[H.A.S.C. No. 111–64]

HEARING

ON

NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2010

AND

OVERSIGHT OF PREVIOUSLY AUTHORIZED PROGRAMS

BEFORE THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES
ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

SEAPOWER AND EXPEDITIONARY FORCES
SUBCOMMITTEE HEARING

ON

BUDGET REQUEST FOR DEPARTMENT OF THE NAVY AVIATION PROGRAMS

HEARING HELD
MAY 19, 2009

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FISCAL YEAR 2010 NATIONAL DEFENSE AUTHORIZATION ACT—BUDGET REQUEST FOR DEPARTMENT OF THE NAVY AVIATION PROGRAMS

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
SEAPOWER AND EXPEDITIONARY FORCES SUBCOMMITTEE,
Washington, DC, Tuesday, May 19, 2009.

The subcommittee met, pursuant to call, at 2:02 p.m., in room 2212, Rayburn House Office Building, Hon. Joe Courtney presiding.

OPENING STATEMENT OF HON. JOE COURTNEY, A REPRESENTATIVE FROM CONNECTICUT, SEAPOWER AND EXPEDITIONARY FORCES SUBCOMMITTEE

Mr. COURTNEY. The hearing will come to order. As some of you probably noticed, I am not Congressman Gene Taylor from Mississippi. I am Joe Courtney, who usually sits much further down on the dais up here, from Connecticut. Mr. Taylor had a sudden call out of the building and asked me just to fill in to get the hearing started, and hopefully he will join us in a short period of time.

And I am very pleased that the former chairman of the subcommittee, Congressman Bartlett, is here to make sure I don't do anything that will damage the committee's processes.

Mr. Taylor has prepared an opening statement which he asked me to read into the record. And I am going to do that right now, and then we will proceed with Mr. Bartlett's opening comments.

Today the subcommittee meets to receive testimony from Navy and Marine Corps officials on their aviation programs contained in the fiscal year 2010 budget request. Today we have with us Vice Admiral Architzel.

Admiral ARCHITZEL. Architzel, sir.

Mr. COURTNEY. Architzel, serving as principal military deputy to Assistant Secretary of the Navy Stackley of the Navy and Marine Corps research, development, and acquisition programs; Lieutenant General Trautman, serving as Deputy Commandant for the Marine Corps aviation programs; and Rear Admiral Myers, serving as the director for integration of all Naval Warfare programs.

Gentleman, thank you for taking time out of your busy schedules to be with us. Much like the Department's shipbuilding programs, aviation programs of the Navy and Marine Corps are not without issues. The most apparent issue is the amount of the budget request and the number of aircraft requested.

The aviation budget request for this year is $4.6 billion greater than last year's plan for the fiscal year 2010, but the overall quantity of planned aircraft purchases has decreased by 20. Very similar to shipbuilding, the amount of funding requested has steadily

gone up, but the quantity of aircraft purchased has steadily declined.

I would like to outline the program and policy issues that, at a minimum, I would like our witnesses to address. First, the primary policy issue that I would like to address is that of the strike fighter inventory of the Navy and Marine Corps. Over the last three years, all four congressional Defense committees have had a steady stream of Navy and Marine Corps witnesses testify before them about an impending strike fighter shortfall. This shortfall is predicted to peak in the middle of the next decade. Right now, current analysis puts that peak at 243 aircraft in fiscal year 2018, but if you account for the accepted risk that each service has informed Congress that they are currently incurring, the peak shortage of aircraft climbs to 312 in that same year.

What is more troubling is that it appears that there is a disconnect between the Office of the Secretary of Defense (OSD) and the Department of the Navy. Officials from OSD have recently briefed this committee that there is no strike fighter shortfall, but that the totality of strike fighter inventory is a matter of analysis in the Quadrennial Defense Review (QDR). In other words, OSD has already predetermined the answer and now they will use the QDR to build the equation.

I request that the witnesses explain today what the position of the Department of Navy is regarding the strike fighter shortfall, and if they are aware of any new analysis by the Joint Staff or OSD which would contradict what is apparently simple arithmetic; because the last time I checked, an aircraft carrier is only worth its weight in gold if it has an embarked air wing. In other words, 90,000 tons of American sovereignty becomes 90,000 tons of American helicopter transportation.

Next, there are a number of programs, and I know we may not have time to discuss all of them today, that are of high interest to members of this subcommittee. The first program is the F/A–18 Super Hornet, which ties directly with the strike fighter inventory discussion. What I would like to understand is why the Navy reduced its program request by nine Super Hornets in fiscal year 2010 over the predicted request in last year's budget. It is our understanding that the program is executing very well, on cost target, and on schedule.

Yet with the Super Hornet line executing well, the Navy and Marine Corps have opted to increase their fiscal 2010 Joint Strike Fighter F–35 aircraft by two, at an estimated cost of $236 million each. I know the Department prefers the advantages of stealth, but given the high risk and high concurrency regarding the development, testing, and production of the F–35, we need to understand at what point that putting combat-proven, rubber-on-the-ramp Super Hornets is more advantageous than waiting for an experimental aircraft that is behind its original schedule by more than two years, over its original program budget estimate by more than $65 billion, and has already reduced its planned inventory quantity by more than 400 aircraft.

The Government Accountability Office (GAO) has noted in its most recent F–35 report to Congress that the program office estimates an additional $2.4 billion is needed to cover cost overruns on

the air system and engine contracts and to incorporate the one-year extension to the development schedule. The prime contractor has already extended the manufacturing schedule three times, and due to ongoing manufacturing inefficiencies and parts supply problems with its subcontractors, has only delivered 3 out of 13 aircraft. Nine aircraft should have been delivered by now.

I would like to understand why the Department wants to accelerate F–35 procurement between 2010 and 2015 by purchasing 28 additional aircraft above its current program of record. It is my understanding that F–35 contracts are planned as cost reimbursable instead of fixed price, and this magnifies the financial risk to the government.

Has the Department learned nothing from the fiascos of the VH–71 program and the Littoral Combat Ship program? The F/A–18 Super Hornet can be purchased for somewhere in the neighborhood of $50 million on a fixed-price contract. For the F–35 the cost growth per airframe alone is $38.3 million. I think we have a great airframe in the F/A–18 Super Hornet. It is affordable, it is multimission, and it is flying off our carriers in combat today. I would like our witnesses to explain why this committee should recommend removing funds from a proven program to increase procurement in a developmental program.

Briefly, I would like to address the VH–71 program. The Navy invested over $3.2 billion, received nine test and pilot-production aircraft, yet was unable to successfully execute this program that ultimately was canceled by Secretary Gates. I would like to understand what the plan is for the current aircraft assets that have already been delivered, what is the plan going forward, and how the mistakes of the original program will be prevented from happening in the next program.

I understand the E2–D program may be on the verge of a significant Nunn-McCurdy breach. I would ask the witnesses to comment on the health of that program.

Finally, I understand that although the MV–22 has performed extremely well in combat operations in Iraq, the aircraft is having sustainment issues and unforeseen additional costs associated with maintenance. Are there ongoing efforts at design changes to address some of these maintenance issues?

I realize that I have outlined a number of issues facing Naval aviation. I believe these are fair concerns and deserve an open and public accounting of the costs and benefits of these programs. What I am not willing to do is sit by as program after program breaks the bank on costs. I have seen enough of that in shipbuilding programs. We can no longer afford unaffordable programs. I believe it is time to step back and build what we know works, make it better if we can, and get the capability to the sailor and marine who need it today, not 10 years from now.

Again I thank the witnesses for joining us today, and now would like to recognize the gentleman from Maryland, Mr. Bartlett.

[The prepared statement of Mr. Taylor can be found in the Appendix on page 39.]

STATEMENT OF HON. ROSCOE G. BARTLETT, A REPRESENTATIVE FROM MARYLAND, SEAPOWER AND EXPEDITIONARY FORCES SUBCOMMITTEE

Mr. BARTLETT. Thank you very much. I will read our Ranking Member's opening statement into the record. As you will see from my line of questioning later, if it were my opening statement it would be a bit different.

Thank you, Mr. Chairman, and welcome to our witnesses. We meet this afternoon to receive testimony on Navy and Marine Corps aviation programs, which is an area with many challenges. Naval aviation has been a major component of our mighty military might since World War II. Our ability to project power great distances onto shore, from any ocean in the world, has been vital to U.S. national security. Our aircraft carriers have become a symbol of American diplomatic power and freedom and are the heart of our modern Navy. As the saying goes, when a crisis arises, the first question on everyone's lips is, where is the nearest carrier?

Unfortunately, our Navy faces a significant strike fighter shortfall in the near future. And what good is an aircraft carrier without aircraft? Last year the Chief of Naval Operations (CNO) testified to a fighter shortfall of approximately 125 planes for the Department of the Navy by 2017. This year, based on an updated analysis, the Navy has told Congress that a more realistic estimate is a shortfall of over 240 planes. This assumes that the Joint Strike Fighter delivers on time and that the Navy will continue to resource its carrier air wings with fewer than is called for in the National Military Strategy.

If the Joint Strike Fighter program is like most of our programs, it will not deliver on time, and so the real shortage will be well over 240 planes. Should the Navy resource to its full strike fighter requirement, the shortfall would be greater than 300 aircraft.

What does all this mean? Simple math shows that at least 5 of our 11 carriers will be without fighter aircraft, or we would be forced to severely limit the number of aircraft per carrier and available for training. In either case, the solution would pose a significant strategic risk.

I am deeply concerned that this budget actually makes the shortfall worse by cutting the number of Super Hornets the Navy is buying. Facing a gap of at least 243 planes, the Navy is only asking for nine Super Hornets. In a few months, the Navy has gone from considering another multiyear procurement of Super Hornets to cutting the buy of F/A–18s in half. This makes no sense. As I told the CNO last week, we either need more planes or fewer carriers. I do not think anyone in this room believes that fewer carriers is a solution.

Unfortunately, as Congress has tried to wrestle with this issue, the Department of Defense has refused to obey the law and has been anything but transparent. The Department of Defense (DOD) has not delivered a report on cost and benefits of a multiyear procurement of F/A–18s required by law by March 1, 2009; not delivered the 30-year aviation plan required by law; not delivered a future years Defense program with the budget, as required by section 221 of Title 10, United States Code; and it has refused to brief Con-

gress on the apparently differing estimates on the size of the fighter shortfall.

Is this the transparency that President Obama promised? Does the Department of Defense consider itself above the law? Let us be clear. The mere existence of a Quadrennial Defense Review does not exempt the Department from fulfilling its legal obligations.

While I understand that the witnesses this afternoon are not responsible for these decisions to violate the law, let me say at the outset that the Department cannot expect to use the QDR as a get-out-of-jail-free card. Our witnesses should understand that this committee expects and deserves answers, not evasive maneuvers.

Before closing, let me briefly mention a few other concerns that I hope the witnesses will address. First, the development and testing of the Joint Strike Fighter remains uncertain. The fact that we are already spending billions of dollars to buy these planes when we have only completed a fraction of the testing deeply concerns me. I believe that we will continue to see costs and schedules slips, and am concerned that in a constrained fiscal environment we will continue to see growth in this expensive program. The Joint Strike Fighter may be a great weapons system, but it seems to be the 99 percent solution that Secretary Gates said we should avoid.

I would also like the witnesses to comment on where we stand in terms of electronic warfare capabilities today. Are we meeting the needs of the combatant commanders? What are the Marines doing about electronic warfare? Will the Navy continue to provide expeditionary electronic warfare capability on behalf of the Air Force?

There is much work to be done in the area of Naval aviation. Let me again thank the witnesses for being here today, for the work they are doing for our Nation. Thank you, Mr. Chairman, for holding this important hearing. I yield back.

Mr. COURTNEY. Thank you, Mr. Bartlett.

[The prepared statement of Mr. Akin can be found in the Appendix on page 45.]

Mr. COURTNEY. We have been joined by Mr. Coffman. Do you have an opening statement?

Mr. COFFMAN. No, I don't, Mr. Chairman.

Mr. COURTNEY. Thank you. Buzzers are going off. There are votes. The good news is these are the final votes of the day and there are only three.

Admiral, why don't you submit your remarks and then we can take a brief recess for the members to go vote. And we will come back, and we should have the rest of the afternoon clear.

Admiral ARCHITZEL. Thank you, Mr. Chairman.

Mr. COURTNEY. And again you can have your statements entered for the record.

Admiral ARCHITZEL. Sure. Chairman Courtney and Congressman, Ranking Members, distinguished committee members, it is my honor to appear before you today to discuss the Department of the Navy's aviation procurement program. I would like to have my written statement submitted for the report.

Mr. COURTNEY. Without objection.

STATEMENT OF VICE ADM. DAVID ARCHITZEL, USN, PRINCIPAL MILITARY DEPUTY TO THE ASSISTANT SECRETARY OF THE NAVY FOR RESEARCH, DEVELOPMENT AND ACQUISITION, U.S. NAVY

Admiral ARCHITZEL. As the Department of Navy's acquisition lead, we develop and test and acquire our country's Naval aviation weapons systems by balancing performance, schedule, and cost-effectiveness. The fiscal year 2010 budget supports the Navy and Marine Corps' joint forces, capable of meeting the wide spectrum of threats to our Nation both today and in the future.

The Department continues the development and low rate initial procurement of the F–35 Lightning II and the E–2D Advanced Hawkeye, CH–53 Heavy Lift Replacement Helicopter, the P–8A Poseidon, unmanned aviation, and new strike weapons capabilities.

We will procure our first full rate production EA–18 Growler aircraft this year, and continue procurement of the F/A–18 Super Hornet, the V–22, the T–6B Joint Primary Aircraft Training System (JPATS), UH–1 and AH–1 Zulu helicopters, the 60 Romeo and Sierra helicopters. In total, Navy and Marine Corps Aviation will procure 98 tactical and fixed-wing aircraft, 100 rotary-wing aircraft, and five BT UAVs, for a total of 203 aircraft with the fiscal year 2010 funding.

The Navy's acquisition professional workforce, dedicated men and women of civilian and military career fields, are working to bring the most capable and affordable weapons systems to the fleet. By developing new technologies, testing, and integration of systems, and the procurement of equipment and support of these weapons systems, they execute the funds and policies of this budget request. I am proud to represent them before this committee.

The Navy is committed to funding and fielding the Joint Strike Fighter as a highly capable fifth generation multi-mission Strike Fighter. JSF is in the eighth year of its design, development, and test program. Three SDD aircraft are in ground and flight tests. All F–35 variants are projected to meet their respective key performance parameters, or KPPs. The F–135 engine has completed 11,300-plus test hours on 16 engines through mid-April 2009. Systems integration testing continues on plan via flight tests, flying lab, and over 150,000 hours of ground laboratory testing. A fully integrated mission-system jet flies in 2009.

I would like to note the good news of the P–8A Poseidon acquisition program. We are leveraging the efficiencies of the commercial production bulk product Boeing 737 to realize the technologically advanced product in a shortened acquisition timeline. This aircraft will be delivered only nine years after program initiation, and will be both extremely capable and affordable.

In fiscal year 2010, we will procure six Low Rate Initial Procurement (LRIP) Lot I aircraft. The program will commence flight tests later this year in IOC and fiscal year 2013.

Another good news story, EA–18 Growler has completed its operational tests and is preparing to go before the Defense Acquisition Board for product decision later this summer for reproduction. We have delivered 16 aircraft to Whidbey Island, and are on track for Initial Operational Capability (IOC) in September of this year.

In fiscal year 2010, we will procure 22 production aircraft. The E–2D Advanced Hawkeye has completed over 92 percent of its System Design and Development (SDD) program and operational assessment, and currently has two aircraft in flight tests that have flown more than 1,000 flight hours. The aircraft has already demonstrated that its advanced radar delivers three times the range of legacy radar, and provides the detection required against the advanced threats of today and tomorrow. The program we presented to the Defense Acquisition Board for Milestone C decision by the end of this month. We need to award a contract for two LRIP Lot I aircraft by June 5th to keep this vital program on track.

We are continuing the vision to meld manned and unmanned air systems, or UAS, in the future of tactical air aviation by exploring an Unmanned Combat Air System, or N–UCAS, technologies and capabilities. Our current demonstration efforts include maturing technologies for actual aircraft carrier catapult launches and arrested landings, as well as carrier-controlled airspace integration, including aerial refueling through a hybrid Navy or Air Force refueling system.

I would like to thank the committee for your continued support of the Navy and Marine Corps Aviation, and the opportunity to testify before the committee. I welcome your questions regarding the Department of the Navy's acquisition programs.

Mr. COURTNEY. All right. Thank you, Admiral.

[The joint prepared statement of Admiral Architzel, General Trautman, and Admiral Myers can be found in the Appendix on page 51.]

Mr. COURTNEY. And if the other witnesses have statements, we will take them up when we reconvene after the recess. The committee stands in brief recess.

[Recess.]

STATEMENT OF HON. GENE TAYLOR, A REPRESENTATIVE FROM MISSISSIPPI, CHAIRMAN, SEAPOWER AND EXPEDITIONARY FORCES SUBCOMMITTEE

Mr. TAYLOR [presiding]. The subcommittee will come back to order. We are now going to hear from Lieutenant General George Trautman. Sir.

STATEMENT OF LT. GEN. GEORGE J. TRAUTMAN, III, USMC, DEPUTY COMMANDANT FOR MARINE CORPS AVIATION PROGRAMS, U.S. MARINE CORPS

General TRAUTMAN. Good afternoon, sir. Chairman Taylor, Congressman Akin, distinguished members, it is a privilege for me, as the leader of Marine Corps Aviation, to appear before you today to discuss the President's 2010 budget submission. Sir, in the interests of time I will truncate my remarks and just, if it is all right with you, submit them for the record.

Mr. TAYLOR. Without objection, your statement will be submitted for the record.

