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**Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603208N / <i>Training System Aircraft</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	0.000	13.115	17.989	19.938	-	19.938	22.289	6.801	2.823	2.890	0.000	85.845
3367: <i>Training Aircraft Updates</i>	0.000	13.115	17.989	19.938	-	19.938	22.289	6.801	2.823	2.890	0.000	85.845

**A. Mission Description and Budget Item Justification**

Decrease in by TRAINING SYSTEM AIRCRAFT \$0.837M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

The FY 2017 funding request was reduced by \$3.982M to account for the availability of prior year execution balances.

This program element provides for design, development, integration and test of various pre-production platform improvements for Naval Undergraduate Flight Training Systems. Continued development engineering for improvements in reliability, maintainability, safety and meeting Federal Aviation Administration (FAA) Next Generation Air Transportation System (NextGen) flight safety requirements are required to ensure maximum benefit is achieved to provide effective cost of ownership and availability of aircraft to meet Chief of Naval Air Training (CNATRA) student training requirements. Specific efforts include: T-45 Training System (TS) Required Avionics Sustainment Program (RASP) Phase I Automatic Dependent Surveillance-Broadcast (ADS-B) (Out); T-6 Joint Primary Aircraft Training System (JPATS) Communication and Navigation System/Air Traffic Management (CNS/ATM); TH-57 Follow-On Training System and T-6 Rudder Binding Analysis.

TH-57 Follow-On Training System and Training System Improvements are NEW STARTs for FY2017.

This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production decision.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
Previous President's Budget	25.153	21.708	17.814	-	17.814
Current President's Budget	13.115	17.989	19.938	-	19.938
Total Adjustments	-12.038	-3.719	2.124	-	2.124
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-3.719			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-11.300	0.000			
• SBIR/STTR Transfer	-0.739	0.000			
• Program Adjustments	0.000	0.000	6.767	-	6.767
• Rate/Misc Adjustments	0.001	0.000	-4.643	-	-4.643

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<p><b><u>Change Summary Explanation</u></b></p> <p>FY2015 Changes reflect reprogramming of funds based on adjustment to T-6 Automatic Dependent Surveillance-Broadcast (Out) schedule.</p> <p>FY2017 program adjustments reflect addition of TH-57 Follow-On Training System effort and continuation of T-6 Joint Primary Aircraft Training System (JPATS) ADS-B Out effort. FY2017 Rate/Misc Adjustments include \$3.982M reduction for FY15 Program Execution, Targeted Bipartisan Budget Act Reduction of \$0.837M, Defense Travel Modernization Reduction of \$0.006M as well as miscellaneous adjustments for Navy Working Capital Fund and Inflation rates.</p> <p>Schedule: T-45 Training System (TS) Required Avionics Sustainment Program (RASP) updated to reflect schedule impacts resulting from this effort being a new start in FY-2015 and delay in receipt of funding to 2nd QTR FY-2015. Schedules shifted by 1 to 2 quarters.</p> <p>Schedule: T-6 A/B schedule updated to reflect change to abbreviated acquisition program specific to T-6B model efforts for Communication and Navigation System/Air Traffic Management (CNS/ATM) removing MS B and MS C events.</p> <p>Schedule: Schedule for training system improvements added for FY2017 and beyond to reflect future development efforts to improve Naval Undergraduate Flight Training Systems.</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Navy										<b>Date:</b> February 2016		
<b>Appropriation/Budget Activity</b> 1319 / 5					<b>R-1 Program Element (Number/Name)</b> PE 0603208N / <i>Training System Aircraft</i>				<b>Project (Number/Name)</b> 3367 / <i>Training Aircraft Updates</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3367: <i>Training Aircraft Updates</i>	0.000	13.115	17.989	19.938	-	19.938	22.289	6.801	2.823	2.890	0.000	85.845
Quantity of RDT&E Articles		-	24	-	-	-	-	-	-	-		

**Note**

The Federal Aviation Administration (FAA) has developed a plan to modernize the National Airspace System (NAS) in order to address the impact of air traffic growth in the United States. This multi-phase plan, called Next Generation Air Transportation System (NextGen) is intended to increase the air traffic capacity while at the same time improving safety and efficiency. In part, NextGen implements a capability called Performance Based Navigation (PBN) in which the aircraft's navigation performance capability will be a determining factor as to whether or not it can fly within specific airspace, certain air traffic routes or instrument procedures. Also, NextGen transforms the NAS from a radar based system, with aircraft interrogation, to a satellite based system utilizing Automatic Dependent Surveillance-Broadcast (ADS-B) (Out) communication in order to transmit the aircraft's own position to the controllers and other ADS-B (IN) capable aircraft. PBN is an enabler for ADS-B functionality.

