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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

AIR AND LAND FORCES SUBCOMMITTEE HEARING

ON

BUDGET REQUEST ON ARMY AIRCRAFT PROGRAMS

HEARING HELD
APRIL 23, 2009

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FISCAL YEAR 2010 NATIONAL DEFENSE AUTHORIZATION ACT—BUDGET REQUEST ON ARMY AIRCRAFT PROGRAMS

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
AIR AND LAND FORCES SUBCOMMITTEE,
Washington, DC, Thursday, April 23, 2009.

The subcommittee met, pursuant to call, at 9:17 a.m., in room 2118, Rayburn House Office Building, Hon. Neil Abercrombie (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. NEIL ABERCROMBIE, A REPRESENTATIVE FROM HAWAII, CHAIRMAN, AIR AND LAND FORCES SUBCOMMITTEE

Mr. ABERCROMBIE. Mr. Miller is going to come up. I think Mr. Bartlett is almost here, but this is liable to get tricky in terms of time, so we are just going to get started. And when Mr. Bartlett gets here, we will catch up, I am sure, okay?

Ah, there he is. Speak of the devil and hear the flutter of his wings. Jeff, why don't you come down here? You don't have to stay down there.

Mr. MILLER. (OFF MIKE)

Mr. ABERCROMBIE. Okay. Right, you make a quick exit.

Mr. MILLER. (OFF MIKE)

Mr. ABERCROMBIE. That is right.

Aloha. Good morning, everybody. The Air and Land Forces Subcommittee is meeting this morning to receive testimony from Army aviation programs.

By the way, parenthetically, I should note, I suppose, that I read the editorial recently saying the Air Force should disappear, and we will just turn over all the air assets and so on to the Army. And I see, if you keep facing this way, then maybe the cameras won't catch your smile.

Immediately after the hearing, we will adjourn to room 2337 to receive a classified briefing on related issues. And if we get off into areas where you think it is appropriate to speak there rather than here, just say so. It is inadvertent and not intended.

And of course, on that note, we welcome our witnesses from the Army, Brigadier General Walter Davis, Director of Army Aviation, and Brigadier General William Crosby, Program Executive for Aviation.

We know very little about the fiscal year 2010 Army aviation budget beyond what Secretary Gates provided on April 6th, and subsequent rumors detailed to the media primarily on the Joint

Cargo Aircraft. Those rumors I understand and know very, very clearly, gentlemen, did not come from you.

And because they are rumors, that is why we are having this hearing today, and we will deal with what should be out there right now today, and what should be in the classified hearing, we will take up then for the Members' benefit.

The annual request for Army aviation accounts has increased by 90 percent in the last 5 years. This subcommittee and the committee as a whole, under Mr. Skelton's leadership, has supported those requests, other than requests for the Armed Reconnaissance Helicopter (ARH). We registered our concerns with the ARH beginning three years ago. And as we know, the Department of Defense canceled this program late last year in part for the reasons we had cited in our oversight capacity.

Secretary Gates indicated he was adding $500 million to the fiscal year 2010 budget to sustain more helicopters in the field. He indicated he thought the primary limitation on current helicopter capacity is not airframes, but shortages of maintenance and flight crews.

A review of readiness data indicates that, while there are personnel shortages in Army aviation brigades, the shortages indicated for equipment for helicopters cause an even greater degradation of readiness. We looked at your own statistics for this. We don't want to get in an argument with Mr. Gates, as such. It is just that it seems to be a bit of an anomaly to us.

Even for units involved in overseas contingency operations, shortages of equipment are the most stressing shortfall, not personnel, at least from the statistics we have been given. We will get into this detail in our classified session after the hearing.

But to the degree that this can be addressed in this hearing, I would very much appreciate and ask our witnesses to address what seems to be an apparent inconsistency between the readiness data and the Secretary's statement. Is that clear where I am going?

Perhaps the significant increases in procurement funding and aviation account the past few years will address the current equipment shortfalls once the helicopters procured are fielded. If not, we want to look at fiscal year 2010 budget requests to determine whether it is sufficient to address the shortfalls in equipment.

Secretary Gates did not address the Joint Cargo Aircraft program in his April 6th press conference, but it seems to be common knowledge that there are major changes planned in the fiscal year 2010 budget request. Again, to the degree you as witnesses can address the JCA, we ask that you do so.

I do want to indicate, as well, that this is not just my line of inquiry. Other Members have already indicated to me and to committee staff that they want to explore these issues in greater depth and detail.

The Comanche helicopter program was canceled in February 2004, and the ARH program was canceled in October 2008. Therefore, it has been a long time since the Army developed and fielded a new helicopter.

Recently, Secretary Gates and General Cartwright raised the possibility of substituting unmanned capabilities for some fighter aircraft. This begs the question whether a similar substitution

could be considered for some helicopter capabilities, or is being considered for some helicopter capabilities.

We would appreciate, again to the degree you can, in this context, give your views on this, as well. This is a primarily an information session.

Finally, for our perspective, vis-a-vis the 2010 budget, but you can see the implications for the Army down the line are considerable.

Finally, Secretary Gates emphasized the importance of unmanned aerial vehicles (UAV) and electro-optical (EO) full-motion video (FMV)—I like that—electrical-optical full-motion video. It sounds like a new band—video capability in overseas combat operations. Yet a relatively small percentage of the Army's Shadow UAVs are deployed overseas.

Again, I would appreciate, to the degree you can in this context, state your views as to why this is the case, this small percentage of the Shadow UAVs deployed overseas, why is this the case, and is anything being done to increase the percentage of Shadow UAVs deployed overseas. This is a bit of a mystery to me.

Then those are the essential issues. Everything clear?

Before we begin, I would like to turn to my good friend and colleague from Maryland, the Honorable Roscoe Bartlett.

STATEMENT OF HON. ROSCOE G. BARTLETT, A REPRESENTATIVE FROM MARYLAND, RANKING MEMBER, AIR AND LAND FORCES SUBCOMMITTEE

Mr. BARTLETT. Thank you. Apologize for being late. There were a rash of accidents, and every access to the city was closed this morning. Very slow. Evacuating this city in a real crisis is going to be a challenge, isn't it?

Mr. Chairman, I want to thank our witnesses for being with us. We are very fortunate to have each of you serving our country, and we are fortunate to have you here with us today.

We are here to talk about the Army's aircraft programs. This is a very critical subject matter, and there are many important questions I know we on the committee have in regards to this subject.

Unfortunately, we do not have a budget yet, and I understand the witnesses are prohibited from discussing anything in regards to the pending fiscal year 2010 budget request. However, there are still many things our witnesses can discuss, such as the conditions and performance of our current aircraft programs.

Mr. Chairman, I would like to take this opportunity to recognize the incredible performance of our Army aviation soldiers and aircrews during the past seven years. Army aviation has truly been building the plane in flight.

In the midst of a war in two very different theaters, the Army has completely transformed its aviation force structure, adapted to the enemy and the environment, and moved ahead in its modernization. I would ask our Army witnesses to please take this message of congratulations and gratitude for their incredible performance back with them to the Pentagon and pass it on to our soldiers as you visit them, whether here in the United States or abroad.

Also on Iraq, the increase in Improvised Explosive Devices (IEDs) not only resulted in the Department pursuing more survivable vehicles, such as the Mine Resistant Ambush Protected (MRAP), but also increased the demand on rotorcraft and intelligence, surveillance, and reconnaissance (ISR) assets. And this demand will certainly increase as we grow our presence in Afghanistan while continuing to maintain a significant force in Iraq for the foreseeable future.

Although I have many questions, there are two areas I hope to learn more about today. The first is in regards to Secretary Gates' recent comments on adding funding to the training of Army aviation pilots. While I applaud any increase in funding that provides training for our pilots, it seems to me that the shortage of equipment on hand, such as helicopters, is a more immediate concern.

I realize we will have to discuss the details in our classified session. But in this unclassified session, I would like to hear from our witnesses if they are more concerned about the availability of aircraft or the availability of trained pilots.

The second area I am interested in is in regards to the unmanned aerial vehicles. A lot has changed, technically, since operations began seven years ago. UAVs are one of our most promising new capabilities. What have we learned from operations in theater in regards to how we utilize this nascent capability, and what do you see in the future for UAVs? What new ways are you exploring for how to deploy and use these platforms?

I look forward to hearing from our witnesses today, and I want to thank you again for your service to our country and for appearing before us this morning.

Thank you, Mr. Chairman.

Mr. ABERCROMBIE. Thanks, Mr. Bartlett.

Gentlemen, I assure you we did not collaborate on our statements when I mentioned that Members are concerned about these things and paying attention. I think Mr. Bartlett's remarks reflect that interest and concern.

And I assure you we all join in his observations to you about what you have accomplished in Army aviation and with the personnel associated with it, and we all would appreciate you extending our grateful thanks, as well.

This morning, we are going to go by regular seniority in terms of the questions and observations that will be made by Members. Next hearing, we will go in reverse order of seniority. So with that, if it is okay with Mr. Bartlett, I am going to start the request to the witnesses to begin their commentary. Silence is ascent, according to Thomas More.

So who will go first? General Davis.

General DAVIS. Sir, what I would like to do is just start, if I could, with just a quick opening statement. And again, Chairman Abercrombie——

Mr. ABERCROMBIE. You are going to speak for both? Is that correct?

General DAVIS. Yes, sir. I will

Mr. ABERCROMBIE. General Crosby, you are doing support and backup here? Thank you very much.

STATEMENT OF BRIG. GEN. WALTER L. DAVIS, USA, DIRECTOR OF ARMY AVIATION, U.S. ARMY; AND BRIG. GEN. WILLIAM T. CROSBY, USA, PROGRAM EXECUTIVE OFFICER, AVIATION, U.S. ARMY

STATEMENT OF BRIG. GEN. WALTER L. DAVIS

General DAVIS. And again, Chairman Abercrombie, Ranking Member Bartlett, and other distinguished Members of the Air-Land Forces Subcommittee, it really is a privilege for us to be here today to talk about Army aviation. First, I want to thank the committee for their continuing and enduring support for our Army, and specifically for our aviation soldiers and families.

As you stated, Mr. Chairman, the demand on aviation capability has continued to grow, and we will soon have our Sixth Combat Aviation Brigade deployed, and that will occur here next month where we will have six in Operations Iraqi Freedom and Enduring Freedom.

Concurrently, we continue to have a brigade committed in Korea, as well as about a brigade's worth of capability committed in other places around the globe. And while our operational tempo is very high, our commitment to ensuring our aviation force remains a vital and essential enabling capability not only to the Army, but certainly to the joint force, as well.

And so, too, has the Congress's support, and specifically this committee's support, helped to enable that we have had full support for our aviation forces and for the programs that we currently have in effect.

Recently, Secretary Gates did publicly present the key decisions that he will recommend to President Obama with respect to the fiscal year 2010 defense budget, and some of these recommendations do concern aviation programs. And I am sure, again, as you stated, Mr. Chairman, there are plenty of relevant questions that pertain to that.

And we will do the best of our ability to answer those within the limitations that have been imposed on us by the current process that we are in. And I apologize in advance for any inconvenience that that may cause here. But we look forward as that is released and we are able to come back to talk about that.

But with that, sir, again, we appreciate your support, and we look forward to your questions.

[The joint prepared statement of General Davis and General Crosby can be found in the Appendix on page 33.]

Mr. ABERCROMBIE. Thank you very much, General.

Members, including myself and Mr. Bartlett, may submit questions to you, or perhaps some of these things will be dealt with in the classified section. But for now, we are going to go to directly to Members for questions and observations and start with Mr. Marshall.

Mr. MARSHALL. Thank you, Mr. Chairman.

All of us, I think, are a little concerned by the latest news that JCA, at least where the Army is concerned, appears to be being canceled. Most of us have spent a fair amount of time getting to the point where we appreciated the tactical need that JCA was

going to meet, and that is one of the reasons we were willing to fund it.

And I am curious to know what has changed with regard to the tactical need that JCA was going to fill that would cause us to think that maybe we shouldn't have been funding this to begin with, and we shouldn't fund it, going forward. If either of you can explain what has changed that would warrant not moving forward with JCA, it would be very helpful to me.

General DAVIS. And Congressman Marshall, again, from my perspective and what I can say is that nothing has changed. I mean, we still have a requirement for——

Mr. ABERCROMBIE. Excuse me, General. I neglected to mention, just for a moment, Members have a complete set of charts in here with regard to various issues and that. So if you want to refer to any of that and then refer to the Members to the appropriate chart in the context of your answers, please do so, okay, if you feel that is appropriate or it would be helpful to the Members' understanding.

Sorry. Thank you.

General DAVIS. Yes, sir. Thank you.

And again, nothing has changed with respect to the requirement that we still have for the capability that the JCA provides. And you said that, Congressman, which is we are currently conducting our missions for time-sensitive, mission-critical distribution of logistics to the point of need. The work that we do in the austere environments, whether it is Iraq or Afghanistan, currently with our C–23 Sherpas contract there, of course our CH–47 fleet, but nothing has changed.

And that is what I can say. We still have a requirement for the capability that the JCA provides.

Mr. MARSHALL. I assume that, in the past, you have either presented the committee, or internally to the Secretary's office, detailed written descriptions of the tactical need that justifies JCA.

Could you go ahead and hunt up all of that that has previously been provided to us, gather it and get it over to us again, rather than relying upon our ability to search our files to try and generate that information? We would like to see the case that has previously been made so that we clearly understand why it is that we have consistently thought funding this thing was a wise idea.

General DAVIS. We will, Congressman. With respect to the concept of operations that was done, as well as the validated requirement, we will.

[The information referred to can be found in the Appendix on page 63.]

Mr. MARSHALL. Thank you.

I have no further questions.

Mr. ABERCROMBIE. Is it clear, General, what Mr. Marshall would like?

General DAVIS. It is, Mr. Chairman, with respect to the previous documentation.

Mr. ABERCROMBIE. Okay, because we want to be able to see a continuum of commentary, memos, whatever.

General DAVIS. It is, Mr. Chairman.

Mr. MARSHALL. If I could, there is a tactical need, I think a clear case can be made. We have already made it. We need to be just totally on top of what that case is as we consider what the Secretary is apparently going to propose. I don't really have a dog in the fight who manages this thing.

