Air Force KC-X Tanker Aircraft Program: Background and Issues for Congress

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Summary

On September 24, 2009, the Department of Defense (DOD) announced its proposed strategy for conducting a new competition between Boeing and a team consisting of Northrop Grumman and the European Aeronautic Defense and Space Company (EADS—the parent company of Airbus) for a program to build 179 new KC-X aerial refueling tankers for the Air Force. The estimated total value of the 179-aircraft KC-X program is approximately $35 billion. Boeing is expected to offer a KC-X design based on either its 767 or 777 airliner (or two designs, one based on the 767, the other on the 777), while Northrop/EADS is expected to offer a KC-X design based on the Airbus A330 airliner. Boeing would build its KC-X in Seattle, WA, and Wichita, KS, while Northrop/EADS would build its KC-X in a plant that would be established in Mobile, AL.

The KC-X acquisition program is a subject of intense interest among supporters of Boeing and Northrop/EADS and other observers because of the dollar value of the contract, the number of jobs it would create, and the importance of tanker aircraft to U.S. military operations, and because previous attempts by DOD to move ahead with a KC-X acquisition program over the last several years have led to controversy and ultimately failed. DOD's proposed new KC-X acquisition strategy poses several potential oversight issues for Congress, including whether DOD has adequately defined the required capabilities for the KC-X, whether DOD's proposed method for evaluating the Boeing and Northrop/EADS bids against those requirements is fair and transparent, whether a September 4 World Trade Organization (WTO) preliminary ruling on commercial aircraft subsidies should be taken into account in evaluating the KC-X bids, whether the Air Force should be in charge of the new KC-X competition, and whether DOD should consider splitting the KC-X program between Boeing and Northrop/EADS.The issue for Congress in FY2010 is whether to approve, reject, or modify DOD's proposed new KC-X competition strategy, and whether to approve, reject, or modify the Air Force's request for FY2010 research and development funding for the new KC-X program. Congress' decision on these issues could affect DOD capabilities and funding requirements, and the aircraft manufacturing industrial base.

FY2010 defense authorization bill: The *House and Senate Armed Services Committees*, in their markups of the FY2009 defense authorization bill (H.R. 2647/S. 1390), both recommend approving the Administration's request for $439.6 million in research and development funding for the KC-X program. Section 1044 of H.R. 2647 would repeal Section 1081 of the FY2008 defense authorization act (H.R. 4986/P.L. 110-181 of January 28, 2008), which directed the Secretary of the Air Force to conduct a pilot program of at least five years' duration to assess the feasibility and advisability of utilizing commercial fee-for-service air refueling tanker aircraft for Air Force operations. Section 1058 of S. 1390 would amend Section 1081 of the FY2008 defense authorization act (H.R. 4986/P.L. 110-181 of January 28, 2008), to make changes intended to facilitate the implementation of a fee-for-service air refueling support pilot program.

FY2010 DOD appropriations bill: The *House Appropriations Committee*, in its report (H.Rept. 111-230 of July 24, 2009) on H.R. 3326, recommends $439.6 million in research and development funding for the KC-X program, as requested by the Administration, but transfers this funding from the Air Force's research and development account to a "Tanker Replacement Transfer Fund" established by Section 8112 of the bill as reported by the committee. The *Senate Appropriations Committee*, in its report (S.Rept. 111-74 of September 10, 2009) on H.R. 3326, recommends $409.6 million in research and development funding for the KC-X program—a $30 million reduction from the Administration's request, with the reduction being for "Contract award delay." The recommended funding is located in the Air Force's R&D account, as requested.

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Introduction

On September 24, 2009, the Department of Defense (DOD) announced its proposed strategy for conducting a new competition between Boeing and a team consisting of Northrop Grumman and the European Aeronautic Defense and Space Company (EADS—the parent company of Airbus) for a program to build 179 new KC-X[1] aerial refueling tankers for the Air Force. The estimated total value of the 179-aircraft KC-X program is approximately $35 billion. DOD anticipates announcing the winner of the competition in the summer of 2010. The 179 KC-Xs, which would be procured at a maximum rate of 15 aircraft per year, would replace roughly one-third of the Air Force's aging fleet of KC-135 aerial refueling tankers. The Air Force and the U.S. Transportation Command state that replacing the KC-135s is their highest recapitalization priority.

Boeing is expected to offer a KC-X design based on either its 767 or 777 airliner (or two designs, one based on the 767, the other on the 777), while Northrop/EADS is expected to offer a KC-X design based on the Airbus A330 airliner. Boeing would build its KC-X in Seattle, WA, and Wichita, KS, while Northrop/EADS would build its KC-X in a plant that would be established in Mobile, AL.

The KC-X acquisition program is a subject of intense interest among supporters of Boeing and Northrop/EADS and other observers because of the dollar value of the contract, the number of jobs it would create, and the importance of tanker aircraft to U.S. military operations, and because previous attempts by DOD to move ahead with a KC-X acquisition program over the last several years have led to controversy and ultimately failed. The history of those earlier attempts forms an important part of the context for DOD's proposed new KC-X competition, particularly in terms of defining the required capabilities for the KC-X and designing and conducting a fair and transparent competition between Boeing and Northrop/EADS.

The most recent failed attempt at a KC-X acquisition program was a competition being Boeing and Northrop/EADS that resulted in a DOD award to Northrop/EADS in February 2008. Boeing protested that award, and in June 2008, the Government Accountability Office (GAO) sustained Boeing's protest, agreeing with Boeing that the competition was conducted in a flawed manner. GAO's ruling prompted DOD to cancel the 2008 KC-X competition and take control of the KC-X program temporarily away from the Air Force. The Bush administration decided to defer the next attempt at a KC-X acquisition program to the Obama administration, and observers since then have been eagerly waiting to learn the details of the new KC-X competition.

DOD's proposed new KC-X acquisition competition strategy poses several potential oversight issues for Congress, including whether DOD has adequately defined the required capabilities for the KC-X, whether DOD's proposed method for evaluating the Boeing and Northrop/EADS bids against those requirements is fair and transparent, whether a September 4 World Trade Organization (WTO) preliminary ruling on commercial aircraft subsidies should be taken into account in evaluating the KC-X bids, whether the Air Force should be in charge of the new KC-X competition, and whether DOD should consider splitting the KC-X program between Boeing and Northrop/EADS.

[1] In the designation KC-X, C means a cargo-type aircraft, K means that the aircraft is specifically an aerial refueling tanker, and X means the design of the aircraft has not been determined.

The Administration's proposed FY2010 defense budget, submitted in May 2009, requests $439.6 million in Air Force research and development funding to begin a new KC-X acquisition program.

The issue for Congress in FY2010 is whether to approve, reject, or modify DOD's proposed new KC-X competition strategy, and whether to approve, reject, or modify the Air Force's request for FY2010 research and development funding for the new KC-X program. Congress' decision on these issues could affect DOD capabilities and funding requirements, and the aircraft manufacturing industrial base.

Background

Air Force Refueling Tankers

Roles and Missions

Aerial refueling aircraft—commonly called tankers—provide in-flight refueling services to bombers, fighters, strike fighters, airlift aircraft, surveillance aircraft, and other types of aircraft flown by the Air Force, Navy, and Marine Corps. Tankers enable other aircraft to deploy quickly to distant theaters of operation, and to remain in the air longer while operating in those theaters. Aerial refueling capability is a critical component of the U.S. military's ability to project power overseas and to operate military aircraft in theater with maximum effectiveness.

Current Tanker Fleet

KC-135 Stratotanker

The Air Force's current fleet of large tankers consists mostly of 415 re-engined KC-135R Stratotankers. The first KC-135 entered the Air Force inventory in 1956, and the final one was delivered in 1964. DOD and Air Force documents for FY2010 state variously that average age of the KC-135 fleet in 2009 is 45 years,[2] 47 years,[3] 48 years,[4] or more than 48 years.[5] The aircraft

[2] See, for example, Department of Defense, *Fiscal Year 2010 Budget Request, Summary Justification*, May 2009, p. 1-50, or United States Air Force, *FY 2010 Budget Overview*, SAF/FMB, May 2009, p. 48.

[3] See, for example, Department of Defense, *Fiscal Year 2010 Budget Request, Summary Justification*, May 2009, p. 1-16.

[4] See, for example, Department of the Air Force, *Fiscal Year (FY) 2010 Budget Estimates, Research , Development, Test and Evaluation (RDY&E) Descriptive Summaries, Volume II, Budget Activities 4 – 6*, May 2009, Exhibit R-2, RDT&E Budget Item Justification, [PE]0605221F, KC-X, Next Generation Aerial Refueling Aircraft, page 1 of 8 (page 559 of the overall document).

[5] See, for example, Department of the Air Force, Presentation to the House Armed Services Committee Subcommittee on Air and Land Forces, United States House of Representatives, Combined Statement of: Lieutenant General Daniel J. Darnell, Air Force Deputy Chief Of Staff For Air, Space and Information Operations, Plans And Requirements (AF/A3/5) Lieutenant General Mark D. Shackelford, Military Deputy, Office of the Assistant Secretary of the Air Force for Acquisition (SAF/AQ) Lieutenant General Raymond E. Johns, Jr., Air Force Deputy Chief of Staff for Strategic Plans And Programs (AF/A8), May 20, 2009, p. 17.

have received various upgrades and modifications over the years, including new engines.[6] DOD states that if new tankers are procured at a rate of 15 per year, the last KC-135R would be more than 80 years old at retirement. For a discussion of the potential longevity of the KC-135 fleet, see **Appendix E**. On September 15, 2009, it was reported that:

> It will cost the Air Force up to $6 billion per year late in the next decade to maintain its aging fleet of KC-135 tankers, according to a senior service official.
>
> The expected cost is double a previous estimate done in 2001 and first reported by *Inside the Air Force* in March.
>
> Late in the next decade, the already-50-plus-year-old aerial refuelers will need new outer panels, or "skin," and wiring to remain airborne.
>
> The cost of maintaining the Stratotankers will continue to rise as the next-generation KC-X tanker program continues to slip, Air Mobility Command chief Gen. Arthur Lichte said during a briefing today at an Air Force Association-sponsored conference in National Harbor, MD.
>
> Lichte first announced in February that the KC-135 fleet would need new skin to continue flying beyond the end of the next decade.
>
> Current plans show the Air Force flying KC-135s until they are 80 years old....
>
> The previous KC-135 cost study was conducted before the major boom in tanker missions following the Sept. 11, 2001, terrorist attacks. Since then, tanker missions have increased dramatically to support combat operations in Afghanistan and Iraq, in addition to refueling fighter jets that constantly patrol the skies over the United States as part of Operation Noble Eagle.[7]

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[6] Air Force Fact sheet on the KC-135, available online at http://www.af.mil/information/factsheets/factsheet.asp?fsID=110. The fact sheet was accessed by CRS on July 29, 2009, at which time it carried a date of September 2008. The fact sheet states that:

> Of the original KC-135A's, more than 415 have been modified with new CFM-56 engines produced by CFM-International. The re-engined tanker, designated either the KC-135R or KC-135T, can offload 50 percent more fuel, is 25 percent more fuel efficient, costs 25 percent less to operate and is 96 percent quieter than the KC-135A.
>
> Under another modification program, 157 Air Force Reserve and Air National Guard tankers were re-engined with the TF-33-PW-102 engines. The re-engined tanker, designated the KC-135E, is 14 percent more fuel efficient than the KC-135A and can offload 20 percent more fuel.
>
> Through the years, the KC-135 has been altered to do other jobs ranging from flying command post missions to reconnaissance. RC-135s are used for special reconnaissance and Air Force Materiel Command's NKC-135A's are flown in test programs. Air Combat Command operates the OC-135 as an observation platform in compliance with the Open Skies Treaty.
>
> The KC-135R/T model aircraft continue to undergo life-cycle upgrades to expand its capabilities and improve its reliability. Among these are improved communications, navigation, auto-pilot and surveillance equipment to meet future civil air traffic control needs.

[7] Marcus Weisgerber, "KC-135 Maintenance Costs to Reach $6 Billion Per Year," *InsideDefense.com (DefenseAlert – Daily News)*, September 15, 2009.

KC-10 Extender

The Air Force's fleet of large tankers also includes about 59 KC-10 Extender aerial refueling aircraft, the first of which entered service in 1981.[8]

KC-X Program Basics

Numbers of Aircraft

DOD envisages replacing the KC-135 fleet in three stages, of which the 179 new KC-Xs would represent the first stage, replacing roughly one-third of the KC-135 fleet. The replacement tankers to be procured in second and third stages of the effort would be designated KC-Ys and KC-Zs.

Acquisition Cost

A March 2009 GAO report states that the procurement cost of 179 KC-Xs could be about $35 billion,[9] or an average of about $195 million per aircraft. A September 25, 2009, news report quotes an unnamed U.S. military official as saying the program could cost between $25 billion and $50 billion.[10] The Air Force testified in May 2009 that it had budgeted about $3.5 billion per year for a projected procurement rate of 12 to 18 aircraft per year,[11] which would equate to an average cost of about $195 million to $290 million per aircraft. GAO states that, when the projected KC-Ys and KC-Zs are added in, the KC-135 replacement effort "is expected to involve

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[8] Air Force fact sheet on the KC-135, available online at http://www.af.mil/information/factsheets/factsheet.asp?id=109.]. The fact sheet was accessed by CRS on July 29, 2009, at which time it carried a date of September 2008. The fact sheet states that:

> The KC-10 Extender is an Air Mobility Command advanced tanker and cargo aircraft designed to provide increased global mobility for U.S. armed forces. Although the KC-l0's primary mission is aerial refueling, it can combine the tasks of a tanker and cargo aircraft by refueling fighters and simultaneously carry the fighter support personnel and equipment on overseas deployments. The KC-10 is also capable of transporting litter and ambulatory patients using patient support pallets during aeromedical evacuations.
>
> The KC-10 can transport up to 75 people and nearly 170,000 pounds (76,560 kilograms) of cargo a distance of about 4,400 miles (7,040 kilometers) unrefueled.

In addition to KC-135s and KC-10s, the Air Force, Marine Corps, and Navy operate additional smaller refueling aircraft. The Air Force uses modified C-130s to refuel Air Force special operations and combat search and rescue helicopters. The Marine Corps uses modified C-130s to refuel Marine helicopters and fighters. Some Navy aircraft have been configured to give them a secondary capability to refuel other Navy or Marine Corps aircraft in flight.

[9] Government Accountability Office, *Defense Acquisitions[:] Assessments of Selected Weapon Programs*, GAO-09-326SP, March 2009, p. 156.

[10] Jason Simpson, "Officials: KC-X Program Could Cost Up To $50 Billion," *InsideDefense.com (DefenseAlert – Daily News)*, September 25, 2009.

[11] Department of the Air Force, Presentation to the House Armed Services Committee Subcommittee on Air and Land Forces, United States House of Representatives, Combined Statement of: Lieutenant General Daniel J. Darnell, Air Force Deputy Chief Of Staff For Air, Space and Information Operations, Plans And Requirements (AF/A3/5) Lieutenant General Mark D. Shackelford, Military Deputy, Office of the Assistant Secretary of the Air Force for Acquisition (SAF/AQ) Lieutenant General Raymond E. Johns, Jr., Air Force Deputy Chief of Staff for Strategic Plans And Programs (AF/A8), May 20, 2009, p. 17

the procurement of about 600 aircraft over 40 years at a cost that could exceed $100 billion,"[12] or an average cost of roughly $170 million per aircraft.

Expected Competitors

Boeing is expected to offer a KC-X based on either its 767 or 777 airliner (or two designs, one based on the 767, the other on the 777),[13] while Northrop/EADS is expected to offer a KC-X based on the Airbus A330 airliner.

DOD's Proposed New KC-X Competition Strategy

Key features of DOD's proposed new KC-X competition strategy—which are taken from the briefing slides and transcript (**Appendix A** and **Appendix B**, respectively) of the September 24, 2009, DOD news briefing at which the proposed strategy was announced—include the following:

- The proposed KC-X competition strategy, known more formally as the Source Selection Strategy, was devised jointly by the Office of the Secretary of Defense (OSD) and the Air Force and was approved by the Secretary of Defense.
- The Air Force will be the Source Selection Authority (SSA) for the competition, as announced by the Secretary of Defense on September 16, 2009.
- DOD intends to select a sole winner for the KC-X competition; DOD does not intend to split the KC-X program between the two bidders.
- The competition will be evaluated on a best-value (rather than lowest-cost) basis that will take both price and non-price factors into account. The evaluation will include mandatory and non-mandatory/trade space capabilities, acquisition price, warfighting effectiveness, and day-to-day efficiency.
- The competition will differ in many details from the 2007-2008 competition and does not constitute a re-run of the 2007-2008 competition. DOD states that, among other things, the selection criteria to be used in the new competition are more precise and less subjective than those used in the 2007-2008 competition.
- The contracts to be awarded are to be fixed-price type contracts. The winning bidder will receive a fixed-price incentive fee (FPIF) contract with a ceiling for the Engineering and Manufacturing Development (EMD) phase of the program, which includes the first four aircraft. A firm fixed-price (FFP) contract will be used for the next 64 aircraft (production lots 1 through 5). A not-to-exceed (NTE) contract will be used for the final 111 aircraft (lots 6 through 13). An FFP contract will be used for five years of initial contractor support.

[12] Government Accountability Office, *Defense Acquisitions[:] Assessments of Selected Weapon Programs*, GAO-09-326SP, March 2009, p. 156.

[13] See, for example, Amy Butler, "Boeing Still Open To 767 Or 777 Tanker Bid," *Aerospace Daily & Defense Report*, September 16, 2009: 3; Marina Malenic, "Boeing Studying KC-X Engine Options, Won't Offer 'Frankentanker,'" *Defense Daily*, September 15, 2009: 1; Jim Wolf, "Boeing May Offer US Air Force Two Tankers," *Reuters.com*, September 25, 2009; Marina Malenic, "Boeing Could Bid Both 767 And 777 In New Fixed-Price KC-X Competition," *Defense Daily*, September 28, 2009: 3-4.

- The draft Request for Proposals (RFP) was scheduled for release on September 25, 2009. Following its release, there will be a period of about 60 days for review and comment on this draft, followed by release of the actual RFP. Boeing and Northrop/EADS will then have about 60 days to prepare and submit their bids. The government will evaluate the bids for about 120 days, and prepare a contract award over a subsequent period of about 30 days. DOD anticipates awarding the contract in the summer of 2010.
- Delivery of the first KC-X is to occur in 2015, and Initial Operating Capability (IOC) for the KC-X is scheduled for 2017. Delivery of all 179 KC-Xs will occur over a period of more than 15 years. As KC-Xs are integrated into the fleet, the Air Force will begin evaluating its future tanker needs and begin work on the KC-Y program.

Earlier Attempts at a KC-X Acquisition Program

The advanced age of the KC-135 fleet, and what to do about it, has been a matter of concern for policymakers since the 1990s.[14] DOD's proposed new KC-X competition strategy follows previous unsuccessful attempts by DOD to implement a KC-X acquisition program for replacing the KC-135s. The history of those earlier attempts forms an important part of the context for DOD's proposed new KC-X competition, particularly in terms of defining the required capabilities for the KC-X and designing and conducting a fair and transparent competition between Boeing and Northrop/EADS.

Leasing Authority of 2002

In response to concerns about the aging KC-135 fleet, Section 8159 of the FY2002 defense appropriations act (H.R. 3338/P.L. 107-117 of January 10, 2002) authorized the Air Force to lease up to 100 Boeing 767s (and also up to four Boeing 737s) for not more than 10 years. The leased 767s were to be modified into aerial refueling tankers and used as replacements for KC-135Es—the oldest and least capable KC-135s. The leasing arrangement authorized by Section 8159 became a matter of debate and controversy, in part because it appeared to depart from traditional acquisition processes and, some observers argued, had the potential for weakening congressional oversight of tanker acquisition. The General Accounting Office (now the Government Accountability Office) concluded that a lease would cost more than procuring the aircraft.[15] Other observers argued that Air Force arguments in favor of the lease contradicted the service's position of just a year prior regarding the urgency for replacing the KC-135s.[16] Congress examined the

[14] In 1996, the General Accounting Office (now the Government Accountability Office) asserted that the long-term viability of the KC-135 fleet was questionable and advocated expeditiously studying replacement options. (General Accounting Office, *U.S. Combat Airpower[:]Aging Refueling Aircraft Are Costly to Maintain and Operate*, GAO/NSIAD-06-160, August 1996.) DOD countered at the time that KC-135 airframe hours were low and that the Air Force could sustain the fleet for another 35 years.

[15] General Accounting Office, Military Aircraft[:] Observations on the Air Force's Plan to Lease Aerial Refueling Aircraft, Statement of Neal P. Curtin, Director, Defense Capabilities and Management, Testimony before the Committee on Commerce, Science, and Transportation, United States Senate, GAO-031143T, September 3, 2003, 22 pp.

[16] In 2001, the Air Force reported that the KC-135 fleet would incur "significant cost increases" between 2001 and 2040, but that "no economic crisis is on the horizon ... there appears to be no run-away cost-growth," and that "the fleet is structurally viable to 2040." (*KC-135 Economic Service Life Study*, Technical Report F34601-96-C-0111, February (continued...)

leasing arrangement in four hearings, culminating with two Senate committee hearings in September 2003.[17]

Leasing and Purchasing Authority of 2003

Section 135 of the FY2004 defense authorization act (H.R. 1588/P.L. 108-136 of November 24, 2003) legislated a compromise between leasing proponents and opponents by authorizing the Secretary of the Air Force to lease up to 20 tankers, and to use a multiyear procurement (MYP) arrangement beginning as early as FY2004 to procure up to 80 tankers using incremental funding. Section 135 also required the Secretary of Defense to conduct a study to identify alternative means for maintaining and providing training for leased or purchased tankers. Another provision of the act—Section 134—prohibited the Air Force from retiring more than 12 KC-135Es in FY2004.

