program, there is questions about how far we can go with that, what we can do with that, the modifications and upgrades, and, you know, in the event of reductions to the Air National Guard entire jet inventory, there are a lot of moving parts here which we have no understanding of how it comes together to present us with a comprehensive plan, and that is the anxiety that I am feeling here.

General CARLISLE. Yes, sir. There are a lot of moving parts, which, as you just stated, makes it incredibly difficult to get to the specifics, but we are working towards that to get that plan laid out.

We are doing a full-scale fatigue test on the F–16 to determine those SLEP parts and what the life availability is in those airplanes and the avionics upgrade as well. And the F–35 program and what that integrated master schedule looks like will be a big part of that, as well as some of those airplanes clearly are going to go to the Air National Guard, and they are going to Burlington already, and there will be more as well.

Mr. LOBIONDO. And, Mr. Chairman, I will have additional questions on the next round, but that is part of what worries me, because the F–35 continues to slide to the right. We continue to figure them in in what the Air National Guard is going to be able to do, and I think it might be a little bit of a false hope that we are going to get to any of those numbers that will make a difference unless you all can present something that makes some sense.

And, Mr. Chairman, I thank you, and I will look forward to the next round.

Mr. BARTLETT. Thank you.

Mr. Critz.

Mr. CRITZ. Thank you, Mr. Chairman.

And thank you, gentlemen, for testifying and for your service to our great Nation.

I have sort of an in-the-weeds question for you, General Carlisle and General Lindell. I read or saw where we are going to be—you are going to be retiring "Hueys" that serve combat search and rescue and also domestic programs, and that you are moving into more of a heavy platform to do combat search and rescue and a commercial-off-the-shelf for the more domestic. Now, is this a change in direction that you are going from one platform to two? And what is the plan going forward? I don't truthfully understand.

General CARLISLE. Thank you, sir. Thanks for the question, sir.

There are two airplanes now. The HH–60 does the combat search and rescue, and the "Huey" does the domestic in support of the nuclear fields as well as here. We are doing Ops Loss Replacement for the—for the HH–60s that we have lost in combat to get that fleet, at least to be able to sustain until we get a new combat search and rescue. There is a program for a new combat search and rescue airplane, and there is also a full and open competition of a commercial-off-the-shelf airplane for the domestic mission to include the nuclear field as well as here at Andrews.

So there are two programs, and there are two airplanes today. The bids will allow people to bid for either one of them or both of them together. So we are going to design the program and give them that flexibility if we can.

Mr. CRITZ. Okay. Thank you. It was my misunderstanding then.

Going back to what Mr. LoBiondo started into was the Joint Strike Fighter moving to the right. Now, obviously delays in Joint Strike Fighter development are going to mean that you are going to have to keep legacy aircraft on board longer and used longer. Now, I was just down—and I am going to butcher the name. I say Beaufort. Is it Beaufort? Beaufort, General Robling?

General ROBLING. It is Beaufort.

Mr. CRITZ. Beaufort. And I saw where a new hangar was being built for the F–35, and they are talking about the F/A–18s being retired.

One of the things that concerns me is I see that the Navy has got a Strike Fighter shortfall projected at 52 aircraft in 2019. So I am curious as to how the legacy aircraft, the delay in development of the Joint Strike Fighter, is going to impact not only current, but over these next 10 years. So anyone and everyone who wants to answer.

General ROBLING. Okay, sir. I will take the first shot at that since you mentioned Beaufort first. That particular hangar will be done for fiscal year 2014. Our plan eventually is to move the training squadron there into Beaufort. Right now the way the program is slipped, we are looking at somewhere around 2-year slip for IOC [Initial Operational Capability], maybe a little bit more.

You know, this is an aircraft under development, and so it has—it has problems like all aircraft that are under development. But I think the program—the joint program office has a good plan for getting it back on track. And I think we have already had a good plan for SLEPing and sustaining the legacy aircraft. Of course, we can't do that forever.

In the F/A–18 we decided that for the Strike Fighter shortfall, we had somewhere under 100, that would be manageable. Right now we are at 52; 13 of those are Marine Corps aircraft. So we will take the bulk of that risk. But we have a plan to SLEP again 150 of those "Hornets." That will take us out to the point where we can transition to JSF [Joint Strike Fighter].

Admiral SKINNER. Yes, sir. And I will add we have a pretty comprehensive plan for keeping our legacy "Hornets" flying. We have the Service Life Management Plan where we actually use force gauges on the airplane to take actual data, and we fly them, you know, so that we minimize the fleet expended on those airframes, and we can manage the fleet expenditure down at the squadron level.

We have done a service life analysis, a program on the legacy "Hornet," so that we know where the—we have to look for the spots we have to do modifications and repairs. And then we are in the second phase. We are in the midst of the second phase of our SLEP for the legacy "Hornet."

So we have a pretty comprehensive plan that we are most of the way through. We have the third phase of our SLEP to do. And we have identified the first 150 of those jets that we can tee up. And we start to SLEP those planes this year. So we have a program in place to extend the legacy "Hornets" to mitigate some of the ramifications of the JSF sliding for a couple of years.

General CARLISLE. And, sir, just to reiterate some of the other comments. You will hear an announcement fairly quickly from the United States Air Force that we are going to SLEP an avionics modernized probably in the vicinity of 300 to 350 F–16s, legacy F–16s, to get them both avionic capabilitywise as well as structuralwise with this SLEP to cover any shortfalls we will have, and we think that is the right number.

We have enough of the late model F–16s Block 40s and 50s to go as high as 600. We don't believe we will need to go there with respect to SLEP. We are doing that full-scale fatigue testing on the F–16s and the F–15s to determine the structural life of those air-

planes. And again, the avionics is a part of the RDT&E in the fiscal year 2012 budget.

We are all in the same position with our IOCs that will all probably slip about two years to the right, and the Air Force in the first look thinks ours is going to be about the same. But, sir, I will tell you, that airplane, it is going to be a great airplane. And we have got work to do, but it is going to be a good airplane, and we have to have it.

Mr. CRITZ. Thank you, Mr. Chairman.

Mr. BARTLETT. Mr. Platts.

Mr. PLATTS. Mr. Chairman, I have no questions. I just express my thanks to each of our witnesses for their service, the job you and your staffs are doing. And I yield back to the chairman.

Mr. BARTLETT. Thank you.

Mrs. Hartzler.

Mrs. HARTZLER. Thank you, Mr. Chairman.

Thank you all for your service. And I especially want to commend General Lindell and General Carlisle. I think the Air Force Academy has got to be very proud of both of you. So thank you for your service.

I would like to start off with questions about remotely piloted aircraft. Of course, I represent Whiteman Air Force Base and feel very honored about that. We have the 20th Reconnaissance Squadron there. And I think that the remotely piloted aircraft is really very critical to what we are doing to defend our country right now. And, of course, its use is increasing as we monitor what is going on, and protect our men and women in uniform, and target enemies.

And I know that in fiscal year 2010, there was a capacity of 50 sustained Combat Air Patrols, and then that has gone up now to 60 that we are doing. And I was on a radio interview last week and was asked a question, and I wonder if you could comment on it, because I was not aware of it. But the caller said that they had read that Congress had passed additional funding for aircraft, but yet we don't have the pilots to fly them. Can you shed some light on that? Is that the case?

General CARLISLE. Yes, ma'am, it is. If you see the growth of the combat air patrols that the MQ–1s and the MQ–9s are flying, that ramp, we have exceeded what we were planning on doing every year. We are in our sixth surge to provide that capability, the combatant commanders. We had three in Libya recently. Those were surge. There are other parts of the world where we are standing them up at a rapid pace.

In fact, our issue today is our ability to train the sensor operators and the pilots. We have been surging for so long, and we are taking those instructor pilots that are supposed to be training the next group of folks, and we are putting them into combat missions because we are simply trying to provide the combatant commanders what they are asking for with respect to ISR [Intelligence, Surveillance, and Reconnaissance].

So that is, in fact, true. We are at the top limit. As a matter of fact, we have grown to 60 CAPs [Combat Air Patrol], and we are probably going to come down a few CAPs in the not-too-distant future to allow us to reconstitute some of our training capacity to

start training the next round of folks who are going to do this mission. So that, in fact, is true.

Mrs. HARTZLER. Isn't it true that this is the fastest-growing area of pilots right now is training for the remotely piloted aircraft versus the other?

General CARLISLE. It is the largest single group of pilots in the United States Air Force are the RPA [Remotely Piloted Aircraft] pilots. That is a true statement, yes, ma'am.

Mrs. HARTZLER. When do you anticipate that we will be able to meet capacity and to meet our needs?

General CARLISLE. We have a reconstitution plan that will take us about a year to get the training capacity, and the advanced tactic techniques and procedures, and the weapons school that we had to stand down to do the CAPs for the combatant commanders. We anticipate about a year to reconstitute the force. And about next year at this time, we will be on a glide path to get back to the capacity that we are looking to get to, which will eventually be 65 CAPs.

Mrs. HARTZLER. It is certainly an interesting phenomenon that we are seeing here in that.

As it relates to airspace, I understand that during Hurricane Katrina and amid Federal requirements, there was difficulty gaining FAA [Federal Aviation Administration] approval for remotely piloted vehicle operations in U.S. airspace. So what is the status of remotely piloted aircraft being able to operate independently in U.S. airspace?

General CARLISLE. That is still an issue, ma'am. We are working it very diligently with the FAA and the national airspace structure. There is an initiative by the United States Air Force and the Army to build a ground-based sense and avoid. Clearly without a pilot in the airplane, the ability to see and avoid traffic is the biggest issue that the FAA has with RPAs. We are very close to getting to the point that we won't have to have chase or observers, but, in fact, we will have ground-based sense and avoid, and what that is is using existing air traffic control radars to monitor and do kind of the sense and avoid for the RPAs. We are still working our way through. We are not there yet.

Mrs. HARTZLER. You would think that would be fairly easy to solve with all of the radar and the technology that we have today.

General CARLISLE. It is, ma'am, but it is crowded airspace. There is a lot out there. We have a very good relationship with the FAA. We are working very hard to move our way forward. I understand their concerns, and we have to get to a point where we all feel good with whatever risk is out there.

Mrs. HARTZLER. Can you tell me if we are using remotely piloted aircraft to monitor our southern border with Mexico or not?

General CARLISLE. Ma'am, remotely piloted aircraft are being used by a lot more folks than just the United States military. They are being used by the police departments, they are being used by Border Patrol, they are being used in many places, yes, ma'am.

Mrs. HARTZLER. Great. Thank you very much.

Mr. BARTLETT. Mr. Runyan.

Mr. RUNYAN. Thank you, Mr. Chairman.

And, gentlemen, thank you again for your service.

General Lindell, and going down the Services, the delay in the Joint Strike Fighter, and specifically in the SLEP program, each Service, how much is that really costing us?

General LINDELL. Congressman, your question concerns the F–16 SLEP program?

Mr. RUNYAN. Yes.

General LINDELL. In the 2012 budget, we have $108 million in the 2012 budget; however, the total program that we are estimating, as General Carlisle has commented on, is 300 aircraft. The total SLEP with structural modifications of 300 aircraft plus an avionics modification would be roughly $9.4 million per aircraft.

Mr. RUNYAN. And hopefully we don't have any further delays, but how far down the road does that—you know, does that get us before we have to consider doing it again?

General LINDELL. Sir, this would add significant service life, and we are looking at the Block 50 and the Block 40 aircraft to extend the service life to at least 10,000 flight hours on those aircraft. So certified to 8,000 today going to 10,000, that would add roughly 8 years. So we are looking for capability through the next decade, which would be through 2030. So we expect some viability out of the F–16 fleet if we are going to spend that much money, obviously, to SLEP the aircraft.

Mr. RUNYAN. Thank you very much.

That is all I have, Chairman. I yield back.

Mr. BARTLETT. Thank you very much.

Mr. Reyes, do you have another round of questions?

Mr. REYES. I will take one more. This question concerns the U–2, and it is for General Carlisle.

The Air Force had intended to begin retiring the U–2 aircraft in 2006. Congress passed legislation delaying that action until the Secretary of Defense can certify to Congress that the capabilities provided by the U–2 aircraft no longer contribute to mitigating any caps—any gaps in intelligence surveillance and reconnaissance capabilities.

Is there a replacement capability that can replicate the U–2, or is this a case much like the SR–71, where it provided an unmatched capability, but we just couldn't continue to afford its unique operational capability, and so we retired it? What are our plans in the Air Force for the U–2?

General CARLISLE. Sir, we are not retiring it in the near term in accordance, obviously, with law as well as the right thing to do with respect to maintaining the capability. The "Global Hawk," the RQ–4, will be the replacement. It is not there yet. The sensor suite is not there, and it cannot match what the U–2 does. We do have a high-altitude transition plan, a high-altitude reconnaissance transition plan, that talks about when the "Global Hawk" in future years will be able to serve that same target set with respect to intelligence surveillance, reconnaissance to replace the U–2. We are not there yet, and that airplane is going to be maintained for a period of time. It is a very expensive airplane to fly, but we are balancing that with the need for that capability.

Mr. REYES. Do we have at this point any idea, any ideas how much longer before we have that transitional capability?

General CARLISLE. Sir, I think with the Block 40 U–2s and the sensor suite that are going to be incorporated in that airplane, we will start to get close to that. We believe that the U–2 will probably be around at least through 2014 or 2015 right now. And in that timeframe we believe the "Global Hawk" may be at the point that it can fill that mission set, yes, sir.

Mr. REYES. Very good. Thank you.

That is all, Mr. Chairman.

Mr. BARTLETT. Thank you very much.

Mr. LoBiondo.

Mr. LOBIONDO. Thank you, Mr. Chairman.

General, following up on what I was talking about before, sort of in the same vein, could you give us your best professional military opinion on whether or not the U.S.'s current industrial base and fighter production capacity have the ability to meet the Air Force's and the Air Guard's operational requirements for protecting the homeland and continued overseas operations if the F–35 continues to slip to the right and we have to do something?

General CARLISLE. Sir, the answer is yes, I do believe, in my personal opinion. I think that there is still a production line for F/A–18s. There is still a production line for F–16s. And there is still an F–15E production line that are still producing airplanes. In the near term, those are still part of the industrial base that are making great airplanes and still provide a great capability.

I think the F–35, as I mentioned earlier, we have to have that airplane, and we have to have that program. I think that as we continue to work our way through the F–35, and we continue to see success, I think I will gain more and more confidence in our ability to fill that need in that industrial base. But in the current situation, we have production lines available to produce airplanes, and, again, I believe the F–35 is going to be a great airplane, and I think it is making progress.

Mr. LOBIONDO. Well, we all hope for that, and there is no doubt about it, it is an unbelievable—it is an unbelievable plane. However, if you are sitting on this side, and we have listened to all of the projections over a number of years now, and going back to General Jumper's presentations, you have got to have a little bit of a step back and a pause about where we go if the projections and the predictions are not correct. And I think what you are saying is that we don't want to be in a risk situation with only one production line if we can't see some clear progress here; is that correct?

General CARLISLE. Sir, I see progress in the F–35 program, and I believe that airplane will deliver. I truly believe that.

Again, the industrial base, I fully concur with it is something we need to be concerned about. We also need to work within the total obligation authority that we have within the Department of Defense. I believe that the F–35 program is going to deliver.

Mr. LOBIONDO. Okay. Obviously we will watch that very carefully, given Mr. Critz's questions on the HH–60s and the UH–1, and ask could the Air Force provide us with specific data in the coming weeks on the age, condition and performance of those airframes through November of this year. Would that be possible?

[The information referred to can be found in the Appendix on page 65.]

General CARLISLE. Yes, sir.

Mr. LOBIONDO. Thank you, Mr. Chairman. I yield back.

Mr. BARTLETT. Mr. Critz, no other questions?

Mr. Platts?

Mrs. Hartzler?

Mr. Runyan? He is gone.

Thank you all very much for attending. I have been watching my question list and marking off those that have been asked by other members, and I think I have an even dozen short, quick questions. Some of them can have a yes or no answer.

Admiral Floyd, General Robling and General Carlisle, for each of the Services, which of your combat aircraft in the operational forces or in the development phase have electromagnetic pulse protection?

Admiral FLOYD. I can start with that, sir. The EMP [electromagnetic pulse] hardening is—that would be a classified response.

Mr. BARTLETT. Certainly the level to which you have hardened may be classified, but whether are your hardened—had hardened or not, that really is not classified, is it?

Admiral FLOYD. I believe that it is, sir, but I would take that back. I can get you that answer.

Mr. BARTLETT. Yes. I don't think that whether you have hardened them or not is classified. The level to which you have hardened may be classified. If you will take that for the record, I would be very pleased with that.

[The information referred to can be found in the Appendix on page 65.]

Mr. BARTLETT. Okay. We have the same question for the three of you relative to the F–35 program. Is it hardened? And we may have to have a classified session to discuss this, but I am concerned that it be hardened—not only hardened, but hardened to an appropriate level—so that they will still be available to us after a robust EMP laydown by a peer or near-peer.

For many of the adversaries that we may face in the future, we really don't need these planes. We can do with lesser capable planes. When we really will need them is when we are faced with a peer or near-peer. And it is in all of their open literature, it is in all of their war games, one of the early things is a robust EMP laydown which will deny us the use of all of our equipment which is not adequately hardened. So we are very concerned not only that they be hardened, but they be hardened to an appropriate level.