I am not troubled by the idea that the Air Force might manage the program. But I am troubled by the idea that capacity that we thought was necessary might be set aside. And we just need to understand what the capacity of the need is as we evaluate whether or not we need to move forward.

Mr. ABERCROMBIE. The reason that Mr. Marshall's request is as specific as it is and why I support it is that we are having some difficulty in other contexts. Sometimes statements come out of the Secretary's office or elsewhere in the Pentagon that indicate, for example with the air tanker, that if an approach to purchase of these tankers is invoked by the Congress, that there would be expenditures forthcoming as a result of that, but we can't find anything where that was ever brought up before.

I am just drawing you a parallel. I don't expect you to answer anything, or comment. But I have been following it for at least eight years now, and I don't have a clue as to what is being talked about. So we don't want to find ourselves out there having to answer questions to ourselves or to the public and not have any basis for understanding what the original rationale of the services were with regard to any weapons platform.

General CROSBY. Sir, if I might add, the program and the confidence that you showed in us to go after that requirement that General Davis spoke about, that program is on track. It has performed very well. We have two aircraft that have already been delivered and 11 ongoing contract to be delivered.

So the confidence you showed in us to go and procure the system, we have met all the obligations. What will happen from here, again, that is to be determined by the Secretary and what they recommend to Mr. Obama.

But we have met the obligations of what we promised you we would do in the program that we put together, and now we have to bow to the requirement of where it stands.

Mr. MARSHALL. For the benefit of the Department here, it is not just the Army, but for all the branches, at least this member, and I suspect all of us, are going to be pretty consistent in insisting that we be given access to the entire argument that occurred, all of the information, all of the positions that were taken, that led to a particular decision by the Secretary.

It is not going to be an instance in which that is the decision made by the Secretary, and Congress is not going to be given access to the arguments, the detail, etc., that led to that decision. We want to hear the case against the decision made by the branches.

And we are going to want to have that case. We are going to want to hear that kind of information consistently throughout the process of considering authorization.

Thank you, Mr. Chairman.

General DAVIS. Understand, sir.

Mr. ABERCROMBIE. Thank you, Mr. Marshall.

We will go to Mr. Bartlett.

Mr. BARTLETT. Thank you very much.

I would like to yield my time to Mr. Miller, who has a commitment and cannot stay, and then I will simply switch with his time. Thanks.

Mr. ABERCROMBIE. Mr. Miller, please.

Mr. MILLER. Thank you very much, Mr. Chairman and Mr. Bartlett, for yielding the time.

I have one two-part question, Generals. It is in regards to the shortage of rotary-wing aircraft dedicated to U.S. Army Special Operations Command (USASOC), particularly in Afghanistan.

Can you give us a sense of the dedicated level of rotary wing support currently for USSOC? And also, can we expect that our special operators are going to be given increased rotor wing support to get them into the fight?

General DAVIS. Congressman, I will try to answer that to the best of my ability.

With respect to the special operations aviation, which again comes under U.S. Special Operations Command (SOCOM)—but if I could provide some framework, we did an exhaustive analysis of the capability demands for aviation specifically in OEF, and we did that at the request of the Office of the Secretary of Defense.

And what we found, that there is, in fact, a shortfall of the special operations capability in Afghanistan that we are addressing, the conventional side, not necessarily a shortfall in capacity or capability, but on the special operations side.

With that, as you know, Special Operations Command, even prior to 2001, was growing their aviation capability. And so they are still in the process of doing that. What has changed is, again, 2001 occurred, and we find ourselves in operations in Operation Iraqi Freedom (OIF) and OEF.

And so they are growing their capability, specifically their MH–47s and their MH–60's, for increased capacity both in terms of numbers and, of course, their force structure that corresponds to that.

Do they need to increase further? They are going through the process of analyzing and determining what their future force structure, and it will certainly compete with our others. But there is a thrust to increase their capacity.

Mr. MILLER. If you would, I would like a little more detailed answer in writing as to what the plan is, where we are going. And yes, we are all aware September 11th, 2001 happened, but that was some time ago. We have to continue to grow the force, and we know that special operations is, in fact, growing, and the shortfall is something that we should not continue to have.

So if you would, I would like a written response that is a little more detail.

Mr. ABERCROMBIE. Mr. Miller, some of this we are going to deal with upstairs, and we will make certain——

Mr. MILLER. Unfortunately——

Mr. ABERCROMBIE [continuing]. I know that you maybe have other obligations. We will make certain that the detailed or broader, deeper answer will be provided.

[The information referred to can be found in the Appendix on page 63.]

Mr. MILLER. Thank you, Mr. Chairman.

Thanks, General.

Mr. ABERCROMBIE. Is that it? Thank you.

Mr. Kissell.

Mr. KISSELL. Thank you, Mr. Chairman.

Thank you, Generals, for being here today. We do appreciate your service.

And I am a freshman Congressman, but I had the privilege of being with our troops in both Iraq and Afghanistan the week before last, and truly impressive people serving our Nation. Makes you very, very proud.

And my question is really a follow-up to what Mr. Miller said, and I know we will have some more information upstairs. But had some conversations with some Marines in Kandahar, and I said, "What do you need?" And they said, "Mobility." And then, I asked other generals and officers along the same lines and told them that answer, and there was agreement that we need mobility.

And it doesn't take a lot of thinking about this to realize the limited number of troops in a large country, that that is what we need, and that is a subject that you guys are talking about, and we will get more detailed of an answer later on. But we need that answer, because we have seen other things that our troops have needed in the past that, for whatever reason, they didn't get as quickly as they needed them. And so I just pass that on as a comment.

Thank you, Mr. Chairman.

Mr. ABERCROMBIE. Thank you, Mr. Kissell.

We will go to Mr. Bartlett.

Mr. BARTLETT. Thank you.

What are the plans to replace the C–23, the Sherpa aircraft, currently flown by the Army National Guard?

General DAVIS. Sir, our plans for—and are—to replace it with the Joint Cargo Aircraft. It is a direct replacement for the C–23 Sherpas.

Mr. BARTLETT. Okay, which brings me to my second question.

Yesterday's article in *The Hill* reported Department of Defense (DOD) is moving the Joint Cargo Aircraft program to the Air Force and cutting overall program quantities. This revelation came as quite a shock to us, because our memory was that the Air Force was kind of a reluctant partner in this joint procurement. Some might have said that they were dragged, kicking and screaming, into the original relationship.

And now, the Army that had the original use for the aircraft, requirement for the aircraft, is not going to get the aircraft, and the Air Force, who really was very reluctant, hardly wanted into the program at all, is now going to have responsibility for the program and get all of the additional aircraft.

In light of the reduced numbers that are being reported, can you shed some light on plans to address both the stateside Federal Emergency Management Agency (FEMA) mission handled by the Army National Guard and the Army time-sensitive, mission-critical requirements for the transportation of cargo and personnel to forward-deployed Army units in areas of responsibility, particularly in Afghanistan? How are you going to do that without this plane?

General DAVIS. Sir, if I could, respectfully, I would ask to—as I went back to Congressman Marshall's question, where we will provide the information that set the framework up to the point where we are now on a program that I just cannot talk in detail on on your questions with respect to what has come out in the press. As soon as it is releasable, sir, we will come back and talk in the detail that, quite frankly, you should expect us to provide you.

What I can tell you is is that what we are doing in OIF with respect to that particular mission is doing it with a combination of rotary wing and contract fixed-wing to do the direct support, time-sensitive, mission-critical, and other rotary wing, for that matter, our UH–60 Black Hawks, to do that mission.

Mr. BARTLETT. If DOD was leaking this information, it would have been nice if they would have leaked a little of the rationale for it so we could be a little more comfortable with the direction they are planning to take us.

Thank you very much, Mr. Chairman. I will look forward to our classified session, more discussion later.

Mr. ABERCROMBIE. Yes.

General Davis and General Crosby, I realize you are under difficult circumstances here, but let me tell you something. I am not telling you something, but let me make an observation that should be taken back to the Pentagon.

That information that was in the newspaper compromises this hearing. It puts us in a very difficult situation, puts you in a difficult situation. People talk about the Congress. I don't know of anybody in the Congress, not—in the upcoming 20 years that I will have been associated with this committee, I don't know of a single member ever—ever, under any circumstances, leaked or put information out to the press of a classified nature or of anything else having to do with what should be closely held until the proper time.

What we are talking about here and what puts this hearing in particular difficulty—and it is more than irritating to me because you have already, on couple of occasions already, just the beginning of the hearing, have found yourself in a situation where you can't respond to Members over something that is already in the public domain. Now, that came from the Pentagon.

It came from the Pentagon. I don't know if it came from the Secretary's office. But when the Pentagon starts playing games in public because you are having internal discussions or difficulties or tensions or confrontations over what should or should not be policy, particularly when it is to be reflected in the budget presentation yet to come.

I mean, the Pentagon budget is being routinely discussed in detail in the press, and we are in a position where we can't explore it. We can't give answers to people, let alone to ourselves.

Now, you are in this difficulty today, right, and it is not right. It is not right, and it should be stopped. Now, I realize the cynics out there, particularly in the press, will say, "So what? That is what goes on all the time. That is our job." I am not blaming the press. They are pushing to get this information.

But somebody over there, maybe even in the Secretary's office, is providing the details. You can't print something in the paper. I

mean, you could lie, I suppose, but nobody said that that is the case, or they made it up.

I mean, this isn't Fox News that is doing it. This is a respectable journalist operation rather than a vaudeville presentation. But it puts the committee, it puts Members in a very difficult—I won't say awkward, but it puts them in a position of where we can't exercise our responsibilities correctly.

Now, if somebody in the Pentagon, even in the Secretary's office, thinks it is useful for this internal discussion or decision-making process to play it out in the press, it is not. It is causing you difficulty, believe me, and it is going to cause the Secretary difficulty, because Members are not going to be made into extras in a Pentagon scene that is going to be played out.

Now, again, don't take this personally. You happen to be, unfortunately, the bearers of the responsibility—excuse me, having to take public responsibility for the irresponsibility of whoever or whatever office has involved itself in this kind of a thing.

So I don't know. We are going to continue to—please try to answer as closely as you can to the Members' perfectly legitimate questions, or make your observations as close as you can, based on the information that is already out there.

I don't want to get into a situation where I start pressing you, or Members start pressing you, saying, "But this is already in the public discussion, because it appeared in the press." It is very difficult for Members here to pursue their line of questioning if you have to pretend that you don't know what they are talking about.

I see heads nodding, but you understand the difficulty here. Mr. Bartlett's questions are perfectly reasonable, and they are perfectly reasonable. He is not asking you about classified data that we need to pursue in the next briefing.

In the light of that, can you give him a little bit better answer?

General DAVIS. Sir, what is not releasable is that which is in the resource management decision 802, which outlines, again, the programs and the programmatics of those programs. And so that is not releasable.

Mr. ABERCROMBIE. Okay. All right, I will stop with that.

But that is the reason that should not be in the press. That is precisely the reason why this should not be part of some kind of internal game-playing in the Pentagon.

It is a disservice to you, and it is a disservice to the fighting personnel in the field, because we are trying very hard here to be responsive to them, not to the machinations of some marginal gain against somebody else in an internal turf battle, or whatever it is, going on in the Pentagon. It undermines the capacity of the subcommittee and the committee to be responsive to you in your professional judgment as to what is necessary to support troops in the field.

Mr. Bright, to be followed by Mr. Coffman.

Mr. BRIGHT. Okay.

Mr. Chairman, thanks for this meeting.

Thank you to the witnesses. Generals, thank you very much for being here today.

And last week during a press conference, Secretary Gates stated that he had recommended to the President adding $500 million to

the fiscal year 2010 to "Increase the throughput of pilots and maintenance crews for our helicopters, to help train more instructors, to help with the infrastructure, and possibly get more airframes." In addition, he noted that more up-to-date maintenance facilities and additional classroom space was required.

Now, this appears to be a very ambitious multi-year mandate in terms of personnel, helicopters and military construction that eventually will have a significant impact on Army aviation and a base in my district, Ft. Rucker, Alabama.

My question is, have any detailed requirements, based on Secretary Gates' press conference, been provided to the Army aviation school?

General DAVIS. Congressman Bright, again, as you know, the Secretary visited Ft. Rucker this past week and spent an entire afternoon with both the Training and Doctrine Command (TRADOC) commander and the Commandant, Major General Jim Barkley, to do a firsthand assessment of the capability that Ft. Rucker possess.

So the Secretary's thrust in this in terms of additional resources is a good news story. I mean, the Training and Doctrine Command, and specifically Ft. Rucker, was working to increase their capacity even before this with respect to training an additional student load, as well as other instructor pilots, other already rated pilots, as well as we had an initiative to put additional capability there with respect to aircraft.

What is currently occurring is that Training and Doctrine Command and General Barkley, they are doing the assessment on how best to apply those resources that the Secretary alluded to in the budget to have the most benefit, whether that is infrastructure, which certainly he noted in his press conference that there is the potential for that, whether it is their operation and maintenance funding, whether it is additional aircraft to support this increased ability to produce more pilots.

And so that is ongoing right now. We do not have the details of that, but it is certainly ongoing. And as he said, we have time to do that in a very thoughtful way. That will certainly help.

But it is a long-term process, as you know. It won't yield results overnight. But I will tell you that we are working very, very hard to ensure that we apply them in the right way and to do what they need to do, which is increase their output by an additional 300 aviators per year, is what they are doing.

Mr. BRIGHT. So there is no set number at this point in time, or the types of helicopters that might be added to the aviation school?

General DAVIS. What we know is that we have a shortfall now of AH–64, which we are working internally with in the Army to provide some additional capacity, as well as UH–60 Black Hawk in the training base. And so we are working also to put additional aircraft there to give them more capacity.

General CROSBY. Sir, what I would like to add, as General Davis says, it is not an immediate thing. And I think what we need to give you all is the comfort level that all of the aspects of Army aviation are working together as we look at that. So as they consider procuring more aircraft, either moving them in or whatever,

they are working with me about the lead-times to procure those aircraft and working with the industrial base to produce them.

So we are not just doing this in a vacuum. It is all of the facilities, all of that is being done and considered.

Mr. BRIGHT. Okay.