Developments in 2004-2006

On February 1, 2004, Deputy Secretary of Defense Paul Wolfowitz requested that the Defense Science Board (DSB) conduct an independent analysis of the KC-135E fleet. On February 24, 2004, acting Undersecretary of Defense for Acquisition Michael Wynne directed the Air Force to conduct an aerial refueling AOA. DOD deferred using the authority granted in Section 135 until the completion of both the DSB report and an internal investigation by the DOD Inspector General (IG) on potential improprieties by Boeing Company executives.[18]

In 2006, RAND Corporation concluded an Analysis of Alternatives (AOA) for recapitalizing the Air Force's KC-135 fleet. The AOA concluded that purchasing new commercially derived tankers was the most cost-effective means of initially recapitalizing the fleet.[19]

(...continued)

9, 2001.) At that time, the Air Force position on tanker modernization was to conduct an analysis of alternatives (AOA) to determine the optimal replacement option for KC-135s. The service would begin recapitalization in the 2012 time frame to meet KC-135 retirement by 2040, when the Air Force expected the KC-135 to reach the end of its service life.

[17] For a discussion, see CRS Report RL32056, *The Air Force KC-767 Tanker Lease Proposal: Key Issues For Congress*, by Christopher Bolkcom.

[18] On April 20, 2004, Darleen A. Druyan, the former lead Air Force negotiator on the tanker lease proposal, pleaded guilty to one charge of criminal conspiracy. Ms. Druyan admitted to secretly negotiating an executive job with the Boeing company while still overseeing the $23 billion leasing arrangement between the Air Force and Boeing.(R. Merle, "Ex-Pentagon Official Admits Job Deal," *Washington Post*, April 21, 2004.) Lease supporters argued that Ms. Druyan was a single "bad apple" and that her actions did not negate the merits of leasing Boeing 767s for use as tankers. In February 2005, however, the DOD IG reportedly concluded that Air Force Secretary James Roche misused his office when he lobbied the Office of Management and Budget (OMB) to support the lease concept. (R. Jeffrey Smith, "Roche Cited for 2 Ethics Violations," *Washington Post*, February 10, 2005.) The IG's final report concluded that four other senior DOD officials were guilty of evading Office of Management and Budget (OMB) and DOD acquisition regulations that are designed to demonstrate best business practices and to provide accountability. The DOD IG found that senior DOD officials knowingly misrepresented the state of the KC-135 fleet and air refueling requirements.(Department of Defense, Office of the Inspector General, *Management Accountability Review of the Boeing KC-767A Tanker Program*, OIG-2004-171, May 13, 2005.)

[19] KC-135 Recapitalization Analysis of Alternatives. Briefing to Congress, January 26-27, 2006.

KC-X Competition of 2007-2008

Consistent with the findings of the 2006 RAND report, the Air Force in early 2007 released a formal request for proposals (RFP) for the procurement of 179 new KC-X tankers.[20] Boeing responded to the RFP with the KC-767—a tanker variant of the Boeing 767-200 commercial airliner. A team consisting of Northrop Grumman and EADS responded to the RFP with the KC-30 (later called the KC-45)—a tanker version of the Airbus 330-200 commercial airliner.

A March 2009 GAO report summarizes subsequent events:

> On February 29, 2008, the Air Force selected a consortium consisting of Northrop Grumman and the European Aeronautic Defense and Space Company (EADS)—the parent company of Airbus—over Boeing to build the KC-X tankers. In March 2008, Boeing filed a bid protest with GAO. On June 18, 2008, GAO sustained Boeing's protest and, consistent with that decision, recommended that the Air Force reopen discussions with the offerors, obtain revised proposals, re-evaluate the revised proposals, and make a new source selection decision.
>
> In July 2008, the Secretary of Defense stated that there would be a new solicitation requesting revised proposals from industry, and the Undersecretary of Defense for Acquisition, Technology and Logistics would replace the Air Force as the source selection authority. DOD [was] expected to award the new contract by December 31, 2008. However, on September 10, 2008, the Secretary announced his decision to terminate the second competition noting there was not enough time for DOD to complete a competition that would be viewed as fair and competitive in such a highly-charged environment by January 2009, when the next administration would take office. He stated that rather than handing the next administration an incomplete and possibly contested process, the next team should review the military requirements objectively and craft a new acquisition strategy.[21]

For additional discussion of the RFP, Boeing's protest, and GAO's ruling on Boeing's protest, see **Appendix C**.

DOD Statements on KC-X as a High Priority

DOD states that "with the average age of the [KC-135] inventory over 45 years old, a new Tanker has become an operational necessity as well as a financially prudent decision to meet refueling requirements."[22] The U.S. Transportation Command testified in February 2009 that:

> My number one recapitalization priority is replacing the fleet of 415 Eisenhower-era KC-135s with a new platform to preserve a unique asymmetric advantage for our nation. The KC-X with multipoint refueling allowing same sortie service to Air Force, Navy, Marine and coalition aircraft will address the significant risk we are currently carrying in air capacity and address further capability risks associated with an airframe that is almost 50 years old - and will be over 80 years old by the time we recapitalize all of them. The ability to carry cargo

[20] "Air Force Posts KC-X Request for Proposals," *Air Force Print News Today*, January 31, 2007, online at http://www.af.mil/news/story.asp?id=123039360.

[21] Government Accountability Office, *Defense Acquisitions[:] Assessments of Selected Weapon Programs*, GAO-09-326SP, March 2009, p. 156. The text reproduced here appears in the GAO report as a single paragraph. It has been divided here into two paragraphs for ease of readibility.

[22] Department of Defense, *Fiscal Year 2010 Budget Request, Summary Justification*, May 2009, p. 1-50.

> and operate forward with defensive systems will be a game changer when the aircraft is not needed as a tanker. Further delays in replacing this aircraft will add significant risk to our ability to rapidly project combat power to support the nation and our allies. It is imperative to expedite a smart, steady reinvestment program.[23]

The Air Force testified in May 2009 that:

> The KC-X remains the Air Force's highest procurement and recapitalization priority. Air refueling is critical to the entire Joint and Coalition team's ability to project combat power around the world. The current fleet of Eisenhower-era KC-135s averages over 48 years old.
>
> KC-X tankers will provide increased aircraft availability, more adaptable technology, more flexible employment options, and greater overall capability than the current fleet of KC-135R/T tankers. The KC-X will be able to refuel receptacle and probe-equipped aircraft on every mission and to receive fuel in-flight plus carry cargo, passengers, & conduct aeromedical evacuation. The KC-X will also be equipped with defensive systems to enhance its utility to the warfighter.
>
> The KC-X program is based on a planned purchase of 179 aircraft and is the first of up to three recapitalization programs to replace the entire legacy fleet. The Air Force has budgeted approximately $3.5 billion per year for a projected annual production rate of 12-18 aircraft. But even with this level of investment, it will take several decades to replace the 400+ KC-135s. Given the age of the fleet and the time required to recapitalize, it is absolutely critical for the Air Force to move forward now on this program.[24]

Industrial Base

Employment Effects as Asserted for 2007-2008 Competition

Boeing's plan for the 2007-2008 KC-X competition called for 767s to be assembled at the Boeing plant in Everett, WA, and be converted into tankers (KC-767s) at Boeing's plant in Wichita, KS. Boeing claimed that 44,000 U.S. workers from 300 U.S. suppliers would be involved in building the KC-767.[25]

The Northrop/EADS plan for the 2007-2008 KC-X competition called for assembling its KC-X (originally called the KC-30, and later the KC-45) at a new plant planned for Mobile, AL. Northrop/EADS stated that assembling KC-Xs there would create 2,000 new jobs. Northrop originally stated that its proposal would result in 25,000 direct and indirect U.S. jobs—a calculation that Northrop/EADS stated was based a Department of Commerce employment model. Subsequently, Northrop raised its job estimate to approximately 48,000 direct and indirect

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[23] Statement of General Duncan J. McNabb, USAF, Commander, United States Transportation Command, Before the House Armed Services Air & Land Forces and Seapower & Expeditionary Forces Subcommittees [Hearing] On the State of the Command, February 25, 2009, pp 6-7.

[24] Department of the Air Force, Presentation to the House Armed Services Committee Subcommittee on Air and Land Forces, United States House of Representatives, Combined Statement of: Lieutenant General Daniel J. Darnell, Air Force Deputy Chief Of Staff For Air, Space and Information Operations, Plans And Requirements (AF/A3/5) Lieutenant General Mark D. Shackelford, Military Deputy, Office of the Assistant Secretary of the Air Force for Acquisition (SAF/AQ) Lieutenant General Raymond E. Johns, Jr., Air Force Deputy Chief of Staff for Strategic Plans And Programs (AF/A8), May 20, 2009, p. 17.

[25] Boeing press release, "Boeing KC-767 Tanker Win Would Benefit Arizona Economy," November 26, 2007.

jobs and 230 suppliers from 49 states. Northrop based the revised estimate on feedback received from suppliers and a Department of Labor employment model.[26] In January 2008, EADS announced that it would conduct final assembly of all commercial freighter versions of the Airbus 330-200 at the Mobile, AL, facility, increasing the potential number of new jobs that would be created at Mobile if the Northrop/EADS KC-X were selected.[27]

Domestic Content as Discussed in 2007-2008 Competition

In the 2007-2008 KC-X competition, some observers questioned whether the Northrop/EADS proposal satisfied requirements in the Buy American Act, which requires the federal government to purchase domestically manufactured goods. The statute defines goods to have been domestically manufactured if their components have "substantially all" been mined, produced, or manufactured within the United States. [28] The definition of "substantially all" has been left to the Federal Acquisition Regulations (FAR). In the FAR, a good is considered "domestic" if the cost of domestically produced components exceeds 50% of the value of the whole article.[29]

One way a KC-X contractor could potentially satisfy requirements of the Buy American Act is by having 50% or more of total cost of their proposed aircraft produced in the United States. Reportedly, approximately 85% of Boeing's KC-X in the 2007-2008 competition would have been manufactured in the United States.[30] Northrop/EADS stated that "at least 58 percent" of its proposal in the 2007-2008 KC-X competition would be comprised of products manufactured by U.S.[31] For a listing of Boeing 767 and Airbus A330 suppliers, see **Appendix D**.

FY2010 Funding Request

The Administration's proposed FY2010 defense budget requests $439.6 million in Air Force research and development funding to begin a new program for acquiring new 179 KC-X aerial refueling tankers.[32]

[26] Press release, "Northrop Grumman Updates Job Projections for Air Force KC-45A Program," March 11, 2008, available online at http://www.irconnect.com/noc/press/pages/news_releases.html?d=138001.

[27] Jen DiMascio, "Airbus Vows to Boost Business in Alabama If it Can Make Tankers There," *Defense Daily*, January 15, 2008. Some observers have estimated a market for 200 Airbus 330-200 freighters over the next 10 years. As of January 2008, Airbus had orders for approximately 60 aircraft. ("Airbus 330," Jane's All the World's Aircraft, February 19, 2008, available online at http://www.janes.com.)

[28] For more information on the Buy American Act, see CRS Report 97-765, *The Buy American Act: Requiring Government Procurements to Come from Domestic Sources*, by John R. Luckey.

[29] FAR § 25.101.

[30] Eric Rosenburg, "Boeing Duels for Tanker Deal," *Seattle Post-Intelligencer*, September 30, 2007, available online at http://seattlepi.nwsource.com/business/333751_tanker01.html.

[31] "Northrop Grumman's KC-45 Tanker: Making the Right Choice," January 25, 2007, available online at http://www.northropgrumman.com/kc45/benefits/choice.html.

[32] The requested funding is found in the Air Force's research development, test and evaluation (RDT&E) account in PE (i.e., program element, meaning line item) 0605221F, KC-X, Next Generation Aerial Refueling Aircraft.

FY2009 Legislative Provisions

The FY2009 defense authorization act (S. 3001/P.L. 110-417 of October 14, 2008) contained three provisions relating to Air Force tanker aircraft:

- Section 131 amended an earlier provision—Section 135(b) of the FY2007 defense authorization act (H.R. 5122/P.L. 109-364 of October 17, 2006)—to require the Air Force to maintain at least 74 of the KC-135Es that are retired by the Air Force after September 30, 2006, in a condition that would allow recall of that aircraft to future service in the Air Force Reserve, Air National Guard, or active forces aerial refueling force structure. (Section 135(b) had originally required that each KC-135E retired after September 30, 2006, be maintained in such a condition.)
- Section 132 repealed Section 135 of the FY2004 defense authorization act (H.R. 1588/P.L. 108-136 of November 24, 2003)—the provision discussed earlier (see "Leasing and Purchasing Authority of 2003") that authorized the Secretary of the Air Force to lease up to 20 tankers, and to use a multiyear procurement (MYP) arrangement beginning as early as FY2004 to procure up to 80 tankers using incremental funding.
- Section 133 required the Secretary of Defense to submit a report to the congressional defense committees by March 1, 2009, regarding the KC-X competition was terminated on September 10, 2008.

The text of Section 133 is as follows:

> SEC. 133. REPORTS ON KC-(X) TANKER AIRCRAFT REQUIREMENTS.
>
> (a) Report Required- Not later than March 1, 2009, the Secretary of Defense shall submit to the congressional defense committees a report regarding the competition for the KC-(X) tanker aircraft that was terminated on September 10, 2008. The report shall include the following:
>
> (1) An examination of original requirements for the KC-(X) tanker aircraft, including an explanation for the use of the KC-135R tanker aircraft as the baseline for the KC-(X) tanker aircraft.
>
> (2) A summary of commercial derivative or commercial off-the-shelf aircraft available as potential aerial refueling platforms using aerial refueling capabilities (such as range, offload at range, and passenger and cargo capacity) in each of the following ranges:
>
> (A) Maximum gross take-off weight that is less than 300,000 pounds.
>
> (B) Maximum gross take-off weight in the range from 301,000 pounds maximum gross take-off weight to 550,000 pound maximum gross take-off weight.
>
> (C) Maximum gross take-off weight in the range from 551,000 pounds maximum gross take-off weight to 1,000,000 pound maximum gross take-off weight.
>
> (D) Maximum gross take-off weight that is greater than 1,000,000 pounds.

> (b) Reassessment Required- The Secretary of Defense shall reassess the requirements for aerial refueling that were validated by the Joint Requirements Oversight Council on December 27, 2006. Not later than 30 days after the reassessment, the Secretary shall submit to the congressional defense committees a report containing the complete results of the reassessment.

Issues for Congress

DOD's proposed new KC-X acquisition competition strategy poses several potential oversight issues for Congress, including the following:

- Has DOD adequately defined the required capabilities for the KC-X?
- Is DOD's proposed method for evaluating the Boeing and Northrop/EADS bids against those requirements is fair and transparent? Among other things, is DOD correct in proposing to evaluate the bids on a best-value basis rather than a lowest-cost basis? And should a September 4 World Trade Organization (WTO) preliminary ruling on commercial aircraft subsidies be taken into account in evaluating the KC-X bids?
- Should the Air Force should be in charge of the new KC-X competition?
- Should DOD split the KC-X program between Boeing and Northrop/EADS?

The following sections provide some discussion of these issues.

Required Capabilities and Evaluation Process

The first two issues listed above – the required capabilities of the KC-X and how the bids are to be evaluated against those requirements – are of particular interest to many observers in part because of concerns about whether requirements were adequately defined and fairly evaluated in previous attempts to implement a KC-X acquisition program.

In General

At the September 24, 2009, DOD news briefing on DOD's proposed new KC-X competition strategy, Secretary of the Air Force Michael B. Donley stated:

> Let's focus on requirements for a minute. Just to give you a broad overview, the Capabilities Development Document [CDD] is the very high-level overview of the requirements for the KC-X going forward.
>
> The CDD as it's referred to is the same CDD that was reviewed and approved in December of 2006. The Air Force revisited this early this year in January. The Joint Requirements Oversight Council also reviewed it in February. And no changes have been made. Again this is the very high-level, what are our requirements going forward for a KC-X aircraft?
>
> The key work that has been done is at the Systems Requirement Document, the SRD, level. And here we undertook significant changes, without changing the requirements but to make a better linkage between the requirements written by the warfighter and the RFP that's going out tomorrow.

> The SRD is where the system-level requirements are defined in more detail. And they do form the basis for the RFP. A tremendous amount of work has been done. I'll describe that in a little bit more detail. But AMC led this work, but it has been a collaborative effort with the rest of the Air Force and OSD, as the secretary indicated. Slide, please.
>
> You may recall that in the last solicitation, there were about 808 requirements listed, for the KC-X, of which about 37 were mandatory requirements.
>
> And this provided an extensive amount of trade space in those requirements to determine how a selection and—how an evaluation and then selection might be made.
>
> However, by doing so, the offers indicated last time some confusion, because they did not clearly understand what the warfighter valued most. Another factor was that the way the requirements were written and their distribution throughout the RFP also left some uncertainty and confusion.
>
> We've taken those 808 and we have boiled them down to the 373 mandatory, system-level requirements, which reflect what the warfighter needs on the first day of the war. When this aircraft is delivered, the warfighter will be able to take those capabilities and go to war. That's the fundamental baseline requirements that Air Mobility Command has put value on and which they need to make this a successful program.
>
> Above that, we have identified 93 trade-space requirements. They are non-mandatory, above-threshold requirements that would provide additional capability to the warfighter, additional value, but not to such an extent that the warfighter would be willing to pay that much more for these capabilities. And Secretary Carter will explain a little bit later how this relationship between the mandatory and the non-mandatory, above-threshold requirements relate to each other.
>
> Our task here was to not only take out the duplication, to combine the requirements where we thought they could be combined, but to write them clearly and precisely. And these requirements will be evaluated in an acceptable/non-acceptable basis. [33]

An October 5, 2009, news report stated:

> The first full week of the U.S. Air Force's latest attempt to buy new aerial tankers brought far more questions than answers, say former Pentagon officials and defense observers.
>
> Boeing and its proponents struck first. Even before the Air Force on Sept. 25 released a draft request for proposals (RfP), it argued that a World Trade Organization ruling that EADS received illegal subsidies from European governments should be factored into the U.S. tanker race.
>
> Days later, its Northrop Grumman-EADS rivals lobbed their first salvo of the young competition, when a senior Northrop official said Sept. 29 that the U.S. Defense Department's 2008 disclosure of information about its tanker aircraft proposal to rival Boeing was "unfair." Northrop-EADS officials are "greatly concerned that its pricing information from the previous tanker competition was provided by the government to its competitor, Boeing," Paul Meyer, vice president and general manager of the Advanced

[33] Transcript of DoD News Briefing with Deputy Secretary of Defense William Lynn, Under Secretary of Defense Ashton Carter, and Secretary of the Air Force Michael Donley, September 24, 2009, available online at http://www.defenselink.mil/transcripts/transcript.aspx?transcriptid=4484.

> Technology and Programs Division at Northrop Grumman Aerospace Systems, said in a statement.
>
> Pentagon officials at the time said they were following traditional acquisition practices.
>
> Many of those Bush administration officials are gone, but their Obama administration replacements say this competition is different, and the old price information is outdated.
>
> But Meyer said it could give Boeing an unfair advantage in the KC-X tanker competition. "With predominant emphasis placed on price in this tanker recompetition and Northrop Grumman again proposing its KC-45 refueling tanker, such competitive pricing information takes on even greater importance," he said. "It is fundamentally unfair." The Pentagon has refused to give Northrop-EADS comparable data, Meyer said.
>
> What does all the posturing mean for the competition? Some Pentagon observers see it heading for a familiar destination.
>
> "It sounds to me like the foundation for a formal protest is already being laid," said Loren Thompson of the Lexington Institute, a think tank based in Arlington, Va. "This program needs a political solution, not another ill-fated bid for bureaucratic perfection."...
>
> Thompson and others have called for the service to split the contract between Boeing and Northrop-EADS, creating a "political solution" that satisfies all stakeholders involved....
>
> Just how the KC-X requirements have been ranked and will be evaluated by the service's source selection team also is raising eyebrows....
>
> Some former Pentagon officials and analysts are wondering whether this process will survive the competition. David Berteau, a Reagan-era Pentagon official who now is an analyst at the Center for Strategic and International Studies, said that after reviewing the draft RfP he sees a number of inconsistencies.
>
> "There are some issues here that are not in-ternally consistent," Berteau said. "I am not sure I see from section M [of the draft] how the government plans to integrate some inconsistent positions … and how it will reconcile all that into a procurement to produce a plane in the time frame" of a 2017 initial operation goal, he added.[34]

A September 30, 2009, press report stated:

> Only days after the release of a draft request for proposals (RFP) for the U.S. Air Force tanker competition, Northrop Grumman officials say their joint bid with EADS North America may be disadvantaged.
>
> The reason cited by Paul Meyer, vice president of Advanced Technology and Programs at Northrop and the program manager who won the KC-X competition for the team in 2008, is that his company's pricing data is not secret. The Pentagon routinely shares pricing data with losing bidders during their debriefs. In this case, Boeing protested last year's $1.5 billion award to Northrop/EADS, launching a process that led to this latest competition.

[34] John T. Bennett, "USAF Tanker RfP Raises More Questions Than Answers," Defense News, October 5, 2009: 4. Material in brackets as in original.

