



May 2015

# UNMANNED CARRIER-BASED AIRCRAFT SYSTEM

Navy Needs to  
Demonstrate Match  
between Its  
Requirements and  
Available Resources

# Report Documentation Page

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# GAO Highlights

Highlights of [GAO-15-374](#), a report to congressional committees

## Why GAO Did This Study

The Navy expects to have invested at least \$3 billion through fiscal year 2020 in the development of the UCLASS system, which includes air system, aircraft carrier, and control system and connectivity segments. It is expected to enhance the intelligence, surveillance, reconnaissance, targeting, and strike capabilities of the Navy's aircraft carrier fleet. In August 2013, the Navy awarded contracts worth \$15 million each to four competing contractors to develop and deliver preliminary designs for the air system, which were assessed by the Navy in May 2014. The next anticipated steps for the program will be to solicit proposals and award the contract for air system development.

The National Defense Authorization Act for Fiscal Year 2014 included a provision that GAO review the status of the UCLASS acquisition program annually. This report assesses (1) the current status of the program, and (2) the extent to which the Navy has the knowledge about resources it needs to develop the UCLASS system. GAO applied best practice standards, analyzed program documentation, and interviewed Department of Defense (DOD) and contractor officials.

## What GAO Recommends

GAO recommends that before committing significant resources the Navy should ensure that it has an executable business case for UCLASS development that matches available resources to required capabilities. On behalf of DOD, the Navy generally agreed with the recommendation.

View [GAO-15-374](#). For more information, contact Michael J. Sullivan at (202) 512-4841 or [sullivanm@gao.gov](mailto:sullivanm@gao.gov).

May 2015

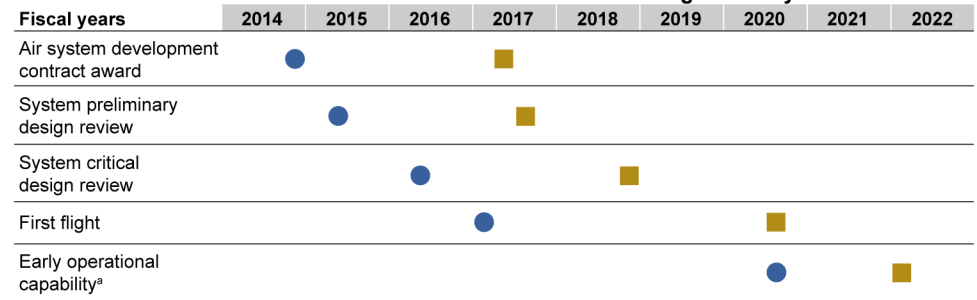
# UNMANNED CARRIER-BASED AIRCRAFT SYSTEM

## Navy Needs to Demonstrate Match between Its Requirements and Available Resources

### What GAO Found

Since our last review in September 2013, the intended mission and required capabilities of the Navy's Unmanned Carrier-Launched Airborne Surveillance and Strike (UCLASS) system have come into question. Ongoing debate about whether the primary role of the UCLASS system should be mainly surveillance with limited strike or mainly strike with limited surveillance has delayed the program, as shown in the figure. Requirements emphasizing a strike role with limited surveillance could be more demanding and costly.

**Unmanned Carrier-Launched Airborne Surveillance and Strike Program Delays**



● Planned as of September 2013    ■ Currently planned as of February 2015

Source: GAO and the Department of the Navy Fiscal Year 2016 President's Budget Submission. | GAO-15-374

<sup>a</sup>Early operational capability is currently not anticipated before fiscal year 2022 and could occur as late as fiscal year 2023.

The knowledge the Navy has obtained about the resources needed to develop the UCLASS system may no longer be applicable depending on what requirements are finally chosen. GAO's prior best practices work has found that before initiating system development, a program should present an executable business case that demonstrates that it has a high level of knowledge and a match between requirements and available resources. If the final UCLASS requirements emphasize a strike role with limited surveillance, the Navy will likely need to revisit its understanding of available resources in the areas of design knowledge, funding, and technologies before awarding an air system development contract.