And I hope that, when the report comes in, that will include the infrastructure that we will need there. And you know this, but Ft. Rucker has been in existence quite a few years, and we do need additional infrastructure to handle the additional pilots and staff that is going to be coming through there. And hopefully, that report will reflect that. Is that correct?

General DAVIS. It will, Congressman, in terms of the capability that he needs. And the infrastructure is part of that assessment right now.

Mr. BRIGHT. The concern I have is that, you know with any military construction (MILCON) project, it takes approximately five years from start to finish to get that project completed. And I am concerned that, with the additional workload and requirement placed by Secretary Gates, that we will fall—hopefully consider that timeframe, and we can start things and upgrading the facilities right away, or soon, anyway.

General CROSBY. Yes, sir. While the Secretary was down there, he made the comment specifically about the facilities. And I believe we have a phone call each week with the five players in aviation together to discuss this. And that is one of the things General Barkley specifically addressed was the facilities, the time, and the ability to get that moving as quickly as possible to support the entire effort.

So yes, sir, that is being considered, and we are looking for ways to streamline that, if you will.

Mr. BRIGHT. Good. And I will help you any way I possibly can.

I was down last week and took a detailed tour of the facilities out there. So we need to very seriously consider that infrastructure upgrade in addition to the pilot upgrade.

Thank you very much, and thank you for being here.

General DAVIS. Thank you, sir.

Mr. BRIGHT. I yield back my time, Mr. Chairman.

Mr. ABERCROMBIE. Thank you.

Mr. Coffman.

Mr. COFFMAN. Thank you, Mr. Chairman.

I am new to the committee as well, a freshman Congressman, and one of the things that confuses me is where you delineate the responsibilities between the Air Force and the United States Army when it comes to fixed-wing aircraft for logistical support.

General DAVIS. Sir, I guess the Army has been in the fixed-wing business a long time, as you well know, Congressman. And where we delineate is with respect to how we characterize the mission of direct support, in direct support of a commander on the ground, and general support, which is a more broadly—I mean, to service many other areas.

And frankly, within the timeframe of the delivery of that particular support and how it is prioritized and characterized, really, in terms of how it best supports our forces on the ground. So if the Army is conducting a direct support mission where we have the

most responsive fixed-wing capability, support for, again, a time-sensitive, mission-critical type, whether it is ammunition, whether it is supplies, whether it is delivery of personnel to a point versus a more general support approach to providing that.

Mr. COFFMAN. What kind of expeditionary airfield—what type of runway is needed for the Joint Cargo Aircraft?

General DAVIS. It is designed to land in a more austere environment, a less improved environment, shorter field for take-off and landing, which again opens up the access to areas within our operations, or area of operations that we can actually execute those in what we currently have.

Mr. COFFMAN. What is your relationship with the Air Force when it comes to procurement on the Joint Cargo Aircraft?

General CROSBY. The program as established today, sir, is what we call a joint program office, where Air Force personnel sit right with my Army personnel in the office. The Army today has the lead on the program. They participate in there.

There was a plan for a split buy. The training was planned to be a joint effort to train one location and train both sides. We have already graduated one class, loadmasters and pilots, and are about to start the second. And those are for Army crews, because the first fielding was for Army.

But the Air Force is engaged on a day-to-day basis as part of that program. Their requirements are a little bit unique in the Air Force than the Army in the way that we track and do things. But overall, the one contract for the system is the way we are set up right now.

Mr. COFFMAN. And the Air Force is—is the training joint between the Air Force and the Army, or are these just Army pilots?

General CROSBY. Today, we are only training Army pilots because the first deployment was for Army personnel. The standardization and the verification of that training system is Army. But the training itself is designed to be a joint training where Air Force and Army personnel would both go through the same training program, yes, sir.

Mr. COFFMAN. Is the Air Force—what is their mission in comparison to your mission in terms of utilizing this aircraft?

General CROSBY. Sir, I don't know that theirs is any different, aside from what General Davis talked about with the time-sensitive, mission-critical cargo is our mission, theirs would be in the same light, I would think.

General DAVIS. They will employ the aircraft in a general support role with the ability to conduct direct support of a ground commander and our forces on the ground, much as we will employ ours in a direct support, but we will have the ability within a system where there is visibility for all of the theater fixed-wing support assets to have the ability, if they are not committed to doing a direct support time-sensitive, mission-critical mission over a period of time, that they would have the ability to reach in and use those assets to conduct general support missions.

So currently, again, they come after us in the fielding plan for JCA, but again, we have worked the concept of employment to utilize those assets either in a direct support or a general support role.

Mr. COFFMAN. How much is this enhanced from its predecessors in terms of logistical capability?

General DAVIS. It is clearly a greatly enhanced capability over what the Army has with our aging fleet of C–23 Sherpas right now, which are a old, slow aircraft. It performs magnificently in theater right now, but it performs, again, in OIF. We do not have it deployed to OEF. So it is a leap ahead in capability for early replacement of the aging C–23 fleet.

Mr. COFFMAN. Thank you, Mr. Chairman.

Mr. ABERCROMBIE. Thank you, Mr. Coffman.

Mr. Massa, to be followed by Mr. Wilson.

Mr. MASSA. Thank you, Mr. Chairman, and I appreciate the opportunity to be here today.

General Davis, thank you very much for your testimony. I apologize in advance in that I am a freshman Member of Congress from western New York State, and we don't do a lot of Army aviation there. So if I could just ask some simple questions to get some baseline education, I would find that helpful.

Is it true that the CH–47 is the Army is premiere, if not only, heavy-lift helicopter?

General DAVIS. That is correct, Congressman. It is.

Mr. MASSA. Would you characterize that the Army is now being given additional tasks and requirements to use air mobility assets in the high altitudes—in high-density altitudes of Afghanistan?

General DAVIS. Congressman, again, you know we are deploying the additional brigade, which has additional CH–47Fs that are going as part of the 82nd Combat Aviation Brigade. Also, there are contract air that is providing that mission right now.

So I don't know if I would characterize it as additional to what we were doing now. Certainly, it is a capability that is needed in theater, an additional capability that is needed in theater.

Mr. MASSA. So if it is an additional capability, there are additional requirements, so the answers could be yes.

General DAVIS. Again, some of those requirements, sir, are again being provided by CH–47, and certainly it could displace perhaps contract air that is being used.

Mr. MASSA. My experience with people returning from that theater have told me, at the operational level, that the number one requirement shortfall in Afghanistan is consistent capability for high-density altitude and high-altitude vertical air mobility. It is also my understanding that the CH–47 and all variants is really the only aircraft in the Army inventory, coupled with the CH–53 Echo in the Marine Corps, that can provide that, and that the '60, frankly, doesn't have the lift capabilities to meet the requirements that the ground commanders need.

I note in your chart that there is a requirement for 413 CH–47 aircraft inventory-wide, and we currently have 407 of all general of air—plus additional 54 for special operations. And by my back-of-a-napkin, that gives me a 54-aircraft shortfall.

Sir, can you please provide me an answer in writing for the record, if not today, if there is any way to accelerate the procurement of these aircraft in a hot production line so that finally, as we spend the billions of dollars that we spend in the Department of Defense, we can actually get something to the troops that they

need, when they need it, and perhaps before we leave? Is that possible?

General CROSBY. Sir, I can certainly give you the details of the procurement plan to get us up to that acquisition objective. The Army has committed at this time to resource to that objective.

The challenge we have, we have lost 27 aircraft in the theaters plus in the training and getting them to the theaters. And replacement of those or upgrade to an "F" program encompasses both new builds as well as remanufactures of the old airframes.

And the capabilities within the production line require that we remove some aircraft from the fleet. So it is an acute balance, not of just resources available.

Just throwing more money at it won't increase the production line. We then incur operational impact of how many we take out of the field in order to do that. But we can certainly lay out for you the by-year plan of where we are going to get to there.

Through the supplementals, we have been very fortunate that you all have been very supportive of us replacing the ones that we have lost, but there is a time lag to do that, as well. All of the sup flows down to the sub-vendors. It is not a fast process. I wish it was, but it is not a fast process.

Mr. MASSA. Well, thank you, General. And I would just observe that, while it is not a fast process and it does, in fact, require planning and execution, if we start now, maybe two years from now we won't have to ask questions again.

And while I understand, with great respect and deference to the uniformed officers present today, that the Army is fully committed and resourced to this program, only three weeks ago we heard the exact same commitment to a program we found out yesterday was canceled. So it creates somewhat of a testimonial credibility gap when that is the answer that we receive.

So I do look forward to an exceptionally detailed briefing on the CH–47 program, and that I happen to believe, and I am certain—I could be wrong, and I hope somebody will tell me one way or the other—that the CH–47 program, as far as it applies to operations in the global war against terrorism, it is probably the fulcrum piece of operational equipment in Army aviation command today, if not the number one at the very top. So I am going to commit resources, time and effort to learning and understanding this program in as much detail as it takes to help whoever has to make the decisions get it right.

General CROSBY. Understand, sir, and I appreciate that support.

I do agree with your assessment of the capability, the flexibility that that airframe brings. It is a great capability that we in the Army share. It is the one that can operate at those high altitudes because of its tandem rotor capability. It doesn't suffer from the tail rotor loss effectiveness of those low-density altitudes, so it is a great capability.

The Army is committed to it, and I think we can lay out for you and show you will be convinced just how committed we are to that program.

Mr. MASSA. Thank you.

And my last question is, General, I noticed that you are air assault qualified. And it would be my understanding that there are

only two twin-rotor helicopters that can both do the rappelling mission and the parachuting mission required by Special Forces, one of them in Army, one in the Marine Corps. The Marine Corps is currently, I believe, not yet fully certified for the V–22 in that operation.

So it adds another layer of operational requirement, commitment and importance to this helicopter in that it has been explained to me to date. And I look forward to receiving your detailed instruction, education and explanation.

[The information referred to can be found in the Appendix on page 63.]

General DAVIS. Congressman, if I could add one thing that also would provide some context as well, we are going to undertake—because you mentioned that as force structure, and frankly is what we have as our objective enough.

And so we are going to take a hard look internally within aviation. We are going to conduct aviation study two, which the Chief of Staff of the Army has directed us to do, to take a look to see if we have our structure right with respect to the missions that we find ourselves in now, and of course as we look forward into the future on that.

So I just wanted to provide some context as well in terms of looking at the structure and the numbers of CH–47Fs, along with our capability, as well.

Mr. MASSA. Thank you very much, Mr. Chairman. I yield back the balance of my time.

Mr. ABERCROMBIE. Thank you.

Mr. Wilson, to be followed by Representative Fallin and Representative Hunter.

Mr. WILSON. Thank you very much, Mr. Chairman.

Generals, thank you very much for being here. I have a great appreciation of what you do.

I represent a community near McEntire Joint Air Base at Eastover, South Carolina. I have had wonderful visits there. I know the professionals that you have trained.

In fact, just two weeks ago, I was in Iraq, and we were on an Apache helicopter traveling around the country. And as I was departing, for the first time I could look down and actually see the floorboard. And on the floor was a Palmetto tree and crescent, and so those are my people.

And so it was just a wonderful experience, so I know how proud they are of their service. And on visiting with troops from South Carolina, it just warms my heart to see their enthusiasm, their competence and capability, and that it is also very personal.

My third son—I can't wait until July for a change of command. He will be the commander of the 351st Aviation Support Battalion at Sumter, South Carolina. And then my fourth son, Army ROTC at Clemson, last year graduated from Air Assault School at Ft. Knox, Kentucky. My wife is not pleased about his ability to jump out of a helicopter, but I am, and of course he is. So thank you for what you do.

And General Davis, in your written testimony, you state that the Army will proceed with the modernization of all AH–64A Apache battalions in the National Guard by remanufacturing two of the

battalions and cascading the remaining two. Which battalions will be remanufactured or cascaded?

General DAVIS. Congressman, again, if I could—first, I want to thank you for your service and that of your sons. We appreciate that. There are many, many, and I am sure there are other Members that may have children in uniform, as well, so we thank you very much for that.

I know how proud you are of them. I have a son at Ft. Rucker right now getting ready to go to flight school, or he is in flight school. But again, I appreciate that.

Mr. WILSON. Well, military service is opportunity, and so I am just grateful for the opportunities you are providing the young people of our country.

General DAVIS. Again, sir, I am so excited about thanking you that your question, again, so I make sure I answer it.

Mr. WILSON. It is about the modernization of the A to D.

General DAVIS. Yes, sir.

If I could provide some context, sir, when we were in the process of deciding on Armed Reconnaissance Helicopter, and also as we looked at the total force structure in our Army, both active and Guard in reserve, there was a thrust to balance the capability within the Army National Guard. And so we were going to balance with replacements for AH–64s in four units to give a balanced AH–64 Armed Reconnaissance Helicopter capability within the Guard.

Of course, with the termination of ARH, we have to regroup. All along, though, we were going to modernize two of those battalions. The other two battalions within the National Guard that are currently "A" model battalions, we would have to determine whether that was the best course of action, given the outcome of the ARH.

Right now, what is approved by the Secretary of the Army is a strategy to modernize all four to AH–64D. And of course, the first in line that is working right now is the battalion out of Pennsylvania National Guard. But our intent is, and we have a plan to, modernize all four of those battalions.

Mr. WILSON. Thank you.

Additionally, as a Member of Congress, as a veteran myself, but particularly as a parent, to me, UAVs, Unmanned Aerial Vehicles, are so reassuring. I had two sons. My oldest son was field artillery serving in Iraq. Another son, a doctor in the Navy. I just always hoped there was one overhead.

And I was really encouraged to see that the number of UAVs have increased from six to 1,000 in theater in the global war on terrorism. What is the role of the National Guard with UAVs?

General DAVIS. In the area of National Guard, we will field the Shadow system to the National Guard. Again, what our priority of fielding is is to, certainly with our smaller ones to our brigade combat teams and the battalions below for Raven, for the handheld, for the Shadow to our brigade combat teams, and of course the larger extended-range multipurpose to that.

But we do have to take a hard look, again, at what we are going to field to the National Guard as well as what is our capability and, frankly, our ability, resource-wise, to field the other systems as well, specifically the Extended-Range Multi-Purpose (ERMP) UAV.

Mr. WILSON. Well, again, thank you. I know, as a parent, it is so meaningful. And also, I want our enemy to know of our capabilities. So, thank you very much.