> "Northrop Grumman continues to be greatly concerned that its pricing information from the previous tanker competition was provided by the government to its competitor, Boeing," Meyer said in a prepared statement Sept. 29. "Access to comparable pricing information from Boeing has thus far been denied by the Pentagon." Northrop/EADS is expected to offer an Airbus A330-200-based design, while Boeing is considering a 767- and/or 777-based option....
>
> "With predominant emphasis placed on price in this tanker re-competition and Northrop Grumman again proposing its KC-45 refueling tanker, such competitive pricing information takes on even greater importance," Meyer says. "It is fundamentally unfair, and distorts any new competition, to provide such critical information to only one of the bidders."
>
> The Pentagon countered with a statement: "DOD has examined this claim and found both that this disclosure was in accordance with regulation and, more importantly, that it created no competitive disadvantage because the data in question are inaccurate, outdated and not germane to this source-selection strategy."[35]

A September 10, 2009, press report stated:

> Former Air Force acquisition executive Sue Payton this week acknowledged the requirements used during the last round of the service's embattled KC-X tanker replacement competition were not sufficient.
>
> The flaws during the $40 billion competition eventually led to a successful protest by Boeing, which lost the competition to a rival Northrop Grumman-EADS team in February 2008.
>
> "I will tell you in the [Expeditionary Combat Support System] program as well as in the tanker program that the requirements as written were ambiguous," Payton said during a speech at a Sept. 9 conference in Lansdowne, VA. "The requirements as written were not ready for a source selection."
>
> As the tanker battle heated up during much of 2007 and 2008, senior Air Force officials—including Payton—constantly stressed the "openness and transparency" of the KC-X competition.[36]

A March 20, 2009, news report stated:

> The Air Force has simplified the evaluation factors it plans to use when it re-examines bids for the KC-X next-generation tanker replacement program, according to service officials. This comes as Defense Secretary Robert Gates this week reaffirmed his position against buying two different aerial refueling aircraft.
>
> Service officials hope trimming more than 800 "evaluation elements" will "clarify and condense" the new request for proposals, making it "more understandable to solicitors," one service official said this week.

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[35] Amy Butler, "Northrop: Boeing Has Unfair Pricing Edge In Tanker Duel," *Aerospace Daily & Defense Report*, September 30, 2009: 3. See also Marina Malenic, "Northrop Grumman Cries Foul On Pricing Data-Sharing In Tanker Re-Bid," *Defense Daily*, September 30, 2009, which presents similar information.

[36] Marcus Weisgerber, "Payton: KC-X Tanker Requirements Were 'Not Ready' And 'Ambiguous," *Inside the Pentagon*, September 11, 2009. Material in brackets as in original.

> "We're somewhere around half of the evaluation elements that we had before," the official said. "I think industry will find a much clearer depiction of what it is we're asking for, but the basic requirements have not changed."
>
> Air Force officials briefed the Joint Requirements Oversight Council late last month on the service's process for clarifying and condensing evaluation factors, according to the official. The panel reaffirmed the fundamental next-generation tanker requirements as stated in the analysis of alternatives and capabilities development document remain sound.
>
> "Nothing has fundamentally changed," the official said.
>
> At press time (March 19), the group has not issued a JROC memorandum.[37]

A March 6, 2009, news report stated:

> The restart of the Air Force next-generation tanker competition took a major step forward last week when the Joint Requirements Oversight Council revalidated the program's requirements, according to defense officials.
>
> The JROC—chaired by Vice Chairman of the Joint Chiefs of Staff Marine Corps Gen. James Cartwright—discussed the KC-135 tanker replacement program during a Feb. 26 meeting at the Pentagon, according to sources. At press time (March 5), a JROC memorandum had not been signed, according to one defense official.
>
> The JROC must validate a requirement before a major, high-budget program enters the acquisition phase.
>
> "The requirement didn't change," Air Mobility Command chief Gen. Arthur Lichte told reporters last week when speaking about the tanker competition, not the JROC meeting....
>
> Over the last few months, AMC requirements officials have been refining a list of more than 800 sub-requirements that were part of the original request for proposals
>
> "We've gone back over and scrubbed them so as to make sure that, when we put a requirement out there, we didn't make too many sub-requirements," Lichte said at the same conference in Florida.
>
> "We want to make sure we're specific where we need to be specific [and] consolidate some of those requirements," he said during a Feb. 26 briefing.
>
> For instance, "if we wanted defensive systems, we could describe that in maybe 25 different requirements," Lichte said, noting a cleaned -up version could instead state the new tanker needs a Large Aircraft Infrared Countermeasure system.
>
> "I think we've got [the requirements] to the right level and now we're waiting for OSD to make the final decision and to go forward with whatever acquisition strategy that we're going to have," he said. [38]

[37] Marcus Weisgerber, "Air Force Simplifies KC-X Evaluation Factors That Will Appear In RFP," *Inside the Air Force*, March 20, 2009.

[38] Marcus Weisgerber, "JROC Revalidates Air Force KC-X Tanker Program Requirements," *Inside the Air Force*, March 6, 2009.

Best Value vs. Lowest Cost

The question of whether the competition should be evaluated on a best-value basis or a lowest-cost basis is potentially of interest because some observers believe that a selection based on best value might be more likely to favor one design, while a selection based on lowest cost might be more likely to favor another. Advocates of a competition based on lowest cost might argue that it would be easier to design and implement, and easier to defend in the event of a protest.[39] Advocates of a competition based on best value might argue that it would have a higher likelihood of taking into account considerations that are not strictly cost related, but nevertheless important to meeting Air Force requirements for its future tanker fleet.

[39] A May 1, 2009, news article that provided a perspective in favor of basing the decision on lowest cost stated:

> The Pentagon should set price above bonus capabilities when selecting a winner in the $35 billion competition to build a new fleet of aerial-refueling aircraft, the military's former top acquisition official said this week in his last hours on the job.
>
> Meeting with reporters on his last day on the job—April 27—Pentagon acquisition chief John Young said this method would generate less controversy and be less burdensome on taxpayers. Young's successor, Ashton Carter, took the oath of office later that day.
>
> "The government could possibly go and successfully have a best-value competition on tanker, but not with 800 requirements, almost all of which are tradeable," Young said during the April 27 meeting at the Pentagon. "To successfully do that, the government is going to have to articulate ... a smaller set of requirements and be crystal clear about the relative priorities of those requirements."
>
> Last fall, a military official laid out two courses of action the Pentagon could take when awarding a contract. The first is called "lowest price, technically acceptable," and the second, "best value."
>
> The first strategy requires a bidder to meet a number of threshold requirements. If those benchmarks are met, the final decision is made based on price. The second strategy requires bidders to meet the threshold requirements and a number of supporting requirements. The decision is made by who meets the most secondary requirements.
>
> Since last fall, Air Force requirements and acquisition officials have been working to whittle down the massive list of tanker requirements. A lack of clarity in the lengthy list is what ultimately led the Government Accountability Office to sustain a protest filed by Boeing, which lost the competition to Northrop Grumman-EADS in February 2008.
>
> In March, Inside the Air Force reported that the service had nearly halved the number of "evaluation elements" it will use when evaluating proposals for the KC-X tanker.
>
> "I think the government can successfully go down that route and succeed, but there's no question it could be controversial," Young said this week.
>
> If both competitors meet the desired requirements, the Pentagon should ultimately choose the less expensive proposal, he said.
>
> "If they are technically acceptable—[and] meet the requirements—ask people for their best price to meet those requirements and pick [a winner] that way," Young said. "That gets the best deal for the taxpayer.
>
> "I'm struggling to see what the downside of that is," he continued. "I think, given the clearly demonstrated propensity for controversy in this space, you may have to go to those strategies."
>
> Taking his views a step further, Young said he penned a memo to acquisition officials noting this best-price strategy could prove useful when evaluating future competitions. In some cases, the Pentagon is paying more for capabilities it does not need.
>
> "Once I have something that meets my articulated, prioritized technical requirements, I ought to go get the best price for the taxpayer," he said. "What is the downside to that?"

(Marcus Weisgerber, "Young Claims USAF Should Make Price Top Factor In KC-X Competition," *Inside the Air Force*, May 1, 2009.)

World Trade Organization (WTO) Preliminary Ruling

Some Boeing supporters have argued that DOD should take the September 4 WTO preliminary ruling on commercial aircraft subsidies into account in the KC-X competition; some Northrop/EADS supporters have argued that DOD should not do this.[40] Some Members have indicated that the question may become a matter of legislative attention.[41]

Ashton Carter, the DOD acquisition executive, stated the following at the September 24, 2009, DOD news briefing that:

> we have been advised that the World Trade Organization recently issued a ruling in a U.S. versus European Union case alleging unfair subsidies to Airbus. We have been further advised that this is an interim ruling, that there is a counterclaim by the European Union regarding Boeing that has not been ruled on, and that final resolution of these cases is many years away. For these reasons, we are not able to take account of these claims in the RFP. We have, however, added a "hold harmless" clause to the draft RFP, meaning that any penalties assessed in final rulings would not be passed to the U.S. taxpayer.[42]

A September 21, 2009, press report states:

> As the crescendo for the service's latest try at replacing its aging KC-135 tankers grows, several issues are adding more fuel to the years-long tanker controversy. The first is a Sept. 4 preliminary ruling by the World Trade Organization (WTO) upholding U.S. complaints that Airbus received illegal subsidies from four European countries. Air Force brass said the preliminary ruling likely will not affect the tanker contest.
>
> Pentagon officials see "no immediate rea-son" to revise a soon-to-be-released solicitation for new aerial tankers in the wake of a preliminary WTO decision that found Airbus capitalized on illegal aircraft subsidies, Donley told reporters.
>
> The WTO found that funds given to Airbus parent company EADS by European nations created an unfair advantage in the global air-craft marketplace. That preliminary decision prompted some, including Airbus rival Boeing, to call for the Pentagon to factor the ruling into its latest tanker competition.
>
> It's too soon for such a step, Donley said, adding the case will now move through "several next steps." Jim Arkedis, director of the Progressive Security Project at the Progressive Policy Insti-tute, said, "The WTO ruling shouldn't have any bearing on the tanker decision." The reason, he said, is because "the WTO case was about enforcing fair rules of trade and should not influence the Pentagon's choice when buying the best tanker at the best price for the American military." But Larry Korb, a defense analyst at the Center for American Progress in Washington and assistant secretary of defense for manpower, reserve affairs, installations and logistics in the Reagan administration, said the preliminary ruling "will make it very hard for [the Air Force] to not give the contract to Boeing." "This ruling just

[40] See, for example, "Murray Asks Gates To Weigh In On WTO Dispute As Tanker Competition Looms," *The Hill*, September 16, 2009.

[41] See, for example, John Reed, "Legislative 'Vehicles' May Ensure WTO Ruling Plays Into KC-X Competition," *Inside the Air Force*, September 25, 2009. See also Les Blumenthal, "WTO Ruling Sets Stage For Another Fight over Tanker," *Seattle Times*, September 20, 2009.

[42] Transcript of DoD News Briefing with Deputy Secretary of Defense William Lynn, Under Secretary of Defense Ashton Carter, and Secretary of the Air Force Michael Donley, September 24, 2009, available online at http://www.defenselink.mil/transcripts/transcript.aspx?transcriptid=4484.

> complicated an already very complicated matter," Korb said. "This surely will fuel the idea of splitting the buy—that might be the only way to solve this." The Air Force included a question in the last tanker solicitation about the WTO case, but EADS and Northrop successfully lobbied for its removal.[43]

A September 15, 2009, press report states:

> U.S. Air Force Secretary Michael Donley said Monday [September 14, 2009] that a global trade dispute over commercial aircraft subsidies won't be a factor in the military's selection of a new aerial refueling tanker....
>
> He said a recent ruling by the World Trade Organization [WTO] against Airbus, which is part of a team led by Northrop Grumman Corp. that is battling Boeing Co. for the tanker contract, would have "no immediate impact" on the competition.
>
> "We see no need to add any language" about the WTO dispute to the request for proposals (RFP), Donley told reporters at the Air Force Association's annual conference in Washington, D.C.
>
> The WTO on Sept. 4 issued a preliminary ruling on a complaint filed in 2004 by the U.S. government on Boeing's behalf. While details of the ruling remain confidential, some Boeing supporters claim it found that Airbus received illegal loans from European governments to develop its planes.
>
> The WTO is also reviewing a counter-suit filed by the European Union on behalf of Airbus that claims Boeing received illegal grants, tax breaks and other financial support in the U.S. A preliminary ruling on that case is expected next year....
>
> Political backers of Chicago-based Boeing, including U.S. Sen. Patty Murray, D-Wash., have argued that the WTO ruling should be a factor in the Air Force tanker contest.
>
> Murray, whose state would secure thousands of aircraft assembly jobs if Boeing wins the tanker work, released a letter to President Barack Obama on Monday in which she encouraged the administration to retaliate against the European Union.
>
> "I urge you to take the strongest possible actions allowed for under the WTO against the European Union in order to ensure a level playing field for the American aerospace industry and its workers," Murray wrote.
>
> Alabama political leaders have argued that the WTO dispute isn't relevant to a military acquisition and would unnecessarily complicate the Air Force's selection process.
>
> The Air Force included questions about the trade issue in a draft version of the RFP three years ago, during the initial round of competition between Northrop and Boeing. But the questions, which sought information on how the case could affect the price of each aircraft, were dropped after Northrop threatened to withdraw from the contest.
>
> Instead, both Boeing and Northrop agreed to swallow any penalties imposed by the WTO and not pass them along to the Air Force. The change was seen as a strategic victory for Northrop, which went on to win the 179-plane order last year.

[43] John T. Bennett, "WTO Ruling, USAF Vacancies Cloud Renewed Tanker Race," *Defense News*, September 21, 2009: 6.

> But the deal unraveled when the Government Accountability Office, acting on a protest filed by Boeing, found problems with the way the Air Force conducted its evaluation. GAO auditors made no mention of the WTO dispute in their recommendations to the Pentagon.
>
> A spokesman for the U.S. Defense Department said last week that Pentagon officials were looking at the WTO ruling as they worked to finalize the tanker requirements.
>
> "Right now, people are looking into that, to see what, if any, impact the WTO decision would have on our dealings with Airbus and others, potentially," Geoff Morrell, the Pentagon's press secretary, told Reuters news service.
>
> But Donley on Monday indicated that the Air Force would not change its approach to the trade issue from the last competition. He said the long-running WTO dispute could take years to resolve and that the Air Force needs to move forward with plans to replace its aging fleet of KC-135 Stratotankers.
>
> "The (Sept. 4) decision was preliminary. There is more to follow on it, and there is yet another suit past that," he said. "So we see no need to make immediate adjustments to the RFP."
>
> Donley, however, said Defense Secretary Robert Gates remains in charge of the tanker acquisition program and will make the final decision on how it is structured.
>
> "We've been meeting regularly on this subject and we've stepped through to the end of our work plan," said Donley, appointed by President Bush last year and retained, with Gates, by the Obama administration.[44]

Air Force or OSD Management of Competition

Given earlier unsuccessful attempts by the Air Force implement a KC-X acquisition program, some observers have argued that the Administration's proposed new KC-X competition should be managed by OSD. On September 16, 2009, in a speech to an Air Force Association convention in National Harbor, MD, Secretary of Defense Robert Gates announced that he wants the Air Force to be the source-selection authority for the Administration's proposed new KC-X competition. Gates stated:

> And finally, I am pleased to announce that source selection authority is returning to the Air Force for the KC-X refueling tanker, with a draft Request for Proposals to follow. I don't need to belabor the importance of getting this done soon and done right, and my office will continue to have a robust oversight role. We are committed to the integrity of the selection process, and cannot afford the kind of letdowns, parochial squabbles, and corporate food-fights that have bedeviled this effort over the last number of years.
>
> I have confidence that the KC-X selection authority is in good hands with the service's leadership team of Secretary Donley and General Schwartz. Indeed, the Air Force is fortunate to have a deep bench of senior flag officers, including four Combatant

[44] Georger Talbot, "Tanker Selection Won't Hinge On Aircraft Subsidies, Says Air Force Secretary," *Mobile Press-Register*, September 15, 2009. See also Otto Kreisher, "Air Force To Issue Draft Request For New Tankers Soon," *National Journal's CongressDailyAM*, September 15, 2009; William Matthews, "Airbus Subsidies Ruled Illegal; U.S. Lawmakers Pounce," *DefenseNews.com*, September 4, 2009; Marina Malenic, "Northrop Grumman Wants Subsidy Feud Off Table In Tanker Bid," *Defense Daily*, September 2, 2009: 1-2.

> Commanders—as many as any other service, including the first Air Force officer to lead Southern Command. I depend greatly on their expert advice and strategic vision.[45]

At the September 24, 2009, DOD news briefing on DOD's proposed new KC-X competition strategy, William J. Lynn II, the Deputy Secretary of Defense, stated that:

> the Air Force will be the source selection authority. This was announced last week at the Air Force Association by Secretary Gates. It reflects his confidence in the Air Force to execute this important program. It reflects the strong recommendations of both Undersecretary Carter and I that the Air Force be put back in the driver's seat on this position. It, however, does not reflect a total handing over of things to the Air Force.
>
> This is—will be a collaborative process. It has been to this point. The Office of the Secretary of Defense, Ash and I and our teams, have been working very closely in designing the strategy that's behind this source selection. When we get to the actual execution phase, the evaluation phase, there will be, as Secretary Donley will describe, some independent review panels: both an internal Air Force panel, an OSD-led panel on process and a(n) engineering panel that will include talent from not just the Air Force and OSD but other services, particularly the Navy. [46]

Later in the news briefing, Secretary of the Air Force Michael B. Donley stated:

> As [Lynn] indicated, the source-selection responsibility has moved to the Air Force. The source-selection authority will be a senior career Air Force official.
>
> And consistent with normal practice, we will not publicly identify this official or other individuals involved in the source-selection process. We do that to shield them from undue influence in the source-selection process.
>
> There are many, many new members to this effort. Most if not all of the key leadership positions in the source-selection process have changed since the last solicitation. The source-selection authority is responsible—is a single individual that has overall responsibility for executing the strategy that Dr. Carter will speak to in a minute, but they are backed up by a source-selection advisory council, while the membership of that council is completely changed. This is the senior review team, if you will, that advises the source- selection authority.
>
> Supporting the advisory council is a series of 14 separate evaluation teams. These teams will take the proposals from the offerers, divide them up into these 14 areas. And they will do—they will conduct the evaluation of the proposals and provide their results to the advisory council, who will then flow up their advice to the source-selection authority.
>
> In addition to this process, though, we will have independent review teams—this process of providing an independent assessment, not of what the offerers sent in, but of how we evaluated the proposals. And how we conducted the process was not fully in place last year.

[45] Text of address as Delivered by Secretary of Defense Robert M. Gates, at Air Force Association convention, National Harbor, MD, September 16, 2009, available online at http://www.defenselink.mil/speeches/speech.aspx?speechid=1379.

[46] Transcript of DoD News Briefing with Deputy Secretary of Defense William Lynn, Under Secretary of Defense Ashton Carter, and Secretary of the Air Force Michael Donley, September 24, 2009, available online at http://www.defenselink.mil/transcripts/transcript.aspx?transcriptid=4484.

> But it is today, and is—it is intended, at a policy level, to be a normal part of our business going forward.
>
> So while we do this evaluation, we will have an—independent teams reviewing our work to make sure we have clearly connected the decision that is recommended to the source-selection authority all the way back through the evaluation process into the RFP and all the way up to the (requirement's/requirements') documents.
>
> It is our obligation to do this with precision and with discipline, to make sure we have documented every step in this process as we conduct this source selection. We are delighted to have this responsibility back. I believe the Air Force is ready for this responsibility.[47]

A September 2, 2009, press report stated:

> Pentagon brass have yet to determine whether the U.S. Air Force will run the latest competition for a multibillion-dollar aerial tanker contract - but the "entire department" will be involved, says Ashton Carter, DoD's acquisition, technology and logistics executive.
>
> Carter said Sept. 1 that Defense Secretary Robert Gates, Deputy Defense Secretary William Lynn, Air Force Secretary Michael Donley, he himself, and "the entire Air Force chain" will be involved as DoD officials re-launch the years-delayed KC-X competition "this fall."
>
> "The request for proposals and the structure of the solicitation is something the entire department is going to take a role in," Carter said....
>
> The Bush administration in late February 2008 picked the Northrop-EADS plane over the favored Boeing aircraft, a contract award the latter quickly protested. The contract award was axed that June when the Government Accountability Office determined the Air Force-run competition was flawed.
>
> Gates soon stripped from the Air Force control over the KC-X competition and program, handing it to the Pentagon acquisition chief.
>
> Since then, senior defense officials have left open the possibility that the Air Force might be given back the authority to run the competition and decide which tanker to buy.
>
> Pentagon spokeswoman Cheryl Irwin said DoD leaders have not yet determined who will run the competition phase of the program. Once a winner is selected, she said, the Air Force will take it from there and manage the program.[48]

Build One Design Or Two?

Some observers, including some Members of Congress, have expressed interest in splitting the KC-X program between Boeing and Northrop/EADS design.

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[47] Transcript of DoD News Briefing with Deputy Secretary of Defense William Lynn, Under Secretary of Defense Ashton Carter, and Secretary of the Air Force Michael Donley, September 24, 2009, available online at http://www.defenselink.mil/transcripts/transcript.aspx?transcriptid=4484.

[48] John T. Bennett, "'Entire Department' Will Play In U.S. Tanker Competition," *DefenseNews.com*, September 2, 2009.

Summary of Arguments

The Administration and other supporters of building a single design could argue one or more of the following:

- Building two designs would increase KC-X development costs by requiring the development of two aircraft, increase KC-X procurement costs by splitting the production learning curve for the program between two sources, and increase KC-X life-cycle operating and support costs by requiring the Air Force to maintain two sets of KC-X training, maintenance, and support, facilities. Air Force Secretary Michael Donley testified to the Senate Appropriations Committee on June 4, 2009, that procuring two KC-X designs would nearly double the program's estimated $35 billion procurement cost.[49] If two KC-X designs are built, the Air Force for some time will bear the costs of operating four different types of tankers—KC-135s, KC-10s, and the two KC-X designs.
- KC-X procurement costs will be constrained (and KC-X production quality and schedule adherence will be maintained) with production of a single design because the KC-X builder will understand that its performance in building KC-Xs will influence DOD thinking on whether to use that firm to build KC-Ys and KC-Zs, or to execute other DOD acquisition programs. Since tankers are based on commercial airliners, building a single KC-X design now will not prevent DOD from holding an effective competition in future years for KC-Ys and KC-Zs.
- DOD cannot afford to procure more than about 18 KC-Xs per year without reducing funding for other defense programs, so producing a second KC-X design for the purpose of being able to produce more than 18 KC-Xs per year is not important.
- DOD has learned lessons from the 2007-2008 KC-X competition, and consequently will be able to structure and conduct a new KC-X competition that is fair to both sides and whose result, if challenged, will be upheld by GAO.