On May 28th, 2010 the FAA released DoT/FAA, 14 CFR Part 91: Automatic Dependent Surveillance-Broadcast (ADS-B) Out Performance Requirements To Support Air Traffic Control (ATC) Service Final Rule. This mandate stipulated that all aircraft required to have unrestricted access to operate in Classes A, B, and C airspace, certain Class E airspace, and other specified airspace requiring ADS-B (Out), must be in compliance with this regulation by January 1, 2020.

**A. Mission Description and Budget Item Justification**

The T-45 Training System (TS) Required Avionics Sustainment Program (RASP) Phase I ADS-B (Out):

In order for the T-45TS to continue to have unrestricted access to the NAS through its projected end of service life, 2035, and avoid impacts to Chief of Naval Air Training (CNATRA) Strike Pilot and Naval Flight Officer (NFO) training, the T-45TS must develop, test, and integrate the RASP Phase I ADS-B Out capability. This research and development effort is an ACAT III program and consists of the minimum required capability increase necessary to enable ADS-B (Out) in the T-45, equipping 197 aircraft and 18 simulators to meet the January 1, 2020 FAA ADS-B (Out) mandate. Specifically, this includes the development, integration, test and certification of the replacement for the APX-100 Transponder (with associated control panel, personality module, and data bus connectivity), the replacement of the Air Data Computer (ADC), and the integration of these components with the modified Global Position System (GPS)/ Inertial Navigation Assembly (GINA), antennas, and Mission Display Processor (MDP) Operational Flight Program (OFF) software.

The T-6 Joint Primary Aircraft Training System (JPATS) Communication and Navigation System/Air Traffic Management (CNS/ATM):

JPATS is a joint United States Navy (USN)/United States Air Force (USAF) Acquisition Program designed to replace the aging primary aircraft (T-34/T-37) fleet. Principle JPATS mission is primary training for entry-level Navy/Air Force student pilots, associated instructor pilots, and primary/intermediate training for USN NFOs. JPATS includes the T-6 Texan II which is a stepped tandem seat, commercially derived aircraft powered by a single Pratt & Whitney PT6A-68 turboprop engine. It serves as the aircraft component of the JPATS integrated primary pilot training system which replaces the T-34C primary training aircraft. In order for the T-6 A&B training aircraft to continue to have unrestricted access to the national air space through its projected end of service life and avoid impacts to CNATRA primary entry-

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level student pilots and NFO training, the T-6 program must develop, integrate, test and certify ADS-B (Out) capability for both the A&B models. This R&D effort will consist of the minimum required capability increase necessary for ADS-B (Out), enabling 295 aircraft and 29 simulators to meet the January 1, 2020 FAA mandate. This effort specifically includes development, integration, test and certification. Additionally, T-6 program efforts may include studies and development supporting future pre-production improvements to the T-6 aircraft. These improvements include improvements to the flight management system as well as improvements to reliability, maintainability, and safety that support effective cost of ownership and aircraft availability.

The TH-57 Follow-On Training System:

The TH-57 Training System consists of TH-57B aircraft, TH-57C aircraft, and associated family of ground based training devices. The TH-57 Training System is experiencing obsolescence, diminishing manufacturing sources and material shortages, training capability gaps (as identified in the Capabilities based assessment Naval Aviation Undergraduate Flight Training), and increasingly expensive operating costs related to aging aircraft issues. This research and development effort will investigate alternatives for replacing the TH-57 training system and develop and validate the acquisition strategy for future procurement of the capability to continue to provide the fleet replacement squadrons with qualified and capable rotary-wing naval aviators to train on fleet platforms. This effort specifically includes market research, requirements development, evaluation of acquisition strategies, evaluation of proposals, and testing of prototypes which are technically mature and ready for evaluation in the Engineering and Manufacturing Development phase.