Mr. ABERCROMBIE. Thank you.

Representative Fallin.

Ms. FALLIN. Thank you, Mr. Chair.

I would like to visit with you about the Aerial Common Sensor (ACS). And if you could give us a current status of the Army's plan to re-launch the ACS development program, and where are we at right now?

General CROSBY. The Aerial Common Sensor, as you know, is managed by a different Program Executive Officer (PEO). However, because it is an aerial platform, my office will participate in that selection.

There is a validated requirement. There is an existing program to do so.

My involvement of my folks will be to actually sit and be part of the selection board to select a platform that the sensors will be mounted on. And of course, it is to replace some existing—several different platforms that we have today, and to bring and fuse those sensor capabilities together.

The details of the program, the schedule and all that, I can take that as a question for the record and get you the details of that, if that is what you need, ma'am.

Ms. FALLIN. Okay. Thank you very much.

And one other thing. On the aircraft survivability equipment, I know you have had some delays in the development of a successful countermeasure system. Now, what is the capacity of the current aircraft survivability equipment to adequately address the current and anticipated threats to the Army aircraft? What kind of progress are we making on that?

General CROSBY. We have made significant progress. And as you know, when you are dealing with threats, we have quite often oversimplified the threats that are out there. Those threats are our enemy is very creative and innovative and able to adapt. So it is a constant upgrade process to manage these systems.

Our current system is called a Common Missile Warning System (CMWS), and we are still fielding the fifth sensor to significantly improve some vulnerabilities we identified. To go any further than that, ma'am, I would request we do that in the classified session after, if that is okay.

Ms. FALLIN. All right. Sure. Thank you, Mr. Chairman.

And thank you, gentlemen, for your service to our Nation. We appreciate you.

Mr. ABERCROMBIE. We are going to go in order of appearance, so we will go to Mr. Hunter, and then to Ms. Giffords.

Mr. HUNTER. Thank you, Mr. Chairman.

Thank you, gentlemen. Could you give me a non-classified, not-too-down-deep-in-the-weeds status of Task Force Observe, Detect, Identify, and Neutralize (ODIN) in Afghanistan?

General DAVIS. Congressman Hunter, again, thank you.

Yes. From a large scale, again—and I think you had been briefed previously that the timeline that we are on for the deployment of the resources that will comprise Task Force ODIN in Afghanistan

is on track right now. Of course, what they have done is consolidated assets that were already in Afghanistan, certain capabilities, to form the nucleus of it.

An initial operational capability had been declared for that capability in the late winter-early springtime, and so we are on track to continue to push that capability over for a full operational capability some time in the late summer.

Mr. HUNTER. Are you doing anything in the meantime—you have all seen the same graphs that I have of IEDs going up, casualties going up, deaths going up in Afghanistan while they are going down in Iraq due to IEDs right now.

So we are losing soldiers and Marines literally probably today, we will lose a few because the Army and the Marine Corps are not over-watching the roads well enough. And the Marine Corps might not have the assets to do that, but the Army does. Are you doing any stopgap right now before ODIN is in place totally to stop our soldiers from dying?

General DAVIS. Congressman, I would have to take that for record to find out exactly what is being employed in theater with respect to the different regional commands, and specifically to the unmanned aircraft systems or other fixed-wing risk to ISR systems.

I would tell you, again, that as we flow forces in, again, I mentioned the Combat Aviation Brigade that flows in that brings its own capability with it. Certainly for the rotary wing capability, but as the BCTs come in, as well, they bring the Shadow and the Raven systems to give them the risk to ISR, the sensor capability.

[The information referred to can be found in the Appendix on page 63.]

Mr. HUNTER. Are you using Constant Hawk right now in Afghanistan?

General DAVIS. It deploys later in this year.

Mr. HUNTER. Got you. So Constant Hawk, with the same sensors that it has on it in Iraq right now, it is going to be put to use in Afghanistan later on this year?

General DAVIS. Yes, it is.

Mr. HUNTER. Are you familiar with the Angel Fire aircraft? The Angel Fire aircraft is a C–12 with the same sensor array that Constant Hawk has?

General DAVIS. We are, Congressman, familiar with Angel Fire.

Mr. HUNTER. Did you know that we had four aircraft sent home from Iraq as opposed to re-deploying to Afghanistan, and that was due to Central Command (CENTCOM) and the Army saying that those were not needed in Afghanistan right now, as we have a severe lack of ISR in Afghanistan? We are actually sending aircraft home from Iraq back here and letting it sit on the tarmac here while we have guys dying in Afghanistan. Were you aware of that?

General DAVIS. Congressman, I was aware that the decision had been made—and again, by the theater commander in terms of redeploying a capability. I know that, at least on the Army staff, our senior intelligence officer, our G–2 of the Army, assessed that capability in terms of its—whether you could maximize that in the area of operations in——

Mr. HUNTER. Once more, it has the same sensor array as Constant Hawk. So if you want Constant Hawk, I don't understand

why the Army aviation wouldn't want a UAV or a C–12 with the exact same sensor array as the UAV that you are asking to come into theater later this year, and you could have it right now, literally right now, over-watching the roads with that same sensor array.

And it just seems silly to me that you would re-deploy something from Iraq back here where it is going to be mission impossible now to get it back overseas to Afghanistan outside of being in some nice, big Army program that spends billions of dollars to re-sensor it and get it back over to Afghanistan.

So instead of doing the smart, efficient thing, for Army aviation to say, "Hey, wait a minute, we have four aircraft that we can use right now in Iraq, we are simply going to fly them over to Afghanistan and use them right now as a stopgap measure until ODIN is in place," the Army lost them now.

And I think the Air Force has them now or something, and the Air Force is actually going to put them to good use probably sooner than the Army could, but the Army and CENTCOM had the ability to do this. And it is unfortunate that the Army missed that opportunity to protect the soldiers and Marines over in Afghanistan right now.

Thank you, Mr. Chairman.

Thank you, gentlemen.

Mr. ABERCROMBIE. General Davis, I am a little confused by the answer. Maybe not confused. I am not sure there was an answer. What is the current status of the Angel Fire aircraft?

General DAVIS. Chairman, I can answer the question of what is the current status. It is a Marine Corps aircraft. I don't know where it is with respect to——

Mr. HUNTER. Not anymore. If the Chairman would yield, it is not a Marine aircraft program anymore. The Marines gave it up because they, for some silly reason, said that they didn't want it either. So the status of it is it is on a tarmac here, Mr. Chairman——

Mr. ABERCROMBIE. I understand that. The Air Force and the Marines developed this. You said earlier that there was compatibility between the services with regard to the utilization of aircraft or whatever it may—helicopters, whatever, in terms of service for an immediate mission, and you separated what was Air Force and what was Army on the basis of general application as opposed to specific mission.

And where the Angel Fire is concerned, it is superior—at least this is my understanding, and Mr. Hunter has a comment on this. If I don't have it down correctly, feel free to let me know—is superior in its capacity to deal with what we are speaking of here.

The question to you is why was it returned—why are these aircraft here in Virginia? Why? When I said status, maybe I misspoke. I am not asking you to account for its present status. I want to know the rationale. What is the reasoning? I don't believe you answered Mr. Hunter. I am not trying to take your time, Mr. Hunter, but understand I don't believe—pardon me?

Mr. HUNTER. I am out of time——

Mr. ABERCROMBIE. Oh, okay. I am going to exercise my prerogative, then, a little bit.

I don't understand that. Secretary Gates says that we need this capability. We have spent hundreds-of-millions of dollars, by my accounting, to try to develop this capability. We have sent questions to the Vice Chief of Staff of the Army, the Joint Staff, CENTCOM, the Air Force, and we can't get an adequate answer.

And so I was hoping at this hearing that we could get something from you with regard to this issue.

General DAVIS. Chairman, with all respect, if I could take for record the concerns of Congressman Hunter and yourself and come back to lay out the rationale and analysis that was done by the theater commander, as well as the service, with respect to this capability, as well as our own assessment that was done by the Army staff on why not to either retain it in OIF and-or move it between OIF and OEF, which is a CENTCOM decision, as you well know, but I would respectfully request to come back to you with that level of detail that you are asking for here in terms of the assessment that was done, because I do not know the exactness——

Mr. ABERCROMBIE. Weren't you briefed on this? Weren't you briefed on this, that this issue would, in all likelihood, come up?

General DAVIS. Sir, I was briefed that Angel Fire would come up. Some of this will go into the classified that we can talk about there, but I did not have a detailed——

Mr. ABERCROMBIE. Are you prepared in that—we are not to the session yet. My suggestion to you is is that, if you are not prepared, that somebody get in touch with somebody who is prepared to come to the classified—if you think that is where it has to be discussed, that is fine with me. I will take your word on it. I don't know if Mr. Hunter will be able to make that session or not, but other Members are interested, as well.

Mr. Marshall has a follow-up on what I am speaking of, and then we will move to Ms. Giffords.

Mr. MARSHALL. Mr. Chairman, we had a pretty good classified hearing with the Task Force that has been assembled across the services by the Secretary to move these kinds of assets forward as rapidly as possible. And I would suggest that perhaps the Chairman, through staff, might make an immediate inquiry to that Task Force about this particular situation. Seems to me that Task Force is exactly the right group to respond to us with an explanation for why that asset isn't forward.

Mr. ABERCROMBIE. Well, we have put that forward, and they declined to respond. Now, are you—at this stage.

General DAVIS. I am not prepared, sir, to talk the level of detail that you are asking here in terms of the assessment.

Mr. ABERCROMBIE. Okay. Can you get someone that is prepared by the time we get to the classified section today?

General DAVIS. I will attempt to do so, sir, but I can't make a guarantee right now. I apologize.

Mr. ABERCROMBIE. All right. But my mother used to say, "A word to the wise should be sufficient." If you can't settle it today, it is going to have to be settled very, very quickly. This can't be put off any longer. We are not looking for villains. We are trying to support people in the field. Okay?

General DAVIS. Understand, Mr. Chairman.

Mr. ABERCROMBIE. Thank you.

Is that all right, Mr. Hunter?

Mr. HUNTER. Yes.

Mr. ABERCROMBIE. Representative Giffords. Thank you for your patience.

Ms. GIFFORDS. Thank you, Mr. Chairman, Ranking Member Bartlett.

And thank you, General Crosby and General Davis, for your service.

I have a couple questions specifically about the Unmanned Aerial System (UAS). Specifically, can you please elaborate on how the Army Sky Warrior UAS system is going to be used in terms of its mission, relationship to the Predator program that the Air Force runs?

General DAVIS. The Sky Warrior, we are going to field our first quick-reaction capability of four systems this summer in OIF, and they will be used in direct support of the assignment of the division that they will go to, or to the corps that they will go to. So they will be used in direct support of our forces on the ground there.

Ms. GIFFORDS. General Davis, again, the differences between coordination with the Air Force program, I mean, is there a strategy, the coordination, or are you working specifically from the Army's perspective and not looking at the—obviously, this is new type of technology and the possibilities that it could be used collaboratively.

General DAVIS. Again, the capability is somewhat similar. The ERMP will deliver more capability than the current Air Force Predator does. However, again, the Predator is used in a theater-wide role prioritized by the theater commander.

In the case of ERMP, or the Sky Warrior, in this case, again, it is an asset that we will field directly to our divisional elements. They will be resident in our Combat Aviation Brigades, and again, the division commander will determine—the ground force commander will determine the prioritization of how that asset is used. And so it won't be apportioned or allocated based on theater-wide requirements for that capability.

Ms. GIFFORDS. In terms of what is happening down at Ft. Huachuca, one of the challenges we have is with the Federal Aviation Administration (FAA) and the restrictions that they are putting on over-flights. And I am curious about the challenges to unit training and readiness, but particularly in relationship to the Guard units. So if you could please address that, if you are working with the FAA, or what the plan is there?

General CROSBY. Boy, that is a mouthful.

Ma'am, the thing that we are struggling with with the UAS is operations in the FAA airspace. And you talk about the challenges we have there, we are learning with the FAA as we go forward.

What we originally started out with some of these programs and the capabilities within them as far as control, utilization of sensors and the hazards associated with them, we are now learning that the FAA is not comfortable with that. So we are having to build in some redundancies in there, just as you would with a manned aircraft, in order to be able to operate in that airspace.

Today, to do training at Ft. Huachuca, which I know you are very familiar with, we have to really block off a lot of airspace in

order for us to be able to train in those areas. That will be a very difficult situation outside of places like Ft. Huachuca that have significant airspace allocated to do that.

We are working very hard with the FAA every day trying to address that. The challenge that we are going to have to have with our Guard and Reserve is they are not normally located at places that are going to have those kind of ranges. So our approach today is to try and build in those redundancies and get to the point where—I mean, we are spending a lot of effort and see and avoid technologies.

Well, that is easy with a manned person in the cockpit, not so easy with the UAS. Those are the kind of paths that we are pursuing. It is unknown territory with FAA, and we are learning as we go. That is not a great answer, but we are pursuing it as diligently as we can.

Ms. GIFFORDS. One final question. In terms of the training for the cargo delivery mission for the UASs, is that something that you see taking place in areas like Ft. Huachuca, or you would have specific locations where you are looking at for that training piece?

General CROSBY. Army aviation took over to be the proponent for the UAS systems. But because our focus today in the Army has been on RSTA, or Reconnaissance Surveillant Targeting Acquisition, Ft. Huachuca being our intelligence center has been—there has been an inseparable marriage or link there, if you will, between the two communities.

Today, as it stands, I have no requirement been—to me to do a cargo version of a UAS. Is that coming? I can't predict a crystal ball. But I would think, as we continue to expand on these capabilities, that would certainly—the potential is there for the future.

Today, as we have it, with the UAS systems we have and the Army, we are focused on reconnaissance and surveillance targeting acquisition.

Ms. GIFFORDS. That is true. But looking at future roles for UAS is certainly the cargo delivery is a potential. So are you saying that there are no dedicated locations at this point, or there is no decision to do training in specific areas?

General CROSBY. Simply, I don't have any resources today because, if there is no requirement, they don't give me the resources to pursue that. There is probably some effort ongoing in the science and technology arena with the Defense Advanced Research Projects Agency (DARPA) to look into those things. But as far as any plans for the training, until they get a program of record to pursue, we have not gone down that path, frankly.