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## Abbreviations

DOD	Department of Defense
JROC	Joint Requirements Oversight Council
UCLASS	Unmanned Carrier-Launched Airborne Surveillance and Strike

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May 4, 2015

### Congressional Committees

The Navy expects to have invested at least \$3 billion through fiscal year 2020 in the development of the Unmanned Carrier-Launched Airborne Surveillance and Strike (UCLASS) system. The system, which is expected to enhance the intelligence, surveillance, reconnaissance, targeting, and strike capabilities of the Navy's aircraft carrier fleet, is comprised of three segments: (1) air system, (2) aircraft carrier, and (3) control system and connectivity.<sup>1</sup> In August 2013, the Navy awarded contracts worth \$15 million each to four competing contractors to develop and deliver preliminary designs for the air system. The contractors delivered their preliminary designs, and the Navy completed its assessment of their maturity in May 2014. The next anticipated steps for the UCLASS program will be to solicit proposals and award the contract for development, design, fabrication, test, and delivery of the air system.

The National Defense Authorization Act for Fiscal Year 2014 included a provision that GAO review the status of the UCLASS acquisition program annually.<sup>2</sup> This report assesses (1) the current status of the UCLASS program, and (2) the extent to which the Navy has the knowledge about resources it needs to develop the UCLASS system.

To assess the current status of the UCLASS program, we collected and analyzed the Navy's acquisition strategy, recent cost and schedule estimates, and other relevant program management documents. We discussed the program with officials from the Unmanned Carrier Aviation program office, the Naval Air Systems Command, the Office of the Deputy Chief of Naval Operations for Information Dominance, the Joint

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<sup>1</sup>The air system segment is to develop a carrier-suitable, semi-autonomous, unmanned vehicle and associated support systems capable of sustained intelligence, surveillance, reconnaissance, and targeting operations and strike capability. The aircraft carrier segment is to provide upgrades to existing carrier infrastructure, integrate capability within existing systems, add new mission essential equipment, and provide operating procedures to support unmanned aircraft system operations. The control system and connectivity segment is to interface and upgrade existing command and control systems, specifically the intelligence, surveillance, reconnaissance, and targeting system, and the tasking, processing, exploitation, and dissemination system.

<sup>2</sup>Pub. L. No. 113-66, § 213(d) (2013).

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Chiefs of Staff, and organizations within the Office of the Secretary of Defense including the Office of Cost Assessment and Program Evaluation, the Director of Operational Test and Evaluation, the Deputy Assistant Secretary of Defense for Systems Engineering, the Deputy Assistant Secretary of Defense for Developmental Test and Evaluation, and the Under Secretary of Defense for Acquisition, Technology and Logistics. To assess the extent to which the Navy has the knowledge about resources it needs to develop the UCLASS system, we applied best practice standards developed by GAO for using key product knowledge to support program investment decisions, and identified and reviewed relevant legislation such as the Weapon Systems Acquisition Reform Act of 2009.<sup>3</sup> We reviewed Department of Defense (DOD) acquisition policy including DOD Instruction 5000.02 and recent Better Buying Power memorandums.<sup>4</sup> We analyzed requirements documents including the initial capabilities document, the draft capability development document, and relevant Joint Requirements Oversight Council (JROC) memorandums. We analyzed carrier availability schedules to identify potential testing schedule challenges. We also visited the four contractors who were awarded air system preliminary design review contracts—The Boeing Company, General Atomics Aeronautical Systems Inc., Lockheed Martin Corporation, and Northrop Grumman Systems Corporation—to discuss their work related to the program.

We conducted this performance audit from June 2014 to May 2015 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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<sup>3</sup>Pub. L. No. 111-23, as amended.

<sup>4</sup>Department of Defense Instruction 5000.02, Operation of the Defense Acquisition System (Jan. 7, 2015) (hereinafter cited as DODI 5000.02 (Jan. 7, 2015)). Office of the Under Secretary of Defense, Acquisition, Technology and Logistics Memorandum: “Better Buying Power: Guidance for Obtaining Greater Efficiency and Productivity in Defense Spending” (Sep. 14, 2010); and Office of the Under Secretary of Defense, Acquisition, Technology and Logistics Memorandum: “Better Buying Power 2.0: Continuing the Pursuit for Greater Efficiency and Productivity in Defense Spending” (Nov. 13, 2012).