Supporters of building two designs could argue one or more of the following:

- Building two designs would permit annual competition in the production of KC-Xs, which will constrain KC-X procurement costs (and ensure production quality and schedule adherence) more effectively than using single source to produce all KC-Xs. [50] The Navy is contemplating continued production of its two Littoral

[49] See, for example, Marina Malenic, "Air Force Says Tanker Split But Would Nearly Double Program Cost," *Defense Daily*, June 5, 2009: 1-2.

[50] Among those who make this argument is Jacques Gansler, who served as Under Secretary of Defense for Acquisition, Technology and Logistics during the Clinton Administration, believes competitive dual sourcing is a good fit for the KC-X program, since both competing aircraft already have established worldwide logistics networks. Gansler in 2006 compared cost growth for ten DOD aircraft programs developed without production competition to the cost of seven commercial aircraft produced in a competitive environment. He found that the ten single-source DOD acquisition programs had an average cost increase of 46%, while the seven competitively produced commercial airliners had an average cost decrease of 16% over the life of the program. For the KC-X program, Gansler assumed a purchase of 100 new tankers with a base price of $125 million dollars and a 75/25 split favoring the best-value candidate. (Gansler's analysis considered a 75/25 split to be illustrative and found other splits such as 60/40, etc. could be expected to produce similar savings.) Based on these assumptions, he found a competitively sourced tanker acquisition would (continued...)

Combat Ship (LCS) designs in part for this reason.[51] The 2006 RAND analysis of alternatives for the KC-X found that, "a mixed [Air Force tanker] fleet ... has comparable cost-effectiveness, so there is no reason to exclude a priori an Airbus-Boeing mixed buy on cost-effectiveness grounds."[52]

- Producing two KC-X designs will enhance DOD's potential for using competition in the future for the procurement of KC-Ys and KC-Zs,

(...continued)

potentially generate $7.7 billion in cost savings compared to a single-source tanker program, provided the cost growth averages of the single-source and competitively sourced aircraft programs examined earlier in his study were repeated in the KC-X program. (Jacques S. Gansler and William Lucyshyn, "Competition in the USAF Tanker Replacement Program," presentation slides, June 12, 2006, slides 18-19, 24, 35, and 40.)

John Lehman, who was Secretary of the Navy during the Reagan Administration and is a strong supporter of using competition in procurement, cited Gansler's study in a June 8, 2009, opinion column advocating the use of competition in the KC-X program. The column also stated:

> One such opportunity [for improving defense acquisition] is the current competition to replace the 45-year-old U.S. Air Force tanker fleet. This is a source selection between Boeing and Northrop Grumman conducted to award another 40 years of competition-free monopoly to the winner of the beauty contest. Under these Pentagon rules, the contestants are judged on which can produce the best fantasy about how low their prices will be in future decades, free of competition, producing their wondrous but still unbuilt airplane....
>
> The air tanker program is a perfect candidate to return to the competitive cost control of yore. Bureaucrats will argue against it for the following reasons:
>
> - With a planned buy of only 179 it is not big enough to split. No. The Navy got huge benefits from competing frigates, destroyers, cruisers and submarines with total numbers far lower than the tanker.
> - Split competition requires freezing designs and fixed-price contracts, which prevents change orders. Yes.
> - Operating and maintaining two types of aircraft is more difficult and costly than one. No. The Air Force proved that wrong when they made the case for expeditionary air wings now successfully operating five or more different aircraft types.
> - The two candidates, the A330 and B767 derivatives, are too different to compete apples to apples. No. It is easy to normalize range/payload/etc. to compete fairly every year with different airplanes.
> - Managing two contractors is more work than one. Yes.
>
> In such a common-sense procurement, the government gets huge benefits: Just as in the "Toyota culture" of constant innovation, the two contractors will be under constant pressure to improve ideas and productivity, knowing their competitor is doing the same, and the price can be expected to drop each year.
>
> In past successful split programs, the final design was locked, so the contractors could bid fixed-price. As technology advanced, there were block upgrades after two to five years where the design specifications were modified to incorporate innovations; the new design was frozen again until the next block upgrade.

(John Lehman, "When 2 Is Cheaper Than 1," *DefenseNews.com*, June 8, 2009.)

[51] For more on the LCS program, see CRS Report RL33741, *Navy Littoral Combat Ship (LCS) Program: Background, Issues, and Options for Congress*, by Ronald O'Rourke

[52] Michael Kennedy et al., *Analysis of Alternatives (AoA) for KC-135 Recapitalization, Executive Summary*, RAND Corporation, 2006, p. 12.

- Building two designs would make possible a combined annual KC-X production rate at the Boeing and Northrop/EADS facilities of up to 36 aircraft per year, which would permit the Air Force to replace KC-135s more quickly, reducing the risk that KC-135s might reach the end of their service lives before they are replaced, and reducing more quickly KC-135 maintenance costs.
- In light of past difficulties in structuring and conducting a KC-X competition that is fair to both sides, building both designs would permit the KC-X program to proceed more expeditiously.

Potential Intermediate Alternative Building One Design at Two Sites

An alternative to building one design or two would be to have the two competitors build a single design—an approach that the Navy uses for the production of surface combatants and attack submarines. Under this approach, DOD would select a single design to build (either the Boeing design or the Northrop/EADS design), and that design would be built by both Boeing and Northrop/EADS. Advocates could argue that this approach would avoid the added development and operation and support costs associated with building two designs, and that if each KC-X were produced jointly by Boeing and Northrop/EADS (similar to how each Virginia-class attack submarine is built jointly by General Dynamics and Northrop),[53] it could avoid some of the added costs of splitting the production learning curve between two sites. Advocates could also argue that having both firms build a single design would provide a potential for building up to 36 KC-Xs per year, should policymakers determine that such a rate is affordable.[54]

Legislative Activity for FY2010

FY2010 Funding Request

The Administration's proposed FY2010 defense budget requests $439.6 million in Air Force research and development funding to begin a new program for acquiring new 179 KC-X aerial refueling tankers. The requested funding is found in the Air Force's research development, test and evaluation (RDT&E) account in PE (i.e., program element, meaning line item) 0605221F, KC-X, Next Generation Aerial Refueling Aircraft.

FY2010 Defense Authorization Bill (H.R. 2647/S. 1390)

House

The House Armed Services Committee, in its report (H.Rept. 111-166 of June 18, 2009) on H.R. 2647, recommends approving the Administration's request for $439.6 million in research and development funding for the KC-X program. (Page 190, line 88) The committee's report states:

[53] For a discussion of the joint production approach for Virginnia-class attack submarines, see CRS Report RL32418, *Navy Attack Submarine Procurement: Background and Issues for Congress*, by Ronald O'Rourke

[54] For an article discussing the possibility of building one KC-X design at multiple sites, see John M. Doyle, "Rep. Taylor Suggests Multiple Tanker Assembly Sites," *Aerospace Daily & Defense Report*," May 20, 2009: 5.

> *KC–X*
>
> The committee notes that the KC–X program is planned to replace the Department of the Air Force's KC–135 aerial refueling tanker fleet, which now has an average aircraft age of 47 years. The committee also notes that the KC–X program has been subject to delays resulting from contractor protests to the Government Accountability Office, and believes that further delay in the acquisition of the KC–X aerial refueling tanker could jeopardize Department of Defense requirements for global mobility. Accordingly, the committee strongly urges the Department to include the necessary funds in its Future Years Defense Program to rapidly conduct source selection and to award a KC–X aerial refueling tanker contract as expeditiously as possible. (Pages 100-101)

The report also states:

> *KC–X tanker replacement program*
>
> The committee believes that the Department of Defense should implement measures to ensure competition throughout the lifecycle of the KC–X tanker replacement program to ensure that the program delivers the best capability to the warfighter and the best value to the U.S. Government. Accordingly, the committee urges the Secretary of Defense to utilize as many of the competitive measures specified in subsection (b) of section 202 of the Weapon Systems Acquisition Reform Act of 2009 (Public Law 111–23) as is practicable when developing the acquisition strategy and source selection plan. The committee notes that the intent of section 202 is to require the Secretary of Defense to plan for persistent competition to control program costs and improve the reliability of the KC–X tanker acquired by the Department throughout the program's lifecycle, including development, procurement, and sustainment. (Page 203)

Section 1032 of H.R. 2647 requires Secretary of Defense shall submit to the congressional defense committees a report on the force structure findings of the 2010 Quadrennial Defense Review (QDR). The report is to include the analyses used to determine and support the findings on force structure, and description of any changes from the previous quadrennial defense review to the minimum military requirements for major military capabilities. Regarding Section 1032, the committee's report states:

> The committee expects that the analyses submitted will include details on all elements of the force structure discussed in the QDR report, and particularly the following:...
>
> (3) A description of the factors that informed decisions regarding aerial refueling aircraft force structure, including: the modeling, simulations, and analyses used to determine the number and type of aerial refueling aircraft necessary to meet the national defense strategy; the force sizing constructs used including peak demand; the number and type of aerial refueling aircraft necessary to meet the national security objective; the changes made, and supporting rationale for the changes made, to the aerial refueling aircraft force structure from that proposed in MCS–05; and the operational risks associated with the planned aerial refueling aircraft fleet, based on requirements of combatant commanders, and measures planned to address those risks;... (Page 388)

Section 1044 of H.R. 2647 would repeal Section 1081 of the FY2008 defense authorization act (H.R. 4986/P.L. 110-181 of January 28, 2008), which directed the Secretary of the Air Force to conduct a pilot program of at least five years' duration to assess the feasibility and advisability of utilizing commercial fee-for-service air refueling tanker aircraft for Air Force operations. Regarding Section 1044, the committee's report states:

> The committee is aware that the Air Force has conducted initial analysis to develop the program structure for the pilot program, based on two diverse options, and has received feedback from potential providers in the aviation industry. However, based on its review of data gathered to date, the committee is concerned that the pilot program will be a costly alternative with little operational benefit and is not in the best interest of the Air Force. (Page 391)

The committee's report also states:

> Fee for Service Refueling
>
> The budget request contained $10.0 million for a fee-for-service refueling pilot program. The committee recommends eliminating the funds for the pilot program.
>
> A provision is included elsewhere in this title [Section 1044] that would repeal the requirement to conduct a fee-for-service pilot program. (Page 284; see also page 282 for the recommended line-item reduction)

Senate

Division D of S. 1390 as reported by the Senate Armed Services Committee (S.Rept. 111-35 of July 2, 2009) presents the detailed line-item funding tables that in previous years have been included in the Senate Armed Services Committee's report on the defense authorization bill. Division D recommends approving the Administration's request for $439.6 million in research and development funding for the KC-X program. (Page 687 of the printed bill, line 88) The committee's report states:

> **KC–X tanker replacement program**
>
> The committee regards the need to modernize the current fleet of KC–135 aerial refueling tanker aircraft as a vital national security priority and supports the KC-X tanker recapitalization program, as well as efforts by the Air Force both to maintain the existing fleet and augment capability with aerial fee-for-service, if it proves cost-effective under the pending pilot program. Given the troubled history of the program, the committee expects that the Department of Defense will pursue a process of procuring replacement tankers that will ensure that the joint warfighter receives the best capability at the best price. The committee believes that this can only be achieved by an acquisition strategy that does not pre-determine the outcome of the competition and a competition that is fair and open. In addition, the committee believes that, in accordance with the principles of the Weapon Systems Acquisition Reform Act of 2009 (Public Law 111–23) and as a means of improving contractor performance, the Department of Defense must ensure that the acquisition strategy of the KC–X program includes measures that ensure competition, or the option of competition, throughout the life cycle of the program, where appropriate and cost-effective. (Page 99)

Section 1058 of S. 1390 would amend Section 1081 of the FY2008 defense authorization act (H.R. 4986/P.L. 110-181 of January 28, 2008), which directed the Secretary of the Air Force to conduct a pilot program of at least five years' duration to assess the feasibility and advisability of utilizing commercial fee-for-service air refueling tanker aircraft for Air Force operations. The committee's report states:

> The committee recommends a provision [Section 1058] that would provide an exemption to the 5–year limitation on multiyear contracts and make other minor changes to enable the Air Force to implement a fee-for-service air refueling support pilot program.
>
> Section 1081 of the National Defense Authorization Act for Fiscal Year 2008 (Public Law 110–181) directed the Secretary of the Air Force to conduct a pilot program to assess the feasibility and advisability of utilizing commercial fee-for-service air refueling tanker aircraft for Air Force operations.
>
> The Air Force has been working with the private sector to implement this pilot program. The Air Force has informed the committee that results from their formal request for information process indicate that a multiyear contract that exceeds the current 5-year limit would be necessary to promote adequate competition and reduce program costs. The Air Force needs to have authority to make commitments for the 8-year pilot program in order to issue a request for proposal. The Air Force also needs to be able to offer carriers insurance coverage similar to that provided to civil reserve air fleet (CRAF) program partners. This provision would provide the Air Force with those authorities. (Page 179)

The text of Section 1058 is as follows:

> SEC. 1058. MULTIYEAR CONTRACTS UNDER PILOT PROGRAM ON COMMERCIAL FEE-FOR-SERVICE AIR REFUELING SUPPORT FOR THE AIR FORCE.
>
> (a) Multiyear Contracts Authorized- The Secretary of the Air Force may enter into one or more multiyear contracts, beginning with the fiscal year 2011 program year, for purposes of conducting the pilot program on utilizing commercial fee-for-service air refueling tanker aircraft for Air Force operations required by section 1081 of the National Defense Authorization Act for Fiscal Year 2008 (P.L. 110-181; 122 Stat. 335).
>
> (b) Compliance With Law Applicable to Multiyear Contracts- Any contract entered into under subsection (a) shall be entered into in accordance with the provisions of section 2306c of title 10, United States Code, except that—
>
> (1) the term of the contract may not be more than 8 years;
>
> (2) notwithstanding subsection 2306c(b) of title 10, United States Code, the authority under subsection 2306c(a) of title 10, United States Code, shall apply to the fee-for-service air refueling pilot program;
>
> (3) the contract may contain a clause setting forth a cancellation ceiling in excess of $100,000,000; and
>
> (4) the contract may provide for an unfunded contingent liability in excess of $20,000,000.
>
> (c) Compliance With Law Applicable to Service Contracts- A contract entered into under subsection (a) shall be entered into in accordance with the provisions of section 2401 of title 10, United States Code, except that—
>
> (1) the Secretary shall not be required to certify to the congressional defense committees that the contract is the most cost-effective means of obtaining commercial fee-for-service air refueling tanker aircraft for Air Force operations; and

(2) the Secretary shall not be required to certify to the congressional defense committees that there is no alternative for meeting urgent operational requirements other than making the contract.

(d) Limitation on Amount- The amount of a contract under subsection (a) may not exceed $999,999,999.

(e) Provision of Government Insurance- A commercial air operator contracting with the Department of Defense under the pilot program referred to in subsection (a) shall be eligible to receive government provided insurance pursuant to chapter 443 of title 49, United States Code, if commercial insurance is unavailable on reasonable terms and conditions.

FY2010 DOD Appropriations Bill (H.R. 3326)

House

The House Appropriations Committee, in its report (H.Rept. 111-230 of July 24, 2009) on H.R. 3326, recommends $439.6 million in research and development funding for the KC-X program, as requested by the Administration, but transfers this funding from the Air Force's research and development account to a "Tanker Replacement Transfer Fund" established by Section 8112 of the bill as reported. (See also page 273, line 88.) The text of Section 8112 is as follows:

Sec. 8112. (a) In addition to funds made available elsewhere in this Act, there is hereby appropriated $439,615,000 to remain available until transferred: Provided, That these funds are appropriated to the `Tanker Replacement Transfer Fund' (referred to as `the Fund' elsewhere in this section): Provided further, That the Secretary of the Air Force may transfer amounts in the Fund to `Operation and Maintenance, Air Force', `Aircraft Procurement, Air Force', and `Research, Development, Test and Evaluation, Air Force', only for the purposes of proceeding with a tanker acquisition program: Provided further, That funds transferred shall be merged with and be available for the same purposes and for the same time period as the appropriations or fund to which transferred: Provided further, That this transfer authority is in addition to any other transfer authority available to the Department of Defense: Provided further, That the Secretary of the Air Force shall, not fewer than 15 days prior to making transfers using funds provided in this section, notify the congressional defense committees in writing of the details of any such transfer: Provided further, That the Secretary shall submit a report no later than 30 days after the end of each fiscal quarter to the congressional defense committees summarizing the details of the transfer of funds from this appropriation.

(b) The Secretary of Defense is directed to award one or more contracts for the aerial refueling tanker replacement program according to either of the following alternatives:

(1) A contract to a single offeror based on a best value or lowest cost source selection derived from full and open competition, subject to the condition that non-development aircraft produced under such contract must be finally assembled in the United States. Such competition and source selection shall include evaluation of the life-cycle costs of each aircraft over a 40-year period (including costs of fuel consumption, military construction and other factors normally associated with operation and support of tanker aircraft) and shall include an independent 40-year life-cycle cost estimate conducted by a federally funded research and development center.

(2) Contracts awarded to each of the two offerors that responded to Request for Proposal No. FA8625-07-R-6470 (as released on January 29, 2007) subject to the condition that all non-

development aircraft produced under any such contracts must be finally assembled in the United States.

(c) The Secretary of Defense shall certify in writing to the congressional defense committees by October 1, 2009, which of the procurement alternatives in subsection (b) represents the most cost-effective and expeditious tanker replacement strategy that best responds to United States national security requirements. The certification shall be accompanied by a report to the congressional defense committees detailing the rationale for such certification.

The committee's report states:

AERIAL REFUELING TANKER REPLACEMENT PROGRAM

The Committee firmly believes that the Department must act promptly to recapitalize the aging Air Force aerial refueling fleet. The Department's current program has been beset with countless setbacks, from allegations of corruption to a protest of the previous source selection decision. In the meantime, our nation's aerial refueling tankers continue to age, with the average age of a KC–135 being almost 50 years old today. The aerial refueling replacement program (KC–X, KC–Y and KC–Z) plans to procure between 12 and 15 aircraft per year to eventually replace the current fleet of 513 aircraft. This method of recapitalization will take decades to complete, with the current fleet of Eisenhower-era tankers being 80 years old by the time the last legacy aircraft is retired. During this period, the Air Force will invest billions of taxpayer dollars in maintenance of an ever aging and increasingly unreliable fleet. Based on studies conducted by the Department of Defense, total fleet costs are anticipated to increase from $2.1 billion per year to $3 billion per year by 2040 due to increasing depot maintenance and forecasted modernization programs in avionics and aircraft systems. Additionally, the Department anticipates depot maintenance costs increasing from $320,000,000 to $1,100,000,000 in 2040 due to aging aircraft related maintenance. Never in the history of our Nation has the military purposely planned to maintain aircraft past 50 years, much less 80 years of operation so even these estimates may understate the actual cost. In addition to the cost of maintaining the aging tanker fleet, the cost per flying hour of a new tanker is almost half the cost of the existing fleet. The lower cost per flying hour alone will save the taxpayer $1,795,500,000 per year for a fleet of 513 aircraft (current total aircraft inventory) or $3,500,000 per plane per year replaced.

To address these concerns, the Committee recommendation includes a general provision providing $439,615,000 and the option for choosing one vendor or dual sourcing for the aerial refueling Tanker replacement program. Along with this authority, the Committee believes that it is in the best interest of the taxpayer to pursue recapitalization at a rate of 36 aircraft per year vice 12 or 15 aircraft. This quantity will allow for recapitalization in one-third the time and thus allow for a rapid retirement of the current KC–135 aircraft. This plan will result in avoiding a large sustainment and modernization cost of the legacy KC–135 fleet by allowing them to retire earlier than is currently programmed. Additionally, having more than one aircraft provider will allow for competition to help control the procurement cost, promote cost reduction measures, and allow for a faster aircraft replacement rate.