General DAVIS. But I think, if I understand, ma'am, kind of the thrust of your question, because we are doing joint training at Ft. Huachuca on our other systems as the Marine Corps, and we saw their initiative to take a look and try to determine whether there is a contractor out there that can provide the capability that they need for cargo, then where would you train it.

Certainly, we do have to assess the ability to do that at some locations. That could be Ft. Huachuca, because, again, we do do the joint training there, or another location. Don't know. So we would have to do that and work in concert with the Marine Corps in that case.

Ms. GIFFORDS. Thank you.

Mr. ABERCROMBIE. We will go to a second round. But if we can stay brief, or if the Members can defer questions, I want to get to the classified section of the briefing as quickly as possible.

Mr. Bartlett?

Mr. BARTLETT. Thank you. I have one brief, quick question.

As I noted in my opening statement, we were pleased that the Secretary has advocated additional funding for pilots. But as I looked at the readiness chart, I saw a whole lot more red in the equipment column than I did the personnel column.

Did I read those charts wrong? And what concerns you more, availability of equipment on hand, or personnel?

General DAVIS. Congressman, you did not read the charts wrong. I mean, it does reflect that equipment readiness is primarily a driver for the overall readiness of many of our aviation brigades. And we can talk in more detail, sir, of course, in the closed.

But they don't necessarily reflect—a unit might have equipment shortfalls, but they might not be aircraft. They may be other systems. They could be trucks. They could be other ground support equipment. So while you didn't read them wrong, they aren't necessarily reflective of an aircraft shortfall.

Of course, the units that we deploy to combat go at their full complement of equipment, to include aircraft. And so that is, of course, where the priorities. We had mentioned, Congressman, again, that we have many, many losses of aircraft, over a brigade's worth of losses which, gratefully, you have provided the funding to get those replacements. That takes time.

So in some of the units that do have readiness reflected in their equipment, there are shortfalls of aircraft. And we work hard, of course, to prioritize moving aircraft to those units to give them their full complement that are either in combat or in the trained and ready phase of their preparation to go to combat.

So we can talk into somewhat more specifics, of course, in the classified, but they don't always necessarily tell the story of the shortfalls just by the rating that they are given, the red.

Mr. BARTLETT. Thank you.

Look forward to that, Mr. Chairman, because I was somewhat confused, if more red appears in the equipment column, why we are putting more money in the personnel column. Look forward to the classified briefing.

Mr. ABERCROMBIE. Can you be prepared, then, particularly as we move toward the defense bill, to let us know what the equipment differentiations are so that we don't have any confusion——

General DAVIS. We can, Mr. Chairman.

Mr. ABERCROMBIE [continuing]. With regards to aircraft versus some of the other what you mentioned?

General DAVIS. We can, Mr. Chairman, yes.

Mr. ABERCROMBIE. If you look at the charts—by the way, we do read the charts, you know, so if anybody is over there saying, "Why are we doing this," we pay attention to what you put there.

Maybe you need to have some addendum or an appendix that shows what some of that means. I understand why you put the chart together and the way it has been put together, because you have to have a picture for us. But then, maybe we need some of

the details as to what makes up that picture so that we can handle questions like that.

Mr. Marshall, do you want to ask something at this stage?

Mr. MARSHALL. I don't want to delay getting to the closed session any longer. I would just simply like to say that appreciate very much the service that you and all of those that you command provide us. Air dominance, air mobility, air surveillance, just critically important to our success for the safety and effectiveness of our missions. So what you are doing is terribly important to all of us, and we on our part will do what we can to assure continued air dominance, air mobility, and air surveillance capacities that are needed for our ground forces.

Mr. ABERCROMBIE. Thank you, Mr. Marshall.

And with that very fine commentary that I believe reflects all our thoughts, I will bring this—unless you have final—Mr. Wilson? To think I was inches from a clean getaway.

Mr. WILSON. No, no. Hey, Mr. Chairman, thank you.

Again, I appreciate so much the capabilities of UAVs. I have had the opportunity to see the capabilities of UAVs, to monitor the Basra rail yard. To be able to note the movements of rail traffic, truck traffic, whatever, how helpful that was to protect American lives.

I have seen the recounting of a mortar attack on a base, and then, subsequently, the perpetrators putting the mortar in the back of the vehicle, and then a Hellfire missile dispatching them, and how wonderful that was and the capabilities, again, protecting our American service members. Additionally, I have seen the coverage of roadways, where you can detect where an IED has been placed, protecting our soldiers.

With all of that, something that has concerned me is the coordination between the Army, Marine Corps and Air Force with the different competing systems. How do you coordinate and get real-time immediate information to our troops on the ground who are in harm's way?

General CROSBY. The one program that falls under my project manager for Unmanned Aerial Systems, we have the one system remote video terminal and the one-system ground control station, which will become the universal.

But they have a common data link that they share that puts that data right in the hands of the soldier. We had planned to only build about 700 of them. We now have put in about 3,500 because it has been so capable, that young infantry platoon leader, infantry company commander, having that data.

And what has been so impressive, sir, is the innovation of our soldiers to work this. We are now doing what we call manned-unmanned teaming, where we are streaming the video right into the cockpit of our Apaches and that capability, and then sharing that real-time video down through those assets.

Are we as good as we can be between our brothers in the Marine Corps and Air Force? No, sir, but we are working toward it, is the answer I can give you.

Mr. WILSON. Well, as a veteran and a parent, I want to thank you for what you have done. But the coordination just, to me, is so crucial and what you are doing is so meaningful. And it is inno-

vativeness of our military personnel who are doing such a great job protecting American families.

Thank you.

Mr. ABERCROMBIE. Anything else?

Thank you very much. We will repair to room 2337.

[Whereupon, at 10:43 a.m., the subcommittee was adjourned.]

A P P E N D I X

APRIL 23, 2009

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

APRIL 23, 2009

RECORD VERSION

STATEMENT BY

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DIRECTOR OF ARMY AVIATION
OFFICE OF THE DEPUTY CHIEF OF STAFF, G-3/5/7

AND

BRIGADIER GENERAL WILLIAM T. CROSBY
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BEFORE THE

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COMMITTEE ON ARMED SERVICES
UNITED STATES HOUSE OF REPRESENTATIVE
ARMY AVIATION PROGRAMS

FIRST SESSION, 111TH CONGRESS

APRIL 23, 2009

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UNTIL RELEASED BY THE
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ON ARMED SERVICES

INTRODUCTION

Chairman Abercrombie, Congressman Bartlett, and distinguished Members of the Subcommittee on Air and Land Forces, thank you for this opportunity to discuss Army Aviation programs. We welcome this opportunity to testify before you and appreciate the tremendous and ongoing support this committee has provided to Army aviation and our Soldiers stationed around the world. We thank the members of this committee for your shared commitment to this goal. We are grateful for your advice and guidance, along with your steadfast support.

We are only five years from the Comanche termination and Army Aviation is seeing substantial fruits from our labor with the continued modernization of our aviation force. Today, we are in production for 9 of the 13 systems identified at Comanche termination. That means 69% of all these programs are in some form of production today, low, initial, or full rate production, with 54% being in full rate production. All of these programs will be contributing directly to the overseas contingency operations by priority fielding to units preparing to deploy to combat operations or currently deployed in support of combat operations in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF).

Operating today in combat operations are the AH-64D, OH-58D, CH-47D, CH-47F and UH-60A/L/M helicopters, the Sky Warrior Alpha, Sky Warrior Block '0', Shadow and Raven Unmanned Aircraft Systems and a pre-production variant of the Micro Air Vehicle spun out of the Future Combat Systems; the UH-72A Light Utility Helicopter has returned UH-60s to the war fighting fleet and are allowing us to retire UH-1 and OH-58s in both the active and Reserve components. Other areas of success include

RESET/PRESET programs that have allowed us to sustain an OPTEMPO up to 5 times higher than the peace time rate; an Aviation ARFORGEN model that allows for predictable and supportable rotations; the installation of upgraded aircraft survivability equipment for all deployed aircraft; the full implementation of Flight School XXI; the Acceleration of the Shadow and Raven Unmanned Aircraft Systems and we now have combat experienced soldiers, in the active and reserve components, assigned in all facets of aviation operations: training, doctrine, sustainment, logistics, operations, and analysis.

Today, we continuously have five combat aviation brigades committed to the overseas contingency operations with another one deploying in 2009 to OEF. We still have an operational presence in the Balkans and the Sinai; we are conducting operations supporting drug interdiction, and are still committed to maintaining security on the Korean peninsula. Throw on top of these steady state commitments the requirement to support homeland security and defense, humanitarian support missions, and disaster relief; and you start to see and appreciate the overwhelming commitment of Army Aviation in the defense and security of our nation. This is accomplished through the ARFORGEN model to achieve a sustained and predictable posture that generates trained and ready modular forces tailored for joint mission requirements.

The Army is currently managing a number of major aircraft programs that provide the current capability to the commanders in the field, and will provide enhanced capability in the future.

ARMY AVIATION PROGRAMS

The **UH-60 Black Hawk** is the work horse of Army Aviation. The current UH-60 fleet is comprised of 1,745 aircraft, including 951 UH-60As (produced between 1978 and 1989), 689 UH-60Ls (produced since 1989) and 105 new UH-60Ms.

The Black Hawk helicopter is in its 32nd year of production. To date, the Army has employed seven multi-year, multiservice production contracts. The current contract extends from FY2007 to FY2011 and includes Navy H-60 aircraft, as well as Foreign Military Sales aircraft.

The ongoing UH-60A to UH-60L recapitalization program extends the service life of the Black Hawk program while providing the improved capability and safety margin of the UH-60L. The Army plans to induct 38 aircraft in FY2009 and 288 aircraft between FY2010 and FY2015.

The UH-60M program incorporates a digitized cockpit for improved combat situational awareness, lift, range, and handling characteristics for enhanced maneuverability and safety. These improvements also extend the service life of the aircraft.

The Army plans to improve the safety of the UH-60M platform with a Preplanned Product Improvement upgrade through the installation of digital source collectors, and improved handling capabilities provided by Fly-By-Wire technology, plus increased rotorcraft interoperability through the integration of a Common Aviation Architecture System shared with the CH-47F Chinook and Special Operations helicopter fleets. Additionally, the Army intends to pursue a Common Engine Program shared with the AH-64 Apache fleet.

The UH-72A Lakota **Light Utility Helicopter** (LUH) program is successfully executing the Army transformation strategy and meeting all cost, schedule, and performance targets as specified in the acquisition strategy. The aircraft has been fielded to the National Training Center at Fort Irwin, California; the Joint Readiness Training Center at Fort Polk, Louisiana; and the U.S. Army Transportation Corps at Fort Eustis, Virginia. Additionally, the LUH is currently being fielded to Army National Guard (ARNG) units.

The Army is procuring 345 aircraft with a firm fixed price contract. To date, the Army has purchased 128 UH-72 Lakota aircraft -- 58 aircraft have been delivered and more than 50 fielded. The UH-72A has demonstrated exceptional readiness rates that exceed 90 percent. The Lakota is currently conducting Medical Evacuation, VIP, and general support missions. It is also in the process of being fielded to ARNG units and the Eastern ARNG Aviation Training Site (EAATS). The EAATS will be the Army's overall institutional training base for the LUH, and the unit aircraft will equip the 6 ARNG Security & Support Aviation Battalions so that they may perform the full range of their wartime and Homeland Security / Defense (HLS/D) missions, to include the conduct of disaster relief, counter drug operations, and institutional training missions.

Production of the LUH is transitioning from Germany to Columbus, Mississippi. Forty aircraft were produced in Germany and the remaining 305 will be produced in the United States as part of a three phase production duplication plan. The complete domestic production line operation is on schedule to begin in April 2009 and will have fully transferred to Columbus by the end of 2009. Increasing domestic content is also part of the production duplication plan and is expected to exceed the 65 percent goal.

The ARNG is pursuing funding to procure, apply, and sustain a Mission Equipment Package – searchlight, FLIR, situational awareness/command and control moving map displays, hoists and Medical Evacuation kits to more fully support the Security and Support battalions in their support of the full range of homeland security/homeland defense missions.

The **CH-47 Chinook** is a proven heavy-lift helicopter, supporting our Soldiers every day in Iraq and Afghanistan and conducting missions that no other helicopter on the battlefield can accomplish. It is the Army's only helicopter capable of intra-theater cargo movement of payloads up to 16,000 pounds.

The Army is fully committed to the procurement of 513 Army CH-47F and U.S. Special Operations Command MH-47G aircraft. To date, the Army has taken delivery of 61 CH-47F and 49 MH-47G aircraft, has an additional 222 CH-47F and six MH-47G aircraft on contract, and has fielded four operational CH-47F Chinook units – two of which have deployed to the theater of operations.

The U.S. Army signed a five year firm-fixed price contract for 181 CH-47F Chinook aircraft that will achieve a minimum savings of $450 million or 11 percent. The multi-year contract provided for 34 option aircraft, 10 of which were executed with the basic contract. The CH-47F Chinook program is on-cost, on-schedule, and has met or exceeded all performance requirements.

The **AH-64D Apache** is the world's most lethal and survivable helicopter. It is the most feared weapon system in the current theater of operations. Continued modernization, including the ongoing fielding of the Modernized Target Acquisition

Designation Sight/Pilot Night Vision Sensor (M-TADS/PNVS), is critical to maintaining that position.

The Block III Apache is essential to the Army's current and future forces. It is the Army's only manned aviation platform able to meet the network centric requirements of the future force as well as Joint Force requirements. It is also the first aircraft designed for and fully capable of complete control of Unmanned Aircraft Systems (UAS). This characteristic fully enables the synergistic manned-unmanned teaming between attack aircraft and UAVs that is showing such promise on the battlefield. The Apache Block III System Development and Demonstration remains on schedule and within budget. All Acquisition Program Baseline milestones have been met or exceeded to date. A Longbow Apache, with Block III technologies installed, performed well in the recent Future Combat Systems Experiment 2.1/Joint Expeditionary Force Experiment Spiral 3.0 and was the only Army aviation platform participating.