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## Background

In 2011 the Navy received approval from DOD to begin planning for a UCLASS acquisition program to address a capability gap in sea-based surveillance and to enhance the Navy's ability to operate in highly contested environments defended by measures such as integrated air defenses or anti-ship missiles. The Navy analyzed the potential of several alternative systems to provide these capabilities. In 2012 the JROC—the requirements validation authority for major defense acquisition programs—issued a memorandum providing direction and guidance for the Navy to focus its efforts on delivering a timely, affordable system to meet the sea-based surveillance requirements. At that time the systems that would be needed to operate in a highly contested environment were deemed unaffordable. As a result, the Navy updated its analysis of alternatives to include more affordable and feasible systems. Navy leadership approved a draft set of requirements in April 2013 that emphasized affordability, timely fielding, and endurance, while deemphasizing the need to operate in highly contested environments. DOD policy provides that the JROC, as the validation authority for major defense acquisition programs, will validate the requirements document—known as the capability development document—prior to releasing requests for proposals for development contracts and the decision review that initiates a system development program, known as a Milestone B review.<sup>5</sup> The JROC has not yet validated these requirements.

In September 2013, we found that the Navy had taken some positive steps to scale back requirements to match available resources.<sup>6</sup> Our primary concern at the time was that the program planned to develop, manufacture and field operational UCLASS systems before holding a Milestone B review, which would defer key oversight mechanisms, such as the establishment of an acquisition program baseline, for these program activities until after they were over. Without a baseline and regular reporting on progress, it would be difficult for Congress to hold the

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<sup>5</sup>DODI 5000.02, ¶ 5(d)(5)(a) and Encl. 1, Table 2 (Jan. 7, 2015).

<sup>6</sup>GAO, *Defense Acquisitions: Navy Strategy for Unmanned Carrier-Based Aircraft System Defers Key Oversight Mechanisms*, [GAO-13-833](#) (Washington, D.C.: Sept. 26, 2013).

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Navy accountable for achieving cost, schedule, and performance goals.<sup>7</sup> As a result, we recommended that the Navy hold a Milestone B review sooner than its then-scheduled fiscal year 2020 date in order to provide for increased oversight and accountability. At the time, the Navy disagreed, believing that its approved strategy was compliant with acquisition regulations and laws. Congress subsequently placed limitations on the number of UCLASS air vehicles that DOD could acquire prior to receiving Milestone B approval.<sup>8</sup> We found that the UCLASS acquisition strategy was otherwise consistent with the DOD acquisition process that applies to most weapon system programs, as well as with a knowledge-based acquisition approach.

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## UCLASS Program Has Been Delayed As Requirements Debate Continues

Since our last review in September 2013, the system's intended mission and required capabilities have come into question, delaying the Navy's UCLASS schedule. DOD has decided to conduct a review of its airborne surveillance systems and the future of the carrier air wing, and has as a result adjusted the program's schedule. The Navy's fiscal year 2016 budget documents reflect these changes, with award of the air system contract now expected to occur in fiscal year 2017, a delay of around 3 years. In addition the Navy now expects to achieve early operational capability—a UCLASS system on at least one aircraft carrier—no earlier than fiscal year 2022, a delay of around 2 years. Figure 1 shows delays in dates for several other key program events.<sup>9</sup>

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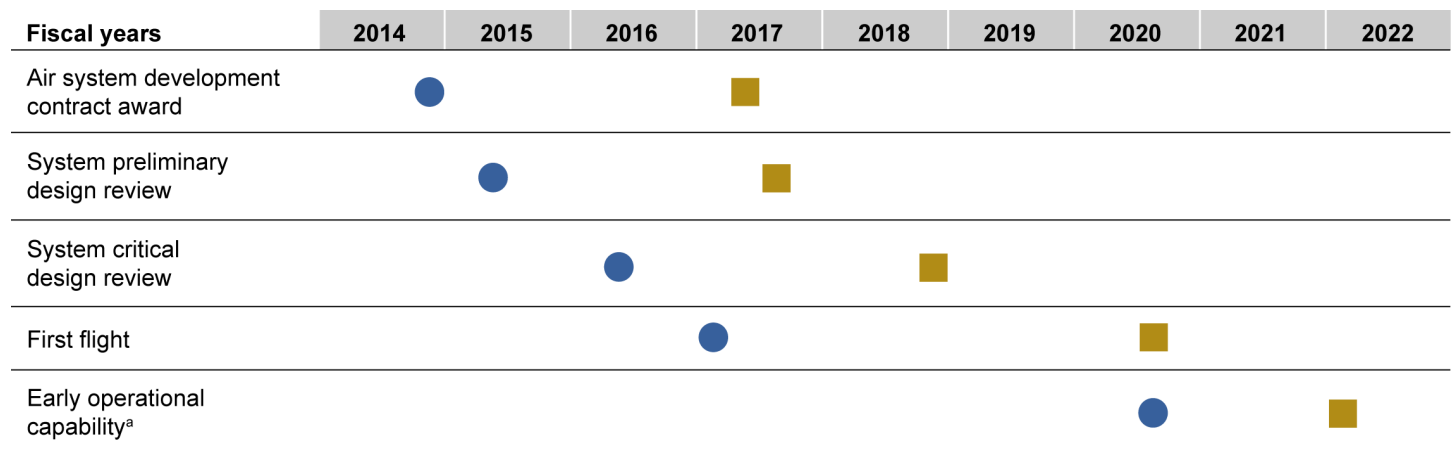
<sup>7</sup>By statute, a major defense acquisition program shall have a baseline that describes factors including the cost estimate, schedule, performance, and supportability of that program before the program enters system development or at program initiation, whichever occurs later. 10 U.S.C. § 2435. Major defense acquisition programs are those designated by DOD or estimated by DOD to require an eventual total expenditure for research, development, test, and evaluation of more than \$480 million, or, for procurement, of more than \$2.79 billion, in fiscal year 2014 constant dollars. 10 U.S.C. § 2430: DODI 5000.02, Encl. 1, Table 1 (Jan. 7, 2015).