General TRAUTMAN. In both the Chairman's opening statement and the Ranking's opening statement, mention was made of the V–22 and Joint Strike Fighter. If I could, I will just read that part of my statement for you.

First, the MV–22 Osprey. We have just finished the three highly successful combat rotations to Iraq. And just last week a fourth Osprey squadron sailed toward the fight with the Marine Expeditionary Unit that will be deployed for the next six or seven months. The Osprey has transformed the way we are fighting in a manner akin to the introduction of the helicopter in the middle of the last century. We can now project combat-loaded Marines, soldiers, and special operators from a sea base or any forward site deep into the battle space at the speed of a KC–130. And we can do it at altitudes above the ground threat that has claimed so many helicopters in Iraq, Afghanistan, and elsewhere. Then we can land the payload anywhere it is needed, just like a helicopter. With its speed, range, and survivability, the MV–22 is truly a game changer.

Another game changer for us will be the F–35B Short Takeoff and Vertical Landing variant of the Joint Strike Fighter. In the fall of 2012, when the Marine Corps stands up its first operational squadron, the VMFA–332, this fifth generation stealth aircraft, will begin replacing our F/A–18s, AV–8s, and EA–6Bs with a single platform that far exceeds the operational capabilities of any of the tactical aircraft being flown today. The Joint Strike Fighter gives us the operational agility we need to support the Joint Force in the hybrid battles that loom on our Nation's bow.

Most importantly, we intend to leverage the unprecedented sensor capability this machine offers for the benefit of the entire Marine Air-Ground Task Force, allowing us to accelerate the decision cycle and fight smarter than we ever have before. Just three short years from now, our operational commanders will be able to combine the effects of these two machines, the MV–22 Osprey and the F–35 Lightning II, from a sea or land base to unleash a tempo, agility, and speed of action that has never been possible in the past.

Regardless of the future threats we will face, our unvarying mission remains to be the Marine Corps' aviation force in readiness across the full spectrum of combat operations. My pride in the accomplishments of our Marines, past and present, and the staying power of our military families is only exceeded by my confidence that we are properly poised to meet our future challenges.

Thank you for the opportunity to speak with you today, and I look forward to answering your questions, sir.

Mr. TAYLOR. Thank you very much, General.

[The joint prepared statement of General Trautman, Admiral Architzel, and Admiral Myers can be found in the Appendix on page 51.]

Mr. TAYLOR. The Chair now recognizes Rear Admiral Allen Myers.

STATEMENT OF REAR ADM. ALLEN G. MYERS, USN, DIRECTOR OF NAVAL WARFARE INTEGRATION, U.S. NAVY

Admiral MYERS. Good afternoon, sir. Mr. Chairman, Representative Akin, and distinguished members of the subcommittee, thank you for the opportunity to appear before you to discuss Navy Aviation. I would like to submit my written statement for the record.

Mr. TAYLOR. Without objection, sir.

Admiral MYERS. I am delighted to share this time with my colleagues from the Navy and Marine Corps to convey the contributions of Navy aircraft in our Armed Forces. Our aviation community, comprised of aircraft, ships and weapons systems, has proved to be a stabilizing force, with the capacity to span the globe.

If we could take a look back to the days following 9/11, just three weeks after the attack, two carriers, the *Enterprise* and the *Carl Vinson*, were in theater ready to provide continuous strikes and close air support. In fact, the *Enterprise* reversed course while steaming out of theater for home port. No need to refuel, no need for immediate replenishment. That strike group commander, with the best trained crews in the world, was ready to respond. Navy carrier-based F/A–18s provided the first tactical air strikes in country. Our response in support of 9/11, Operation Enduring Freedom, continues today. In fact, as recently as a few days ago, our Chief of Naval Operations cited a statistic that I would like to mention, because I believe it bears repeating, on the value of our carrier fleet.

He said a single Navy aircraft carrier provides 46 percent of the fixed-wing aircraft sorties in Afghanistan; that one carrier provides close air support, airborne reconnaissance, and airborne electronic attack to our troops in contact with the enemy. By the way, the response time to those troops in contact with the enemy is often less than 10 minutes.

Augmenting the carrier's support for our troops ashore, the Navy deploys land-based airborne electronic attack via the EA–6B. These aircraft conduct critical missions that protect U.S. forces and support offensive operations. Is it really any wonder that in a moment of crisis we hear the phrase "Where are the carriers?" Often the first to arrive in response to a crisis, a carrier strike group provides credible capability and assured access with the speed, agility, persistence, all that is needed without the reliance on shore infrastructure.

Seapower projects persistent combat capability ashore while facilitating the building of partnerships, as we have seen in our combined task forces at sea, including the Horn of Africa. Seapower is disrupting insurgents on land as well as disrupting smuggling and piracy at sea.

Our fixed- and rotary-wing Navy assets have been engaged in counterpiracy operations around the Horn of Africa. Last month, during the *Maersk Alabama* incident, the first U.S. military asset on scene was a Navy P3. And our helicopters have been integral in the apprehension of a number of pirates by providing necessary surveillance to locate, track, and intercept vessels on behalf of the visit, board, search and seizure teams.

Our carriers and ships remain on station around the world, providing presence in other places as well: the Caribbean, the Mediterranean, the Pacific, the South China Sea, the Indian Ocean, and the Red Sea. Our forces provide the effects ashore, at sea, and strengthening relationships and building regional stability throughout the area.

The fiscal year 2010 President's budget maintains our ability to meet our wartime needs today and contend with future security challenges. The aircraft that are fighting today's war are being re-

capitalized or sustained to ensure relevancy across the spectrum of threats. We are thankful to our predecessors for investing in programs that we are benefiting from today and those that will meet future security challenges tomorrow.

Our budget continues the development of the F–35, the E–2D, the P–8, unmanned systems, as well as new strike weapons capabilities. The Department of Navy will produce 98 additional tactical and fixed-wing aircraft, 100 rotary-wing aircraft, and five Vertical Take-off and Landing Tactical Unmanned Aerial Vehicles (VTUAVs), for a total of 203 aircraft.

I would like to offer my appreciation to this committee. Without the committee's tireless devotion and significant contributions, the great successes of our force would not be possible. We are truly grateful, and thank for the opportunity to appear before you. And thank you for your support for what you do for us today and what we will do tomorrow. And I look forward to answering your questions. Thank you, sir.

Mr. TAYLOR. Thank you very much, Admiral.

[The joint prepared statement of Admiral Myers, Admiral Architzel, and General Trautman can be found in the Appendix on page 51.]

Mr. TAYLOR. The Chair now recognizes the gentleman from Missouri, Mr. Akin.

STATEMENT OF HON. W. TODD AKIN, A REPRESENTATIVE FROM MISSOURI, RANKING MEMBER, SEAPOWER AND EXPEDITIONARY FORCES SUBCOMMITTEE

Mr. AKIN. Thank you, Mr. Chairman. And I appreciate your all being here today. There have been a number of themes that we have heard throughout a series of hearings on where we are. And it probably wouldn't surprise you that we would pick up on one of those, and that is the situation with the lack of aircraft, particularly because of the planes having to be retired with over 8,000 hours on them. I understand that the 10,000 hours doesn't really work, that it costs too much to try to take care of changing the different parts that would be stressed. So that resulted this year in an estimate of, instead of 120-some aircraft shortfall on our aircraft carriers, to about 240-some.

I guess my question is, and everybody is saying, and I guess really what they are saying is, give us more time to figure this out. But what they are saying is we have got to do this quadrennial review. Well, it isn't like this is too complicated. We say we are going to have 11 aircraft carriers. For a certain brief window we are going to be down to 10. You got 44 aircraft on an aircraft carrier. If you are 240-some aircraft short, you have got five aircraft carriers with no planes on them.

So my question is, one, first of all, how does that affect the number of missions that you have to fly just to practice? Because I was watching night landings on these things, and it looked to me like that was a pretty tricky business, and I would think you would want to have plenty of practice for your pilots. And if you have got fewer planes, then I would think it would affect your training schedule. That is the first question.

Second question would be, let's say that you can't have 44 aircraft on an aircraft carrier. Is an aircraft carrier just about as good if you have got 20 aircraft so you can split the aircraft half and half? If that is not the case—so let's just answer those two first questions.

Admiral MYERS. Representative Akin, I would like to take the first stab at that. First of all, to go back to your numbers, last year in PB 09, I briefed that we were forecasting in the later teens, starting in 2016 through 2018, a strike fighter shortfall for the U.S. Navy of 69 aircraft, and the Department of Navy, 125. That was assuming that all of our legacy F/A–18s, the A through D, could get to 10,000 hours. So that was sort of a bookend. The other bookend was if none of those aircraft got past 8,600 hours, that it would be a 125 and 243 shortfall.

Now, that was last year. And what I would like to do is talk to you for a few minutes and outline what has changed.

Mr. AKIN. It has got to be pretty short, so just a minute or so on it. Just get to the number that——

Mr. TAYLOR. Again, I want to remind the Ranking Member that as the Ranking Member you have all the time you want.

Mr. AKIN. Okay, I appreciate that. Okay. We will proceed then.

Admiral MYERS. Okay. Those were the bookends. And what we have discovered since then is that doing the analysis for the service life extension has informed us that there are a number of areas that we want to be focused on when we open these aircraft up, when they go to the depot. So to cut to the end, we are not sure exactly what number of aircraft that we are going to be able to get through. And the reason we are not sure——

Mr. AKIN. Between about 125 and 240; it is somewhere between there would be your guess?

Admiral MYERS. We are not sure right now, Representative Akin. And the reason is because we are still discovering a lot by looking at these aircraft when they go to the depot. We have had 39 aircraft that have gone to the depot to date. We thought there were about 159 focus areas or areas of interest on the airplane. We have got about nine that have come through the depot. And what we found is there were 50 additional areas. Each airplane is going to be a little bit different. But as we go through a three-phase process to determine what the limits are on service life extension, we are going to be able to refine the technical baseline and understand more.

Now, currently today, the Navy has—currently has the aircraft necessary to fulfill the missions that the Combatant Commands (COCOMs) have laid upon us. So we have the aircraft that we need today. So the focus is how do we get through the next summer? What are the levers that we need to look at to understand not only what the strike fighter shortfall is, but how to mitigate it. And there are four ways to mitigate it. One is to maintain our continued unwavering support for the Joint Strike Fighter. Second is to maintain our buys of F/A–18 E/Fs. Third is to maintain the funding in terms of logistics for our current legacy aircraft, our strike fighters. And fourth is to understand how many of these F/A–18 A through Ds we can get through the SLAP process. And it is going to take time.

Now, you had another question about the number 44 on our carriers; 44 is the requirement for the Navy for strike fighters on our aircraft carriers; 44 represents the number that the combatant commanders are expecting when those carriers show up overseas to provide the necessary effects for everything from contingency ops to major combat operations. And it also represents the most effective use of a Nimitz class-size flight deck. So 44 is the number that is required for our aircraft carriers, and that is what we intend to do.

Mr. AKIN. So then following up, you are saying you would not deploy a carrier that had significantly number less than 44 planes on it? You would want to keep that number pretty close if you have a carrier that is out. Is that what you are saying?

Admiral MYERS. Congressman, what I am saying is 44 is the requirement, and that is what we are basing—from the Navy staff and from a programming perspective, that is what we program towards.

Mr. AKIN. Okay. But if you had a shortfall, then you are saying you would rather have some aircraft carrier left behind than to have one with half the planes on it or something. You wouldn't consider that probably. Or are you saying you just don't know or——

Admiral MYERS. That is a fleet commander decision on exactly how he loads out a carrier air wing. We understand the requirement. We understand the way that we are deploying ships in our aircraft carriers and their air wings today. But how that would be done in the future would depend on the needs of the combatant commander and the fleet commander. But currently the requirement is for 44, and that is what we are doing right now.

Mr. AKIN. Right. What I heard you say, though, you gave me a lot of detail, but what I heard you say was still the shortfall is probably going to be between the 125 number and the 243 number, because 243 was worst case. That is assuming you can't get any more than 8,600 hours. And the 125 was assuming that you could get 10,000 hours. And you are saying until you actually look at the planes, you won't know exactly how many of them fit into which category, but it is going to fall in that number; is that correct?

Admiral MYERS. There is the possibility that some of them could fall outside that number. And that is part of the analysis, the second phase of the analysis that is ongoing right now that Naval Air Systems Command (NAVAIR) is doing and working with their depots to understand exactly the extent of whether or not it is going to be exactly in that——

Mr. AKIN. In that bracket, even.

Admiral MYERS. Yes, sir.

Mr. AKIN. So you are not even sure of that bracket is what you are saying.

Admiral MYERS. The bracket is the best information that we have at this moment, but we have still got work to do, Congressman.

Mr. AKIN. Now, what would it cost—let's say that you find some aircraft that are 8,600 hours and they are going to need some repairs. Do we have any idea of what that would cost? My understanding was it was prohibitive to do that; that it would be cheaper just to get some new ones. Is that true or not necessarily or——

Admiral MYERS. It is not necessarily true. What we know is that a center barrel costs about 5 million. And a center barrel is going to be required on the earlier lot aircraft, meaning Lot 16 and earlier. What we know is that the inner wing could cost as much as 4- or 5 million. What we know is that the inner wing is a focus area of the aircraft that have gone through the depot in terms of the additional hot spots or focus. But what we don't know is whether or not all of the aircraft that go through are going to need all of those repairs. So it could be expensive and it might not. And right now that is what the second phase——

Mr. AKIN. We don't have a current cost estimate of what it would take if we wanted to extend the service life on them. We don't really know what that number is is what you are saying. It depends on the individual plane. Is that what you are basically saying?

Admiral MYERS. Yes, sir. It depends on the plane. We have programmed some moneys because we do know about the center barrel replacements. And the analysis that will go on through the summer and is expected to finish in the March 2010 time frame is set to be a Program Objective Memorandum (POM) 12 issue. And that is the way that we have set up the analysis, to feed into POM 12. And that would give us enough time to buy the equipment and make sure that we programmed and placed everything we need in the depots for the Service Life Extension Program (SLEP).

Mr. AKIN. I think the Navy has completed its analysis of the benefits of the multiyear procurement of the F/A–18As. What is the minimum number of aircraft required to be purchased over the contract period that would result in a savings of at least 10 percent as required by law? Is there some particular number that you have got to get? Because we saved, what, a billion dollars on that before on the multiyear two?

Admiral ARCHITZEL. Sir, if I could take that question. You are correct on the multiyears for the Hornets. There have been two. The first multiyear was for 210 aircraft. It resulted in about a $710 million savings. That was a five-year program. We followed that with a multiyear two, which just ended in 2009. That saved about 1.1 billion over the same five-year period. To make a multiyear value, we need economic quota quantities, which means we have to have volume. We have also got to have a length of period of time. It wouldn't do us any good to give volume and put it in one or two or three years. We have to have some length of time to make that, to get that return on investment.

Sir, to answer your question, if we looked at multiyear one, we had a seven-and-a-half- or six-percent savings that equates to. Multiyear two, about 11-percent savings. If you have those kind of savings, we need to go five years and get economic quota quantity buy. We want to have a significant savings, which is on the order of 10 percent, or $500 million, would be those kind of the "bookends" if we are using that term here, that we would seek to get in a multiyear procurement, sir.

Mr. AKIN. Well, I didn't hear the answer to my question. I guess the question is, what number do you have? Let's say we are starting 2010 right now.

Admiral ARCHITZEL. Yes, sir.

Mr. AKIN. And let's see, the Joint Strike Fighter (JSF) is scheduled to be ready to go at, what, 2015? Are we sure that is going to happen on time? That gives you five years, right? 2010 to 2015.

Admiral ARCHITZEL. Yes, sir.

Mr. AKIN. Let's assume JSF is actually there at 2015, so you do have the five years. So what would the number be to get to the 10 percent? Have you figured that?

Admiral ARCHITZEL. Sir, let me—fiscal year 2010 is a single-year buy of Hornets. As you know, the Growler we put into the multiyear for multiyear two. And we were able to take advantage of that. With a single year buy, we don't have the economic quota quantity to do it. So 2010 is in the books. We don't have that ability to incorporate that into a multiyear now.

Mr. AKIN. So we are talking 2011 then. 2011 to 2015?

Admiral ARCHITZEL. Yes, sir.

Mr. AKIN. Are you sure that we are going to have JSF in 2015?

Admiral ARCHITZEL. I know that I can speak to the IOCs we have today, which is for the Marine Corps and the Navy, and say that on plan we have today we will, sir. I mean we are developing those programs to go forward on those timelines. But I also will say we will have to wait to find out what the Department's direction is on aircraft. We need to know the numbers so we can get the economic quantity and time frame involved before we can enter into a multiyear. But if we were to—the multiyear is certainly something we do aggressively go after when we can on multiple programs, as you are aware. The V–22 is an example, the 60 Romeos, 60 Sierras. So we do definitely want to get multiyears when we have them there.

Mr. AKIN. Man, I am having a hard time getting anything. I feel like I am trying to nail JELL–O to a wall, gentlemen. I am asking about a time for a multiyear, and you are saying, no, we really don't know what the requirements are. I am talking about the requirements, I thought we were looking at 125 and then 243. And now you are saying, yeah, but it could be this other way. Somewhere along the line we have got to make a plan as to what we are going to do. I mean maybe JSF is going to be there in 2015, and that is obviously something that is very important.

I know the Marine Corps has a keen interest in the Short Takeoff and Vertical Landing (STOVL) version, because you are kind of putting all your eggs in that basket, where the Harriers, I guess, are getting older and older. But somewhere along the line, we have got to be able to do some planning. And it seems like no matter how you look at the numbers, you are coming out short on fighter planes. So I guess that is the reason we are having a hearing is, where are we?