High OPTEMPO in Iraq and Afghanistan, coupled with repeated deployments of Longbow units, have consumed an inordinate percentage of the Apache airframes' useful life. The majority of aircraft will enter Block III remanufacture with less than 50 percent of the airframe's design life (10,000 hours) remaining. Block III remanufacture is an ideal opportunity to insert new airframes into the Apache fleet at minimal additional cost, providing 100 percent of the design life back to the fielded unit.

The Army is on track with its commitment to modernize the remaining four AH64A battalions in the National Guard by upgrading them to the AH-64D. The Secretary of the Army recently approved a plan to proceed with the modernization of all AH64A battalions in the National Guard through combination of remanufacture and

AH64D cascade. The Army will remanufacture two of these battalions by FY11 and cascade AH-64Ds to the two remaining units in FY12 and 13.

The Army and the Department of Defense remain committed to the requirement for a manned **Armed Scout Helicopter** (ASH) capability and the need to deliver this capability to our Soldiers in a responsible and timely manner.

As a capability bridging strategy, the Secretary of the Army approved a strategy to maintain the Armed Reconnaissance Helicopter (ARH) funds within Army aviation and redistribute them into three primary efforts: (1) sustaining and improving the OH-58D Kiowa Warrior; (2) modernizing the ARNG AH-64A fleet; and (3) conducting a competition for and procuring the capabilities associated with the future ASH. The Vice Chief of Staff of the Army and the Army Acquisition Executive jointly signed a Memorandum for the Record codifying this strategy.

To support the potential procurement effort, the Army is conducting a bottom up review of the armed reconnaissance capability requirement to include a thorough assessment of the specific requirements identified for the initial ARH program, as well as initiating a formal 'Analysis of Alternatives'. The analysis will cover the entire spectrum of options – from the potential use of UAVs to the use of a manned/unmanned aircraft mix to the procurement of a new manned platform.

Due to the time required to complete these assessments, the Army is currently evaluating what additional enhancements and life extension work, if any, will be required to continue to safely sustain the Kiowa Warrior fleet until a replacement is procured.

The U.S. Army Audit Agency completed an official After Action Review to identify lessons learned from the termination of the ARH program. The results are being evaluated for assimilation into Army acquisition programs and for use in developing an acquisition strategy to meet the manned ARH requirement.

The **Joint Heavy Lift** (JHL) was intended to be a Vertical Take Off and Landing heavy-lift aircraft supporting mounted vertical maneuver. The JHL requirement has been incorporated into the U.S. Air Force lead **Joint Future Theater Lift** (JFTL) effort. The JFTL requirements document is under development. The envisioned aircraft will provide a heavy lift (20+ ton) payload capability at 200+ miles, aerial sustainment to the point of need, the ability to operate over tactical and operational distances to/from land or sea bases, and the ability to self-deploy.

Unmanned Aircraft Systems (UAS) are a rapidly growing capability that Army Aviation has helped to develop. As an example of how quickly this capability has grown within the Army, when Operation Iraqi Freedom (OIF) began in March 2003, there were only six aircraft deployed in support of that operation. Today, we have more than 1,000 air vehicles in either OIF or OEF. This capability continues its fast growth. For example, it took the Army 13 years to fly the first 100,000 hours of UAS. It took us less than a year to fly the next 100,000 hours, and we fly more than that each year in theater.

The **Extended Range/Multipurpose (ER/MP) UAS**, or Sky Warrior, will be deployed and integrated with the Combat Aviation Brigade, with immediate responsive Reconnaissance, Surveillance, and Target Acquisition to the division commander.

ER/MP can carry multiple simultaneous payloads to include: (1) Electro-optical/Infrared/Laser Designator; (2) Synthetic Aperture Radar; (3) Communications Relay; and (4) Weapons. ER/MP UAS will use both Tactical Common Data Link and Satellite Communications data links. The program is on track to deploy a Quick Reaction Capability to OIF in July 2009 and another in summer 2010.

The hand-launched and rucksack portable **Raven Small Unmanned Aircraft System** (SUAS) provides the small unit with enhanced situational awareness and increased force protection through expanded reconnaissance and surveillance coverage of marginal maneuver areas. Commanders at the company level have greater ability to shape over-the-hill operations with their own dedicated UAS.

The Raven is fielded to the U.S. Special Operations Command, the U.S. Marine Corps, the U.S. Air Force, and the ARNG to provide increased capabilities for domestic mission responsibilities as required. There are over 1,318 Raven SUAS fielded and more than 300 Raven SUAS supporting Soldiers in Iraq and Afghanistan. The program is meeting all cost, schedule, and performance targets.

The **Shadow** Tactical Unmanned Aircraft System (TUAS) provides DoD and coalition partners with a high quality, reliable, and interoperable UAS. Currently, units are flying at an OPTEMPO of up to three times what was originally envisioned for the system. While the OPTEMPO remains high, the accident rate has been reduced each year.

The U.S. Marine Corps is partnered with the Army for purchase of systems, support equipment, and performance based logistics services. Through this approach, economies of scales provide efficiencies for cost, commonality, and joint operations.

Currently, 66 systems have been delivered and fielded to the Army and six to the Marine Corps. The readiness rate of the Shadow system averages above 94 percent. As of March 2009, the total hours flown by Shadow in support of theater operations were 352,101 hours, out of a total program history of 385,118 hours flown. More than 90 percent of all Shadow hours flown since 2000 have been in support of theater operations.

Aviation Science and Technology (S&T)

The Army is the lead service for the development and maturation of rotorcraft science and technology (S&T) on behalf of the Department of Defense (DoD) and thus takes the requirements and desires of other Services into account when framing technology development. The Army Aviation S&T program develops, matures, and demonstrates technologies in support of the current and Future Force. It pursues rotary wing platform technologies to support manned and unmanned rotary wing vehicle combat and combat support operations for attack, transport, reconnaissance, air assault, command and control missions, and medical evacuations. Army S&T is aligned with Army Aviation Transformation and the Aviation Modernization Strategy, which is 1) keeping the current fleet effective and ready to optimize with new technologies; and 2) setting the technology conditions to allow transition to new platforms when needed.

The Army's aviation S&T program maintains a range of investments from advancements is fundamental science, that can be applies to rotary wing development, to technology component and system demonstration. Within the Army's Basic

Research program, we develop an understanding of fundamental science to solve army unique problems and to develop knowledge for an uncertain future. The Aviation Applied Research program provides the enabling technology for aviation component, subsystem and model development for specific military problems. The Aviation Advanced Technology Development program demonstrates technical feasibility at the system and subsystem level and establishes the path for technology transition to acquisition. The Army aviation S&T efforts are currently focused on operations and sustainment cost reductions, survivability, propulsion, rotors, drive train, and structures.

The Army aviation S&T strategy is to leverage the best technology available in the Government, industry and academia, as evidenced in the following examples. In January of 2006, the DoD and National Aeronautics and Space Administration (NASA) signed a Memorandum of Understanding (MOU) for a National Partnership for Aeronautical Testing to establish an integrated national strategy for the DoD and NASA to manage their respective aeronautical test facilities. In July of 2007, the Army and NASA signed a MOU concerning Collaborative Research in Aeronautics to facilitate the coordination of research efforts in the areas of rotorcraft aeronautics. The Army has also collaborated with the Defense Advanced Research Program Agency. This collaboration resulted in advances in many aviation technologies such as the Micro-Air Vehicle, which is man-portable reconnaissance, surveillance, and target acquisition unmanned aircraft system; and the development of the A-160 Hummingbird UAS that is capable of long endurance flight (goal up to40 hours) with a 300 pound payload. The Army also remains actively involved in the National Rotorcraft Technology Center (NRTC), which is a partnership between the government, industry, and academia. The

goal of the Center is to maintain United States preeminence in rotorcraft technology. The government and industry fund the NRTC with a 50/50 cost share. The government participants are Army, Navy, and NASA.

The Army remains at the forefront of rotorcraft science and technology development and maintains a balanced aviation S&T investment to support the Army Aviation Modernization Strategy and DoD rotorcraft needs.

SPECIFIC AREAS TO BE ADDRESSED

In your written invitation for this hearing you asked us to specifically address numerous areas of Army aviation. Our responses to your request begin on the next page.

1. The inventory of the current force by type aircraft (fixed wing and rotary), key capabilities, including average age, accident rates, readiness rates (by

brigade), and utilization rates (by type, by brigade):

Platform	Current	AAO	Delta	OPTEMPO OIF/OEF	Readiness Rates OIF /OEF	Average Age Years	Attrition Operational Loss
Apache	697	730	0	58.0/ 51.0	82%/ 87%	16.0 AH 64A 6.0 AH 64 D	51
Blackhawk	1744	1931	-187	45.0/ 42.0	84%/ 85%	24.3 UH60A 11.7 UH60L 0.8 UH60M	40
Fixed Wing	256			60.1/ 51.4	91%/ 87%	See Table below	
Chinook	457	513	-56	44.4/ 46.7	87%/ 86%	16.8 CH47 D 2.3 CH47F	27
OH-58	338	368	-30	71.8/ 88.8	84%/ 84%	13.5	44
LUH	50	345	-295		92%	2.4	
UAS	1144	2554	-1410				

UAS types	Current	AAO
gMAV	16	56
Raven SUAV	1052	2182
Shadow TUAS	64	115
Hunter UAV	5	6
I-Gnat		
Warrior-A/0 UAV	7	7
Warrior-Blk-I UAV	0	7

Fixed Wing	Number	OPTEMPO Per Month	Readiness Rates	Average Age	Class A-C	
C-12	113	48.2	91.10%	21.3	4.1PHTFH	(per 100k flt hours)
RC-12	49	38.6	88.90%	22.03	4.2 PHTFH	
UC-35	28	44.9	90.50%	9.15	2.64 PHTFH	
C-23	42	35	96.00%	15.45	5.6 PHTFH	
C-26	11	46.5	90.20%	18.05	0 PHTFH	
C-37	3	53	96.40%	6.25	2.98 PHTFH	
C-20	2	21.7	97.30%	19	2.98 PHTFH	
EO-5	8	115.1	92.00%	26.33	2.98 PHTFH	

Key Capabilities

Apache – The Longbow Apache is a 2 engine, 4 bladed, tandem seat, attack helicopter with 30mm cannon, Hydra 70 2.75 inch rockets, laser & radio frequency (RF) Hellfire missiles. Speed: 145 knots (cruise) Range: 260nm; 1,080nm with external tanks. Ordnance: 16 - HELLFIRE (RF or Laser Missiles) 76 - 2.75 inch rockets, 1,200 - 30 mm rounds.

Black Hawk- The Black Hawk is a utility aircraft with an integrated digital glass cockpit which supports the digitized battlefield. The aircraft is capable of day/night/inclement weather operations, with improved situational awareness. The aircraft has an engine upgrade which improves lift and range and has improved handling characteristics. Payload (troops/lbs): 11/3190. Speed: 142 knots (cruise). Rate of Climb (fpm): 1553.

Chinook – The Chinook is the Army's only heavy-lift cargo helicopter. The CH-47F is a recapitalized aircraft with a new airframe and vibration reduction, an upgraded digital cockpit (Common Avionics Architecture System (CAAS)) and recapitalized components. Maximum Cruise Speed: 160 knots. Troops / Litters: 31 / 24. Lift: Intra-theater payloads up to 16,000 pounds in a high / hot environment.

Kiowa Warrior - The Kiowa Warrior is a single engine, 4 bladed, 2 seats aircraft with a Mast Mounted Sight. Speed/Endurance: 108 kts/1.9hrs. Lethality: Flexible armament packages: Hellfire Missiles - up to 4, 2.75" Rockets - up to 14, 50 Caliber Machine Gun.

Extended Range Multi-Purpose (ERMP) - Simultaneously supports 3 or more Reconnaissance, Surveillance and Target Acquisition (RSTA) Missions. 24-Hours on Station at 300 km. Conducts RSTA and Comms Relay simultaneously. Tactical Common Data Link (TCDL) communications Relay, weapons capable, carry two payloads at 200 lbs while armed. Modular, scalable, tailorable mission packages.

Shadow - Electro-Optical/Infrared (EO/IR) with IR illuminator. Gas engine retrofits on-going - implements redundant ignition source (1101 Engine). Range is 125km (LOS limit); Endurance >6 hrs @ 50km. Automatic Take-off and Landing System (TALS). In FY09: Laser Designator (Drop-in Payload) upgrade.

Raven - Hand launched with flight termination to pre-planned point. Semi-autonomous operations with in-flight re-tasking. Commanded auto-loiter at sensor payload point of interest. Conducts lost link recovery procedures. Operating Radius with direct radius LOS (10+ km). Day/Night Operations with infrared (IR) Illuminator. Eight (8) frequency selectable with commanded "lock-in" of Air Vehicle in flight.

Fixed Wing - Aircraft modifications are platform dependent; they can include, but are not limited to: Flight Display System, Flight Management Systems, Global Positioning System, Enhanced Ground Proximity Warning System, VHF/UHF transceiver, Weather Radar, Cockpit Voice Recorder, Flight Data Recorder, Emergency Locator Transmitter, Transponder, Traffic Collision Avoidance System (TCAS II), and Aircraft Survivability Equipment (ASE).

C-12 King Air: Short range, 6-9 passengers, 2 crew

RC-12 Guardrail: SEMA, 2 crew

EO-5 Airborne Reconnaissance Low (ARL): SEMA, 6 crew

UC-35 Cessna: Medium range, 6-8 passengers, 2 crew

C-20, C-37 Gulfstream: Long range, 13 passengers, 4 crew

C-23 Sherpa: Short range, cargo, 3 crew

C-26 Metroliner: Medium range, 19 passengers, 2 crew

2. The crew ratio by type aircraft for the last five years: Army force management designs operational units by Modified Tables of Organization and Equipment (MTOE), which list, among other things, the personnel and equipment authorized in the unit. For aircrew, the MTOE for aviation units use a factor, or ratio, of aircraft to crew of one to one (1:1) authorized in most aviation units. Exceptions are aero-medical evacuation units, for which the ratio is 1:1.5 and special operations aviation (SOA) units, where the ratio is 1:1.8. These ratios are for the company-level "line pilots" or crew whose primary duties are flying. Staff aviators and commanders at battalion and brigade levels increase the crew to aircraft ratio.

The Army does not use the crew to aircraft ratio in assigning personnel to aviation units. Personnel are assigned to units based on their position in the Army Force Generation (ARFORGEN) cycle and the operational requirements of the unit. The goal is generally to resource units to their full MTOE authorization, although there have been frequent occasions when available strength limited manning to less than full authorization.