Training System Improvements:

Efforts will provide for design, development, integration and test of pre-production platform improvements for Naval Undergraduate Flight Training Systems which will conduct engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production decisions.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<b>Title:</b> T45 RASP	7.354	14.989	14.798	0.000	14.798
<b>Articles:</b>	-	18	-	-	-
<b>Description:</b> Funding supports development, integration, test, and certification of the Automatic Dependent Surveillance-Broadcast (ADS-B) Out capability in the T-45 Training System to comply with the January 1, 2020 Federal Aviation Administration ADS-B Out mandate.					
<b>FY 2015 Accomplishments:</b> T-45 Training System: Begin design and integration of Required Avionics Sustainment Program (RASP) Phase I into the T-45 by providing manpower to support an ACAT III Program of Record pre-Milestone B in FY15. Activities that have begun in FY15 include: contract efforts to support the award of the Engineering Manufacturing Development contract; the development, replacement, and integration of the transponder (with associated control panel, personality module, and data bus connectivity), and the Air Data Computer (ADC);					

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**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<p>and the integration of these components with the modified Global Position System/Inertial Navigation Assembly (GINA), antennas, and Mission Display Processor Operational Flight Program (MDP/OFP) software.</p> <p><b>FY 2016 Plans:</b> Continue the design and integration of the Automatic Dependent Surveillance - Broadcast solution in the T-45 that will include the replacements to the transponder (with associated control panel, personality module, and data bus connectivity), the Air Data Computer (ADC), and the integration of these components with the modified Global Position System/Inertial Navigation Assembly (GINA), antennas, and Mission Display Processor Operational Flight Program (MDP/OFP) software. Continuation of the Engineering Manufacturing Development (EMD) contract for this ACAT III program to support Milestone B in FY 2017 and the certification process. To allow for sufficient lead time, 4 transponder kits, 4 GPS Navigation Units and 4 Air Data Computer articles will be purchased to support laboratory integration testing; 3 transponder kits and 3 ADC articles will be purchased to support aircraft test in FY 2017; for a total of 18 RDT&amp;E,N articles.</p> <p><b>FY 2017 Base Plans:</b> Continue the Automatic Dependent Surveillance-Broadcast (ADS-B) (Out) design and integration efforts to support Milestone B in the second quarter. Laboratory integration testing is planned to complete in the 4th quarter followed by the commencement of on-aircraft developmental test in support of certification and a Milestone C decision in FY 2018.</p> <p><b>FY 2017 OCO Plans:</b> N/A</p>					
<p><b>Title:</b> T6 A/B CNS/ATM</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> Funding supports development, integration, test, and certification of the Automatic Dependent Surveillance-Broadcast (ADS-B) Out capability in the T-6 A/B Training System to comply with the January 1, 2020 Federal Aviation Administration ADS-B Out mandate.</p> <p><b>FY 2015 Accomplishments:</b> Activities conducted during FY15 include: Issued Request for Proposal and received response. Evaluated proposal from sole source contractor and awarded EMD contract for T-6B model.</p> <p><b>FY 2016 Plans:</b> Continue engineering and qualification/certification of equipment, corresponding ground based training system and technical documentation for upgrading current instruments and associated components that do not</p>	5.761	3.000	2.990	0.000	2.990
	-	6	-	-	-