I had another question relevant to the EMP, and I guess we will have to take that for the record, too. We understand that in the August 2011 interim report from the Defense Science Board on the Survivability of Systems and Assets to Electromagnetic Pulse and Other Nuclear Weapons Effects, the Air Force nonconcurred with the new aircraft EMP standard, MIL–STD–3023; that this has potential impact on survivability requirements for a new aircraft such as the F–35, the tanker, the next-generation bomber, and the White House platforms.

Could you tell us—and I guess you will have to do this for the record. Please tell us why the Air Force nonconcurred, with what did the Air Force nonconcur, and why the Air Force nonconcurred, if you could do that.

General CARLISLE. Yes, Mr. Chairman, we will take that for the record and get back to you.

[The information referred to can be found in the Appendix on page 65.]

Mr. BARTLETT. Thank you.

Admiral Floyd and General Robling, given the recent effect of the Budget Control Act of 2011, do you anticipate that you will decrease the total number of JSF bought from the current program of record, 680 aircraft total? If so, how will this affect the Navy and Marine Corps being able to meet strike fighter requirements in the future?

Admiral FLOYD. Mr. Chairman, the answer to that is no, we still intend to procure 680 aircraft.

Mr. BARTLETT. Thank you.

General Robling, as you know, the JSF program has experienced a significant delay in its SDB [Small Diameter Bomb] program and a delay in the development of the F–35B. Previously initial operational capability, the IOC, was planned for 2012. What are the Marine Corps' projections for initial operational capability of the F–35B?

General ROBLING. Mr. Chairman, I am anticipating—I think I talked about that the last time we were together. It is event driven. I believe that will be 2 years later, late 2014, and it may go into 2015.

Mr. BARTLETT. Admiral Skinner, when does the Navy plan for the IOC and the F–35C?

Admiral SKINNER. Mr. Chairman, the Navy defines IOC as 10 compliant Block 3 aircraft ready to deploy that have completed initial operation tests and evaluation. We are awaiting the results of the technical baseline review that will inform the integrated master schedule. That should be with us towards the end of this calendar year, and at that point in time, when we get a real clear idea about the test and evaluation schedule, we will be able to define when that IOC will be.

Mr. BARTLETT. Thank you very much.

General Carlisle, when does the Air Force plan to be IOC in the F–35A?

General CARLISLE. Mr. Chairman, just as the other Services, it is event driven. It will be dependent upon the IOT [Initial Operational Test] for Block 3 airplane to be completed and air crews trained, maintainers trained, and a sustainable deployment capability with those airplanes. We anticipate that that will be probably approximately a 2-year slip. We will have better fidelity when we see the master schedule. It currently is 2016. We anticipate that will slip until 20—it is currently 2016. We think that will slip until 2018.

Mr. BARTLETT. And again, General Carlisle, recent news reports suggest a difference between Dr. Gilmore, the Director of Operational Testing, and the F–35 Joint Program Office about the readiness of the Eglin Air Force Base F–35s to enter into an operational utility evaluation that would generate a capability to train F–35 pilots. We understand that the Under Secretary of Defense has asked the Air Force to review Dr. Gilmore's concerns. Does the Air Force

view Dr. Gilmore's concerns and does the Air Force plan to proceed with the OUE [Operational Utility Evaluation] soon?

General CARLISLE. Mr. Chairman, thanks for that question. Obviously, we take the concerns of Dr. Gilmore very seriously. Both the United States Air Force and Aeronautical Systems Command, Lieutenant General Tom Owens, as well as Admiral Venlet, have talked to Dr. Gilmore. We are in the process of going through all his concerns. I think we very recently in the last couple of days have brought him more information.

We have a very diligent and deliberate process to do a military flight release and an airworthiness certificate. We are going through those steps. We have not completed them yet. And we are demonstrating those to Dr. Gilmore. We believe that we will be able to do that and satisfy all of his concerns.

For correctness also, there are six airplanes at Eglin today, six F–35s down at Eglin today. Last week two more were delivered. And we believe that we will be able to do a military flight release at some point in the not-too-distant future. But, again, it is event driven, and we are going through that process very deliberately, and we are addressing all of Dr. Gilmore's concerns.

Mr. BARTLETT. Thank you.

General Lindell, we understand that negotiations for F–35 Block 5 contracts are still ongoing, and a major point of contention between the Government and the contractor is the issue of who will pay for changes to the aircraft due to concurrency. Is this correct?

General LINDELL. Mr. Chairman, you are correct. And the issue is concurrency in the LRIP [Low Rate Initial Production] 5 contract and the amount of Government liability versus contractor costs for concurrency.

Mr. BARTLETT. Can you tell us, sir, when will Block 5 contract negotiations probably be completed?

General LINDELL. Yes, sir. We plan to definitize the contract for LRIP 5 this spring, next spring in 2012.

Mr. BARTLETT. Another question for General Lindell. Please describe the updated acquisition strategy for the Light Attack/Armed Reconnaissance aircraft, the LAAR aircraft. Has the acquisition strategy been fully approved and finalized for this program?

General LINDELL. Mr. Chairman, for LAAR, Light Aircraft Armed Reconnaissance, the acquisition strategy has not been fully approved at this time. It is on hold. Obviously, the LAAR program is a new start in the 2012 budget, and we are awaiting the budget before we progress and coordinate the acquisition strategy for LAAR.

Mr. BARTLETT. And a question for General Carlisle relative to LAAR. In light of the recent Senate Armed Services Committee and Senate Appropriations Subcommittee on Defense marks that would not provide funds for LAAR in fiscal year 2012, is the Air Force reconsidering its requirement for LAAR?

General CARLISLE. Mr. Chairman, I think, as was stated here many times, given the budget constraints that we are under, we are looking at everything, and LAAR is certainly no exception. We are looking at every program in the future, and as our top line goes down, we are looking at all those. And LAAR is one of the ones

that is being looked at, as well as every other program in the Air Force.

Mr. BARTLETT. Mr. Reyes, Mr. Critz, do either of you have additional questions?

Thank you very much.

When we have reviewed the hearing today, the questions and the answers, there may be a need to ask additional questions for the record. We trust that you will be ready and able to answer those.

I want to thank you all very much for your testimony today.

General, thank you very much for your long years of service. All the best. All the best in retirement.

General LINDELL. Thank you, Mr. Chairman. It has been a great honor and a great pleasure to serve our Nation and our United States Air Force alongside my peers. If I had to do it all over again, I certainly would. Thank you very much, sir.

Mr. BARTLETT. Thank you.

Our hearing stands in adjournment.

[Whereupon, at 3:35 p.m., the subcommittee was adjourned.]

A P P E N D I X

NOVEMBER 2, 2011

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

NOVEMBER 2, 2011

Statement of Hon. Roscoe G. Bartlett

Chairman, Subcommittee on Tactical Air and Land Forces

Hearing on

Fiscal Year 2012 Combat Aviation Programs Update

November 2, 2011

The Tactical Air and Land Forces Subcommittee meets today to receive testimony on Navy, Marine Corps and Air Force combat aircraft programs.

I would like to thank our witnesses for being here today. They are:

- Vice Admiral W. Mark Skinner, USN, Principal Military Deputy to the Assistant Secretary of the Navy (Research, Development, and Acquisition);
- Lieutenant General Terry G. Robling, USMC, Deputy Commandant of the Marine Corps for Aviation;
- Rear Admiral Kenneth E. Floyd, USN, Director of the Air Warfare Division for the U.S. Navy;
- Lieutenant General Herbert J. Carlisle, USAF, Deputy Chief of Staff for Operations, Plans and Requirements, U.S. Air Force; and
- Major General Jay H. Lindell, USAF, Director, Global Power Programs, Office of the Assistant Secretary of the Air Force for Acquisition.

This is the third in a series of hearings we are holding for the purpose of updating our members on the budget request for FY 12. The potential impact of the Budget Control Act of 2011 on our military capability is a major concern to this subcommittee. Today we will address combat aviation programs, to hear from our witnesses about potential impacts of budget decisions on our deterrence and combat capability. It would be better had the Department of Defense provided the Services an updated national military strategy and a projection of resources likely to be available, so the Services could better plan their programs, but I am sure they are doing the best they can.

As I have stated before, major reductions in the Federal budget need to be a major element of correcting the Federal deficit.

The Department of Defense must share in a fair and balanced way in those reductions, and that process is already taking place under the Budget Control Act of 2011, with nearly $500 billion in cuts planned for DOD over the next 10 years.

Under the sequestration provision of the Budget Control Act, further cuts, up to a total of $1 trillion over 10 years, could be possible

under what Secretary Panetta has called the "doomsday mechanism."

Indeed, the Air Force statement for this hearing warns that "reductions imposed by the implementation of sequestration rules would have a significant adverse impact on the ability of the United States Air Force to perform the missions to which it is assigned."

We have much to cover today, but a major issue is strike fighter aviation in the Navy, Marine Corps and Air Force.

Much of the future of America's strike fighter aviation hinges on the development and production of the F–35.

Through September, overall, the F–35 program, based on the current revised schedule, is ahead of the number of flight test hours and achievements of test points for the F–35A and F–35C, planned for calendar year 2011. The F–35B is slightly behind those benchmarks thus far. However, the F–35B recently completed its initial development sea trials aboard the USS *Wasp*, which reportedly went very well.

But the F–35 program continues to experience additional costs from the effects of concurrent development and production activities, and we continue to feel both the financial effects and the operational effects of this concurrent program. Projecting the costs related to concurrency have proved challenging.

Although funds were appropriated in April for fiscal year 2011 F–35 aircraft procurement, the contract for those aircraft has not been completed between the Government and the contractor. We understand that one of the major reasons for there not yet being a signed contract for fiscal year 2011, is the inability for the Government and the contractor to agree on what the concurrency costs are likely to be, whether these costs should be shared, and if shared, how should they be shared.

Funding for 35 F–35 aircraft was appropriated for fiscal year 2011, but we understand that the Department is likely to procure only 30 aircraft because some funds will be required to pay for cost overruns in the first three production lots, and to potentially pay for concurrency modifications expected for the fiscal year 2011 aircraft.

Although four of the first operational F–35A aircraft were recently delivered to Eglin Air Force Base, we understand that there is some disagreement within the Department of Defense on whether the operational F–35A aircraft at Eglin Air Force Base are ready to begin an operational utility evaluation that would assess the readiness of the F–35A to begin a training program beyond an initial cadre of operational pilots. We understand that this evaluation had been scheduled to begin this month.

Some say there are safety concerns, others say those concerns have been addressed. We hope our Air Force witnesses today can help us understand when the Air Force plans to begin the F–35 operational utility evaluation.

Additionally, most members will recall that at our National Guard and Reserve Component hearing on October 12th, General Wyatt, the Director of the Air National Guard, testified that he had not yet received a plan for recapitalizing the Air National Guard's

fighter fleet which is of particular concern to those units conducting Aerospace Control Alert missions.

As a result, Mr. LoBiondo and I formally requested that the Secretary of the Air Force provide both the committee and General Wyatt with a comprehensive plan before the end of this year for modernizing the Air National Guard's Aerospace Control Alert mission fleet and applicable fighter wings. We hope our witnesses can provide us an update on the progress of that effort today.

Statement of Hon. Silvestre Reyes

Ranking Member, Subcommittee on Tactical Air and Land Forces

Hearing on

Fiscal Year 2012 Combat Aviation Programs Update

November 2, 2011

Today's hearing on combat aviation programs occurs just as the Pentagon is weighing some major strategic decisions that could greatly impact aircraft programs. Among those decisions are how much we are willing to invest in maintaining our current dominance in the air.

No other nation in the world can match us today in terms of our capability to project airpower. Most don't even try. For example, in Afghanistan today, U.S. commanders can get close air support aircraft over any target in less than 15 minutes. That remarkable capability doesn't just happen. It requires an array of tanker aircraft, combat search & rescue, communications, and other systems all working in concert.

The United States also fields hundreds of unmanned systems that didn't exist back in 2001. The intelligence provided by those platforms has become an essential part of almost all ground operations in Afghanistan. However, this dominance is not permanent. China, Russia, and other nations are developing systems to challenge our current dominance, and in a future conflict we may not be able to operate like we can today in Afghanistan. So, the Air Force, Navy, and Marine Corps face the challenge of maintaining today's forces in combat while also laying the groundwork for the future.

In the area of air power, finding this balance can be extremely difficult because it takes many years to design, field, and learn to operate new aircraft.

This hearing will also cover DOD's largest single acquisition program: The F–35 Joint Strike Fighter. Based on testimony, budget documents, and reports received by the committee, it is clear that the program is facing significant development challenges. However, despite the program's challenges, I support it. I support the program because in the future there is a very good chance that our military will have to overcome sophisticated air defense systems, and the only way to do that is with a combination of fifth-generation stealth aircraft and other advanced systems.

If we walk away from the F–35 program, we simply won't be able to project power in many areas of the world in the future. To me, that possibility is not acceptable, so I think it is critical that we find a way forward with the F–35 that gets us what we need: An affordable fifth-generation aircraft we can procure in large numbers. That might require changing the program to some degree, but the program has to move forward because the threat to continued American dominance in the air is real, and growing.

I look forward to our witnesses' testimony today.

STATEMENT OF

VICE ADMIRAL MARK SKINNER
PRINCIPAL MILITARY DEPUTY, ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)

AND

LIEUTENANT GENERAL TERRY G. ROBLING, USMC
DEPUTY COMMANDANT FOR AVIATION

AND

REAR ADMIRAL KENNETH E. FLOYD, USN
DIRECTOR, AIR WARFARE

BEFORE THE

TACTICAL AIR AND LAND FORCES
SUBCOMMITTEE

OF THE

HOUSE ARMED SERVICES COMMITTEE

ON

DEPARTMENT OF THE NAVY'S AVIATION PROCUREMENT PROGRAM

NOVEMBER 2, 2011

NOT FOR PUBLICATION UNTIL RELEASED BY
HOUSE ARMED SERVICES COMMITTEE
TACTICAL AIR AND LAND FORCES SUBCOMMITTEE

NAVAL AVIATION

Mr. Chairman, Congressman Reyes, and distinguished members of the subcommittee, we thank you for the opportunity to appear before you today to discuss the Department of the Navy's (DoN) Aviation programs. Our testimony provides an update to our March 15, 2011 hearing on tactical aviation programs.

The Navy and Marine Corps (USMC) are maritime forces operating in a global environment protecting and serving the interests of the United States for 236 years. During the past 100 years, naval aviation has grown from a marginal force fulfilling a niche role in the nation's military strategy to the centerpiece combat force that is powerfully and uniquely well-suited to conduct expeditionary operations and lethal sea-based power projection worldwide. The importance of naval aviation is founded on the Navy and Marine Corps partnership. Working alongside one another in operations afloat and ashore, our services are suited ideally to carry out the national security strategy in any maritime conflict.

The threats to our country and allies are increasingly complex and unpredictable. The vision of naval aviation ensures the capability and flexibility to succeed in such a challenging environment. Maintaining appropriate readiness levels for these systems creates the ability for developing and sustaining naval aviation forces to respond to the full range of national tasking. Developing and sustaining future capabilities and readiness are the tenets that naval aviation follows to remain capable of executing a growing range of naval missions. Research and developmental efforts are essential to growing future capabilities that seek faster responses and better precision to meet and surpass emerging threats.

The Fiscal Year 2012 President's Budget requests funding for 225 aircraft including: 13 F-35 Joint Strike Fighters for both the Navy and the Marine Corps; 11 P-8As to replace the aging current Anti-Submarine Warfare (ASW) and maritime patrol squadrons; 24 MH-60R and 18 MH-60S helicopters; one KC-130J; 26 H-1 variant helicopters; 30 MV-22 tilt-rotor aircraft; 28 F/A-18E/F fighter attack planes; 12 EA-18G to continue replacing the Navy's EA-6B; six E-2D Advanced Hawkeyes; 36 Joint Primary Aircraft Trainers (JPAT); and 20 Unmanned Aircraft Systems (UAS). The Department also requested funds for the continued efforts of the Unmanned Carrier Launched Airborne Surveillance and Strike (UCLASS) System, development of the Broad Area Maritime Surveillance (BAMS) unmanned system and for the demonstration of the Navy Unmanned Combat Aerial System (N-UCAS). The DoN Fiscal Year 2012 aircraft program budget is funded for planned program execution throughout the Future Years Defense Program (FYDP).

Budget/POM

The Navy and Marine Corps continue to assess options that allow for the necessary balance between sustainment of operations, preservation of fleet readiness, and support of our Sailors and Marines and their families, based on fiscal reality and force structure requirements. As part of this process, we are reviewing all areas of our budget. Nothing is off the table. Until the Fiscal Year 2013 President's Budget request is submitted to the Congress in February 2012, and becomes part of the public record, all decisions are pre-decisional and it is inappropriate to discuss specific details. We are committed to working more efficiently and cost-effectively in this resource-constrained environment. We remain focused on delivering a high-performing,

competency-based, and mission-focused force to meet the full spectrum of operational demands. We will refine our efforts continually and we will work toward accommodating the deficit reduction target of more than $450 billion over a ten-year period. Our top priority is to ensure we continue to have the best military in the world. We do not have to choose between reasonable fiscal discipline and a strong national defense, but reductions to defense spending must be implemented carefully and thoughtfully.

We are facing serious challenges overseas and at home. We are a nation at war with a military stretched by two decades of combat, humanitarian and stability operations. We are also a nation that is battling tough economic conditions. The Navy and Marine Corps will continue to do our part to protect U.S. interests at home and abroad, as well as do our share to help get America's fiscal house in order.