Admiral MYERS. Yes, sir. And Congressman, for the record, I just want to correct—the correct number that we should be referring to is 69 to 129 for the U.S. Navy. And that is what I briefed last year. Those were the bookends of 10,000 hours for 300 aircraft and 8,600 hours, no aircraft SLEP. So that gives you about a 70-aircraft shortfall.

Mr. AKIN. Okay. Let's start with 70. If you had 70 additional aircraft over a 5-year period, would you get 10 percent then?

Admiral ARCHITZEL. Sir, I am not trying to be anything but direct. As much as I can, from an acquisition standpoint, if we were to get to a few things, we need to have an economic quota quantity. We need to have an economic rate of production, which would—the minimum sustained rate is about 24 aircraft to go through. The economic requirement is somewhere between 30 and 36, depending on the numbers we have. So if you could generate on the order of 30 per year for 5 years, you would be able to enter a multiyear that would produce 10 percent savings. But, sir, that——

Mr. AKIN. You are saying 30 per year. So that would be 150 then?

Admiral ARCHITZEL. If a scenario of a multiyear, that is what would happen, sir. Regardless of what aircraft we are dealing with, when you can get those type of quantities and be able to produce them to allow economic quota quantity buys over a five-year period or some significant period of time, then you will definitely get savings in a multiyear. That is the only reason we are allowed to enter a multiyear is if we can assure significant savings.

Mr. AKIN. Right. So are you saying the minimum you would have to buy would be about 150, over 5 years total, in order to get that 10 percent?

Admiral ARCHITZEL. Sir, under the scenario you presented me, yes, sir; that would be what we would have to do. I would say that. But again, I don't set the requirements. This is from an acquisition standpoint. You asked me to give you the numbers as they apply to a multiyear, and that is what I have done, sir.

Admiral MYERS. Yes, sir. And to reinforce Admiral Architzel, the requirement is 44 strike fighters on our carrier wings. And based upon the President's Budget (PB) 09 data, the shortfall for USN is still about 70 aircraft, best case right now. But we still have some discovery to do this summer as we go through Service Life Assessment Program (SLAP), and we still have some levers to pull.

Mr. AKIN. The number was higher because you had Marine Corps F/A–18s that you were including also. Is that correct?

Admiral MYERS. What I gave you was an inclusive Department of Navy and U.S. Navy number before. The 69–129 is a U.S. Navy number. And the 125–243 was a Department of Navy number that includes Navy and Marine Corps. And that is what was briefed last year. Yes, sir.

General TRAUTMAN. Sir, if I may comment, maybe help with the variables that are involved here. First of all, the PB 09 numbers are no longer relevant to this discussion in my opinion. For example, if the program purchases more Joint Strike Fighters than we did in PB 09, which it does, the strike fighter shortfall would come down by a commensurate number of F–35s, both B and C models.

Secondly, this issue of the Service Life Assessment Program and the Service Life Extension Program is very much filled with variability at this point. We are partway through phase B of a three-phase process of examining these airplanes to decide how many of the 623 existing A through D Hornets can be extended. Talking to NAVAIR as recently as Friday, there are approximately 330 A through Ds which they identify as prime candidates to be extended. And so we will extend, bureau number by bureau number, making

wise business case decisions associated with the choices that will have to be made to extend those aircraft going forward.

Mr. AKIN. So you say you have identified 130 A through D?

General TRAUTMAN. Three hundred thirty of the 623 existing are prime candidates for extension. There are no technical impediments to extension at this point.

Mr. AKIN. Sir, are you saying—does that mean you wouldn't have to put more money in them, or they would be prime candidates to put more money into to get them to 10,000?

General TRAUTMAN. You said it right, sir.

Mr. AKIN. The second time?

General TRAUTMAN. Yes, sir. Put more money into them on a case-by-case basis to decide how much would need to be extended. But even that has variability. For example, the majority of the interest areas are in the center barrel. That is the majority of the interest areas. We already have $1.14 billion in the budget to pay for 417 center barrels to be replaced.

The second most are in the wings. There are options with regard to the wings. One is repair. Two is to remove and replace. And the Admiral gave you the cost of a new wing. But the third is to take wings out of Aircraft Maintenance and Regeneration Center (AMARC), which we are doing right now, and replace those wings with wings that are essentially free. And then the third large area that we are concerned about as we go through the assessment program is in the aft end of the A through Ds. That is probably where most of the uncertainty lies right now with regard to the cost.

Mr. AKIN. Well, I appreciate the Chairman's patience. And I will go ahead and wrap up with that. Thank you.

Mr. TAYLOR. The Chair thanks the gentleman. And if need be, there will be a second round. You have had a great line of questioning. The Chair now recognizes the gentleman from New York, Mr. Massa.

Mr. MASSA. Mr. Massa has no questions at this time.

Mr. TAYLOR. The Chair then recognizes the gentleman from Connecticut, Mr. Courtney.

Mr. COURTNEY. Thank you, Mr. Chairman. In Mr. Taylor's opening statement he sort of walked through a number of issues that I think he was asking for some responses from the witnesses. I think the last item was on the Presidential helicopter. He referenced the fact, obviously, that Secretary Gates on Friday announced the cancellation of the program. And I was just following on his comments. I don't know which witness would be appropriate to respond. But you know, what do you sort of see as the next steps and the way forward? Obviously, we need a new helicopter.

Admiral ARCHITZEL. Yes, sir, Congressman Courtney, let me start, and I will turn it over to anyone else. You are correct; Secretary Gates did announce, recommend cancellation. And his basis for that was the original $6 billion program which had headed towards 13 billion, 6 years overdue, does not meet the requirements of the White House. And increment one, in fact, is a long way to meet that requirement.

So this has been a very extremely challenging requirement in this program, complicated and exacerbated by us trying to bring this program to meet a need earlier when we weren't really defined

what we had to do. There were mistakes that were made. We drove significant developmental efforts forward at a time when we weren't certain of what those impacts would be. And we grossly underestimated the cost and schedule required to deliver this.

As a result of that, Under Secretary of Defense Carter directed the cancellation of the program to Mr. Stackley. We are taking those initiatives now to cancel that program and bring it to resolution. The path forward is within 30 days we will come forward with a high-level plan of how will we anticipate going forward in the future.

That is not all the details that go with every facet of the program to understand, but it is a high-level, if you will, plan of action how we are going to go forward to meet the direction. Also to have a program developed so we can do the Presidential replacement helicopter program. So in this case I believe what we need to do now is we need to meet the requirements, we need to understand what those requirements are going to be, understand the impacts of those requirements, begin with the requirements, take them through to the impacts of that, and do the de rigueur we need to do to make an executable program, sir. And I will turn it over to other comments.

General TRAUTMAN. Let me add then, sir, two things come to my mind. First is, are the legacy VH–3s and VH–60s preserved and remain safe for carrying our President? And the answer to that is yes. And this budget includes the requested dollars to make that a reality.

The second is these airplanes are going to need to be replaced. The VH–3 is 40 years old. By 2017, even with the Service Life Extension Programs that we are assessing now, they are near the end of their life. So I am very anxious to get back into the requirements generation process, work with the White House Military Office to decide what requirements they will lay out, and then help move those requirements up to the Joint Requirements Oversight Council and into the acquisition community so that we can get started on a new replacement for the VH–3 and VH–60.

Mr. COURTNEY. Great. And I realize you said 30 days from now you will come out with, I guess, a new position or new plan. And I don't want to get ahead of that, but one argument that has been out there, The New York Times had a column about it the other day that we shouldn't cancel because there is so much sunk costs already into the VH–71.

And I guess I was wondering, thinking that through, the Navy is not going to just sort of walk away from the research and the development and the investment that has already taken place. I mean there are some ways to recoup some of what has already been paid for. Is that a safe assumption to make, so that the taxpayers won't feel like it was just completely thrown away?

Admiral ARCHITZEL. Congressman Courtney, if I could, let me begin and then I will offer it for my colleagues to comment. But, again, first off, what I mentioned to you was a high-level comeback, if you will, or plan to go forward. And simultaneously with that, we have another course of action we have to follow, which is following the cancellation of the program, we have to bring about what we do with this program and how we bring it to closure.

So the first thing that was done was, for example, stop work to allow the contracting officer to issue actions that then would result in us to be able to bring, as I mentioned, bring it to closure. That involves understanding all that we have invested, and where we are, and be able to close out the books; be able to make sure we understand where we are in funding, be it 2009 or 2010 funding, et cetera, to what we need to do to follow through once the contracting officer takes actions on a termination, as it be.

So understanding what we want to do in the future, obviously we will take advantage of anything we can from a technology standpoint that would go into future helicopter programs or other programs of similar nature.

Admiral ARCHITZEL. Again, as we start back in this program we have to understand the requirements. We have to begin with the requirements, understand what they mean, and what we have to do to meet those missions that is set in front of us. And that was fundamental to it.

But to your point, the investments that were made and the understanding the technology investments that were ongoing certainly we will take advantage of that to go forward.

Mr. TAYLOR. The Chair thanks the gentleman. The Chair recognizes the gentleman from Maryland, Mr. Bartlett.

Mr. BARTLETT. Thank you very much.

You know, you would think from the discussion we have been having that we hadn't spent $3.2 billion and a number of years building the 71. In the original requirements document for the VH–71 program, the Navy gave a litany of reasons why the legacy fleet was in urgent need of replacement. So urgent that we were working around some of the usual procedures to get a plane more quickly so the President could have it. The planes the Navy said was overweight. They lack all-weather capability. They have extremely limited range speed and payload. And I quote from the document. The legacy aircraft is no longer capable of implementing upgrades for mission requirements.

And now, we are told that the current fleet is okay; that it can indeed be upgraded; that the cost of doing so will likely might be enormous. We have already spent $3.2 billion to produce the nine Increment 1 helicopters. They meet or exceed their performance requirements. They were always intended to fly the Presidents. Why isn't it reasonable that Congress would expect the Navy to field these aircraft to meet the highly urgent need we have been briefed on for years? But instead, Congress has been given a list of reasons why flying the 35-year-old legacy fleet for another decade is preferable to fielding the modern VH–71 helicopters we have already paid to produce.

For instance, we are told that Increment 1 only has a five-year service life, even though the committee knows that it was designed for a minimum of 30 years and that the Navy has not even performed a basic air frame fatigue testing to make a sound determination. We need real answers as we consider the budget request.

Frankly, Congress has been ignored for too long on this critical program, and I am concerned that in the stop work order we are now being ignored.

The Navy said that we needed a new aircraft to fly the President. We bought that. We asked the Navy to build that aircraft. And now, without coming back to the Congress for consultation, the Navy has issued a stop work order.

This very limits our options, because there will be cost involved with the stop work order if we decide that we really ought to continue building these planes, and there is additional costs involved in making the line hot again.

First, what is the estimated cost of extending and maintaining the current legacy fleet if VH–71 is terminated? How much will it cost to provide service life extension for the current fleet? And, what kind of new improvements will be made and at what costs? We were previously told that we really couldn't make the necessary improvements, which is why we needed a plane so urgently that we were bypassing some of the usual procurement procedures.

And, second, are you telling this committee that the Increment 1 helicopters did not in fact provide a better overall capability than the current VH–3?

General Trautman, you have flown the VH–71. Would you not agree that, on its own, it represents a more capable, modern, and safer aircraft?

General TRAUTMAN. Yes, sir. Let me start. I have flown both the VH–3 and the VH–71 Increment 1 aircraft recently, and there is no doubt that the VH–71 Increment 3—Increment 1 aircraft is a better aircraft than the VH–3.

The challenge has been, sir, that the VH–71 Increment 1 aircraft does not meet the requirements that were passed to us by the White House Military Office. And——

Mr. BARTLETT. General, if you would let me interrupt for just a moment. We know that. We know that the Increment 1 was designed to provide what we were told was essential transportation for the President while Increment 2 is being developed. We know that Increment 1 is deficient in—of little deficient in payload capability, in speed, and in how far it can go in range. But the essential reason we were told for moving away from the current fleet was to have better communication capacity we understand VH–71 provides the Increment 1.

Mr. Chairman, in just a moment, I would like to go through some numbers that I think are absolutely compelling that we ought to continue. We have now invested $3.2 billion. If we now shut down, it is going to cost about half a billion in the industry to shut down. It is going to cost about a tenth of a billion in the Navy to shut down. And for another $1.3 billion, we could make ready five of the nine planes so that the President could use them. And I am told by the manufacturer that, for roughly $100 million each, which comes well under the original figure of $6.8 billion, that they will enter into a firm fixed price contract to deliver another 14, which means we would have a total fleet then of 19 planes.

The additional cost to provide 19 planes is small compared to the investment we have already made. Why isn't it in the taxpayers' and the President's best interest to go ahead and provide these extra planes? We will have essentially nothing if we simply terminate and shut down.

Mr. TAYLOR. If the gentleman would answer the question, please.

Admiral ARCHITZEL. Congressman Bartlett, if I could. Part of your what your discussion is on the Increment 1, as I mentioned before, this VH–71's extremely challenging requirement shows significant development efforts that were grossly underestimated. And, on top of that, we went to a two-increment approach in an effort to deliver near-term as well as long-term solutions.

Sir, we are not delivering on the capability of the Increment 1. The program does not meet the requirements. And that was what the recommendation for cancellation was for.

Mr. BARTLETT. But, sir, if I might interrupt for just a moment. It was going to be sufficiently superior to the present fleet that it was deemed desirable to spend the money to produce it and to use it for five years while we produced Increment 2. Why isn't that analysis still valid?

Admiral ARCHITZEL. Sir, you are referring to numbers in terms of operational use. And, quite frankly, the VH–71 Increment 1, the additional weight, as well as has to do with the aircraft itself would be a different aircraft than the one you are talking to when you are talking 30 years of aircraft life. That is another factor in the Increment 1, in terms of its not being able to make more than approximately, estimates now, 1,500 hour life.

But the overarching consideration was not making the requirements needed for the helicopter and the decision to cancel Increment 1 and 2 from Secretary Gates.

Mr. BARTLETT. Thank you, Mr. Chairman. I think that the original five-year life was not what the plane was expected could do. It was just they only needed it for five years until they had Increment 2s. But nobody doubts that this plane is built as well as other helicopters, and it should have the usual 30- , 35- , 40-year life. Should it not?

General TRAUTMAN. My understanding is the systems command would have to inspect the airplane and go through a rigorous service life extension program, seeking hot spots in areas of interest in some order of discussion we had previously about the F/A–18 A through D. That work has not been done yet.

Mr. BARTLETT. Thank you, Mr. Chairman.

Mr. TAYLOR. Thank you, Mr. Bartlett. We are trying to be generous with the time. But I would hope that we will keep in mind we do have a pretty good crowd today, and let's try to give everyone a chance to ask their questions.

The Chair now recognizes the gentleman from Washington state, Mr. Larsen.

Mr. LARSEN. Thank you, Mr. Chairman. And first, let me apologize and prepare everyone, I am bound to—I am ready to ask some fairly noncontroversial questions. So I want to send a warning to everybody about that.

But it does have to do with the shortfall. But it has to do with the shortfall in the electronic warfare expeditionary wing. And right now, we do not yet have an—I do not yet have an idea from you all what we plan to do in 2012 to fulfill the expeditionary gap. And I would like to have an understanding if yet a decision has been made to have the Growler fill that gap; or, if—with additional—or, if a decision hasn't been made, what kind of timeline are we on to make a decision so we can get there, so that by the

time the gap is there, we have made a decision ahead of time to fill that gap? Who would be the best one to answer that?

Admiral MYERS. I will take the first shot, Congressman.

Mr. LARSEN. Sure.

Admiral MYERS. The EA–6B for the Navy is currently planning to sunset or sundown their expeditionary capability starting in 2010 and ending in 2012. So from the period from 2012 to about 2016 to 2018 the Marine Corps will have the only expeditionary ALQ–99 capability out there.

There is a gap in that the Next Gen Jammer, the follow-on, we do not anticipate the initial operating capability on the Joint Strike Fighter or an F/A–18G type of aircraft until the 2018 timeframe. So right now there is an acknowledged gap in terms of expeditionary capability that could—or, depending on what happens with the sundown of the Marine EA–6s.

In terms of what are our opportunities to mitigate this gap, we still have a hot production line with F/A–18s, and that is a hot production line that goes through the next few years. I know that there is dialogue, and this is a discussion topic in the building. But for the time being, there is no plan to recapitalize the Navy EA–18 Growlers in an expeditionary role.

Mr. LARSEN. So, and that gets to the point. At what point does it change from a discussion item to an action item?

Admiral MYERS. What I can tell you is that it is an item that I know that the Department of Navy is discussing with the other services, and I can't answer about the question about exactly when there is going to be the next step or when there is going to be a dialogue that would lead to a decision either to recapitalize or not. Currently, there is no decision to recapitalize.

Mr. LARSEN. General Chapman with regards to the EA–6Bs flying for the Marine Corps, as I understand, again, you are planning to keep those until about 2018, and then one of your 35 variants will take over the airborne electronic attack. Do I have that about right?

General TRAUTMAN. You are close, sir. If I may. Our plan is to keep our EA–6Bs going for another decade and sundown the last of ours in 2019. We believe that is the prudent course to take as we bring F–35 on line. Now, we won't stand up an electronic warfare version of the F–35. What we will do is we will take advantage of the inherent capabilities resident in all F–35 variants across the board. We have also taken steps to ensure that next generation jammer is not just a replacement pod for the ALQ–99 on the Prowler and Growler, but is also going to be a threshold capability on the F–35.

So by 2019, you should be in a situation where you could fly in F–35s in a very low observable mode; or, if called for, you could fly F–35s not very low observable with next generation jammer pods on them.

Now, we are also looking at opportunities to not even have it be a podded capability, but somehow using conformal antennas ideas that are resonant in the analysis of alternates going on right now, maybe even make it a very low observable capability with that.