<sup>8</sup>National Defense Authorization Act for Fiscal Year 2014, Pub. L. No. 113-66, § 213(a) (2013).

<sup>9</sup>The schedule in the Navy's budget documents show that a Milestone A review—the decision to begin technology maturation and risk reduction efforts—is expected to occur in fiscal year 2017, a delay of around 3 years since our last review. The schedule does not include a Milestone B review, associated with the start of system development. However DOD officials noted the possibility that the next milestone review may be, or have several of the characteristics of, a Milestone B rather than a Milestone A.



**Figure 1: Unmanned Carrier-Launched Airborne Surveillance and Strike Program Delays**



- Planned as of September 2013
- Currently planned as of February 2015

Source: GAO and the Department of the Navy Fiscal Year 2016 President's Budget Submission. | GAO-15-374

<sup>a</sup>Early operational capability is currently not anticipated before fiscal year 2022 and could occur as late as fiscal year 2023.

Congress, DOD, and the Navy continue to debate the primary role of the UCLASS system. The main options are a largely surveillance role with limited strike operating in less contested environments, or a largely strike role with limited surveillance operating in highly contested environments. Congress has raised concerns about whether UCLASS will be armed and survivable enough to support U.S. power projection in areas in which access and freedom to operate are challenged. In addition, Congress has heard testimony from former DOD and Navy officials expressing concerns about the ability of UCLASS to help counter the defenses of adversaries trying to deny U.S. access. Congress has also directed the Navy to confirm that the program's key performance parameters—that is, its most critical requirements—have been validated by the JROC before issuing the UCLASS development request for proposals, and prohibited the air system development contract award until after DOD completes a

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requirements review.<sup>10</sup> The recently announced delay to the UCLASS program while DOD conducts airborne surveillance systems and carrier air wing reviews further indicates that the anticipated role of UCLASS is not yet settled.

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## Knowledge about Needed Resources Depends on Final UCLASS Requirements

The resolution of the debate over UCLASS requirements could have significant design and cost implications, which will determine the resources the Navy needs and how much knowledge from the Navy's previous assessments and estimates can still be applied. In September 2013, we concluded that the UCLASS program should demonstrate that it has an executable business case that reflects high levels of knowledge and a match between requirements and available resources before holding a Milestone B review, establishing an acquisition program baseline, and initiating system development. Our past work has found that while a match is eventually achieved on most weapon system programs, a key distinction between successful programs—which perform as expected and are developed within estimated resources—and problematic programs is when this match is achieved. When the match occurs before system development begins, the weapon system is more likely to meet objectives.<sup>11</sup>

The current uncertainty about UCLASS requirements underscores the need for the program to demonstrate an executable business case, establish an acquisition program baseline, and hold a Milestone B review, prior to starting a system development program. At this point, if more demanding requirements add technical risk, the Navy would likely need to conduct additional systems engineering work before it could establish an executable business case and a program baseline. As such, the Navy

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<sup>10</sup>Explanatory Statement Regarding the Consolidated and Further Continuing Appropriations Act, 2015, Pub. L. No. 113-235, (2014) printed in 160 Cong. Rec. H9307 at H9571 (Dec. 11, 2014); and Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015, Pub. L. No. 113-291, § 217(a) (2014) providing specifically that no funds authorized or made available for fiscal year 2015 for research, development, test, and evaluation for the unmanned carrier-launched airborne surveillance and strike system may be obligated or expended to award a contract for air vehicle segment development until 15 days after DOD submits to the congressional defense committees a report that certifies that a review of the requirements for air vehicle segments is complete and includes the results of the review.