TACTICAL AVIATION (TACAIR)

TACAIR Inventory Management

The Fiscal Year 2012 President's Budget request includes a DoN reduction of 67 F-35B/C aircraft, the addition of 41 F/A-18E/F aircraft and the service life extension of 150 F/A-18A-D aircraft. In 2010, we estimated the DoN Strike Fighter Shortfall (SFS) to be about 100 aircraft, but the net effect of the Fiscal Year 2012 President's Budget reduces the DoN's projected shortfall to a manageable level of 65 aircraft, with a peak in 2018. The Navy will transition three additional squadrons from FA-18Cs to F/A-18Es and then redistribute those F/A-18C aircraft amongst DoN requirements. With the procurement of the additional 41 Super Hornets, redistribution of existing aircraft and management of aircraft service life, the DoN will have the operational tactical aviation strength required to meet our service commitments.

The DoN continues to meticulously manage the fatigue life and flight hours of our tactical aircraft. Since 2004, we have provided fleet users guidance and actions to optimize aircraft utilization rates while maximizing training and operational opportunities. The Inventory Forecasting Tool (IFT) is used to project the combined effects of TACAIR transition plans, attrition, and pipeline requirements on the total strike fighter aircraft inventory. The IFT is updated in conjunction with budget submittals to provide forecasts of the strike fighter inventory compared to the requirements. The tool utilizes these critical variables to project future inventories– F/A-18E/F and F-35B/C deliveries, force structure, aircraft usage rates, structural life limits, depot turnaround time, Fatigue Life Expenditure (FLE), arrested and field landings, and catapult launches.

To extend the service life limits of the existing fleet of F/A-18A-D aircraft from 8,000 to 8,600 flight hours, we are performing High Flight Hour (HFH) inspections. Engineering analysis completed in 2009 revealed that extensive areas of the legacy F/A-18 airframe would require Service Life Extension Program (SLEP) inspections and modifications in order to reach the service life goals of 10,000 hours. The F/A-18A-D SLEP engineering development phase will continue this year and we will induct the first F/A-18s into SLEP. The Fiscal Year 2012 President's Budget request includes funding to SLEP 150 aircraft throughout and beyond the FYDP. The HFH and SLEP can extend the F/A-18 A-D service life to 10,000 hours and mitigate the impacts of the SFS. Continued investment in Program Related Engineering (PRE) and Program Related Logistics (PRL) funds within the Operations and Maintenance, Navy (O&M,N)

accounts is critical for sustaining the combat relevancy of the DoN's legacy platforms through the TACAIR transition.

F-35B/C Lightning II:

The DoN remains firmly committed to both the F-35B Short Take-Off and Vertical Landing (STOVL) variant and the F-35C carrier variant (CV) of the Joint Strike Fighter (JSF), as they are essential to our immediate and long range naval and Marine Corps aviation strategy and the nation's security. F-35 will supplant the DoN's aging TACAIR fleet by replacing the Navy and Marine Corps' legacy F/A-18A-D Hornet and the Marine Corps AV-8B Harrier. The incorporation of F-35B and F-35C aircraft into our naval force will provide the dominant, multi-role, fifth-generation capabilities needed across the full spectrum of combat operations to deter potential adversaries and enable future naval aviation power projection.

The F-35B STOVL variant combines the multi-role versatility and strike fighter capability of the legacy F/A-18 with the basing flexibility of the AV-8B. The Marine Corps intends to leverage the F-35B's sophisticated sensor suite and very low observable (VLO) fifth-generation strike fighter capabilities, particularly in the area of data collection and information dissemination, to support the Marine Air Ground Task Force (MAGTF) well beyond the abilities of today's MAGTF expeditionary attack, strike and electronic warfare assets. Having these capabilities in one aircraft will provide the joint force commander and the MAGTF commander unprecedented strategic and operational agility. The F-35C CV complements the F/A-18E/F Block II and EA-18G in providing survivable, long-range strike capability and persistence in an access-denied environment. The F-35B and F-35C will provide the Expeditionary Strike Group and Carrier Strike Group commanders a survivable, "day-one" strike capability in a denied access environment with the tactical agility and strategic flexibility to counter a broad spectrum of threats and win in operational scenarios that cannot be addressed by current legacy aircraft.

The Initial Operational Capability (IOC) is determined by the service, based on both the program's performance and how the service defines IOC. For the Marine Corps F-35B, IOC is defined as a squadron of ten aircraft able to execute the full range of TACAIR directed mission sets and to deploy on F-35B-compatible ships and austere expeditionary sites. The Marine Corps plans to achieve IOC with a multi-mission capable Block 2B aircraft as described in the JSF Operational Requirements Document (ORD) CN-3. For the Navy F-35C, IOC is defined as a squadron of ten ORD compliant Block 3 aircraft that are ready to deploy and have completed Initial Operational Test and Evaluation (IOT&E). The Marine Corps IOC for the F-35B will follow the Navy's lead to ensure capability symmetry onboard the carriers.

It is important to stress that after the extensive review that led to the recent F-35 program restructure, no major or insurmountable technical problems have been discovered and our performance and operational requirements remain intact. Since our last testimony in March we have seen substantial progress in the resolution of the STOVL technical challenges identified last year resulting in required redesigns' being incorporated early in the overall production run. Similar F-35C technical issues being discovered in test have been proactively addressed and are being resolved concurrent with flight test.

As of October 13, 2011, the Marine Corps' F-35B test aircraft have flown very effectively in the conventional take-off and STOVL modes, completing more than 500 flights and over 640 hours,

and those aircraft are currently expanding the STOVL envelope. The Navy's F-35C test aircraft has now flown more than 140 flights and 200 hours completing flying qualities and envelope expansion, weapons fit checks, and carrier suitability evaluation. Recent test focus has been on ship integration, with the F-35B conducting initial sea trials aboard USS WASP in October. F-35B and F-35C testing is progressing slightly ahead of schedule, reducing risk and increasing confidence in the JSF program.

Affordability remains a concern. The DoN is working with the Under Secretary of Defense (USD) for Acquisition, Technology and Logistics (AT&L) and the Joint Program Office (JPO) to establish a balance between the aircraft cost and the operational capabilities required for assigned missions. Future threat and operational environments require a fifth- generation strike fighter with the strategic longevity to avoid repetitive short interval replacement costs and technological obsolescence issues. The return on investment in capabilities of the F-35 outweighs the unavoidable legacy aircraft operation and support (O&S) cost increases we will incur if our current aircraft continue to be extended further beyond their designed service life.

The Fiscal Year 2012 President's Budget requests $1.3 billion in Research, Development, Test & Evaluation (RDT&E,N) and $3.1 billion in Aircraft Procurement, Navy (APN) for 13 F-35 aircraft (six F-35B and seven F-35C) with associated aircraft hardware and spares. These resource requirements align to the Secretary of Defense's (SECDEF's) F-35 program restructure. Maintaining an optimum production ramp rate is critical to achieving F-35 affordability goals and preventing excessive expenditures on aircraft with limited service life and decreasing operational relevance.

We continue to monitor closely the development of the Joint Strike Fighter program. It is an essential future naval aviation capability that requires prudent supervision of cost, schedule, and performance progress to ensure we are ready to meet our national security obligations.

F/A-18 Overview

The F/A-18 Hornets have met readiness and operational commitments consistently. There are 21 Navy Super Hornet squadrons with 431 F/A-18E/Fs. The next F/A-18E/F squadron completes transition in February 2012. There are 16 Navy and 13 Marine F/A-18 A-D squadrons with 625 legacy A-D Hornets. As the F/A-18A-Ds transition to the F/A-18E/F and F-35, the current inventory of F/A-18A-Ds will comprise more than half of the DoN's strike fighter inventory until 2013. Super Hornets and legacy Hornets have conducted over 148,000 combat missions since September 11, 2001. While deployed ashore and aboard our aircraft carriers at sea, F/A-18s have brought significant precision ordnance and laser-guided munitions to the fight, and have employed thousands of rounds of twenty-millimeter ammunition supporting forces during strafing runs. These aircraft continue to provide vital overwatch and direct support to our troops on the ground in combat overseas.

Both the legacy Hornet and the Super Hornet were procured with an objective of twenty years' time in service. The average legacy Hornet has exceeded that goal, while the Super Hornet is already at almost thirty percent of its expected twenty year life. It is reasonable to conclude, based on current trends that most aircraft will substantially exceed twenty years in service.

F/A-18 A/B/C/D (Legacy) Hornet

The Fiscal Year 2012 President's Budget request is $364.6 million in APN for the continuation of SLEP, systems upgrades and obsolescence programs for the inventory of 625 legacy F/A-18 Hornets. Funds requested will procure and install center-barrel modifications and SLEP kits required for extending the service life to 10,000 flight hours of select candidate F/A-18 C/D aircraft. The Service Life Management Program (SLMP) monitors and improves the health of the F/A-18A-D fleet through analyses of TACAIR inventories and management of usage rates at the squadron level. The F/A-18A-Ds have flown over 75 percent of the 8,600 total flight hour limit available, 73 percent of the fleet is over 6,000 flight hours, and 26 aircraft have over 8,000 flight hours. To meet our operational commitments through 2023, we will be required to extend the service life of 150 legacy F/A-18s. The Marine Corps expects the F/A-18(A++/C/D) to remain in the active inventory until the mid 2020s.

The F/A-18 A-D Service Life Assessment Program (SLAP) is now complete and we are in the process of identifying the inspections and modifications necessary to extend the airframe service life to 10,000 flight hours. Based upon those results, we are midway through a three-phased SLEP. SLEP Phase A identified the critical safety of flight locations that needed immediate inspection and identified notional repair concepts. SLEP Phase B, which is ninety percent complete and will conclude in early Fiscal Year 2012, categorizes parts by criticality, and upgrades analytical tools for use by the Naval Air Systems Command (NAVAIR) and Original Equipment Manufacturer (OEM) engineers to design repairs. SLEP Phase C will finalize all remaining Phase B work and develop inspections and modifications required to extend the service life of 150 legacy F/A-18s. Efforts to extend the life of the F/A-18 A-D's major subsystems and avionics, independent of the airframe, are also underway.

The Fiscal Year 2012 President's Budget request includes SLEP requirements for 150 airframes, with these modifications beginning in 2012. The Fleet Readiness Centers (FRCs) have the capacity to execute the required number of HFH inspections and SLEP modifications. Material availability and engineering disposition turn-around times influence depot efficiencies.

F/A-18 E/F Super Hornet

The Fiscal Year 2012 President's Budget requests $2.4 billion in APN-1 for 28 F/A-18 E/F Block II (Lot 26-38) aircraft. The F/A-18E/F continues to transition into the fleet, improving the survivability and strike capability of the carrier air wing. The Super Hornet provides a 40 percent increase in combat radius, 50 percent increase in endurance and 25 percent increase in weapons payload over the legacy Hornets. The F/A-18E/F Fiscal Year 2012 Budget request includes $172.6 million in APN to implement commonality, maintain capabilities and improve reliability and structural safety of the Super Hornet fleet. The Super Hornet uses an incremental development approach to incorporate new technologies and capabilities.

The program continues to deliver on-cost and on-schedule and the last year of procurement to complete the Program of Record of 565 aircraft is planned for 2014. Production shutdown begins in 2014 at the sub-vendor level and concludes in 2016. A multi-year procurement (MYP) contract for 124 F/A-18E/F Super Hornets and EA-18G Growlers was signed on September 24, 2010 for Fiscal Years 2010 through 2013. In December 2010, SECDEF added 41 E/F aircraft to

the Fiscal Year 2012 President's Budget request in Fiscal Years 2012 through 2014. Extending the existing MYP to include the Fiscal Year 2014 procurement is being evaluated.

All Lot 30 (Fiscal Year 2006) and beyond F/A-18E/Fs and EA-18Gs have the APG-79 Active Electronically Scanned Array (AESA) radar system installed in production, and a retrofit program exists to modify 133 Lot 26-29 Block II aircraft with AESA. More than 300 APG-79 AESAs have been produced to date. The Navy plans to equip all 419 Block II Super Hornets with AESA radars, providing the Super Hornet a significant increase in detection range, lethality and survivability over the legacy Hornets. Successfully deploying since 2007, AESA squadrons are highly valued by fleet commanders because of their ability to share tactical battle space management data with the non-AESA tactical aircraft in the carrier battle group. The F/A-18E/F and EA-18G with APG-79 are force multipliers.

The Fiscal Year 2012 President's Budget includes a request for $21.6 million RDT&E,N to support the F/A-18E/F SLAP study requirement. Currently, the F/A-18 E/F fleet has flown approximately 30 percent of the available 6,000 total flight hours; the remaining service life will not be adequate to meet operational commitments through 2035. In 2008, the Navy commenced a three phased F/A-18E/F SLAP to analyze actual usage versus structural test data and identify the feasibility of extending F/A-18E/F service life from 6,000 to 9,000 flight hours via a follow-on SLEP. The F/A-18E/F SLAP will define the necessary inspections and modifications required to achieve 9,000 flight hours and increase total and arrested landings, and catapults beyond currently defined life limits and is currently assessed as low risk. The SLMP philosophy has also been applied to the F/A-18E/F fleet much sooner in its lifecycle than the F/A-18A-D, which will optimize FLE, flight hours and total landings aligning aircraft service life with fleet requirements.

Airborne Electronic Attack (AEA) / EA-6B Prowler

The Fiscal Year 2012 President's Budget request includes $20.2 million in RDT&E,N for Electronic Warfare (EW) Counter Response; $189.9 million RDT&E,N for Next Generation Jammer (NGJ); $5.3 million RDT&E,N for MAGTF EW, $34.1 million in APN for common Airborne Electronic Attack (AEA) systems; $27.7 million in APN for all EA-6B series aircraft; and $0.5M APN for MAGTF EW. Overseas Contingency Operations (OCO) funding includes $5.6 million RDT&E,N for ALQ-231 Intrepid Tiger II; $37.9 million APN for Low Band Transmitters; and $15.2 million APN for ALQ-231 Intrepid Tiger II.

Currently, 74 EA-6Bs in the Navy and Marine Corps support 69 operational aircraft in 13 active squadrons and one reserve squadron. This includes 44 Navy and Marine Corps Improved Capability (ICAP) II aircraft and 30 ICAP III aircraft. Following the final Navy EA-6B transitions to EA-18G in 2015, all ICAP III EA-6Bs will transfer to and be operated by the Marine Corps. The final retirement of the EA-6B from the DoN inventory will be in 2019.

Marine aviation is on a path towards a distributed AEA system of systems (SoS) that is a critical element in achieving the MAGTF EW vision: a composite of manned and unmanned surface, air, and space assets, on a fully collaborative network providing the MAGTF commander control the electromagnetic spectrum when and where desired. In development are the ALQ-231 Intrepid Tiger II communications jammer, UAS EW payloads, a Software Reprogrammable Payload

(SRP) and an EW Services Architecture (EWSA) to facilitate collaborative networked Electronic Warfare Battle Management (EWBM).

The Intrepid Tiger II intended to be carried on the AV-8B and eventually other fixed and rotary wing platforms and will provide direct AEA support to ground troops engaged in combat operations. Intrepid Tiger II development and procurement is in response to Marine Corps requirements for increased precision EW capability and capacity across the MAGTF and provides EW capability directly to tactical commanders without reliance upon the limited availability of the low density/high demand EA-6B Prowler.

The NGJ is new electronic warfare technology that replaces the 40-year-old ALQ-99 system and is designed to provide stand-off jamming power in support of joint and coalition air, land, and sea tactical strike missions. The SAC-D proposed a $35 million mark in Fiscal Year 2012 for delayed technology development (TD) contract award. The proposed $35 million reduction will delay start of the EA-18G long lead integration activities, delay preparation of the TD and Engineering and Manufacturing Development (EMD) Request for Proposal (RFP), and delay Milestone A documentation preparation and approval to Fiscal Year 2013.

Airborne Electronic Attack (AEA) / EA-18G Growler

The Fiscal Year 2012 President's Budget request is $1.1 billion in APN for 12 EA-18G aircraft and $17.1 million in RDT&E,N for correction of deficiencies. The first EA-18G squadron deployed in an expeditionary role in November 2010 to Iraq and subsequently redeployed on short notice to Italy in March 2011 in support of Operation NEW DAWN (OND) and Operation UNIFIED PROTECTOR (OUP). The EA-18G received accolades from both U.S. Central Command (CENTCOM) and Supreme Headquarters Allied Powers Europe for the enabling contribution of AEA to the battlespace. The first carrier-based EA-18G squadron deployed in May 2011. The EA-18G fleet has flown approximately five percent of the 7,500 total flight hours per aircraft and are meeting all operational commitments.

In 2009 the Navy began transition from EA-6Bs to EA-18Gs. The Navy will be divested of EA-6Bs by 2015. All three active component Navy expeditionary squadrons and two of 10 carrier based squadrons have completed transition to the EA-18G. The program of record is 114 aircraft, of which 90 EA-18Gs have been procured to date. The final procurement of EA-18Gs is planned for 2012. As directed by the Quadrennial Defense Review (QDR) in 2009, SECDEF added 26 EA-18G aircraft to the program of record across the FYDP to increase joint force capacity to conduct expeditionary electronic attack.

The Navy has completed an analysis of alternatives (AoA) to determine the best path forward for the NGJ. The NGJ system will replace the aging and limited inventory of ALQ-99 electronic warfare pods currently flown on the EA-18G and EA-6Bs and provide the Department of Defense (DoD) with the advanced comprehensive electronic attack capability required to outpace the threat.

E-2D Advanced Hawkeye (AHE)

The Fiscal Year 2012 President's Budget requests $110.9 million in RDT&E,N for continuation of System Design and Development (SDD) and $1,236.3 million in APN for six Low Rate Initial Production (LRIP) 4 aircraft and advance procurement (AP) for Fiscal Year 2013 Full Rate Production (FRP) 1 aircraft.

