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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0207227F I Combat Rescue - Pararescue							
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	-	0.636	0.362	0.693	0.000	0.693	0.652	0.663	0.675	0.689	Continuing	Continuing
675352: Guardian Angel RDT&E	-	0.636	0.362	0.693	0.000	0.693	0.652	0.663	0.675	0.689	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 AFD 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: Sound Navigation and Ranging (SONAR), Maritime Recovery, Technical Recovery, Oxygen Systems, Medical Monitoring, Aerial Insertion 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 funding request will support potential DMS and obsolescence solutions, to include if optimal, life of type buys or bridge buys limited to the program of record quantity. 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.

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. Program Change Summary (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget		0.657	0.362	0.691	0.000	0.691
Current President's Budget		0.636	0.362	0.693	0.000	0.693
Total Adjustments		-0.021	0.000	0.002	0.000	0.002
• 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		-0.021	0.000	0.002	0.000	0.002
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2016	FY 2017	FY 2018
Title: Guardian Angel Family of Systems (FoS)				0.636	0.362	0.693
Description: 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.						
FY 2016 Accomplishments:						
- GA program continued development for incremental software updates for the BAO Kit (G) Information Management System.						
- GA program supported and funded developmental test for Aerial Insertion capabilities, specifically the RA-1 military free fall parachute.						
FY 2017 Plans:						
-Will complete test, study, strategic planning, and development activities for increased capability and address Engineering Change Proposals as needed.						
-Program will support, but not be limited to, testing of the RA-1 parachute system.						
-Joint Precision Airdrop System (JPADS) Ultra-Light weight integration will be pursued as funding permits.						
-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.						
FY 2018 Plans:						

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C. Accomplishments/Planned Programs (\$ in Millions)										FY 2016	FY 2017	FY 2018
-Will continue to complete studies, strategic planning, and development activities for increased capability. -Continue software upgrades for BAO kit (G) information management system. -Will conduct oxygen system testing for parachutist oxygen 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.												
Accomplishments/Planned Programs Subtotals										0.636	0.362	0.693
D. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost	
• OPAF: BA04: Line Item # 842990: <i>Items Less than \$5M (Safety)</i>	11.924	28.317	25.635	0.000	25.635	21.856	22.242	22.642	23.050	Continuing	Continuing	
• OPAF: BA02: Line Item# 823230: <i>Security and Tactical Vehicles</i>	3.885	3.920	0.089	0.000	0.089	0.060	0.131	0.205	0.281	Continuing	Continuing	
• OPAF: BA04: Line Item# 842140: <i>Night Vision Goggles</i>	4.381	0.000	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.												