For aviation units in the Available phase of ARFORGEN and preparing to deploy to OIF/OEF, the Army goal has been to man and deploy aviation units at 103% overall or better. In most cases, this goal has been attained.

3. The status of equipage by type and numbers with aircraft survivability equipment: All rotary winged (RW) aircraft deploying to OIF and OEF today are equipped with the AAR-57 Common Missile Warning System (CMWS) with the exception of OH-58s. Installation of the initial 120 CMWS on OH-58s are scheduled to begin in 3QFY10. Today, 1,906 CMWS A-kits and 1,059 B-kits are installed fleet wide, 532 of which are presently in OIF/OEF. A total of 44 of the 532 total systems are installed on assorted fixed wing aircraft. Army Procurement Objectives for CMWS are currently 3,571 A-kits and 1,710 B-kits. AVR-2A Laser Detection Systems are installed on all AH-64 and OH-58 aircraft. AVR-2B systems are installed on one unit of UH-60M aircraft, 30 total, plus Army Special Operations aircraft. The APR-39 Radar Signal Detecting Sets are installed on all deployed RW aircraft.

	APO		CMWS Installed		5th Sensor Installed	
PLATFORM	A-Kits	B-Kits	A-Kits	B-Kits	A-Kits	B-Kits
CH-47	495	233	321	214	216	130
UH-60	1,806	710	1,115	585	680	593
AH-64	704	387	402	192	264	216
ARH/OH-58*	368	297	0	0	0	0
Fixed Wing	198	83	65	65	24	24
TOTAL	**3,571**	**1,710**	**1,906**	**1,059**	**1,188**	**920**

CMWS integration efforts on the OH-58 have started. Operational Needs Statement (ONS) approved development and fielding of 120 a/c. There is no requirement for ASE

on the LUH. All rotary wing and fixed wing aircraft have ASE on the airframe as shown below.

- Apaches : AN/ALQ 136 , APR 39, CMWS
- Blackhawk : ALQ, CMWS, AVR 2B, APR-39 and M-130 (on aircraft that have not received CMWS yet).
- Chinook: APR 39, CMWS
- Kiowa Warrior :ALQ 144, AVR, APR 39

- Fixed Wing :CMWS, AAR 47, APR 39, APR 44

4. The status of equipage by type and numbers with cockpit voice and data recorders:

	Cockpit Voice/Data		Maintenance Health Management Systems		
Aircraft Type	**Voice**	**Data**	**HUMS-CBM**		
Kiowa Warrior (338)	338	338	12		
Fixed Wing (256)	242	242			
Blackhawk			**IVHMS**	**IMD HUMS**	**VMEP**
UH 60A (887)	149	149	148	7	44
UH 60L (635)	201	201	162	39	
UH60M	104	104	104		
HH 60M	11	11	11		
Apache			**MSPU**	**VMEP**	
AH64D (542)	542	542	358		
AH64A (155)				57	
Chinook			**IVHMS**	**MSPU**	
CH47D (309)	37	37	38	37	
CH47F (63)	63	63			
MH47E (6)	6	6			
MH47G (50)	50	50			

5. The status of equipage by type and numbers of maintenance health management equipment, diagnostic sensors:

	Cockpit Voice/Data		Maintenance Health Management Systems		
Aircraft Type	**Voice**	**Data**	**HUMS-CBM**		**Engine Trend**
Kiowa Warrior (338)	338	338	12		
Fixed Wing (256)	242	242			184
Blackhawk			**IVHMS**	**IMD HUMS**	**VMEP**
UH 60A (887)	149	149	148	7	44
UH 60L (635)	201	201	162	39	
UH60M	104	104	104		
HH 60M	11	11	11		
Apache			**MSPU**	**VMEP**	
AH64D (542)	542	542	358		
AH64A (155)				57	
Chinook			**IVHMS**	**MSPU**	
CH47D (309)	37	37	38	37	
CH47F (63)	63	63			
MH47E (6)	6	6			
MH47G (50)	50	50			

6. Aircraft in production by type aircraft (FYDP chart with funding and quantity for each, procurement unit costs, key capabilities):

($M)					
Chinook	FY 09	FY 10	FY 11	FY 12	FY 13
Funding	1063.3	919.9	980.1	1278.6	757.9
Quantities	44	35	36	47	28
Procurement unit cost	24.2	26.3	27.2	27.2	27.1
* U/C does not include B kits					
**Composite of NB/SLEP & Gs					
Apache					
	FY09	FY10	FY11	FY12	FY13
Funding	1,019.78	286.32	20.21	42.49	23.2
Quantities	54	16			
Procurement unit cost	$13.49	BY96$M			
	FY09	FY10	FY11	FY12	FY13
Blackhawk					
Funding ($M)	1,063.00	1,230.60	951.5	1,058.30	1,154.40
Quantities:	63	72	46	52	60
Total Baseline H-60M	56	54	19	0	0
UH-60M	45	34	18		
HH-60M	11	20	1		
Total Upgrade H-60M	7	18	27	52	60
UH-60Mu	7	14	12	31	37
HH-60Mu		4	15	21	23
H-60M Average Procurement unit cost	$20.562 (TY$M)				
LUH	FY09	FY10	FY11	FY12	FY13
Funding $M	276.36	332.04	313.84	285.91	276.03
Quantities:	44	56	52	45	45
UH-72A PAUC (BY06$)	5.53 (BY06$)				
UAS					
Shadow					
Funding	87.91	206.75	58.1		
System Procurement	2	2			
Procurement unit costs	15.6	15.6			
ER / MP					
Funding	219.8	218.75	253.3	203.48	215.9
System Procurement		1	1		
Procurement unit costs		195	195	195	195
SUAV					
System Procurement	354	206	104	92	75
Procurement unit costs	0.113	0.113	0.113	0.113	0.113
Total SUAV OPA	54.48	35.65	20.72	19.31	19.96

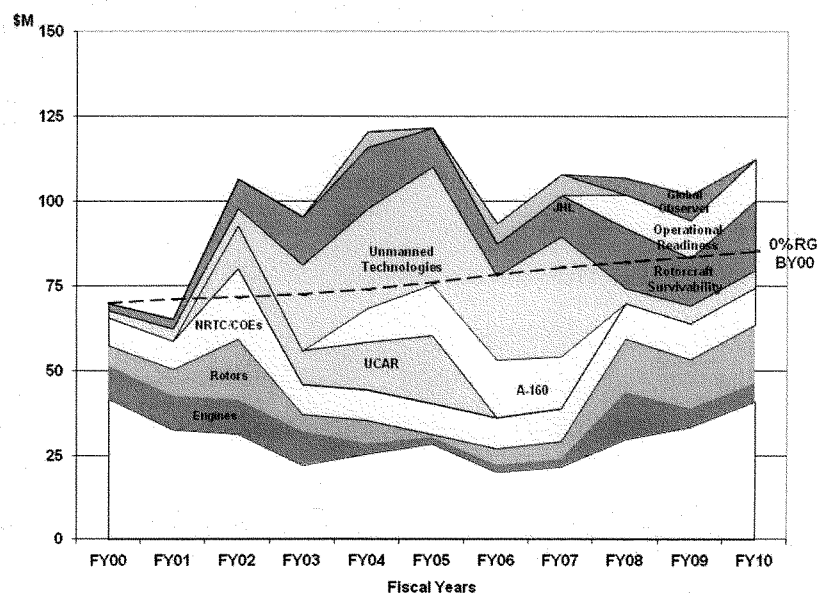
7. The numbers of aircraft assigned by type (over time) and losses. Please provide detail on losses by cause, classified if necessary: Most of this information is classified and we will discuss in the closed hearing.

8. The dwell time being experienced by aviation units and projections: The dwell time being experienced by Army Active Component combat aviation brigades is approximately 1.1 to 1.4 years, depending on type of unit, for every year those units are deployed. On the other hand, the Reserve Component aviation units are experiencing approximately three years dwell for every year of mobilization.

9. The limitations on aviation capabilities related to shortages of maintenance crews and pilots, and recruiting and training shortfalls: Our aviation forces are stretched but still committed to the fight as is evidenced by the high retention in our units and the recruiting success to keep our units filled. This is not to say we are without shortages of personnel in specific skill sets; primarily in our reserve components. The Army is increasing capability to train Initial Entry Rotary Wing training from 1200 to 1498 students annually. This increase is driven by full implementation of the ARFORGEN model and modernization of the total Army Aviation force. The Active Army and United States Army Reserve (USAR) have the necessary training seats and recruiting base to man their respective units. The Army National Guard (ARNG) has no issues with recruiting to authorizations, but needs additional training seats to qualify 23% of its assigned aviation personnel. The Army will steadily increase training seats to the ARNG to address their shortages over the next ten years. Priority will be given to those units who are scheduled to deploy. Additionally funding will be required to pay for instructor pilots and OPTEMPO to support this increase to training.

10. The Plan for deployment of theater provided equipment: Theater provided equipment is there to support the combatant commander's needs and at this time we have received no guidance to move or replace this equipment. This question is best addressed to the CENTCOM Commander or his staff.

11. Rotorcraft science and technology funding, FY2000 to present, and a graphic showing trends:



The real growth of rotorcraft S&T funding is 27 percent from base year FY00 to FY10, which is above the overall growth rate for S&T funding.

S&T is investing in the key technologies for the Current and Future Force.

The decline in the FY06 funding was due to S&T reductions to support higher priority war efforts.

12. The status of cooperative rotorcraft programs and funding levels with other defense agencies, NASA, and other non-DoD entities, as applicable: response provided in this document under paragraph for Science and Technology.

13. Description of the Joint Future Theater Lift (JFTL) project, including funding, and current requirements: The Army requires a Heavy Lift capability to conduct flexible employment from a Sea Base, conduct distributed sustainment to point of need, ability to overcome anti-access strategies, and operate in austere environments without need for prepared Aerial Ports of Debarkation (APODS). Heavy Lift capabilities will also support Mounted Vertical Maneuver (MVM) of projected medium weight vehicles forces (Stryker, etc) across extended distances to strike directly against critical objectives throughout the depth and breadth of the Joint Operations Area (JOA). Mounted Vertical Maneuver is operationally significant in future conflicts across the Range of Military Operations (ROMO).

Army and Air Force have concurred on a MVM CONOPS.

The JFTL Initial Capabilities Document (ICD) is at Joint Flag Level staffing. A Flag level IPT met to highlight and identify core issues and direct a path ahead. ICD is being re-written to include Army comments. Early revisions appear promising. We expect a Joint Requirements Oversight Council (JROC) in June-July 2009.

Analysis of Alternatives organizational activities are occurring now.

As a follow on to a three year Concept Refinement effort, the Army is leading a FY08-09 (2 years) $42M Risk Reduction effort using current year reprogrammed funds.

The FY09 re-programming has been submitted by the Department for consideration by the committees. Any follow on efforts will be undertaken as a result of the path ahead defined by JROC and Analysis of Alternatives.

14. Data on accidents caused by "brownout", by aircraft type and status of efforts and funding to counter brownout accidents: The Army has no formal acquisition programs to specifically mitigate "brownout" accidents at this time. The Aviation Center of Excellence has recognized the hazards presented by flight in degraded visual environments (DVE), which includes Brownout conditions and will publish a Functional Solutions Analysis in the summer of calendar 2009 that presents a wide ranging list of materiel solutions to ensure the safety of US Army aircrews and Soldiers.

The Army's most modern aircraft have greatly improved capabilities in DVE. The CH-47F has an improved flight control system. This aircraft is now being used in both OEF and OIF and the new system's DVE capabilities are being assessed. The UH-60M is now being used in OEF and its fully coupled flight director is being assessed also. Further, the Army is reviewing the potential benefits of Fly By Wire flight controls in its UH-60M upgrade program; it will make a decision on this new technology as further testing is completed this year. See embedded spread sheets below for analytical data.

Brownout and White numbers by acft (2002 to Present)

ACFT	BROWN OUT	WHITE OUT	TOTAL	HARD LANDING	COLLISION	OBJECT STRIKE	FLIGHT RELATED	UNDER SHOOT	LANDING GEAR COLLAPSE	TOTAL
UH60	9	0	9	6	2	1	0	0	0	9
HH/MH60	2	0	2	1	0	1	0	0	0	2
OH58D	4	0	4	3	1	0	0	0	0	4
CH47D	7	0	7	5	0	0	0	1	1	7
MH47	2	0	2	2	0	0	0	0	0	2
AH64A/D	2	0	2	1	1	0	0	0	0	2
TOTAL	26	0	26	18	4	2	0	1	1	26

Brownout and White numbers by acft

CLASS	A	B	C	TOTAL
UH60	4	2	3	9
HH/MH60	2	0	0	2
OH58D	1	2	1	4
CH47D	0	1	6	7
MH47	0	0	2	2
AH64A/D	0	1	1	2
Total	7	6	13	26

Count of Case Number	Army Class			
Primary Aircraft MTDS	A	B	C	Grand Total
AH64A			1	1
AH64D		1		1
CH47D		1	6	7
HH60L	1			1
MH47E			2	2
MH60K	1			1
OH58DR	1	2	1	4
UH60A	2	1	2	5
UH60L	2	1	1	4
Grand Total	7	6	13	26

15. The discussion of any plans to substitute a cargo unmanned aerial vehicle (UAV) for future manned-capability: Currently, there is no validated requirement for Unmanned Aircraft Systems (UAS) in a logistics role; however, the Army is investigating, in concert with the Marine Corps, Joint Forces Command (JFCOM) and Special Operations Command (SOCOM), any potential future roles that cargo UAS may fulfill. There are multiple capability developmental efforts on-going that will help determine potential roles and missions of cargo UAS for both the Army and the Marines.

Current plans include on-going long term capability-based assessments conducted by Training and Doctrine Command (TRADOC) and OSD and potential near term technology demonstrations primarily led by the Marine Corps Combat Development Command and JFCOM .