The E-2D Advanced Hawkeye is the Navy's carrier-based Airborne Early Warning and Battle Management Command and Control (C2) system. The E-2D provides Theater Air and Missile Defense and is capable of synthesizing information from multiple onboard and off-board sensors, making complex tactical decisions and then disseminating actionable information to Joint Forces in a distributed, open-architecture environment.

Utilizing the newly developed AN/APY-9 Mechanical Electronic Scan Array (MESA) radar and the Cooperative Engagement Capability (CEC) system, the E-2D works in concert with surface combatants equipped with the Aegis combat system to detect, track and defeat air and cruise missile threats at extended range and provide Battle Group Commanders required reaction time. This system-of-systems architecture, known as Naval Integrated Fire Control-Counter Air (NIFC-CA), provides vital force protection and allows the Navy to safely project forces into the littorals and overland to ensure access in contested areas.

The AHE program is in the Production and Deployment phase A. A successful Defense Acquisition Board (DAB) in March 2011 authorized the LRIP 3 and 4 aircraft procurement as well as the AP of long lead material for FRP Lot 1. IOT&E is scheduled to begin in Fiscal Year 2012 and the FRP Decision Review is scheduled for the first quarter of Fiscal Year 2013. All major acquisition milestones have been achieved on or ahead of schedule since program inception in 2003.

AV-8B Harrier

The Fiscal Year 2012 President's Budget requests $30.7 million in APN funds to continue development of the AV-8B Readiness Management Program (RMP), Operational Flight Program and Avionics Weapons Systems Development and Integration, and Engine Life Management Program (ELMP). The Fiscal Year 2012 President's Budget requests $51.5 million in OCO procurement funding for USMC expeditionary LITENING targeting pod upgrades and $2.0 million in OCO procurement funding to install OCO-procured ALE-47 kits. ALE-47 provides AV-8B an improved countermeasure capability over the legacy and obsolete ALE-39 system.

The AV-8B continues to be deployed heavily in support of emerging operational contingencies. Each Marine Expeditionary Unit (MEU) deploys with embarked AV-8Bs. As of 2011 the AV-8B, equipped with precision weapons, LITENING targeting pods with a video downlink to ROVER ground stations and the digitally-aided close air support (CAS) avionics suite, is a proven, invaluable asset for the MAGTF and joint commander across the spectrum of operations. The Harrier out-of-service date has been extended from 2022 to 2026, based on current F-35B transition plans. As a result, the AV-8B program must focus on sustainment efforts to mitigate significant legacy inventory shortfalls, maintain airframe sustainment and address reliability and obsolescence issues of avionics and subsystems. Unexpected fatigue cracks have been found in the Frame 11 nose landing gear attachment point, the impact of which is not fully determined at

this point. The current issue is under engineering investigation and managed by a 30/60 hour recurring inspection. The Harrier monitors structural FLE vice flight hours. As of August 2011, the highest FLE aircraft is 50.2 percent of available expenditure. The single-seat, deployable aircraft FLE average is 28.1 percent.

Operation ODYSSEY DAWN confirmed the expeditionary advantages of STOVL capabilities by placing the Harrier as the closest fixed-wing asset to Libya. Such dynamic support slashed transit times to the battlefield by two-thirds and kept close air support aircraft on station without strategic tanking assets. Planned capability upgrades, obsolescence mitigation and readiness initiatives will ensure the AV-8B remains relevant, healthy and sustained through 2026.

ROTORY AIRCRAFT

MH-60R and MH-60S

The Fiscal Year 2012 President's Budget requests $1.0 billion for 24 MH-60R aircraft including AP for 24 Fiscal Year 2013 aircraft and $17.7 million RDT&E,N for continued replacement of the Light Airborne Multi-Purpose System (LAMPS) MK III SH-60B and carrier-based SH-60F helicopters with the MH-60R. The RDT&E,N funds will continue development of the following: a Ku-band data link; a fleet driven capability upgrade to the APS-147 Radar known as the Automatic Radar Periscope Detection and Discrimination program; a Mode V interrogation capability for the identification friend-or-foe system; and an aluminum gearbox which is replacing the current magnesium gearbox to reduce corrosion and total ownership cost.

The MH-60R is used in both ASW with its dipping sonar, sonobuoys and torpedoes and in the surface warfare (SUW) role with its electronics surveillance measures system, multimode radar with inverse synthetic aperture radar, Forward Looking Infrared (FLIR) radar system and Hellfire missiles. It has demonstrated significant improvement in capability in the ASW role and significant increases in its SUW capability over legacy systems. The MH-60R program achieved FRP in 2006 and the third MH-60R operational deployment is currently underway with HSM-70 aboard the carrier USS GEORGE H.W. BUSH (CVN 77). There are five operational Carrier Air Wing squadrons and two fleet replacement squadrons operating the MH-60R. Two additional operational squadrons will transition to the MH-60R by the end of Fiscal Year 2012.

The Fiscal Year 2012 President's Budget requests $483.0 million in APN for 18 MH-60S aircraft including AP for 18 Fiscal Year 2013 aircraft and $30.6 million in RDT&E,N funds for the MH-60S to continue development of the Organic Airborne Mine Countermeasures (OAMCM) (Block II) and the Armed Helicopter (Block III) missions. The MH-60S is the Navy's primary combat support helicopter designed to support carrier and expeditionary strike groups. The MH-60S has replaced three legacy Navy helicopter platforms. The basic MH-60S reached IOC and FRP in 2002. The Armed Helicopter configuration reached IOC in 2007 and OAMCM is scheduled to reach IOC in 2011. The third MH-60S operational deployment is currently underway with HSC-9 aboard CVN 77. MH-60S helicopters currently operate with self-defense equipment, crew-served weapons and Hellfire missiles. MH-60S configuration enhancements include Fixed Forward Firing Weapons that will begin fielding in 2012.

At the end of February 2011, the SECDEF certified a MYP for the Army and Navy to pursue a joint platform procurement of the MH-60R and MH-60S airframes along with the Army's UH-60M and the Navy's MYP strategy for the MH-60R and MH-60S common cockpit procurement.

EXECUTIVE SUPPORT AIRCRAFT

VH-71 / VXX Presidential Helicopter Replacement Aircraft

The Fiscal Year 2012 President's Budget request includes $180.1 million in RDT&E,N for continuing efforts on VXX, the follow-on program for Presidential helicopters. The requirement for a replacement Presidential helicopter was validated by the Joint Requirements Oversight Council (JROC). An updated Fiscal Year 2012 budget request was provided to congressional committee professional staff members following a DoN request prior to Senate Appropriations Committee-Defense (SAC-D) markups. An updated request of $60.8M total for VXX is a result of re-phasing of the VXX program.

In conjunction with this request, an additional $7.0 million in RDT&E,N, $24 million in APN-5, and $12.0 million in APN-7 for the in-service fleet was requested, emphasizing upgrades to the In-service fleet to the maximum extent possible while conducting risk reduction activities in advance of a VXX program decision.

The VH-71 termination proposal was received on May 21, 2010 and an anticipated settlement is expected in Fiscal Year 2012. The Navy is working closely with Defense Contract Management Agency and Defense Contract Audit Agency to complete the audits required for negotiations. The majority of VH-71 specific tooling has been sold back to the Original Equipment Manufacturer (OEM) in Europe and the Navy has facilitated the sale of numerous components to Canada, offsetting some of the termination liability.

VH-3D/VH-60N Executive Helicopters Series

The Fiscal Year 2012 President's Budget requests an investment of $58 million in RDT&E,N, APN-5 and APN-7 to continue programs that will ensure the in-service Presidential fleet remains viable until its replacement is available. Ongoing efforts include the Cockpit Upgrade Program for the VH-60N, a communications suite upgrade, the Structural Enhancement Program and the Obsolescence Management Program. The VH-3D and VH-60N Trainer Aircraft Conversion Program began in Fiscal Year 2011 and continue into Fiscal Year 2012. Service life assessment results are currently being evaluated for both VH-3D and VH-60N, with non-recurring engineering beginning in Fiscal Year 2012 for the SLEP. The VH-3D Cockpit Upgrade Program, providing a common cockpit with the VH-60N, will start in Fiscal Year 2012. Additional upgrades are to be funded as a result of a funds transfer from the VXX Program as detailed above. These upgrades include a lightweight interior cabin; radio and data link replacements and upgrades; performance and safety improvements; and the completion of a VH-60N simulator. Continued investments in the in-service fleet will ensure continued safe and reliable executive transportation until the replacement aircraft is fielded.

ASSAULT SUPPORT AIRCRAFT

V-22B Osprey

The Fiscal Year 2012 President's Budget request includes $2.4 billion in APN for procurement of 30 Lot 16 MV-22Bs and for continuation of follow-on block upgrades. Fiscal Year 2012 is the fifth and final year of the V-22 MYP contract. The funds requested in the Fiscal Year 2012 President's Budget fully fund Lot 16 under the V-22 MYP contract, and procure long-lead items for Lot 17. The Marine Corps continues to field and transition aircraft on time.

In February 2011, the V-22 fleet exceeded a total of 100,000 flight hours. The introduction of this new tiltrotor capability into combat has provided valuable lessons with respect to readiness and operating costs. Improvements continue and are having a clear effect on increasing aircraft availability and decreasing flight hour costs. The MV-22B squadrons in Afghanistan and the MEU are seeing mission capable rates in the seventy percent range and are performing every assigned mission. To keep these improvements on track we introduced a Readiness Operations and Safety Improvement Program (OSIP) into the Fiscal Year 2012 President's Budget. This OSIP will provide a stable source of APN-5 crucial as we continue moving aircraft into the fleet.

The MV-22B has been supporting the Marines continuously since October 2007, in extreme environment conditions during eleven combined deployments to Iraq and Afghanistan and aboard amphibious shipping. It has the lowest Class A flight mishap rate of any USMC fielded tactical rotorcraft over the past ten years, and since 2010. Due to these cost reduction efforts, the V-22 program received the prestigious David Packard Excellence in Acquisition Award, recognizing exemplary performance and innovation in acquiring and delivering products and capabilities to the warfighter.

The effectiveness and survivability of this revolutionary, first-of-type MV-22B Osprey tiltrotor has been repeatedly demonstrated in combat. The rescue of a downed F-15E airman during Operation ODYSSEY DAWN was an example of what the Navy and Marine Corps' amphibious expeditionary force brings our nation. As an integral part of that seaborne presence, the MV-22B was able to perform its part of this mission with unprecedented speed and flexibility. Twenty minutes from the time he was evading capture in hostile territory, the rescued pilot was safely back on American territory aboard USS KEARSARGE.

The MV-22B capability is being increased and fielded over time via a block upgrade acquisition strategy. The great benefit of a fly-by-wire rotorcraft is becoming clearer as we increase airspeed and lift by simply rewriting the flight control software. These advancements, along with any corrections of deficiency, require thorough testing. Fiscal Year 2012 RDT&E,N funds include replacement fully-instrumented aircraft to replace the existing test aircraft that is five iterations behind the V-22 flown today and requires hundreds of maintenance man-hours per flight hour to operate and maintain.

UH-1Y / AH-1Z

The H-1 Upgrades Program is replacing the Marine Corps' UH-1N and AH-1W helicopters with state-of-the-art UH-1Y and AH-1Z aircraft. The Fiscal Year 2012 President's Budget requests $72.6 million in RDT&E,N for continued product improvements and $798.6 million in APN for

26 H-1 upgrade aircraft: 15 UH-1Y and 10 AH-1Z along with one AH-1Z OCO aircraft. The program is a key modernization effort designed to resolve existing safety deficiencies, enhance operational effectiveness, and extend the service life of both aircraft. The 84 percent commonality between the UH-1Y and AH-1Z will reduce lifecycle costs and logistical footprint significantly. The program plans for Marine Corps 349 H-1 aircraft through a combination of remanufacturing and new production.

The UH-1Y "Yankee" aircraft achieved IOC in August 2008 and FRP in September 2008. The "Yankee Forward" procurement strategy prioritized UH-1Y production to replace the under-powered UH-1N fleet as quickly as possible. The AH-1Z completed its operational evaluation (OT-II3C) in June 2010 and received approval for FRP in November 2010. As of October 14, 2011, 70 aircraft (50 UH-1Ys and 20 AH-1Zs) have been delivered to the Fleet Marine Force; an additional 61 aircraft are on contract and in production. Lots 1-6 aircraft deliveries are complete and Lot 7 deliveries are progressing on schedule. The AH-1Z achieved IOC in February 2011. In November 2011, a MEU will deploy with both UH-1Y and AH-1Z aircraft—the first such "all-upgrades" deployment. To date, all Fiscal Year 2009 to 2011 aircraft deliveries have been completed ahead of the contracted schedule date.

The UH-1Y completed its first overseas deployment with the 13th MEU in July 2009 and has supported sustained combat operations in Operation ENDURING FREEDOM (OEF) since November 2009. Deployed utilization remains high, with the nine OEF UH-1Ys averaging 3,100 flight hours every six months (57.4 hours/month/aircraft), tripling normal continental United States (CONUS)-based operating levels. Due to increased utility helicopter demand from the ground combat element, the Marine Corps approved a restructure of the H-1 squadron configuration from 18 AH-1Zs and nine UH-1Ys to 15 AH-1Zs and 12 UH-1Ys. As a result, the current aircraft procurement mix is 189 AH-1Zs and 160 UH-1Ys, with 62 AH-1Z aircraft built new since insufficient numbers of AH-1Ws are available for remanufacture.

CH-53K Heavy Lift Replacement Program

In Fiscal Year 2012 the President's Budget requests $629 million RDT&E,N to continue SDD of the CH-53K. The CH-53K program has completed its Critical Design Review (CDR), and began system capability and manufacturing process demonstration, and started fabrication of the first test aircraft. During Fiscal Year 2012, the program will continue work on manufacturing the various test articles needed to support developmental test activities to achieve the planned first flight of the CH-53K in 2013.

The new build CH-53K will replace the legacy fleet of CH-53E helicopters with an aircraft that provides the performance necessary to support our future warfighting requirements. The CH-53E Super Stallion provides unparalleled combat assault support to the MAGTF and is one of the Marine Corps' most-stressed aviation communities. CH-53s - providing vital lift of heavy equipment, supplies and troops - are currently deployed in Afghanistan, the Horn of Africa, and onboard ship with our MEUs. Since May 2010, CH-53Es have flown over 11,500 hours; carried more than 79,000 passengers; and moved over sixteen million pounds of cargo in support of coalition forces in Afghanistan and the Horn of Africa while flying well above their programmed rates in austere, expeditionary conditions. The need for heavy lift support has increased substantially when compared to last year's numbers over the same reporting period. The only heavy lift helicopters deployed to Afghanistan, CH-53Es have performed combat external

recoveries of five coalition helicopters during this period. Forward-deployed aircraft have been operating at up to three times the peacetime utilization rates.

To keep these platforms viable until the CH-53K enters service, the Fiscal Year 2012 President's Budget requests $133.6 million for both near and mid-term enhancements, including the Force XXI Battle Command Brigade and Below, Integrated Mechanical Diagnostic System, T-64 Engine Reliability Improvement Program kits, Directed Infrared Countermeasures, and critical systems armor and sustainment efforts such as Kapton wiring replacement. While these aircraft are achieving unprecedented operational milestones, they are nearing the end of their service life. The CH-53E is approaching 30 years of service and the CH-53D is scheduled to retire from active service in late 2012 after operating for almost forty years.

The new-build CH-53K will fulfill land and sea based heavy-lift requirements not resident in any of today's platforms, and contribute directly to the increased agility, lethality, and presence of joint task forces and MAGTFs. The CH-53K will transport 27,000 pounds of external cargo out to a range of 110 nautical miles, nearly tripling the CH-53E's lift capability under similar environmental conditions, while fitting into the same shipboard footprint. The CH-53K will also provide unparalleled lift capability under the high altitude, hot weather conditions similar to those found in Afghanistan, greatly expanding the commander's operational reach.

Maintainability and reliability enhancements of the CH-53K will improve aircraft capability and operational effectiveness over the current CH-53E with improved cost effectiveness. Additionally, survivability and force protection enhancements will increase protection dramatically, for both aircrew and passengers, thereby broadening the depth and breadth of heavy lift operational support to the joint task force and MAGTF commander. Expeditionary heavy-lift capabilities will continue to be critical to successful land- and sea-based operations in future anti-access, area-denial environments, enabling seabasing and the joint operating concepts of force application and focused logistics.

UNMANNED AIRCRAFT SYSTEMS (UAS)

MQ-8B (Fire Scout) Vertical Takeoff and landing Unmanned Aerial Vehicle (VTUAV)

The MQ-8B Fire Scout is an autonomous VTUAV designed to operate from all air-capable ships, using a Tactical Control System via a Line-Of-Sight (LOS) Tactical Common Data Link (TCDL) to carry and operate modular mission payloads. It is currently conducting operational missions in Afghanistan and from ships. The Fiscal Year 2012 President's Budget requests $108.2 million RDT&E to develop an endurance upgrade and integrate weapons on the MQ-8B, and $198.9 million APN for the production of 12 MQ-8B aircraft, Control Stations, and initial spares.

