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DEEPWATER IMPLEMENTATION

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COAST GUARD AND MARITIME TRANSPORTATION

OF THE

COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

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DEEPWATER IMPLEMENTATION

Wednesday, April 20, 2005

HOUSE OF REPRESENTATIVES, COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE, SUBCOMMITTEE ON COAST GUARD AND MARITIME TRANSPORTATION, WASHINGTON, D.C.

The Committee met, pursuant to call, at 2:00 p.m., in room 2167, Rayburn House Office Building, Hon. Frank LoBiondo [chairman of the committee], presiding.

Mr. LOBIONDO. The Subcommittee will come to order.

The Subcommittee is meeting this afternoon to review the Coast Guard's Deepwater program and the Service's recent proposal to revise the Deepwater Implementation schedule. The Coast Guard's integrated Deepwater system is designed to replace or modernize more than 90 ships and 200 aircraft currently utilized by the Coast Guard to carry out missions more than 50 miles from shore. The new assets procured under this program will greatly expand the Coast Guard's capabilities to perform the Service's many traditional and homeland security missions.

The original Deepwater Implementation plan and asset mixture were devised well in advance of the events of September 11th. Since that time, the Coast Guard has taken on greater homeland security responsibilities in addition to its ongoing traditional missions. Therefore, the recent revision of the Deepwater plan was greatly needed.

While I appreciate the Coast Guard's long and hard labor to get this revised plan approved by the Department of Homeland Security and the Office of Management and Budget, I do have some concerns about the long-term adequacy of the plan. First, it will not surprise anyone who has heard my comments about the program over the last three years that I am very disappointed that the plan does not accelerate the acquisition of new assets.

And while I certainly recognize the constraints on our budget, I want everyone to understand that for every year we delay the purchase of new assets, our Coastguardsmen and our taxpayers lose in two ways. First, the cost of maintaining existing assets is dramatically increasing. This eats up the already scarce resources available to purchase replacement assets and only increases the total cost of the program. Second, new, more capable assets are not available to improve the performance of the Service's operation, undermining their ability to keep our ports and waterways safe and secure.

My second major concern is that the revised plan is not as specific as Congress had requested. The plan does not provide for a

time line beyond 2010 to fully explain when the legacy asset will be replaced, nor does it provide a spending plan beyond fiscal year 2006. Finally, the plan does not specifically spell out the benefits of making changes to certain assets. I expect the Service to provide Congress with a revised report addressing these concerns as soon as possible.

I look forward to hearing the testimony of our witnesses today. Now I'd like to turn it over to Mr. Filner.

Mr. FILNER. Thank you, Mr. Chairman. We welcome our Admirals here today.

It seems to me, Mr. Chairman and Admiral, and I hope you can prove us wrong today, that Deepwater is in deep trouble. The new post-9/11 requirements analysis provided to Congress by the Coast Guard seems to me to be so devoid of reality that it is beyond belief. For example, how in a post-9/11 environment can the Coast Guard need fewer national security cutters? How in a post-9/11 environment can the Coast Guard need fewer fast response cutters? How in a post-9/11 environment can we suddenly decide to overhaul old C-130 planes, old HH65 Dolphin helicopters and old HH60 Jayhawk helicopters rather than replacing them with new ones?

Deepwater is changing from a program to modernize the Coast Guard with new equipment to a program that seems on our analysis that buys too few new ships and keeps old aircraft.

Now, the concept behind the Deepwater concept was, to mix a metaphor, groundbreaking. Maybe we should say icebreaking. It started with examining all Coast Guard mission requirements. Then the Coast Guard would buy the mix of assets to best accomplish these missions. And the entire fleet mix of aircraft and cutters were going to be on the table.

Today it seems we are presented with a program that will leave the Coast Guard with fewer cutters than before and a fleet of aircraft that will be over 40 years old when the Deepwater acquisition program is completed. Instead of being an icebreaking procurement, Deepwater is becoming just another vessel replacement program.

So Mr. Chairman, I think Deepwater is in deep water or doo-doo, whatever we would like to use. And the Administration isn't giving the Coast Guard the support that they need. It does not seem to be committed to giving the men and women of the Coast Guard who risk their lives every day to save others the best equipment that can be bought. Instead, they are forcing the Coast Guard to fulfill all of their future missions based on the budget restraints of today.

At the hearings that this Subcommittee held on the Coast Guard budget, I stated something to the effect that something smelled a little fishy about the Coast Guard's decision to rebuild the 20 year old HH65 Dolphin helicopters instead of replacing this older aircraft. Mr. Chairman, I hope that today's hearing will shed more light on the basis for making that decision and others like it, that the Coast Guard will be able to compare the cost and performance of an old versus a new helicopter.

Mr. Chairman, like you, I remain committed to the Deepwater program. However, given the direction of this program in a post-9/11 environment, I do not think that the Coast Guard of the fu-

ture will live up to its motto: Semper Paratas—always ready. I hope, Mr. Commandant, that I'm wrong. But we look forward to your testimony.

Mr. LOBIONDO. Thank you.

Congressman Higgins, would you like to open with anything?

Mr. HIGGINS. No, thank you, Mr. Chairman.

Mr. LOBIONDO. Okay, thank you. Congressman Fortuno, would you like to open with anything?

Mr. FORTUNO. No, thank you, Mr. Chairman.

Mr. LOBIONDO. Okay, thank you.

We are going to introduce our panel today. We have Admiral Tom Collins, Commandant of the United States Coast Guard, who is accompanied by Admiral Stillman, who will help support with technical answers, he is the Program Executive Officer of the Coast Guard Integrated Deepwater System; and Ms. Margaret Wrightson, Director of Homeland Security and Justice Issues for the GAO.

Admiral Collins, the floor is yours.

TESTIMONY OF ADMIRAL THOMAS A. COLLINS, COMMANDANT, UNITED STATES COAST GUARD, ACCOMPANIED BY: REAR ADMIRAL PATRICK M. STILLMAN, PROGRAM EXECUTIVE OFFICER, COAST GUARD INTEGRATED DEEPWATER SYSTEM, UNITED STATES COAST GUARD; MARGARET WRIGHTSON, DIRECTOR OF HOMELAND SECURITY AND JUSTICE ISSUES, GOVERNMENT ACCOUNTABILITY OFFICE

Admiral COLLINS. Thank you, Mr. Chairman and distinguished members of the Subcommittee. It is a pleasure to be with you, along with my PEO, Program Executive Officer, Rear Admiral Pat Stillman, and also with Ms. Wrightson from GAO that has been a great partner with us in continuing to take a critical yet positive view of our Deepwater program and providing us wise counsel on adjustments as we go forward.

We clearly welcome the opportunity to discuss the Coast Guard's Deepwater project and what we think is the very positive impact it will have on our missions and more importantly, our ability to assure a safe and secure maritime environment in the United States. The Deepwater, of course, is the centerpiece of the Coast Guard's overall transformation in the post-9/11 environment. It might top capital priority. It does play a fundamental and critical role in building a more ready and capable 21st century Coast Guard.

The Deepwater government-industry partnership, from our perspective, has achieved many program milestones, important program milestones during 2004, and has strengthened Deepwater's foundation by incorporating many of the program and contract management improvements that GAO has recommended to us. Most importantly, this year's approval of a revised post-9/11 Deepwater mission needs statement and associated implementation plan are the most significant programmatic developments since we awarded Deepwater contract in 2002. With the strong support of the Department of Homeland Security, the Administration and Congress, we will now position the Deepwater program to play an

even greater role in reducing the future risk of a terrorist event and other security events in the homeland.

The implementation plan establishes requirements for improved capabilities necessary to perform the Coast Guard's full range of post-9/11 missions while concurrently sustaining, modernizing or converting select legacy assets to operate effectively until replaced. The new plan moves the design of the fast response cutter and offshore patrol cutter by 10 years and 5 years to 2007 and 2010. It also leverages our existing asset base of C-130s, HH60s and HH65s through conversion what we feel is a cost-effective, high performance aviation Deepwater solution.

The plan also incorporates aerial use of force, strategic lifts and enhanced force protection and other critical homeland security capabilities. I look forward to discussing these and other requirements adjustments this afternoon.

The Coast Guard 2006 budget, of course, includes $966 million for Deepwater, a 33 percent increase over last year's appropriation. We think it is a wise investment, a wise investment in our ability to deliver the services we do. The national security cutter and the offshore patrol cutter are the centerpieces of the Integrated Deepwater system. And the third national security cutter is funded in the 2006 budget. Last month, together with Secretary and Mrs. Chertoff, I had the great pleasure of participating in a keel-laying ceremony for our first national security cutter in Pascagoula, a significant milestone in Deepwater's transformation of the Coast Guard.

As I have indicated, with the 2006 budget, we have moved forward the design work, engineering and long lead time materials to the offshore patrol cutter.

Funding is also included in the 2006 budget for legacy asset sustainment projects, such as the HH65 re-engineing and medium endurance cutter mission effectiveness projects. These initiatives are absolutely critical to sustain capabilities today while acquisition of new and enhanced Deepwater assets is vital to ensuring the Coast Guard has the right capabilities tomorrow.

Re-engineing the 65 helicopter fleet continues to be my highest aviation concern. We are moving out at best speed at our aviation repair and supply center to restore operational safety and reliability to these critical assets. We are looking at ways to speed things up, including accelerating engine delivery, standing up a second re-engineing facility and purchasing additional aircraft. I am confident we will complete the re-engineing in the first half of 2007. Mr. Chairman, your air station up in Atlantic City, as you know, has already been delivered the first of these improved aircraft.

Our fiscal year 2006 Deepwater budget and our revised implementation plan have been carefully, carefully thought out, with third party consultation, private sector industry consultation and review. It is the right way forward with our modernization efforts. With the continued support of the Administration, this Committee and Congress, I know that we will succeed in putting the right tools in the very capable hands of Coast Guard men and women and will succeed in delivering the robust maritime safety and security capability that America expects and deserves from the Coast Guard.

Mr. Chairman, again, thanks for the opportunity to testify on this very, very important issue. I will be happy to answer your questions at the appropriate time.

Mr. LOBIONDO. Thank you, Admiral Collins.

Ms. Wrightson.

Ms. WRIGHTSON. Thank you very much.

Good afternoon, Mr. Chairman and members. I am pleased to be here today to discuss Deepwater program implementation, focusing on the results of our work for this Subcommittee on the condition of the Coast Guard's legacy Deepwater assets, actions the Coast Guard has taken to maintain them, and on the management challenges the Coast Guard faces in acquiring replacements.

The bottom line of our work to date is this: the costly and important Deepwater program will continue to carry substantial risk to the Government and therefore needs constant monitoring and management attention to successfully accomplish its goals of maximizing effectiveness, minimizing total operation costs and satisfying the assets' users. The revised implementation plan is the most recent evidence of the complexity and challenges the Coast Guard faces to effectively manage this program and adapt to its changing mission needs in a post-9/11 environment.

With respect to these risks, our work makes three main points. First, the need to replace or upgrade deteriorating legacy assets is considerable. While the Coast Guard lacks measures that clearly demonstrate how this deterioration affects its ability to perform Deepwater related missions, it is clear that the Deepwater legacy assets are insufficient in a post-9/11 environment.

Second, although the need to replace and upgrade assets is strong, there are still major risks in the Coast Guard's acquisition approach that will only be increased under a more aggressive acquisition schedule. The cost increases and schedule slippages that have already occurred are warning signs. We will continue to work with the Coast Guard to determine how best to manage these risks, so the Deepwater missions can be accomplished in the most cost-effective way.

In that regard, I would like to say that I would like to compliment the Coast Guard on their very nimble approach to responding to GAO's findings and recommendations, even while we are conducting our work. They are to be complimented on that.

Third, there are signs that as the Deepwater program moves ahead, the Coast Guard will continue to report more problems with sustaining existing assets, together with the attendant need for additional infusions of funding to deal with them. Some of these problems, such as those for the 378 foot cutters, are included in a compendium the Coast Guard now uses to set sustainment priorities and plan budgets. But they have not been funded because they pertain to assets that were the first to be replaced.

However, projects to address these problems nevertheless are likely to be needed. We will continue to work with the Coast Guard to determine if there is a more systematic and comprehensive approach to managing these assets and keeping the Congress abreast of the potential bill for sustaining them.

Turning to some of the most important details, our analysis of the most recent five years shows that the condition of Deepwater

legacy assets generally declined during the period, but the Coast Guard's available condition measures do not demonstrate the rate of decline to be as rapid or clear-cut as asserted. In particular, during fiscal year 2000 to 2004, the Coast Guard's various condition measures for aircraft and cutters did generally trend downward, but there were year to year fluctuations and not all assets showed similar trends.

However, we believe these trends should be viewed with caution. While there is no systematic, quantitative evidence sufficient to demonstrate that Deepwater legacy assets are headed for a train wreck, this does not mean that the assets are in good condition or have been performing their missions safely, reliably and at levels that meet or exceed Coast Guard standards. Evidence from our site visits showed aging and obsolete systems and equipment as a major cause of the reduction in mission capabilities for a number of Deepwater legacy aircraft and cutters. It is clear that these problems will need to be addressed if the assets are to remain able to perform their missions at or near current levels until replacement assets or upgrades can become operational.

Turning to Coast Guard efforts to address the problems of their legacy assets, beginning in 2002, the Coast Guard has annually issued a compendium consolidating information needed to make planning and budget decisions regarding maintenance and upgrades. Also, and very significantly, Coast Guard crews have been spending increasingly more time between missions to prepare for the next deployment. Such efforts are likely to help prevent a more rapid decline in the condition of these assets but it is important to note that even with increasing amounts of maintenance, these assets are still losing mission capabilities due to equipment and system failures.

In reality, our work suggests that simply working harder may not be enough. In this regard, the Coast Guard's Pacific Area Command has been experimenting with a different approach to maintaining and sustaining its 370 foot cutters that may be needed in light of slippages in dates for their replacements. As a first step, command officials have launched an initiative applying new business principles to the problem including ensuring that operations and maintenance staffs work more closely together to determine priorities and accepting the proposition that with constrained funding, not all cutters may be fully capable to perform all missions.

The Pacific Area Command approach has potential, but even there, the commander has told us that in order for the Deepwater legacy assets to be properly maintained until their replacements become operational, the Coast Guard will still have to provide more focused funding for legacy asset sustainment that in recent years.

With respect to the challenges the Coast Guard faces to replace these assets, from the outset, we have expressed concern about the risks. Last year, we reported that well into the second year, keep components needed to manage the program and oversee the contractor have not been effectively implemented. The Coast Guard also had not updated its integrated master schedule and costs were rising above original estimates.

More recently, we have seen some slippages for the national security cutter and emergency acceleration such as the HH65. Unob-

ligated balances are growing. We have also seen at least one instance of serious performance problems, these being the hull breaches in the first converted 123 patrol boats.

We have made numerous recommendations to improve the program's management and oversight, and the Coast Guard has agreed with all of them. In most cases, however, while actions are underway to address our concerns, management issues remain that may take some time to fully address. Additionally, there is uncertainty due to the recently revised mission needs statement, or MNS, and implementation plan, which at the end of the day will certainly increase costs and require further schedule adjustment.

We have recently been requested to review this plan to determine whether it is sound and adequate to meet the Coast Guard's changing mission needs and what further challenges it might pose for the program's management and oversight. We expect to begin this work in the coming months.

In sum, the need to replace or upgrade deteriorating assets is considerable. However, given all the attendant risks, management problems and other uncertainties, a more aggressive schedule does not necessarily translate directly into a more efficient and effective replacement strategy.

Finally, and no matter what schedule is adopted, the Coast Guard will continue to face a daunting challenge to effectively sustain its legacy assets in the meanwhile. We look forward to continuing our work for your Subcommittee to identify program and management improvements and risk mitigation strategies through our productive oversight and engagement with the Coast Guard.

Thank you very much.

Mr. LOBIONDO. Thank you.

Mr. Filner, would you like to start off?

Mr. FILNER. Admiral Collins, you started off with thanking GAO for their partnership. I'm not sure they are partners, they are oversight. But if you just look at the headings for their report, I mean, this is devastating. I do not know how else to say it. I wonder if you might comment on it, along with my opening statement about how in a post-9/11 world we were decreasing the assets instead of increasing them, which is what GAO said. But they went a lot further than that.

I would not be too proud of this report card on what has been accomplished. Do you want to comment on that?

Admiral COLLINS. Sure. I think we do have a partnership with GAO. We welcome their comments, their participation and their oversight. I think we have benefitted from it.

Deepwater is a big program. It does have risks associated with it. I would submit a different acquisition approach, a one by one, piece by piece one would even have greater risks to us and would ensure a non-system approach to our world of work. So I think it is just the type of approach, acquisition approach, it is innovative, it is creative and I think in the end it is going to produce the product that we need.

The issue about the numbers of assets, we are not building a one-for-one replacement. Deepwater was never about whether it was the pre-9/11 requirement or the new implementation plan. We are building a system. And the system yields for certain perform-

ance outcome. And that outcome is going to compare to the 1998 baseline and now 2001 baseline in terms of performance.

If you look at some of the asset types relative to the contract awarded in June of 2002, there are some that are in the new implementation plan, some that are higher, some that are lower. Some are given in a range. The fact of the matter is that we will continue to look at the performance of the system and make adjustments along the course of this 20 year plus program as is deemed necessary.

Each individual, the system is much, much more capable than the assets in the old system. So the issue is the capability of each system than the numbers of each system. Take a look at any one of the Deepwater asset when they're through, and they will be incredibly more capable one-for-one, and as a system much more capable.

So I think you have got to look at the output of the system and what the system delivers. In addition, the old cutter, say a medium endurance cutter or high endurance cutter with the crew we have is getting 185 program days a year. Under the Deepwater construct, in terms of the technologies we are embedding into these platforms and the crewing concept, alternative crewing concepts that we are driving into these systems, we hope to get 230, 235, 240 days out of each platform. So you are going to get more out of the platform, you are going to get more out of each platform, and a much more capable platform.

The surveillance performance of the new system alone is dramatically, I mean dramatically improved over independent ship ops that we have today. So we are concentrating on performance. We are concentrating on a systems approach and we are concentrating on leveraging each asset in terms of operating time to get the most we can out of the system. We will continue to evaluate it over time.