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
<p>support ADS-B Out. FY16 efforts will include design refinement from PDR through Critical Design Review, establishment of the configuration baseline and initial system demonstration. 6 Test articles have been added to exhibit which were not listed in previous submissions; test articles are required to support test and evaluation.</p> <p><b>FY 2017 Base Plans:</b> Continued T-6B efforts with completion of test and evaluation and transition to procurement. For USAF lead T-6A efforts, contract award is anticipated in the second quarter of FY17.</p> <p><b>FY 2017 OCO Plans:</b> N/A</p>					
<p><b>Title:</b> TH-57 Follow-On Training System</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> The TH-57 Training System consists of TH-57B aircraft, TH-57C aircraft, and associated family of ground based training devices. The TH-57 Training System is experiencing obsolescence, diminishing manufacturing sources and material shortages, training capability gaps (as identified in the Capabilities based assessment Naval Aviation Undergraduate Flight Training), and increasingly expensive operating costs related to aging aircraft issues. This research and development effort will investigate alternatives for replacing the TH-57 training system and develop and validate the acquisition strategy for future procurement of the capability to continue to provide the fleet replacement squadrons with qualified and capable rotary-wing naval aviators to train on fleet platforms. This effort specifically includes market research, requirements development, evaluation of acquisition strategies, evaluation of proposals, and testing of prototypes.</p> <p><b>FY 2015 Accomplishments:</b> N/A</p> <p><b>FY 2016 Plans:</b> N/A</p> <p><b>FY 2017 Base Plans:</b> This effort is a New Start in FY17. Activities to be conducted during FY17 include: analysis of alternatives, development of RFP, and receipt of RFP responses.</p> <p><b>FY 2017 OCO Plans:</b> FY 2017 OCO Plans: N/A</p>	0.000	0.000	2.000	0.000	2.000
<b>Articles:</b>	-	-	-	-	-
<p><b>Title:</b> Training System Improvements</p> <p align="right"><b>Articles:</b></p>	0.000	0.000	0.150	0.000	0.150
<b>Articles:</b>	-	-	-	-	-

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<p><b>Description:</b> Funding provides for design, development, integration and test of platform improvements for Naval Undergraduate Flight Training Systems.</p> <p><b>FY 2015 Accomplishments:</b> N/A</p> <p><b>FY 2016 Plans:</b> N/A</p> <p><b>FY 2017 Base Plans:</b> Conduct analysis on T-6 Rudder Binding events for safety improvement development. Continue efforts with development of Automatic Dependent Surveillance-Broadcast Out efforts on training system aircraft which will support improvements to address avionics obsolescence and system safety.</p> <p><b>FY 2017 OCO Plans:</b> N/A</p>					
<b>Accomplishments/Planned Programs Subtotals</b>	13.115	17.989	19.938	0.000	19.938

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• APN/0569: <i>T45 Series (OSIP 006-16)</i>	0.000	5.617	27.217	-	27.217	39.966	65.973	56.848	23.354	22.852	241.827
• APN/0571: <i>JT Primary Acft Trnr Sys (JPATS)</i>	1.085	12.537	17.401	-	17.401	38.354	52.303	38.872	39.655	19.265	247.093

**Remarks**  
T45 Series OSIP 006-16 funds Required Avionics Sustainment Program.

**D. Acquisition Strategy**  
T-45 Training System: Required Avionics Sustainment Program (RASP) Phase I is the first phase of an ACAT III Program of Record to equip the T-45 to operate in the Federal Aviation Administration's (FAA) NextGen airspace through the expected life of the T-45. The RDT&E effort will consist of a sole source Technology Maturation and Risk Reduction/ Engineering Manufacturing Development contract effort to be awarded in FY 2015. Replacement kits for the Weapon Replaceable Assemblies (WRA) associated with the Automatic Dependent Surveillance-Broadcast (ADS-B) Out capability will be contracted through the Lead Systems Integrator for the EMD phase through Test and Validation/Verification.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Navy	<b>Date:</b> February 2016
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T6 Communication, Navigation, System/Air Traffic Management (CNS/ATM) and Avionics Upgrades for FAA Compliance are outside of the Joint Primary Aircraft Training System (JPATS) Major Defense Acquisition Program (MDAP) and will be established as a new Joint Acquisition Program with the Air Force. For the JPATS Avionics Upgrade for FAA Compliance effort, a competitive award will be the strategy for the T-6A air vehicles due to their federated design. A sole-source strategy will be sought for the T-6B air vehicles due to proprietary hardware and software. Avionics in the T-6B are of an integrated design with proprietary hardware and software controlling input and output of navigation, communications, air data and other avionics information through an Integrated Avionics Computer (IAC). The CNS/ATM mandate requires integration into these systems in order to meet FAA advisory circular 20-165A Automatic Dependent Surveillance-Broadcast Out (ADS-B) system requirements and user capability requirements for flying in national airspace by 2020. Specifically, transponder and Global Positioning System (GPS) information that the ADS-B functions rely on are processed through proprietary software written to integrate with proprietary hardware designed by the same avionics manufacturer. A sole-source approach has been selected because the government does not own or have access to proprietary data to support development of hardware or software required to integrate ADS-B into the aircraft.