Further, the Committee directs the Secretary of Defense to, prior to the release of a draft or final request for proposal soliciting bids for an aerial tanker replacement aircraft, submit a report to the congressional defense committees that includes a description of key mission requirement and performance parameters that will be used as the basis for determining the key selection criteria in the source selection process; a full and complete characterization and definition of ''best value''; a description of the process that the Department of Defense intends to use to ensure open, balanced and trans parent communications with potential offerors; and a full description of the corrections made to the source selection process that addresses the issues raised by the Government Accountability Office in its ''Statement

> Regarding the Bid Protest Decision Resolving the Aerial Refueling Tanker Protest by the Boeing Company, B311344 et. al, June 18, 2008''. (Pages 276-277)

The report also states:

> A major imperative of the Committee's funding recommendations is to improve the efficiency with which Department of Defense resources are expended. The Committee believes that one of the best ways to support United States forces is to improve the stability of acquisition programs and increase quantities to field new equipment more rapidly. In many cases, the procurement rates for new equipment are well below what could reasonably be described as economic order quantities. The practice of stretching out procurement schedules not only delays fielding modernized weapons but is costly as well. For example, in the case of the aerial refueling tanker, annual maintenance costs are expected to climb by $900,000,000, and Depot maintenance costs are expected to increase by $780,000,000. In contrast, the lower cost per flying hour for a new fleet of tankers will save taxpayers $3,500,000 per aircraft per year. The Committee also notes that the aerial refueling tankers are a crucial piece of our nation's ability to deploy and operate anywhere in the world. (Page 4)

The report also states:

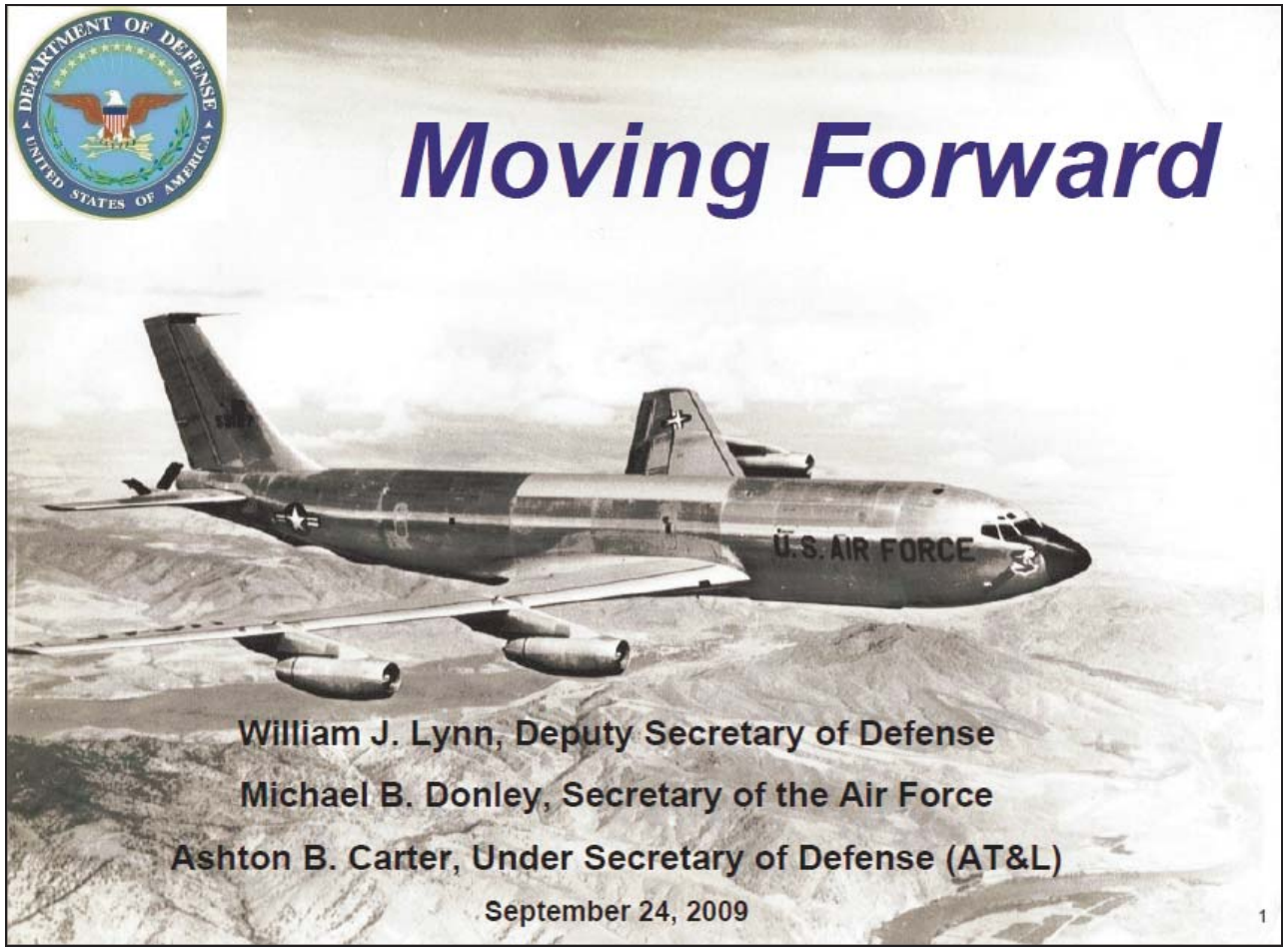
> FEE-FOR-SERVICE REFUELING
>
> The Committee provides no funding for the fee-for-service refueling pilot program due to concerns with the lack of a validated requirement for the program. The Air Force should instead focus on the KC–135 tanker replacement program which is a Joint Requirements Oversight Council validated requirement. The Committee recommends $439,615,000 in title VIII of this Act only for the recapitalization of the aging KC–135 fleet with a competitive procurement of a commercial derivative tanker aircraft. (Page 91)

Senate

The Senate Appropriations Committee, in its report (S.Rept. 111-74 of September 10, 2009) on H.R. 3326, recommends $409.6 million in research and development funding for the KC-X program—a $30 million reduction from the Administration's request, with the reduction being for "Contract award delay." The recommended funding is located in the Air Force's research and development account, as requested. (Page 197, line 88)

Appendix A. Briefing Slides for September 24, 2009, DOD News Briefing

The appendix reprints the slides used at the September 24, 2009, DOD news briefing at which DOD announced its proposed new KC-X competition strategy.[55]



[55] The slides are available online at http://www.defenselink.mil/news/briefingslide.aspx?briefingslideid=340.

Process and Way Ahead

- Source Selection Strategy
  - Developed by OSD and USAF, approved by Secretary of Defense
  - Source Selection Strategy will be executed by Air Force Source Selection Authority
  - Buy unchanged: 179 KC-X aircraft (KC-Y and KC-Z to follow)
  - Warfighter requirements unchanged, but KC-X should be "ready to go to war on day 1"
  - Selection Criteria more precise, less subjective
- Competitive Process
  - Draft Request for Proposal (RFP) – release September 25, 2009
  - Comment period
  - RFP
  - Evaluation
  - Contract award

3

Background

- KC-135 entered AF inventory in 1956
- 415 re-engined KC-135Rs are in today's fleet
- At 15 new tankers per year – last KC-135R will be over 80 years old at the time of retirement
- The KC-X program will provide 179 aircraft as the first increment of a three-phased tanker recapitalization strategy
- Air Refueling enables Air Force, Navy, Special Ops, and allied aircraft to accomplish their missions

4

Focus on Requirements

- Capabilities Development Document (CDD)
  - Air Refueling, Airlift, Survivability, Information Management, Support Requirements, World-wide Operations
  - Reviewed and remains unchanged
- Systems Requirement Document (SRD)
  - Direct linkage to the CDD
  - Provides system level requirements for offerors to base their proposals
  - Significant work by multiple Air Force and OSD Teams

6

Focus on Requirements

- Additional capabilities
- Enables offerors options to enhance their proposals
- Warfighter defined requirements
- "Go to War on Day 1"
- KC-135R is the baseline

EXTENSIVE WORK TO ELIMINATE DUPLICATION, IMPROVE CLARITY, AND ENSURE MEASURABILITY.
FAR FEWER THAN THE OVER 800 REQUIREMENTS USED IN THE LAST REQUEST FOR PROPOSAL

7

Source Selection Process

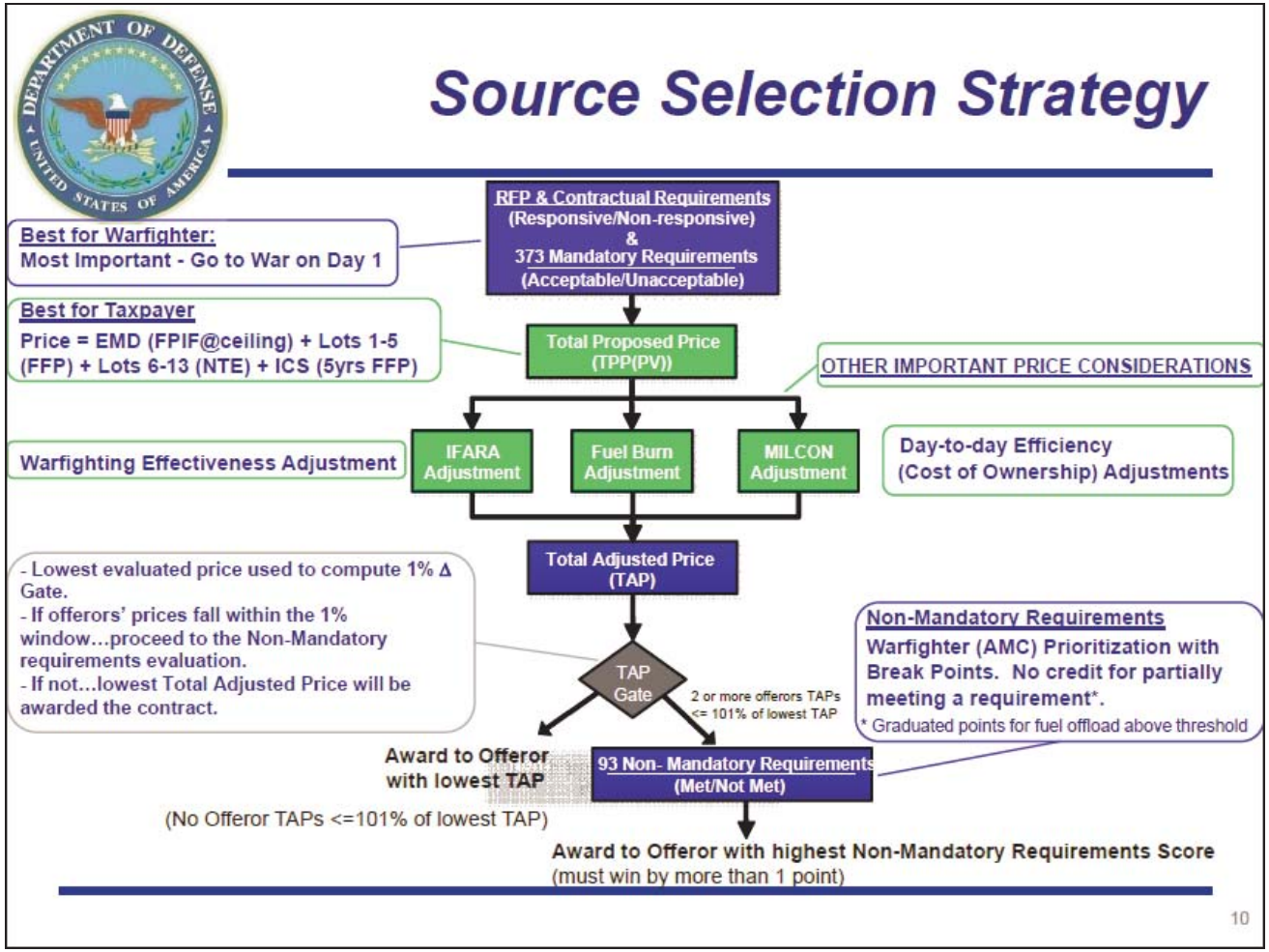
- Source Selection Authority (SSA)
  - Senior career USAF official (not publicly identified, normal practice)
  - SSA Selects KC-X contract winner using approved Source Selection Strategy
- New AF Acquisition Team (not identified)
  - New Source Selection Authority
  - New Source Selection Advisory Council
  - New Source Selection Evaluation Team Leads
  - New Independent Review Teams
- All levels below SSA joint with OSD

THE RELEASE OF THE DRAFT RFP REPRESENTS THE BEGINNING OF A NEW SOLICITATION

8

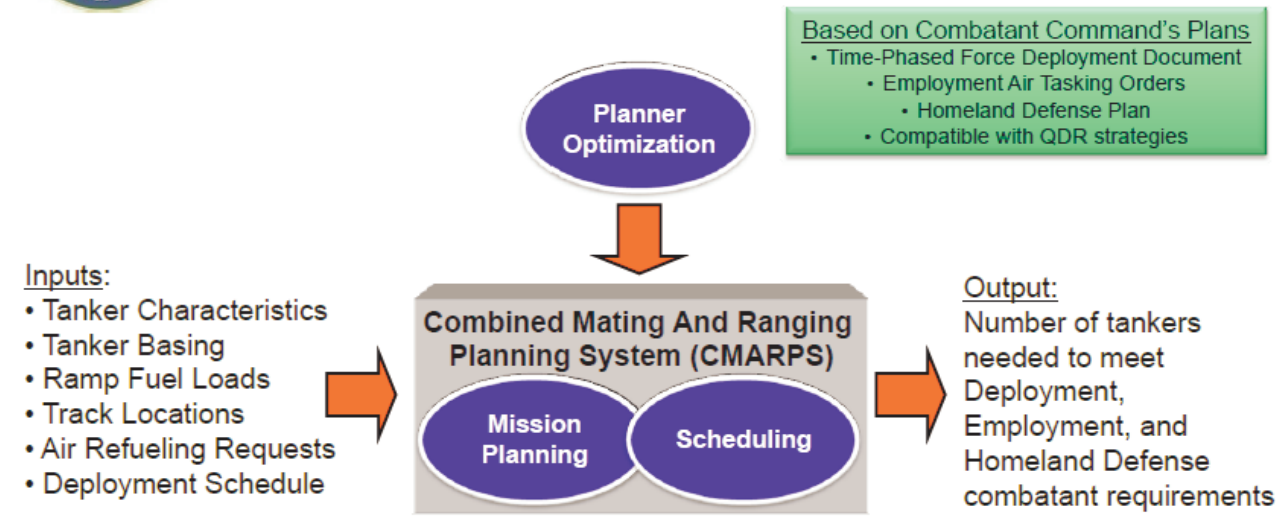
Criteria for Source Selection Strategy

Objective	More objective, less subjective
Clear	Offerors understand what it takes to win
Transparent	Offerors can see how they were evaluated at every step
Accurate	SSA will evaluate exactly according to the RFP Source Selection Strategy
Accountable	Contract will hold offerors accountable for proposal prices / performance
Fair	Right down the middle for warfighter and taxpayer
Best Value	Mandatory and trade-space capabilities, acquisition price, warfighting effectiveness and day-to-day efficiency all considered.


Source Selection Strategy
RFP & Contractual Requirements
(Responsive/Non-responsive)
&
373 Mandatory Requirements
(Acceptable/Unacceptable)
Best for Warfighter:
Most Important - Go to War on Day 1
Best for Taxpayer
Price = EMD (FPIF@ceiling) + Lots 1-5 (FFP) + Lots 6-13 (NTE) + ICS (5yrs FFP)
Total Proposed Price (TPP(PV))
OTHER IMPORTANT PRICE CONSIDERATIONS
Warfighting Effectiveness Adjustment
IFARA Adjustment
Fuel Burn Adjustment
MILCON Adjustment
Day-to-day Efficiency (Cost of Ownership) Adjustments
Total Adjusted Price (TAP)
- Lowest evaluated price used to compute 1% Δ Gate.
- If offerors' prices fall within the 1% window...proceed to the Non-Mandatory requirements evaluation.
- If not...lowest Total Adjusted Price will be awarded the contract.
TAP Gate
2 or more offerors TAPs <= 101% of lowest TAP
Non-Mandatory Requirements
Warfighter (AMC) Prioritization with Break Points. No credit for partially meeting a requirement*.
* Graduated points for fuel offload above threshold
Award to Offeror with lowest TAP
(No Offeror TAPs <=101% of lowest TAP)
93 Non- Mandatory Requirements
(Met/Not Met)
Award to Offeror with highest Non-Mandatory Requirements Score
(must win by more than 1 point)
10

Warfighting Effectiveness

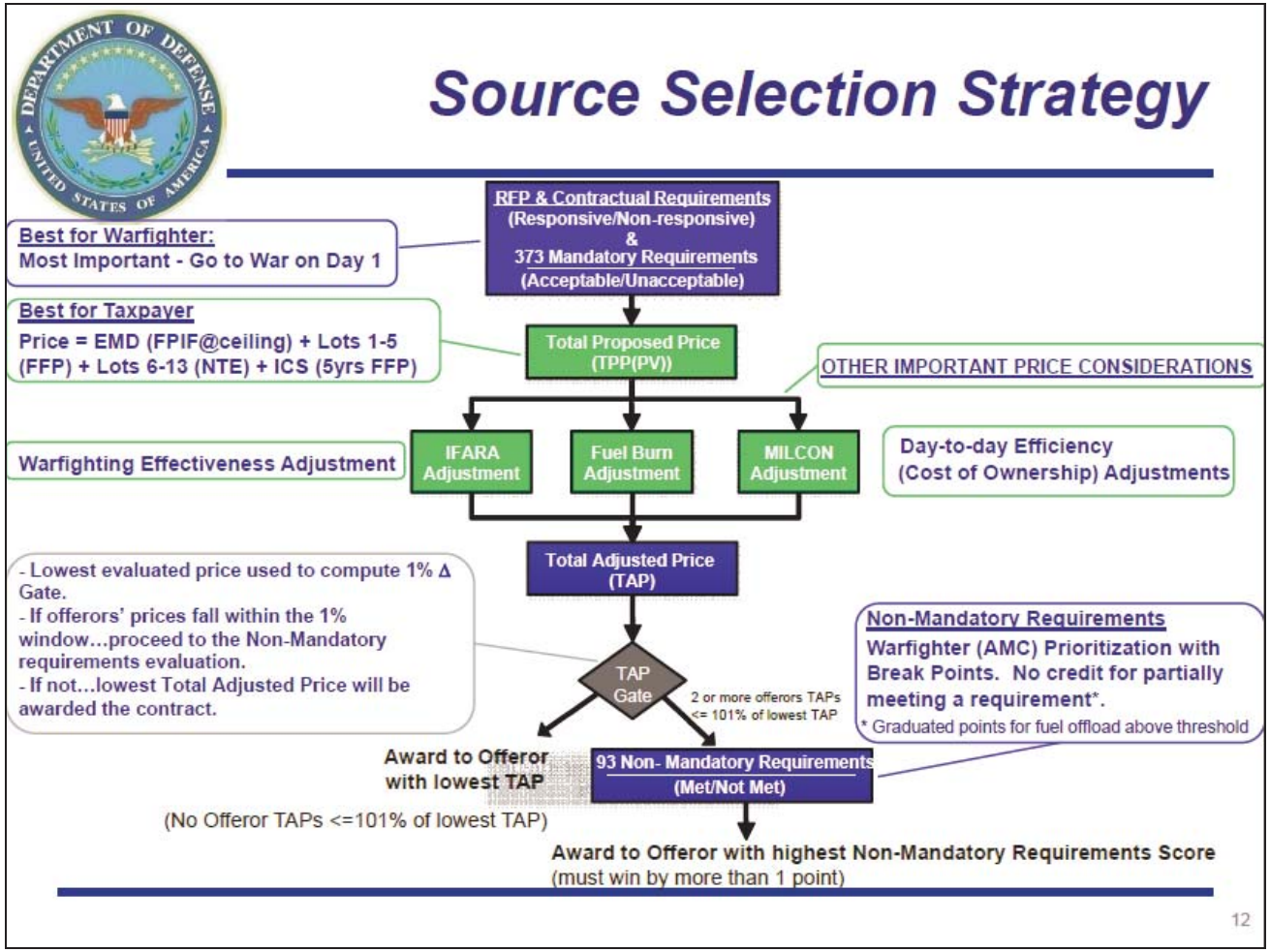
Integrated Fleet Aerial Refueling Assessment (IFARA)



Provides credit for aircraft with <u>better wartime air refueling effectiveness</u>

Acq price credit = [1-(Lowest IFARA score / Offeror's IFARA score)] x 179 x Avg Unit Price of Lots 1-13 (Present Value)

11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(must win by more than 1 point)
12

Day-to-Day Cost of Ownership
Fuel Burn

War-Related Missions

Airlift Missions

Training Missions

- **Calculate offeror's average fuel burn rate using the above mission profiles**
- **War-Related, Airlift and Training mission profiles based on 5-yr average for the KC-135R**

Provides credit for aircraft with <u>better day-to-day fuel efficiency</u>

Acq price credit = [Highest Fuel Burn– Offeror's Fuel Burn] x 40yrs x 179 A/C x KC-135 Average Yearly Flying Hrs (489) x Adjusted Fuel Price

(Present Value)