The RDT&E budget includes funding to increase endurance and integrate specialty payloads to conduct Special Operations Forces (SOF) missions using the Rapid Deployment Capability process (approved U.S. Africa Command (AFRICOM) Joint Urgent Operational Needs Statement (JUONS)) to satisfy a U.S. Naval Forces Central Command (NAVCENT) Urgent Operational Needs Statement (UONS) and an18-month Rapid Deployment Capability for Weaponization. The MQ-8B aircraft quantity currently supports Littoral Combat Ship (LCS) missions and near term SOF missions until the Endurance Upgrade is fielded. Procurement of

ship based Control Stations is aligned to both the LCS mission and outfitting Fast Frigate and other ships to support the SOF missions. Production to incorporate the endurance changes is included in the APN budget starting in Fiscal Year 2012. Future support of SOF mission will require 28 airframes with the Endurance Upgrades. Work on the Endurance Upgrade will begin after the Navy and OSD provide the SASC with a plan for resourcing support to SOF. The MQ-8B system has successfully performed a Military Utility Assessment (MUA) on the USS HALYBURTON to evolve fleet concepts for operation of the system and successfully completed a two month SOF Proof-of-Concept evaluation in an operational environment. Fire Scout control station integration and modifications are complete aboard USS SIMPSON and are in work for USS KLAKRING to support deployment and SOF operations in 2012. The Fire Scout program will also continue to support integration and testing in all mission modules on LCS. The Navy continues to cooperate with the Coast Guard for their ship-based UAS planning. Fire Scout was deployed to Afghanistan in April 2011 to support the Intelligence, Surveillance, and Reconnaissance (ISR) Task Force monthly requirements of 300 hours of ISR support from an expeditionary facility to support American and Allied ground forces. The CENTCOM 90-day operational assessment gave Fire Scout its highest grades in all categories, and CENTCOM has requested additional Fire Scouts to provide 600 hours of ISR support per month.

A HAC-D mark of $115 million in Fiscal Year 2012 would eliminate 12 aircraft from the APN-4 request; the mark would reduce the program's ability to support future SOF requirements with Endurance Upgrades. The HAC-D mark was based on buying MQ-8Bs ahead of need for LCS only. All other committees supported President's Budget Fiscal Year 2012.

MQ-4C Broad Area Maritime Surveillance (BAMS) UAS

The Fiscal Year 2012 President's Budget requests $548.5 million RDT&E,N to continue SDD of the BAMS UAS and $4.5 million in Military Construction (MILCON) to construct a training facility at NAS Jacksonville. The Milestone B decision for the BAMS UAS program was achieved on April 18, 2008. The program is on schedule. In February 2011, CDR was successfully held. The BAMS UAS program will meet the Navy requirement for a persistent ISR capability. The BAMS UAS is a larger Group-5 system that will be a force multiplier for the Fleet Commander, enhancing situational awareness of the battle-space and shortening the sensor-to-shooter kill chain. BAMS UAS will provide a persistent maritime ISR capability.

The Navy procured two Air Force (USAF) Global Hawk (Block 10) UASs in Fiscal Year 2004, for demonstration purposes and to perform risk reduction activities for the BAMS UAS Program, known as the BAMS-Demonstrator (BAMS-D) program. In April 2011 the Navy accepted three additional Block 10 aircraft form the USAF to be utilized as spare parts assets. BAMS-D UAS has been deployed to the CENTCOM theater of operations for over two years.

Medium-Range Maritime Unmanned Aerial System (MRMUAS)

The Medium-Range Maritime Unmanned Aerial System (MRMUAS) will provide persistent, sea-based, airborne, real-time and near-real-time ISR data to Maritime and SOF. MRMUAS will support surface warfare, strike warfare, information warfare, Naval Special Warfare, operations outside major theaters of war, and OCO. The program requirements are documented in the JROC validated Maritime ISR Support to SOF. A cooperative AoA with the Army, USMC, and SOF is underway as MRMUAS is evaluated as a potential joint program, and is expected to be

designated an ACAT I program. MRMUAS will be capable of carrying reconfigurable, multi-Intelligence payloads to extended ranges and will launch and recover vertically, making it employable from all air-capable ships, as well as land bases. MRMUAS will be able to operate within line-of-sight of a ship, similar to the MQ-8 (Fire Scout) Vertical Take-off and landing Unmanned Aerial Vehicle (VTUAV), as well as in a remote, split based mode that will allow take-off and landing from an air-capable ship and control hand-off to a Mission Control Element via Satellite Command for Beyond Line of Sight (BLOS) operations. MRMUAS will allow communications to relay between supported forces, as well as broadcast payload data to the supported forces. Interoperability will be achieved through the use of a common control station, also used by the Navy UAS. The data from the MRMUAS will be provided through standard DoD Command, Control, Communications, Computers, and Intelligence, Surveillance, and Reconnaissance (C4ISR) systems and networks. MRMUAS will be composed of air vehicles, associated spares and support equipment, multi-INT sensor payloads, and Ground Control Stations. Acquisition Plans include the conduct of full and open competition for up to five (5) Trade Studies and analysis contracts with potential MRMUAS vendors. A full and open competition will be conducted to select two (2) vendors for participation in the TD and prototyping phase contracts. At the conclusion of the TD phase, there will be a down select for the single EMD phase contract.

The MRMUAS program completed a Navy Gate 1 review in January 2011and the Material Development Decision was achieved in May 2011, endorsing the requirements for the AoA study which began in late July 2011 and will complete in 4th Quarter Fiscal Year 2012. A Broad Agency Announcement (BAA) 15-month study effort will be used to inform the AoA as well as preparation of Milestone A entry documentation criteria. These industry trade studies and AoA tasks initiated in Fiscal Year 2011 will continue into Fiscal Year 2012 and support Navy Gate 2 and 3 reviews en route to the planned Milestone A Defense Acquisition Board (DAB) in 2nd Quarter Fiscal Year 2013.

The Fiscal Year 2012 President's Budget requests $33.8 million RDT&E,N to continue MRMUAS program development tasks. The budget includes funding to complete the AoA study, execute system development trade studies with industry, develop acquisition milestone documentation, and establish key program management and engineering staff positions supporting program initiation. MRMUAS will achieve IOC in Fiscal Year 2019 and provide multi-INT data collection and precision strike in support of MDA and SOF missions. Key system characteristics include capability to operate from all air capable ships, 300nm mission radius, eight hours effective time on station, 700 pounds payload capacity, and BLOS communication capabilities for command and control of the air vehicle and payload.

Cargo Unmanned Aerial System (CUAS)

The Fiscal Year 2012 President's Budget requests $53.9 million in support of Cargo UAS (CUAS) deployment through Fiscal Year 2012. This effort supports the USMC operational requirements captured in a Cargo UAS JUONS. The Marine Corps is assigned the lead service. Two vendors were awarded contracts to support a Quick Reaction Assessment (QRA); one team completed the QRA in August 2011 and will begin a MUA deployment in theater this November. The other team is scheduled to complete a QRA in May 2012. The CUAS MUA will inform a follow-on program of record.

The purpose of the Cargo UAS capability is to get trucks off the roads in combat zones, minimizing the improvised explosive device (IED) threat to logistics convoys. The CUAS will provide a low risk, persistent, 24-hour capability for dispersed forces on the battlefield. This capability will mitigate the requirement for manned ground vehicles to resupply forces in remote locations. The CUAS will also augment manned aviation assault support assets and airdrop methods when the weather, terrain, and enemy pose an unsuitable level of risk. Aerial delivery of cargo by the CUAS, between main logistical hubs and remote "spokes," will be executed under the control of a ground control station at a main operating base and a remote terminal at the drop-off zone.

RQ-21A Small Tactical Unmanned Aircraft System (STUAS)

The Fiscal Year 2012 President's Budget requests $49 million in RDT&E,N ($22.7 million Navy, $26.3 million Marine Corps) and $12.8 million in APN for six RQ-21A Integrator STUAS that will address Marine Corps and Navy ISR capability shortfalls currently supported by service contracts. This Group 3 UAS will provide persistent, ship and land-based ISR support for tactical level maneuver decisions and unit level force defense/force protection missions. Milestone B and contract award occurred in July 2010. Milestone C and LRIP decisions are scheduled for the first quarter of Fiscal Year 2013. Due to program delays, the Navy will not buy its LRIP system in Fiscal Year 2012. Fiscal Year 2012 procurement funds were programmed to buy two Early Operational Capability (EOC) systems for Navy Special Warfare; however, those funds have been marked by SAC-D. If sustained, the procurement will be delayed.

RQ-7B Marine Corps Tactical UAS (MCTUAS)

The Fiscal Year 2012 President's Budget requests $0.9 million RDT&E to continue development efforts and government engineering support, and $11.4 million in APN to support the continuation of congressionally mandated TCDL retrofits for RQ-7B Shadow units. USMC Shadow squadrons have seen continuous service in Iraq and Afghanistan since 2007. The USMC received its 13th RQ-7B Shadow system in first quarter Fiscal Year 2012, completing baseline fielding for four squadrons. The USMC Shadow systems are identical to Army Shadow systems, bringing interoperability and commonality between Army and Marine Corps unmanned aircraft units operating side-by-side in Afghanistan. An eighteen-month initiative to weaponize two USMC RQ-7B systems with a laser-guided projectile was started in first quarter Fiscal Year 2012.

Unmanned Carrier Launched Airborne Surveillance and Strike (UCLASS) System

The Fiscal Year 2012 President's Budget requests $121.1 million RDT&E for the Unmanned Carrier Launched Airborne Surveillance and Strike (UCLASS) System efforts. The UCLASS system will provide a persistent, aircraft carrier based ISR and strike capability supporting carrier air wing operations no later than 2018. In order to achieve the UCLASS operational objectives, the system will maximize use of existing technology to launch and control the air vehicle, transfer data in support of precision strike, and conduct persistent surveillance operations. The UCLASS system will consist of a carrier-suitable air vehicle; a remote vehicle control segment; a system support segment; and connectivity to carrier unmanned components and systems, and to existing DoD Tasking, Processing, Exploitation and Dissemination systems. The system will be

integrated into Carrier Controlled Airspace operations and will be maintained in accordance with standard fleet processes, wherever possible, as tailored for UAS application. The system will contain appropriately balanced survivability attributes to be effective in specified tactical situations. The Initial Capability Document (ICD) has been entered into the Joint Capability Integration and Development System (JCIDS) process. Formal acquisition and contracting strategies are in development.

TRAINING AIRCRAFT

T-6B Joint Primary Aircraft Training System (JPATS)

The T-6A/B is the primary flight training aircraft for Navy and Marine Corps pilots and Naval Flight Officers, replacing the T-34C. The current requirement is for 297 aircraft, of which 197 aircraft have been procured and 150 aircraft delivered to date. Of those delivered, 107 are the newer T-6B variant with an upgraded avionics suite. The Fiscal Year 2012 President's Budget request includes $266.9 million to procure 36 aircraft under a USAF contract.

The Fiscal Year 2011 Continuing Appropriations Act (P.L. 112-10) zeroed procurement funding for JPATS. Procurement of the next lot is critically dependent on obligating Fiscal Year 2012 funding by December 2011. Fiscal Year 2012 Appropriations Act funding or specific continuing resolution language is necessary; otherwise, the program will be unable to award the negotiated contract for 36 aircraft by December 2011.

The JPATS program delivered the first two T-6B aircraft to the Navy in August 2009 and successfully achieved IOC in April 2010 at NAS Whiting Field, FL. Funding requested will support the Navy's plan to transition from aging T-34Cs to T-6Bs at NAS Corpus Christi, TX. Initial T-6B deliveries to NAS Corpus Christi are scheduled to begin in April 2012 and IOC is planned for October 2012.

SUMMARY/BUDGET CONTROL ACT

We will continue to move aggressively to streamline or terminate lower priority programs. We face very tough challenges to meet these savings goals, including potential cuts in areas previously deemed untouchable, while also preserving the core tenets of the national security strategy. Under the Budget Control Act, if an automatic round of cuts is triggered, another $500-600 billion in cuts would occur. A sequester taking effect in Fiscal Year 2013 would result in large cuts in key programs. This would lead to significant adverse effects on national security that would result in the smallest naval fleet since 1915; generate significant operational risks; reduce response time to crises, conflicts, and disasters; severely limit our ability to be forward deployed and engaged around the world; and force us to assume unacceptable risk in future combat operations. These budget cuts would severely reduce force training, system development, improvements, modifications and procurements - threatening our overall operational capability and readiness. Specifically, in acquisition, we could be forced to break multiyear procurement contracts.

DEPARTMENT OF THE AIR FORCE

PRESENTATION TO THE
HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES
U.S. HOUSE OF REPRESENTATIVES

SUBJECT: Air Force Tactical Aviation Programs

COMBINED STATEMENT OF: Lieutenant General Herbert J. Carlisle
Deputy Chief of Staff for Operations,
Plans and Requirements

Major General Jay Lindell
Director of Global Power Programs, Office of the
Assistant Secretary of the Air Force (Acquisition)

November 2, 2011

NOT FOR PUBLICATION UNTIL RELEASED BY
HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES
U.S. HOUSE OF REPRESENTATIVES

I. Introduction

Chairman Bartlett, Ranking Member Reyes, and distinguished members of the subcommittee, thank you for calling this hearing, and for the opportunity to provide you with an update on Air Force modernization on our tactical aircraft and intelligence, surveillance and reconnaissance (ISR) efforts important to our Air Force and to the Nation. The Air Force is fully engaged in operations across the globe, enabling Combatant Commanders to successfully execute their missions. As we venture into a new era of fiscal challenges, the Air Force remains committed to preserve the readiness of the force as a prime imperative. Looking ahead to the year 2020, the Joint and coalition team will continue to rely on the Air Force to provide its unique contributions to national security: domain control, precision attack, lift and ISR, all enabled by our command and control capabilities.

We frame our decisions and recommendations using the 2010 QDR and the Air Force's top five priorities, established by the Secretary and Chief of Staff of the Air Force. We understand your focus today is on changes and new initiatives to the Air Force investment plans since the March 15, 2011 hearing and to discuss potential impacts of the FY 2011 Budget Control Act to the Department of the Air Force budget. Our rapidly aging aircraft fleet and an ever increasing demand for our ISR assets drive our urgent need to find a balance between acquiring new inventory while sustaining our current fleet. We look forward to discussing how we can match the requirements with available resources in order to execute the National Military Strategy.

II. Contributions of our Air Force

Today, the Air Force flies and fights in air, space, and cyberspace--globally and reliably--as a valued member of our Joint and coalition teams. Nearly 39,000 Airmen are deployed to 135 locations across the globe, with over 29,000 in and around Afghanistan and Iraq, as we unwaveringly do whatever it takes to prevail in today's wars. Airmen, Soldiers, Sailors, and Marines who cross outside the wire do so with the asymmetric advantage of armed overwatch as well as globally integrated ISR. Last fiscal year the Air Force conducted more than 41,000 sorties supporting Operation NEW DAWN and almost 118,000 sorties supporting Operation ENDURING FREEDOM, delivered over 1.78 million passengers and 712,000 tons of cargo, and employed almost 2,580 short tons of munitions. Additionally, we have transported nearly 86,000 patients from the United States Central Command (CENTCOM) area of responsibility (AOR). An additional 57,000 total force Airmen are forward stationed overseas providing capabilities in direct support of our combatant commander requirements. And from home stations here in the United States, approximately 218,000 Airmen provide daily support to combatant commanders' worldwide operations, including standing nuclear alert, commanding and controlling our satellites, controlling remotely piloted aircraft, analyzing ISR data and much more. On the home front, since September 11, 2001, the Air Force has flown almost 62,000 total sorties under Operation NOBLE EAGLE, including 43,711 fighter sorties, 11,965 tanker sorties, and 1,880

early warning sorties. As a testament to the Total Force, the Air National Guard and Air Force Reserve components have flown more than 65 percent of these sorties with the Air National Guard currently operating 17 of 18 Aerospace Control Alert sites, with Joint Base Elmendorf-Richardson as the sole active duty location.

Along with our tactical platforms, a high demand for Air Force ISR remains firmly in place; a trend we expect to only increase in the future. As such, we have increased our capacities to meet this demand to sustain global operations with a combination of both manned and unmanned aircraft.

Between January and August 2011, the RQ-4 Global Hawk logged 239 combat sorties in the CENTCOM AOR capturing nearly 80,000 images. Additionally, the Global Hawk complemented humanitarian operations in both Haiti and Japan. We continue to rely heavily on the multi-intelligence, high-altitude capabilities of the U-2 which has averaged some fifteen to sixteen thousand flight hours per annum for more than five years. The U-2 currently executes more than 100 sorties per month supporting CENTCOM operations and the NATO effort in Libya. The U-2's multi-spectral imaging and other unique capabilities remain in high demand.

On September 15 2011, we reached 60 MQ-1/9 Combat Air Patrols (40 of which are allocated to the MQ-1 Predator and 20 to the MQ-9 Reaper) fulfilling Department-directed requirements with expected growth to a total of 65 CAPs. Acquisition of the final (164th) MQ-1 occurred this past March as the Air Force transitions to the MQ-9 with a total planned inventory of 399.

The MC-12W Project Liberty aircraft remain heavily engaged in Iraq and Afghanistan and have flown over 12,900 missions between January 1and October 5 2011. The Air Force is fulfilling the CENTCOM requirement for thirty deployed Project Liberty aircraft. An additional seven aircraft remain in CONUS as trainers at Beale Air Force Base.

As we continue to accomplish our current mission sets and plan for future threats, we must remain mindful of the increasing age and costs of operating our air fleet. Our Air Force leadership is scrutinizing programs and budgets to find acceptable solutions to meet growing demands that are competing for limited funds.