The TH-57 Follow-On Training System effort will be established to determine and implement the most cost efficient and effective path forward for providing Rotary Wing Naval Aviators to the Fleet Replacement Squadrons. Possible acquisition paths include direct procurement of a new commercial off-the-shelf training system, some combination of procurement and services contract, or a services contract to provide aircraft, simulators, and ground instructors. This efforts follows up the OPNAV N98 sponsored Capabilities based assessment Naval Aviation Undergraduate Flight Training (CNAUT) Capabilities Based Assessment and follow on Initial Capabilities Document that is in work.

Training System Improvements: Efforts under this category are expected to be limited to those efforts meeting thresholds under the abbreviated acquisition category.

**E. Performance Metrics**

T-45 Training System: Performance of the program will be measured via the Acquisition and Systems Engineering Technical Review (SETR) Process for an ACAT III program. Milestone B is planned for 2nd quarter FY 2017 with Milestone C planned for 4th quarter FY 2018.

T-6 Joint Primary Aircraft Training System (JPATS): For T-6B National Airspace Compliance is an Abbreviated Acquisition Program with Acquisition Milestones utilizing systems engineering processes.

TH-57 Follow-On Training System: The follow on system to the TH-57 is planned to be a new Major Defense Acquisition Program (MDAP) with Acquisition Milestones utilizing the systems engineering processes. The Commercial-Off-The-Shelf system Milestone C is planned for Q2 2018. If the procurement is determined to be services based, it will be a Category I services Acquisition requiring DOD level approval for length of contract as well as DOD level Peer review and a Defense Acquisition University (DAU) sponsored Services Acquisition Workshop.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy** **Date:** February 2016

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<b>Product Development (\$ in Millions)</b>				<b>FY 2015</b>		<b>FY 2016</b>		<b>FY 2017 Base</b>		<b>FY 2017 OCO</b>		<b>FY 2017 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
T45 Production Development Cost	SS/CPFF	Boeing : St. Louis, MO	0.000	2.633	Jan 2016	9.087	Mar 2016	11.236	Nov 2016	-		11.236	6.394	29.350	29.350
T6 Production Development Cost	C/CPFF	Beechcraft Defense Company, LLC/ HBC : Wichita, KS	0.000	3.716	Sep 2015	0.300	May 2016	0.584	Nov 2016	-		0.584	0.290	4.890	4.890
<b>Subtotal</b>			0.000	6.349		9.387		11.820		-		11.820	6.684	34.240	34.240

**Remarks**

T45: Increase in contract amount due to addition of Air Data Computer (ADC) development effort. FY15 contract award delayed to January 2016 due to schedule impacts resulting from this effort being a new start in FY 2015 and delay in receipt of funding to 2nd QTR FY-2015.

<b>Support (\$ in Millions)</b>				<b>FY 2015</b>		<b>FY 2016</b>		<b>FY 2017 Base</b>		<b>FY 2017 OCO</b>		<b>FY 2017 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
T45 Systems Engineering Support - EMD	WR	NAWCAD : Patuxent River, MD	0.000	3.751	Jan 2015	1.445	Jan 2016	0.658	Nov 2016	-		0.658	7.809	13.663	-
T45 Integrated Logistics Support	WR	NAWCAD : Patuxent River, MD	0.000	0.650	Jan 2015	1.498	Jan 2016	0.500	Nov 2016	-		0.500	4.773	7.421	-
T45 Engineering Study	SS/BOA	JHU : Laurel, MD	0.000	0.300	Jan 2015	0.000		0.400	Jan 2017	-		0.400	0.450	1.150	1.150
T6 Systems Engineering Support	WR	NAWCAD : Patuxent River, MD	0.000	0.229	Jan 2015	1.441	Jan 2016	1.342	Dec 2016	-		1.342	0.000	3.012	-
T6 Systems Engineering Support	WR	NADEP : Jacksonville, FL	0.000	0.000		0.101	Jan 2016	0.102	Dec 2016	-		0.102	0.000	0.203	-
T6 Integrated Logistics Support	WR	NAWCAD : Patuxent River, MD	0.000	0.380	Jan 2015	0.154	Jan 2016	0.157	Dec 2016	-		0.157	0.000	0.691	-
TH57 Systems Engineering Support	WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.000		0.503	Oct 2016	-		0.503	2.458	2.961	-
TH57 Integrated Logistics Support	WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.000		0.252	Oct 2016	-		0.252	0.498	0.750	-
TH57 Business Case/ Engineering Study	SS/BOA	JHU : Laurel, MD	0.000	0.000		0.000		0.423	Oct 2016	-		0.423	0.000	0.423	0.423
TH57 Source Selection	TBD	TBD : TBD	0.000	0.000		0.000		0.548	Oct 2016	-		0.548	1.376	1.924	-