Mr. LARSEN. Sure. And I am looking forward to seeing results of that. Can you talk a little bit, a very short time, but can you dem-

onstrate to me now or to the committee now that you are confident that the fleet of Prowlers that you have will be flying up until 2019? And, second, General Trautman—I am sorry, I can't see from here.

Admiral ARCHITZEL. Admiral Architzel.

Mr. LARSEN. Can you talk a little bit about whether or not the timeline on the next generation jammer is going to meet at that time line, or when you want to put it on the F–35 and when it is ready for being put on the Growlers?

General TRAUTMAN. Yes, sir. First, with regard to the Marine Corps' sundown plan a decade from now, the answer is yes. And principally because we would be able to take advantage of the Navy's sundowning EA–6Bs. So there is a population somewhere above 100 to outfit our 32 Prowlers that we want to keep flying until 2019.

In addition, we have funded and will take some of the Navy's improved capabilities Sets III, which will improve our ability to provide Prowler support to the Joint Force Commander for the next decade. So we are very confident that we will be all right, despite the fact that our Prowlers are flying at the 1–1 dwell right now. They are one of the most popular capabilities in the expeditionary environment that we have.

With regard to next generation jammer timeline, I think that remains to be seen how quickly that program can come to the floor. But about a decade from now I think we should be able to do it.

The ideas are picking up more and more energy and steam in recent months. I am surprised but gratified that they are.

Admiral ARCHITZEL. Sir, again to the Growler. As we go forward, we have a very successful program meeting all performances. It is out of test now, finished from its op eval. We will get results coming forward from that in near term.

The F–12 aircraft, out. We are getting ready to actually go forward on first deployment IOC in the aircraft this year.

As you go forward into the next generation jammer, that is an analysis of alternative that is funded. And we will go back. And I don't think we should—we can't, that is not what an analysis of alternative does. In other words, to predicate what the result of that is. There will be alternatives put on the table about how to take everyone electronic attack forward. And from that analysis of alternatives it will come back to the requirements folks to say which way we want to head. And then we will proceed with that.

The timeline in your question is in supporting of the Prowler, and that would be somewhere around 2018 timeframe, 2019 timeframe. I would offer comments from Admiral Myers as well.

Admiral MYERS. Well, the analysis of alternatives for the Next Gen Jammer, as Admiral Architzel said, is ongoing. There is 128 million in that program, originally designed to deliver in 2016, and it slid to about 2018 right now. So it is moving in the wrong direction in terms of the delivery in time for the sunset of the EA–6, to your point, sir.

Mr. LARSEN. Thank you gentlemen. Thank you, Mr. Chairman.

Mr. TAYLOR. The Chair thanks the gentleman, and would remind him that we are going to try to have a second round should the need arise.

The Chair now recognizes the gentleman from Colorado, Mr. Coffman.

Mr. COFFMAN. Thank you, Mr. Chairman.

This is a question I guess for both the Navy and the Marine Corps. What is the status of the CH–46 right now? And what is the time line for that?

General TRAUTMAN. Let me start, sir, since the CH–46 is principally a Marine Corps aircraft. It is better than you would imagine. I mean, we have done some very wise things with the CH–46 over the past decade and a half. We have improved the engines through the engine reliability improvement program about a decade ago. We have changed out the cockpit, we have changed out the drive train. We have spent our dollars wisely in the CH–46 and it remains a workhorse today. We have CH–46s deployed on our Marine Expeditionary Units around the globe. We have them forward deployed in the Third Marine Expeditionary Force (III MEF) in Japan and we have them operating in Iraq today. Thank goodness the venerable "Phrog" is continuing to perform just as we had hoped that it would.

As far as its sundown, as long as we can keep the V–22 Osprey on track, we hope to be out of the CH–46 business by the end of the next decade, and we are on track to do that.

What we have been able to do, similar to my answer on the EA–6B previous, we have been able to take best of breed. As the V–22s arrive, now at 30 per year, we have been able to use best of breed on the 46 and sundown and put the ones in the boneyard that no longer need to be used, so we actually had a pretty solid fleet of CH–46s at this time.

Admiral ARCHITZEL. Sir, if I could. It is interesting that the Phrog, as we are talking about here, the Navy is out of the CH–46 business but I would just share with you all that when I was executive officer of the great ship *Dwight D Eisenhower* back in the early 1990s, on a Vertical Replenishment (VERTREP) evolution, which I was up on the bridge and counting the carriers that were doing it, the first lift of the day was from an H–46 bringing a missile load over from the *Suribachi* alongside. That Helo was a year number older than the ship we were on. And the first lift had engine stall, lost engine, lost lift impaled itself in the back end of the *Suribachi*. That ended the Underway Replenishment (UNREP). So we had to cancel the missile offload. We came back and did that later.

The reason I am telling you that story is that I came back to be the Commanding Officer (CO) of the USS *Guam* in OPH–9 three years later. Made two deployments with it. On my second deployment, the SAR Helo of it came out to be on my detachment was that same bureau number that had impaled itself on the back end of the *Suribachi*.

So I am advocate for keeping things around, but the Phrog's time had come and gone, and today we have the—it has been a venerable airplane, but it is long past its service life as we go forward.

Mr. COFFMAN. Admiral, I think you mentioned a new variant for the 53. Can both of you tell me where we are with the CH–53?

General TRAUTMAN. I can start, sir. The CH–53 Kilo is what you are referring to. This is an airplane, it is a heavy lifter that will replace our existing CH–53 Echos.

The requirement that we laid out for this airplane was to carry 27,000 pounds 110 miles round-trip in a Navy, high, hot day. That is about three times what the CH–53 Echo can carry today.

The need for this is because, unfortunately, the Marine air ground task force is getting heavier. Gun Laying and Positioning System (GLPS) and some other things have caused us a degree of concern. But this 53 Kilo will be the load-carrying machine that we need.

The program has resolved, to my knowledge, all of the technical risks associated with bulking up and becoming this heavy lifter that I described. It got off to a slow start, about a year late on preliminary design review. That is going to make them late for critical design review. We are in the process now of assessing with the program manager and the contractor what impact that may have on cost and schedule. Our desire is to have initial operation capability of the 53 Kilo in around 2016, and we will see if we can hold that as we get to more fact-based analysis on the program in the coming two or three months.

Mr. COFFMAN. Mr. Chairman, I yield back the rest of my time.

Mr. TAYLOR. The Chair now recognizes the gentleman from Connecticut, Mr. Langevin.

Mr. LANGEVIN. It is still Rhode Island, Mr. Chairman.

Mr. TAYLOR. I apologize.

Mr. LANGEVIN. Gentlemen, thank you very much for your testimony today. I just want to turn for a minute to Signals Intelligence (SIGINT). The EP–3 is the Navy's only land-based signals reconnaissance aircraft, and the EP–3 have been heavy engaged in support of operations in Bosnia, Korea, Iraq and Afghanistan. And, clearly, the planes are wearing out right now. The President's budget contains $12 million for the EP–3 replacement program, EP(X).

My question is, what is your plan for replacing these critical assets? And where does the EP(X) stand today?

Admiral MYERS. Thank you for your question, sir. The EP–3, currently we have 18, and they will be in our inventory through the 2020, 2021 timeframe.

Currently, we are undergoing an analysis of alternatives to determine whether or not a follow-on EP(X) would be a manned replacement platform or an unmanned or distributed platform or series, a family of platforms. So that analysis is ongoing, and that is an issue for fiscal year 2011 and POM 12 to make sure that we understand and are focused on and funded, so if it is a follow-on platform, then we can program for it and make sure that it is mature enough before we sunset the EP–3. And if the decision is to re-man the EP–3 and keep it in the same manned platform, then we need to make a decision by POM 14 to take advantage of some of the zone 5 kits, Statistical Sampling Inventory Method (SSIM) [AR 310–50], and the outer wing work that we have been doing for the P–3.

Admiral ARCHITZEL. This morning, sir, if I could. I participated in an acquisition governance meeting, which was on the follow-on

EP(X), what we would do. And it is at the very early stages, as mentioned. This is the early setting of where we go from the program and setting requirements up front.

Part of what we have learned over the past years is understanding exactly what it is we want to procure and what are the challenges before we go to any kind of procurement program.

So this set the stage for what Admiral Myers said about entering into an analysis of alternatives. This is a decision to go forward to that, to set in place that motion. So we are working closely on the acquisition side with the requirements and with the Office of the Chief of Naval Operations (OPNAV), the entire OPNAV staff to go forward and the programs to go forward, sir, just from an acquisition standpoint.

Mr. LANGEVIN. So EP(X) is still at the very, very early stages of evaluation?

Admiral MYERS. Yes, sir.

Mr. LANGEVIN. Okay. Turning my attention to another issue. I have been off the subcommittee for two years while I was serving on Intel. And just for my own knowledge, the V–22 program had an initial bad start and we lost a number of good soldiers in crashes. Can you give me an update on the safety record right now of the V–22, and what the reasons were? I assume those were from a lot of human error in the flying of those birds. Can you give me just an update of the safety record right now and how we are doing?

General TRAUTMAN. Sir, if I may take that. Those two mishaps you referred to occurred nine years ago, one in April nine years ago and the other December not quite nine years ago. Those were tragic mishaps. We learned a lot from those mishaps. We dug into the airplane, put the airplane through the most intensive engineering scrutiny I think of any airplane in the Department's history. And thank goodness we did, because the proof has been in the way the airplane has performed since then. 55,000 hours on V–22s in the fleet, to include the last 20 months of combat operations in Iraq flying in the most austere, hostile environments that you can imagine. V–22s have performed miraculously.

Last Friday, we launched a squadron of V–22s out on a Marine Expeditionary Unit sailing towards fight from Carolina, and by the fall we will have a squadron of V–22s in Afghanistan.

Since then, thank goodness, the safety record has been superb. We have had a couple of minor challenges on the deck that we have resolved and we know the causes of those. But, beyond that, the safety record has been absolutely superb for the last nine years.

Admiral ARCHITZEL. Sir, if I could just to add. Although not perhaps as current you want, but you went back and talked about the history of the program. And I happened to have been the commander of OPTEV for—operational test and evaluation force for the retesting of the V–22 as it came back into its op eval. And I can tell you that the rigor put in from NAVAIR on the tactical side as well as from the Marines in training and bringing it in forward was nothing short of impressive as we got that through its op eval, and now as you can see the results of that in its performance.

Mr. LANGEVIN. I thank you for your answers and the reassurance that the program is working well.

Thank you, Mr. Chairman. I yield back.

Mr. TAYLOR. The Chair thanks the gentleman from Rhode Island. Now recognizes the gentleman from California, Mr. Hunter.

Mr. HUNTER. Thank you, Mr. Chairman.

And thank you, gentlemen, for being here. I just have a really quick question. When it comes to the golden hour in Afghanistan, are we good to go now on that?

General TRAUTMAN. Well, the Marine Corps is good to go. As you know, sir, the Marine Corps is expert at task organizing to provide the right capabilities to the Marine Air Ground task force commander that he needs. And as we grow the force in Afghanistan from its previous 2,000 up above 10,000, we made quite sure that we had the right number of assault support platforms in theater to ensure that we can provide the support that we need for the Marines.

Mr. HUNTER. So we have met that standard now?

General TRAUTMAN. Well, I believe we will meet that standard inside the contiguous battle space that the Marine Corps has been given with the Second Marine Expeditionary Brigade. I am not sure and I am not up to speed on the rest of the Afghanistan at this point.

Mr. HUNTER. But for RC South? I am just asking about the Marine Corps.

General TRAUTMAN. For the Second Marine Expeditionary Brigade, my understanding is that we can and will meet that standard with the assets that we have.

Mr. HUNTER. When we have the Marine Corps surge?

General TRAUTMAN. When the surge is complete. When we finish this month's rotation.

Mr. HUNTER. Does that coincide with the V–22 getting there?

General TRAUTMAN. The V–22 will arrive in the fall. Right now we have CH–53 Deltas, CH–53 Echos, and UH–1Ns in the battle space, and they will provide the capability that we need. We are also, as I said, sending a squadron on Marine Expeditionary Unit and they are sailing towards the Central Command area of operation. So it would be up to the combatant commander whether he wanted to employ them in that environment or not.

Mr. HUNTER. Are they going to be using the V–22 for medical evacuation (MEDEVAC) or casualty evacuation (CASEVAC)?

General TRAUTMAN. From the Marine Expeditionary Unit?

Mr. HUNTER. No. In the fall.

General TRAUTMAN. In the fall? Absolutely. That is one of the main reasons that we lean forward. And as soon as we have enough range and depth in the V–22 community, we want to get two squadrons.

Mr. HUNTER. What I am trying to set clear is the golden hour is going to sink and coincide with the V–22s getting to Afghanistan and being used for CASEVAC and MEDEVAC?

General TRAUTMAN. No. That is not true, sir. The golden hour inside the Second Marine Expeditionary Brigade's battle space will be met with the existing assault support platforms that we are putting into theater, is my understanding.

Mr. HUNTER. In the fall?

General TRAUTMAN. No. Now.

Mr. HUNTER. Now.

General TRAUTMAN. Now.

Mr. HUNTER. So it is being met.

General TRAUTMAN. As we grow to 10,000 and more, yes.

Mr. HUNTER. I am not trying to mince words. I am saying, you are saying that it will be met. And I am asking, do we have the—is the golden hour standard being met now with the Marines that we have there now?

General TRAUTMAN. I believe it is met now. Let me take a comeback to make sure I am right. I believe it is met now. We do not have all of the assault support forces there yet. I think we have six more CH–53 Echos to deploy. But the 53 Deltas that are in that battle space are quite capable of supporting the golden hour inside the Second Marine Expeditionary Brigade's battle space. Let me have a take-away to go confirm that I am right about that, but I think I am.

Mr. HUNTER. Along those lines, are you happy with the way that the infrastructure is being built for air at Camp Bastion in Kandahar? Is it going to be able to support you? Because you weren't building it. Right? The Air Force is building it and you will be using some of it. Right?

General TRAUTMAN. That is right.

Mr. HUNTER. So is it going according to plan to support you?

General TRAUTMAN. We will be bedding down our aircraft a combination of Kandahar and Bastion. We are working side by side in Bastion with the Air Force.

Mr. HUNTER. You are now?

General TRAUTMAN. We are. And we shipped 6 million square feet of AM–2 matting to Afghanistan.

Mr. HUNTER. That makes good border fence, by the way.

General TRAUTMAN. I hope it is not being used for that. We need to lay it down to create Forward Operating Bases (FOBs), Forward Arming and Refueling Points (FARPs), and airfields, and I think we are. I know we are.

We also provided the subject matter expertise for our marine wing support squadrons that actually showed both the Army and the Air Force how to expeditiously lay down that matting. So that progress is being made as best it can be. There have been times in the last two months that one of my principal concerns was the pace at which this was being done. But as I sit here today, I am satisfied that we are on track.

Mr. HUNTER. Thank you.

Thank you, Mr. Chairman.

Mr. TAYLOR. Gentlemen, as you can tell by some of the questions, we are facing an affordability problem in the very near future.

For the record, I would like to ask each of your personal opinions as to how many aircraft around the world would you rate as superior to the F/A–18E/F? If you would name them, name the country of origin, and whether they exist, and a ballpark figure of how many of them would exist in each of those countries.

Admiral ARCHITZEL. So, to answer your question I am an S–3 aviator, but I will tell you that I do not know today of an air-

plane—the F/A–18 is certainly a superior fighter. There is no question about it. So I really don't have the—I can't give you a number comparison, but I will tell you that F/A–18E/F particularly is a standout fighter among fighters today. But it is also not a fifth generation fighter.

Mr. TAYLOR. I understand, sir. Admiral Myers, would you like to address that?

Admiral MYERS. Yes, sir. And I will say that of all the aircraft that are in production from four nations, that I would much rather be in the cockpit of an F/A–18E/F than any one of those other aircraft.

Mr. TAYLOR. General, would you like to offer an opinion?

General TRAUTMAN. Well, I think it is difficult to parse among all of the fourth generation airplanes that exist in the world. The F/A–18E/F is certainly tied with them. It doesn't stand a chance against an F–22 or an F–35, though. And I think that is the key reason the Marine Corps is——

Mr. TAYLOR. Hopefully we will not be shooting at each other any time soon. Again, the question was, nations other than our own. And I am asking your professional opinion.

General TRAUTMAN. I think there are airplanes out there that our return ratio would not be what we would want for our young men and women if we had to go against them. Now, hopefully we won't have to go against them.

Mr. TAYLOR. Is there any of them that you would care to mention at this point?

General TRAUTMAN. MiG–29, for example.

Mr. TAYLOR. And are they being produced in any sort of significant numbers by any country?

General TRAUTMAN. I don't think so, sir.

Mr. TAYLOR. And, again, I am—with that, I am going to yield to the gentleman from Missouri, Mr. Akin.

Mr. AKIN. Just a couple more questions. General Trautman, my understanding is that the Marine Corps currently has four F/A–18 fighter squadrons that are supposed to have 40 aircraft allocated to them but actually have no aircraft allocated to them. And the Marine Corps does not apparently include those in the shortfall. And, if so, why did you not include them in the shortfall?

General TRAUTMAN. Sir, about three years ago we made a proactive decision to cadre two active and two reserve fighter attack squadrons. We did this in anticipation of the arrival of Joint Strike Fighter. We learned when we transitioned to the V–22 from our large medium lift population of CH–46s that one thing you need to do when you have a large population changing, as our tactical aircraft are going to change beginning in 2012, is to create a manpower pool from which you can draw, because particularly when you are changing from a 46 to a V–22 or from a legacy Hornet to a Joint Strike Fighter, it is not a light switch; it is a rheostat and you have to have time to train and prepare both air crew and maintainers.

