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

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0207224F / <i>Combat Rescue and Recovery</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	-	5.095	0.412	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.507
676016: <i>Avionics Development and Integration</i>	-	5.095	0.412	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.507
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Air Force Rotary Wing Avionics Development and Integration effort is a program to develop a fully integrated avionics upgrade that includes predictive terrain awareness. This program focuses on developing and integrating technologies that will increase the situational awareness of helicopter crews in a degraded visibility environment. A severable portion of this program is Brown Out Symbology Software & Landing Guidance (BOSS-LG), which provides precision approach cues to command navigation to a landing point in adverse weather and/or reduced visibility conditions. This total effort was initiated by the Defense Safety Oversight Council.

This program is in Budget Activity 7, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current and subsequent fiscal year.

B. Program Change Summary (\$ in Millions)	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>
Previous President's Budget	5.095	0.412	0.000	0.000	0.000
Current President's Budget	5.095	0.412	0.000	0.000	0.000
Total Adjustments	0.000	0.000	0.000	0.000	0.000
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	0.000	0.000	0.000

C. Accomplishments/Planned Programs (\$ in Millions)

	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>
Title: Avionics Development and Integration	5.095	0.412	-
Description: Program focuses on developing and integrating technologies that will increase the situational awareness of helicopter crews in a degraded visibility environment.			

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2015	FY 2016	FY 2017
FY 2015 Accomplishments: Provided program management, engineering, software support to build and qualify integrated Forward Looking InfraRed/Laser Radar Turrets for HH-60G.				
FY 2016 Plans: Provides program management to advance Laser Radar development and landing guidance symbology integration.				
N/A				
Accomplishments/Planned Programs Subtotals		5.095	0.412	-
D. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
E. Acquisition Strategy				
The Air Force is in the process of integrating the Three Dimensional Landing Zone (3D-LZ) technology into an airworthy payload. This payload will be integrated with existing forward looking infrared turrets to minimize additional equipment and weight on the aircraft. Once the payload is tested, the Air Force will finalize its strategy for fleet implementation.				
F. Performance Metrics				
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Air Force												Date: February 2016			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
3600 / 7				PE 0207224F / Combat Rescue and Recovery				676016 / Avionics Development and Integration							
Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
3DLZ System Engineering	C/CPFF	Raytheon Space and Airborne Systems : El Segundo, CA	-	4.100	Nov 2014	0.000		0.000		0.000		0.000	Continuing	Continuing	-
Subtotal			-	4.100		0.000		0.000		0.000		0.000	-	-	-
Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-		-	-	-	-
Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
3DLZ Flight Test	MIPR	Aero Flight Dynamics Directorate : Moffett Field, CA	-	0.885	Feb 2015	0.000		0.000		0.000		0.000	Continuing	Continuing	-
Subtotal			-	0.885		0.000		0.000		0.000		0.000	-	-	-
Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
3DLZ Program Management	MIPR	AFRL : Eglin AFB, FL	-	0.110	Jan 2015	0.412	Jan 2016	0.000		0.000		0.000	Continuing	Continuing	-
Subtotal			-	0.110		0.412		0.000		0.000		0.000	-	-	-

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	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals	-	5.095	0.412	0.000	0.000	0.000	-	-	-	

Remarks

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Air Force		Date: February 2016
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207224F / <i>Combat Rescue and Recovery</i>	Project (Number/Name) 676016 / <i>Avionics Development and Integration</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Military Utility Assessment	1	2015	1	2015
Integrated Payload Ladar Development and Flight Test	1	2015	1	2016
Integrated FLIR/Ladar Payload Assembly	1	2016	1	2017