13

Cost of Ownership
MILCON

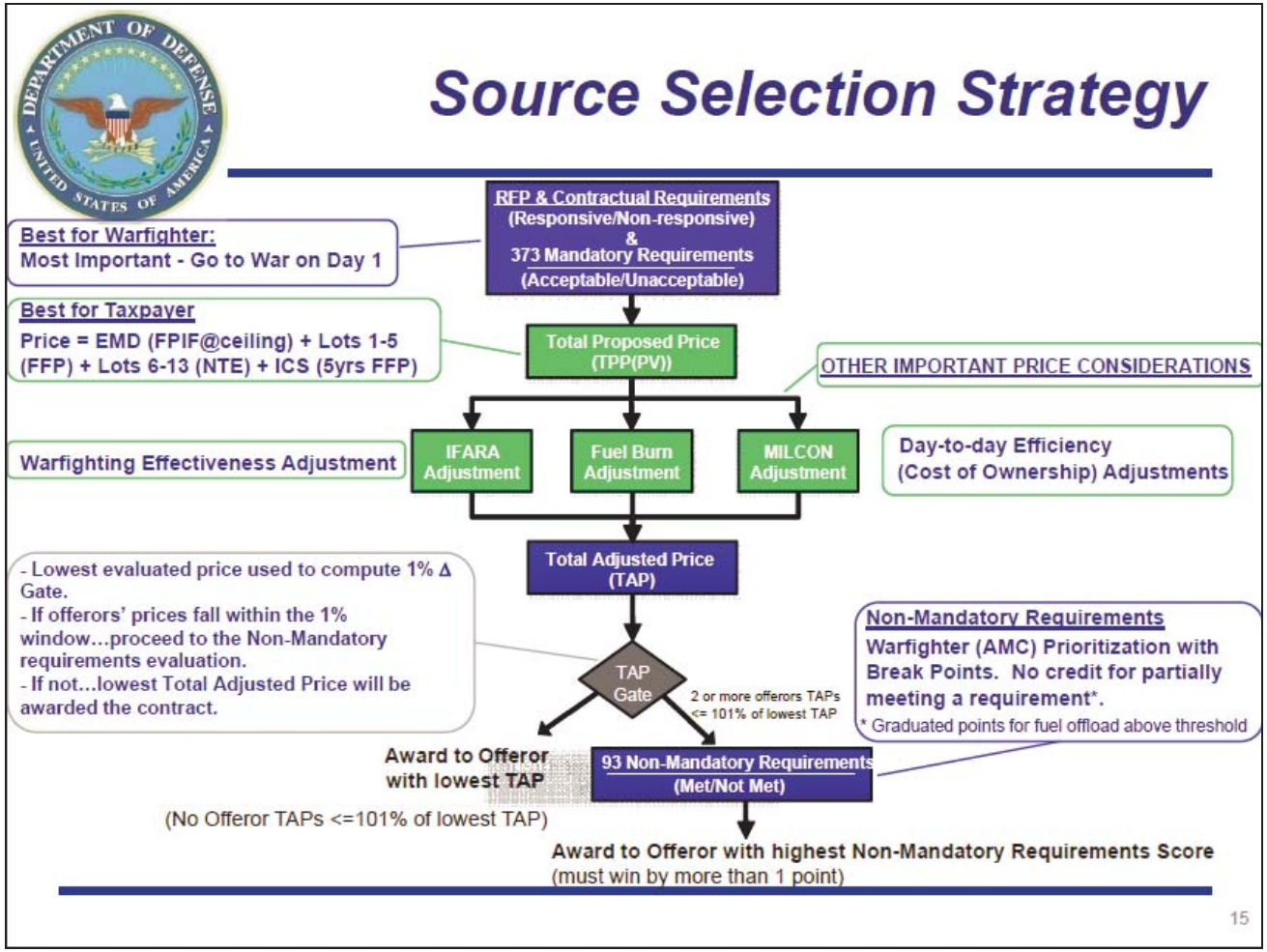
- Conduct site survey of eleven representative KC-135R bases
  - 9 CONUS
  - 2 OCONUS
- Evaluate discriminator categories only
  - Ramps, Taxiways, Runways, and Hangars
- Estimates will be based on actual proposed aircraft

Provides credit for aircraft that require the lower MILCON investment

Acq price credit = Highest MILCON Estimate – Offeror's MILCON Estimate

(Present Value)

14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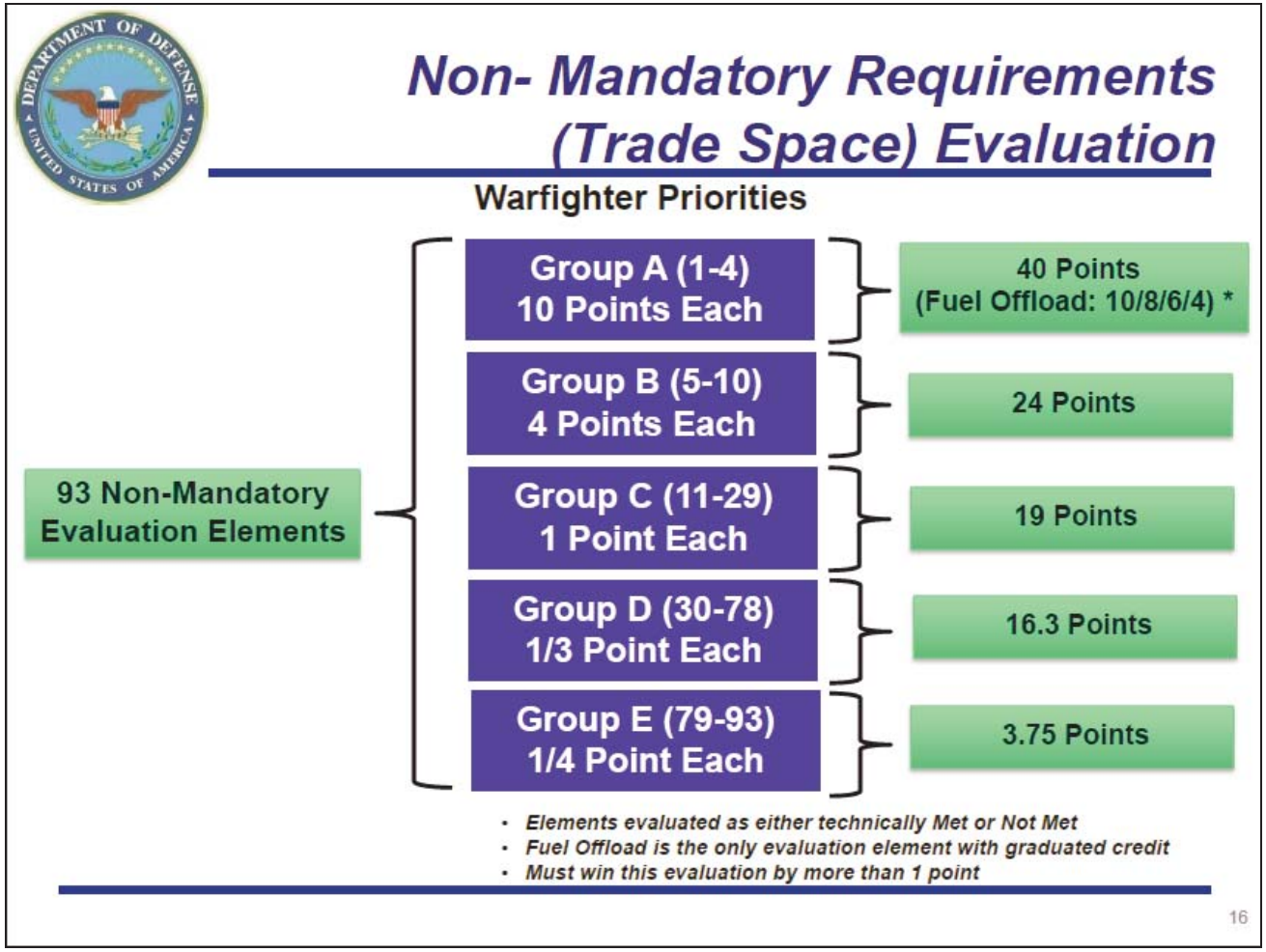
15


Non- Mandatory Requirements (Trade Space) Evaluation
Warfighter Priorities
93 Non-Mandatory Evaluation Elements
Group A (1-4) 10 Points Each
40 Points (Fuel Offload: 10/8/6/4) *
Group B (5-10) 4 Points Each
24 Points
Group C (11-29) 1 Point Each
19 Points
Group D (30-78) 1/3 Point Each
16.3 Points
Group E (79-93) 1/4 Point Each
3.75 Points
• Elements evaluated as either technically Met or Not Met
• Fuel Offload is the only evaluation element with graduated credit
• Must win this evaluation by more than 1 point
16

Timeline to Contract Award

17

Key Features

- Changed Source Selection Strategy
- Importance of price and technical factors
- Acquisition Reform
- Straight down the middle

18

Process for Comments on the Draft KC-X RFP

Comments on the draft RFP should be directed in writing to

Mr Shay Assad
Director, Defense Procurement & Acquisition Policy

3060 Defense Pentagon, Room 3B855
Washington, DC 20301-3060
"shay.assad@osd.mil"

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Appendix B. Transcript of September 24, 2009, DOD News Briefing

The appendix reprints the transcript of the September 24, 2009, DOD news briefing at which DOD announced its proposed new KC-X competition strategy.[56] The remarks in the opening portion of the transcript were made to the briefing slides shown in **Appendix A**).

DoD News Briefing with Deputy Secretary of Defense William Lynn, Under Secretary of Defense Ashton Carter, and Secretary of the Air Force Michael Donley

BRYAN WHITMAN (deputy assistant secretary of Defense for Public Affairs): Well, good afternoon. And thank you for joining us this afternoon for a briefing on the acquisition strategy for a replacement aerial refueling tanker.

It is my privilege to be able to introduce to you three key individuals that are instrumental in charting the way ahead for the tanker replacement. Most of you know these individuals, but let me introduce Deputy Secretary of Defense Bill Lynn, Air Force Secretary Mike Donley, and Undersecretary of Defense for Acquisition, Technology and Logistics Ashton Carter.

They have for you a rather comprehensive briefing. It will take 15, 20 minutes or so to go through that. We ask that you hold your questions. They will take your questions when they‘re finished. And as you leave the room today, we'll also make sure that you have a copy of all the presentation materials that they'll be showing up here on the screen.

So with that, gentlemen, thank you for coming to the briefing room to go over this very important topic and to chart the way forward for the department.

Mr. Secretary?

MR. LYNN: Thanks very much, Bryan. And hello, everyone. If we get a little punchy on this, this is, I think, the sixth time we've done this. We've been up on the Hill giving this briefing, but we want to give it to you all as well so—make sure the public understands where we're going on the acquisition strategy for the refueling tanker to replace the KC-135 and the DC-10 fleet.

What I'm going to do is I'm just going to take a couple of minutes and give you the overall picture. And then Secretary Mike Donley is going to describe the warfighting requirements and the Air Force selection process. And then, Undersecretary Carter is going to describe the source-selection strategy itself.

Where we're starting is from last April, when the—Secretary Gates announced that we were going to undertake a new effort to construct a competition to replace our tanking fleet. He pledged at that time that this competition was going to be fair and transparent, it was going to be as open as we could make it. And we've endeavored to do that. And let me just take a couple of minutes and outline the approach that we've taken and make three or four points.

[56] Transcript of DoD News Briefing with Deputy Secretary of Defense William Lynn, Under Secretary of Defense Ashton Carter, and Secretary of the Air Force Michael Donley, September 24, 2009, available online at http://www.defenselink.mil/transcripts/transcript.aspx?transcriptid=4484.

The first point is that the Air Force will be the source selection authority. This was announced last week at the Air Force Association by Secretary Gates. It reflects his confidence in the Air Force to execute this important program. It reflects the strong recommendations of both Undersecretary Carter and I that the Air Force be put back in the driver's seat on this position. It, however, does not reflect a total handing over of things to the Air Force.

This is—will be a collaborative process. It has been to this point. The Office of the Secretary of Defense, Ash and I and our teams, have been working very closely in designing the strategy that's behind this source selection. When we get to the actual execution phase, the evaluation phase, there will be, as Secretary Donley will describe, some independent review panels: both an internal Air Force panel, an OSD-led panel on process and a(n) engineering panel that will include talent from not just the Air Force and OSD but other services, particularly the Navy. That's the first point.

Second point is, this is not a rerun of the prior process or the prior RFP. GAO found substantial flaws in that process—indeed, so substantial that they overturned the award. We're very cognizant of the criticisms they've made, and we've taken strong steps to try and address those criticisms. Secretary Carter'll—Carter will describe the source-selection process in detail, but suffice it to say we are trying to be very explicit about the criteria that we're going to use, explicit about the scoring system we're going to use and explicit about the decision tree that will be used to make this selection.

The third point is that this is a best-value competition. There's been some talk that this might be a price shootout.

That is not what we're proposing here.

Price is extremely important in this competition, but it will not be the only factor. We will look at—first of all, we'll look at price from a broad perspective, not just acquisition cost. But we're going to include certain aspects of life-cycle cost, in particular fuel burn and military construction; and we're going to look at non- price factors, particularly how each aircraft that the companies might bid would meet warfighting requirements. So this is a best-value competition that includes both price and non-price factors in a—balanced in a way that Secretary Carter will describe.

Fourth, this is a step forward for us in terms of acquisition reform. We're building on the legislation that Congress passed under the leadership of Senators Levin and McCain, as well as Congressman Skelton—Chairman Skelton.

First, it emphasizes competition. We think the structure of the competition we're putting forward today will result in a very strong competition. And that competition will lead to value for the taxpayers and a good result in terms of warfighting capability for our men and women in uniform.

But more precisely in terms of acquisition reform is we're using a somewhat different contract structure than was used before. This will not be in the development phase a cost-plus contract as is most often the case. It will be a fixed-price incentive contract in the development. In the first five production lots it will be a firm fixed-price contract. And for the remaining production it will be what's called a not-to-exceed contract.

This is going to constrain prices considerably, we believe. It's shifting the department from a cost-plus world more towards a fixed- price world, and we think that that's going to be an important element in avoiding cost overruns. So this is a commitment towards acquisition reform.

The bottom line is, we tried to play this straight down the middle. We haven't favored anyone except for the taxpayers and the warfighters. We've taken every step that we can think of to make this a fair and open transparent competition pursuant to the direction we had from Secretary Gates.

And with that, let me turn it to Secretary Donley to describe the Air Force selection process as well as the requirements.

SEC. DONLEY: Okay. Thank you, sir.

I'll be starting on slide 4, please.

I just want to reiterate during this part of the brief the need for the Air Force and for the warfighter to get a new tanker. We have been at this for several years now, and we very much need to succeed going forward.

The KC-135 entered the Air Force in the mid- to late '50s. The youngest KC-135 was delivered in 1964. This will be a long-term process to recapitalize this fleet. Potentially by the last time—by the time the last KC-135 retires, it could be 80 years old. So we need to get on with this recapitalization.

The KC-X program is structured as it had been for the last several years. We envisioned a three-phase process, KC-X, -Y and -Z to recapitalize the force. This is the first increment, represents about one-third of the tanking assets that we have. It's 179 aircraft.

If successful, which we expect to be, the first production delivery would be planned for 2015, and IOC would occur in roughly 2017.

This capability is not only vital for the Air Force, it's in vital—it's vital for the joint and allied team as well. Aerial refueling underwrites the global reach of the United States armed forces.

Slide, please.

I want to talk specifically about the wartime requirements on which this RFP—draft RFP is built. These requirements were developed by the Air Mobility Command, which is the operator of the aerial refueling fleet, and it reflects priorities that would expect for this mission—the number of booms and drogues in the air, the aerial refueling capability itself, the range and off-load capability, the ability of the aircraft to self-deploy and provide other capabilities associated with the KC-135 fleet today.

But to succeed going forward, we need some additional capabilities that we expect to gain through the KC-X procurement.

Some of the additional capabilities that are required are listed on this slide but include the kinds of upgrades that you would expect: communications and navigation systems; air traffic control; air traffic management systems that will be compatible with the next- generation air traffic control systems, so that these aircraft can deploy worldwide into those air traffic systems; defensive systems, both probe and drogue capabilities.

We want the next tanker to have a receiver capability, not just to be able to offload fuel but be able to receive fuel as well. So we expect the KC-X to be far more capable than the KC-135 that it replaces. Slide, please.

Let's focus on requirements for a minute. Just to give you a broad overview, the Capabilities Development Document is the very high-level overview of the requirements for the KC-X going forward.

The CDD as it's referred to is the same CDD that was reviewed and approved in December of 2006. The Air Force revisited this early this year in January. The Joint Requirements Oversight Council also reviewed it in February. And no changes have been made. Again this is the very high-level, what are our requirements going forward for a KC-X aircraft?

The key work that has been done is at the Systems Requirement Document, the SRD, level. And here we undertook significant changes, without changing the requirements but to make a better linkage between the requirements written by the warfighter and the RFP that's going out tomorrow.

The SRD is where the system-level requirements are defined in more detail. And they do form the basis for the RFP. A tremendous amount of work has been done. I'll describe that in a little bit more detail. But AMC led this work, but it has been a collaborative effort with the rest of the Air Force and OSD, as the secretary indicated. Slide, please.

You may recall that in the last solicitation, there were about 808 requirements listed, for the KC-X, of which about 37 were mandatory requirements.

And this provided an extensive amount of trade space in those requirements to determine how a selection and—how an evaluation and then selection might be made.

However, by doing so, the offers indicated last time some confusion, because they did not clearly understand what the warfighter valued most. Another factor was that the way the requirements were written and their distribution throughout the RFP also left some uncertainty and confusion.

We've taken those 808 and we have boiled them down to the 373 mandatory, system-level requirements, which reflect what the warfighter needs on the first day of the war. When this aircraft is delivered, the warfighter will be able to take those capabilities and go to war. That's the fundamental baseline requirements that Air Mobility Command has put value on and which they need to make this a successful program.

Above that, we have identified 93 trade-space requirements. They are non-mandatory, above-threshold requirements that would provide additional capability to the warfighter, additional value, but not to such an extent that the warfighter would be willing to pay that much more for these capabilities. And Secretary Carter will explain a little bit later how this relationship between the mandatory and the non-mandatory, above-threshold requirements relate to each other.

Our task here was to not only take out the duplication, to combine the requirements where we thought they could be combined, but to write them clearly and precisely. And these requirements will be evaluated in an acceptable/non-acceptable basis. Again, Secretary Carter will refer in more detail to how this is put together in the strategy.

Couple of points on source selection, please. As the deputy indicated, the source-selection responsibility has moved to the Air Force. The source-selection authority will be a senior career Air Force official.

And consistent with normal practice, we will not publicly identify this official or other individuals involved in the source-selection process. We do that to shield them from undue influence in the source-selection process.

There are many, many new members to this effort. Most if not all of the key leadership positions in the source-selection process have changed since the last solicitation. The source-selection authority is responsible—is a single individual that has overall responsibility for executing the strategy that Dr. Carter will speak to in a minute, but they are backed up by a source-selection advisory council, while the membership of that council is completely changed. This is the senior review team, if you will, that advises the source- selection authority.

Supporting the advisory council is a series of 14 separate evaluation teams. These teams will take the proposals from the offerers, divide them up into these 14 areas. And they will do—they will conduct the evaluation of the proposals and provide their results to the advisory council, who will then flow up their advice to the source-selection authority.

In addition to this process, though, we will have independent review teams—this process of providing an independent assessment, not of what the offerers sent in, but of how we evaluated the proposals. And how we conducted the process was not fully in place last year. But it is today, and is—it is intended, at a policy level, to be a normal part of our business going forward.

So while we do this evaluation, we will have an—independent teams reviewing our work to make sure we have clearly connected the decision that is recommended to the source-selection authority all the way back through the evaluation process into the RFP and all the way up to the (requirement's/requirements') documents.

It is our obligation to do this with precision and with discipline, to make sure we have documented every step in this process as we conduct this source selection. We are delighted to have this responsibility back. I believe the Air Force is ready for this responsibility.

But I'll now turn it over to Dr. Carter, who will explain the source-selection strategy.

MR. CARTER: Thank you. I will be describing the source- selection strategy, which we have devised, which the Secretary of Defense has approved and which will be the method that the source- selection authority uses to pick the winner in the tanker competition.

It is described in about eight charts in the package that will be given to you after this briefing. It's a little complicated, a little bit of an eye chart here, but I'm going to walk you through it. But the essence of it is this: As the deputy said, we are this time going to try to be, and are being, very precise about what the offerers need to do to win. And it will be crystal clear, when a winner is picked, why they won and the other offer did not win.

So much of the subjectivity which we in retrospect found, and which the GAO found, in the source-selection strategy last time the tanker was competed this strategy avoids.

Let me start at the top. This is a decision tree, essentially. This is the decision tree that the source-selection authority will use to pick the winner. First, each offerer, starting from the top of the chart, will be required, as Secretary Donley said, to meet 373 mandatory requirements. This is what the warfighting customer says he needs to have an airplane that is ready to go to war on day one. They must meet all 373 of those requirements. It's a pass/fail test, acceptable or unacceptable. So also acceptable or unacceptable are certain contractual requirements, which are normal in solicitations of this kind. So that blue gate is a pass/fail test. We expect offerers to pass that test, but it is nevertheless a test.

Then we will ask each of the offerers to give us a price. As Secretary Lynn says—said, we will be applying our acquisition—some of our acquisition-reform principles. As we asked for that price, we will be asking them for a fixed price for the engineering and manufacturing

development phase, the EMD phase. That will be a fixed-price incentive contract with a ceiling, those of you who are aficionados of contract types. And it—we are doing that even though this is a development phase, because this is a product that is well-defined.

We've flown tanker aircraft based upon commercial drive, from commercial aircraft for many years. This is not the Manhattan Project, where you don't know exactly what's going to come out the other end. And so it's not only appropriate but useful and important for the taxpayer that this be done in a fixed-price environment.

So also will the initial lots, lots 1 through 5, lots 6 through 13, on a not-to-exceed basis—that is, with an upper limit—and initial contractor support—five years of initial contractor support, again with a fixed price.

If this were a price shoot-out, the chart would end there, but it's not, as the secretary—as Secretary Lynn indicated, a simple price shoot-out. So one needs to go further down the chart. We will, after the prices are proposed, adjust them to take into account some other aspects, non-price aspects, of what the offerers are offering that we deem important.

And they are basically of two kinds. On the left are the warfighting effectiveness adjustments and on the right are the day-to- day efficiency or cost of ownership adjustments. Let me say something briefly about each one of these. And once again, there are charts on these subjects, and you can go into this in as much detail as you can stand and in your own time.

Warfighting effectiveness asks—flies each of the offerer's aircraft against a model, which aficionados will recognize as IFARA, the Integrated Fleet Aerial Refueling Assessment model. IFARA says: Imagine the worst day of the 40-year lifetime of these airplanes, the worst day for the United States, a day in which we are executing several major war plans simultaneously, and therefore our tanker demand is at a peak. How many of each offerer's aircraft does it take to meet that demand?

And the offerer who requires the lesser number of aircraft to meet that demand, we'll give some credit for the fact that their aircraft are more capable in that sense, for wartime purposes.

Of course, we don't expect to be at war every day for the next 40 years. So there's another consideration we need to take into account, which is the cost of ownership, to the government, of having these aircraft on a day-to-day basis.

That is on the right-hand side and has two parts: fuel-burn adjustment and MILCON. These are the elements, of the life-cycle cost of the tanker, that are under the control of the offerers and which therefore can fairly be used to discriminate the offerers.

There are many elements to life-cycle cost of an aircraft. For example, the salary of the airmen, but the vendors don't determine that. The vendors do determine the aircraft design, which in turn determines how much fuel they will burn, over the next 40 years, carrying out the day-to-day tasks.