III. Fighter Aircraft Shortfalls

During the FY12 program review, the Air Force delivered to the Office of the Secretary of Defense, Cost Assessment and Program Evaluation (OSD CAPE) the Service's moderate risk fighter force structure requirement of 1,200 primary mission aircraft and 2,000 total aircraft. A comprehensive review of the current and projected force structure revealed a total aircraft shortfall of approximately three to five percent through the Future Years Defense Program (FYDP). This shortfall will be mitigated through aggressive management of F-35 production, legacy fleet review and sustainment, along with selected service life extension (SLEP) and

modernization programs. F-35 program status remains the key variable in the fighter force structure forecast as the Air Force transitions to a fifth generation fighter force. However, current Air Force mitigation options preserve decision space as we carefully monitor program status and impending decision points.

The Air Force performs regular, comprehensive fighter force structure reviews that incorporate information from fleet viability boards, ongoing and scheduled full-scale durability tests and the latest real-world aircraft engineering data. A review is currently underway and will provide modified fighter shortfall numbers in the coming months. Shortfall mitigation will include executing funded sustainment and fleet management actions for older F-16 Block 25-32 aircraft, an F-16 Block 40-52 program SLEP, targeted modernization efforts for the majority of the fleet, and examination of the overall force structure to ensure viable warfighting capabilities are maintained.

IV. Status of Combat Aircraft Acquisition

The average age of all Combat Air Force aircraft is 21.3 years. The assessment of our aircraft's longevity is complicated by the fact that we are currently flying the oldest Air Force fleet in our history and using them longer and more frequently than was envisioned during their design as a result of over 20 years of continuous combat operations. This presents considerable challenges in a difficult fiscal environment.

As we fulfill, and in some cases extend, the service lives of our aircraft, it is important to ensure not only the structural integrity of the airframe, but also the aircraft's viability to perform mission tasks. Modernization will be a key piece of any force structure forecast due to the proliferation of technology and ever changing mission environment. Actions to extend and modernize the legacy fleet are a bridge to 5th generation capabilities and are not considered replacement actions.

Evolving fiscal pressures that drove the establishment of the Congressional Joint Select Committee on Deficit Reduction are already placing considerable strain on the Department of Defense budget. Should the Joint Select Committee on Deficit Reduction fail to act, resulting in sequestration, there would be devastating impacts to the Department of Defense. Any reductions imposed by the implementation of sequestration rules would have a significant adverse impact on the ability of the United States Air Force to perform the missions to which it is assigned. At this point, it is too early to determine the specific impact that would be felt by programs because such a cut would require rebalancing across all Air Force programs to ensure maximum capability with remaining funds.

Legacy Fighter Force

A-10

The A-10 provides our Joint Force Commanders lethal, precise, persistent, and responsive firepower for close air support and combat search and rescue. It has performed superbly in Operations DESERT STORM, ALLIED FORCE (OAF), ENDURING FREEDOM (OEF), IRAQI FREEDOM (OIF) and ODYSSEY DAWN. However, the A-10's age and high operations tempo have taken a toll on the fleet. The A-10 fleet's aircraft availability for FY11 was 59 percent.

The Air Force plans to retain the A-10 fleet beyond 2030 based on implementation of the proper care, investment, and fleet management recommendations specified by a 2006 Fleet Viability Board. The FY12 President's Budget (PB) invests approximately $500M across the FYDP for funding modernization, sustainment, and life extension programs for the A-10. In FY07 the A-10 fleet began a robust depot-level modification. This year we begin installing the first of the new replacement wings intended for 232 A-10s, nearly two-thirds of the fleet, and also began improvements of the fuselage structure. Additionally, the Air Force completed its modernization of 347 A-10s to the 'C' configuration in June 2011. The upgrade included precision engagement modifications integrating targeting pods and digital data links into the aircraft avionics, enabling use of global positioning system-aided munitions such as the Joint Direct Attack Munition (JDAM) and Wind Corrected Munitions Dispenser. We also integrated a digital data link and advanced targeting pods with video downlink and replaced monochrome cockpit displays with color multi-function displays, installed new pilot throttle and stick controls, a moving map capability and a mass-memory upgrade. Finally, we integrated beyond line of sight radios for faster communication with ground units, forward controllers, and command and control centers. Together, these modifications will allow the A-10 to excel at close air support for the next two decades.

BUDGET IMPACT: With respect to the FY12 budget, the Senate Appropriations Committee (SAC) mark of $145.8 million removes all funding from the A-10 Wing Replacement Program, reducing wing procurement by 40 wings. This could potentially drive a production break if the mark is enacted and funding is not immediately available by October 2013.

F-15 C/D

The F-15 C/D air superiority fighter averages over 25 years of age. The FY12 PB invests approximately $1.1B for the modernization and sustainment of the F-15C/D fleet. We project the F-15C/D fleet will remain viable until 2025-2030 with potential for an airframe service life

extension following full-scale fatigue testing. This test is underway and will conclude in FY14. The Air Force manages the fleet through scheduled field and depot inspections under an individual aircraft tracking program. For FY10, the F-15C/D's aircraft availability was 64 percent.

We continue to modernize our F-15 fleet with Active Electronically Scanned Array (AESA) radars, and a more capable aircraft mission computer. We expect these efforts to enable the 176 F-15C/D "long-term fleet" to operate safely and effectively through at least 2025 as determined by the full-scale fatigue test. We may extend "long-term" status to the entire 250 aircraft inventory based on requirements of the future force structure.

BUDGET IMPACT: SAC marked the development effort of the mission computer upgrade to reduce the funding by $12.7 million. The mark will have the impact of delaying development by 9-12 months, with a similar delay in fielding. This upgrade, which will be installed on the F-15E as well as the F-15C/D, is critical to realizing the full capability of the Advanced Electronically Scanned Array (AESA) radars being installed on both.

F-15E

The F-15E fleet, with an average age of over 16 years, continues to provide support for on-going operations in Afghanistan and Iraq. Like the A-10, the F-15E performed superbly in Operations DESERT STORM, OAF, OEF, OIF and ODYSSEY DAWN. Aircraft availability for the F-15E in FY10 was 62 percent.

The Air Force will maintain and improve the F-15E's ability to rapidly engage and destroy time-sensitive targets. The FY12 PB investment across the FYDP is approximately $1.3 billion for F-15E modernization and sustainment. This includes adding secure radios for faster communications with ground units and forward controllers, integrating the latest precision weapons to hit targets accurately and reduce collateral damage, and adding a helmet mounted cueing system that will reduce the F-15E's time to engage a target by up to 80 percent. Finally, we are adding the state-of-the-art AESA radar system that advances capabilities to identify and engage targets as well as share information with other aircraft. The Air Force expects the F-15E to be an integral part of the Nation's force through at least 2035. A full-scale fatigue test, due to be complete in 2015, will provide useful data regarding the feasibility of a service life extension.

F-16

Our multi-role F-16 comprises the majority of the fighter fleet. The FY12 PB invests approximately $858 million across the FYDP for F-16 modernization, sustainment, and life extension. F-16 fleet aircraft availability has dropped 5.5 percent since FY05. Drivers include the Falcon STAR (all blocks) structural integrity program, engine inlet ram (all blocks), lower

wing skin cracking (blocks 25/30/32), and aft cockpit corrosion for two seat aircraft. We expect these drivers to continue to impact aircraft availability through FY15. F-16 FY11 aircraft availability to date is 65.5 percent. Extensive flight hours and stressing mission profiles resulted in the need for the FalconStar structural modification to the F-16. This upgrade program, which is scheduled to complete in FY13, replaces known life-limited structural components and maintains the original design airframe life of 8,000 actual flight hours. Structural upgrades in the F-16 SLEP include rework and replacement to extend airframe structural service life by 25 percent, about six to eight years.

In other inspections, maintainers have found bulkhead cracks in approximately 67 percent (428 of 642) of our Block 40/52 F-16 aircraft. Of those aircraft, 312 aircraft have been repaired and 92 aircraft had the bulkheads replaced with 1 more in progress. An additional 54 aircraft continue to fly with increased inspections to measure crack growth. Similar to the F-15, the Air Force awarded a full-scale durability test contract for the F-16 in FY11 to enable F-16 Block 40-52 airworthiness certification to be extended from the current 9,000 actual flight hours to 11,000 plus actual flight hours. The FY12 budget request adds $15 million in FY12 to begin design and development of structural and avionics capability modifications for the Block 40-52 fleet to be responsive to the Air Force's total fighter requirement. This funding is in addition to the $10.6 million requested to continue the full scale durability test.

BUDGET IMPACT: The SAC reduced the FY12 budget request by $12.8 million due to the delay in awarding the full-scale durability test contract. The program will be able to withstand this cut and will adequately be able to fund the test activity through FY12 due to the fact that the SAC also denied the FY11 OMNIBUS funding source of $11.8 million.

The SAC also marked the Full Combat Mission Training (FCMT) program of $14 million. This reduction will eliminate Sniper and Litening Targeting Pod concurrency upgrades in the new F-16 Block 40/50 training system. This will prevent effective simulator training on both systems. Without these concurrency upgrades, the Air Force will be unable to maintain a combat readiness capability for these systems. Mission Training Centers (MTCs) provide over 25 percent of F-16 Block 40/50 training. The Air Force reduced flying hours in FY12 PB, migrating the training to simulators, therefore flying hours are not available for the Air Force to shift training on these systems from MTCs back to the aircraft. Additionally, training against several threat systems is not possible in the aircraft.

Fifth Generation Fighters

Fifth generation fighters like the F-22A and the F-35 are key elements of our nation's defense and ability for deterrent capability. Hostile nations recognize that U.S. airpower can strike their vital centers with impunity which enhances all other U.S. Government instruments of power. This is the timeless paradox of deterrence; the best way to avoid war is to demonstrate to your adversaries that you have the capability and will to defeat them. The F-22A and F-35 represent our latest generation of fighter aircraft. Both aircraft are necessary to maintain a margin of

superiority that permits our air and ground forces freedom of maneuver and attack. The F-22A and F-35 each possess unique, complementary, and essential capabilities that provide the synergistic effects across the spectrum of conflict. OSD led a 2006 QDR Joint Air Dominance study which underscored that our nation has a critical requirement to recapitalize TACAIR forces. Legacy fourth generation aircraft simply cannot survive to operate and achieve the effects necessary to win in an integrated, anti-access environment.

F-22A Future Capabilities & Modifications

The F-22A Raptor is the Air Force's primary air superiority fighter providing unmatched capabilities for air supremacy and homeland defense for the Joint team. The multirole F-22A's combination of speed, stealth, maneuverability and integrated avionics ensures this remarkable aircraft accesses and survives high-threat environments. Its ability to find, fix, track, and target enemy air- and surface-based threats ensures air dominance and freedom of maneuver for all Joint forces.

Similar to every other aircraft in the U.S. inventory, there is a plan to regularly incorporate upgrades into the F-22A to ensure it remains the world's most dominant fighter in the decades to come. The modernization of the F-22A is being accomplished under a pre-planned product improvement program which includes Increments 2, 3.1, 3.2A, 3.2B, and 3.2C.

As of October 5, 2011, the Air Force had accepted 173 F-22A aircraft out of a programmed delivery of 187. We will continue to upgrade the F-22A fleet under the Joint Requirements Oversight Council-approved Increment 3 upgrade designed to enhance both air-to-air and precision ground attack capability. The Air Force is beginning to field Increment 3.1 this year. Increment 3.1 upgrades the APG-77 AESA radar for synthetic aperture radar ground mapping capability, enables F-22A to carry and employ eight Small Diameter Bombs (SDBs) and provides the ability to self-target JDAMs and SDBs using on-board sensors.

Responding to current threat assessments, the next upgrade will be Increment 3.2A. Increment 3.2A is a software-only upgrade and provides significant additional Electronic Protection, Link 16 improvements, and a better Combat Identification capability. In the future, F-22As will receive the Increment 3.2B and Increment 3.2C upgrades which feature the capability to employ our most enhanced air-to-air weapons (AIM-120D and AIM-9X), greatly enhanced capability to geolocate and target threat ground radars, improved SDB employment capability, additional Electronic protection and Combat ID, an Automatic Ground Collision Avoidance System (Auto GCAS) and capabilities to satisfy communication/navigation mandates.

Increment 3.2A will complete development and field in FY14. Increment 3.2B is planned to begin fielding in FY17, and Increment 3.2C is planned for FY19 delivery. The current F-22A modernization plan will result in final fleet composition of 34 Block 20 aircraft, 63 Block 30s, 86 Block 35s, and two Edwards AFB-test coded aircraft. Both Block 30 and Block 35 aircraft will

accept Increment 3.2C and beyond and Block 20 F-22As will host Increment 2.0, the same capability increment enabling the Raptor to provide air dominance today.

F-22A Procurement Plans

The F-22A production program is currently producing Lot 9 aircraft ahead of scheduled contract delivery dates at a rate of about two per month. When the plant delivers the last Lot 10 aircraft in 2012, we will have completed the program of 187 Raptors. The average unit cost for the 60 aircraft in the Lots 7 through 9 multiyear procurement was $142.6 million. The Lot 10 unit flyaway cost is estimated at $153.2 million. This is $10.6 million higher than the multiyear procurement due to higher materiel costs for a much smaller lot buy, loss of the multiyear procurement savings in parts and labor and inflation.

BUDGET IMPACT: The SAC $207 million reduction to F-22A RDT&E funding would delay Increment 3.2B by an estimated 12 months and would delay Increment 3.2C by two to three years. Additionally, the proposed reduction would stop program work to accelerate the integration of Auto GCAS by four years and would eliminate multiple initiatives to significantly reduce the cost of F-22A modernization in Increment 3.2C and beyond. Finally, if sustained, the reductions would stop four rapid insertion capability efforts designed to demonstrate the integration and use of advanced technologies to address some of our most difficult air superiority challenges.

F-35

The multi-role F-35A is the centerpiece of the Air Force's future precision attack capability. In addition to complementing the F-22's world class air superiority capabilities, the F-35A is designed to penetrate air defenses and deliver a wide range of precision munitions. This modern, fifth-generation aircraft brings the added benefit of increased allied interoperability and cost-sharing across Services and partner nations. It will also serve to fulfill our commitment to NATO's dual-capable aircraft mission. The FY12 budget includes $5.3 billion for continued development and procurement of 19 F-35A Conventional Take-Off and Landing (CTOL) production aircraft.

The F-35A program team achieved a number of accomplishments during 2011, including the arrival of the first two production F-35A aircraft at Edwards AFB to augment the development test fleet, arrival of four F-35A aircraft at Eglin AFB to begin preparations for pilot and maintenance training, completion of 291 CTOL flights as of 31 August 2011 (271 flights had been planned), initiation of Block 1B software testing on CTOL aircraft, and completion of ready for training maturity flights.

In 2010, the Air Force announced the preferred alternatives for F-35A operational and training bases. Those bases are Hill Air Force Base, Utah, and Burlington Air Guard Station, Vermont for operational squadrons and Luke Air Force Base, Arizona for training. The program

continues to experience challenges as it transitions from development to production despite the significant accomplishments.

The Secretary of Defense announced a program restructure in February 2010. The restructure resulted in increased funding for development and production in accordance with Joint Estimate Team II estimates, reduced procurement by 122 aircraft over the FYDP in the FY11 PB, upgraded the Program Executive Officer position from a 2-star to 3-star flag rank, extended development by 13 months, added an additional Low Rate Initial Production (LRIP) lot prior to entering full rate production, and reduced the ramp rate to less than 150 percent of the previous year's production. Program cost growth, including growth from the restructure, resulted in a critical Nunn-McCurdy breach in March 2010. USD (AT&L) subsequently certified the program in accordance with the Nunn-McCurdy statute, allowing the F-35 program to continue. The DoD tasked the program office to perform a bottom-up review of the remaining development effort after the program Nunn-McCurdy certification. This Technical Baseline Review (TBR), completed in November 2010, became the basis for additional program restructuring within the FY12 PB. The TBR called for an additional $4.6 billion to complete the Joint development effort. To fund this new development effort, and recognizing a continued lagging performance in production, OSD reduced procurement by 124 aircraft over the FYDP in the FY12 PB, 57 of which were F-35As.

The Commander, Air Combat Command (COMACC) remains the Air Force's decision authority for declaring the F-35A's Initial Operational Capability (IOC). His decision will be based on achieving sufficient levels of readiness in both capability and capacity, and will not be driven by a specific date. Last June, COMACC detailed the specific capability and capacity criteria required for F-35A IOC. These included validation and acceptance of the F-35 Operational Requirements Document (ORD)-compliant Block 3 mission system software through the Initial Operational Test and Evaluation (IOT&E) process. This will demonstrate the Air Force's ability to employ the F-35A in Offensive Counter Air and Suppression / Destruction of Enemy Air Defense missions in Anti-Access / Area Denied environments. In addition, Air Force pilots and maintainers must be validated as trained and ready to conduct operations, with all operations and logistical support elements ready and in place. In June 2010, based on this criteria, COMACC estimated the Air Force would be able to declare the F-35A IOC in 2016.

The Air Force's position on IOC remains unchanged. We will declare IOC for our F-35As based on achieving the required ORD-compliant capability and capacity criteria, and not on a specific date. We are currently analyzing the impacts to program delivery timelines due to the most recent program restructure; the results of this analysis will be available later this year. Upon completion, the Air Force will reevaluate the IOC estimate, but we currently expect up to a two year delay.

BUDGET IMPACT: Recently, the SAC reduced Air Force procurement by two aircraft and advanced procurement by seven aircraft. We understand the concern over concurrency and

modification costs. However, the Department plans for the JSF program to pay for any cost increases with funding internal to the program; i.e. aircraft procurement funding. If the funding is not restored, the Department would have to further reduce aircraft quantity to pay the concurrency bills. This would result in a lower production for FY12 than FY11 and not achieve the SAC's intent of a level production ramp.