Mr. FILNER. You haven't convinced me. We say again and again up here, and you say it, after 9/11, and with the reorganization of the Department of Homeland Security, the Coast Guard was expected to perform its traditional duties and a whole set of new ones. And I just, by your own figures, I do not see that happening. You are comparing something that I was not talking about. I said before 9/11, your own ICGS study said you needed this many, this many, this many to do what you say you're going to do. And yet the post-9/11 numbers are below that for those for the Deepwater assets.

So I do not see how your argument stands up. It looks to me, Admiral, and correct me if I'm wrong, that you're responding to a budget as opposed to responding to the need. And the budget is not sufficient, and I guess you do not want to say that, but it looks to me that your budget is insufficient and you're not getting the support you need by you own analysis to get up there, to get up to those capabilities that we all want. It just looks like you're being run by the OMB rather than OMB being told what the Department of Homeland Security needs are.

Admiral COLLINS. We're managing three variables: cost, schedule and performance, and trying to keep those in balance, understand the budget realities of the day and ensure we get the performance out of the system we do. I think you have to go through each asset

category in Deepwater and compare what we had. Some are higher. And that is all as a result of the performance gap analysis we did and the new capabilities that we need to embed in our system.

I think the most important thing coming out of the new implementation plan, the most important thing, is building the right capabilities into each of the system elements. We have consensus in the Administration, across the Administration, on those capabilities that need to be added or embedded into the Deepwater systems. We have a new missions needs statement that reflects that. And we have a budget submitted up here in 2006 and you will see in the out years that are very consistent with that.

That is a huge accomplishment, to understand what the capability adjustments are based on 9/11, get them vetted, get them approved and have them now into the contract. I am very, very pleased that we are able to do that. It positions us for adjustments, if we need to, along the way. It is capability first, capacity second and line

Mr. FILNER. The second time around I am going to do more talking than you. But you said some are higher. Which ones are higher? I have your list here. The ones that are higher are the ones that you kept the old ones in and you're not building new ones, you used the old ones.

Admiral COLLINS. The contract baseline that was awarded in 2002 was 93 short range helicopters and the 24 billion end of the range is 95.

Mr. FILNER. Aren't those the old helicopters?

Admiral COLLINS. The HH

Mr. FILNER. You just gave a very long thing, and you are pointing to two helicopters, even if we accept your own data here. That is what you pointed to, two.

I will get my next turn in.

Mr. LOBIONDO. Admiral Collins, I understand what you are saying, and I certainly agree that what is important are the capabilities in the systems and how we put these together. But I am troubled and having trouble connecting the dots with what will be available for the Coast Guard to perform its mission before the new assets come online.

Ms. Wrightson, you talked about this a little bit. But what performance measures would be most useful to track the deterioration and availability of legacy assets? You say that while the data may be okay, it may not be okay and there is a warning flag here. And this is pretty serious, because if in fact the tracking data is not accurate and we have catastrophic failures that we cannot deal with, where does that leave us before the new assets come online?

Can you offer any suggestions?

Ms. WRIGHTSON. Let me see if I can answer it. Right now the condition measures the Coast Guard has are not adequate to track the relationship between problems in the condition of the assets and what impact that may have on performance in terms of degradation.

Mr. LOBIONDO. Does not have in place?

Ms. WRIGHTSON. Does not have in place. That was in fact one of the surprising things we found when we did our work.

Working closely with the Coast Guard for many months, we looked at every possible summary measure and indicator of conditions in order to be able to establish a trend over time in the condition of those assets. While we saw the trend as declining, the measures, when you brought them together, had mixed results.

As a result of that, we have engaged the Coast Guard in a dialogue about developing measures that are more robust and have greater granularity to them and are readiness oriented. In doing that, the Coast Guard may better be able to track this information back to the most critical conditions and allocate its resources in a manner that will have a more cost-effective use of those assets over time until they can be replaced.

So that is really the sum total of what we saw. The Coast Guard is moving out on the problem, and with your staff's permission, we have extended our work to look more deeply into what recommendations we might be able to make for particular measures or types of measures that will help the Coast Guard. Lacking better measures, the Coast Guard cannot now, for example, tell you when a cutter is limping back, what that means versus when a cutter is coming back under full sail and what the consequences of this situation are were for mission performance.

I want to take a minute if I can give you one example. The Coast Guard has a measure for the HH65, which showed that over the five years our analysis covered, the asset was performing at or above the most common summary measure of condition the Coast Guard uses, which is availability. Yet at the same time, the HH-65 is the Coast Guard's highest priority for spending to rectify safety and reliability problems. So we have an issue with degradation of mission. The HH-65 is operating under restrictions at the same time where the condition measures are showing that it is meeting standards.

The C-130 is the same. If AC-130 goes out on a mission, but its APS-137 radar is in trouble, then I will just quote the Kodiak, Alaska air crew who told me that ″the situation is essentially like going up in an aircraft and looking through a straw to try to find a boat.″ What point is it to deploy that asset if it cannot perform its mission? So we are looking for a greater linkage between condition measures and mission performance that would help the Coast Guard make better decisions about how to use its scarce maintenance dollars to maximize performance.

Mr. LOBIONDO. So you are saying that you are engaged in developing the measurements that could give us that information. Can you give us

Ms. WRIGHTSON. It is an important question. GAO does not, as a matter of policy, tell agencies the measures they should have, in part because after the fact we go back and audit those, and if they are ours, we are poorly positioned to offer additional advice. But what we do do is we make recommendations on the types of measures you need, and we can look at the Coast Guard's and determine what the pros and cons are of various measures and what it would take to get to where we think the Coast Guard needs to be. We can work with them on that, but we will not substitute our judgment for the Coast Guard's on which measures.

Mr. LOBIONDO. Okay, so you are identifying a deficiency, you are strongly suggesting that we need to be developing these

Ms. WRIGHTSON. Better readiness

Mr. LOBIONDO. Better readiness standards, capabilities, measurements. You are working with the Coast Guard to determine if what they are going to put in place to meet these requirements will in fact do what we think they will do. You will analyze what they recommend.

Ms. WRIGHTSON. I wish I had said it that well. That is exactly right.

Mr. LOBIONDO. Can you suggest where we are in the time frame of this?

Ms. WRIGHTSON. Well, the Coast Guard, as I said, is pretty nimble. It seems like when GAO goes out and finds a problem, before I can get the report written, the Coast Guard is actively engaging with us in a way to fix it.

I think we are months away from coming to grips with how we feel about their measures for cutters. And that's where they are the farthest along. I am not sure, the Coast Guard right now thinks that it needs—I do not want to put words in their mouth—but is not quite so sure about what kind of measures, if any, it would need for its aircraft, because aircraft do not go up if they are not ready.

But I think we are talking months, not years. It is not like their effort to measure homeland security performance. It is not that hard.

Mr. LOBIONDO. Okay. Admiral Collins, do you agree with what Ms. Wrightson just said?

Admiral COLLINS. Absolutely. We would like to keep refining our readiness metrics and have those that allow us to make the best decisions possible. So we take that advice seriously and certainly we would like to develop even more comprehensive measures.

I should note that there are a series of surrogate or indirect measures that certainly say there is a bunch of smoke. Days with the cutters that are without a casualty, for example, or the amount of money that is needed to be spent on basic systems above and beyond the standard allowance on a given vessel. I think if you look to do a trend assessment of what we are spending above our maintenance base to address casualties on their subsystems, almost every class, it is above 50 percent, over the last three or four years, it is about 50 percent growth in the amount of money.

So from a dollar perspective, we are spending more. If you plotted that curve versus the curve days free from casualties, the number of days free from casualties is going down. You want that number to go up. And that number is going down. So we are spending more, getting less in terms of readiness, with that macro type of an assessment.

Clearly, if we could get more refined tools that truly linked the performance dimension, certainly we are very, very interested in doing that, Mr. Chairman.

Mr. LOBIONDO. So it would not be unreasonable for the Committee to expect an answer to the question of what these new measurement capabilities/tools will be in a couple of months?

Admiral COLLINS. Sir, I will be glad to provide for the record what our game plan is and what our time line is for you, sir.

Mr. LOBIONDO. Okay. I have quite a bit more. But I want to go to Mr. Reichert.

Mr. REICHERT. Thank you, Mr. Chairman.

Just a couple of comments. I noticed, Admiral, in your written statement that you refer to your primary focus on September 10th, 2001 was safe, efficient use of America's waterways. After September 11th, that changed dramatically.

For law enforcement, Columbine was a defining date. We had to change the way that we approached and solved problems like Columbine presented. We were required to come up with new strategies, new equipment, new training, a lot of pressure by the public to do that. So I understand the pressure that you are under and that your team is under to undertake the new assignments that you have been given.

I know how tough this is, when you have to balance the use of old equipment and at the same time acquire new equipment. The question, though, is with your new mission and all the other missions that you have had in the past, you still carry on forward to today, are you still able to carry out all of your missions with the deterioration of some of your equipment that you use now and not acquiring the new equipment that you have, bottom line, on the street, are you able to get the job done?

Admiral COLLINS. I think so. If you look, and there are a whole bunch of measures on this, and we have debated these back and forth, what are the right measures to measure performance, whether it is activities, in terms of boat hours, ship hours and things like that.

I tend to go to the outcome as my ultimate measure. If that is the measure, then you look back on last year, we did not step away from our search and rescue standard one bit. We saved over 5,550 lives last year. And on the counter-drug mission, it wasn't a record breaking year, it was a record shattering year. We broke the old record by 100,000 pounds. We had 240,000 pounds of cocaine that we interdicted in the maritime. And we had the highest number of migrants interdicted, close to 11,000 in the maritime, in 10 years.

We very successfully prevented a mass migration from Haiti last spring, on and on. If you look at all our performance metrics, I think in the totality of things, I think we are leveraging our assets, we are paying attention to all our missions. We see safety and security, by the way, as a flip side of the same coin, you do well in safety, you do well in security and vice versa.

So we are paying a lot of attention to all our missions. The thing with this Deepwater program is, Deepwater provides us the capability across our mission set. It gives us, most attractive to me, much, much more enhanced surveillance capability than we have ever had, which is critical for whether it's homeland security, whether it is fisheries enforcement. So a long-winded answer to your question, we are paying attention to all, and I think the performance metrics from my perspective are pretty solid.

Mr. REICHERT. I just wanted to give you an opportunity to explain to all the participants here today all the duties that you perform. You have been a great partner with law enforcement, local

law enforcement in the northwest region, King County Sheriff's Office, Seattle Police Department and others. I know right now, one of the things that is really important is the Coast Guard partnering with local agencies. I know that currently there is an agreement that is being examined for cooperation and partnership between the sheriff's office in Seattle with the air support unit and other Coast Guard equipment.

Admiral COLLINS. It is something we, as a relatively small armed service, the smallest, partnering is in our genes. I think we have pursued it aggressively in the post-9/11 environment. I think we have a great example of that in many places. San Diego is a great place to show that kind of partnering as well, where we developed a joint harbor operations center, where State, local and Federal all are co-located on a 7 by 24 basis, sharing information, having a common operational picture to act on. Independent operational chains of commands kept intact, but a very collaborative, very effective 7 by 24 operation. We are going to replicate that kind of thing around the country.

Mr. REICHERT. I think you can see that this Committee would really like to help you, and I thank you for your service.

Admiral COLLINS. Thank you, sir.

Mr. REICHERT. Mr. Chairman, I yield the rest of my time.

Mr. LOBIONDO. Admiral Coble.

Mr. COBLE. He says that with tongue in cheek, Admiral.

Admiral COLLINS. Not at all.

[Laughter.]

Mr. COBLE. I apologize for my belated arrival. I was here earlier, but I have two other meetings simultaneously being conducted. It is good to have you all here today, folks.

Admiral, I noticed that the Deepwater plan provides a range, the low end would result in fewer vessels, the high end I think about the same, no increase. I guess my question is, how do you all propose to do more with fewer vessels?

Admiral COLLINS. There is a range. Again, some, some the low is lower than the baseline, the high is higher. In addition to the HH65 helicopter, by the way, if you count the number of fixed-wing, the fixed-wing in the new implementation plan to the $24 billion level are considerably higher

Mr. COBLE. When I said fewer vessels, fewer assets.

Admiral COLLINS. The helicopters are more, if you count the helicopters, you count unmet, and you count the fixed-wing it is much greater. And that is a reflection of our performance gap analysis where we said that surveillance capabilities are tremendously important post-9/11.

But the short answer, sir, to this is that we are building platforms with much greater capability than the older ones. And we are building a system that works together as a network to be much more effective than the surveillance capability, the range and the impact, finding targets of interest, interdicting them and so forth.

The other thing we are trying to do is get more ship days out of each platform. Right now the standard program op temp for medium endurance cutter and high endurance cutter is 185 days a year. We are going to try to drive that, with the new platforms, to 230, 240 days a year, and based upon better technology, a rotating

crew. So we keep the personal tempo the same, but the operational tempo of the platform higher. So we are trying to leverage the investment we make, get more out of each platform and leverage the impact of the system with incredible surveillance capabilities that will enable us to, in the Department of Defense vernacular, put metal on target in terms of finding the targets to board, intercepting them and doing effective things to them.

So that is kind of it in a nutshell. We are going to continue to evaluate the performance. The important thing is to get the baseline capability right. You have to get that from day one. We have now, with this implementation plan, the baseline capability right. We can continue to discuss capacity every year, if need be, and continue to monitor the overall performance of the system. If we need to make adjustments because we projected wrong, we can make adjustments either way up or down.

So I think the key here in fiscal year 2006 is to get the capabilities right. I am very pleased that we are able to do that and really appreciate the support of all elements of the Administration in helping us get to this point.

Mr. COBLE. Thank you, Admiral. Admiral, the Chairman usually addresses me as Master Chief. Admiral today, I guess I fall somewhere in between the two.

I yield back, thank you, Mr. Chairman.

Mr. LOBIONDO. Mr. Boustany.

Mr. BOUSTANY. I too want to commend you on the work you have done, particularly down in the Gulf of Mexico, which is my area, the State of Louisiana. I appreciate the hard work and the great work you have done.

My question, a couple of questions dealing with the deterioration of the assets. Do you think that acceleration to a 15 year schedule would actually enhance your capabilities and allow you the proper operational capabilities that you are looking for?

Admiral COLLINS. Clearly, the greater distance between the old asset and the new asset means you have to do something to the old asset. And what we have is sort of a balanced approach here, that we are trying to manage those legacy systems, recognizing that we have to deliver our operational performance today. So you have to use the assets you have, then you have to try to have an effective program to replace them in a logical way. That is the constant tension that we are dealing with.

There are about 250 or some odd million dollars, if I remember the number right, that are assigned to legacy systems in the 2006 budget. People say, wow, that is investing in the old and not investing in the new fast enough. But I would submit, if you look in greater detail at that 250 some odd million dollars, that the vast percentage of that money is investing in a Deepwater system, because it is taking an existing legacy system and transforming it, converting it. So of that $250 million or so, $133 million is for reengineing the HH65, which will be ultimately part of a Deepwater system. It will be converted from a legacy system into a Deepwater system.

And by the way, that was the game plan from day one. That was the game plan when the contract was awarded. So it's the conversion of the legacy asset and buying totally new that will give us

the performance we need. It is a dynamic process that we are dealing with. I would like to think that we have got it right with this new implementation plan, getting that right balance.

Mr. BOUSTANY. Thank you for your answer.

Ms. Wrightson, do you think acceleration to 15 years, what kind of decrease in total costs to the program would you anticipate?

Ms. WRIGHTSON. That is a really good question. We spent months with the Coast Guard staff and analyzed trying to get the data that we needed to answer that question. At the end of the day, the Coast Guard was not able to provide us the type of data that we would need to be definitive about it. But that does not mean I cannot answer some aspect of your question today, and I would like to do that.

Acceleration in a program as complex as Deepwater, with the risks that Deepwater poses, and the uncertainties around the MNS and the implementation plan, which we have only just now have been asked to examine to see whether or not it is adequate, sufficient, and whether or not there is enough transparency to it, is a real risk. That said, we also believe the condition of those assets is a serious problem.

What I would like to say is one thing. We would like to see the Coast Guard, put the internal controls and other management improvements that we have asked for firmly into place. Once that is done, one will still need to monitor that program, because of its complexity.

However, I can say this, that if the Coast Guard were to successfully implement our recommendations, I would feel a lot more comfortable about a more aggressive schedule than I feel right now. I would also say that I would prefer to see acceleration for assets that are proven assets, that is, after they are built, fielded and tested, so that the identified improvements that inevitably come after you put those first few in play can be made for follow-on assets. That kind of a strategy for more aggressive schedule poses a lot less risk than willy-nilly putting more money across the board into the program.

Mr. BOUSTANY. Thank you for your answer.

That is all I have, Mr. Chairman.

Mr. LOBIONDO. Mr. Filner.

Mr. FILNER. Admiral Collins, you explained how you are going from the legacy to the Deepwater, remanufacturing, I guess. And we have expressed up here, at least I have, and others have joined, I think, a little bit of concern about that approach, the cost-effectiveness of it.

I just want to note for the record that other agencies thought that strategy would be nice, then shifted away from it because it did not work. The U.S. Navy's helicopters, the SH3s, the SH60s, Rs and Ss, the U.S. Army's decision regarding new Blackhawk helicopters, the U.S. Air Force efforts to remanufacture the Pavehawks, the U.S. Marine Corps' with the AH1 Yankee and the Zulu aircraft, they all thought they were going to remanufacture and had to shift to purchase. So you ought to look at that.

But let me look at the cost-effectiveness of this whole process. Ms. Wrightson first. You stated that one of the problems with using the system integrator approach was that there may not be

enough competition to lower the cost. It seems to me, with going to the rebuilding of these helicopters and other aircraft, does that not mean there is going to be even less competition, because there are no new construction manufacturers that can compete?

Ms. WRIGHTSON. Again, that is a good question. If you look into it a little more deeply and you talk about sort of competition across the board, we did make recommendations to the Coast Guard to put more safeguards in to ensure competition, which at the end of the day, what competition is about is a tool to produce the best value to the Government. Sometimes that means complete replacement and sometimes it does not. But whatever the outcome that is what competition is for.

The two things the Coast Guard has done in this regard are that they have agreed to observe FAR requirements that for amounts greater than $10 million the Coast Guard needs to be notified, the agency needs notification for that. And ICGS has agreed to do that. That is one example. The other action is that they have put in specific metrics into the evaluation of the contract, such that before a final decision is made, before they award another contract, they will take a look at competition.