And also the type of aircraft will determine what we in the government need to do—in the way of military construction—to adjust hangars, ramps, taxiways and runways and so forth differentially for the two aircraft. And that will be taken into account.

So both wartime effectiveness and peacetime efficiency we will assess for each aircraft. We will dollarize those assessments and in dollar terms adjust the bid prices.

That takes you down to the blue square in the middle called Total Adjusted Price. And now we come to the end. If those total adjusted prices differ by more than 1 percent, the lower of the two wins, end of story.

If those two adjusted prices are close—that is, within 1 percent—then, and only then, will we consider the 93 nonmandatory requirements. Why is this? This is because the customer has decided that he really needs the 373 mandatory requirements. We definitely want to take into account the wartime and peacetime adjustments. But the customer attaches some value to the 93 nonmandatory requirements, but not much—willing to pay a little bit more for a little bit more, but not more than 1 percent.

If it does come to that, and the adjusted prices are close, and we turn to an assessment of the 93 nonmandatory requirements, this time we want to make it absolutely clear to the offerers which of those requirements is more important than the other and how much weight they should attach, as they prepare their bids, to those factors.

If I can have the next chart, please? So we've left nothing to chance, or to guesswork, in that regard. Those 93 nonmandatory requirements, which constitute the trade space, each item of those 93 is assigned a number of points—essentially, its worth to the customer, in his judgment. Again, this is the Air Mobility Command. And the two offerers will be evaluated according to how many points they score. And if one or the other offerer wins by more than one point, they win the competition.

You might ask, what if it's so close that they don't win by one point? (Chuckles.) Probably, very unlikely event. But in that case, if it's a tie in the trade space, you go back to price, and whoever had the lower price, even if it was less than 1 percent, wins.

So this—I'm sorry to have gone through this in some detail, but there are two points about it.

The first is that the offerers can, by looking at this chart, ascertain exactly how—they know how to win. No doubt. And secondly, this can be reverse-engineered, so next summer, when a winner is named, everybody'll know why one side won and the other side lost.

Next chart, please.

I mentioned last summer, this is the timeline to contract award. The draft RFP will be released tomorrow morning. The offerers will have 60 days to comment; members of Congress—the secretary made it clear that members of Congress would also have the opportunity to comment and for us to review their comments.

And after we have reviewed all of the comments, we will release the final RFP in about 60 days. About 60 days after that, the offerers will be required to submit their proposals. The government will then take up to 120 days to evaluate the proposals, looking to a contract award next summer, summer of 2010.

It's worth mentioning that Northrop Grumman has suggested that information was disclosed about its previous tanker bid that puts it at a competitive disadvantage. DOD has examined this claim and found both that this disclosure was in accordance with regulation and, more importantly, that it created no competitive disadvantage because the data in question are inaccurate, outdated and not germane to this source-selection strategy.

Next, we have been advised that the World Trade Organization recently issued a ruling in a U.S. versus European Union case alleging unfair subsidies to Airbus. We have been further advised that this is an interim ruling, that there is a counterclaim by the European Union regarding Boeing that has not been ruled on, and that final resolution of these cases is many

years away. For these reasons, we are not able to take account of these claims in the RFP. We have, however, added a "hold harmless" clause to the draft RFP, meaning that any penalties assessed in final rulings would not be passed to the U.S. taxpayer.

Let me close by summarizing the key features of this source selection.

First, it is not a rerun of the last competition. That competition was criticized for being too subjective. This time as you have seen, we will be objective and crystal clear about how the winning offer will be selected. Additionally the warfighting customer has made precise and prioritized the mandatory and nonmandatory requirements.

Second, this strategy weights both price and nonprice factors. Thus it is not a low-price, technically acceptable or LPTA approach. In acquisition parlance, it is a best-value competition, with both price and nonprice factors taken into account. But in the tanker context, some people use the term best value to mean a rerun of the last competition. And as Secretary Lynn noted, this is not a rerun.

Third, by requiring fixed price offerings—for EMD, procurement and initial contractor support—this approach is in line with our acquisition reform priorities.

Fourth, we've crafted this approach to favor no one except the warfighter and the taxpayer. We are certain that some would prefer that we not use IFARA or that we not count cost of ownership or that we weigh price more or less highly or one requirement more or less highly. But we've steered right down the middle.

Thank you.

MR. LYNN: Open to you for questions.

Q John Tirpak, Air Force Magazine.

Gentlemen, the tanker has been in limbo for a long time. Why did you elect not to kind of go on and include KC-Y in this competition, since it's been so long and it's going to cost a lot of money? And the cost is going up to keep the KC-135s going.

SEC. DONLEY: Well, this procurement will go probably in excess of 15 years. So the strategy of doing KC-X, Y and Z still seems prudent. Doing a buy of 179 aircraft will take some time. And we will want to re-evaluate at the end, about 15 years out or so, how we want to approach a KC-Y. How do we approach the next increment of tanker recapitalization?

MR. WHITMAN: Ma'am.

Q When you reduced the requirements from 800 to 373, was that an administrative exercise, or did you actually have to go back to the operators and tell them to give up a whole bunch of bells and whistles that they wanted?

MR.

: We need to ask Mike to—

SEC. DONLEY: We didn't tell them to give up bells and whistles. We told them and they understood from the results of the last solicitation that we had—that 808 was a big number, that the trade space was a little hard to manage because we had a smaller number of

mandatories. And it was really the warfighting community and Air Mobility Command that took it upon themselves to go through and scrub those retirement—requirements, to take out the duplication, to combine them when they thought that was prudent, to make them more clear, to rewrite them.

But the overall requirements at the CDD level did not change, and they still knew—know what kind of a tanker they want, what characteristics it needs to have. They were able to summarize that in 373 mandatories.

Q So there were some major compromises made by the operators compared to the previous RFP to this RFP?

SEC. DONLEY: Yeah.

Q Mr. Secretary, can you step to the microphone when—thank you.

MR. LYNN: As you said, the underlying, the CDD, remained the same. So it was the—how we interpreted it. The bigger change, I think, was less the numbers and more the distribution between mandatory and the above threshold, and we've come to the conclusion that it was a better approach to take a path where we made many more of the requirements, the ones we really thought we would need on day one, not tradable but mandatory. And so that, I think, was the bigger change.

The numbers had more to do with combinations, eliminating duplication, rather than fundamentally changing the requirements.

Sir.

Q (Name off mike), Aviation Week. When you take the mandatory and non-mandatory that—the mandatory—there's no credit for exceeding the requirements.

MR.

: Right.

Q Do any of the non-mandatory—are they effectively objective to the thresholds? Are you—do you have a threshold in the mandatory but in the non-mandatory you become—is an extension of that requirement into an objectives phase—you know, cargo capacity—do you have a threshold that's in the mandatory and then an objective that's in the non-mandatory, or are they very separate, the non-mandatory requirements?

MR. CARTER: Some of them—most of them do not have the character that you've just described. Some of them could be interpreted in that way. For example, aerial refueling: There is in the—there is a threshold aerial refueling capacity, and then in the trade space, the—one can get additional points for additional. But for the most part, they are simply extra features that the customer was willing to pay something for, but not a great deal for.

Q And is there a cap of 1 percent? You said it's—the way it's expressed is that the non-mandatory, you're willing to pay up to 1 percent of the assessed price.

MR. CARTER: That's exactly right. That's what the 1-percent gate—that's where the 1-percent gate comes from, from the customer's judgment that in aggregate those 93 extras, which he doesn't require but would add value, are worth something to him in—but not much more than a percent of the overall price.

MR. WHITMAN: Jim?

Q My first question is about the potential value of this award. The last one was said by the Air Force to be worth perhaps $35 billion by the time the 179 aircraft were acquired. Is that the same figure that applies now?

MR. DONLEY: Approximately the same, yes.

Q And the second question is, Dr. Carter, you say that this strategy—

MR. CARTER (?): Though we'd like to pay as little as possible.

Q (Chuckles.) Right. You say that this strategy avoids much of the subjectivity which you, in retrospect, found had entered into the last choice, along with the GAO determination.

MR. CARTER: Correct.

Q What subjectivity, in fact, are you thinking of? What was rated subjectively rather than very objectively in the past competition?

MR. CARTER: The offerers represented to the GAO that they were not able in all cases to ascertain whether one element of the trade space was more important than another element of the trade space or not.

And therefore, they weren't able to allocate their effort as an offerer precisely. That's what I mean by subjectivity.

In this case, the offerers will know exactly what it takes to win, because they're going to be able to go into IFARA, that model will be available to them. They can do all the math themselves. They could look at the 93 tradable elements. We've shown them what they're all worth. And they can figure out how to win. And that last time, there was some ambiguity in their minds about what it took to win. We've tried to remove as much of that as we can.

Q Yes, Caitlin Harrington, with Jane's Defence Weekly. Is this IFARA model that you're going to be using this time the same model that you used the last time? I think—

MR. CARTER: It is. It is the same model. It is updated in some respects, because war plans change, and the IFARA model is based on real war plans. But in its essence, it is the same model. A number of adjustments have been made just to improve it. None of this will be mysterious to the offerers. They'll have complete access to it. They can see it; they can play with it; and they can play their airplanes against it.

Q How much weight will be given to cargo and passenger capacity?

MR. CARTER: Cargo and passenger capacity is one of the elements—it appears both in the mandatory and the nonmandatory requirements. And as you—when you get the RFP, you'll see precisely how that works.

Q And how exactly is the Northrop information that was disclosed in the debrief last time—how was that exactly not germane this time around?

MR. LYNN: It's different competition requirements. We've made many more requirements mandatory. The offerings are going to have to be different to meet those mandatory requirements.

MR. CARTER: It's not a rerun.

Q (Off mike)—price register. In devising this new draft RFP, to what extent were you influenced by the objections raised not only by the offerers last time around, but also by members of Congress, for example, regarding MILCON costs, fuel burn, et cetera?

MR. LYNN: It'd be hard to say the—I mean, we obviously reacted to the GAO report, and it overturned the competition.

Beyond that, we just did a general review that we tried to improve the RFP and the source-selection process along the lines Ash described in terms of being more concrete about what the criteria were, how we were going to measure, how we were going to score; and so that the offerers are going to be able to follow that decision tree, as said, and understand exactly what we're doing.

The sources of criticism came from many different places. We didn't react to one or another with any particular emphasis.

Sure.

Q August Cole with The Wall Street Journal. The cycle here we have from the RFP—coming from the RFP tomorrow to the award—at what point in that is there the greatest risk of a protest, do you think?

MR. LYNN: Well, of course, we're hoping there's no protest. And we don't really control that. I don't—I mean, normally protests come after an award's been made, but I don't really have any way to project it. As I said in answer to the last question, we've tried to make things so concrete that the scores and the judgments are going to be transparent; that they'll be no basis on which to make a protest. But we don't control that.

Sure.

Q (Inaudible name), of Bloomberg News. Now, this a draft proposal, and so it's open to discussion between the Pentagon and the offerers and some members of Congress, as you indicated. I was wanting to see if you could talk a little bit about what are some of the areas that are open to discussion in this draft.

MR. LYNN: Well, I mean, I don't think anything is closed. But I mean, we have walked around this a lot. We've been very careful about how we put this together. And so we think we have a solid product.

But we're going to take the comments, as you said, both from the offerer. And the secretary made clear that the comments from Congress were what we were very much interested in as well. We haven't identified areas that we want comments and areas that we don't.

Q If I may, I have a follow-up. There were some members of Congress this morning who were quite insistent that they wanted the Pentagon to take into account the WTO decision from earlier this month. Is that something that the Pentagon has closed the door on, or is that, again, something for discussion?

MR. LYNN: Well, as I said in answer to some earlier question, the WTO ruling is an interim ruling.

It is a ruling on one of two complaints. And the two complaints are from both, each side. We need—you need to pursue that process to a conclusion. That's going to require a final ruling in each case. It's going to require completion of the appeals.

That process is going to take several years. So it—beyond the step that we've taken, which is to hold the taxpayer harmless to any penalties that would result from this process, that would be themselves worked through the WTO process, that's how we're approaching it in the draft RFP.

Q Would it be fair to say that the WTO issue is—the decision on that is taken and it's not open to discussion or debate?

MR. LYNN: We've taken—we've, I think, described in detail—I just described in detail what our thinking is on the WTO process.

Q Secretary, on the IFARA, you mentioned that the bidders will, you know, be able to look at the model. Will they know the specific scenarios that their planes are competing in?

MR. CARTER: Yes, they will. These will be classified. But there will be—they will—so these will not be public because these are our war plans. But they are real TPFDDs, that is, real deployment plans, real air tasking orders, that is real elements of real war plans, real homeland security plans.

So they are classified. But the offerers will have access to that information.

Q Do you think they'll come back at some point and say, well, we think this scenario doesn't favor us, because of whatever reason, and therefore you guys are subjective, and we lost on that point.

MR. CARTER: Well, the scenarios are what they are. The world is what it is.

It's fair to come back with some detail of how the model works and so forth. And we can always consider something like that. It's unlikely that we can reconsider our war plans or the threats we face on the basis of a tanker competition.

Q On the basing credit, on MILCON, you know, whatever bases are chosen, will they know what bases are chosen?

(Cross talk.)

MR. CARTER: I'm going to let Secretary Donley here.

SEC. DONLEY: Yes, those bases are identified in the RFP, and they're representative of—they're existing tanker bases, CONUS, overseas, active, Guard and Reserve: a representative mix of current tanker bases.

Q Can I just ask, on the MILCON costs, are those costs—they'll be calculated by the Pentagon and, in fact, have been?

MR.

: Yes.

MR.

: Yes.

Q The fuel burn will be supplied by the offerer, but the MILCON costs will be assessed by the Pentagon?

MR. LYNN: You've got that right, except the fuel burn will be validated by the Pentagon.

Q Right.

Q And MILCON refers to what exactly?

MR. CARTER: Military construction.

Q But specifically, that's hangars?

SEC. DONLEY: Ramps, runways, hangars.

MR. CARTER: Hangars, ramps, taxiways, runways.

Q The 14 independent review panels, is that unusual for a DOD major program to have that many panels? Is that standard procedure?

MR. LYNN (?): For one this large, no, but my—

SEC. DONLEY: This—just to clarify, the 14 I was referring to, that—those are the source-selection evaluation teams. Those are the working-level—those are the working-level teams that evaluate the proposals. So they will take the—various parts of the proposals will go to a—one part will go to a particular team, they'll do the evaluation. That number is not unusual for a program of this size.

MR. LYNN: Just—it's basically the number of functional teams you need to evaluate each piece of the—

Q And do any of these panels—are able to overrule the source selection at any point? I mean, they're—do they have—

SEC. DONLEY: No, these are the—

MR. LYNN: These are inputs.

SEC. DONLEY: These are inputs to the source-selection process. They're the working-level team reports on how well the offerers did in their proposals against the requirements laid out in the RFP. That's what the evaluation team does. They provide that information up to the source-selection advisory council, which is a more senior council that pulls all that together, reviews it and assesses it.

Q (Off mike)—panels, can they overrule the decisions?

SEC. DONLEY: The independent review teams do not have source- selection authority. They are inputs to the source-selection authority.

Q Can they hit the stop button if they see something—is there any—

MR. LYNN: It doesn't work that way.

It's—what they're doing is to make sure that the work is being done correctly, the calculations are being done correctly, that the documentation is—is all complete. So, you know, if you find the documentation isn't complete, is that a stop? No, I mean, you tell people, "You need to—you need to document this."

And this is, as I say, partly in response to the GAO, and partly just to try and up our game, is that you need to go through these steps. This is—this is a lot of money. This is a lot of jobs. We're taking this very seriously, and we want to make sure that we get it right. And those independent review teams are about getting it right.

SEC. DONLEY: I'd like to make another point that perhaps I didn't make as clearly as I should have in the brief. The source selection authority is a senior career Air Force official. And those advisory council, the evaluation teams underneath, support the decision that needs to be made by that source selection authority.

But below the source selection authority, the advisory council, the teams, are made up of Air Force, Navy, OSD—these are sort of our best players, and represents the department's expertise being brought together for this work. So this is collaborative, joint work across the department, to make this a successful award.

Q This model, applied to future major acquisitions, is this—you say that it's consistent with the department's acquisition reform goals. But are you looking at a structure like this for major competitions going forward?

MR. LYNN: I think there are two aspects to that. Let me break it down. In terms of trying to move the needle more towards the fixed-price development world, when it's appropriate—and that's an important caveat, because you need to make sure that the risk is bounded—but when we have the technology in hand the way we do here, when we think the technical risk is lower, when we have the commercial base that we do and we have the full understanding of the requirements we think we have, we're going to try and pursue that type of contracting. So that's one piece.

Whether the structure—this may be more to your question—whether the structure that we've put together here in that decision tree we'll pursue is still—pursue in further acquisitions, is an open question. We've worked hard at this, but we've been focused on this one. We haven't quite lifted ourselves to see, okay, is this a model we think we ought to apply?

But it's a good question, and we will be looking at that.

Q But then in other words, you're going to these great lengths because of an overwhelming desire to—to do what?

MR. CARTER: Let me add something that. I—

Q I mean, if it's not a model necessarily for going forward, you're going to these great lengths because you want to avoid any grounds for protests—

MR. CARTER: Well, we are going great—to great lengths to be clear about how we're going to pick the winner in this competition.

You ask how extensible is that method to other—the deputy has already indicated that the fixed price aspect is something that we definitely—and that you will see us doing in other competition.

However, not—if this—this kind of methodology isn't appropriate to all Defense programs. This is a program where the product is relatively well-defined. It is a derivative of a commercial product in widespread use. And that's why we can very crisply define what it—we've had them for many years. We know them. The customer knows what he wants. That won't always be true. And so it won't be possible for us to do this for all products. So it's not just because it's the tanker—and the tanker's very important—it's because it's a tanker, which is a well-defined product that we're able to do this.

The second—there is another respect in which we are—and Secretary Gates has made us not go to great lengths, and that is the method that Secretary Donley described by which the Air Force will exercise the source selection authority is the normal method. That's why I so strongly recommended and Secretary Lynn so strongly recommended to Secretary Gates that he restore that to the Air Force. That's where it belongs.

What—our job is to do what we've described to you today, which is to craft and explain this acquisition strategy. It's not appropriate for me in the Pentagon to be the source selection authority, in my judgment. That is something that a professional career Air Force official, as Secretary Donley, should do. And in that respect, it's not—we—I did not think it was appropriate, and the deputy and the secretary agreed to make a special case, process-wise, of the tanker, just because it was the tanker.

In that sense, we're doing it just the normal way. So those are two aspects to your question.

Q It's August with The Wall Street Journal again.

Given that Boeing and Northrop both have new defense—a new defense CEO at Boeing and a new CEO coming at Northrop, they fought awfully hard last time. Are you going to try to set any boundaries or limits of decorum if you will here, about how far they can go in trying to win this?

MR. LYNN: Well, I think it was up on one of the charts. The secretary was pretty clear that he would like this to be a civil competition, civil debate. He mentioned corporate food fights. So I don't know how much control we have, but we would very much like this to be done in a professional, objective manner.

SEC. DONLEY: And I would add that the deputy, Secretary Carter and myself, we have made this point to both of the offerers, the likely offerers. We've made this point to members of Congress as well.

MR. WHITMAN: We'll take maybe one or two more. And then we'll have to close.

MR. LYNN: Have we missed anybody?

If everybody has gotten one, sure, go ahead.

Q George Talbot again, Mobile Press-Register.

Apart from senior leadership, which as I understand has pretty much turned over, the people below that level, the folks in the trenches, are they—are they generally the same people who were involved in last year's competition?

SEC. DONLEY: There are some people on the evaluation teams who are just the experts in the Air Force. So yes, there are some members at the evaluation team that are the same. But the leadership has all changed.

Most of the players have changed. But there are some experts that are still the experts. And they will be going forward.

Q How many people are involved in this decision, in this whole procurement, would you say?

SEC. DONLEY: Don't think we've counted that up. But we can—I'm sure we can come up with a number. I would just like to emphasize though again that this process of—normal procurement processes, there is a source selection advisory committee.

There are source selection evaluation teams. And we've added or are starting to add, with more regularity, the independent review teams. But this basic process, as Secretary Carter noted, is the same.

Q If Congress directs that you make a dual buy, do you have a plan B? And if not, how long would that take that kind of acquisition to develop?

MR. LYNN: I—I think we're through that debate. Congress has not directed that we make a dual-buy. The legislation gives us a choice between the path that we followed or a dual-buy, and we are proposing that we will make a single award at the end of this competition.

The RFP allows us to make a dual-buy, and the RFP allows us to make no award. But our plan is to make a single award. And I think Congress has really already spoken on that at this point.

MR. WHITMAN: Perhaps, one more.

MR. CARTER: Sure. Sure.

Q Can I just check? In the previous competition, there was an adjustment made for risk, an assessment of risk in the proposal. Is that still in the process somewhere?

MR. LYNN: Yes, it is. It’s in that upper box.

Q The very top box?

MR. LYNN: The very top box. These are the normal contractual aspects of proposal risk. And they will be assessed—again, on an acceptable, non-acceptable basis, in a specified way.

MR. WHITMAN: Thank you.

Q Thank you.

Appendix C. KC-X Competition of 2007-2008

This appendix provides additional information and discussion on the KC-X competition of 2007-2008.