Currently there is restrictive language proposed for inclusion in the FY12 National Defense Authorization Act (NDAA) through H.R. 1540 and S. 1253. The House has Sections 215 and 252, with the Senate addressing restrictions in Section 152. As it stands, the Senate Section 152 requires that the LRIP Lot 5 contract for aircraft be a fixed price contract, and that the contractor assume full responsibility for costs above the target cost will not have the desired effect of controlling costs. To the contrary, a fixed price contract, or a fixed price incentive contract with a 0/100 share line, will result in a higher unit price and likely result in the purchase of fewer aircraft in FY11. Additionally, contract negotiations under those two contract vehicle scenarios would likely be contentious and protracted, possibly resulting in production line perturbations.

House Section 215 would limit the obligation or expenditure of funds for performance improvements to the F-35 Lightning II propulsion system unless there is competitive development and production of such a propulsion system. As the test program unfolds, some improvements are likely to be needed. This section would delay development of the main engine and affect the viability of the short take off and vertical landing variant. If this language is going to be incorporated, a provision needs to be made in Section 215 to allow improvements to the F135 engine that result from findings during the JSF test program and that allow improvements to the engine to meet operational program requirements.

With regards to House Section 252, this section would constitute a new requirement for the preservation and storage of over 250,000 pieces of Government property located at hundreds of suppliers and would add costs for preserving and storing that property for the F136 engine. It would require a deviation from the normal process and procedures for disposition of government property under a termination for convenience, superseding the authority of the Termination Contracting Officer. In addition, the Department does not believe it is possible to execute this plan "at no cost to the Federal Government," because the government would still be required to use DoD personnel to prepare contractual documents to authorize the use of government property and to oversee the property at various locations. The DoD would also be required to procure additional hardware to support the F135 and other U.S. government programs since some F136 property has dual use. The provision is not executable as drafted.

Rotary Wing Aircraft

CV-22

CV-22 fleet stands at 20 aircraft. The last of 50 aircraft will deliver in FY16. Air Force Special Operations Command (AFSOC) has deployed the CV-22 globally, including OIF and OEF. Currently, the 27th Special Operations Wing, based at Cannon AFB, NM, and the 1st Special Operations Wing at Hurlburt Field, FL are fulfilling enduring OCONUS deployments with outstanding feedback from the supported forces.

The Navy-led V-22 Joint Program Office (JPO) at Naval Air Systems Command, Patuxent Naval Air Station, MD, is developing improved operational suitability, reliability, and effectiveness capabilities for the CV-22 in block increments. Block 10 modifications, currently being retrofitted on fielded aircraft, will complete in FY13 and include a rescue hoist, defensive weapon system, retractable fuel probe, anti-icing system, more accessible nacelles, avionics/communications/navigation upgrades, situational awareness improvements, and reliability/maintainability modifications. Block 20 modification development efforts will include basic V-22 aircraft improvements, engine reliability enhancements, navigation, defensive and radar upgrades, fuel dump system improvements, situational awareness upgrades, and over-the-horizon communications improvements.

Sustainment of the basic V-22 aircraft is managed under Joint Performance Based Logistics (JPBL) multi-year contracts that cover both the Air Force CV-22 and Marine Corps MV-22. These contracts are designed to incentivize the contractor to improve readiness and availability by improving component reliabilities, reducing logistics delay times, and reducing maintenance man-hours and repair turnaround times.

The V-22 JPO has a disciplined process to identify and evaluate those modifications and improvements likely to provide the greatest impact to overall system reliability, readiness, and cost-per-flying-hour. These efforts are paying off – mission capable rates are increasing and cost-per-flying-hour is decreasing.

BUDGET IMPACT: The House Appropriations Committee (HAC) reduced the FY12 budget request for CV-22 advanced procurement by $9 million. This reduction would cause a six month to one year delivery delay for the four aircraft being procured in FY13. As such, the Air Force strongly urges Congress to fully fund the FY12 budget request.

Common Vertical Lift Support Platform

The Common Vertical Lift Support Platform (CVLSP) will provide vertical lift support for Intercontinental Ballistic Missile convoy escort, nuclear emergency security response, and Continuation of Government (COG) and Continuation of Operations (COOP) missions in the National Capital Region. Other CVLSP missions include training, range support, Pacific Air Forces senior leader airlift, combat aviation advisory training, and Survival, Evasion, Resistance, and Escape training support. An Off-The-Shelf/Non-Developmental acquisition of up to 93 aircraft is desired.

A SECDEF Blue Ribbon Report in February 2008 and a SECDEF Nuclear Task Force in September 2008 identified the need to replace nuclear security support helicopters. The CVLSP

addresses capability gaps in helicopter nuclear security operations and COG/COOP missions. It provides the required carrying capacity, speed, range, and endurance currently not provided by the UH-1N fleet. Additionally, the CVLSP will resolve nuclear security waivers to Department of Defense nuclear weapon security regulations. The Air Force is pursuing full and open competition of a commercial off-the-shelf or government off-the-shelf solution to ensure that warfighter requirements are met at best cost to the government.

Intelligence, Surveillance and Reconnaissance - Remotely Piloted Aircraft

Long-dwell remotely piloted aircraft (RPA), such as the Predator, Reaper, Global Hawk and other systems, have proven to be invaluable for monitoring activities in contested areas, enhancing situational awareness, protecting our forces, and assisting in targeting enemy fighters. In FY10, the Department made a commitment to grow to a capacity of 50 sustained combat air patrols (CAP) of Predator/Reaper by the end of FY11. The Air Force surpassed this goal, currently providing 60 CAPs, and will continue to expand the force to 65 orbits by FY13. Due to their remote split operating concept of keeping flight crews CONUS, these systems are currently providing 60 CAPs from forward locations while maintaining a minimum forward personnel footprint.

MQ-1B

The MQ-1 Predator is a medium-altitude, long-endurance, remotely piloted aircraft for providing battle space awareness with the ability to provide modest armed over-watch and reconnaissance against critical, perishable targets. It carries two AGM-114 Hellfire missiles. When the MQ-1 is not actively pursuing its primary mission, it acts as the Joint Forces Air Component Commander-owned theater asset for reconnaissance, surveillance and target acquisition in support of the Joint Forces commander. Today there are 40 MQ-1 CAPs supporting Combatant Commanders. Airmen made history in August 2011 when they surpassed the 1,000,000 flight hour mark in the MQ-1B, flying 235,000 hours the last 12 months. MQ-1B production completed in March 2011, but it remains an integral part of the Air Force plan to achieve and sustain 65 combined MQ-9 and MQ-1 CAPs. To support this plan, the MQ-1 program executes a disciplined process to complete modifications necessary to keep the aircraft a viable part of the combined MQ-1/9 fleet indefinitely.

MQ-9

The MQ-9 Reaper is a multi-role remotely piloted aircraft capable of providing battle space awareness, armed over-watch and light strike against critical, emerging time sensitive targets with self- contained hard-kill capability. System Development and Demonstration (SDD) for the first increment began in FY05, and additional SDD efforts are on-going. Due to rapid expansion of production to meet insatiable warfighter demand for increased MQ-9 CAPs, the MQ-9 was designated a Major Defense Acquisition Program (MDAP) in June 2009. Today there are 20 US MQ-9 CAPs supporting CENTCOM's AOR that flew over 85,000 combat hours in FY11. The

Air Force continues to support this capability; the FY12 PB requests procurement of MQ-9s to support growth to 65 CAPs. The MQ-9 has become the "truck" of choice for numerous advanced payloads requested by a variety of defense agencies. The Air Force continues to invest in these advanced capabilities in the FY12 Budget request while continuing to meet Combatant Commander CAP demands.

RQ-4

The RQ-4 Global Hawk (GH) is a high-altitude, long-endurance RPA system providing sustained persistent ISR. The Air Force is committed to GH as the theater-level centerpiece for persistent ISR. It is the planned replacement for the U-2 in support of the Air Force High Altitude Transition (HAT). GH aircraft first deployed in FY06, and have flown over 60,000 flight hours (76 percent in combat) to support overseas contingency operations and humanitarian missions in PACOM, AFRICOM, CENTCOM, NORTHCOM, and SOUTHCOM. The current program of record of 55 aircraft includes 6 Block 20 aircraft, one of which is currently deployed with the Battlefield Airborne Communications Node (BACN) payload in support of CENTCOM, 31 Block 30 aircraft, 12 of which continue worldwide support to overseas contingency operations (OCO) and humanitarian operations, and 11 Block 40 aircraft, which will provide Ground Moving Target Indicator (GMTI) capability to the warfighter in FY13. From the beginning, the GH program has provided sustained persistent surveillance to the warfighter – a vision that is now being realized in theaters around the world.

Intelligence, Reconnaissance and Surveillance - Manned Aircraft

MC-12

The MC-12W continues to be a major acquisition and operations success for the Air Force. The Liberty Project Aircraft were the result of the SECDEF's direction to surge more full motion video capability into Iraq and Afghanistan. The first MC-12W was delivered to the Air Force in June 2009, seven months after receipt of funding and deployed to Iraq less than 30 days later. Deployments to Afghanistan began in December 2009.

To date, 37 Liberty aircraft have been delivered to the Air Force and another five will be delivered by the end of 2011. In this year alone, the MC-12W fleet has amassed more than 13,000 combat sorties, providing critical full motion video and Signals Intelligence to the warfighter. The Liberty Program is a true success story; the benchmark for rapid acquisition.

The Air Force is concerned over language in the Senate Armed Services Committee (SASC) version of the FY12 NDAA that directs the SECDEF to transition the MC-12W fleet to the Army. The MC-12W is a critical ISR platform in high demand throughout the theater of operations. Assigning these aircraft to individual Brigade Combat Teams would prevent Liberty

aircraft from supporting other customers, especially Special Operations Forces and theater intelligence exploitation cells.

V. F-22 Return to Fly

F-22 operations stood down on May 3, 2011 as the result of a cluster of hypoxia-like events and the Secretary of the Air Force subsequently commissioned the Scientific Advisory Board to perform an Aircraft Oxygen Generation Study of the on-board oxygen generating system (OBOGS). This caused all Air Force F-22 pilots to lose their landing currency and Combat Mission Ready or Basic Mission Capable status. After the F-22 was deemed safe to resume operations, Air Combat Command (ACC) developed the F-22 reconstitution plan in order to return F-22 pilots to fully qualified status. After returning to fly on 21 September 2011, the F-22 fleet is ready to employ Air Dominance while continuing to reconstitute the fleet and is on track to meet scheduled taskings in the near future. Currently, the F-22 has reconstituted to a level that allows deployment at 50% of the planned capability. However, deployments remain limited as the associated instructors and supervisors are vital to reconstitute the remaining pilot force. All squadrons are expected to be Fully Mission Capable in an additional six to eight weeks. ACC holds weekly meetings to monitor the status of F-22 combat capability and on-going data collection efforts.

VI. Closing

The Air Force stands ready to win today's Joint fight and plan for tomorrow's challenges. We remain committed to working together to determine a fiscally sound procurement, sustainment and retirement strategy to remain prepared for the current fight as well as posturing for future demands. Dominance of air, space, and cyberspace continues to be requisite to the defense of the United States. As Secretary Panetta recently testified, "...we absolutely have to avoid a hollow force and maintain a military that, even if smaller, will being ready, agile and deployable." We appreciate your continued support and look forward to working in concert to ensure our decisions enable us to strengthen our Air Force to meet future requirements.

WITNESS RESPONSES TO QUESTIONS ASKED DURING THE HEARING

NOVEMBER 2, 2011

RESPONSES TO QUESTIONS SUBMITTED BY MR. BARTLETT

Admiral FLOYD. While the actual Electromagnetic Pulse (EMP) threat is classified in accordance with MIL–STD 2169, aircraft EMP hardening level specifications are not classified. These design margins are identified in the unclassified aircraft design specifications. There are currently six Navy/Marine Corps aircraft in operation with incorporated EMP protection that has been validated at the platform level. These platforms are the E–6B, F/A–18E/F, EA–18G, MV–22B, VH–3D, and the VH–60N. Three aircraft currently in development have EMP protection requirements in their contracts, the F–35B, F–35C, and the P–8A. [See page 16.]

General CARLISLE. The Air Force was concerned with the directive language in the initial draft of MIL–STD–3023. We felt it would result in increased weapon system development costs and impact aircraft availability rates. The Air Force proposed MIL–STD–3023 modifications and language changes to allow greater flexibility in the aircraft design process, clarify testing requirements and specify aircraft applicability. OSD, AT&L, USSTRATCOM, and DTRA have now reached consensus on the updated language, and the new draft MILSTD will have Air Force support at the 21 November 2011 Defense Standardization Council. [See page 17.]

RESPONSE TO QUESTION SUBMITTED BY MR. LOBIONDO

General CARLISLE. The current HH–60G fleet has 99 aircraft, five of which are not flyable due to excessive damage. Since 2007, availability rates have declined to 59 percent. Air Force HH–60G helicopter average age is 21.3 years old, the oldest was delivered in December 1982 and the newest delivered in February 1999. 14 percent of the fleet is operating beyond the economic service life of 7,000 hours per airframe. The remainder of the fleet is rapidly approaching this critical milestone.

We are currently flying these aircraft at three times their planned flying hour program. When you combine that with the continuous harsh combat conditions we operate in we are rapidly consuming the useful life of these aircraft. Wear and tear has accelerated, especially over the past five years. 74 percent of the aircraft have experienced major structural cracking which has resulted in the need for 14 major modifications just to sustain the fleet. Since 2007, the structural issues combined with combat battle damage has decreased the mission capable rate of available aircraft to 73 percent. In this same time frame, maintenance man hours per flight hour has increased by 26 percent to 13.8 hours.

The current UH–1N fleet contains 59 aircraft with over 12,500 hours per aircraft. The average age of the UH–1N fleet is over 40 years with the oldest delivered in March 1970 and the newest delivered in May 1971. The UH–1N's advanced age is appearing in the form of airframe cracks. For example, we are in the final stages of replacing all of the tail boom assemblies on our UH–1Ns because of cracks. As with other aging airframes, it is challenging keeping a forty-year-old aircraft combat mission ready while working through the issue of parts availability and obsolescence. Over the last year alone, the fleet was grounded four times due to structural failures. I see challenges showing up in our UH–1N availability rates. The UH–1N availability rate has been on a slow decline for the past two years. Currently, the UH–1N availability rates are lower than 76 percent. As for performance, the UH–1N fleet does not meet missile complex security requirements for endurance, speed, and payload. In addition to the UH–1N's validated capability gaps, there are not enough UH–1N aircraft to meet the security needs for our nuclear enterprise and the missions in the Military District of Washington. [See page 15.]

QUESTIONS SUBMITTED BY MEMBERS POST HEARING

NOVEMBER 2, 2011

QUESTIONS SUBMITTED BY MR. BARTLETT

Mr. BARTLETT. For each of the Services, do any of your combat aircraft in the operational forces or in development have electromagnetic pulse protection?

General ROBLING. Our AV–8B, EA–6B, and F/A–18A–D aircraft avionic components maintain the capability to meet current military standards in regards to electromagnetic pulse protection. All variants of the F–35 are designed to protect against electromagnetic pulse and are scheduled for testing as part of the System Design and Development process.

Mr. BARTLETT. For each of the Services, is EMP hardening funded in the F–35 development program and incorporated on the F–35 production aircraft?

General ROBLING. All Joint Strike Fighter variants aircraft are hardened and funded for EMP at a multi-tier level: the components themselves are hardened and then the jet and systems are hardened and tested. Box level qualification testing is nearing completion; hardness surveillance will be conducted via full scale EMP testing during verification efforts from 2013 to 2016.

Mr. BARTLETT. Based on the recent results of the initial ship trials on the USS *Wasp*, can you describe for us the ship integration challenges and expected costs you foresee for integrating the JSF onto Large Deck Amphibs?

General ROBLING. The recent F–35B ship trials on the USS *Wasp* demonstrated Large Deck Amphibious compatibility and a major increase in operational capability. Over 4 years ago we started the STOVL shipboard integration engineering analysis and since then developed a set of anticipated ship alterations. One of the primary purposes of the ship trials in October was to verify these anticipated alterations and adjust designs and the necessity based on actual data. We anticipated approximately $43M per ship and based on the preliminary test results expect not to exceed this estimate nor realize any integration challenges that would limit the full combat potential the F–35B provide our Marine Expeditionary Units.

Mr. BARTLETT. Given the recent affects of the Budget Control Act of 2011, do you anticipate that you will decrease the total number of JSF bought from the current program of record of 680 aircraft total? If so, how will this affect the Navy and Marine Corps being able to meet strike fighter requirements in the future?

General ROBLING. The FY12 Presidential Budget request reflects our requirement to meet our strike fighter requirements. Our requirement for 680 JSF could be adjusted to reflect changes any changes in our national defense strategy, when and if that occurs it would be prudent to adjust the procurement of all our weapon system programs to adequately support the new strategy.

Mr. BARTLETT. The total Department of the Navy strike fighter shortfall is 65 aircraft in approximately 2018. Of that amount, what is the Marine Corps strike fighter shortfall and what are Marine Corps plans to mitigate its effects?