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy** **Date:** February 2016

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<b>Support (\$ in Millions)</b>				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Training System Improvement Engineering Study T-6 Rudder Binding	MIPR	AFRL : Wright-Patterson AFB	0.000	0.000		0.000		0.150	Jan 2017	-		0.150	0.000	0.150	-
<b>Subtotal</b>			0.000	5.310		4.639		5.035		-		5.035	17.364	32.348	-

**Remarks**  
 T45: Updated Systems Engineering to reflect actual requirements.  
 TH57: Added details for FY17.  
 Training System Improvement T-6 Engineering Study Rudder Binding: Will support analysis of data to address rudder binding events on aircraft.  
 Training System Improvements: Added line for cost to complete.

<b>Test and Evaluation (\$ in Millions)</b>				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
T45 Test & Certification	WR	NAWCAD : Patuxent River, MD	0.000	0.000		1.200	Jan 2016	0.650	Nov 2016	-		0.650	3.104	4.954	-
T6 Test and Evaluation	C/CPFF	Beechcraft Defense Corp, LLC : Wichita, KS	0.000	0.000		0.167	Mar 2016	0.125	Dec 2016	-		0.125	0.000	0.292	0.292
<b>Subtotal</b>			0.000	0.000		1.367		0.775		-		0.775	3.104	5.246	-

**Remarks**  
 T6: Added test and evaluation cost line. These costs were previously listed under support as DT&E.

<b>Management Services (\$ in Millions)</b>				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
T45 Program Management	Various	Various : Various	0.000	0.000		1.000	Jan 2016	0.600	Nov 2016	-		0.600	4.434	6.034	-
T-45 Test Wing Maintenance	C/FFP	L-3 : Patuxent River, MD	0.000	0.000		0.697	Nov 2015	0.710	Oct 2016	-		0.710	0.722	2.129	2.129
T45 Travel	Various	NAVAIR : Patuxent River, MD	0.000	0.020	Jan 2015	0.062	Oct 2015	0.044	Oct 2016	-		0.044	1.080	1.206	-

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0603208N / <i>Training System Aircraft</i>	<b>Project (Number/Name)</b> 3367 / <i>Training Aircraft Updates</i>
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<b>Management Services (\$ in Millions)</b>				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
T6 Program Management	Various	Various : Various	0.000	1.416	Jan 2015	0.476	Jan 2016	0.345	Nov 2016	-		0.345	0.000	2.237	-
T6 Test Wing Maintenance Parts	C/CPFF	DYNCORP International LLC : Patuxent River, MD	0.000	0.000		0.275	Oct 2015	0.285	Oct 2016	-		0.285	0.292	0.852	0.852
T6 Travel	Various	NAVAIR : Patuxent River, MD	0.000	0.020	Jan 2015	0.086	Oct 2015	0.050	Oct 2016	-		0.050	0.000	0.156	-
TH57 Progam Management	Various	Various : Various	0.000	0.000		0.000		0.232	Oct 2016	-		0.232	0.583	0.815	-
TH57 Travel	Various	Various : Various	0.000	0.000		0.000		0.042	Oct 2016	-		0.042	0.085	0.127	-
Training System Improvement Program Management	TBD	TBD : TBD	0.000	0.000		0.000		0.000		-		0.000	0.405	0.405	-
Training System Improvement Travel	Various	Various : Various	0.000	0.000		0.000		0.000		-		0.000	0.050	0.050	-
<b>Subtotal</b>			0.000	1.456		2.596		2.308		-		2.308	7.651	14.011	-

**Remarks**

T6: Travel increased in FY16 due to participation in subcontractor SETR events.  
 T-45 & T-6 Test wing Maintenance: Added costs for maintenance supporting program office ADS-B Development efforts  
 TH57: Added details for FY17  
 Training Systems Improvement: Added lines for cost to complete.