Request for Proposal

In January 2007, the Air Force released its formal RFP for the KC-X acquisition program. Assistant Secretary of the Air Force Sue Payton reportedly emphasized that the Air Force had completed a rigorous review process for KC-X to ensure the RFP mirrors joint war-fighting requirements.[57] The RFP outlined nine primary key performance parameters:

- Air refueling capability
- Fuel offload and range at least as great as the KC-135
- Compliant Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) equipment
- Airlift capability
- Ability to take on fuel while airborne
- Sufficient force protection measures
- Ability to network into the information available in the battle space
- Survivability measures (defensive systems, Electro-Magnetic Pulse (EMP) hardening, chemical/biological protection, etc.)
- Provisioning for a multi-point refueling system to support Navy and Allied aircraft[58]

In November 2007, Ms. Payton explained the evaluation criteria that the Air Force used in determining the KC-X competition. The KC-X evaluation factors are:

- Factor 1—Mission Capability. Mission capability includes five subfactors listed in descending order of importance:
  - Subfactor 1.1—Key System Requirements
  - Subfactor 1.2—Subsystem Integration and Software
  - Subfactor 1.3—Product Support
  - Subfactor 1.4—Program Management
  - Subfactor 1.5—Technology Maturity and Demonstration
- Factor 2—Proposal Risk

[57] "Air Force Posts KC-X Request for Proposals," *Air Force Print News Today*, Press Release 070107, January 30, 2007, online at http://www.af.mil/pressreleases/story_print.asp?id=123039273.

[58] Ibid.

- Factor 3—Past Performance
- Factor 4—Cost/Price
- Factor 5—Integrated Fleet Air Refueling Assessment[59]

The Air Force considered the first three KC-X evaluation factors of equal importance. The final two factors were considered of equal importance, but less important relative to the first three criterion. Lastly, the Air Force regarded "Factors 1, 2, 3, and 5, when combined, [to be] significantly more important than factor 4."[60]

Boeing Protest

Air Force officials debriefed both Boeing and Northrop officials on how their respective bids were scored in March 2008. On March 11, 2008, Boeing protested the Air Force's decision to the GAO.[61] On March 26, 2008, both the Air Force and Northrop separately filed motions for the GAO to dismiss portions of Boeing's protest.[62] GAO rejected these motions.[63] Work on the KC-45A stopped while the GAO considered the protest.[64]

Boeing's protest was based on a perception that the Air Force used a flawed process in the KC-X selection process. For example, in a press release detailing Boeing's rationale for protesting, Boeing stated:

> It is clear that frequent and often unstated changes during the course of the competition—including manipulation of evaluation criteria and application of unstated and unsupported priorities among the key system requirements—resulted in selection of an aircraft that was radically different from that sought by the Air Force.[65]

Boeing stated that both teams received identical ratings across the five evaluation areas in the KC-X competition. Boeing claimed that the Air Force's treatment of both Boeing's cost estimates and Boeing's past experience of building Air Force tankers, if scored differently, could have affected the outcome of the source selection.[66] In response to Boeing's protest, an Air Force press release stated:

> Proposals from both offerors were evaluated thoroughly in accordance with the criteria set forth in the Request for Proposals. The proposal from the winning offeror is the one Air Force officials believe will provide the best value to the American taxpayer and to the

[59] USAF slide obtained from "Performance Comes First," Air Force Association Daily Report, November 21, 2007, online at http://dailyreport.afa.org/AFA/Reports/2007/Month11/Day21/1028factors.htm.

[60] Ibid.

[61] Boeing News Release, "Boeing Protests U.S. Air Force Tanker Contract Award," March 11, 2008, online at http://www.boeing.com/ids/globaltanker/news/2008/q1/080311b_nr.html.

[62] Andrea Shalal-Esa, "Air Force, Northrop Ask GAO to Dismiss Boeing Protest," *Reuters*, March 26, 2008.

[63] Susanna Ray and Edmond Lococo, "Northrop Loses Effort to Dismiss Boeing Protest," *Bloomberg News*, April 2, 2008, online at http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a2hruo2xpyFQ.

[64] Sean Reily, "Air Force Keeps Tanker Freeze," *Mobile Press-Register*, March 18, 2008, online at http://www.al.com/press-register/stories/index.ssf?/base/news/120583171412090. xml&coll=3.

[65] Boeing Company News Release, "Boeing Protests U.S. Air Force Tanker Contract Award," March 11, 2008, online at http://www.boeing.com/news/releases/2008/q1/ 080311b_nr.html.

[66] Ibid.

> warfighter. Air Force members followed a carefully structured process, designed to provide transparency, maintain integrity and promote fair competition. Air Force members and the offerors had hundreds of formal exchanges regarding the proposals throughout the evaluation process. Air Force officials provided all offerors with continuous feedback through discussions on the strengths and weaknesses of their proposals. Several independent reviews assessed the process as sound and thorough.[67]

GAO Ruling on Protest

On June 18, 2008, the GAO announced that it had completed its examination of DOD's decision to award Northrop the KC-X contract (for 80 aircraft) and found that Boeing's complaint had merit.[68] GAO's managing associate general counsel for procurement law, Michael R. Golden, stated:

> Our review of the record led us to conclude that the Air Force made a number of significant errors that could have affected the outcome of what was a close competition between Boeing and Northrop Grumman. We therefore sustain Boeing's protest. We also denied a number of Boeing's challenges to the award to Northrop Grumman, because we found that the record did not provide us with the basis to conclude that the agency had violated the legal requirements with respect to those challenges.

GAO recommended that discussions between the government and the bidders be resumed, that bidders be given the opportunity to submit revised proposals, and that the Air Force make a new decision based on this additional input. The Air Force is not statutorily obliged to heed GAO's recommendations but must respond to them within 60 days (i.e., by August 17, 2008).[69]

GAO made clear that it was not passing judgment on the relative merits of the proposed aircraft. Instead, GAO stated that it assessed whether the Air Force complied with statutory and regulatory requirements in evaluating the competing bids. GAO cited seven specific reasons for sustaining portions of the Boeing protest, which are summarized below:

1. The Air Force evaluation did not follow the prioritization of technical requirements specified in its own solicitation. Nor did it give credit to the Boeing proposal for satisfying the greater number of non-mandatory technical criteria, though the solicitation expressly requested this.
2. The Air Force used the degree to which the Northrop Grumman bid exceeded a specific key performance objective as an important discriminator between proposals, despite the solicitation's provision stating that this would not be the case.
3. Solicitation required that proposed tankers be able to refuel all fixed-wing, tanker-compatible Air Force aircraft using existing Air Force procedures. The protest record did not support the Air Force's determination that the Northrop Grumman proposal did so.
4. Air Force discussions with each of the bidding companies were unequal and misleading. Boeing was told that it had fully satisfied a key operational utility parameter, yet the Air Force later determined that the

[67] "Air Force Officials Respond to Boeing Protest," Air Force Print News Today, March 12, 2008, online at http://www.af.mil/news/story_print.asp?id=123089878.

[68] GAO, "Statement Regarding the Bid Protest Decision Resolving the Aerial Refueling Tanker Protest By The Boeing Company B-311344 et al.," Government Accountability Office (Washington, D.C.), June 18, 2008. Available on the World Wide Web at http://www.gao.gov/press/boeingstmt.pdf.

[69] GAO also recommended that the Air Force consider amending its proposal solicitation before engaging the companies in the discussions, that it reimburse Boeing for the cost of filing and pursuing the protest, and that it terminate the existing contract with Northrop Grumman if Boeing's proposal is ultimately selected.

Boeing proposal only partially met the requirement. The Air Force continued its discussion with Northrop Grumman on the same key parameter without informing Boeing that its assessment had changed.

5. Northrop Grumman refused to agree to a specific solicitation requirement regarding the development of Air Force maintenance capability within a specified period. The Air Force unreasonably assessed this to be an "administrative oversight" and awarded the contract improperly in light of this exception to a material solicitation requirement.

6. The Air Force unreasonably evaluated the military construction (hangers, runways, parking aprons, etc.) required to sustain each of the proposed aircraft. During the protest proceedings, the Air Force conceded that calculations properly performed would have resulted in a most probable life cycle cost for the Boeing offer lower than that for the Northrop Grumman proposal.[70]

7. The Air Force improperly adjusted upward Boeing's estimate of the non-recurring (i.e., one-time) engineering portion of its most probable life cycle cost value. The Air Force would have been able to do so had it found the cost to be unreasonably low, but it did not. Additionally, the cost model used by the Air Force to adjust this cost estimate was unreasonable.

[70] Life cycle cost refers to the total cost of owning, operating, maintaining, and disposing of a given asset. It is often referred to as "cradle-to-grave" cost. Life cycle costs are calculated within a range, from lowest to highest. The "most probable" cost is the one calculated to have the statistically highest probability of being true.

Appendix D. Boeing 767 and Airbus 330 Suppliers

Table D-1. Boeing 767 Suppliers

Supplier	Parent Country	Component(s)
Aero Vodochody	Czech Republic	airframe parts (for BAE Systems)
Alenia	Italy	wing control surfaces, flaps and leading-edge slats, wingtips, elevators, fin rudder, nose radome
Avcorp	Canada	front and rear spar stiffeners, floor grid details and assemblies, aft strut fairings
Boeing Canada	Canada	fixed trailing edge panels, composite wing-to-body fairings, engine strut fairings
Bombardier (Learjet)	Canada	wing trailing edge support structures
Bombardier (Canadair)	Canada	rear fuselage, pressure bulkhead
Daido Steel	Japan	steel sheets
Embraer	Brazil	flap supports
Fuji	Japan	wing fairings, main landing gear doors
Fujukawa Aluminum	Japan	forgings and extensions
GKN Aerospace (Westland Aerospace, formerly BP Chemicals; with Lucas Aertspace Cargo Systems)	United Kingdom	flap track fairings
Goodrich (Cleveland Pneumatic)	United States	main landing gear
Hitco Carbon Composites	United States	flap track fairings
IPTN	Indonesia	flaps, keel beams (for Mitsubishi)
Kaman Aerospace	United States	wing trailing edges
Kawasaki Heavy Industries	Japan	center-fuselage body panels, exit hatches, wing in-spar ribs
Korean Aerospace (Samsung)	Republic of Korea	wing trailing edges
LMI Aerospace	United States	skins, wing panels, floor beams, curtain tracks
Lunn Industries (Alcore)	United States	leading edge slat core assemblies (for ASTA)
Menasco Aerospace	United States	nose landing gear unit
Mitsubishi Heavy Industries	Japan	rear fuselage body panels, stringers, passenger and cargo doors, dorsal fin
Nihon Kokuki (Nippi)	Japan	wing in-spar ribs, various structural components for Mitsubishi
PPG Industries	United States	landing light lens assemblies, cockpit windows
Shin Meiwa	Japan	tailplane trailing edges (for Northrop Gumman/Vought)

Source: Teal Group

Note: Commercial variants powered by engines manufactured by either General Electric, Pratt & Whitney, or Rolls Royce.

Table D-2. Airbus 330/350 Suppliers[71]

Supplier	Parent Domicile	Component(s)
Advanced Technology and Research (ATR) Corp.	United States	graphite epoxy underwing fairings (for Aerostructures Corp.)
Aerostructures Corp. (Now Vought)	United States	inner spoilers/airbrakes, center spar, upper wing skin panels, inner and outer wingbox leading edge assemblies (for BAE), outer flaps, flap track shrouds, spoiler parts (for DASA-EADS)
AHF-Ducommun	United States	leading edge wing skins
Boeing (Aerospace Technologies of Australia)	United States	main gear doors, floor support structure, pressurization bulkhead between passenger cabin, main landing gear compartment (for Aérospatiale-EADS)
Bombardier (Canadair)	Canada	leading edge wing assemblies, nose gear bay and doors, nose bottom fuselage, rear sealed frame, ventral beam, pressurized lateral floor, aft pressure bulkhead (for Aérospatiale-EADS), inboard front spar assembly (for BAE)
BTR Aerospace	Canada	main landing gear fairings
CC Industries	United States	outer rear spar, main landing gear support, ribs (for BAE)
Ciba-Geigy Corp.	Federal Republic of Germany	HTA/6376 prepreg on wings
Dowty Aerospace Canada	Canada	center landing gear
Dowty Rotol (with Cleveland Pneumatic)	United Kingdom	design and manufacture of main landing gear
Fairchild Dornier	Federal Republic of Germany	fuselage and wing components, interior panels
Fischer Advanced Composite Components	Federal Republic of Germany	interior components (for DASA-EADS)
GKN Aerospace (formerly BP Advanced Materials)	United Kingdom	composite panels (for BAE)
General Engineering	Unknown	side stay fairing
Hawker de Havilland, Australia	Australia	wingtips, winglets, wing root fillet, ribs (for BAE)
Heath Techna Aerospace	United States	composite components (for BAE)
IPTN	Indonesia	flap track carriages, sheet metal parts (for BAE)
Korean Aerospace Industries (Daewoo)	Republic of Korea	wing components
Korean Air (with Silat)	Republic of Korea	upper fuselage panels of Section 15 (for Aérospatiale-EADS)
Marion Composites	United States	flap track fairings (for Aerostructures Corp.)

[71] The Airbus 350 is a planned model that will be similar in size to the Airbus 330. It was originally expected to be a derivative of the Airbus 330, but is now expected to be a new design aircraft.

Supplier	Parent Domicile	Component(s)
Marvin Group	United States	large ribs (for BAE)
Messier-Hispano-Bugatti	France	nose landing gear, wheels and brakes (option)
Mitsubishi Heavy Industries	Japan	cargo doors
PPG Industries	United States	cockpit windows
RTI International Metals	United States	titanium on A350
SABCA	Belgium	tailcones (for DASA)
Shin Meiwa	Japan	wing fairings
Socea	France	rear upper panels of center fuselage section
SOCATA	France	composite belly fairing
SONACA	Belgium	full-span leading edge slats, slat tracks
Xian Aircraft Co. (AVIC-1)	Peoples Republic of China	avionics access doors

Source: Teal Group

Note: Commercial variants of both aircraft types are powered by engines manufactured by either General Electric, Pratt & Whitney, or Rolls Royce.

Appendix E. Potential Longevity of KC-135 Fleet

2004 DSB Report and 2006 RAND Analysis

A 2004 Defense Science Board (DSB) task force report examined, among other things, the potential longevity of the KC-135 fleet.[72] The 2006 RAND Analysis of Alternatives (AOA) on aerial refueling also examined the technical condition of the KC-135 fleet.

The DSB report stated that airframe service life, corrosion, and maintenance costs factors would potentially determine the KC-135s operational life expectancy. Each of these factors is discussed briefly below.

Airframe Service Life

KC-135s, along with their associated B-52 bombers, were originally purchased to give the United States a strategic nuclear strike capability. As a result, both fleets of airplanes spent a significant amount of time during the Cold War on ground alert. Consequently, in 2004, the average KC-135 airframe had flown only about 17,000 hours of an estimated service life of 36,000 hours (KC-135E) or 39,000 hours (KC-135R). On this basis, the DSB report concluded that KC-135 airframes were viable until 2040 at "current usage rates."[73] The 2006 RAND AOA similarly concluded that the KC-135 fleet "can operate into the 2040s," but not without risks.[74]

Corrosion

The 2004 DSB report concluded that corrosion did not pose an "imminent catastrophic threat to the KC-135 fleet" and that the Air Force's maintenance practices were postured "to deal with corrosion and other aging problems,"[75] but also stated:

> However, because the KC-135s are true first generation turbojet aircraft designed only 50 years from the time man first began to fly, concerns regarding the ability to continue operating these aircraft indefinitely are intuitively well founded.[76]

Maintenance Costs

A 2004 GAO report stated that KC-135 flying hour costs increased in real (i.e., inflation-adjusted) terms by 29% between 1996 and 2002.[77] The DSB report agreed that KC-135 maintenance costs had increased significantly, but found that they had leveled off due to Air Force changes in KC-

[72] *Defense Science Board Task Force Report on Aerial Refueling Requirements*, May 2004, p. iv.

[73] Ibid.

[74] Michael Kennedy et al., *Analysis of Alternatives (AoA) for KC-135 Recapitalization, Executive Summary*, RAND Corporation, 2006, pp. 15-16.

[75] *Defense Science Board Task Force Report on Aerial Refueling Requirements*, May 2004, p. iv.

[76] Ibid., p. 17.

[77] General Accounting Office, *Military Aircraft[:] DOD needs to Determine Its Aerial Refueling Requirements*, GAO-04-439, June 2004, p. 13.

135 depot processes. The DSB report forecasted modest growth in maintenance costs in the future.[78]

Risks Of Flying Older Aircraft

Some observers express about potential problems that may arise in flying 50- to 80-year-old tankers that could possibly ground the entire KC-135 fleet. The DSB report examined the issue and concluded that "although grounding is possible, the task force assesses the probability as no more likely than that of any other aircraft in the inventory of the Services."[79] The 2006 RAND analysis expressed a belief that it is possible that KC-135s will be able to operate into the 2040s, but the report expressed a lack of confidence that KC-135s could continue to be operated that long without risks of major maintenance cost increases, poor fleet availability, or possible fleet-wide grounding. The RAND analysis concluded that "the nation does not currently have sufficient knowledge about the state of the KC-135 fleet to project its technical condition over the next several decades with high confidence."[80] The analysis recommended more thorough scientific and technical study of the KC-135 to provide a more reliable basis for future assessments of the condition of the KC-135 fleet.[81]

2009 News Reports on 2001 DOD Study

A March 13, 2009 news report on a 2001 DOD study on the KC-135 fleet stated:

> The cost of maintaining geriatric KC-135 Stratotankers into the 2040s will likely increase nearly 50 percent over the next 30 years to account for major structural and engine improvements needed simply to keep the venerable aircraft flying, according to documents obtained by *Inside the Air Force*.
>
> The overall annual maintenance will rise from $2.1 billion in fiscal year 2001 to $3 billion in 2040, according to the KC-135 Economic Service Life Study. In all, it will cost the Air Force more than $103 billion to operate and maintain Stratotankers between 2001 and 2040—almost triple the cost of buying nearly 200 new KC-X refuelers, according to the report, which makes its projections using calendar year 2000 dollar amounts....
>
> This is the first time the results of the 2001 study have been reported in full, although some details have been referenced in a number of Congressional Research Service reports.
>
> The study was conducted before the major boom in tanker missions following the Sept. 11, 2001, terrorist attacks. Since then, tanker missions have increased dramatically to support combat operations in Afghanistan and Iraq, in addition to refueling fighter jets that constantly patrol the skies over the United States as part of Operation Noble Eagle.
>
> Air Force Materiel Command chief Gen. Arthur Lichte said he stands behind the 2001 study, claiming its predictions have been "right on the mark."

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[78] *Defense Science Board Task Force Report on Aerial Refueling Requirements*, May 2004, pp. iv-v.

[79] Ibid, p. 18.

[80] Michael Kennedy et al., "Analysis of Alternatives (AoA) for KC-135 Recapitalization, Executive Summary," RAND Corporation, 2006, p. 16.

[81] Ibid.

> "We have pretty high confidence that the things that [the study] suggested to do in the outyears will come true," Lichte said during a Feb. 26 briefing with reporters at a conference in Florida.
>
> While the "structural integrity of the KC-135 fleet remains strong," costs associated with maintaining that level of integrity will contribute to the nearly $1 billion jump in in maintenance costs. In 2001, structure-related upkeep costs were reported at $321 million. That specific maintenance will increase to $1.1 billion annually in 2040, according to the report.
>
> Overhauling the R-model tanker's General Electric F108 engines over the next 30 years is expected to jump from $13 million to $66 million, the report states.
>
> All KC-135s will need to have their outer skin replaced beginning in 2018 due to corrosion, according to the report and Lichte....
>
> "Depot level airframe and engine maintenance are the primary cost divers to sustain the KC-135 fleet through 2040," the report states.[82]

A March 6, 2009, news report stated:

> Many of the Air Force's geriatric, Eisenhower-era KC-135 tanker aircraft fleet will have to have their "skin" replaced beginning around 2018, according to the top general in charge of Air Mobility Command.
>
> "There was an independent study ... that starts to look at ... the 2018 time frame and beyond—you need to start thinking about re-skinning the aircraft, the fuselage itself in the back" of the plane, Gen. Arthur Lichte said in a Feb. 26 briefing with reporters. The study was conducted in 2000 and published in February 2001.
>
> Over the years, corrosion has built up where rivets hold the skin to the frame of the aircraft. Thus, the service will likely need to begin improvements late in the decade, he said, noting the study has been "right on the mark" with all of its other predictions.
>
> "We have pretty high confidence that the things that [the study] suggested to do in the outyears will come true as well," Lichte said.
>
> The revelation comes as the Air Force awaits word from the Office of the Secretary of Defense on when to restart the service's KC-X next-generation tanker competition. The Air Force has scrubbed its requirements for the aircraft so that they will be presented in a clearer fashion, according to Lichte....
>
> In February 2005, then-Pentagon acquisition chief Michael Wynne asked for a paper detailing what technical and maintenance issues still needed to be addressed that are not part of a major KC-135 aircraft re-engine effort. A group of subject matter experts was then assembled to project future maintenance needs out to 2050. The study revealed 44 KC-135 repair issues.

[82] Marcus Weisgerber, "Report: KC-135 Maintenance Could Reach $3 Billion Per Year By 2040," *Inside the Air Force*, March 13, 2009.

"This was a qualitative assessment that relied on engineering judgment, experience and historical data to estimate future sustainment needs," according to documents provided by AMC.

Today it costs $7 million for each KC-135 aircraft that goes through the maintenance depot every five years, according to Lichte. The service sends about 72 planes through the depot each year.

"If you can get rid of those [KC-]135s sooner, or have fewer to put through that time period of re-skinning, then you save some money," he said.

In addition to new skin, the study found the planes will all need new wiring in the 2020s and 2030s. Also in the 2030s, a large portion of the depot maintenance remains unknown, according to the documents.[83]

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The current version of this report incorporates passages from the January 9, 2009 version. The January 9, 2009, version was the final version written by Christopher Bolkcom, Specialist in Military Aviation, who died on May 1, 2009.

[83] Marcus Weisgerber, "Air Force Will Likely Need to Re-Skin Its KC-135 In The 2018 Time Frame," *Inside the Air Force*, March 6, 2009. Ellipses as in original.