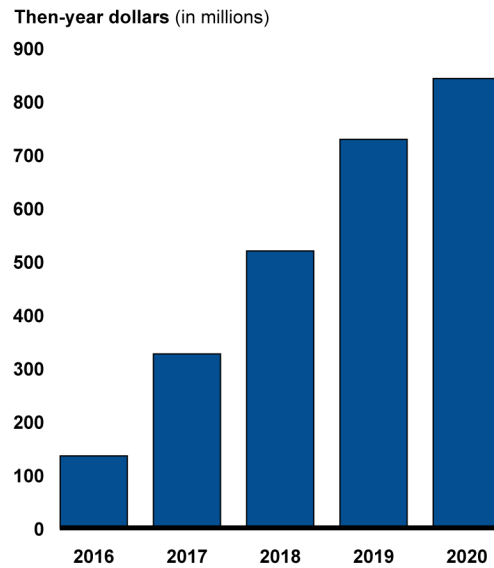
<sup>11</sup>GAO, *Best Practices: Better Matching of Needs and Resources Will Lead to Better Weapon System Outcomes*, [GAO-01-288](#) (Washington, D.C.: March 8, 2001).

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would need to revisit its understanding of available resources in the areas of design knowledge, funding, and technologies as detailed below:

- **Knowledge gained through preliminary design reviews may no longer be applicable:** During the four preliminary design reviews that ended in May 2014, the Navy evaluated contractor designs against a set of performance specifications issued in July 2013. Those specifications reflected the requirements that had been approved by Navy leadership just three months earlier and focused on the need to conduct mainly surveillance missions in less contested environments while emphasizing affordability, timely fielding, and endurance. If the program pursues and the JROC validates requirements that focus on a strike role and emphasize the need for the air system to operate in highly contested environments, increase internal weapons payload capacity, or change how long the air system needs to remain airborne without refueling, the contractors may have to adjust or redesign their proposals. This would increase design risk since no preliminary design reviews have been completed based on these potentially more demanding requirements. As a result, the Navy may need to conduct more systems engineering work and update or repeat entirely the preliminary design review process.
- **Program cost estimates and funding needs depend on final requirements:** We found in September 2013, that UCLASS development cost estimates were varied and uncertain, even at a time when requirements had been scaled back and appeared to be relatively stable. As the debate about requirements has progressed, the uncertainty about the program's cost has increased. DOD and contractor officials have noted that if requirements become more demanding, for example increasing the air system's weapons payload or the need for it to operate in a highly contested environment, then the estimated development costs could increase significantly. Until requirements are firm, the Navy will not have the knowledge it needs to develop and present an executable business case or program baseline containing reliable cost and funding estimates. Because requirements are still under debate, the Navy reduced the UCLASS fiscal year 2016 budget from almost \$670 million to \$135 million. Despite this near term reduction, annual development funding levels are projected to reach nearly \$850 million in fiscal year 2020, as shown in figure 2. The projected funding, however, does not reflect the level of funding that may be needed if the program pursues more demanding requirements, which some officials in the Office of the Secretary of Defense believe could be substantially higher.

**Figure 2: Unmanned Carrier-Launched Airborne Surveillance and Strike Funding Profile**



Source: Department of the Navy Fiscal Year 2016 President's Budget Submission. | GAO-15-374

Note: Then-year dollars include the effects of inflation and escalation.