These are important steps. They are internal control steps. But in order to know whether for any particular asset replacement or purchase you have sufficient competition to ensure best value to the Government, you have to look at the procurement details themselves and not just the internal controls. We have not looked at the replacement of the HH65, HH60 or a combination for the AB139, for example.

Mr. FILNER. And I wish you would. Again, when you go through re-engineing, you are not going to have any competition from new manufacturers. They cannot compete for that asset, so you have ruled it out just from that decision, it has ruled out that competition.

Ms. WRIGHTSON. But it might be, and I do not know, because we have not done the work, that that re-engineing decision might be something that at the end of the day would be best value. You would have to study it.

Mr. FILNER. That is a good thing. We have been asking this for months and months and months, trying to get the data.

Let me just ask, on that question, Admiral Collins, the cost difference between remanufacturing a 20 year old HH65 and buying a new multi-mission helicopter, what is that difference?

Admiral COLLINS. Which one are you talking about? Number one, the initial commercial helicopter in the Deepwater baseline that was awarded was the AB139 and that was a replacement for the HH60, not the HH65. The decision not to do the 139 was based totally on the performance gap analysis and the performance that could be delivered by the 139. It could not meet the revised requirement.

So we were forced to look at an alternative. We looked at the HH60, the cost of revising it, updating the HH60. I think we have very convincing numbers, I would be glad to share those in a brief to your staff. Very convincing numbers that that is best value.

On the HH65, that was a Deepwater solution from the get-go. When the contract was awarded in June of 2002, the solution pro-

posed and awarded for that particular level of helicopter was the HH65. So it has been a Deepwater solution from the very beginning.

Mr. FILNER. I thought the ICGS identified the AB139 as the helicopter of choice.

Admiral COLLINS. It was under the previous requirement, the mission needs statement, it was a candidate replacement for the HH60. When we did the performance gap analysis in the post-9/11 environment and updated the performance elements that needed a helicopter, it did not match up. So we had to look at another alternative.

Mr. FILNER. Just answer me this question. You are giving me all kinds of corollaries and things. I just want to know the difference between re-manufacturing the HH65 and buying an AB139. Just what is the difference in that?

Admiral COLLINS. It is probably, the total costs to convert an HH65, including the re-engineing, which is already a sum cost, we have already done it, and the new tail rotor, new landing system and avionics, which completes the transformation to a Deepwater asset, rough order of magnitude about $8 million, $8.5 million. And a 139 is at minimum, at minimum $15 million.

Mr. FILNER. All right, so you're saying 9 versus 15.

Admiral COLLINS. At minimum. The range that my staff

Mr. FILNER. Customs bought the same helicopter for $12 million, and they had additional requirements. If you—I do not know if that was based on 1 or 90 of them. What was that $15 million cost from?

Admiral COLLINS. Pat, do you want to answer this?

Admiral STILLMAN. Mr. Filner, I think it is important to recognize that the AB139 and the Deepwater solution was a placeholder. It was not initially scheduled to actually enter into the solution until 2012 or later. Ms. Wrightson's point is extremely well taken, notwithstanding the fact that that was a placeholder in the solution, you can rest assured that we would have competed that issue to ensure best value to the government. The contract is predicated on very accurate and deliberate statements of work for the first five years.

So in 2007, we will make a decision regarding the renewal of that contract and what transpires in the out years, quite frankly, will absolutely be focused upon competition, best value and the adroit use of an integrator.

Mr. FILNER. We do not have the time here, I guess we are going to have to do it more person to person. But you keep mixing apples and oranges on me.

Admiral STILLMAN. In what respect?

Mr. FILNER. You tell me that the AB139 was a placeholder to do something down the line. But that was because the asset, the HH65 was considered to be practical. And now you have decided it is not. Did you change—so you changed the basis of the whole equation there.

Admiral STILLMAN. Indeed we did, in terms of the capability changes, post-9/11, as far as the desired performance and needs of the system.

Mr. FILNER. How many people can the HH65, how many people can it vertically insert on a boarding team, on a tanker or

Admiral STILLMAN. Four I think is the accepted norm in terms of that aircraft. But the reason we have

Mr. FILNER. How much can the AB139 do?

Admiral STILLMAN. I would say it is certainly capable of four.

Mr. FILNER. Probably six.

Admiral STILLMAN. What is that, sir?

Mr. FILNER. Probably six.

Admiral STILLMAN. But not with the range that we feel is essential in terms of post-9/11, and the necessity of in some cases having the capability to deploy a helicopter with aircraft use of force, vertical insertion, 200 miles from the platform. So that is the

Mr. FILNER. Can you tell me the range of things?

Admiral STILLMAN. Two hundred miles from the platform, the ship that it is deployed on.

Mr. FILNER. What is the range of the HH65?

Admiral STILLMAN. It is not 200 miles, sir, that is a medium range helicopter. The

Mr. FILNER. What is the range of the AB139?

Admiral STILLMAN. I will have to give you that for the record, I do not have that

Mr. FILNER. Well, you just said the ranges are different, so you obviously have something in your head about—you said to me that that was a bad comparison because there were range differences. So I am just asking you what are those differences.

Admiral STILLMAN. I am just saying that is one of the issues that came into play

Mr. FILNER. You are dismissing my question and you are not giving me any evidence for your dismissal of it. I can just say, no, you are wrong, because you do not have any figures, do you?

Admiral COLLINS. Let me try to, if I can just comment, sir, it is two separate helicopter systems that are part of Deepwater. The candidate systems for the replacement of the HH60 initially was the AB139 out into the 2012 time frame. The HH65 was the short range helicopter, that is the one we deploy on our ships. That was always a Deepwater solution, it had been from the get-go. And that is converting that helicopter.

So we have re-engined it early because of the current condition of that engine. So you have two helicopter systems going. Then in the meantime, you had a post-9/11 performance gap analysis that said the higher end helicopter, the medium recovery helicopter, had to have certain performance dimensions to it. And the AB139 did not match up to those. We would be glad to give you a blow-by-blow, for the record in a brief, on all the dimensions of that performance shortfall.

But the comparison

Mr. FILNER. I have been asking you that for months and months. I have been asking you for a cost-effective analysis. That means the cost versus the performance. And you keep saying you are going to give it to me, we keep asking and I—why do you keep saying you are going to give it to me when I keep asking for it? I mean, either give it to me or stop saying you are going to give it to me.

What does cost-effective mean in English? That is exactly what it means, right? I have been asking this for six, eight months now.

Mr. LOBIONDO. Excuse me. The Admiral has said publicly that he is going to.

Mr. FILNER. He said it six months ago, too.

Mr. LOBIONDO. Okay, we are going to ask for a follow-up. Do you need a period of time before you can arrange a meeting with Mr. Filner's staff and the committee?

Admiral COLLINS. Let me check with my staff and see how quickly we can

Mr. LOBIONDO. You will let us know within the next week when you can do that and within which time frame.

Admiral COLLINS. Yes, sir, I would be glad to do that.

Mr. LOBIONDO. We will follow up on that.

Ms. Wrightson, you talked a little bit earlier about your concern if the program were accelerated, would the assets be proven to be reliable, so that we are not just throwing money out there that sounds good, but we are not actually going to be buying what we think we are buying that is reliable, that is sort of what you said?

Ms. WRIGHTSON. No, not exactly.

Mr. LOBIONDO. What did you say?

Ms. WRIGHTSON. What I said was that in any program of this complexity, every change affects every other change.

So what I said is, in a system of systems approach, while it has certain promise that it can deliver some of the combinations of assets and coordination in assets that the Commandant has talked about, there is risk to try and manage that and the use of a systems integrator is part of that risk.

What I said then was that an acceleration in and of itself, unless you have the kind of internal controls in collaboration between ICGS and the Coast Guard and accountability to Congress in place, is potentially not a more effective or efficient strategy for replacement. So accelerating only increases those risks until these internal controls and oversight of ICGS are satisfactorily worked out. We do not think they are right now.

Mr. LOBIONDO. So you do not think the internal controls are in place that need to be?

Ms. WRIGHTSON. Two of our 11 recommendations we have closed as fully implemented by the Coast Guard. The remainder we have not seen as able to close, because the Coast Guard is still working on them.

I just met with ICGS yesterday and the Coast Guard last week to try and establish a time frame within which we can agree that we will either be able to close these or say the Coast Guard is not going to implement them.

Mr. LOBIONDO. What was the conclusion?

Ms. WRIGHTSON. I think the conclusion is that we are talking many weeks but not many months until we can come to closure on a status check. We will be happy to provide you and your staff a sort of running record of how they are doing on that.

Mr. LOBIONDO. To say we are very interested is a big understatement.

Ms. WRIGHTSON. Absolutely.

Mr. LOBIONDO. This is a high priority, very critical information. Because the questions that we are ready to ask are that, does the Coast Guard have the capability to accelerate the Deepwater program to a 15 year schedule. I think if I am going to venture a guess, we cannot say that until you can say whether we have

Ms. WRIGHTSON. I think that is the right answer. What we can say is the Coast Guard is improving its capacity to effectively manage the program as it now stands. And keep in mind, there is a lot in play in the program. Some assets are already being accelerated and others are not.

So it is really not quite that simple, but I can say in terms of the Coast Guard capability, I will give you just one example. We asked the Coast Guard to develop a better human capital plan for its own staff to partner with ICGS. The Coast Guard has taken a number of measures to do that.

But at the end of the day, there is still a 16 percent vacancy rate in the program, and that is not a surprise to the Coast Guard. We have talked about this and they are working on it.

But the absence of a fully staffed program, with people with the knowledge, skills and abilities to work effectively with ICGS, represents a problem. In fact, ICGS themselves yesterday told me that it was a problem, because it limits their ability to efficiently move RFPs and other things along. So it is a complex program, there are lots of risks. But we are not sitting here saying the Coast Guard is not managing the program well or improving. We are saying that it is a high risk program that needs a lot of oversight and a lot of controls and management need to be in place to ensure that the system of systems promises materialize and the program's objectives are achieved.

Mr. LOBIONDO. But you are totally satisfied with the level of cooperation you are receiving?

Ms. WRIGHTSON. Absolutely satisfied with the level of cooperation right now, yes.

Mr. LOBIONDO. And the flexibility that demonstrates to react to situations that are being uncovered? No question in your mind about that?

Ms. WRIGHTSON. No question in my mind about that. We are working very well with them.

But even with their best effort, some of these problems take time to resolve.

Mr. LOBIONDO. Would you be able to say whether, in your view, acceleration would result in a decrease in total program costs? Would you be prepared to comment on that?

Ms. WRIGHTSON. I wish I could, but I cannot.

Mr. LOBIONDO. Would you be able to at some point in the future?

Ms. WRIGHTSON. I doubt it, because as I said, we put our best economists on this effort. We spent a lot of time with the Coast Guard. Two things. One, the current data they were able to provide us does not give you the kind of data you need to have a definitive answer to the question. Second, whenever you do a system of systems approach, every change affects the answer to the question. This program has been undergoing so many changes that it is almost impossible to determine at any point in time whether that is true and whether it would matter.

I think it is fair to say that when you can eliminate maintenance costs and move forward with a new system and get greater capabilities, that is a good idea. There is better value to the Government and you are able to achieve your missions more effectively. But when you are engaged in this kind of a contract, it is very difficult to make summary judgments about it. Asset by asset it may be possible. But as a system it is very difficult.

Mr. LOBIONDO. Admiral Collins, can you tell us with any degree of certainty on your part that the legacy system will be able to maintain the current mission level until Deepwater assets come online?

Admiral COLLINS. Mr. Chairman, we are working very, very hard to ensure that we have the appropriate maintenance plan to address legacy asset subsystem problems. Incidentally, there was a legacy report that is due Congress, I signed that out today, it was hand delivered to the Hill today, which details asset by assets the initiatives that we plan to pursue in a dollar amount per asset that would need to be invested to keep legacy systems going until they are replaced.

The mission effectiveness program that we have on the 2006 budget, sir, is the first part of that. Well, actually, they are doing the first cutter in 2005. There is an increment of, I want to say about $39 million in the Deepwater line item for mission effectiveness programs for both 270 cutters, I think there are three each, 270 cutters and the 210 foot cutter, a nine month shipyard availability to be done at the Coast Guard yard that will place out needed subsystems to keep them going.

So we have for the medium endurance cutter a fairly definitive program. We also have other sustainment plans for both the 110 and the 378. So we have identified the requirements for those legacy systems. It is obviously a function of what is the distance now and the time to replace, what do you have to do to keep them going. I am pleased that we have that kind of focus on them and I think you will see that in the legacy report, sir.

Mr. LOBIONDO. So in essence, you need more time before you can answer that question. We are concerned that we are going to reach a point where we are going to have maybe not a surprise, but some bad news about where we are. Do you have a sustainment plan for the 110s?

Admiral COLLINS. The 110s, of course, is another not uncomplicated system. The initial strategy, as you recall, Mr. Chairman, was to have a bridging strategy of the 110 to 123 conversation until the full replacement platform came in. It is like the 2018 time frame.

We have done six of those conversations to date. The eight will be completed through September. We have had, quite frankly, some structural problems with the solution. We are reevaluating that, and if the fixes have cost us more money. We are reevaluating the cost implications of that and the performance implications of that, a formal operational reevaluation assessment of that ship. It is very likely that we will truncate that 123 extension program. That is why we have moved the design and up-front engineering of the fast response cutter, its replacement, we have moved that up over

10 years. It is now the design that we are doing right now. And that was that reason.

Another mitigating thing is increasing the program hours for the existing 110 fleet. The third mitigating factor is to do hull sustainment of the 110s. The fourth mitigating factor is the addition of five PC175s to the United States Navy. All of those things are helping. There is some loss of patrol boat hours, but we are mitigating that loss through these various initiatives.

That is another report, sir, we owe the Congress, is on the patrol boat hours and the impact over time. That is in the final stages of being completed. It had to come in after the implementation plan came up.

Mr. LOBIONDO. Mr. Reichert, do you have anything else?

Mr. REICHERT. Thank you, Mr. Chairman. Just one more question.

Integrating your new equipment and your new systems into the Coast Guard's operation sounds at least, that it is going to be challenging is an understatement. You talked about partnerships a little bit, so if it is going to be challenging to you to integrate that system and equipment in the Coast Guard operation, I am just wondering what your relationship is with the Department of Defense and with the Navy, and will your Deepwater equipment be interoperable with the Navy?

Admiral COLLINS. Great question. We have had an incredibly strong and close partnership with the United States Navy for a long time, particularly the last three or four years. All of the performance specifications for all of the ship platforms in the Deepwater project, that performance specification is reviewed with the Navy. We solicited what we call NOCs, Naval Operation Capabilities that they would like to see embedded into these systems.

So from the very beginning, they had a Naval Operation Capability dimension to their performance contract. We have updated it since, particularly for the patrol boat platform. They are in fact providing some Navy equipment to these ships, I want to say about $21 million or so for the national security cutter, $21 million worth of equipment. This is equipment in kind, not dollars sending our way, but equipment in terms of radar systems and those kinds of things.

So part of our contract, performance contract, the mission requirement was developed with the Navy, understanding that we have to, this is sort of a national fleet that we are running between the Navy and the Coast Guard. It has to be simpatico, non-redundant but supportive, non-duplicative but supportive, complementary assets. We work very, very hard to do that, and interoperability is very, very high on the agenda, and I think we have that, sir.

Mr. REICHERT. So as far as the additional capabilities, they have been providing equipment up to $21 million so far, you've said, but no money.

Admiral COLLINS. It's Navy systems that they provide to us, particularly on the weapons system type of category. That is terrific for us, because they have the support infrastructure, training infrastructure and support infrastructure associated with those systems. So we can leverage our partnership with the Navy for those things.

So very much interoperability is high on Vern Clark's agenda, it is high on my agenda. We meet frequently to discuss those things. Pat Stillman, my PEO, is also on the combat ship source selection board. We are looking at where there is crosswalk between systems. So it is quite a partnership, sir.

Mr. REICHERT. Great, thank you.

Thank you, Mr. Chairman.

Mr. LOBIONDO. Mr. Filner.

Mr. FILNER. Just briefly. I was interested, Admiral, in your description of the 110 situation, since everything I told you earlier, every experience that we have had in other agencies and apparently now in yours with the conversions ends up in a problem. Let me just ask you on that one, who ended up paying for the mistake that you had? ICGS has said that adding the 13 feet extension to the 110 said it could support, the structure could support it and it could not. The shipyard that apparently built the original one was supposed to do the conversions.

I wonder who paid for that? And did you testify to us a year ago or more how cost effective that conversion would be and how it met all the capabilities and everything that you just said about the HH65? Did you testify to the exact same cost effectiveness and yet we have this incredible disaster, and who paid for it?

Admiral COLLINS. As to the contractual relationship going forward, I will ask the PEO to comment on that specifically.

Clearly, the Deepwater integrator and their solution had a host of piece parts to the overall system. As you recall, sir, they were driven by performance of the overall system at the total lowest cost of ownership. Those were the basic metrics that were used in designing

Mr. FILNER. You gave me the wrong answer. So are you not questioning the metrics that you start off with?

Mr. LOBIONDO. Mr. Filner.

Mr. FILNER. How can you give me an answer like that? They gave you the wrong answer. And now you are telling me it is because you did not have enough money, which is how I started my whole line of questioning for you in Deepwater to begin with, by the way. They had the wrong metrics, Admiral, if they gave you that answer, according to the metrics. How can you give me that kind of answer?

Admiral COLLINS. I was talking about the entire system. I think that is a good stewardship acquisition approach, sir, is that we are looking at tradeoffs between, not optimizing every single part of Deepwater, but saying how, together, collectively can it give you the system you want effectively

Mr. FILNER. You just told me you stopped the conversion at six.

Admiral COLLINS. We are evaluating

Mr. FILNER. It was a mistake. It was a mistake.

Mr. LOBIONDO. Mr. Filner, I am going

Mr. FILNER. Look at the mistake and figure it out.

Mr. LOBIONDO. I am going to cut this off, because an argumentative approach is not going to get us where we go. Admiral Collins is not giving you the answer that you want to hear. And you are going to get a private briefing. The Admiral has promised us that. We are going to follow up with that.