General ROBLING. The strike fighter shortfall of 52 aircraft includes the Navy procurement of an additional 9 F/A–18E/F aircraft, and the peak shortfall would occur in 2018. Of the 52 aircraft shortfall the Marine Corps share would be approximately 40. Without the procurement of the additional 9 F/A–18E/F aircraft, the Department of the Navy strike fighter shortfall is projected at 65 aircraft with a peak in 2018. Of this total the Marine Corps share would be 47 aircraft. The DoN has determined that a 65 aircraft shortfall in 2018 is manageable with the mitigations in place. If the JSF delivery profile remains unchanged, and the service life of 150 F/A–18A–D is extended to 10,000 flight hours (along with success in other mitigation efforts), DoN will continue to assess the most recent shortfall projection as manageable. DoN 13 funding fully supports this strategy. However, any further delay in the JSF delivery profile will have a negative effect on existing strategies and the projected strike fighter shortfall in both magnitude and duration. Expanded inventory management decisions (i.e., SLEP additional legacy aircraft) are possible but depend greatly upon expected JSF availability, legacy aircraft utilization and attrition rates.

Mr. BARTLETT. For each of the Services, do any of your combat aircraft in the operational forces or in development have electromagnetic pulse protection?

Admiral FLOYD. Yes, there are currently six Navy/Marine Corps aircraft in operation with incorporated electromagnetic pulse (EMP) protection that has been validated at the platform level. These platforms are the E–6B, F/A–18E/F, EA–18G,

MV–22B, VH–3D, and the VH–60N. Three aircraft currently in development have EMP protection requirements in their contracts. These are the F–35B, F–35C, and the P–8A.

Mr. BARTLETT. For each of the Services, is EMP hardening funded in the F–35 development program and incorporated on the F–35 production aircraft?

Admiral FLOYD. Yes, EMP hardening protection is funded in the F–35 development program and has been incorporated into all variants of the F–35.

Mr. BARTLETT. Given the recent affects of the Budget Control Act of 2011, do you anticipate that you will decrease the total number of JSF bought from the current program of record of 680 aircraft total? If so, how will this affect the Navy and Marine Corps being able to meet strike fighter requirements in the future?

Admiral FLOYD. No, the DoN intends to procure the program of record of 680 JSF aircraft.

Mr. BARTLETT. The intelligence, surveillance, and reconnaissance systems requirements established by the wars in Iraq and Afghanistan provided billions of dollars for each of the military services' ISR capabilities. Each of the Services have advanced significantly in the use of remotely piloted aircraft, ISR aircraft like the MC–12 and others, tethered balloons, and related payload sensor systems and strike capabilities. Additionally, hundreds of millions of dollars has been spent and is planned to be spent on individual Service technical demonstrations resurrecting current-day versions of blimps and related sensor arrays: Programs like the Army's Long-Endurance Multi-Intelligence Vehicle, the Navy's MZ–3, and the Air Force's Blue Devil 2. The military services have been given significant freedom to pursue their own developments of aircraft, remotely piloted vehicles, and sensors. The industrial base has benefited from that. However, vehicles and sensors have been allowed to proliferate, some would say excessively. Given a newly constrained budget environment, is there a DOD structure that will result in a rationalized array of systems and capabilities or will each Service likely be cut a given amount, with the result in some cases being continued unstructured proliferation of capabilities?

Admiral FLOYD. The DOD has made significant investment in ISR platforms and SIGINT payloads. Each Service has somewhat different mission requirements that, in some cases, drive the procurement of specific and tailored capabilities. Multi-Service Synergies Working Groups have been established with the goal to achieve commonality, interoperability, and efficiency wherever possible. The Services collaborate on common control systems, joint training/basing, data standards, and compatible spares in order to reduce total ownership costs. The Navy continues to strive for reduce capability redundancy and standardize ISR platform and sensor procurement to meet maritime warfighter needs in both current Programs of Record and planning for future capabilities. Navy frequently uses systems that were developed by other Services and have wide customer profiles. Examples are the EO/IR sensors, EW sensors, and radars currently being procured for the BAMS and Fire Scout UAVs.

In addition to the traditional procurement process, engagements in Iraq and Afghanistan have driven the Services to pursue several new ISR systems to fulfill COCOM urgent needs. Prior to approval of funding, these needs and solutions are validated by the Under Secretary of Defense for Acquisition, Technology, and Logistics Joint Rapid Acquisition Cell (JRAC) and the Joint Staff. These systems are usually initially funded by OCO, supplied by ISR Task Force or the Services. If they are successful and selected as enduring capabilities, these capabilities become programs of record which are then folded into the normal POM cycle process and funded within Service baselines. This Joint process promotes getting the warfighter the right capability, at the right time, at the right price.

Mr. BARTLETT. I noticed in your testimony that you did not mention the relative condition, age and capability of the Air Force's fleet of HH–60 Pave Hawk helicopters. Can you please provide the committee with that information as well as any plans to recapitalize the CSAR fleet?

General CARLISLE. The current HH–60G fleet contains 99 total aircraft inventory, of which 94 are flyable. Since 2007, availability rates have declined by 5% to 59%. Air Force HH–60G helicopters average age is 21.3 years old; the oldest was delivered in December 1982 with the newest delivery received in February 1999. Two aircraft have exceeded 10,000 flight hours.

In the past five years, utilization rates were three times higher than programmed. This, combined with the demands of continually flying in combat conditions, has accelerated wear on the airframes. 73 aircraft experienced major structural beam cracking which led to 14 major fleet modifications. Structural issues and combat battle damage since 2007 led to a 73% mission capable rate for available airframes.

In this same time frame, maintenance man hours/flight increased by 30% to 16.07 hours.

The Combat Rescue Helicopter (CRH) program recapitalizes the HH–60G fleet to its current program of record of 112. The program is a full and open competition with an expected initial operating capability in fiscal year 2018.

Mr. BARTLETT. I understand the Subcommittee raised the concern this past spring the Air Force issue a full and open competition for the CVLSP requirement soon to be decided on. In your testimony today, you mention that it is indeed the Air Force's intent to replace its Hueys with an affordable commercial-off-the-shelf option to fulfill this mission. Is this still indeed the case? I ask because there have been reports that indicate the Air Force, since the spring, has again considered sole-sourcing the contract to a larger, more expensive combat type platform.

General CARLISLE. Yes, the Air Force's acquisition strategy for CVLSP is full and open competition for an off-the-shelf platform that can meet the Joint Requirements Oversight Council validated user requirements.

Mr. BARTLETT. Does the USAF concur with the new MIL STD 3023 for aircraft survivability to HEMP approved by Navy and the Army and specifically recommended by the Defense Science Board Permanent Task Force on the Survivability of DOD Systems and Assets to Electromagnetic Pulse (EMP) and Other Nuclear Weapons Effects (NWE)? If not, why not? If not MIL STD 3023 or the old MIL–STD 2169B, what is the MIL STD level of HEMP hardening by the USAF for JSF, KC–46A aerial refueling tanker, the next-generation bomber and the Presidential aircraft fleet? This is important since Dr. John Kuspa, Chief, Nuclear, Survivability, ATL–NCB–NM, has publicly documented the relaxing of DOD survivability standards between 1991 and 1996 and emphasized that "all references to nuclear survivability were deleted in the 1996 5000-series revisions" and that "2000 revisions did not address how to acquire nuclear survivable systems."

General CARLISLE. Initial coordination of draft MIL–STD–3023 in December 2010 met with Air Force concern over fixed design margins, verification testing, and applicability to new/legacy aircraft. The Air Force proposed MIL–STD–3023 modifications and language changes to allow greater flexibility in the aircraft design process, clarify testing requirements and specify aircraft applicability. OSD, AT&L, USSTRATCOM, and DTRA have now reached consensus on the updated language, and the new draft MILSTD will have Air Force support at the 21 November 2011 Defense Standardization Council.

F–35 ORD/Joint Contract Specification (JCS) requires the F–35 to be hardened against man-made external electromagnetic environments IAW MIL–STD–464.

According to the Capability Development Document (CDD), "the KC–X fleet shall have EMP protection for flight-critical systems [and] be capable of air refueling in an EMP environment". The MIL–STD–3023 was not available for inclusion in KC–X Request for Proposal (RFP); KC–46A EMP requirements are IAW MIL–STD–464.

The Presidential fleet has been designed and tested to the levels outlined in MIL–STD–464 and MIL–STD–2169B or their predecessors.

With the impending adoption of MIL–STD–3023, we anticipate that the EMP requirements of the next generation bomber will be in compliance with this standard.

Mr. BARTLETT. For each of the Services, do any of your combat aircraft in the operational forces or in development have electromagnetic pulse protection?

General CARLISLE. Yes. All military aircraft are designed and tested to meet standards for a number of electromagnetic hazards, including Electromagnetic Pulse (EMP). In addition, DoD policy is that mission-critical aircraft will be able to operate in a Chemical, Biological, Radiological, and Nuclear (CBRN) environment; this includes actions to ensure protection from the effects of EMP. Air Force strategic systems are specifically designed, maintained, and tested against projected EMP hazards. Testing is done at both the individual component level, as well as system-level (full aircraft) tests.

An updated standard for EMP protection (MIL–STD–3023) in the final stages of coordination within OSD. The revised standard clarifies design and testing standards for all aircraft, and will address both developmental and operational aircraft.

Mr. BARTLETT. For each of the Services, is EMP hardening funded in the F–35 development program and incorporated on the F–35 production aircraft?

General CARLISLE. Electromagnetic pulse (EMP) hardening is funded in the F–35 development program and is incorporated on the F–35 production aircraft. The F–35 Operational Requirements Document requires the F–35 to be hardened against man-made external electromagnetic environments. The F–35 is designed to be compatible with a nuclear EMP pulse in the exo-atmosphere (i.e. high altitude explosion).

Mr. BARTLETT. We understand that in an August 2011 Interim Report from the Defense Science Board on the Survivability of Systems and Assets to Electro-

magnetic Pulse and Other Nuclear Weapons Effects the Air Force non-concurred with the new aircraft EMP standard [MIL–STD 3023] and that this has potential impacts on survivability requirements for new aircraft such as the F–35, tanker, next-generation bomber, and White House platforms. Please discuss why the Air Force non-concurred.

General CARLISLE. Initial coordination of draft MIL–STD–3023 in December 2010 met with Air Force disagreement over fixed design margins, verification testing, and applicability to new/legacy aircraft. Directive MILSTD language would result in increased weapon system development costs and impact aircraft availability rates. The Air Force proposed MIL–STD–3023 modifications and language changes to allow greater flexibility in the aircraft design process, clarify testing requirements and specify aircraft applicability. OSD, AT&L, USSTRATCOM, and DTRA have now reached consensus on updated language, and the new draft MILSTD will have Air Force support at the 21 November 2011 Defense Standardization Council. The JCIDS process will remain the primary means of establishing HEMP testing requirements.

Mr. BARTLETT. As you know, the subcommittee has formally requested that the Secretary of the Air Force provide both the committee and General Wyatt with a comprehensive plan for modernizing the Air National Guard's Aerospace Control Alert mission fleet and applicable fighter wings before the end of this year. At this time, can you tell us generally what that plan would entail?

General CARLISLE. The Air Force Total Force Enterprise process carefully considers variables such as aircraft service life updates, sustainment and modernization efforts, and F–35 development and procurement schedules to ensure that all designated active and reserve component units possess the aircraft required for mission accomplishment. Generally speaking, as the oldest aircraft retire they may be replaced by F–35s or by newer aircraft made available by the bed down of F–35s at other bases. However, due to the current fiscal climate and ongoing FY12 and FY13 budget deliberations, these variables make accurate ANG fighter fleet modernization and recapitalization plans difficult to predict with reasonable fidelity at this time. In order to ensure accurate and well-informed analysis, the Air Force will provide the requested plan to the HASC following the release of the FY13 President's Budget.

Mr. BARTLETT. In light of the recent Senate Armed Services Committee and Senate Appropriations Subcommittee on Defense marks that would not provide funds for LAAR in fiscal year 2012, is the Air Force reconsidering its requirement for LAAR?

General CARLISLE. The LAAR program is a Building Partnership Capacity (BPC) initiative in support of SECDEF's Guidance for Development of the Force which procures 15 non-developmental light attack aircraft to prepare USAF airmen for BPC missions worldwide. The requirement was vetted in accordance with Joint Capability Integration and Development System processes, with the Capability Production Document validated by the Air Force Requirements Oversight Council on 17 March 2011 and by the Joint Capabilities Board with a Joint Requirements Oversight Council Memorandum signed on 5 July 2011. The Air Force continues evaluation and prioritization of this validated requirement among the entire portfolio during the ongoing FY13 POM work.

Mr. BARTLETT. The Air Force had intended to begin retiring the U–2 aircraft in 2006. Congress passed legislation delaying that action until the Secretary of Defense can certify to Congress that the capabilities provided by the U–2 aircraft no longer contribute to mitigating any gaps in intelligence, surveillance, and reconnaissance capabilities. Is there a replacement capability that can replicate the U–2 capabilities or is this a case like the SR–71, where it provided an unmatched capability, but we just couldn't continue to afford its unique capability and retired it? What are Air Force plans?

General CARLISLE. As part of the Fiscal Year 2012 (FY12) President's Budget, the Air Force intends to replace the U–2 with RQ–4 Global Hawk in FY15. The RQ–4 delivers persistent, multi-intelligence, high altitude capability comparable to the U–2.

There is an ability to mitigate intelligence, surveillance, and reconnaissance (ISR) gaps by using available and forecasted systems from both airborne and space based ISR portfolios.

Mr. BARTLETT. The intelligence, surveillance, and reconnaissance systems requirements established by the wars in Iraq and Afghanistan provided billions of dollars for each of the military services' ISR capabilities. Each of the Services have advanced significantly in the use of remotely piloted aircraft, ISR aircraft like the MC–12 and others, tethered balloons, and related payload sensor systems and strike capabilities. Additionally, hundreds of millions of dollars has been spent and is

planned to be spent on individual Service technical demonstrations resurrecting current-day versions of blimps and related sensor arrays: Programs like the Army's Long-Endurance Multi-Intelligence Vehicle, the Navy's MZ–3, and the Air Force's Blue Devil 2. The military services have been given significant freedom to pursue their own developments of aircraft, remotely piloted vehicles, and sensors. The industrial base has benefited from that. However, vehicles and sensors have been allowed to proliferate, some would say excessively. Given a newly constrained budget environment, is there a DOD structure that will result in a rationalized array of systems and capabilities or will each Service likely be cut a given amount, with the result in some cases being continued unstructured proliferation of capabilities?

General CARLISLE. The Air Force acquires intelligence, surveillance, and reconnaissance (ISR) resources using the Joint Capabilities Integration and Development System (JCIDS). The JCIDS process supports Combatant Commander (COCOM) needs with Joint Requirements Oversight Council approved requirements documents.

Air Force develops ISR systems to support the Global Force Management Allocation Plan which provides ISR sourcing recommendations in response to COCOM emergent requests.

The Office of the Under Secretary of Defense (Intelligence) carefully reviews and provides guidance to service ISR planning and programming efforts.

Mr. BARTLETT. In the United States during Hurricane Katrina and in meeting other Federal requirements, there was difficulty gaining FAA approval for remotely piloted vehicle operations in U.S. airspace. What is the status of remotely piloted aircraft being able to operate independently in U.S. airspace?

General CARLISLE. The Air Force is addressing the major issues that will enable Unmanned Aircraft Systems (UAS) integration into national airspace through a joint effort led by the DOD UAS Task Force. The UAS Task Force serves as DOD's advocate, in concert with inter-agency efforts to shape the regulatory policies, procedures, certification standards and technology development activities that are critical to the integration of the Department's remotely piloted aircraft into the National Airspace System (NAS). The Task Force has made solid progress on both short-term and long-term solutions by developing the DOD Airspace Integration Plan and the Joint Concept of Operations (CONOPS) for UAS Airspace Integration, which guides development of DOD policy and Service CONOPS development.

The Air Force remains committed to achieving safe and efficient operations of remotely piloted aircraft within the NAS as quickly as technological and regulatory improvements will allow. We are closely engaged with industry, academia and Federally-Funded Research Companies to leverage both technology and aviation processes that will accelerate this effort as much as possible.

Mr. BARTLETT. The Air Force announced its intentions to competitively bid the Common Vertical Lift Support Platform (CVLSP) and the Combat Rescue Helicopter (CRH) separately. Is it still the intention of the Air Force to replace its aged UH–1N with a right-sized, affordable aircraft to perform the non-combat, domestic CVLSP missions and separately acquire a bigger, more robust combat capability for CRH?

General CARLISLE. Air Force intends to replace the UH–1N fleet through a full and open competition for a Common Vertical Lift Support Platform. CRH requirements drive the need for a more robust capability than CVLSP to ensure combat requirements are met. The CRH will also be a full and open competition but may not necessarily result in a bigger helicopter.

Mr. BARTLETT. Please describe the updated acquisition strategy for the Light Attack Armed Reconnaissance Aircraft (LAAR) aircraft. Has the acquisition strategy been fully approved and finalized for this program?

General LINDELL. The LAAR program is seeking to leverage efficiencies from the Light Air Support (LAS) effort expected to complete source selection 1QFY12. As a result, the acquisition strategy for the LAAR aircraft is currently on hold awaiting the LAS Milestone C decision. Additionally, as a FY12 new start program, funding is not available due to continuing resolution rules and Congressional marks to the program. Congressional marks, still pending conference, are summarized below.

FY12 Congressional Marks:

- HASC: Language would limit FY12 Aircraft Procurement authority until:
    1. Joint Requirements Oversight Council validates the requirements to address the capabilities gap
    2. Under Secretary of Defense for Acquisition, Technology, and Logistics (USD AT&L) approves the acquisition strategy
- SASC: Reduction of all $158.5M FY12 Aircraft Procurement funding

- HAC: Supported the President's Budget
- SAC: Reduction of all $158.5M Aircraft Procurement and all $23.7 Research, Development, Testing and Evaluation FY12 funding.