So we set aside those cadre personnel, and now thank goodness we did because over the last few months we picked the squadron commander for our first fleet readiness squadron VMF–AP 501, which will stand up beginning this summer. We picked the first six

aviators that will go into that squadron. We are detailing the maintainers that will go into that squadron. And beginning in 2012 and 2013, we will bring back those two active cadre squadrons as Joint Strike Fighter Squadrons, and that has been our plan.

With regard to the two reserve cadre squadrons, we will bring them back three or four, five years into the Joint Strike Fighter transition about the time that reserve aviators and maintainers are looking for a place to go if they decide to remain engaged in the Marine Corps via the Reserves.

So we think we have got this laid out right, and that is why we did what we did.

Mr. AKIN. So, in a sense, your strategic decision of three years ago was why you started with four squadrons, you are going to go down to two. So, in the transition, you have got just less aircraft available to you, so you realized that you were at a lesser strength. And you accept that risk because you are transitioning from one aircraft to another? That is what I think I am hearing you say.

General TRAUTMAN. That is exactly right, sir. These transitions are challenging. And that is why we take the decision that we took to set aside that manpower pool.

Mr. AKIN. As long as the other plane comes on line, you are saying we can live with being at half strength, or some, a few years to make that transition. If they are not on line in time, then that becomes increasingly problematic, I suppose?

General TRAUTMAN. It does. We are meeting our current obligations with the force structure that we have. The challenge is, of course, that Marine Tac-Air is at a higher op tempo than either the Navy or the Air Force Tac-Air. So in some ways, we are playing out the risk on the backs of our Marines. And we don't like to do that, but we think it is a proactive step that was worth taking in order to get to the Joint Strike Fighter in 2012 and 2013.

Mr. AKIN. Okay. So those 40 are not counted in the shortfall then that we were talking about before?

General TRAUTMAN. Well, they are not really a shortfall, sir. For example, if we decided to have those squadrons up and we didn't want to take the manpower, we could take the 30 Lot 10 and 11 F/A–18Cs that we are putting into preservation and we could have those round up those squadrons in the near term if we chose to do so. I think that would not be a very wise decision, though. I prefer the decision we made.

Mr. AKIN. You are saying there are aircraft around, but they are just old?

General TRAUTMAN. Lot 10 and 11. That is right.

Mr. AKIN. You also mentioned the idea of reworking some of the F/A–18s. You are saying that is a possibility, depending on the analysis of what those look like. The numbers we are seeing on that is, is you are looking at about $15 million if you have got to put that rework in, and that gets you whatever it is, 1,500 hours or something. It seems like, to me, that is almost costing you twice the cost per hour and a lot less capability than if you just got a new F/A–18. Would you ever look at doing that?

General TRAUTMAN. I was advised that putting any kind of number on the cost of extending a Hornet from 8,000 to 10,000 at this point would be premature. As I said, we are only halfway through

phase B of a three-phase process. And until we get through that process, there are too many variables associated to put a number on it. I haven't heard a number as high as 15 million. That is a new one to me. I have heard lower numbers.

Mr. AKIN. What is the engine? About 5? Is it 10? What was the engine, the central component?

General TRAUTMAN. The center barrel? Yes, sir. We already have $1.1 billion in the budget that is already paid for to do 417 center barrels. So the good news is that is a risk mitigator against the challenge we face in order to do the service life extensions. And as I said, most of the areas of interest are in the center barrel area.

Mr. AKIN. It still costs money, though.

General TRAUTMAN. No doubt, sir. You are exactly right. And we will have to make wise, case-by-case, bureau-by-bureau number assessments and then decisions about how to expend our——

Mr. AKIN. If you had to do the center barrel and you had to do the wing sections, what are you talking, actual dollars, to do that on a plane?

General TRAUTMAN. Well, for example, if we already have the center barrel budgeted. If we went to AMARC as we are doing this year to get 24 wings out, we could do both of those for no additional dollars. If we had to buy a center wheel wing, I am not sure what the current cost of that is. I would have to defer to Admiral Architzel or Admiral Myers.

Admiral ARCHITZEL. Sir, I will give it to Admiral Myers in a second or two. But what you have to do with the center barrel, that is Lot 17 and prior. If you did a center barrel replacement—which we funded. And let's take about 6,000 hours. For those numbers of Hornets, and I think the number is somewhere around 400 plus numbers we have there, that is funded in our budget, and we go forward. That runs at about center barrel two-and-a-half billion—two-and-a-half million. Excuse me. So if you then add in——

Mr. AKIN. Two-and-a-half million for a center barrel. And then you have got the functional interoperability architecture (FIA) to do the wings.

Admiral ARCHITZEL. The number I have is two-and-a-half, and so we will have to get back to you. They are being quoted four-and-a-half here.

So the center—if you get the wing section and the center fill barrel, it is about 5 million for those. Now, as General Trautman says, if you take wings off an existing aircraft with—you still have to rework those wings. So you are going to have some costs involved. You are absolutely right, sir.

If you want to look at where we go to get above to the 8,600 hours and you want to go past that into 10, we have a high flying hour inspection. That inspection alone is running around about $475 million. That is to get to the point where you can open and inspect and look at the airplanes to see what you have. And I agree with General Trautman, we don't know what we will have in those airplanes. Probably in those, where we designed into the center barrel on that Lot 18 and on, we should not expect to replace center barrel. But in those areas that are fatigued, hot points in the aircraft, we have to do—we have to extend some work or maybe—depending on what we have.

So fatigue, stress, cracking, or issues on the empanage, or tail. And then on top of that you also have to do system work on the airplane. So that is I think where the quandary comes in, is what is the exact cost of each aircraft. You won't know until you open them up and find out what you have, sir.

Mr. AKIN. You basically, I think you made it clear to me today that you don't really know what the fighter aircraft shortfall is. You are saying it is somewhere—and I thought it was variable between two numbers. You said that you can't even count on that. When will you know for sure what your shortfall is? When will you actually have a number?

Admiral MYERS. The shortfall right now is about 70 aircraft. And that is based on the analysis that I brought to you——

Mr. TAYLOR. Would the gentleman yield?

Mr. AKIN. Yes, sir.

Mr. TAYLOR. 70 aircraft when, Admiral? Give me a year.

Admiral MYERS. It peaks in the 2016 to 2017 time.

Mr. TAYLOR. When does your shortfall kick in? What year?

Admiral MYERS. The shortfall starts to develop in mid to later 2013 timeframe. Now, that is—Chairman and Congressman, that is based on the analysis that was brought last year. What is ongoing right now is, as General Trautman mentioned, we are in the second phase of a three-step process and we are refining the technical baseline and cost estimates to see exactly what we want to SLEP and what is in the realm of the possible.

What we knew last year was conceptually what the cost would be and a preliminary estimate on what it would take. And that is why we gave bookends. What we are starting to do now is better understand. Last year, when we came to you the 8,600 and 10,000 numbers, the 69 and 129 was based on 295 aircraft being able to be SLAP'd. Right now the number is about 330 aircraft that we think might be candidates or are targeted to be SLEP'd. But through the summer we are going to have a lot more information. And the second phase is set to complete next March.

We have got lots of work to do, and I want to make sure that everybody understands that it is not just the SLAP'ing of the aircraft that is our focus on mitigating the shortfall. It also means that we maintain our buy of the JSF. It means we maintain the logistics support of the current fleet. And it also means that we maintain the current buy of our F/A–18E/Fs.

Mr. TAYLOR. I appreciate the gentleman yielding. Please continue.

Mr. AKIN. That—I mean, I have got a chart here that shows the number you are talking about, 69 it says here for 17. I think that was the Navy.

Admiral MYERS. Yes, sir.

Mr. AKIN. The total number is 125. And then I think the chart also says what happens if you can't get to the 10,000 hours. And then that jumps it to 129 and 243.

Admiral MYERS. Yes, sir.

Mr. AKIN. Have you seen this?

Admiral MYERS. Yes, sir, I have.

Mr. AKIN. That is what I was pulling my numbers off of, was this chart.

Admiral MYERS. Yes, sir.

Mr. AKIN. Are these numbers still the best we know for the moment?

Admiral MYERS. Those numbers have not been officially changed and updated. We are currently doing analysis and looking at assumptions that might impact those numbers, and that is also ongoing. We are taking a look at——

Mr. AKIN. So the answer to when we will know pretty sure is going to be a year or next March. Would we have a pretty good handle on it at that point?

Admiral MYERS. We will no a lot more through the summer, sir. And through the summer we will also be able to better understand what the assumptions are that go into that model in terms of our productive ratio or the efficiencies that we use on the air wings that are not deployed. There is a lot of things that go into the model besides just 44 and the Marine Corps requirement, and that is one of the things that the Marines and the U.S. Navy are currently undergoing is some an understanding of ways that we can more efficiently get aircraft out to the warfighter.

General TRAUTMAN. Congressman, if I could add to Admiral Myers' excellent answer about the variability. That chart that you held up last year is no longer relevant. It is not an accurate depiction at this point. And I can just give you the simplest example I can is if we have decided to buy additional F–35s Bs and Cs compared to last year, which we have done, that changes all of those equations, just for an example.

Mr. AKIN. But you could picture yourself in our shoes. We got this information from you in March, and I am hearing you say that it is increasingly irrelevant right now. It is hard for us to get a number. I am just saying, when are we going to have something that we can understand what we are planning?

Admiral MYERS. We owe you better and more current information. And in March, sir, that was the best that we had. And we owe you the benefit of understanding what we think the future is going to hold in terms of F–35 production and in terms of the ongoing SLAP and SLEP analysis.

Mr. AKIN. So are you saying then the end of this summer you think we are going to have some pretty reliable numbers? Or is it going to be March of next year? I mean, where are we going to be within plus or minus 10 percent of the number?

Admiral MYERS. I will have to get back to you, sir, and take that back to our leadership, not only in the fleet, but also in the systems command to make sure that we get you a good time frame.

Mr. AKIN. We have got to have something to work with. Thank you very much. Thank you, Mr. Chairman.

Mr. HUNTER. Will the gentleman yield really quick? I just have a quick question listening to this. Wouldn't the numbers have already been put together for the internal DOD budget with this? Isn't there a number?

Mr. TAYLOR. Both very fair questions. I would remind both gentlemen that we tend to go through this at the beginning of every new administration; that it is my memory that the Bush administration did not submit a DOD budget until July of 2001. And so although this is taking longer than anyone wished it had, there is

still a little bit ahead of that mark which was eight years ago right now.

With that, the Chair recognizes the gentleman from Maryland.

Mr. BARTLETT. Mr. Chairman, relevant to your question about competitive aircraft around the world, it is my understanding that the only aircraft we have that might be competitive with the latest Russian SU fighter aircraft is the 22. Is that also your understanding?

Admiral MYERS. I am not an F–22 pilot, so—and I am not read in on a lot of the F–22 programs, sir. So my perspective comes from the Navy and what I know of the F/A–18 and for—not meant for an open hearing but a more private discussion, that is the aircraft I would prefer to be in.

Mr. BARTLETT. I think, Mr. Chairman, it is not a certainty anymore that we will always have the best fighter aircraft in the world. I think most people now feel that the latest SU Russian fighter is probably as good as or maybe better than our best plane. And they are selling them. India has bought them.

Thank you very much.

Mr. TAYLOR. Sure. The Chair thanks the gentleman. And for the record, since that was Mr. Bartlett's observation, I would appreciate you gentlemen getting back to us within two weeks, if possible, with how many of those aircraft have been produced and how many are around the world. I think is that a fair request, gentlemen?

Admiral ARCHITZEL. Sure.

Mr. TAYLOR. The Chair now recognizes the gentleman from California, Mr. Hunter.

Mr. HUNTER. No more questions.

Mr. TAYLOR. Mr. Akin.

Mr. AKIN. No. Thank you.

Mr. TAYLOR. Gentlemen, I think it has been a very, very productive hearing. I very much appreciate your time. We apologize for the delay at the beginning because of votes. But I think you have made your case very, very well, and we know we have a lot of work to do. Thank you very much for being with us. The subcommittee is adjourned.

[Whereupon, at 4:18 p.m., the subcommittee was adjourned.]

A P P E N D I X

MAY 19, 2009

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

MAY 19, 2009

Opening Remarks

For

The Honorable Gene Taylor,

Chairman, Seapower & Expeditionary Forces Subcommittee

Dept of the Navy Fiscal Year 2010 Aviation Programs Hearing, 19 May 09

The hearing will come to order. Today the subcommittee meets to receive testimony from Navy and Marine Corps officials on their aviation programs contained in the fiscal year '10 budget request. Today we have with us: Vice Admiral Architzel, serving as principal military deputy to Assistant Secretary of the Navy Stackley for Navy and Marine Corps research, development and acquisition programs; Lieutenant General Trautman, serving as deputy Commandant for Marine Corps aviation programs; and, Rear Admiral Myers, serving as the director for integration of all Naval Warfare programs. Gentlemen, thank you for taking time out of your busy schedules to be with us.

Much like the Department's shipbuilding programs, aviation programs of the Navy and Marine Corps are not without issues. The most apparent issue is the amount of the budget request and the number of aircraft requested. The aviation budget request for this year is $4.6 billion dollars greater than last year's plan for fiscal year 2010, but the overall quantity of planned aircraft purchases has decreased by 20. Very similar to

shipbuilding, the amount of funding requested has steadily gone up, but the quantity of aircraft purchased has steadily declined.

I'd like to outline the program and policy issues that, at a minimum, I would like our witnesses to address.

First, the primary policy issue I would like to address is that of the strike fighter inventory for the Navy and Marine Corps. Over the last three years, all four congressional defense committees have had a steady stream of Navy and Marine Corps witnesses testify before them about an impending strike-fighter shortfall. This shortfall is predicted to peak in the middle of the next decade.

Right now, current analysis puts that peak at 243 aircraft in fiscal year 2018, but if you account for the accepted risk that each service has informed Congress that they are currently incurring, the peak shortage of aircraft climbs to 312 in that same year. What is more troubling is that it appears there is a disconnect between the Office of the Secretary of Defense (OSD) and the Department of the Navy.

Officials from OSD have recently briefed this committee that there is no strike fighter shortfall but that the totality of the strike fighter inventory is a matter for analysis in the Quadrennial Defense Review (QDR). In other words, OSD has

already predetermined the answer and now they'll use the QDR to build the equation.

I request that the witnesses explain today what the position of the Department of the Navy is regarding the strike fighter shortfall and if they are aware of any new analysis by the Joint Staff or OSD which would contradict what is apparently simple arithmetic. Because, the last time I checked, an aircraft carrier is only worth its weight in gold if it has an embarked air wing. Otherwise, 90,000 tons of American sovereignty becomes 90,000 tons of American helicopter transportation.

Next, there are a number of programs, and I know that we may not have time to discuss all of them here today, that are of high-interest to members of this subcommittee.

The first program is the F-18 Super Hornet which ties directly in with the strike fighter inventory discussion, but what I would like to understand is why the Navy reduced its program request by nine Super Hornets in fiscal year 2010 over the predicted request in last year's budget.

It's our understanding that the program is executing very well, on cost target and on schedule. Yet with the Super Hornet line executing well, the Navy and Marine Corps have opted to increase their fiscal year '10 buy of Joint Strike Fighter F-35 aircraft by two, at an estimated cost of $236 million each.

I know that the Department prefers the advantages of stealth, but given the high-risk and high concurrency regarding the development, testing and production of the F-35, we need to understand at what point that putting combat-proven 'rubber-on-the-ramp' Super Hornets is more advantageous than waiting for an experimental aircraft that is behind its original schedule by more than two years, over its original program budget estimate by more than $65 billion dollars, and has already reduced its planned inventory quantity by more than 400 aircraft.

The GAO has noted in its most recent F-35 report to Congress that the program office estimates an additional $2.4 billion is needed to cover cost overruns on the air system and engine contracts and to incorporate the one-year extension to the development schedule. The prime contractor has already extended the manufacturing schedule three times and due to on-going manufacturing inefficiencies and parts supply problems with its sub-contractors, has only delivered three out of thirteen aircraft. Nine aircraft should have been delivered by now.

I would like to understand why the Department wants to accelerate F-35 procurement between 2010 and 2015 by purchasing 28 additional aircraft above its current program of

record. It is my understanding that F-35 contracts are planned as cost reimbursable instead of fixed price, which magnifies the financial risk to the government.

Has the Department learned nothing from the fiascos of the VH 71 program and the Littoral Combat Ship program? The F/A 18 Super Hornet can be purchased for somewhere in the neighborhood of $50 million on a fixed price contract. For the F-35 the cost growth per airframe alone is $38.3 million dollars. I think we have a great airframe in the F/A 18 Super Hornet. It is affordable, it is multi-mission and it is flying off our carriers in combat today. I would like our witnesses to explain why this committee should recommend removing funds from a proven program to increase procurement in a developmental program?

Briefly I would like to address the VH 71 program. The Navy invested over $3.2 billion dollars, received nine test and pilot-production aircraft, yet was unable to successfully execute this program that ultimately was cancelled by Secretary Gates. I would like to understand what the plan is for the current aircraft assets that have already been delivered, what the plan is going forward, and how the mistakes of the original program will be prevented from happening in the next program?

I understand the E-2-D program may be on the verge of a significant Nunn-McCurdy breach, and I would request the witnesses comment on the health of that program.

Finally, I understand that although the MV-22 has performed extremely well in combat operations in Iraq, the aircraft is having sustainment issues and unforeseen additional costs associated with maintenance. Are there ongoing efforts at design changes to address some of these maintenance issues?

I realize that I have outlined a number of issues facing naval aviation. I believe these are fair concerns and deserve an open and public accounting of the costs and benefits of these programs. What I am not willing to do is sit by as program after program 'breaks the bank' on costs. I have seen enough of that in shipbuilding programs.