- **Program may need to develop and mature additional technologies:** If the program pursues and the JROC validates a more demanding set of requirements the contractors may need to develop and mature additional technologies. Navy officials believe that the critical technologies for UCLASS are mature based on their experience with a demonstration program for a carrier-launched unmanned aircraft, known as the Unmanned Combat Air System Demonstration. However, if the validated program requirements lead to the need for new technologies, then the program will likely need additional time to mature those technologies before beginning system development. Scheduling for UCLASS is particularly complicated as the program needs to synchronize its test planning with availability of aircraft carriers that have had UCLASS modifications installed. Carriers are periodically unavailable due to scheduled maintenance needs, and thus air system schedule delays could cause the program to miss opportunities for testing. The Navy also has the opportunity to decide whether to add requirements and technologies in a single step

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or to add them incrementally using an evolutionary acquisition approach.<sup>12</sup>

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## Conclusions

Firm and achievable requirements should form the basis of a business case for any major weapon system investment. A substantive debate about the intended mission and required capabilities of UCLASS is taking place before DOD makes a major resource commitment and holds a Milestone B review to formally initiate a system development program. This is a good development, because it will likely help ensure that the Navy's UCLASS business case provides a sound foundation for an acquisition program baseline that is rooted in firm and achievable requirements at the outset.

DOD policy requires the Navy to finalize UCLASS requirements, with validation by the JROC, before issuing the request for proposals for the development contract. Once the requirements are finalized and before a development contract is signed, the Navy will need to demonstrate that it has adequate resources—including design knowledge, funding, and technologies—available to meet those requirements. Unsettled requirements will hinder the Navy's ability to develop and present a business case with realistic cost and schedule estimates, and establish an acquisition program baseline. The final requirements and how similar or different they are to those used for the past preliminary design reviews, will determine the extent to which the knowledge the Navy gained is still applicable at this key juncture in the program.

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## Recommendation for Executive Action

Once the JROC has validated UCLASS requirements, and in order to ensure that the Navy has a sound and executable business case and establishes an acquisition program baseline before awarding a development contract and committing significant resources, we recommend that the Secretary of Defense direct the Secretary of the Navy to provide a report to the congressional defense committees and the Secretary of Defense demonstrating that the Navy has the resources available and a strategy to deliver those required UCLASS capabilities. At a minimum this report should include:

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<sup>12</sup>We have consistently noted that an evolutionary acquisition approach allows for development of a new product in increments based on technologies and resources achievable now and later. This approach reduces the amount of risk in the development of each increment, facilitating greater success in meeting cost, schedule, and performance requirements.

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- An updated cost estimate;
  - A schedule for holding a Milestone B review and establishing an acquisition program baseline before initiating system development;
  - Plans for new preliminary design reviews and technology maturation if more demanding requirements are validated; and
  - What consideration is being given to adopting an evolutionary acquisition approach.

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## Agency Comments and Our Evaluation

We provided a draft of this product to DOD for comment. On behalf of DOD, the Navy partially agreed with our recommendation. The Navy's written comments are reproduced in appendix I. The Navy also provided technical comments that were incorporated, as appropriate.

The Navy agreed that if the JROC validates a more demanding set of requirements, it will be necessary to revisit the UCLASS schedule to allow for potential development and maturation of new technologies, in addition to planning of preliminary design reviews. However, the Navy also expressed concerns that the content of the recommended report would duplicate elements of existing statutory provisions such as certifications associated with milestone reviews and reporting requirements contained in the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015.<sup>13</sup>

If the Navy holds a Milestone B review before awarding the development contract for the UCLASS air system and receives the certifications required by statute and DOD policy at that point in time, as well as meeting the reporting requirements in the National Defense Authorization Act for Fiscal Year 2015, we agree that it will satisfy the basic intent of our recommendation, and thus no separate report would be required. However, the current UCLASS schedule does not include a Milestone B review prior to the air system development contract award. If a Milestone B is not held prior to the contract award—thus not triggering the requisite statutory certification requirements—the Navy should still be required to provide assurance that it has a sound, executable business case and establish an acquisition program baseline before committing significant resources. In this case, we believe that providing the recommended report would address this need.

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<sup>13</sup>10 U.S.C. §§ 2366a, 2366b; Pub. L. No. 113-291, § 217(b).

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We are sending copies of this report to the appropriate congressional committees, the Secretary of Defense, and the Secretary of the Navy. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you have any questions about this report or need additional information, please contact me at (202) 512-4841 or [sullivanm@gao.gov](mailto:sullivanm@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are listed in appendix II.

A handwritten signature in black ink, appearing to read "Michael J. Sullivan". The signature is fluid and cursive, with a long horizontal stroke at the end.