16. The extent to which armed UAVs are being considered to supplement or replace manned armed, armed-reconnaissance capabilities: The Army has achieved great success on the battlefield using UAS in concert with armed helicopters to increase flexibility, survivability and lethality. This concept, which we term "manned-unmanned teaming", is an important factor being considered in the upcoming Analysis of Alternatives (AoA) for the Armed Scout Helicopter program. We recognize that UAS play an important role to augment, but not replace, the manned aircraft capability. The AoA will recommend the best mix of manned and unmanned systems within our combat organizations that will optimize the capabilities of both.

CONCLUSION

Our goal back in 2004 was to build, maintain, and sustain an Army Aviation capability to defend the homeland, provide support to civil authorities, surge to conduct combat operations when required, and deter conflict in critical regions of our world. We are well on our way to reaching that goal and with your continued support and guidance we will.

We are ready to address any questions you may have.

WITNESS RESPONSES TO QUESTIONS ASKED DURING THE HEARING

APRIL 23, 2009

RESPONSE TO QUESTION SUBMITTED BY MR. MILLER

General DAVIS. Congressman, the answer to your question would be best provided by the Commander, Special Operations Command, but I can offer that Special Operations is currently reviewing their aviation force structure. It is expected they will want to grow that force to some extent which has not yet been determined. But we fight as a Joint Force, and the Army is currently providing aviation support to combat operations by Special Operations Forces in Afghanistan and Iraq and will continue to do so in future operations based on prioritization and taskings by the Joint Force Commander. [See page 8.]

RESPONSE TO QUESTION SUBMITTED BY MR. MARSHALL

General DAVIS. I have provided your staff the documents that support the capability and ask that you accept these documents as an addition to my written statement. [See page 6.]

RESPONSE TO QUESTION SUBMITTED BY MR. HUNTER

General DAVIS. The Army is pursuing an integrated strategy to increase counter-IED capabilities for our deployed forces as quickly as possible. Task Force ODIN is only one piece of this strategy, and we are exploring avenues to accelerate the deployment of this capability into Afghanistan. Prior to TF ODIN's full deployment later this summer, we will also deploy a Combat Aviation Brigade which will greatly enhance the Commander's counter-IED capabilities. This is not a stop-gap measure, per se, but a component of our integrated strategy which will significantly increase our ability to counter the IED threat. [See page 20.]

RESPONSE TO QUESTION SUBMITTED BY MR. MASSA

General DAVIS. Due to the long lead requirements and requisite build times of approximately 36 months for new build aircraft, additional funding would achieve no acceleration in filling existing shortages within the Chinook fleet, although it would still accelerate the program of record. Currently short 54 aircraft, the Army cannot afford the operational impact to accelerate its remanufacture program as this takes an operational CH-47D out of the fleet to fill a remanufacturing requirement. Congress has been very supportive of the CH-47 program and as a result the Army will fill all of its MTOE shortages by the end of FY13 with a mixture of CH-47D and CH-47F aircraft. The active component will be pure fleet CH-47F by the end of FY 12; the ARNG will have all shortages filled by the end of FY 13 and pure fleet CH-47F by the end of FY18; the USAR will be pure fleet CH-47F by the end of FY15. [See page 17.]

QUESTIONS SUBMITTED BY MEMBERS POST HEARING

APRIL 23, 2009

QUESTIONS SUBMITTED BY MS. GIFFORDS

Ms. GIFFORDS. I recently learned that the United States Army intends to move the final acceptance of the Unmanned Aerial Systems from Fort Huachuca to Dugway Proving Grounds. I understand that the PM for Unmanned Aircraft Systems had been evaluating several installations for this move, including Fort Huachuca, Yuma and Dugway, to determine which location is best suited for the Rapid Integration and Acceptance Center. I understand that consolidating this mission at one location is a cost and resource saving measure. I am concerned about what the methodology was for making the decision to move the mission to Dugway and that insufficient research was done prior to making the decision.

What are the advantages of operating this mission out of Dugway versus Fort Huachuca?

General CROSBY. PM UAS started surveys in March 2008. The locations that were surveyed over the next 12 months included Yuma Proving Ground (YPG), AZ, Dugway Proving Ground (DPG), UT, White Sands Missile Range (WSMR), and Fort Huachuca, AZ. The selection criteria included:

1. maximum amount of restricted airspace available to fly unmanned aircraft without requiring a Certificate of Authorization (COA). A COA requires a chase plane for UAS operations, which causes additional costs to the program.
2. a very clean frequency spectrum, not only for current needs, but for future data and video links and payloads
3. ability to launch and deploy external stores and weapons
4. ability to support large scale joint interoperability testing with multiple aircraft and control stations
5. available facilities or ability to expand with new facilities to support current and future growth
6. high priority with maximum flexibility to fly unimpeded when needed
7. the ability to consolidate all the activities at one location

YPG, DPG, WSMR and Huachuca were visited one or more times with the above criteria as baseline factors. During the analysis of the three most likely locations (Ft. Huachuca, YPG, and DPG), DPG was the clear lead in every criteria. WSMR was not considered a suitable location due to the current and projected workload and the lack of suitable facilities to support the RIAC mission. DPG was primarily selected given its large (1300 sq mi) restricted air space with ability to expand to almost 8000 sq mi using the adjacent airspace with the Utah Test and Training Range (UTTR). Additionally, DPG has an almost "clean" frequency spectrum along with multiple runways of 11kft, 8kft, and 2.5kft long with the ability to expand the existing facilities with its expansive land area.

Ms. GIFFORDS. Fort Huachuca controls its own restricted airspace which is a great advantage when flying UASs, describe how Dugway's airspace is more advantageous than Fort Huachuca's?

General CROSBY. DPG's airspace is also restricted and controlled by the Army. DPG's controlled airspace is as large as that at Fort Huachuca, but substantially less congested, not having to deal with the UAS Training Center, as well as manned and unmanned traffic (border patrol missions and other training activities) at Libby Army Airfield. Additionally, with prior coordination, additional restricted airspace controlled by the Air Force could be made available if needed for weapons firing and long-range datalink testing.

Ms. GIFFORDS. What is the comparison of infrastructure upgrades required at Dugway versus Fort Huachuca to conduct this expanded mission?

General CROSBY. There were no facilities available at Fort Huachuca for consolidation of Army UAS activities at that location. Fort Huachuca, Rapid Integration and Acceptance Center (RIAC) activities would be in three different locations unless an entirely new complex is built, including runways, office and hangar space, etc. DPG offers an airfield that allows for at least three simultaneous UAS flight activities to occur, one off a 13,000 foot long runway that has minimal air traffic, one taxi way over 8,000 feet long, and another taxiway of over 2,000 feet. DPG also has a 20,000 square foot hangar, almost half of which is being made available until suitable maintenance buildings can be built. DPG also offers an expansive area for any

new facilities needed, all adjacent to the existing ramp and accessible to the runways.

Ms. GIFFORDS. What is the difference in cost of conducting the mission from Dugway versus Fort Huachuca?

General CROSBY. Every location surveyed required additional infrastructure and associated costs with Fort Huachuca requiring the most. Additional infrastructure needed at Fort Huachuca would include: runway, hangars, and office buildings.

A quantitative cost analysis was initiated during the range survey focusing on contract cost savings for consolidating assets at one location; however, due to the lack of specific cost proposals for building hangars and other maintenance buildings, office complex, and runways, only a qualitative analysis was completed for development of buildings and flight line infrastructure costs.

DPG had an existing runway infrastructure requiring minimal upgrades. Additionally, DPG had a portion of an existing 20,000 square feet hangar available for temporary use until new maintenance buildings could be built. DPG, also had available land space near existing utility infrastructure for office complex, etc., holding down additional cost burden.

Fort Huachuca's lacked any existing locations for consolidating all the RIAC activities in one location per Fort Huachuca garrison staff. As such, a totally new complex would have to be constructed in an undeveloped area, including new runways, maintenance buildings, and office complex, along with the infrastructure costs associated with bringing utilities into a new location.

Ms. GIFFORDS. When were site surveys conducted at Fort Huachuca?

General CROSBY. PM UAS has had presence at Fort Huachuca full-time since October 2000 so was very familiar with the capabilities and limitations Fort Huachuca had available. Starting in the summer of 2008, PM UAS held several meetings with the Deputy Commanding General for Fort Huachuca to discuss the RIAC plans and potential for Fort Huachuca support. Follow-on discussions were held in early 2009 with the Garrison staff for Fort Huachuca. A final meeting was planned on 27 April 09. The final survey trip was cancelled due to receiving the decision by the Vice Chief of Staff of the Army (VCSA) that DPG was selected for the RIAC. The last surveys were for final confirmation of what had already been gathered during previous surveys.

Ms. GIFFORDS. What are the plans for relocating the skilled workers with experience on the Shadow UAS system from Fort Huachuca to Dugway? How many of these employees are expected to actually relocate to Dugway?

General CROSBY. For Shadow (AAI), a "phased relocation" plan and schedule is in place that has the first fully operational team on site at DPG around the mid October 2009 timeframe. The remaining team transition will take place from November to be completed by the end of February 2010 or sooner if possible as business support and obligations allow. Concurrent operations is planned at both Fort Huachuca and DPG during the transition and phasing "in/out" operations. According to current employee response to relocation queries, approximately 70-75% of the current work force of 85 is on track to move. Replacement staff to backfill attrition is in present resource planning. Note: these values represent an "approximation" and more detail will be available as the July 31 timeframe closes in.

For Hunter (Northrop Grumman Corp), the current plan (in coordination with PM-UAS) is to start flying at DPG around mid-November 2009. Initial estimates indicate only about 15 NGC staff will be impacted by the move. These are mechanics, technicians, and operations personnel needed to perform flight operations. At this time, no engineers will be moving to DPG. They will provide support on an "as needed" basis. In the future, if engineering task and payload development increases on Hunter an additional three to five people could move to DPG. Most of these people (15) will be on Temporary Duty (TDY) to DPG with the team relocating there over the next year.

QUESTIONS SUBMITTED BY MR. KISSELL

Mr. KISSELL. What do you believe is the future of the ARH Program in light of the Administrations Defense Priorities?

General CROSBY. The ARH Program was cancelled by the Defense Acquisition Executive on 16 October 2008. However, the Army remains committed to the critical requirement for a light, armed, aerial scout capability to replace the aging Kiowa Warrior. Any future program will be informed by a comprehensive Analysis of Alternatives that will consider manned, unmanned, or manned-unmanned teaming possibilities to fulfill this critical requirement. This comprehensive analysis of all armed aerial scout alternatives is fully aligned with the administration's intent to proceed

with balanced modernization of conventional systems. Also, the acquisition of this system will fully comply with the administration's procurement and contracting reforms.

Mr. KISSELL. How does the announcement of the Kiowa interim upgrade program affect the timing of the ARH program?

General CROSBY. The criticality of the ARH capability requirements and the timeline to fulfill those requirements is not affected by the Kiowa Warrior upgrade. The Kiowa Warrior Cockpit and Sensor Upgrade Program is an interim solution to address obsolescence and sustainment until a viable replacement is procured to meet the capabilities identified in the Analysis of Alternatives study plan. The Army is proceeding quickly and with diligence toward executing the Analysis of Alternatives which will be complete in early FY11. The results of the analysis and the decisions made during the acquisition process will ultimately decide the timeline of a follow-on program to fulfill the requirement. A future program that addresses the armed aerial scout capability requirements is influenced by the time required to perform the Analysis of Alternatives, complete the requirements development, and determine prospective materiel solutions.

Mr. KISSELL. What do you see as the timing for the release of an RFP for the ARH Program?

General CROSBY. Pending a determination of a materiel solution from the Armed Aerial Scout Analysis of Alternatives and an approved Capability Development Document, a Request for Proposal for follow-on program is not expected until FY11.

Mr. KISSELL. We hear from soldiers in theater that the Integrated Vehicle Health Management System (IVHMS) is providing significant maintenance benefits on the UH-60 fleet. Could you highlight some of those benefits and cost savings?

General CROSBY. We have been able to retain 21 engines in service, that would have otherwise been removed and replaced due to suspected overtemp, during the deployment of 122 aircraft in theater for a year ($482K/engine* 21 engines = $10.122M).

By utilizing HUMS information we have identified the degradation/failure of the generator spline adapter. This degradation/failure has been correlated to subsequent generator failure if the adapter is not replaced. This allows us to preemptively replace the spline adapter and continue the generator in service at a rate of one per month for 122 IVHMS equipped UH-60 A/Ls (average $19K/generator each month = $228K/yr).

The IVHMS demonstration has proven a readiness increase during Operational Tempo of 5%, due to the ability to realign unscheduled maintenance into scheduled maintenance interval (readiness increase = 2.5 aircraft available for deployed operations). The IVHMS demonstration has proven to reduce the maintenance burden by 4750 maintenance man hours per year per brigade by removing the 120 hour vibration check. During the IVHMS demonstration, the Army has realized multiple safety benefits from having IVHMS installed. Mechanical Diagnostics Data provided from IVHMS is used to assess the health of the aircraft after every flight. Multiple components have been identified as being faulty between maintenance intervals, thus avoiding unscheduled maintenance, second order damage, and possibly catastrophic failure.

Emerging UH-60 Reliability Metrics

	Mission Aborts/100 FH	Total MMH/ FH	Scheduled MMH/FH	Unscheduled MMH/FH	Unscheduled MMH/Total MMH
Unmonitored	1.94	2.91	1.99	0.92	31%
Monitored	1.01	2.41	1.96	0.45	19%
Delta	0.76	0.5	0.03	0.44	12%
	–48%	–17%	–1.3%	–52%	

MMH—Maintenance Man Hour
FH—Flight Hour

Mr. KISSELL. Can you provide an update on the status of fully outfitting the UH-60 fleet with the IVHMS System? How much funding do you need to continue to outfit those units deploying to Iraq and Afghanistan so they continue to realize the benefits of IVHMS?

General CROSBY. The number of aircraft currently equipped with IVHMS: H-60 A/L - 437; H-60M - 111. The number of additional aircraft funded and/or scheduled to receive IVHMS: H-60 A/L - 329, H-60M - 51 scheduled for FY10 (all aircraft produced with IVHMS installed).

Priority for new IVHMS installations is for aircraft being deployed to OIF/OEF. No additional funding is necessary to equip H-60 units currently deploying to Iraq and Afghanistan. We are currently installing IVHMS on approximately 300 aircraft per year. At this rate, it is estimated to take 2.9 years to fully outfit the UH-60 fleet.

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