I want to close by saying, obviously, we are very concerned. We desperately want this to move forward in a positive fashion. Admiral Collins and Admiral Stillman, you have a very difficult task on your hands. You have gone through a number of hurdles. There are a lot of positive things that do not get emphasized enough about what is going on. We, I think, both of us, or all of us here today in the Committee, at least I do want to recognize the positive things that have happened. We have not emphasized them because the time we need is to try to move us forward.

Ms. Wrightson, your involvement through this whole program with oversight is invaluable to what the end result is going to be with your agency. We have great concerns we are going to follow very closely and carefully. These are tough questions we are asking, but I hope you view it as tough love. We love the Coast Guard, we love the work that your men and women are continuing to do on behalf of the United States of America. We just want to try to make sure that we can get this program done in the right way and the best way possible.

So we will be following up, and with that, the Committee is adjourned.

[Whereupon, at 3:20 p.m., the subcommittee was adjourned.]

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DEPARTMENT OF HOMELAND SECURITY

U. S. COAST GUARD

STATEMENT OF

ADMIRAL THOMAS H. COLLINS

ON THE

DEEPWATER IMPEMENTATION

BEFORE THE

SUBCOMMITTEE ON COAST GUARD & MARITIME TRANSPORTATION

COMMITTEE ON TRANSPORATION & INFRASTRUCTURE

U. S. HOUSE OF REPRESENTATIVES

APRIL 20, 2005

Introduction

Good afternoon Mr. Chairman and distinguished Members of the Subcommittee. It is a pleasure to be here today to discuss the Coast Guard's Integrated Deepwater System and the positive impact it will have on the Coast Guard's ability to secure America's maritime borders, aid persons in distress, facilitate the safe and efficient flow of commerce, and respond to the expeditionary requirements of U.S. combatant commanders.

On September 10, 2001, our primary maritime focus was on the safe and efficient use of America's waterways. Since 9/11, we have made great progress in securing America's waterways, while continuing to facilitate the safe and efficient flow of commerce. There is no doubt that work remains, but there is also no doubt that we continue to improve maritime homeland security each and every day – thanks in large part to the continued strong budgetary support of the Administration, and Congress, and certainly this committee.

The Integrated Deepwater System—the centerpiece for the Coast Guard's transformation and my top capital priority—plays an absolutely critical role in building a more ready and capable 21st-century Coast Guard equal to the challenging tasks we face today and anticipate tomorrow.

The Deepwater team's government-industry partnership achieved many program milestones during 2004 and strengthened Deepwater's foundation by incorporating far-reaching program and contract-management improvements in accordance with recommendations from the Government Accountability Office.

With the strong support of the Department of Homeland Security (DHS), the Administration, and Congress we are positioned to play an even greater role in reducing the future risk of a terrorist event against the homeland. During the past two years, we have modernized select legacy assets to operate more effectively until replaced by Deepwater assets. Now we have established requirements for improved capabilities on converted or newer Deepwater platforms that are necessary for the Coast Guard to perform its full range of post-9/11 missions.

The revised plan, based on a comprehensive performance-gap analysis, updates the original pre-9/11 Deepwater Program by modifying the original assets that would have been delivered to incorporate improved post-9/11 capabilities; retaining, upgrading, and converting aviation legacy assets as part of the final asset mix; and adjusting the program's overall asset delivery schedule to maximize operational effectiveness. The Revised Implementation Plan ensures Deepwater cutters and aircraft will be equipped with the right systems and capabilities (summarized below) to operate successfully in the post-9/11 threat environment. ***These enhanced capabilities were <u>not included in the original Deepwater Program</u>; however, these capabilities are <u>absolutely critical to ensuring the maritime security of America</u> and its $750 billion maritime transportation system***:

- *Interoperable network-centric command-and-control system (essential for maritime domain awareness);*
- *Increased speed and integrated weapons systems on select cutters;*
- *Helicopter airborne use of force and vertical insertion and delivery;*
- *Improved fixed-wing aircraft long-range surveillance and transport;*
- *Enhanced anti-terrorist and force protection; and*
- *Detection-and-defense systems for chemical, biological, and radiological threats.*

More-capable Deepwater cutters and aircraft equipped with these capabilities will be leveraged far beyond the operational limitations of original Deepwater assets due to recent advancements in maritime domain awareness, intelligence, and homeland security partnerships. These advancements combined with enhanced Deepwater capabilities will enable the Coast Guard to close existing operational shortfalls so it may execute its full range of missions far more effectively, reduce risk in the maritime domain, and improve the safety and readiness of all platforms. The revised plan also provides for the progressive sustainment, modernization, and conversion of aging legacy assets as Coast Guard transitions to a recapitalized fleet.

It is estimated the revised Deepwater long-term acquisition will cost between $19 billion and $24 billion over a period of 20 to 25 years, but will deliver more capable ships, aircraft, and associated sub-systems than the original plan. Considering Deepwater is a performance-based acquisition, the revised plan projects a range of assets for the final force levels of two classes of cutters and some aircraft. Depending upon performance of the system, the revised baseline and associated enhanced capabilities *may* result in fewer assets when the system is built out. As stated in the Revised Implementation Plan, *the final number of assets will, at a minimum, be sufficient to meet Department of Homeland Security and Coast Guard long-range performance goals.*

Nearly three years ago, President Bush said, "The U.S. government has no more important mission than protecting the homeland from future terrorist attacks." The revised Deepwater Implementation Plan represents a significant investment in ensuring Coast Guard mission performance now and in the future. In short, it will result in a Coast Guard possessing the 21st-century technologies necessary to safeguard the nation, protect our citizens, and reduce the risk of a terrorist attack against the nation originating in the maritime domain. I look forward to discussing this major milestone with you this morning.

The Coast Guard's 2006 budget includes $966 million for Deepwater, a 33 percent increase over last year's appropriation. This investment will make important contributions to the Department of Homeland Security's strategic goals of improving threat awareness, prevention and protection against terrorist attacks, and response and recovery should they occur.

The Deepwater budget's increased asset funding for 2006 will yield essential system-wide capability for our maritime homeland security mission and sustains operational effectiveness in all of the Coast Guard's military, multi-mission, and maritime responsibilities. Deepwater aligns completely with my overarching budget goals to (1) recapitalize the Coast Guard, (2) implement the Maritime Strategy for Homeland Security, and (3) enhance mission performance.

Reducing Maritime Risk

Today's global maritime safety and security environment demands a new level of operations specifically directed against terrorism without degrading other critical maritime safety and security missions. Most importantly, the Coast Guard must implement the improved Deepwater capabilities identified in our revised Implementation Plan if we are to mitigate maritime security risks successfully in the post-9/11 world.

Secretary of Homeland Security Chertoff has emphasized that the three variables of Threat, Vulnerability, and Consequence serve as the appropriate model for assessing risk and deciding on the protective measures we undertake as a Nation. This is a framework quite familiar to Coast Guard men and women every day as they perform multiple missions in our nation's ports, waterways, coastal areas, and on the high seas.

In terms of threat, vulnerability, and consequence there are few more valuable targets than the U.S. maritime transportation system.

Threat: While the 9/11 Commission notes the continuing threat against our aviation system, it also states that "opportunities to do harm are as great, or greater, in maritime or surface transportation."

Vulnerability: The maritime transportation system annually accommodates 6.5 million cruise ship passengers, 51,000 port calls by over 7,500 foreign ships, at more than 360 commercial ports spread out over 95,000 miles of coastline. The vastness of this system and its widespread and diverse critical infrastructure leave the nation vulnerable to terrorist acts within our ports, waterways, and coastal zones, as well as exploitation of maritime commerce as a means of transporting terrorists and their weapons.

Consequence: Contributing nearly $750 billion to U.S. gross domestic product annually and handling 95 percent of all overseas trade each year, the value of the U.S. maritime domain and the consequence of any significant attack cannot be understated. Independent analysis and recent experiences on 9/11 and the West Coast dock workers strike demonstrates an economic impact of a forced closure of U.S. ports for a period of only eight days in excess of $58 billion to the U.S. economy.

The 9/11 Commission also drew a strong linkage between improved defenses with the government's ability to reduce the risk of a terrorist attack—a linkage that relates directly to the imperative to recapitalize the Coast Guard through an increasingly capable Deepwater system of systems.

"Our report shows that the terrorists analyze defenses," the Commission reported. "They plan accordingly. Defenses cannot achieve perfect safety," the report continues. "They make targets harder to attack successfully, and they deter attacks by making capture more likely. Just increasing the attacker's odds of failure may make the difference between a plan attempted, or a plan discarded. The enemy also may have to develop more elaborate plans, thereby increasing the danger of exposure or defeat. Protective measures also prepare for the attacks that may get through, containing the damage and saving lives."

Since 9/11, the President, the Department of Homeland Security (DHS), and the Coast Guard have made significant strides to secure our homeland. However, maritime safety and security gaps remain. These gaps present risks that must be reduced.

The Coast Guard guides its efforts by implementing policies, seeking resources, and deploying capabilities through the lens of the national maritime security strategy. However, continued risk reduction is contingent upon Coast Guard capability, capacity, and readiness. Without these basic building blocks, implementation of maritime security strategies will not be sustainable. With that in mind, the priorities of the Coast Guard's 2006 budget are to continue to recapitalize the Coast Guard as a necessary foundation to implementing the maritime security strategy, as well as ensuring we continually enhance mission performance across the entire suite of Coast Guard mission requirements.

Recapitalizing the Coast Guard is the foundation of our ability to continue improving maritime security while facilitating the flow of commerce. It is on this foundation that the 2006 budget continues to build out Coast Guard Deepwater capabilities necessary to reduce risk and implement the national maritime strategy for homeland security—today, tomorrow, and into the future.

Recapitalize the Coast Guard

The 2006 Deepwater budget continues the recapitalization of our cutters, boats, aircraft and support infrastructure to reverse declining readiness trends and provide critical operational capabilities to meet today's maritime security and safety threats. As detailed in the *National Strategy for Homeland Security*, this remains a critical need in protecting the homeland. The Deepwater acquisition also plays an enabling role in the Coast Guard's implementation of the President's recent maritime security policy directive calling for a fully coordinated effort to protect U.S. interests in the maritime domain.

Readiness Declining

Despite spending increasing amounts to maintain operational assets, the Coast Guard is experiencing a continuing decline in fleet readiness. Legacy cutters are now operating free of major equipment casualties (equipment failures that significantly impact mission performance) less than 50 percent of the time, despite the investment per operational day increasing by over 50 percent over the last six years. The resulting "readiness gap" negatively impacts both the quantity and quality of Coast Guard "presence" – critical to our ability to accomplish all missions.

The majority of the Coast Guard's operational assets, designed for the threat environment of the 1960s and 1970s, will soon reach the end of their anticipated service lives resulting in rising operating and maintenance costs, reduced mission effectiveness, unnecessary risks. Listed below are some specific examples highlighting alarming system failure rates, increased maintenance requirements, and the subsequent impact on mission effectiveness:

- HH-65 helicopter in-flight engine power losses occurred at a rate of 329 mishaps per 100,000 flight hours in FY 2004. This is up from a FY 2003 rate of 63 mishaps per 100,000 flight hours. The engine-loss rate has resulted in flight and operational restrictions and high levels of risk to our aircrews. Re-engining the HH-65 will remain the Coast Guard's highest legacy asset priority until complete. We greatly appreciate Congress' support in correcting this critical safety and reliability issue, including transferring an additional $40 million into Deepwater to accelerate this re-engining effort in fiscal year 2005.

- The 110-foot Patrol Boat fleet has experienced 23 hull breaches (literally an opening in the hull from corrosion) requiring emergency dry docks. The resultant loss in operational days poses unacceptable risks to our personnel. By the end of 2005, the Coast Guard will have taken delivery of eight reconfigured 123-foot patrol boats, which are upgraded 110-foot patrol boats designed to sustain this cutter class until replacement with the Integrated Deepwater System's Fast Response Cutter.

- Our high and medium endurance cutters are experiencing sub-system failures due to old and unserviceable systems. The 378-foot high endurance fleet averages one main space casualty, with potential to escalate to main space fire, on every patrol. Three out of a total class of 12 ships have recently missed operations due to unscheduled maintenance required to repair failing sub-systems. The total number of unscheduled maintenance days for the major cutter (medium and high endurance cutters) fleet has skyrocketed from 85 days in FY 1999 to 358 days in FY 2004 (over a 400 percent increase over FY 1999). This loss of operational cutter days in 2004 equates to losing two major cutters, or 5 percent of our major fleet for an entire year. The 2006 budget includes funding for six mission effectiveness projects to help sustain the medium endurance cutter fleet, and funds construction of the third National Security Cutter, the replacement for the Coast Guard's high endurance cutter class.

These same Deepwater assets are integral to the Coast Guard's ability to perform its missions of ports, waterways, and coastal security; migrant- and drug-interdiction operations; fisheries enforcement, and search and rescue. In 2004, Deepwater legacy assets made invaluable contributions to America's maritime security and safety:

- Operation ABLE SENTRY blanketed the coastline of Haiti with legacy Coast Guard Deepwater assets, which interdicted more than 1,000 illegal migrants during this operation and deterred many thousand more from taking to sea in unsafe boats.

- The 378-foot Coast Guard Cutter GALLATIN, and its Airborne-Use-of-Force- (AUF) capable helicopter seized more than 24,000 pounds of cocaine worth an estimated $768 million and detained 27 suspected smugglers in the span of seven weeks. The GALLATIN's commanding officer has indicated that the secure-communications improvements made by the Deepwater Program were key to this effort.

- The Coast Guard's aging Deepwater cutters and aircraft patrolled over 28,000 hours in direct support of maritime homeland security missions. 110-foot patrol boats alone patrolled 13,000 hours supporting port and coastal security missions including, cruise ship escorts, critical infrastructure protection, and countless security boardings.

- Working in conjunction with the U.S. Secret Service during the national political conventions, 270-foot Medium Endurance cutters and 110-foot patrol boats provided maritime security, enforced security zones, and served as command and control platforms coordinating maritime traffic. Deepwater aircraft, equipped with the AUF package, provided air security and conducted maritime security patrols.

Deepwater's modernization and recapitalization of the Coast Guard are already beginning to yield results at sea:

- On February 13, the crew of the 123-foot cutter MATAGORDA, on its first operational patrol following a major conversion as part of the Coast Guard's Deepwater Program, played an instrumental role in intercepting a smuggler's boat attempting to bring 25 Cuban migrants into the country illegally. MATAGORDA, outfitted with a more capable command-and-control system during its recent Deepwater upgrade, assumed the role of on-scene commander in the Florida Straits to coordinate the interdiction effort. After a long chase the smuggling boat was safely stopped two miles south of the Dry Tortugas. The smugglers were turned over to Customs and Border Protection officials, and all of the migrants were repatriated to Bahia de Cabanas, Cuba, on February 14.

- Late last year, crews on the Coast Guard Cutters GALLATIN, RUSH, and THETIS collectively seized more than 33,949 pounds of cocaine during law-enforcement deployments—continuing the Coast Guard's record-setting pace established during fiscal year 2004 when 240,518 pounds of cocaine were seized (shattering the previous record of 139,000 pounds interdicted in 2001). Deepwater communication upgrades and previous enhancements installed on these aging legacy cutters played a major role in their success, because the operations involved multiple cutters, federal agencies, and foreign countries—mandating seamless connectivity and high levels of interoperability between all participants.

In each of these recent operations, the Deepwater Program's C4ISR (command, control, communications, computers, intelligence, surveillance, and reconnaissance) upgrades allowed cutter crews to maintain a common operational picture and higher levels of maritime domain awareness (MDA). The upgrades included provisions for first-time use of a classified Local Area Network and the Secure Internet Protocol Router Network (SIPRNET), which commanding officers attribute to "revolutionizing their world of work" because it affords crew access to real-time intelligence information and Department of Defense satellite imagery during current operations, as well as increased speed and size of transmission through compressed bandwidth capability.

As gratifying as these early demonstrations of the efficacy of the Deepwater Program's acquisition strategy may be, however, they are but a harbinger of what the future holds when new-construction Deepwater cutters and aircraft possessing more robust capabilities begin to enter service later this decade.

Fiscal Year 2006 Deepwater Budget Request

The President's FY 2006 budget for the Integrated Deepwater System takes aim on reversing the Coast Guard's declining readiness trends and transforming the Coast Guard. The budget's level of investment in the Integrated Deepwater System provides the Coast Guard with the capability and capacity essential to meeting our nation's maritime homeland security needs; providing a layered defense throughout ports, waterways, coastal regions and extending far offshore, as well as sustaining other mission area efforts, such as search and rescue and living marine resources.

The budget's Deepwater funding level of $966 million will result in:

- Acquisition of a third Eagle Eye Tiltrotor Vertical-Takeoff-and-Landing Unmanned Aerial Vehicle (VUAV), including mission sensor packages and ground control technology;
- Accelerated re-engining of operational HH-65 helicopters;
- Service-life extension, avionics, and radar upgrades for HH-60 helicopters and HC-130H aircraft;
- Procurement of long-lead material for and production of the third National Security Cutter (NSC);
- Completion of design and procurement of the long-lead material for the first Offshore Patrol Cutter (OPC);
- Testing and evaluation of the first Fast Response Cutter (FRC);
- Completes mission effectiveness projects on six Medium Endurance Cutters (WMECs) to sustain these cutters until they can be replaced with the OPC; and
- Innovative, interoperable network-centric C4ISR system to improve maritime domain awareness and provide a common operational picture.

Funding included for legacy asset sustainment projects, such as HH-65 re-engining and WMEC mission effectiveness projects, is critical to sustain capabilities *today*, while the acquisition of new and enhanced Deepwater assets will ensure the Coast Guard has the right capabilities *tomorrow*.

Revised Deepwater Implementation Plan

The events of September 11, 2001, have changed the performance requirements for Coast Guard people and the assets they use. The original Deepwater system designed for September 10, 2001, simply could not do all that would be required of it after September 11, 2001.

The Coast Guard began to adjust Deepwater shortly after the contract was awarded in June 2002 by modifying the capabilities required of the first major new asset, the National Security Cutter (NSC). These changes are included in the current updated baseline and will allow the first NSC—now slated for delivery in 2007, to conduct maritime homeland security missions when she enters commissioned service.

Last month, together with Secretary and Mrs. Chertoff, I participated in the keel-laying ceremony for our first NSC. Mrs. Chertoff, the cutter's sponsor, noted that she looked forward to the day when American families can rest a little easier knowing that the men and women of the Coast Guard are conducting missions up and down the coasts of our nation in this fine ship. I agree wholeheartedly.