We can no longer afford unaffordable programs, I believe it is time to step back and build what we know works, make it better if and when we can, and get the capability to the Sailor and Marine who need it today, not ten years from now.

Again I thank the witnesses for joining us today and would now like to recognize the gentleman from Missouri, the Ranking Member of this subcommittee, the honorable Todd Akin.

Ranking Member Akin

Hearing of the
Seapower & Expeditionary Forces Subcommittee

on

Navy Force Structure and Shipbuilding

May 19, 2009

Thank you Mr. Chairman, and welcome to our witnesses. We meet this afternoon to receive testimony on Navy and Marine Corps aviation programs, which is an area with many challenges.

Naval aviation has been a major component of our military might since World War II. Our ability to project power great distances onto shore from any ocean in the world has been vital to U.S. national security. Our aircraft carriers have become a symbol of American diplomatic power and freedom and are the heart of our modern Navy. As the saying goes, when a crisis arises, the first question on everyone's lips is where is the nearest carrier?

Unfortunately, our Navy faces a significant strike fighter shortfall in the near future, and what good is an aircraft carrier without aircraft? Last year the CNO testified to a fighter shortfall of approximately 125 planes for the Department of the Navy by 2017. This year, based on an updated analysis, the Navy has told Congress that a more realistic estimate is a shortfall of over 240 planes. This assumes that the Joint Strike Fighter delivers on time and that the Navy will continue to resource its carrier air wings with fewer aircraft than is called for in the national military strategy. Should the Navy resource to its full strike fighter requirement, the shortfall would be greater than 300 aircraft.

What does all of this mean? Simple math shows that at least five of our eleven carriers would be without fighter aircraft, or we would be forced to severely limit the number of aircraft per carrier and available for training. In either case, the solution would pose a significant strategic risk. I am deeply concerned that this budget actually makes the

shortfall worse, by cutting the number of Super Hornets the Navy is buying. Facing a gap of at least 243 planes, the Navy is only asking for 9 Super Hornets. In a few months, the Navy has gone from considering another multiyear procurement of Super Hornets, to cutting the buy of F/A-18s in half. This makes no sense. As I told the CNO last week, we either need more planes or fewer carriers, and I do not think anyone in this room believes that fewer carriers is the solution.

Unfortunately, as Congress has tried to wrestle with this issue, the Department of Defense has refused to obey the law and has been anything but transparent. The DOD has:

- not delivered a report on costs and benefits of a multi-year procurement of F/A-18's required by law by March 1, 2009;
- not delivered the 30 year aviation plan required by law;

- not delivered a future-years defense program with the budget, as required by section 221 of title 10, United States Code;
- and has refused to brief Congress on the apparently differing estimates on the size of the fighter shortfall.

Is this the transparency that President Obama promised? Does the Department of Defense consider itself above the law? Let us be clear—the mere existence of a Quadrennial Defense Review (QDR) does not exempt the Department from fulfilling its legal obligations. While I understand that the witnesses this afternoon are not responsible for these decisions to violate the law, let me say at the outset that the Department cannot expect to use the QDR as a get out of jail free card. Our witnesses should understand that this Committee expects and deserves answers, not evasive maneuvers.

Before closing, let me briefly mention a few other concerns that I hope the witnesses will address. First, the

development and testing of the Joint Strike Fighter remains uncertain. The fact that we are already spending billions of dollars to buy these planes when we have only completed a fraction of the testing deeply concerns me. I believe that we will continue to see cost and schedule slips and am concerned that in a constrained fiscal environment, we will continue to see growth in this expensive program . The JSF may be a great weapon system, but it seems to be the 99% solution that Secretary Gates said we should avoid.

I would also like the witnesses to comment on where we stand in terms of electronic warfare capabilities today. Are we meeting the needs of the combatant commanders? What are the Marines doing about EW? Will the Navy continue to provide expeditionary EW capability on behalf of the Air Force?

There is much work to be done in the area of Naval aviation. Let me again thank the witnesses for being here

today and for the work they are doing for our nation. Thank you, Mr. Chairman, for holding this important hearing.

I yield back.

STATEMENT OF

VICE ADMIRAL DAVID ARCHITZEL, USN
PRINCIPAL MILITARY DEPUTY
RESEARCH, DEVELOPMENT AND ACQUISITION

LTGEN GEORGE J. TRAUTMAN III, USMC
DEPUTY COMMANDANT FOR AVIATION

RADM ALLEN G. MYERS, USN
DIRECTOR OF WARFARE INTEGRATION

BEFORE THE

SEAPOWER AND EXPEDITIONARY WARFARE SUBCOMMITTEE

OF THE

HOUSE ARMED SERVICES COMMITTEE

ON

DEPARTMENT OF THE NAVY'S AVIATION PROCUREMENT PROGRAM

MAY 19, 2009

Chairman Taylor, Congressman Akin and distinguished members of the Subcommittee, thank you for providing us with this opportunity to appear before you to discuss the Department of the Navy's aviation programs. Your Navy/Marine Corps team remains engaged around the world, and naval aviation is in the fight, every day, in support of our forces in harm's way. For nearly eight years, we have been at an extraordinarily high operational tempo, and we will stay at that tempo as long as our nation requires it. Your naval service is serving honorably and well, and we are guided by our tradition and history while we keep an eye on our future. The significant accomplishments of those who serve this great Nation are a direct reflection of the tireless efforts and the consistent support of the military by this subcommittee. Thank you for your dedication, and for your oversight.

NAVAL AVIATION PROGRAMS OVERVIEW:

The Fiscal Year 2010 President's Budget implements a recapitalization strategy for new capabilities and initiatives, reduced operating costs, and sustainment of legacy fleet aircraft that are performing magnificently in current operations. We continue to work with industry in seeking ways to reduce costs such as contracting strategies on the F/A-18E/F airframe, the H-1 airframe, the F-35, the MH-60R/S, and the MV-22. As an example of our dedication to stewardship of the public's trust and funding, we are implementing a 'prototype' strategy on the Joint Air-to-Ground Missile (JAGM) to ensure high technology readiness and reduced risk prior to entering System Development and Demonstration (SDD). The Department continues the development and Low Rate Procurement of the F-35, both the B and C models, and continues the development of the E-2D Advanced Hawkeye, the EA-18G, the CH-53K Heavy Lift Replacement aircraft, Unmanned Aircraft Systems, and new strike weapons capabilities. In total, with our Fiscal Year 2010 funding, Navy/Marine Corps aviation will procure 98 additional tactical and fixed-wing aircraft, 100 rotary-wing aircraft and five VTUAV's for a total of 203 aircraft.

TACTICAL AIRCRAFT/TACTICAL AIRCRAFT SYSTEMS

F-35 Joint Strike Fighter (JSF)
The Fiscal Year 2010 President's Budget requests $1.7 billion in RDT&E and $4.7 billion in APN for twenty Joint Strike Fighter aircraft (sixteen F-35B and four F-35C) and associated spares. The commonality designed into the joint F-35 program will minimize acquisition and operating costs of Navy and Marine Corps tactical aircraft, and allow enhanced interoperability with our sister Service, the United States Air Force, and the eight partner nations participating in the development of this aircraft. This aircraft will give combatant commanders greater flexibility across the range of military operations. A true fifth generation aircraft, the F-35 will enhance precision strike capability through unprecedented stealth, range, sensor fusion, improved radar performance, combat identification and electronic attack capabilities compared to legacy platforms. It will also add sophisticated electronic warfare capabilities, as compared to the legacy platforms it will replace, and will tie together disparate units scattered across the battlefield, in real time
The F-35C carrier variant (CV) complements the F/A-18E/F Block II and EA-18G in providing survivable, long-range strike capability and persistence over the battlefield. The F-35 will give the ESG and CSG commanders a survivable "Day-One" strike capability in a denied access environment that can not be accomplished by current legacy aircraft. The F-35B Short Take-off

Vertical Landing (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. Having these capabilities in one aircraft will provide the joint force commander and the MAGTF commander unprecedented strategic and operational agility.

The Marine Corps' tactical aviation (TACAIR) fixed-wing platforms, used for direct support to our ground combat Marines in the fight, are the AV-8B Harrier, the F/A-18 A+/C/D Hornet and the EA-6B Prowler. These aircraft are approaching the end of their planned service lives, and the Marine Corps, through careful service life extension programs, has managed these legacy platforms to bridge our aviation force until future airframes come on line. The Marines' F-35B will replace both the AV-8B and F/A-18 A+/C/D, as well as fill a large portion of the EA-6B mission as part of a networked system of systems. 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, to support the Marine Air Ground Task Force (MAGTF) well beyond the abilities of today's strike and EW assets.

Three SDD jets (AA-1, BF-1 and BF-2) are in flight testing. The remaining SDD jets and ground test articles, plus Low Rate Initial Production (LRIP) I and LRIP II aircraft, are in various stages of production. The SDD jets are setting new standards for quality and manufacturing efficiencies that improve with each jet. In flight testing, the initial Conventional Takeoff and Landing (CTOL) aircraft (AA-1) has demonstrated superb performance and reduced program risk, with 81 sorties (~111 flight hours) flown through April 20, 2009. BF-1, the first STOVL flight test jet, first flew in June 2008, on the schedule established two-years prior. BF-1 has flown 14 flights (~13 hours), and is currently on the hover pit, undergoing vertical engine operations. BF-2 first flew February 2009 and returned with no flight discrepancies noted. BG-1 static test results are favorable. The F135 engine has completed 11,300+ test hours on 16 engines through mid-April 2009. Software is 74% complete, with 13 million lines of code released including Block 0.5 Mission Systems, per the spiral development plan/schedule and with record-setting code-writing efficiencies. Software demonstrates stability across multiple Mission System subsystems.

Systems integration testing continues on plan via flight tests, a flying lab and over 150,000 hours of ground labs testing. A fully integrated Mission Systems jet will fly later this year. The second production lot contract was signed below the cost model prediction. LRIP III contract negotiations are near complete, and LRIP IV Advance Procurement funding is on contract. All F-35 variants are projected to meet their respective Key Performance Parameters. The F-35 plan for incremental blocks of capability balances cost, schedule and risk.

F/A-18 E/F Super Hornet

The Fiscal Year 2010 President's Budget requests $1.1 billion in APN for nine F/A-18 E/F Block II aircraft. The F/A-18E/F continues to transition into the fleet, improving the survivability and strike capability of the carrier air wing. Super Hornets and legacy F/A-18A-D Hornets have conducted more than 80,000 combat missions in support of Operations IRAQI FREEDOM (OIF) and ENDURING FREEDOM (OEF) since September 11, 2001. While deployed both on the ground and at sea aboard our aircraft carriers, F/A-18's have dropped 4,600 precision ordnance Joint Direct Attack Munitions (JDAMs) and more than 19,000 laser guided munitions, and have

shot countless rounds of 20mm ammunition during strafing runs. These aircraft continue to provide vital overwatch and direct support to our troops on the ground in Iraq and Afghanistan.

The Super Hornet provides a forty percent increase in combat radius, fifty percent increase in endurance, and 25 percent increase in weapons payload over our older, legacy Hornets. Over 449 F/A-18E/Fs will have been procured through Fiscal Year 2009. The program is on track to complete procurement of the program of record of 506 aircraft by 2012. The Super Hornet has used an incremental development approach to incorporate new technologies, such as the Joint Helmet Mounted Cueing System, Advanced Targeting Forward Looking Infra-Red (ATFLIR), with shared real-time video, Shared Reconnaissance Pod System (SHARP) and Multifunctional Information Distribution System (MIDS) data-link. The APG-79 Active Electronically Scanned Array (AESA) radar system, in the Block II aircraft, has completed operational testing, achieved Full Rate Production (June 2007) and Material Support Date (December 2008). Four fully operational AESA-equipped F/A-18E/F squadrons have been transitioned and two squadrons have been deployed with full Integrated Logistics Support. The F/A-18E/F Fiscal Year 2010 Budget request also includes $102.0 million in APN to implement commonality, maintain capabilities and improve reliability and structural safety.

F/A-18 A/B/C/D (Legacy) Hornet
The Fiscal Year 2010 President's Budget request is $277.7 million in APN for the continuation of the systems upgrade programs for the F/A-18 platform. As the F/A-18 program transitions to the F/A-18E/F and JSF, today's inventory of 624 F/A-18A/B/C/Ds will continue to comprise half of the Navy's strike fighter inventory until 2013. Included in this request is the continued procurement of recently fielded systems such as the Joint Helmet Mounted Cueing System, Advanced Targeting FLIR, Multi-Function Information Distribution System and a Digital Communications System. The Marine Corps continues to upgrade 56 Lot 7-9 F/A-18A models and thirty Lot 10/11 F/A-18C models to a Lot 21 F/A-18C avionics aircraft capability with digital communications and a tactical data link. The Marine Corps anticipates programmed upgrades to enhance the current capabilities of the F/A-18C/D with digital communications, tactical data link and tactical reconnaissance systems. This upgrade ensures that our F/A-18s remain viable and relevant in support of Tactical Air Integration and Expeditionary Maneuver Warfare.

The Marines are planning for and expect the F/A-18(A+/C/D) to remain in the active inventory until 2023. The Marines are also employing the LITENING targeting pod on the F/A-18A+/C/D aircraft in expeditionary operations including Operation IRAQI FREEDOM (OIF) and pending employment in Operation ENDURING FREEDOM (OEF). When combined with data link hardware, the LITENING pod provides real-time video to ground forces through Remotely Operated Video Enhanced Receiver (ROVER) workstations. Continued analysis of TACAIR inventories will continue throughout 2010, in the QDR and beyond to determine the health of the legacy F/A-18A-D fleet.

Airborne Electronic Attack (AEA) / EA-18G Growler
The Fiscal Year 2010 President's Budget request is $55.4 million in Research Development Test and Evaluation, Navy (RDT&E,N) for the completion of SDD and $1.6 billion in APN for 22 full rate production EA-18G Lot 4 aircraft. The EA-18G continues its development as the Navy's replacement for the EA-6B AEA aircraft. The EA-18G will replace carrier-based Navy EA-6B

aircraft by 2013. A total quantity of 27 aircraft will be procured in LRIP. The Navy is using the F/A-18E/F single year procurement SYP contract to buy the Lot 4 aircraft in Fiscal Year 2010. The program began Operational Evaluation in Fall 2008. The Fleet Replacement Squadron (FRS) has achieved Ready for Training (RFT) and the first deployable EA-18G Squadron is on schedule for a August 2009 Safe For Flight, leading to Initial Operating Capability (IOC) in Fiscal Year 2009 and Full Operating Capability (FOC) in Fiscal Year 2012. The EA-18G program of record is 88 aircraft.

Airborne Electronic Attack (AEA) / EA-6B Prowler
The EA-6B is in near-continuous use in Iraq and Afghanistan today in support of our troops on the ground as DoD's only tactical electronic attack aircraft performing communications jamming and information operation missions. The Program's key issue is current readiness of the EA-6B. The Fiscal Year 2010 President's Budget request is $40.0 million in APN for procurement of critical Airborne Electronic Attack (AEA) products and continuing EA-6B readiness improvements, to increase operational availability and reduce operating cost of this low density / high-demand aircraft. EA-6B upgrades include procuring 32 Low Band Transmitters to provide a new jamming capability, replacing aging transmitters to be employed on legacy EA-6B and new EA-18G aircraft. The Budget request also provides for operational safety and cost-wise readiness improvement initiatives to ensure availability and safety of the aging EA-6B aircraft.

The Navy and Marine Corps remain fully committed to the EA-6B as we continue to enhance our legacy capabilities. The EA-6B continues to maintain an extremely high deployment tempo, supporting operations against growing and diverse irregular warfare threats. The EA-6B, when deployed to Iraq, has the highest utilization rate of any aircraft in our inventory: five times its peacetime utilization. The FY 2010 Budget requests $11 million for EA-6B operational sustainment. Ongoing structural improvements and the planned Improved Capabilities III upgrades have extended the aircraft's service life, and will deliver increased capability through its Program of Record of 2016.

The Fiscal Year 2010 President's Budget request is $128 million of RDT&E,N for Next Generation Jammer (NGJ) analysis of alternatives and technology maturation. The Joint Strike Fighter will leverage this remarkable asset when it comes on line. NGJ will begin competitive Technology Maturation Efforts to mature technology to system level prototypes in preparation for Engineering & Manufacturing Development Phase. NGJ will combat evolving electronic attack communication and radar targets, and will adopt an adaptable, modular, and open architecture philosophy to enable future growth.

AV-8B Harrier
The AV-8B continues to be widely deployed in support of Operation IRAQI FREEDOM and Operation ENDURING FREEDOM. Each Marine Expeditionary Unit that sails does so with embarked AV-8Bs. The Harrier recently ended a highly successful six-year rotation in Iraq, and now are in the vanguard of the Marine Expeditionary Brigade deploying into Afghanistan. We intend to make use of its weapons, sensors and basing flexibility in that austere environment.

FY 2010 Budget requests $20.9 million RDT&E funds to support development of the AV-8 Engine Life Management Plan (ELMP)/Engine Monitoring System, Tactical Moving Map Capability, the

Readiness Management Plan (RMP), and Digital Improved Triple Ejector Racks (DITER). The DITER effort will increase the digital weapons carriage capability of the Harrier to better support combat operations. The FY 2010 budget also requests $35.7 million procurement funding for the Open Systems Core Avionics Requirement (OSCAR), ELMP upgrades, and the RMP, which addresses aircraft obsolescence and deficiency issues associated with sustaining the current AV-8B fleet. The LITENING targeting pod also will be upgraded, to better support the Marine Corps' warfighter on the ground. When combined with data link hardware and the Rover Ground Station, the LITENING pod adds a new dimension to precision fires and to intelligence, surveillance, and reconnaissance (ISR). Finally, the AV-8B program is upgrading one day attack aircraft to a night attack configuration as part of the attrition recovery effort needed to address significant legacy inventory shortfalls until we transition to the F-35B.