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	0.000	13.115	17.989	19.938	-	19.938	34.803	85.845	-

**Remarks**

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**Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0603208N / <i>Training System Aircraft</i>	<b>Project (Number/Name)</b> 3367 / <i>Training Aircraft Updates</i>
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Training System Aircraft T45	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021							
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q				
<b>Acquisition Milestones</b>																																
<b>System Development</b>																																
Hardware Development																																
<b>Reviews</b>																																
<b>Test &amp; Evaluation</b>																																
Technical Evaluation																																
<b>Contract Awards</b>																																
<b>Deliveries</b>																																
Lab Assets																																
Test Assets																																

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**Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0603208N / <i>Training System Aircraft</i>	<b>Project (Number/Name)</b> 3367 / <i>Training Aircraft Updates</i>
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TH-57 Follow-On Training System	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Acquisition Milestones									TH57 RFP		TH57 RFP Evaluation			Milestone C ▲					TH57 IOC ▲									
Contract Awards															TH57 Award ●													

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**Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0603208N / <i>Training System Aircraft</i>	<b>Project (Number/Name)</b> 3367 / <i>Training Aircraft Updates</i>
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<b>Training System Improvements</b>	<b>FY 2015</b>				<b>FY 2016</b>				<b>FY 2017</b>				<b>FY 2018</b>				<b>FY 2019</b>				<b>FY 2020</b>				<b>FY 2021</b>			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
<b>System Development</b>	<div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;">                     Training System Improvements Development                 </div>																											

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2017 Navy		<b>Date:</b> February 2016
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0603208N / <i>Training System Aircraft</i>	<b>Project (Number/Name)</b> 3367 / <i>Training Aircraft Updates</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Training System Aircraft T45</b>				
Acquisition Milestones: T45 Milestone B	2	2017	2	2017
Acquisition Milestones: T45 Milestone C	4	2018	4	2018
System Development: Hardware Development: T45 Hardware Development	2	2016	4	2018
Reviews: T45 Preliminary Design Review	4	2016	4	2016
Reviews: T45 Critical Design Review	2	2017	2	2017
Test & Evaluation: Technical Evaluation: T45 Integrated Test & Evaluation	4	2017	3	2018
Contract Awards: T45 Engineering Manufacturing Development	2	2016	2	2016
Deliveries: Lab Assets: T45 Lab Assets	1	2017	1	2017
Deliveries: Test Assets: T45 Test Assets	4	2017	4	2017
<b>Training System Aircraft T6 A/B</b>				
Acquisition Milestones: IOC	2	2019	2	2019
Acquisition Milestones: FOC	4	2019	4	2019
System Development: Justification & Approval: J&A	2	2015	2	2015
System Development: RFP Release: RFP Release	3	2015	3	2015
System Development: Proposal Evaluation: Proposal Evaluation	2	2015	3	2015
System Development: Development Contract Award: Contract Award	4	2015	4	2015
Reviews: T6 Preliminary Design Review	2	2016	2	2016
Reviews: T6 Critical Design Review	3	2016	3	2016
Test & Evaluation: Acceptance Test: Acceptance Test	2	2017	4	2017
Test & Evaluation: Deliveries: Test Assets	1	2017	1	2017
<b>TH-57 Follow-On Training System</b>				
Acquisition Milestones: Milestone C	2	2018	2	2018

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**Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy** **Date:** February 2016

<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0603208N / <i>Training System Aircraft</i>	<b>Project (Number/Name)</b> 3367 / <i>Training Aircraft Updates</i>
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Acquisition Milestones: RFP Development	1	2017	1	2017
Acquisition Milestones: RFP Evaluation	3	2017	3	2017
Acquisition Milestones: IOC	3	2019	3	2019
Contract Awards: Contact Award	3	2018	3	2018
<b><i>Training System Improvements</i></b>				
System Development: Training System Improvements Development	1	2017	4	2021

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