The keel laying for the first hull in our new class of NSCs marked a significant milestone in the Integrated Deepwater System's transformation of the Coast Guard for our 21st-century missions. Like other Deepwater cutters, aircraft, and systems, the NSC will play a major role in safeguarding the maritime security of our nation for many years to come.

Along with the immediate changes to the NSC's design specifications, the Department of Homeland Security and the Coast Guard recognized the need to conduct a thorough review of the plans for all Deepwater assets. Changes to the national strategic security environment after 9/11 necessitated modifications to the Deepwater program focused on defeating terrorist threats, addressing contemporary mission demands, and satisfying current and emergent operational priorities.

The revised IDS Mission Need Statement (MNS) and Implementation Plan, approved by the Department of Homeland Security in January 2005, were developed following a comprehensive, year-long performance-gap analysis of the Coast Guard's post-9/11 mission requirements.

The revised plan addresses the Coast Guard's dual challenges of legacy-asset deterioration and performance gaps by (1) enhancing the performance of selected Deepwater assets through added capabilities and conversions, including C4ISR systems; (2) adjusting the implementation schedule and mix of individual assets over the life of the program; (3) providing necessary balance over the life of the program based on the Department of Homeland Security's strategic goals, current and emerging mission requirements, and the need to provide for a high-quality workplace for Coast Guard men and women.

Consistent with the President's FY 2006 budget and the Coast Guard's five-year Capital Investment Plan, we have reported to Congress the Deepwater asset line items the Coast Guard plans to fund in each fiscal year through FY 2010. . The revised Deepwater Implementation Plan updates the original plan by: (1) modifying the original assets that would have been delivered by the Deepwater project to incorporate design requirements for improved post-9/11 capabilities; (2) retaining, upgrading, and converting aviation legacy assets (C-130s, H-60s, H-65s) as part of the final asset mix, and (3) adjusting the program's overall asset delivery schedule to maximize operational effectiveness.

In addition to delivering more capable operating assets for the Coast Guard's post-9/11 transformation to support DHS strategic goals and to reduce maritime security risk, the revised plan will enable the Deepwater Program to make more significant contributions to improved information sharing, collaboration, and interoperability in the maritime domain—essential capabilities to attain higher levels of MDA.

The revised Deepwater Implementation Plan incorporates more capable functional requirements outlined in the revised MNS, including:

- An innovative, integrated network-centric C4ISR system to harness the power of an interoperable network to enhance performance in all mission areas, improve MDA, and provide a common operational picture—key to Coast Guard leading the inter-agency effort to know and respond to maritime conditions, anomalies, vulnerabilities, and threats. Improvements to C4ISR enable earlier awareness of events through the more effective gathering and fusing of terrorism-related information, analysis, coordination, response—all critical to detecting, deterring, and defeating terrorist attacks. Upgrades to Deepwater surface assets, for example, contribute directly to improved intelligence collection and fusion through a sophisticated Shipboard Sensitive Compartmentalized Information Facility (S/SCIF), sensors, and increased data-exchange bandwidth;

- Improved maritime-security capabilities such as increased speed and integrated weapons systems on selected Deepwater cutters essential to higher levels of maritime homeland security during a terrorist attack, opposed boardings, and other high-risk operations;

- Airborne use of force and vertical insertion and delivery capabilities to allow helicopters to provide warning and/or disabling fire, and to deploy, deliver, and recover boarding teams safely and more effectively;

- Improved fixed-wing aircraft long-range surveillance to increase MDA and reduce maritime patrol aircraft shortfalls in operating hours; organic Coast Guard air transport capability will enable deployment of Maritime Safety and Security Teams and National Strike Force teams for faster, more effective response.

- Improved capabilities for anti-terrorist/force protection on select Deepwater assets with all-weather self-defense and the ability to protect high-value assets; assets will have the capability to engage terrorists with higher assurance of survivability and continued mission capability; and

- Improved asset capabilities for detection and defense for chemical-biological-radiological (CBR) threats—essential to survival and continued operations during a CBR attack involving a weapon of mass destruction.

The Deepwater system's performance-based acquisition strategy will allow the Coast Guard to respond to changing conditions and threats, and provides a vehicle for capability and schedule adjustments over the life of the program—maximizing value and performance through technology refreshment and innovation.

Capability improvements incorporated at both the asset and system level in the revised Implementation Plan allowed us to adjust the original mix of some platforms. Owing to planned increases in C-130 aircraft for long-range surveillance and transport, for example, it is possible to adjust the number of CASA HC-235 aircraft (MRS) originally planned for the program. The flexibility inherent in Deepwater's acquisition will enable the Coast Guard to adjust the final mix of selected platforms as overall system-of-systems capability improvements are generated by, for example, significant improvements to the program's system for C4ISR or UAV technology.

It is very difficult to predict today, with precise accuracy, what the optimum mix of Deepwater assets will be 15, 20, or 25 years from now. For that reason, our long-range projection for the acquisition depicts a range of assets in some cases. Deepwater's final mix of assets and fleet size will be based on assessments of our threat environment, mission requirements, the actual performance of each asset, and

the overall Deepwater system of systems' performance. Deepwater's final number and mix of assets will, at a minimum, be sufficient to meet DHS and Coast Guard long-term performance goals. The program's five-year Capital Investment Plan provides a far more meaningful vehicle for assessing the program's current and future direction.

The Deepwater Program, guided now by a post-9/11 Implementation Plan, is an essential element of the DHS strategy to reduce the future risk of a terrorist event in the homeland and to enable the Coast Guard to deliver required levels of operational excellence in all our maritime and military missions.

Implement the Maritime Strategy for Homeland Security
Considering the vast economic utility of our ports, waterways, and coastal approaches—not to mention their densely populated locations—it is clear that a terrorist incident against our marine transportation system would have a disastrous impact on global shipping, international trade, and the world economy in addition to the strategic military value of many ports and waterways.

The four pillars of the Coast Guard's *Maritime Strategy for Homeland Security* are in direct alignment with the Department of Homeland Security's strategic goals of Awareness, Prevention, Protection, Response and Recovery. These pillars guide our efforts to reduce America's vulnerabilities to terrorism by enhancing our ability to prevent terrorist attacks and limit the damage to our nation's ports, coastal infrastructure and population centers in the event a terrorist attack occurs. The Deepwater Program is inextricably linked with the Coast Guard's ability to implement its *Maritime Strategy for Homeland Security* in several ways.

Enhance Global Maritime Domain Awareness

First, we seek to increase our awareness and knowledge of what is happening in the maritime arena, not just here in American waters, but globally. Global MDA is critical to separate the law-abiding sailor from the anomalous threat. More capable, interoperable Deepwater platforms and associated network-centric C4ISR systems will allow the Coast Guard to *shape* the global maritime environment to promote U.S. national interests; *know* maritime conditions, vulnerabilities, and threats to enhance MDA and establish a layered defense, and *position* the Coast Guard to act with certainty in a complex, uncertain environment.

The core of our MDA efforts revolve around the development and employment of accurate information, intelligence, and targeting of vessels, cargo, crews and passengers – and extending this well beyond our traditional maritime boundaries. All DHS components are working to provide a layered defense through collaborative efforts with our international partners to counter and manage security risks long before they reach a U.S. port. Many initiatives are in motion to implement comprehensive MDA, and the 2006 budget significantly advances our efforts. Deepwater funding for the revised Implementation Plan will continue C4ISR enhancements aboard legacy assets and development of the Common Operational Picture for new Deepwater platforms.

Deepwater's C4ISR system is a fundamental building block to improve MDA and focuses on the information needs of operators and decision makers. The system is being designed to ensure seamless interoperability with all Coast Guard units, within DHS, and with the Navy and other agencies—it is a true force multiplier in the fullest sense. As we have seen during at-sea operations in recent months, legacy assets upgraded with Deepwater systems enable earlier *awareness*—the gathering and fusing of terrorism-related information and analysis—coordination, and response. This is critical to our improved ability to detect, deter, and defeat terrorist attacks.

Increase Operational Presence and Response Posture

Second, we seek to better protect critical maritime infrastructure and improve our ability to respond to suspect activities by increasing our *operational presence and response posture* in ports, coastal zones and beyond—to implement a layered security posture/defense in depth. Deepwater cutters will possess better sea keeping ability, higher sustained transit speeds, greater endurance and range, and the ability to launch and recover manned and unmanned aerial vehicles in higher sea states—all critical to more effective maritime operations at sea and close to shore. Deepwater's revised Implementation Plan will enable us to meet increased security responsibilities safely and more effectively—including greater jurisdiction over foreign-flagged ships, screening and targeting of vessels of interest, on-board verification through boardings, and enforcement-control actions.

Our collective efforts to increase operational presence and response posture in ports and coastal zones focus not only on adding more people, boats and ships to the current force structure but making the employment of those resources more effective through the application of technology, information sharing, and intelligence support. The 2006 Deepwater budget focuses resources toward increasing both the quantity and quality of Coast Guard operational capabilities by providing continued investment to improve the Coast Guard's maritime presence and response posture starting at America's ports, waterways, and coasts and extending seaward to wherever the Coast Guard needs to be present or to take appropriate maritime action. Deepwater provides the capability to identify, interdict, board, and where warranted seize vessels or people engaged in illegal or terrorist activity at sea or on the ports, waterways, or coast of America.

Deepwater will deliver the increased capacity *tomorrow* that allows us to become as much a "presence" organization as we are a response organization today. In keeping with the central premise underlying our *Strategy for Maritime Homeland Security* and, consistent with our Title 10 national-defense responsibilities for homeland defense, we simply cannot afford just to respond to emergencies. We must *prevent* them. Ongoing modernization and recapitalization programs are critical in this regard, because they will deliver the platforms and systems needed to close the well-documented capability gaps found in today's Coast Guard.

Enhance Mission Performance

Lastly, we must continue to leverage the Coast Guard's unique blend of authorities, capabilities, competencies and partnerships to enhance performance across the full suite of Coast Guard mission requirements.

The Coast Guard is the nation's lead federal agency for maritime homeland security and fulfills a crucial role within the Department of Homeland Security as the nation's maritime first responder. We also have important responsibilities to the Department of Defense in our military mission areas. The 2006 budget includes resources necessary to effectively execute all of our missions and makes important contributions to our associated performance goals. Every resource provided to the Coast

Guard will contribute to a careful balance between our safety, security, mobility, protection of natural resources and national-defense missions—all of which must be adequately resourced to meet the Coast Guard's performance objectives.

Deepwater's capabilities are fundamental to the Coast Guard's performance of its core missions while dramatically increasing our ability to meet expanding homeland security, homeland defense, and expeditionary-support requirements. The Coast Guard is the *one* unique instrument of national security that straddles the seam between the closely related mission areas of homeland security and homeland

defense. It is at the confluence of Coast Guard authorities, law-enforcement competencies, interagency experience, and military functionality where threats can be identified and dealt with. Improved Deepwater platforms and systems will serve as the Coast Guard's means for satisfying both our homeland defense and homeland security responsibilities.

A Year of Achievement

As part of our efforts to enhance mission performance, it is appropriate to acknowledge that Deepwater's Coast Guard-industry team marked numerous important milestones during 2004. Beyond the past year's success story of C4ISR upgrades to legacy cutters, Deepwater's C4ISR shore-side upgrade was completed in 2004 at the Communications Area Master Station Pacific (CAMSPAC) facility at Point Reyes, Calif. The first shore-based IDS communications upgrade was completed in 2003 at Communications Area Master Station Atlantic (CAMSLANT).

As I discussed, we laid the keel for our first NSC a month ago. The contract for that cutter was awarded just last June to Integrated Coast Guard Systems (ICGS, a joint venture between Lockheed Martin and Northrop Grumman). The Coast Guard's contract for the second cutter in the class was awarded to ICGS in early January. Northrop Grumman Ship Systems is leading the production effort, with Lockheed Martin responsible for the design, manufacture, and integration of the cutter's systems for C4ISR. From start-up to keel laying in a little less than two years, this is an impressive achievement.

Also last June, the Coast Guard awarded a contract to ICGS to begin the design and final requirements work for the OPC, Deepwater's medium-sized cutter. The design and final requirements for the third class of Deepwater cutters, the FRC, also will move forward smartly in 2005.

There also was steady progress in Deepwater's modernization and recapitalization of Coast Guard aviation assets last year. For example, the first production re-engined HH-65 helicopter incorporating Deepwater upgrades completed its test flights successfully in September and entered full operational service at Aviation Training Center, Mobile, Alabama., in early October. We are evaluating the feasibility of opening a second production line to allow the Coast Guard to accelerate this critical upgrade on our HH-65s, mindful of their reputation as the "workhorse of the fleet."

Similar progress is evident in the recapitalization of the Coast Guard's fixed-wing aircraft inventory. In 2003, the Coast Guard awarded a contract to ICGS for concept and technology development of our new maritime patrol aircraft. Initial contracts between Lockheed Martin and EADS CASA are for the procurement of three CN-235-300M medium-range surveillance maritime patrol aircraft. Delivery is scheduled for 2007 following configuration for Coast Guard missions. The contract also includes an option for spare parts and integrated logistic support, as well as an option for five additional aircraft. The CN-235-300M completed a successful Preliminary Design Review in December. Deepwater's Eagle Eye tiltrotor VUAV successfully completed its Preliminary Design Review last March and underwent its Critical Design Review in January 2005.

National Fleet

Deepwater's recapitalization of the Coast Guard also plays a key enabling role in providing the means to achieve the National Fleet Policy's goals for interoperable Coast Guard and Navy assets. The policy is in place to ensure our two services work together to synchronize our multi-mission platforms, infrastructure, and personnel to provide the highest level of naval and maritime capability for the nation's investment.

Admiral Clark, the Chief of Naval Operations, has said that the global war on terrorism's heightened requirement for improved homeland defense and maritime security has produced a Navy-Coast Guard partnership unlike anything the sea services have experienced in many years. Partnership with the Navy and the Department of Defense allows an effective two-way flow of capability to meet both expeditionary and domestic security imperatives—all very much in the national interest. A number of initiatives are in motion to advance the National Fleet concept following my senior-level talks with Admiral Clark last November. Deepwater's contribution to National Fleet Policy objectives will only increase as the Program continues to gain momentum during the years ahead.

The Deepwater Program is actively working with the Littoral Combat Ship (LCS) Program at a functional level on small boat launch and recovery, weapons and combat systems, and mission modules. We are exploring other collaborative opportunities with the Naval Air Systems Command and the Marine Corps Systems Command.

The revised Deepwater Implementation Plan directly supports this inter-agency collaboration with the Navy. The plan's provisions for more capable Coast Guard cutters, aircraft, patrol boats, and C4ISR systems will enable us to achieve the National Fleet policy's call for the highest level of naval and maritime operational integration for improved maritime security.

Program Management

Deepwater also has made steady progress implementing recommendations from the Government Accountability Office (GAO) to improve program management and oversight. Last year, GAO identified 11 eleven items of concern. The Deepwater Program has worked diligently and successfully to address them.

Since its March 2004 report was issued, we have updated GAO regularly on the implementation of these improvements through four detailed reports and four briefs including a day-long conference in January. We have taken specific actions to improve program management efforts to measure and evaluate cost, schedule, and performance; improve communications, and to encourage future cost control through rigorous competition.

In short, the Coast Guard has embraced the GAO's report. Its eleven recommendations were grouped by three categories: program management, contractor accountability, and cost controls through competition. GAO has closed two of the eleven recommendations as completed by the Coast Guard and we anticipate further closures shortly. These GAO closure actions document the work the Coast Guard has done to comply with the GAO recommendations.

To improve program management, we have restructured Deepwater's Integrated Product Teams (IPTs) to comport with GAO best practices, improved electronic information sharing systems, stabilized the workforce through human capital improvements, and standardized information flow from the program to field units to facilitate delivery of, and transition to upgraded Deepwater legacy platforms.

Regarding contractor accountability, the Coast Guard has refined the ICGS performance criteria to standardize input and increase the objectivity of annual assessments. To continually monitor contractor performance, the Coast Guard employs a "balanced score card" and an earned value-management system (both of which are considered "industry best practices").

To ensure cost control through competition, the Coast Guard reviews the competition of ICGS subcontracts through periodic evaluations. Additionally, ICGS has agreed to notify the Coast Guard prior to deviating from the accepted contract proposal if they decide to execute work in-house above $10 million that was proposed to be subcontracted by a company other than the ICGS prime contractor.

The Coast Guard welcomed the GAO's recommendations last year. We viewed them as an independent review of IDS contract-management practices. During her testimony to the Senate last month on the Deepwater Program, I was gratified to hear Ms. Margaret Wrightson, GAO's Director for Homeland Security and Justice Issues, describe the Coast Guard's response to her agency's review of our Deepwater Program as a "constructive engagement" on the issues. I share Ms. Wrightson's assessment and remain committed to the success of what I judge is a collaborative, complementary effort.

We fully recognize that GAO still sees the potential for our contracting approach to pose a number of inherent risks that, left unaddressed, could lead to increased costs and schedule adjustments in the Deepwater Program, but I restate today the Coast Guard's unwavering commitment to good stewardship. The Deepwater-industry team is a developing organization fully committed to continuous process improvement, the adoption of best-business practices, and an open frame of reference leading to continued refinement of its acquisition strategy and business plan.

We take our stewardship seriously, and we will achieve program success through performance measures and accountability. Simply stated, the GAO is making active contributions to help us successfully execute this critical Deepwater Program.

Conclusion

I appreciate your strong support of the Deepwater Program over the past several years in providing the Coast Guard with the tools necessary to meet our multi-mission and military demands and to fight the Global War on Terrorism. I am extremely proud of our Coast Guard's accomplishments since 9/11 as we strive to increase maritime homeland security while continuing to perform a myriad of critical maritime safety functions.

Funding requested for the Deepwater Program will positively impact our ability to deliver the maritime safety and security America demands and deserves by focusing resources toward our three critical priorities: recapitalize the Coast Guard, implement the *Maritime Strategy for Homeland Security*, and enhance mission performance.

The revised Deepwater Implementation Plan's progressive modernization and recapitalization will provide improved, critically needed capabilities that are fundamental to the Coast Guard's ability to deliver required levels of operational excellence necessary for the security of the nation and the safety of our citizens.