Michael J. Sullivan  
Director, Acquisition and Sourcing Management

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*List of Committees*

The Honorable John McCain  
Chairman  
The Honorable Jack Reed  
Ranking Member  
Committee on Armed Services  
United States Senate

The Honorable Thad Cochran  
Chairman  
The Honorable Richard J. Durbin  
Ranking Member  
Subcommittee on Defense  
Committee on Appropriations  
United States Senate

The Honorable Mac Thornberry  
Chairman  
The Honorable Adam Smith  
Ranking Member  
Committee on Armed Services  
House of Representatives

The Honorable Rodney Frelinghuysen  
Chairman  
The Honorable Pete Visclosky  
Ranking Member  
Subcommittee on Defense  
Committee on Appropriations  
House of Representatives



# Appendix I: Comments from the Department of Defense

Note: GAO received written comments from the Navy on behalf of DOD on April 27, 2015.



DEPARTMENT OF THE NAVY  
OFFICE OF THE ASSISTANT SECRETARY  
(RESEARCH, DEVELOPMENT AND ACQUISITION)  
1000 NAVY PENTAGON  
WASHINGTON DC 20350-1000

Mr. Michael J. Sullivan  
Director, Acquisition and Sourcing Management  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20548

Dear Mr. Sullivan,

I appreciate the opportunity to review and comment on the GAO Draft Report GAO-15-374, "UNMANNED CARRIER-BASED AIRCRAFT SYSTEM: Navy Needs to Demonstrate Match between Its Requirements and Available Resources," dated April, 2015. The enclosure provides the Department's official written comments for inclusion in the report.

As we work together in pursuing this much needed capability, I would like to emphasize that UCLASS is very early in the acquisition process – specifically in the pre-milestone A phase. The Department has chosen to delay program initiation until the requirements are fully understood and agreed upon, and affordability concerns are satisfied, which I believe should be considered a positive development and overall good stewardship.

I greatly appreciate your support of our unmanned initiatives, and UCLASS in particular, and I look forward to working with you as we determine the way ahead. If I may be of further assistance, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary Kessler".

Gary Kessler

Enclosure  
Copy to:  
ASN (RDA)

GAO DRAFT REPORT DATED 27 FEBRUARY, 2015  
GAO-15-374 (GAO CODE 121232)

“UNMANNED CARRIER-BASED AIRCRAFT SYSTEM: NAVY NEEDS TO DEMONSTRATE  
MATCH BETWEEN REQUIREMENTS AND RESOURCES”

DEPARTMENT OF DEFENSE COMMENTS  
TO THE GAO RECOMMENDATION

**RECOMMENDATION:** The GAO recommends that the Secretary of Defense direct the Secretary of the Navy to provide a report to the congressional defense committees and the Secretary of Defense demonstrating that the Navy has the resources available and a strategy to deliver those required UCLASS capabilities. At a minimum, this report should include:

- An updated cost estimate;
- A schedule for holding a Milestone B review and establishing an acquisition program baseline before initiating system development;
- Plans for preliminary design reviews and technology maturation if more demanding requirements are validated; and,
- What consideration is being given to adopting an evolutionary acquisition approach.

**DoD RESPONSE:** (Partially-Concur) The Navy agrees that if the JROC validates a more demanding set of requirements, it will be necessary to revisit and re-evaluate the UCLASS schedule to allow for potential development and maturation of additional technologies, in addition to planning of preliminary design reviews. However, the Navy also believes that the content of the recommended report is duplicative of reporting requirements already identified in statutory guidance in Title 10, Section 2366 a/b certifications and the Section 217 of the 2015 National Defense Authorization Act, which directs the Secretary of the Navy to submit to congressional defense committees a report that –

- (1) identifies cost and performance tradeoffs;
- (2) addresses the derivation of requirements for the overall composition of the future carrier air wing;
- (3) specifies how the Navy derived the plan for achieving the mix of capabilities for the carrier strike group air wing;
- (4) defines the acquisition strategy;
- (5) establishes a formal acquisition program cost and schedule baseline.

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# Appendix II: GAO Contact and Staff Acknowledgments

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## GAO Contact

Michael J. Sullivan, (202) 512-4841 or [sullivanm@gao.gov](mailto:sullivanm@gao.gov)

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## Staff Acknowledgments

In addition to the contact named above, key contributors to this report were Travis J. Masters, Assistant Director; Scott M. Bruckner; Robert P. Bullock; Laura Greifner; Marie P. Ahearn; Timothy M. Persons; and Roxanna T. Sun.

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## GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

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