Strike Fighter Trends

Our aviation plan balances aviation capabilities through cost-wise investments in recapitalization, sustainment, and modernization programs. One of the issues we will be dealing with in the Quadrennial Defense Review (QDR) process is the implications of naval inventory trends. We are updating the inputs to the predictive model and will have an updated assessment for evaluation during the QDR.

F/A-18A/B/C/D aircraft are reaching life limits and will require extensions to bridge the gap to JSF. The Service Life Assessment Program (SLAP) assessed the airframe's potential for life extension. The SLAP analytical data necessary to determine extension to 10,000 flight hours was released in May 2008. Estimated cost data to support the extension was released in November 2008. A budget quality rough order of magnitude cost for Engineering Change Proposals is in development to support the Service Life Extension Program.

A combination of addressing variables and mitigating strategies will lead to a solution for this issue. We will continue to optimize and balance our inventory while investing in the future.

FIXED-WING AIRCRAFT

P-8A Poseidon

The future of the Navy's maritime patrol force includes plans for sustainment, modernization, and re-capitalization of the force. The Fiscal Year 2010 President's Budget request is $1.162 billion for development and $160.5 million for Advanced Procurement of the P-3 replacement aircraft, the P-8 Poseidon. Fiscal Year 2010 development funding will support the continued development of the P-8A and associated test. Fiscal Year 2010 procurement funding will support the procurement of the first six LRIP P-8A aircraft which are scheduled to begin delivery in February 2012 and advanced procurement for subsequent lots of LRIP. The program is on track for fielding in late Fiscal Year 2013 when the first squadron will have transitioned and be ready to deploy forward in support of the Combatant Commander.

The program completed the Interim Program Review in April 2009 and awarded the Advanced Acquisition Contract for Low Rate Initial Production Advanced Procurement. Boeing is currently building the fifth of eight test aircraft. These first five test articles (three flight test aircraft and two ground test articles) are on schedule for delivery in accordance with the revised plan designed to recover from the two month machinist strike that interrupted progress last fall. The first flight of

the first flight test article occurred on April 25, 2009, in Seattle, WA. The start of flight testing is on-schedule to commence in the fourth quarter of this fiscal year.

P-3C Orion
The P-3 is being sustained to keep the aircraft a viable warfighter until it is replaced by P-8. Results of the P-3 Service Life Assessment Program (SLAP) revealed the need for an aggressive approach to P-3 airframe sustainment. The accumulation of two decades of heavy demand by the Combatant Commanders, to include OEF and OIF, has resulted in advanced fatigue. In Fiscal Year 2010, $485.2 million is requested to sustain the P-3C until transition to the P-8A Multi-Mission Maritime aircraft. More than half of this amount ($349.6 million) is for Special Structural Inspections - Kits (SSI-K), which will allow for airframe sustainment to support the CNO's P-3 Fleet Response Plan, as well as supporting EP-3E requirements which are executed within the P-3 SSI-K program.

In December 2007, ongoing refinement of the model used to calculate wing stress indicated that the lower wing surface of the P-3 aircraft had fatigue beyond standards for acceptable risk resulting in the grounding of an additional 39 P-3 aircraft; four more aircraft have since been grounded, two in CY08 and two in March 2009. Key elements of the sustainment approach are strict management of requirements and flight hour use, special structural inspections to keep the aircraft safely flying, and increased use of simulators to satisfy training requirements. In Fiscal Year 2010, a systems sustainment and modernization budget of $135.6 million is requested to continue to address a multitude of mission essential efforts to replace obsolete components, integrate open architecture technology, and leverage commonality.

EP-3 Aries Replacement/Sustainment
The Navy plans to recapitalize its aging EP-3E fleet with a land-based, manned, airborne Intelligence Surveillance Reconnaissance and Targeting (ISR&T) platform, called EP-X, to meet maritime requirements. In Fiscal Year 2010, the President's Budget request is $12.0 million in RDT&E, N funds for this effort to support studies focused on capabilities, documentation, and technology development. In Fiscal Year 2010, the President's Budget request is $46.2 million in RDT&E, N and $92.5 million in APN to address EP-3E SIGINT sensor and communications equipment obsolescence issues that are necessary to keep the EP-3E viable until the replacement platform is fielded, and to develop follow-on capabilities that can be migrated to the EP-X. This funding supports procurement associated with obsolescence upgrades, and engineering development for JCC Spiral 3 and Recapitalization Capabilities Migration (RCM).

E-2D Advanced Hawkeye (AHE)
The E-2D Advanced Hawkeye is a critical enabler of transformational intelligence, surveillance and reconnaissance capability by providing robust overland and littoral detection and tracking of current and future aircraft and cruise missile-type targets. The E-2D Advanced Hawkeye replaces the current E-2C Hawkeye aircraft. The radar for the Advanced Hawkeye will provide enhanced capability in the overland and the littoral environment, in addition to the open ocean environment, while improving performance against clutter and small targets, adding transformational surveillance and theater air and missile defense capabilities. In Fiscal Year 2009 Congress appropriated $385.7 million in APN-1 for two LRIP Lot I aircraft and advanced procurement for Fiscal Year 2010 LRIP Lot II aircraft. This funds one fewer aircraft than the number requested in

the FY 2009 President's Budget request and underfunds advanced procurement for Fiscal Year 2010 LRIP Lot II aircraft. An 'Operational Assessment' was completed in first quarter Fiscal Year 2009 to support a Milestone-C decision in third quarter 2009. Fiscal Year 2010 Presidents Budget requests $364.557 million in RDT&E,N for continuation of SDD and $606.169 million in APN-1 for two LRIP Lot II aircraft and advanced procurement for four Fiscal Year 2011 LRIP Lot III aircraft.

KC-130J Hercules
The Marine Corps' KC-130J Hercules aircraft are invaluable workhorses, deployed continuously in support of Operations IRAQI FREEDOM and ENDURING FREEDOM. These aircraft primarily provide multi-mission tactical aerial refueling, but also provide fixed-wing assault support through standard cargo and aerial delivery missions to dispersed units. Soon, these aircraft will increase their warfighting contribution with the incorporation of "Harvest Hawk," which provides support for ground forces through a roll-on/roll-off ISR/weapon system.

The recent combat introduction of the aerial-refuelable MV-22, combined with the retirement of the legacy KC-130F/R fleet last year, requires accelerated procurement of the KC-130J. The Marine Corps is programmed to procure a total of 63 KC-130J aircraft by the end of FY 2015. To date, 34 new aircraft have been delivered and thirteen more are either on contract, or in contract negotiations, for a total of 47. This is still four aircraft short of the inventory objective of 51 KC-130Js for the active force. Ultimately, the Marine Corps will seek to replace our 28 reserve component KC-130T aircraft with KC-130Js, thus necking down our aerial refueling force to a single type/model/series of aircraft.

The Navy intends to replace its aging C-130T aircraft with 25 KC-130J as the most cost effective means for addressing growing obsolescence and supportability issues.

T-6B Joint Primary Air Training System (JPATS)
The T-6 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 315 aircraft, of which 162 aircraft have been procured and 52 aircraft delivered to date. The Fiscal Year 2010 President's Budget request includes $266.5 million to procure 38 aircraft under an Air Force contract. We are also dedicated to sustainment of the TH-57, the training helicopter for Navy and Marine Corps helicopter pilots, and the T-45, the training jet for our future jet pilots and naval flight officers..

ROTARY-WING AND TILT-ROTOR AIRCRAFT

V-22 Osprey
The MV-22B Osprey is now combat-tested and ready for deployment anywhere throughout the world. As our premier medium lift assault support platform, the Osprey brings unprecedented range, speed and survivability to the Warfighter, in a platform that far exceeds the capabilities of the CH-46E it is replacing. The MV-22B has been supporting our Marines in combat continuously since October 2007, with the third successive squadron recently completing a highly successful seven month rotation in support of Operation IRAQI FREEDOM just last month. In Iraq, Osprey squadrons have logged over 9,000 flight hours, carried over 40,000 passengers, and lifted over two

million pounds of cargo while flying every mission profile assigned by the Multi-National Force-West Commander.

As we continue to explore the tremendous capabilities of tilt-rotor aircraft and look forward to employing Osprey both aboard ship and in new theaters of operation, we are learning valuable lessons with respect to reliability and maintainability. Like other types of aircraft in the early operational phase of their lifecycles, the MV-22 has experienced lower-than-desired reliability of some components and therefore higher operations and support costs. With the cooperation and support of our industry partners, we are tackling these issues head on, with aggressive logistics and support plans that will increase the durability and availability of the parts needed to raise reliability and concurrently lower operating costs of this aircraft.

The Fiscal Year 2010 President's Budget request includes $2.3 billion in APN for procurement of thirty MV-22s and continued development of follow-on block upgrades. Fiscal Year 2010 is the third year of the V-22 MYP contract. Our MYP strategy supports a continued cost reduction and affordability trend, provides a stable basis for industry, and best supports the needs of the warfighter. The Fiscal Year 2010 appropriations will fully fund Lot 14 and procure long-lead items for Lot 15 under the V-22 multi-year contract.

V-22 capability is being increased and fielded over time via a block upgrade acquisition strategy. MV-22B Block A aircraft are now predominantly used in the training squadrons. Block B aircraft are being fielded with our operational squadrons and continue to be delivered via the current MYP. Block C aircraft will provide additional mission enhancements, primarily in the areas of environmental control systems upgrades, weather radar, and mission systems improvements. The targeted delivery for Block C aircraft is Lot 14, Fiscal Year 2012. The CV-22 variant provides a capability that will augment the MC-130 in the Air Force/Special Operations Command inventory for special operations infiltration, extraction, and re-supply missions. CV-22 Block 0/10 is a CV-unique configuration for Special Operations Capabilities to include multi-mode radar and electronic countermeasures upgrades. CV-22 Block 20 will provide an enhanced CV-unique configuration with planned communications and aircraft system performance upgrades. The CV-22 program has completed IOT&E and a successful trans-Atlantic operational deployment in support of an exercise in Africa.

AH-1Z / UH-1Y

The H-1 Upgrades Program will replace the Marine Corps' AH-1W and UH-1N helicopters with state-of-the-art AH-1Z and UH-1Y models. The legacy fleet of AH-1W and UH-1N aircraft have proven enormously effective over decades of heavy use, and as these aircraft reach the end of their service lives we look forward to expanding utility and attack helicopter capabilities. The new Z and Y model aircraft will begin our process of linking the battlefield into a coherent whole. On the future battlefield, the Strikelink system will tie these airframes, their sensors and their weapons systems together with ground combat forces and fixed-wing aircraft, while weapons systems such as the Advanced Precision Kill Weapon System II (APKWS II) will provide the lethality in support our ground forces need.

The Fiscal Year 2010 Budget requests $32.8 million in RDT&E, N for continued product improvements and $780.4 million in APN for sixteen UH-1Y and twelve AH-1Z 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. Additionally, the 84% commonality between the AH-1Z and UH-1Y will significantly reduce life-cycle costs and logistical footprint, while increasing the maintainability and deployability of both aircraft. The program will provide the Marine Corps with 226 AH-1Z helicopters and 123 UH-1Y models through a combination of remanufacturing and new production. This represents an increase of 69 aircraft above the previous inventory objective of 280 aircraft. The revised objective is driven by the need to increase our active duty light attack helicopter squadrons (HMLAs) from six to nine over the next several years as part of the Marine Corps' directed increase in force structure and manning.

The UH-1Y aircraft achieved initial operational capability in August 2008 and full rate production in September 2008. The first three lots of low rate production aircraft have been delivered. The final phase of OPEVAL for the UH-1Y was completed and the aircraft was deemed Operationally Effective and Suitable. AH-1Z development is continuing and the final phase of OPEVAL is scheduled to conclude in Fiscal Year 2010. We are developing the capability to fabricate new some of the AH-1Z aircraft to reduce the number of AH-1W aircraft removed from service for remanufacturing and to support the increased inventory objective which exceeds the quantity of existing AH-1W airframes. Fifty eight AH-1Zs will be built new. This covers 46 additional aircraft for increasing inventory objective and twelve aircraft to cover required routine maintenance inspection cycles along with forecasted airframe lifetime fatigue and attrition rates

MH-60R and MH-60S

The Fiscal Year 2010 President's Budget requests $943.3 million for 24 MH-60R aircraft and $82.0 million in 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 $82.0 million is to continue development of the Ku-band data link, automatic radar periscope detection and discrimination (ARPDD) program, which is a fleet-driven capability upgrade to the APS-147 Radar, and Mode V interrogation capability in the its identification friend-or-foe (IFF) system. The MH-60R is used in both the Anti-Submarine Warfare (ASW) with its dipping sonar, sonobouys and torpedoes, and the Surface Warfare (SUW) roles with its electronics surveillance measures system, multimode radar with inverse synthetic aperture radar (ISAR), forward-looking infrared (FLIR) system, and Hellfire missiles. It has demonstrated three to seven times the capability in the ASW role and significant increases in its SUW capability over legacy systems. The MH-60R program is post-milestone III, having received approval for full-rate production in 2006. The first operational squadron, HSM-71, established in 2007, is deploying in Carrier Strike Group THREE with the USS JOHN C STENNIS (CVN 74). The MH-60R program has just finished installing its first pre-planned product improvement (P3I) set of upgrades to include Link-16 and the multi-spectral targeting system (MTS) FLIR in time to make the first deployment.

The Fiscal Year 2010 President's Budget requests $493.0 million in APN for eighteen MH-60S aircraft and $49.1 million in RDT&E, N funds for the MH-60S, to continue development of the Organic Airborne Mine Countermeasures (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. It will replace four legacy platforms with a new H-60 variant. The basic MH-60S reached IOC and full rate production in 2002. Armed Helo

configuration reached IOC in June 2007 and AMCM is scheduled to reach IOC in FY 2010. The MH-60S Armed Helicopter configuration is also on its first carrier deployment with the USS STENNIS. HSC-8 is currently operating eight helicopters, including six aircraft in the Armed Helo configuration, adding the MTS Targeting FLIR, Link-16, Self Defense Equipment, two 50 cal crew served weapons and eight Hellfire Missiles.

The Army and Navy are executing a joint platform multi-year contract that includes both the MH-60R and MH-60S airframes along with the Army's UH-60M. The Navy is also executing a multi-year contract for integration of mission systems into the MH-60R.

CH-46E Sea Knight.
The venerable CH-46E continues to perform well, and is poised to maintain operational relevancy through its projected retirement in 2018. The FY 2010 Budget requests $35.9 million targeted at safety enhancements in dynamic components, avionics, and aircraft survivability equipment. These will sustain the health of the airframe as the Marine Corps progresses through the transition to the MV-22 Osprey. This fleet of helicopters will be over fifty years old when they retire, yet they are still relevant, still engaged in the fight, and still the workhorse of assault support to the Marine rifleman.

CH-53K Heavy Lift Replacement Program
In Fiscal Year 2010 the President's Budget requests $554.8 million RDT&E,N to continue SDD of the CH-53K, which will replace the Marine Corps' current heavy-lift helicopters, the CH-53E "Super Stallion" and the CH-53D "Sea Stallion." In the past year the CH-53K program conducted its Preliminary Design Review, has begun producing long-lead items in preparation for building test articles under the System Development and Demonstration Contract, and is scheduled to conduct Critical Design Review in FY 2010.

The legacy CH-53E was built for sustained shipboard operations, entered service in 1981, and continues to demonstrate its value as an expeditionary heavy-lift platform. This aging but very relevant helicopter is in high demand, making significant contributions to missions in Afghanistan, Iraq, and the Horn of Africa; and disaster relief operations around the world. Expeditionary heavy-lift capabilities will continue to be critical to successful land- and sea-based operations in future anti-access, area-denial environments, enabling sea basing and the joint operating concepts of force application and focused logistics.

As a design evolution of the CH-53E, 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 persistent presence of Joint Task Forces and Marine Air-Ground Task Forces. The CH-53K will transport 27,000 lbs external cargo out to a range of 110 nautical miles, nearly tripling the CH-53E's lift capability under similar environmental conditions while fitting under the same shipboard footprint. The CH-53K will also provide unparalleled lift capability under high altitude, hot weather conditions similar to those found in Afghanistan, thereby greatly expanding the commander's operational reach. Maintainability and reliability enhancements of the CH-53K will significantly decrease recurring operating costs, and will vastly improve aircraft efficiency and operational effectiveness over the current CH-53E. 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 JTF Commander. Until fielding begins, we will upgrade and maintain our CH-53D and CH-53E fleet for heavy lift support to our warfighters.

VH-71 Presidential Helicopter Replacement Aircraft
The FY 2010 President's Budget recommends that the VH-71 Program be cancelled. The Department of the Navy is developing options for a follow-on program. The Fiscal Year 2010 Budget requests $30.0 million for pre-MS A risk reduction activities, capability based assessments, CONOPS development, trade study analysis, specification development, system concept development and threat analysis leading to a late Fiscal Year 2010 / early Fiscal Year 2011 Material Development Decision (MDD) for a VH-71 follow on program. In addition, the Fiscal Year 2010 President's Budget requests $55.2 million to address FY 2010 VH-71 cancellation costs.

VH-3D/VH-60N Sustainment
The FY2010 budget requests an investment of $42 million to continue programs that will ensure the aging legacy Presidential fleet remains viable until its replacement is fielded. These programs include the Lift Improvement (LIP) for the VH-3D and the Cockpit Upgrade Program (CUP) and Structural Enhancement Program (SEP) for the VH-60N. Increased future investment in both aircraft will be required to ensure continued safe and reliable executive transportation until a replacement aircraft is fielded.