Thank your for the opportunity to testify before you today on the Deepwater Program. I will be happy to answer any questions you may have.

United States Government Accountability Office

GAO

Testimony Before the House Committee on Transportation and Infrastructure, Coast Guard and Maritime Transportation Subcommittee

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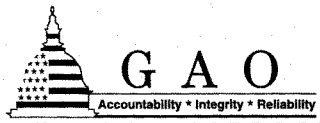
COAST GUARD

Preliminary Observations on the Condition of Deepwater Legacy Assets and Acquisition Management Challenges

Statement of Margaret T. Wrightson, Director,
Homeland Security and Justice Issues



GAO-05-307T

April 20, 2005

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Highlights

Highlights of GAO-05-307T, a testimony for the Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure

COAST GUARD

Preliminary Observations on the Condition of Deepwater Legacy Assets and Acquisition Management Challenges

Why GAO Did This Study

In 2002, the Coast Guard began a multiyear, $19 billion to $24 billion acquisition program to replace or modernize its fleet of deepwater aircraft and cutters, so called because they are capable of operating many miles off the coast. For several years now, the Coast Guard has been warning that the existing fleet—especially cutters—was failing at an unsustainable rate, and it began studying options for replacing or modernizing the fleet more rapidly. Faster replacement is designed to avoid some of the costs that might be involved in keeping aging assets running for longer periods.

This testimony, which is based both on current and past GAO work, addresses several issues related to these considerations: (1) changes in the condition of deepwater legacy assets during fiscal years 2000 through 2004; (2) actions the Coast Guard has taken to maintain and upgrade deepwater legacy assets; and (3) management challenges the Coast Guard faces in acquiring new assets, especially if a more aggressive schedule is adopted.

www.gao.gov/cgi-bin/getrpt?GAO-05-307T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Margaret Wrightson at (415) 904-2200 or wrightsonm@gao.gov.

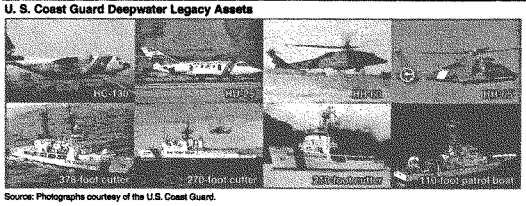
What GAO Found

Available Coast Guard condition measures indicate that the Coast Guard's deepwater legacy aircraft and cutters are generally declining, but these measures are inadequate to capture the full extent of the decline in the condition of deepwater assets with any degree of precision. GAO's field visits and interviews with Coast Guard staff, as well as reviews of other evidence, showed significant problems in a variety of the assets' systems and equipment. The Coast Guard has acknowledged that it needs to develop condition measures that more clearly demonstrate the extent to which asset conditions affect mission capabilities, but such measures have not yet been finalized or implemented.

The Coast Guard has taken several types of actions to help keep the deepwater legacy assets operational, but these actions, while helpful, may not fully address mission capability issues and may require additional funding. For example, to help meet mission requirements, Coast Guard staff are performing more extensive maintenance between deployments, but even so, aircraft and cutters continue to lose mission capabilities. One Coast Guard command is using a new approach to help sustain the oldest class of cutters, but this approach will likely require additional funds—something not included thus far in Coast Guard budget plans or requests.

If the Coast Guard adopts a more aggressive acquisition schedule, it will likely continue to face a number of challenges that have already affected its ability to effectively manage the Deepwater program. GAO has warned that the Coast Guard's acquisition strategy, which relies on a prime contractor ("system integrator") to identify and deliver the assets needed, carries substantial risks. In 2004, well into the contract's second year, key components for managing the program and overseeing the system integrator's performance had not been effectively implemented. The Coast Guard has begun addressing some problems—for example, putting more emphasis on competition as a way to control costs—but many areas have not been fully addressed. A more aggressive schedule would only heighten the risks.

U. S. Coast Guard Deepwater Legacy Assets



Source: Photographs courtesy of the U.S. Coast Guard.

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss our preliminary observations on the condition of deepwater legacy assets,[1] actions the Coast Guard has taken to maintain and upgrade these assets, and management challenges the Coast Guard faces in acquiring new assets, especially if a more aggressive schedule is adopted. Deepwater legacy assets consist mainly of aircraft and cutters capable of operating further out to sea, but missions may begin at ports, waterways, and coasts and extend seaward to wherever the Coast Guard is required to take action. The Coast Guard uses these assets to perform a variety of missions, such as interdicting illicit drug shipments or attempted landings by illegal aliens, rescuing mariners in difficulty at sea, protecting important fishing grounds, and responding to marine pollution. After the events of September 11, 2001, these missions were expanded to include a greater emphasis on port, waterways, and coastal security. The Coast Guard's expanded responsibilities caused changes in how the deepwater legacy assets are used—for example, in conducting more security patrols—and they also created a need to make adjustments in mission requirements for assets that would be updated or built as part of the long-term acquisition program.

Many deepwater legacy assets are at or approaching the end of their estimated service lives. In 2002, the Coast Guard began a multiyear Integrated Deepwater System acquisition program to replace or modernize the legacy assets. The Coast Guard's new implementation plan estimates the cost for the Deepwater program at $19 billion to $24 billion. From fiscal years 2002 through 2005, the Coast Guard was appropriated nearly $2.2 billion for the Deepwater program. This amount included close to $1.3 billion for new acquisitions and $460.5 million for upgrades of the legacy assets. Further, because the Coast Guard must continue to operate the deepwater legacy assets until the new assets are acquired, the Coast Guard

[1] For purposes of this testimony, we use the term "legacy assets" to refer to the existing fleet of deepwater aircraft and cutters. These legacy assets include the HC-130, HU-25, HH-60, and HH-65 aircraft and the 378-foot high-endurance cutters, the 210-foot and 270-foot medium-endurance cutters, and the 110-foot and 123-foot patrol boats. We did not include the 213-foot *Acushnet*, the 230-foot *Storis*, or the 282-foot *Alex Haley* as part of our analyses of the deepwater legacy assets because they are one-of-a-kind vessels.

has spent close to $594 million during fiscal years 2002 through 2004 to fund intermediate- and depot-level maintenance of these assets.[2]

The Coast Guard is requesting $966 million for the Deepwater program for fiscal year 2006—$242 million more than Congress appropriated for the program last year. Part of this request ($239.5 million) is for maintenance and upgrades to some deepwater legacy assets and is predicated, in part, on the Coast Guard's assertion that its deepwater legacy assets are "failing at an unsustainable rate" and "headed for a train wreck." Faced with this concern, the Coast Guard has studied options for replacing deepwater legacy assets more rapidly than initially planned and thereby avoiding some of the costs that might be involved in upgrading these assets sufficiently to keep them running for longer periods. In the coming years, both the Coast Guard and Congress will likely be considering the advisability of such changes in the program.

My testimony today addresses three issues related to these considerations:

- Changes in the condition of deepwater legacy assets during fiscal years 2000 through 2004;
- Actions the Coast Guard has taken to maintain and upgrade deepwater legacy assets; and
- Management challenges the Coast Guard faces in acquiring new assets, especially if a more aggressive schedule is adopted.

My testimony is based on past and current work for this subcommittee and other congressional committees. Our current work included analyzing data and condition measures[3] used by the Coast Guard for determining

[2] Intermediate-level and depot-level maintenance include repairs and upgrades that are too time-consuming or complicated to be performed at the unit level. For aircraft, this would include repairing, overhauling, or rebuilding parts, components, and end items, and emergency manufacturing of unavailable parts. For cutters, intermediate- and depot-level maintenance would include preventive or corrective maintenance, as well as a major overhaul or complete rebuild of parts, assemblies, and end items; as well as major hull repairs, general modifications, and testing.

[3] To assess the reliability of the Coast Guard's data and condition measures, we questioned knowledgeable officials and reviewed existing documentation about the data and the systems that produced the data. We determined that the data were sufficiently reliable for the purposes of this testimony.

deepwater legacy assets' condition,[4] reviewing Coast Guard actions to maintain and upgrade the legacy assets, meeting with operations and maintenance staff covering each type of deepwater legacy aircraft and each class of deepwater legacy cutter, and assessing the improvements the Coast Guard is making in its management of the Deepwater acquisition. We will be following up this testimony with a written report that will contain additional, detailed information related to the condition of deepwater legacy assets, and the actions the Coast Guard is taking to maintain and upgrade them. As part of the follow-on report, we will also further examine the Coast Guard's management of the Deepwater program and follow up on recommendations made in a prior GAO report.[5] Our work was carried out in accordance with generally accepted governmental auditing standards.

In summary, our work thus far shows the following:

- Coast Guard condition measures show that the deepwater legacy assets generally declined between fiscal years 2000 and 2004, but the Coast Guard's available condition measures are inadequate to capture the full extent of the decline in the condition of deepwater assets with any degree of precision. While there is no systematic, quantitative evidence sufficient to demonstrate that deepwater legacy assets are "headed for a train wreck," this does not mean that the assets are able to perform their missions safely, reliably, and at levels that meet or exceed Coast Guard standards. Evidence we gathered in ways other than reviewing condition measures, such as interviewing Coast Guard operations and maintenance staff, showed deteriorating and obsolete systems and equipment as a major cause of the reduction in mission

[4] In assessing the condition of deepwater aircraft and cutters for this testimony, we analyzed what Coast Guard officials told us were the best available condition measures. For deepwater aircraft, we reviewed the availability index (percentage of time aircraft were available to complete missions), cost per flight hour, labor hours per flight hour, programmed flight hours per year, scheduled versus unscheduled maintenance expenditures, and estimated deferred maintenance. For cutters, we reviewed the number of major casualties, the percent of time free of major casualties, scheduled versus unscheduled maintenance, and estimated deferred maintenance. We also reviewed data on mishaps and the dispatch reliability index for aircraft, and lost cutter days and unscheduled maintenance days for cutters. We did not use data on these measures, though, because the data were either not relevant to our analysis, incomplete, not available for the entire time period covered by our review, or not sufficiently reliable for our purposes.

[5] GAO, *Contract Management: Coast Guard's Deepwater Program Needs Increased Attention to Management and Contractor Oversight*, GAO-04-380 (Washington, D.C.: March 9, 2004).

capabilities for a number of deepwater legacy aircraft and cutters that will need to be addressed if the assets are to continue performing their missions at or near current levels until replacement assets become operational. These problems are not necessarily reflected in the condition measures. For example, the Coast Guard's HH-65 helicopter consistently exceeded the Coast Guard's primary condition measure during fiscal years 2000 through 2004, yet its engine is being replaced because of increasing in-flight power loss incidents, a significant safety and reliability issue. The Coast Guard has acknowledged that it needs measures that more clearly demonstrate the extent to which asset conditions affect mission capabilities, but such measures have not yet been finalized or implemented.

- The Coast Guard has taken several types of actions to keep existing assets operational, but these actions, while helpful, may not fully address mission capability issues and may require additional funding. The Coast Guard now compiles information that can be used to better identify and prioritize the maintenance or upgrade projects that need to be done to keep existing assets operating. Coast Guard personnel, according to evidence obtained during our site visits, are also performing more maintenance on these assets than they have in the past—for example, spending additional time on maintenance when cutters are in port between deployments. These additional maintenance efforts are likely helping to prevent a more rapid decline in the condition of these assets, but it is important to note that even so, cutters and aircraft are still losing mission capabilities because of equipment and system failures. Finally, the Coast Guard's Pacific Area Command, which is heavily dependent on deteriorating 378-foot cutters, is attempting to use new strategies to help sustain the operation of these cutters through 2016, when they are currently scheduled to be fully replaced with newer cutters. According to the Pacific Area Commander, however, doing so is likely to require an additional infusion of funds—something the Coast Guard has so far not included in its budget requests or plans.

- The Coast Guard's fiscal year 2006 budget request of $966 million for the Deepwater program reflects significant revisions to the program's requirements, capabilities, and schedule in light of the homeland security mission. We have not yet analyzed the likely cost and schedule impact of these revisions. However, if a more aggressive acquisition schedule were adopted, the Coast Guard would likely continue to face a number of management challenges that have already affected its ability to effectively administer the Deepwater program. From the outset, we have expressed concern about the risks involved with the

Coast Guard's acquisition strategy, which involves relying on a prime contractor (or "system integrator") to identify the assets needed, using tiers of subcontractors to design and build the actual assets. Last year, we reported that well into the contract's second year, key components needed to manage the program and oversee the system integrator's performance had not been effectively implemented. We made a number of recommendations in the areas of program management, contractor accountability, and cost control through competition. While the Coast Guard agreed with nearly all of these recommendations and has initiated actions to address these problems, we remain concerned that the program still carries major and inherent risks. The majority of our recommendations have yet to be fully addressed. Recent information shows continued challenges in the areas of overall system integration, cost and schedule management, and integrated product teams, which consist of contractor and government personnel and are the Coast Guard's principal tool for managing the Deepwater program. In our opinion, the uncertainties associated with the proposed revisions to the Deepwater program only heighten these risks.

Background

As the lead federal agency for maritime homeland security within the Department of Homeland Security, the Coast Guard is responsible for homeland and nonhomeland security missions, including ensuring security in ports and waterways and along coastlines, conducting search and rescue missions, interdicting drug shipments and illegal aliens, enforcing fisheries laws, and responding to reports of pollution. The deepwater fleet, which consists of 186 aircraft and 88 cutters of various sizes and capabilities, plays a critical role in all of these missions. As shown in table 1, the fleet includes fixed-wing aircraft, helicopters, and cutters of varying lengths.

Table 1: Deepwater Legacy Aircraft and Cutter Fleets (as of April 14, 2005)

Deepwater	Number	Description	Photograph
Aircraft			
HC-130 (long-range surveillance airplane)	27	This is the largest aircraft in the Coast Guard's fleet. It has a planned crew size of 7, a maximum speed of 290 knots, and an operating range of 2,600 nautical miles. The original estimated service life of the HC-130 was 30 years or 40,000 flight hours.[a] The in-service fleet average age for the Coast Guard's HC-130H aircraft is 21.9 years.	
HU-25 (medium-range surveillance airplane)	23	This is the fastest aircraft in the Coast Guard's fleet. It has a planned crew size of 5, a maximum speed of 410 knots, and an operating range of 2,045 nautical miles. The original estimated service life of the HU-25 was 20 years or 20,000 flights or 30,000 flight hours.[a] The in-service fleet average age for the Coast Guard's HU-25 aircraft is 22.1 years.	
HH-60 (medium-range recovery helicopter)	41	This helicopter has a planned crew size of 4, a maximum speed of 160 knots, and a maximum range of 700 nautical miles. It is capable of flying 300 miles offshore, remaining on scene for 45 minutes, hoisting 6 people on board, and returning to its point of origin. The original estimated service life of the HH-60 was approximately 20 years or 10,000 flight hours.[a] The in-service fleet average age for the Coast Guard's HH-60 helicopter is 12.6 years.	
HH-65 (short-range recovery helicopter)	95	This helicopter has a planned crew size of 3, a maximum speed of 165 knots, a maximum range of 400 nautical miles, and a maximum endurance of 3.5 hours. It is capable of flying 150 miles offshore. The original estimated service life of the HH-65 was 20 years.[a] The in-service fleet average age for the Coast Guard's HH-65 helicopter is 17.6 years.	
Cutters			
378-foot high-endurance cutter	12	This is the largest cutter in the Coast Guard's deepwater fleet. It has a planned crew size of 167, a maximum speed of 29 knots, and a cruising range of 14,000 nautical miles. It can support helicopter operations. The estimated service life of the 378-foot cutter is about 40 years. The average age of the Coast Guard's 378-foot cutters is 35.3 years.	
270-foot medium-endurance cutter	13	This cutter has a planned crew size of 99, a maximum speed of 19.5 knots, and a cruising range of 10,250 nautical miles. It can support helicopter operations. The estimated service life of the 270-foot cutter is 30 years. The average age of the Coast Guard's 270-foot cutters is 17.0 years.	
210-foot medium-endurance cutter	14	This cutter has a planned crew size of 75, a maximum speed of 18 knots, and a cruising range of 6,100 nautical miles. It can support short-range recovery helicopter operations. The estimated service life of the 210-foot cutter is from 43 to 49 years. The average age of the Coast Guard's 210-foot cutters is 37.3 years.	
110-foot and 123-foot patrol boats	49	The patrol boats have a planned crew size of 16 and a maximum speed of 29.5 knots. The 110-foot patrol boat has a cruising range of between 3,300 and 3,500 nautical miles, and the 123-foot patrol boat has a cruising range of 3,180 nautical miles, depending on the class of the patrol boat. The estimated service life of the patrol boats is from 14 to 20 years. The average age of the Coast Guard's patrol boats is 15.4 years.	

Source: Developed by GAO from U.S. Coast Guard data. Photographs are courtesy of the U.S. Coast Guard.

[a]Because of scheduled depot-level maintenance and upgrades that the deepwater aircraft have received or will receive, the service lives can be extended beyond the original estimated service lives. For the HH-65 helicopter, a Coast Guard aviation official told us that the aircraft had no original estimated service life in terms of flight hours, but rather can continue to be operated as long as the structure of the aircraft is sound.

Some Coast Guard deepwater cutters were built in the 1960s. Notwithstanding extensive overhauls and other upgrades, a number of the cutters are nearing the end of their estimated service lives. Similarly, while a number of the deepwater legacy aircraft have received upgrades in engines, operating systems, and sensor equipment since they were originally built, they too have limitations in their operating capabilities.

In 1996, the Coast Guard began developing what came to be known as the Integrated Deepwater System acquisition program as its major effort to replace or modernize these aircraft and cutters. This Deepwater program is designed to replace some assets—such as deteriorating cutters—with new cutters and upgrade other assets—such as some types of aircraft—so they can meet new performance requirements.[6]

The Deepwater program represents a unique approach to a major acquisition in that the Coast Guard is relying on a prime contractor—the system integrator—to identify and deliver the assets needed to meet a set of mission requirements the Coast Guard has specified.[7] In 2002, the Coast Guard awarded a contract to Integrated Coast Guard Systems (ICGS) as the system integrator for the Deepwater program. ICGS has two main subcontractors—Lockheed Martin and Northrop Grumman—who in turn contract with other subcontractors. The resulting program is designed to provide an improved, integrated system of aircraft, cutters, and unmanned aerial vehicles to be linked effectively through systems that provide command, control, communications, computer, intelligence, surveillance, reconnaissance, and supporting logistics. We have been reviewing the Deepwater program for several years. In recent reports we have pointed out difficulties the Coast Guard has been having in managing the

[6] Current plans call for the Coast Guard to replace all of its deepwater legacy cutters and patrol boats, beginning with the 378-foot cutters. The Coast Guard also plans to replace the HU-25 aircraft, but will upgrade the existing HC-130 aircraft and HH-60 and HH-65 helicopters to extend their service lives.

