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

<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0207227F I <i>Combat Rescue - Pararescue</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	-	0.856	0.657	0.362	0.000	0.362	0.691	0.652	0.663	0.675	Continuing	Continuing
675352: <i>Guardian Angel RDT&amp;E</i>	-	0.856	0.657	0.362	0.000	0.362	0.691	0.652	0.663	0.675	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

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

Guardian Angel (GA) is an Air Force non-aircraft weapon system within the overarching Battlefield Airmen Modernization program. GA is a Family of Systems (FoS) based in both human and equipment capabilities formulated to execute Air Force Personnel Recovery (PR) across the full spectrum of military operations. Established by the Air Force Chief of Staff in 2003 and officially captured in AFPD 10-9, the GA FoS is employed by three distinct Air Force specialties: Pararescuemen (PJ), Combat Rescue Officer (CRO), and Survival, Evasion, Resistance, Escape (SERE). The GA FoS is comprised of nine critical mission areas: Precision Aerial Insertion, Information Management, Force Application, Visual Augmentation, Maritime Recovery, Ground Mobility, Technical Rescue, Medical, and SERE. GA focus is on maintaining legacy weapon system capability while modernizing/improving subsystems for better mission effectiveness.

Funds will be used to obtain significant improvements in operational capability and develop items within the GA FoS to include but not limited to: SONAR, Maritime Recovery, Technical Recovery, Oxygen Systems, Medical Monitoring, and the Battlefield Air Operations Kit. This may be conducted through industry technology demonstrations, prototypes and associated engineering support to posture the GA program for technology insertion. The Guardian Angel weapon system development activities also include studies, analysis, requirements development and developmental testing to support both current and future program planning and execution. Funding will deliver enhanced capability for the dismounted Guardian Angel soldier in terms of dramatic weight reduction and increased mission effectiveness across the conflict spectrum.

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 or subsequent fiscal year.

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<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	0.883	0.657	0.708	0.000	0.708
Current President's Budget	0.856	0.657	0.362	0.000	0.362
Total Adjustments	-0.027	0.000	-0.346	0.000	-0.346
• 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	-0.027	0.000	-0.346	0.000	-0.346
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>		
<b>Title:</b> Guardian Angel Family of Systems (FoS)	0.856	0.657	0.362		
<b>Description:</b> Standardize, modernize and develop additional capability for the Guardian Angel (GA) weapon system used by Combat Rescue Officers and Pararescuemen. Development efforts provide enhanced and improved capabilities for execution of Air Force combat search and rescue and personnel recovery. This weapon system is utilized across the full spectrum of Personnel Recovery (PR) military operations to include patient treatment, extrication, surface/underwater search and recovery, airborne infil/exfil, and ground recovery operations. Due to rapidly changing threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current slated and emerging requirements.					
<b>FY 2015 Accomplishments:</b> Continued execution and development of acquisition activities. Specifically the program initiated the development for an incremental software update for the BAO kit (G) information management system. Also supported the development of a remote patient monitoring effort that resulted in test assets to be evaluated prior to a fielding recommendation.					
<b>FY 2016 Plans:</b> Will complete test, study, strategic planning, and development activities for increased capability and address Engineering Change Proposals as needed. Program will support development of flexible body armor. Program will support but not be limited to Joint Precision Airdrop System (JPADS) Ultra-Light weight integration and test of the RA-1 parachute system. Continue software upgrades for BAO kit (G) information management system. Will conduct development and system enhancements on existing and future systems through incorporating test feedback and user inputs into subsequent iterations for better capability and mission success.					
<b>FY 2017 Plans:</b>					

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
Will continue to complete studies, strategic planning, and development activities for increased capability. Also will continue supporting development of JPADS. Continue software upgrades for BAO kit (G) information management system. Will conduct development and system enhancements on existing and future systems through incorporating test feedback and user inputs into subsequent iterations for better capability and mission success.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.856	0.657	0.362

<b>D. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</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>
• OPAF: BA04: Line Item # 842990: <i>Items Less than \$5M (Safety)</i>	24.174	11.924	28.317	0.000	28.317	25.635	21.856	22.242	22.642	Continuing	Continuing
• OPAF: BA02: Line Item# 823230: <i>Security and Tactical Vehicles</i>	3.719	3.885	3.920	0.000	3.920	3.989	4.060	4.131	4.205	Continuing	Continuing
• OPAF: BA04: Line Item# 842140: <i>Night Vision Goggles</i>	2.409	4.381	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

**Remarks**

**E. Acquisition Strategy**  
The Guardian Angel (GA) program will address warfighter immediate needs to standardize, modernize, and develop additional capability for the weapon system used by Combat Rescue Officers and Pararescuemen (Phase 1). The program will also address future requirements for the weapon system that will encompass the needs of all three GA career fields (Phase 2).

Phase 2 of the GA program is an incremental evolutionary acquisition effort in which requirements are fulfilled through further sub-system development and integration. These are being identified through updates to the Core Function Support Plan and GA Concept of Operations by HQ Air Combat Command. The program has been divided into two phases to more rapidly meet the user's immediate need to standardize and modernize the weapon system.

**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

<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207227F / <i>Combat Rescue - Pararescue</i>	<b>Project (Number/Name)</b> 675352 / <i>Guardian Angel RDT&amp;E</i>
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<b>Product Development (\$ 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			
GA Family Of Systems	Various	Various : Various	-	0.856	Sep 2015	0.657	Mar 2016	0.362	Mar 2017	0.000		0.362	Continuing	Continuing	TBD
<b>Subtotal</b>			-	0.856		0.657		0.362		0.000		0.362	-	-	-

<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			
<b>Subtotal</b>			-	-		-		-		-		-	-	-	-

<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			
BAO Kit (G) Software	C/Various	413 TS : Eglin AFB, FL	-	0.000		0.000		0.000		0.000		0.000	Continuing	Continuing	TBD
Test Agency Support	RO	46TS : Eglin AFB, FL	-	0.000		0.000		0.000		0.000		0.000	Continuing	Continuing	TBD
<b>Subtotal</b>			-	0.000		0.000		0.000		0.000		0.000	-	-	-

<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			
<b>Subtotal</b>			-	-		-		-		-		-	-	-	-

			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>			-	0.856	0.657	0.362	0.000	0.362	-	-	-

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2017 Air Force		<b>Date:</b> February 2016
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207227F / <i>Combat Rescue - Pararescue</i>	<b>Project (Number/Name)</b> 675352 / <i>Guardian Angel RDT&amp;E</i>

FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

BAO Kit (G) Software	
Test Support	
GA Equipment Upgrades	

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2017 Air Force		<b>Date:</b> February 2016
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
BAO Kit (G) Software	1	2015	4	2020
Test Support	1	2016	2	2020
GA Equipment Upgrades	2	2016	2	2020