SURVIVABILITY, SUPPORT AND COMMAND AND CONTROL SYSTEMS

Integrated Defensive Electronic Countermeasures (IDECM)
IDECM Block 3/ALE-55 completed Initial Operational Test & Evaluation in December 2008. Based on the requirement to correct deficiencies identify during test, IDECM Block 3 Full-Rate Production (FRP) decision is now planned for Fiscal Year 2010 following verification of correction to deficiencies. Additional LRIP awards were approved for Fiscal Years 2009 and 2010. The President's Budget requests $25.8 million in Ammunition Procurement (PANMC) for 401 ALE-55 Fiber Optic Towed Decoy Decoys (FOTDs) in Fiscal Year 2010. $40.3 million in aircraft procurement (APN-5) is requested for the procurement of ten ALQ-214 on-board Radio Frequency jamming systems (IDECM Block 2), 53 Electronic Frequency Converters and other associated aircraft hardware for FOTD integration. IDECM Block 4 is a modification to the ALQ-214 that will enable its use on F/A-18C/D aircraft, in addition to F/A-18E/F aircraft. IDECM Block 4 will replace the obsolete ALQ-126B On Board Jammer, currently installed on F/A-18C/D aircraft. The President's Budget requests $65.5 million in Research and Development (RDT&E) in Fiscal Year 2010 for IDECM Block 4 development and test.

Aircraft Survivability Equipment (ASE)
To prevent current technology from lagging behind the threat, science and technology are developing next-generation helicopter survivability equipment. For FY 2010, the Department of the Navy has requested $8.8 million for continued Directed Infrared Countermeasures (DIRCM) hardware procurement and $64.7 million for Joint Allied Threat Awareness System development to provide a state-of-the-art missile warning detection and cueing system. We will thus pace the

threat of advanced anti-aircraft systems proliferation. Funds obligated to date for DIRCM have been used for development and procurement of 64 systems, which began delivery in October 2008. The remaining unfunded portion is for an additional 83 DIRCM systems, which equates to two years of production capacity, in 2009 and 2010.

Infrared Countermeasures (IRCM)
The Navy has a multi-faceted approach to providing aircrew protection against current and next generation IR-guided MANPADs. The FY 2010 President's Budget requests $63.7 million in RDT&E,N for the execution of the JATAS Technology Demonstration efforts.

Joint Precision Approach and Landing Systems (JPALS)
JPALS is a Global Positioning System (GPS)-based precision approach and landing system that will replace aging and obsolete aircraft landing systems with a family of systems that is more affordable and will function in more operational environments, and support all Department of Defense (DoD) land- and sea-based applications. JPALS will provide this capability by being rapidly deployable, survivable and interoperable among the U.S. Services and with U.S. allies, as well as with civil aircraft and landing facilities. JPALS will eventually support unmanned and highly automated aircraft, and will be able to operate during restricted Emission Control (EMCON) conditions. Milestone B was achieved 3rd Quarter 2008 with a subsequent Engineering and Manufacturing Development (EMD) contract awarded. The Fiscal Year 2010 President's Budget requests $139.3 million in RDT&E,N in continued support of the EMD phase of the program.

WEAPONS

In an era of continuing global uncertainty and shifting threats, the Department of the Navy is developing and deploying air-to-air and strike weapons to enhance our warfighter's capabilities in an evolving and uncertain security environment. The naval aviation Fiscal Year 2010 President's Budget request for each new weapon or weapon system modification program is directed towards deterring potential aggressors, power-projection, sea-control, or other maritime and expeditionary warfare security objectives. Our budget provides resources for weapon systems that directly support troops deployed in the field - as well as weapon systems that will shape our plans to address potential near-peer competitors.

The Navy/Marine Corps weapons programs take into account the lessons-learned from on-going combat operations as well as the results of our research, development, and test efforts. The resulting Fiscal Year 2010 weapons budget provides for a portfolio of affordable weapons programs that is balanced between solutions to address Overseas Contingency Operations (OCO) threats and development of new military capabilities.

Tactical Tomahawk BLK IV Cruise Missile
The Navy supports the continued procurement of this combat-proven, deep-attack weapon in order to meet ship-fill loadouts and potential combat requirements. The BLK IV Tactical Tomahawk missile is in a full-rate production status and in Fiscal Year 2010 the President's Budget requests $283.1 million for an additional 196 BLK IV weapons and associated support.

Direct Attack Moving Target Capability
In response to an urgent requirement identified by the Combatant Commander in Iraq and Afghanistan, the Department of the Navy approved a Rapid Deployment Capability (RDC) in Fiscal Year 2007 to develop the Direct Attack Moving Target Capability, known as DAMTC. DAMTC improves our ability to attack and strike moving targets by leveraging highly successful, congressionally-supported procurement of dual-mode systems. The Fiscal Year 2010 President's Budget requests $46.4 million to transition the RDC to a formal acquisition program, support a competitive acquisition strategy, and acquire 2,099 additional weapons from a single source through competition at reduced costs.

Joint Standoff Weapon (JSOW)
The combat proven JSOW family of Joint Navy and United States Air Force air-to-ground weapons continues on cost and schedule to develop a JSOW-C-1 variant. JSOW-C-1 adds a 'moving target capability' to the highly successful baseline JSOW-C variant with the addition of a data link and guidance software improvements. The Fiscal Year 2010 President's Budget requests $10.0 million for telemetry crypto-key modernization and continued JSOW-C-1 development and $145.3 million for JSOW-C-1 production totaling 430 All-Up-Rounds to fill our weapons magazines that remain below approved Non-Nuclear Ordnance Requirements.

Small Diameter Bomb II (SDB II)
The Department of the Navy is partnering with the United States Air Force on the development of the Small Diameter Bomb II (SDB II) program. SDB II provides an adverse weather, day or night standoff capability against mobile, moving, and fixed targets, and also allows for target prosecution while minimizing collateral damage. SDB II is of special interest to the Department as it will be integrated into the 'internal carriage' of both Navy and Marine Corps variants of the Joint Strike Fighter. SDB II acquisition consists of a competitive development, risk reduction phase between two industry teams with a down-select at Milestone-B estimated in early Fiscal Year 2010. The Fiscal Year 2010 President's Budget requests $43.9 million of RDT&E for the continued development of this joint program.

Joint Air-to-Ground Missile (JAGM)
JAGM will become the next-generation, forward firing precision-guided missile capable of being launched from Navy/Marine Corps fixed-wing, rotary-wing, and unmanned platforms. The Department of the Navy, in conjunction with the United States Army as the executive service, received formal approval from USD(AT&L) to proceed with the development of the Joint Air-to-Ground Missile (JAGM) in January 2008. The JAGM Request for Proposal was released in March and proposals were received in May. In September 2008, Fixed Price Incentive contracts were awarded.

During the 27-month Technology Development Phase, the two competing contractors will carry their design through a system-level Preliminary Design Review (PDR) phase and conduct prototype ground launches of their missiles. The intent behind this competitive prototyping during the Technology Development phase is to improve the probability of overall program success and reduce program costs. To support this critical development program, the Fiscal Year 2010 President's Budget requests $81.6 million of RDT&E to implement this acquisition strategy.

Hellfire Weapon System
While the Department of the Navy develops JAGM, we are requesting continued support for legacy Hellfire weapons. Hellfire continues to be a priority weapon, providing our Navy/Marine Corps warfighters the ability to attack targets in the caves of Afghanistan as well as the urban canyons of Baghdad. The Fiscal Year 2010 President's Budget requests $133.1 million for 1,578 weapons with a mix of thermobaric, blast/ fragmentation, and anti-armor warheads to provide the maximum operational flexibility to our warfighters.

Advanced Anti-Radiation Guided Missile (AARGM)
The AARGM development program transforms the legacy High-Speed Anti-Radiation Missile (HARM) into an affordable, lethal, and flexible time-sensitive strike weapon system. AARGM adds multi-spectral targeting capability with supersonic fly-out to destroy sophisticated enemy air defenses and expand upon the traditional anti-radiation missile target set. The program has completed all design reviews, began its formal test program in Fiscal Year 2007, was approved for Low Rate Initial Production (LRIP) in Fiscal Year 2008, and is scheduled to be deployed on the F/A-18 Hornet in 2010. The Fiscal Year 2010 President's Budget requests $9.2 million for the development and test program and $48 million for production.

Advanced Precision Kill Weapon System II (APKWS II)
The Department of the Navy assumed program authority for the APKWS II on September 30, 2008. Congress appropriated funding and approved an Above Threshold Reprogramming request in Fiscal Year 2008 for the Marine Corps to complete SDD. The Fiscal Year 2010 President's Budget requests $5.0 million in RDT&E funding to complete development and testing for subsequent fielding in Fiscal Year 2011. In the past year, we saw successful transfer of the laser-guided 2.75" rocket contract from the Department of the Army to the Department of the Navy. This initiative will provide an unprecedented precision capability to our current unguided (and thus less accurate) rockets fired from attack helicopters. Congressional support in FY 2008, with both a $6 million addition and approval of a $13 million reprogramming request, provided the $19 million in FY 2009 that will complete development of this critical weapon in anticipation of the procurement's beginning in 2010. The program is on schedule and on budget, and will meet the needs of our warfighters in theater right now.

Sidewinder AIM-9X Air-to-Air Missile
The joint Navy/Air Force (Navy led) AIM-9X Sidewinder missile is the newest variant in the Sidewinder family. The Sidewinder missile is the only short-range infrared air-to-air missile integrated on USN/USAF strike-fighter aircraft. This fifth generation-9X weapon incorporates high off-boresight acquisition capability and thrust vectoring to achieve superior maneuverability, and provides increased sensitivity through an imaging infrared focal plane array seeker and advanced processing. The Fiscal Year 2010 President's Budget requests $2.3 million for RDT&E efforts, and $56.8 million for production of 161 all-up-rounds, captive air training missiles, and associated hardware.

Advanced Medium-Range Air-to-Air Missile (AMRAAM) AIM-120
AMRAAM is a joint Navy/Air Force (Air Force led) advanced, medium range missile that counters existing aircraft and cruise missile threats with advanced electronic attack capabilities operating at high/low altitudes from both beyond visual range and within visual range. AMRAAM

provides an Air-to-Air First Look, First Shot, First Kill capability working within a networked environment in support of the Navy's Sea Power-21 Theater Air and Missile Defense Mission Area. The Fiscal Year 2010 President's Budget requests $3.6 million for RDT&E efforts and $145.5 million for production of a combined total of 79 all-up-rounds, captive air training missiles and associated hardware.

UNMANNED AIRCRAFT SYSTEMS (UAS)

Overseas contingency operations continue to emphasize UAS. The Fiscal Year 2010 Budget reflects our commitment to a focused array of UAS that will support targeting and fires as well as enhance intelligence, reconnaissance, and surveillance missions with persistent, distributed, and netted sensors. The naval services have recently adopted the joint categorization of UAS into distinct groups that identify systems by weight, speed, and altitude. In addition to the five Programs of Record noted below, a number of small, specialized systems in the Group-1 and 2 categories are being supported to meet the urgent needs of the warfighter (i.e. Gasoline Micro Air Vehicle (G-MAV), Raven-B, WASP III Micro-UAS, and Scan-Eagle).

Marine Corps Tactical UAS (MCTUAS)
The Army's RQ-7B Shadow UAS is a Group-3 system procured as an interim replacement for the RQ-2B Pioneer UAS until a suitable Group-4 UAS can be fielded in FY 2015. The Fiscal Year 2010 President's Budget requests $1 million RDT&E and $56.8 million APN for continued product improvement and procurement of the RQ-7B. The transition to the RQ-7B Shadow began in Fiscal Year 2007 with the procurement of two systems and was augmented in Fiscal Year 2008 with the procurement of nine Shadow systems (five baseline systems and four GWOT-funded systems). The Marine Corps will procure thirteen systems. The Shadow UAS provides rapid fielding of a capability that meets urgent Marine Corps operational requirements and brings immediate interoperability and commonality between Army and Marine Corps units operating side by side in Iraq and Afghanistan.

UAS/Small Tactical Unmanned Air Systems (STUAS)
The Fiscal Year 2010 President's Budget requests $37.4 million in RDT&E ($18.6 million Navy, $18.8 million Marine Corps, with a $6.0 million Fiscal Year 2010 OCO request pending) and $13.8 million in PMC for the UAS/ STUAS program that will address Marine Corps and Navy targeting and ISR capability shortfalls identified in the OCO and currently supported by costly service contracts. The Group-3 UAS will provide persistent, ship and land-based targeting and ISR support for tactical level maneuver decisions and unit level force defense/force protection. The Milestone B decision to enter Engineering and Manufacturing Development (EMD) is scheduled for the fourth quarter of Fiscal Year 2009 with Initial Operating Capability (IOC) planned in 2012. UAS/ STUAS plans to begin Source Selection 4th Qtr Fiscal Year 2009 for a contract award to coincide with the Milestone B decision. Fiscal Year 2010 PMC is planned to procure a STUAS/Tier II system as an early operational capability, which consists of four air vehicles and two ground control stations.

Broad Area Maritime Surveillance (BAMS) UAS
The Fiscal Year 2010 President's Budget requests $465.8 million RDT&E,N to continue System Development and Demonstration (SDD) of the BAMS UAS. The Milestone B decision for the BAMS UAS program occurred on April 18, 2008. The program conducted the first major design review, Systems Requirements Review (SRR), in January 2009. The BAMS UAS program will meet the Navy requirement for a persistent intelligence, surveillance and reconnaissance (ISR) capability as well as providing a communication relay capability. The BAMS UAS is a larger Group-5 system which 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 work as an adjunct to the new P-8A Multi-Mission Aircraft (MMA) to provide a more affordable, effective and supportable maritime ISR option than current ISR aircraft provide. The Navy also procured two Air Force Global Hawk UASs in FY 2003 for demonstration purposes and to perform risk reduction activities for the BAMS Program. One of the two Global Hawk UAS, renamed the BAMS-demonstrator (BAMS-D) has been recently deployed to the CENTCOM theater of operations.

Fire Scout UAS
The Fiscal Year 2010 President's Budget requests $25.6 million RDT&E to continue development of the Fire Scout UAS and $77.6 million APN for the production of five Fire Scout MQ-8B aircraft and three ship control stations. The Fire Scout is a Vertical Takeoff and Landing Tactical UAV (VTUAV) designed to operate from all air-capable ships, carry modular mission payloads, and operate using the Tactical Control System and Tactical Common Data Link. The Fire Scout UAS is a medium-to-large sized Group-4 system that will provide day/night real time ISR and targeting as well as communication-relay and battlefield management capabilities to support core Littoral Combat Ship mission areas of ASW, MIW and ASUW for the Naval forces. The Fiscal Year 2010 RDT&E Budget request included funding to integrate a maritime search radar system that will significantly increase surveillance capability of the MQ-8B. Due to delays in the Littoral Combat System (LCS) Program, the Department is certifying the MQ-8B system on the FFG-8 USS MCINERNEY in order to meet Fleet requirements to deploy this capability, as planned, in Fiscal Year 2009. An Above Threshold Reprogramming request for $22.8 million to the Fiscal Year 2008 RDT&E Budget was approved by Congress to support the Fire Scout FFG integration. The Fire Scout Program will continue to support integration and testing as a mission module on LCS. Deploying this capability in Fiscal Year 2010 on the USS MCINERNEY will provide much needed new capability to operating forces and also reduce LCS Developmental and Operational Test risks. Developmental testing of Fire Scout with the USS MCINERNEY is in process. The Navy continues to cooperate with the Army on their Class IV UAS and with the Coast Guard for their ship based UAS planning. The Navy and Army have achieved over ninety percent commonality in the Fire Scout air vehicle.

Unmanned Combat Air System (UCAS)
The Fiscal Year 2010 President's Budget requests $311.2 million of RDT&E budget to continue the Navy Unmanned Combat Aircraft System (Navy UCAS) efforts to develop a large Group-5, carrier-suitable, long range, low observable, penetrating, persistent, unmanned aircraft system capability to conduct ISR/strike missions in denied access environments. The Navy UCAS efforts consist of continuation of the UCAS carrier suitability demonstration (UCAS-D) along with the initiation of acquisition planning and associated technology development. The UCAS-D effort

will mature technologies associated with unmanned carrier-suitability, including launch, recovery, and carrier controlled airspace integration, to the Technology Readiness Levels (TRL) required for a potential follow-on acquisition program. The demonstration will include catapult launch and arrested landings aboard an aircraft carrier. Additionally, the program will demonstrate autonomous aerial refueling using the same unmanned systems from the carrier suitability demonstration. The demonstrations will be complete in FY 2013 though additional technology maturation will be required before entering a potential follow-on acquisition program. Northrop-Grumman, prime contractor for the UCAS carrier suitability demonstration, is currently on track for an early Fiscal Year 2010 first flight.

SUMMARY

The Fiscal Year 2010 President's Budget reflects considerable effort in identifying solutions to the challenges faced in the Department's aviation programs through a balance between sustaining fielded capabilities, as they are employed in the Overseas Contingency Operations (OCO) and continued forward presence worldwide, and a substantive recapitalization effort that will deliver significantly better capabilities to the war fighter. The naval aviation team continues to work aggressively to identify efficiencies in the development, testing, procurement and sustainment of platforms, components, and weapons systems in order to ensure that investments made result in quality products and services provided to the fleet. Since 2001, the Navy and Marine Corps have been fighting shoulder to shoulder overseas, supporting an extremely high operational tempo in two theaters while growing our force, introducing new aircraft and systems, and looking beyond the current fight to how we will shape the naval aviation structure of the future.

In closing, Mr. Chairman, we thank you for the opportunity to testify before your Subcommittee regarding the Department of the Navy's aviation procurement programs. We look forward to your questions.

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