[7] The mission requirements include such things as the ability to (1) respond to 90 percent of all distress incidents within 2 hours; (2) detect and track targets of any material such that the probability of detection is at least 90 percent for small targets, such as a person in the water or a single-engine civil aircraft; and (3) respond to National Emergency Response Operations within 48 hours.

Deepwater program and ensuring that the acquisition schedule is up to date and on schedule.[8]

The existing schedule calls for acquisition of new assets under the Coast Guard's Deepwater program to occur over an approximately 20-year period. By 2007, for example, the Coast Guard is to receive the first National Security Cutter, which will have the capability to conduct military missions related to homeland security. Plans call for 6 to 8 of these cutters to replace the 12 existing 378-foot cutters. However, in order to carry out its mission effectively, the Coast Guard will also need to keep all of the deepwater legacy assets operational until they can be replaced or upgraded.

Deepwater Legacy Assets Show General Decline in Condition, But Current Measures Do Not Capture True Extent

Coast Guard condition measures show that the deepwater legacy assets generally declined between 2000 and 2004, but the Coast Guard's available condition measures are inadequate to capture the full extent of the decline in the condition of deepwater assets with any degree of precision. Other evidence we gathered, such as information from discussions with maintenance personnel, point to conditions that may be more severe than the available measures indicate. The Coast Guard acknowledges that it needs better condition measures but has not yet finalized or implemented such measures.

Coast Guard's Condition Measures Show General Decline in Deepwater Assets, with Some Fluctuations

During fiscal years 2000 through 2004, the Coast Guard's various condition measures show a general decline, although there were year-to-year fluctuations (see table 2). For deepwater legacy aircraft, a key summary measure of the condition—the availability index (the percentage of time aircraft are available to perform their missions)—showed that except for the HU-25 medium-range surveillance aircraft, the assets continued to perform close to or above fleet availability standards over the 5-year period. In contrast, other condition measures for aircraft, such as cost per flight hour and labor hours per flight hour, generally reflected some deterioration. For cutters, a key summary measure of condition—percent

[8]See GAO, *Coast Guard: Deepwater Program Acquisition Schedule Update Needed*, GAO-04-695 (Washington, D.C.: June 14, 2004); *Coast Guard: Key Management and Budget Challenges for Fiscal Year 2005 and Beyond*, GAO-04-636T (Washington, D.C.: April 7, 2004); and GAO-04-380.

of time free of major casualties[9]—fluctuated but generally remained well below target levels. The number of major casualties generally rose from fiscal years 2000 through 2003 and then dropped slightly in fiscal year 2004.[10]

Table 2: Synopsis of Deepwater Legacy Assets' Condition

Deepwater legacy asset	Synopsis of general asset condition
HC-130 aircraft	The percentage of time the HC-130 fleet was available to perform missions nearly met or exceeded the Coast Guard's target level during fiscal years 2000 through 2003, but dropped below the target level in fiscal year 2004.
HU-25 aircraft	The percentage of time the HU-25 fleet was available to perform missions varied from year to year, but was consistently below the Coast Guard's target level during fiscal years 2000 through 2004.
HH-60 aircraft	The percentage of time the HH-60 fleet was available to perform missions met or was just below the Coast Guard's target level during fiscal years 2000 though 2004.
HH-65 aircraft	The percentage of time the HH-65 fleet was available to perform missions consistently exceeded the Coast Guard's target level during fiscal years 2000 through 2004.
378-foot high-endurance cutters	The percentage of time the 378-foot cutter fleet has operated free of deficiencies in mission-essential equipment remained substantially below the Coast Guard's target level during fiscal years 2000 through 2004.
270-foot and 210-foot medium-endurance cutters	The percentage of time the 210-foot and 270-foot cutter fleets have operated free of deficiencies in mission-essential equipment was well below the Coast Guard's target level during fiscal years 2000 through 2004, but showed slight improvement in fiscal year 2004.
110-foot and 123-foot patrol boats[a]	The percentage of time the patrol boat fleet has operated free of deficiencies in mission-essential equipment was below but near the Coast Guard's target level during fiscal years 2000 and 2001, but declined in more recent years.

Source: GAO analysis of data provided by the U.S. Coast Guard.

[a]Data on the 123-foot patrol boats were not compiled until fiscal year 2004. That year's data were added to the 110-foot patrol boat data to arrive at totals for the patrol boat fleet.

[9] A casualty is a deficiency in mission essential equipment; a major casualty causes the major degradation or loss of at least one primary mission.

[10] However, major casualties for the 378-foot high-endurance cutters continued to increase in 2004.

Another, albeit less direct, measure of an asset's condition is deferred maintenance—the amount of scheduled maintenance that must be postponed on an asset in order to pay for unscheduled repairs. Such deferrals can occur when the Coast Guard does not have enough money to absorb unexpected maintenance expenditures and still perform all of its scheduled maintenance, thus creating a backlog. For example, in spring 2004, while on a counter-drug mission, the 210-foot cutter *Active* experienced problems in the condition of its flight deck that were to be corrected during its scheduled depot-level maintenance. However, because of a lack of funding, the maintenance was deferred and the flight deck not repaired. As a result, the cutter lost 50 percent of its patrol time, since the required support helicopters could not take off from or land on it.

As table 3 shows, deferred maintenance does not show a clear pattern across all classes of deepwater legacy assets. For the deepwater legacy aircraft, the overall amount of estimated deferred maintenance increased each year during fiscal years 2002 through 2004, from $12.3 million to about $24.6 million. However, most of the increase came from one type of asset, the HH-60 helicopter, and was mainly the result of shortening the interval between scheduled depot-level maintenance from 60 months to 48 months—thereby increasing the scheduled maintenance workload—and not from having to divert money to deal with unscheduled maintenance. For the deepwater cutters, the amount of estimated deferred maintenance increased from fiscal year 2002 to 2003, but then dropped significantly in fiscal year 2004. The decrease in fiscal year 2004 came mainly because (1) the Coast Guard ceased maintenance on an icebreaker, thus freeing up some maintenance funds; and (2) the Coast Guard also received supplemental operational and maintenance funding, allowing it to deal with both scheduled and unscheduled maintenance. Thus, the drop in the estimate of deferred maintenance costs for fiscal year 2004 is not necessarily an indicator that the condition of the legacy assets was improving; it could result from the Coast Guard having more money to address the maintenance needs.

Table 3: Estimated Costs for Deferred Maintenance of Deepwater Aircraft and Cutters, Fiscal Years 2002-2004

Deepwater asset	Fiscal year 2002	Fiscal year 2003	Fiscal year 2004
HC-130	$4,691,000	$7,016,000	$5,737,000
HU-25	0	$201,000	0
HH-60	$7,630,000	$9,436,000	$18,824,000
HH-65	0	0	0
Subtotal for aircraft	$12,321,000	$16,653,000	$24,561,000
378-foot cutters	$2,556,000	$8,135,000	$3,000,000
270-foot cutters	$2,070,000	$870,000	0
210-foot cutters	$786,000	$1,137,000	0
110-foot patrol boats	$1,618,000	$1,961,000	$500,000
Subtotal for cutters	$7,030,000	$12,103,000	$3,500,000
Total for all deepwater assets	**$19,351,000**	**$28,756,000**	**$28,061,000**

Source: U.S. Coast Guard

Note: The Coast Guard estimates the cost for aircraft deferred maintenance by multiplying a percentage of average depot maintenance costs by the number of aircraft overdue for depot maintenance overhauls, plus the annual cost for extension inspections each year. The Coast Guard generally does not track deferred maintenance costs by cutter class, but compiled these data at GAO's request for fiscal years 2002 through 2004. The Coast Guard estimated the costs of only the planned cutter maintenance that had to be deferred to the following year and not the amount of maintenance that should have been conducted and was not funded.

Current Condition Measures Not Robust Enough to Clearly Link Condition with Effect on Missions

At the time we began our work, the Coast Guard's condition measures were not sufficiently robust to systematically link assets' condition with degradation in mission capabilities. As we discussed with Coast Guard officials, without such condition measures, the extent and severity of the decline in the existing deepwater legacy assets and their true condition cannot be fully determined. As a result, the picture that emerges regarding the condition of the deepwater legacy assets based on current Coast Guard condition measures should be viewed with some caution. While there is no systematic, quantitative evidence sufficient to demonstrate that deepwater legacy assets are nearing a "train wreck," this does not mean the assets are in good condition or have been performing their missions safely, reliably and at levels that meet or exceed Coast Guard standards. We identified two factors that need to be considered to put these condition measures in proper context.

The first factor deals with limitations in the measures themselves. Simply put, the Coast Guard's measures of asset condition do not fully capture the extent of the problems. As such, they may understate the decline in the legacy assets' condition. More specifically, Coast Guard measures focus on

events, such as flight mishaps or equipment casualties, but do not measure the extent to which these and other incidents degrade mission capabilities. Here are two examples in which the Coast Guard's current measures are not sufficiently robust to systematically capture degradation in mission capabilities:

- The surface search radar system on the HC-130 long-range surveillance aircraft, called the APS-137 radar, is subject to frequent failures and is quickly becoming unsupportable. Flight crews use this radar to search for vessels in trouble and to monitor ships for illegal activity, such as transporting illicit drugs or illegal immigrants. When the radar fails, flight crews are reduced to looking out the window for targets, greatly reducing mission efficiency and effectiveness. A flight crew in Kodiak, Alaska, described this situation as being "like trying to locate a boat looking through a straw." Mission capability degradations such as these are not reflected in the Coast Guard's current condition measures.

- The 378-foot cutter *Jarvis* recently experienced a failure in one of its two main gas turbines shortly after embarking on a living marine resources and search and rescue mission. While *Jarvis* was able to accomplish its given mission, albeit at reduced speeds, this casualty rendered the cutter unable to respond to any emergency request it might have received—but did not in this case—to undertake a mission requiring higher speeds, such as drug interdiction. The Coast Guard condition measures are not robust enough to capture these distinctions in mission capability.

The second factor that needs to be kept in mind is the compelling nature of the other evidence we gathered outside of the Coast Guard's condition measures. This evidence, gleaned from information collected during our site visits and discussions with maintenance personnel, showed deteriorating and obsolete systems and equipment as a major cause of the reduction in mission capabilities for a number of deepwater legacy aircraft and cutters. Such problems, however, are not captured by the Coast Guard's condition measures. One example of this involves the HH-65 short-range recovery helicopter. While this helicopter consistently exceeded availability standards established by the Coast Guard over the 5-year period we examined, it is currently operating with underpowered engines that have become increasingly subject to power failures. As a result, Coast Guard pilots employ a number of work arounds, such as dumping fuel or leaving the rescue swimmer on scene if the load becomes too heavy. Further, because of increasing safety and reliability problems, the Coast Guard has also implemented a number of operational

restrictions—such as not allowing the helicopter to land on helipads—to safeguard crew and passengers and prevent mishaps until all of the fleets' engines can be replaced.

The Coast Guard has recently recognized the need for improved measures to more accurately capture data on the extent to which its deepwater legacy assets are degraded in their mission capabilities, but as of March 2005, such measures have not yet been finalized or implemented. Subsequent to our inquiries regarding the lack of condition and mission capability measures, Coast Guard naval engineers reported that they had begun developing a "percent of time fully mission capable" measure to reflect the degree of mission capability, as well as measures to track cutter readiness. We agree that measures like this are needed—and as soon as possible. Further, current plans call for the measure, if approved, to be used for cutters, but not for aircraft. Consequently, even if this measure were to be implemented across the Coast Guard, there would still be no measure to address degradation in mission capabilities for aircraft. We will be exploring this issue further in our follow-on report.

Actions to Maintain and Upgrade Deepwater Legacy Assets Are Under Way, but Condition Issues Remain

The Coast Guard has taken several actions to address maintenance issues and upgrades for its deepwater legacy assets. These include establishing a compendium of information for making decisions regarding maintenance and upgrades, performing more extensive maintenance between deployments, and, at the Pacific Area Command, applying new business rules and strategies to better sustain the 378-foot high-endurance cutters through 2016. These additional efforts are likely helping to prevent a more rapid decline in the condition of these assets, but condition problems continue, and the efforts will likely involve additional costs.

Compendium of Needs Is Being Compiled and Used

Since 2002, the Coast Guard has annually issued a Systems Integrated Near Term Support Strategy compendium. Among other things, this compendium consolidates information needed to make planning and budgeting decisions regarding maintenance and upgrades to sustain legacy assets. Its purpose is to serve as a tool for senior Coast Guard management in setting priorities and planning budgets. From this strategic document, the Coast Guard has identified a number of upgrades to improve the capabilities of the deepwater legacy aircraft and cutters. The most recent compendium (for fiscal year 2006) lists more than $1 billion worth of upgrades to the deepwater legacy assets. The planned upgrades identified in the compendium that have been approved and received initial funding account for an estimated $856 million the Coast Guard anticipates

it will need to complete those projects. The approved upgrades for deepwater legacy assets are shown in table 4.

Table 4: Approved Upgrades for Deepwater Legacy Aircraft and Cutters

Deepwater asset	Synopsis of planned upgrades	Estimated costs and time frames of upgrades
HC-130 aircraft	The Coast Guard is beginning to replace aircraft's dated and difficult to support surface search radar system.	The radar system replacement is projected to cost $78 million and be completed in fiscal year 2008. A total of $9 million has been funded to date.
HH-60 aircraft	The Coast Guard has begun a service life extension plan and a replacement of the obsolete avionics suite.	The service life extension program is estimated to cost $16 million and be completed by fiscal year 2009. The avionics replacement program is projected to cost $121 million and be completed by fiscal year 2010. A total of $32.8 million has been funded to date for these upgrades.
HH-65 aircraft	Serious safety and reliability problems with the engine led the Coast Guard to place operational restrictions on the HH-65 fleet in October 2003.	The Coast Guard plans to re-engine 84 HH-65 aircraft at a projected cost of $349 million, now estimated to be completed by February 2007. A total of $160.7 million has been funded to date.
270-foot and 210-foot medium- endurance cutters	During fiscal year 2005 these cutters are to enter a legacy asset sustainment project known as the Mission Effectiveness Program (MEP) aimed at increasing their service lives until their replacement by a new cutter. The MEP includes upgrading major engineering subsystems such as evaporators, sewage systems, and gyrocompasses.	The MEP is projected to cost a total of $292 million and be completed by fiscal year 2015. The medium-endurance cutters will ultimately be replaced by the Offshore Patrol Cutter. A total of $12.5 million has been funded to date.
Total:		**$856 million total needed to fund these projects, of which $215 million has been funded to date.**

Source: GAO analysis of data provided by the U.S. Coast Guard.

Note: While there has not been any funding approved for upgrades to the HU-25 aircraft, the 378-foot cutters, or the 110-foot and 123-foot patrol boats, since all of these deepwater legacy assets are scheduled to be replaced, each of these assets has upgrades listed in the Systems Integrated Near Term Support Strategy compendium. The HU-25 aircraft has an engine replacement project estimated to cost $78.1 million; the 378-foot cutter has an MEP estimated to cost $137.8 million; and the patrol boats have three projects—replacement of the fin stabilizer system that is estimated to cost $10.4 million, an MEP that is estimated to cost $162 million, and replacement of the ship service generators that is estimated to cost $20.7 million. If the Coast Guard were to request funding for all of these sustainment projects, it would cost an additional $409 million.

Among the projects already begun is the re-engining of the HH-65 helicopters to increase the helicopter's power and capabilities. The Coast Guard is also upgrading several other aviation systems in an effort to improve aircraft capabilities. Enhancements are also planned for certain

classes of deepwater cutters. For example, during this fiscal year, the Coast Guard is to begin a maintenance effectiveness project on the 210-foot and 270-foot cutters. This project includes replacing major engineering subsystems with the goal of extending the cutters' service lives until their replacement by the Offshore Patrol Cutter. Of the $856 million total estimated costs needed for the planned upgrades to the deepwater legacy assets listed above, the Coast Guard has received $215 million through fiscal year 2005 and has requested another $217.3 million in its fiscal year 2006 budget. The remaining estimated costs of $423.7 million would have to be funded beyond fiscal year 2006.

Increasing Amounts of Maintenance Are Being Performed, but Loss of Mission Capabilities Continues

Coast Guard personnel consistently reported to us that crewmembers have to spend increasingly more time between missions to prepare for the next deployment. For example, to prevent further corrosion-related problems, air station maintenance personnel at the locations we visited said they have instituted additional measures, such as washing and applying fluid film to the aircraft prior to each deployment. Similar accounts were told by personnel working on cutters. For example, officers of the 270-foot cutter *Northland* told us that because of dated equipment and the deteriorating condition of its piping and other subsystems, crewmembers have to spend increasingly more time and resources while in port to prepare for their next deployment. While we could not verify these increases in time and resources because the Coast Guard does not capture data on these additional maintenance efforts, the need for increasing amounts of maintenance was a message we consistently heard from the operations and maintenance personnel with whom we met.

Such efforts are likely helping to prevent a more rapid decline in the condition of these deepwater legacy assets, but it is important to note that even with the increasing amounts of maintenance, these assets are still losing mission capabilities because of deteriorating equipment and system failures. For example, in fiscal year 2004, one 378-foot cutter lost 98 counterdrug mission days because of a number of patrol-ending casualties—including the loss of ability to raise and lower boats and run major electrical equipment—requiring $1.2 million in emergency maintenance. Another 378-foot cutter lost 27 counterdrug mission days in the fall of 2004 when it required emergency dry-dock maintenance because of hydraulic oil leaking into the reduction gear.

New Initiative for Maintaining 378-Foot Cutters Is Under Way, but Additional Funding Will Likely Be Needed

One effort is under way at the Coast Guard's Pacific Area Command to improve maintenance practices for the 378-foot cutters.[11] Pacific Area Command officials have recognized that a different approach to maintaining and sustaining legacy cutters may be needed and, as a first step, they have undertaken an initiative applying what they refer to as "new business rules and strategies" to better maintain the 378-foot high-endurance cutters through 2016. Under the original Deepwater proposal, the final 378-foot cutter was to be decommissioned in 2013, but by 2005, that date had slipped to 2016. To help keep these cutters running through this date, Pacific Area Command officials are applying such rules and strategies as (1) ensuring that operations and maintenance staffs work closely together to determine priorities, (2) recognizing that maintaining or enhancing cutter capabilities will involve trade-off determinations, and (3) accepting the proposition that with limited funding not all cutters will be fully capable to perform all types of missions. Pacific Area Command officials believe that in combination, these principles and strategies will result in more cost-effective maintenance and resource allocation decisions—recognizing that difficult decisions will still have to be made to balance maintenance and operations.

The Pacific Area Command's new initiative has the potential for assisting the Coast Guard in making more informed choices regarding the best use of their resources, but the approach will likely require additional funding. In particular, the Pacific Area Commander told us that in order for the 378-foot cutters to be properly maintained until their replacements become operational; the Coast Guard will have to provide additional funding for sustaining the 378-foot cutters. So far, the Coast Guard's budget plans or requests do not address this potential need.

Management Challenges Faced in Acquiring New Assets Remain Significant

Since the inception of the Deepwater program, we have expressed concerns about the degree of risk in the acquisition approach and the Coast Guard's ability to manage and oversee the program. Last year, we reported that, well into the contract's second year, key components needed to manage the program and oversee the system integrator's performance had not been effectively implemented.[12] We also reported that the degree to which the program was on track could not be determined

[11] The Pacific Area Command is responsible for operations covering 74 million square miles, ranging from South America, north to the Arctic Circle and west to the Far East.

[12] GAO-04-380.

because the Coast Guard was not updating its schedule.[13] We detailed needed improvements in a number of areas, shown in table 5. These concerns have a direct bearing on any consideration to increase the program's pace. Because the Coast Guard was having difficulty managing the Deepwater program at the pace it had anticipated, increasing the pace by attempting to speed the acquisition would only complicate the problem.

Table 5: Summary of Deepwater Areas Needing Management Attention as Reported by GAO

Areas of concern	Recommendations to the U.S. Coast Guard
Key components of management and oversight have not been effectively implemented	Improve integrated product teams responsible for managing the program by providing better training, approving charters, and improving systems for sharing information between teams
	Ensure adequate staffing of the Deepwater program
	Provide field personnel with guidance and training on transitioning to new Deepwater assets
	Update the original acquisition schedule to support future budget requests, starting with the fiscal year 2006 request
Procedures for ensuring contractor accountability are inadequate	Develop measurable award fee criteria consistent with guidance from the Office of Federal Procurement Policy
	Provide for better input from U.S. Coast Guard technical representatives
	Hold system integrator accountable for improving effectiveness of integrated product teams
	Establish a time frame for putting steps in place to measure contractor's progress toward improving operational effectiveness
	Establish a baseline for determining whether the acquisition approach is costing the government more than a traditional asset replacement approach
	Establish criteria to determine when to adjust the project baseline and document the reasons for change
Control of future costs through competition remains at risk because of weak oversight	Develop a comprehensive plan for holding the system integrator accountable for ensuring adequate competition among suppliers
	For subcontracts over $5 million awarded by the system integrator to the two major subcontractors, require notification to the Coast Guard about decisions to perform the work in-house rather than contracting it out.

Source: Developed by GAO from our reports GAO-04-380 and GAO-04-695.

The Coast Guard agreed with nearly all of our recommendations and has made progress in implementing some of them. In most cases, however, while actions are under way, management challenges remain that are likely to take some time to fully address.

[13] GAO-04-695.

Improvement of Program Management and Contractor Oversight Is Mixed

We have seen mixed success in the Coast Guard's efforts to improve management of the program and contractor oversight. All four areas of concern—improving integrated project teams (IPT), ensuring adequate staff for the program, planning for human capital requirements for field units receiving new assets, and updating the program's schedule—have yet to be fully addressed.

Strengthening Integrated Product Teams

Although the Deepwater program has made some efforts to improve the effectiveness of IPTs, we continue to see evidence that more improvements are needed for the teams to effectively do their jobs. These teams, the Coast Guard's primary tool for managing the program and overseeing the contractor, are generally chaired by a subcontractor representative and consist of members from subcontractors and the Coast Guard. The teams are responsible for overall program planning and management, asset integration, and overseeing delivery of specific Deepwater assets. Since our March 2004 report, the teams have been restructured, and 20 teams have charters setting forth their purpose, authority, and performance goals. And new, entry-level training is being provided to team members.

Despite this progress, however, the needed changes are not yet sufficiently in place. A recent assessment by the Coast Guard of the system integrator's performance found that roles and responsibilities in some teams continue to be unclear. Decision making is to a large extent stovepiped, and some teams still lack adequate authority to make decisions within their realm of responsibility. One source of difficulty for some team members has been the fact that each of the two major subcontractors has used its own databases and processes to manage different segments of the program. Decisions on air assets are made by Lockheed Martin, while decisions regarding surface assets are made by Northrop Grumman. This approach can lessen the likelihood that a "system of systems" outcome will be achieved. Officials told us that more attention is being paid to taking a systemwide approach and that the Coast Guard has emphasized the need to ensure that the two major subcontractors integrate their management systems.

Ensuring Adequate Staffing for the Deepwater Program

The Coast Guard has taken steps to more fully staff the Deepwater program, with mixed effects. In February 2005, the Deepwater program executive officer approved a revised human capital plan. The plan emphasizes workforce planning, including determining needed knowledge, skills, and abilities and developing ways to leverage institutional knowledge as staff rotate out of the program. This analysis is intended to help determine what gaps exist between needed skills and existing skills

and to develop a plan to bridge these gaps. The Coast Guard has also taken some short-term steps to improve Deepwater program staffing, hiring contractors to assist with program support functions, shifting some positions from military to civilian to mitigate turnover risk, and identifying hard-to-fill positions and developing recruitment plans specifically for them. Finally, the Deepwater program and the Coast Guard's acquisition branch are now working on an automated system for forecasting military rotation cycles, a step Deepwater officials believe will help with long-range strategic workforce planning and analysis.

Despite these actions, however, vacancies remain in the program, and some metrics that may have highlighted the need for more stability in the program's staff have been removed from the new human capital plan. As of January 2005, 244 positions were assigned to the program, but only 206 of these were filled, a 16 percent vacancy rate. A year ago, 209 staff were assigned to the program. Further, the new human capital plan removes a performance goal that measured the percentage of billets filled at any given time. Coast Guard officials acknowledged that the prior plan's goal of a 95 percent or higher fill rate was unduly optimistic and was a poor measure of the Coast Guard's ability to meet its hiring goals. For example, billets for military personnel who plan to rotate into the program in the summer are created at the beginning of the budget year, leading the metric to count those positions as vacant from the beginning of the budget year until summer. Other performance metrics that were included in the prior plan to measure progress in human capital issues have also been removed. For example, to help ensure that incoming personnel received acquisition training and on-the-job training, a billet was included in the prior plan to serve as a floating training position that replacement personnel could use for a year before the departure of military incumbents. This position was never funded, and the new plan removes the billet.

Improving Communication with Personnel Who Will Use the New Assets

The Coast Guard recognizes the critical need to inform the operators who are to use the Deepwater assets of progress in the program, and officials stated that, on the basis of our recommendations, they have made a number of improvements in this area. A November 2004 analysis of the Deepwater program's communication process, conducted in coordination with the National Graduate School, found that the communication and feedback processes were inadequate. Emphasis has now been placed on outreach to field personnel, with a multipronged approach involving customer surveys, face-to-face meetings, and presentations. We have not yet evaluated the effectiveness of the new approach.

Human capital requirements for the Deepwater program—such as crew numbers and schedules, training, and support personnel—will have an increasing impact on the program's ability to meet its goals as the pace at which assets are delivered to field units picks up. Recent assessments by Coast Guard performance monitors show this to be an area of concern.[14] Coast Guard officials have expressed concern about whether the system integrator is appropriately considering human capital in systems engineering decisions. The system integrator is required to develop a workforce management plan for Deepwater, as well as "human factors engineering" plans for each Deepwater asset and for the overall system of systems. The Coast Guard rejected the contractor's workforce management plan and several of the proposed human factors engineering plans as being inadequate. The rejections were due, in part, to the lack of an established and integrated system-level engineering approach that shows how issues relating to human capabilities and limitations of actually performing with the system will be approached. One performance monitor noted that, as of late 2004, requirements for staffing and training of maintenance facilities and organizations had yet to be determined. According to the Coast Guard, emphasis on a contractor's approach to addressing human capital considerations is necessary to ensure that Deepwater goals are met, especially as they pertain to operational effectiveness and total ownership cost.

Updating the Acquisition Schedule

The Coast Guard has recently undertaken efforts to update the original 2002 Deepwater acquisition schedule—an action that we suggested in our June 2004 report.[15] The original schedule had milestone dates showing when work on an asset would begin and when delivery would be expected, as well as the integrated schedules of critical linkages between assets, but we found that the Coast Guard was not maintaining an updated and integrated version of the schedule.[16] As a result, the Coast Guard could not demonstrate whether individual components and assets were being integrated and delivered on schedule and in critical sequence. As recently

[14] Performance monitors are contracting officers' technical representatives, who represent the contracting officer in monitoring the contractor's performance.

[15] GAO-04-695.

[16] Not maintaining a current and integrated schedule lessens the Coast Guard's ability to monitor the integrator's performance and take early action to resolve risks that could become problems later. Maintaining such a schedule is an industry best practice; the Department of Defense is required to do so in order to be able to report any breaches in cost, schedule, or performance targets.

as October 2004, Deepwater performance monitors likewise expressed concern that the Coast Guard lacked adequate visibility into the program's status and that lack of visibility into the schedules for component-level items prevented reliable forecasting and risk analysis. The Coast Guard has since taken steps to update the outdated schedule, and has indicated that it plans to continue to update the schedule each month for internal management purposes, and semiannually to support its budget planning efforts. We think this is an important step toward improving the Coast Guard's management of the program because it provides a more tangible picture of progress, as well as a baseline for holding contractors accountable. We will continue to work closely with the Coast Guard to ensure progress is made and to monitor how risks are mitigated.

Procedures for Ensuring System Integrator Accountability Are More Rigorous, but Concerns Remain

We have seen progress in terms of the rigor with which the Coast Guard is periodically assessing the system integrator's performance, but concerns remain about the broader issues of accountability for achieving the overarching goals of minimizing total ownership costs and maximizing operational effectiveness.

Improving Criteria for Assessing Performance

Improvements continue to be made to the criteria for assessing the system integrator's performance. In March 2004, we reported that the process for assessing performance against specific contract tasks lacked rigor. The criteria for doing so have since been revised to more clearly reflect those that are objective, (that is, measured through automated tools against established metrics), and those that are subjective, meaning the narrative comments by Coast Guard performance monitors. Weights have been assigned to each set of evaluation factors, and the Coast Guard continues to refine the distribution of the weights to reach an appropriate balance between automated results and the eyewitness observations of the performance monitors. Coast Guard officials told us that they have also provided additional guidance and training to performance monitors. We found that efforts have been made to improve the consistency of the format used for their input in assessments of the system integrator's performance. Coast Guard officials said that they are continuing to make improvements to ensure that performance monitors' relevant observations are appropriately considered in making award fee determinations.

It is important to note that although performance monitor comments are considered subjective, they are valuable inputs to assessing the system integrator's performance, particularly when they are tied to measurable outcomes. It will be necessary for the Coast Guard to continue refining the award fee factors as the program progresses. In some cases, we noted that

the performance monitors' assessments differed vastly from the results of automated, data-driven assessments. For example, while schedule management is discussed in the Coast Guard's most recent assessment of the system integrator's performance as a major area of challenge and risk, the objective measure showed 100 percent compliance in this area. Another metric assesses the extent to which integrated product teams consider the impact of their decisions on the overall cost and effectiveness of the Deepwater program. Performance monitors reported that because system-level guidance had not been provided to the teams responsible for specific assets, they had a limited ability to see the whole picture and understand the impact of decisions on total ownership costs and operational effectiveness. However, the automated measure was again 100 percent compliance. Coast Guard officials said that, in some cases, the data-driven metrics do not accurately reflect the contractor's performance. For the next award fee assessment, Deepwater officials plan to revise the metrics and place more weight on the performance monitors' input, while ensuring that it is based on measurable outcomes.

Holding the System Integrator Accountable for Effectiveness of Project Teams

Changes have been made to the award fee metrics that place additional emphasis on the system integrator's responsibility for making integrated project teams effective. Award fee criteria now incorporate specific aspects of how the integrator is managing the program, including administration, management commitment, collaboration, training, and empowerment of these teams. However, as discussed above, concerns remain about whether the teams are effectively accomplishing their goals.

Evaluation of Operational Effectiveness and Total Ownership Cost

While the Coast Guard has developed models to measure the system integrator's performance in operational effectiveness and total ownership costs, concrete results have not yet emerged. Minimizing total ownership costs and maximizing operational effectiveness are two of the overarching goals of the Deepwater program. The system integrator's performance in these two areas will be a critical piece of information when the Coast Guard makes a decision about whether to award the contractor the first contract option period of 5 years. Initial decision making is to start next year.

With regard to the operational effectiveness of the program, measuring the system integrator's impact has yielded limited results to date because few of the new assets are operational. The Coast Guard has developed modeling capabilities to simulate the effect of the new capabilities on its ability to meet its missions. However, until additional assets become operational, progress toward this goal will be difficult to determine.

With regard to total ownership costs, the Coast Guard does not plan to implement our recommendation. It has not adhered to its original plan, set forth in the Deepwater program management plan, of establishing as its baseline a cost not to exceed the dollar value of replacing the assets under a traditional approach (e.g., on an asset-by-asset basis rather than a system-of-systems approach). Although a cost baseline consistent with the program management plan's approach was initially established, this number has not been rebaselined, as has the system integrator's cost estimate baseline, and is not being used to evaluate the contractor's progress in holding total ownership costs down. In practice, the baseline being used to measure total ownership cost is the system integrator's own cost estimate. As we reported in March 2004, we believe that measuring the system integrator's cost growth compared with its own cost proposal will tell the government nothing about whether it is gaining efficiencies by turning to the system of systems concept.

Establishing Criteria and Documenting Changes to the Baseline

Coast Guard officials stated that the contract total ownership cost and operational effectiveness baseline is adjusted based on approved decision memorandums from the Agency Acquisition Executive, the Vice Commandant of the Coast Guard.

Coast Guard Has Taken Steps to Hold the System Integrator Accountable for Competition

The Coast Guard reported taking steps to address our recommendations concerning cost control through competition. Our recommendations pertained to competition among second-tier suppliers and notification of "make" decisions.[17]

- Competition among second-tier suppliers. Coast Guard officials told us that in making the decision about whether to award the first contract option, the government will specifically examine the system integrator's ability to control costs by assessing the degree to which competition is fostered at the major subcontractor level. The evaluation will consider the subcontractors' project management structure and processes to control costs, as well as how market surveys of similar assets and major subsystems are implemented. The Coast Guard is focusing its attention on those areas that were priced after the initial competition for the Deepwater contract was completed,

[17] A "make item" means an item or work effort to be produced or performed by the prime contractor or its affiliates, subsidiaries, or divisions.

such as the HH-65 re-engining and the C-130J missionization.[18] For example, a new process implemented for the C-130J missionization was a requirement for competition in subcontracting and government approval of all subcontracts exceeding $2 million in order for the Coast Guard to monitor the integrator's competition efforts.

- Notification of make decisions. According to the Federal Acquisition Regulation, the prime contractor is responsible for managing contract performance, including planning, placing, and administering subcontracts as necessary to ensure the lowest overall cost and technical risk to the government. When "make-or-buy programs" are required, the government may reserve the right to review and agree on the contractor's make-or-buy program when necessary to ensure negotiation of reasonable contract prices, among other things. We recommended that the Coast Guard be notified of make decisions over $5 million in order to facilitate controlling costs through competition. We suggested the $5 million threshold because Lockheed Martin, one of the major subcontractors, considers that amount to be the threshold for considering its suppliers major. The Coast Guard has asked the system integrator, on a voluntary basis, to provide notification one week in advance of a make decision of $10 million or more based on the criteria in the Federal Acquisition Regulation.[19] According to Coast Guard officials, to date, no make decision has exceeded $10 million since the request was made. The details implementing this recommendation have not yet been worked out, such as specifically who in the Coast Guard will monitor the subcontractors' make decisions to ensure that the voluntary agreement is complied with.

Concluding Observations

Our work to date suggests the costly and important Deepwater program will need constant monitoring and management attention to successfully accomplish its goals. In this respect, we identified three points that should be kept in mind in considering how to proceed with the program.

- First, the need to replace or upgrade deteriorating legacy assets is considerable. While the Coast Guard lacks measures that clearly demonstrate how this deterioration affects its ability to perform

[18] The C-130J missionization, planned for the Coast Guard's six C-130J aircraft, is intended to modify and install mission-essential equipment to convert the aircraft into C-130J long-range surveillance maritime patrol aircraft.

[19] Federal Acquisition Regulation §15.407-2, "Make or Buy Programs."

deepwater-related missions, it is clear that the deepwater legacy assets are insufficient for the task.

- Second, although the need to replace and upgrade assets is strong, there still are major risks in the Coast Guard's acquisition approach. The cost increases and schedule slippages that have already occurred are warning signs. We will continue to work with the Coast Guard to determine how best to manage these risks so that the Deepwater missions can be accomplished in the most cost-effective way.

- Third, there are signs that as the Deepwater program moves ahead, the Coast Guard will continue to report more problems with sustaining existing assets, together with the attendant need for additional infusions of funding to deal with them. Some of these problems, such as those on the 378-foot cutters, are included in the compendium the Coast Guard uses to set sustainment priorities and plan budgets, but have not been funded because they pertain to assets that are among the first to be replaced. However, projects to address these problems are nevertheless likely to be needed. We will continue to work with the Coast Guard to determine if there is a more systematic and comprehensive approach to keeping the Congress abreast of the potential bill for sustaining these assets.

Mr. Chairman and Members of the Subcommittee, this completes my prepared statement. I would be happy to respond to any questions that you or other Members of the Subcommittee may have at this time.

Contacts and Acknowledgements

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