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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207224F: <i>COMBAT RESCUE AND RECOVERY</i>
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COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	0.912	2.292	2.095	-	2.095	3.633	4.555	-	-	Continuing	Continuing
671325: <i>HH-60G</i>	0.912	-	-	-	-	-	-	-	-	Continuing	Continuing
676016: <i>Avionics Development and Integration</i>	-	2.292	2.095	-	2.095	3.633	4.555	-	-	Continuing	Continuing

Note

In FY12, funding for Project Number 676016, Avionics Development and Integration, was transferred from PE 0605229, Project Number 657001 in order to effectively execute this effort.

A. Mission Description and Budget Item Justification

The HH-60G currently supports the Air Force's core function of Personnel Recovery. The primary mission of the HH-60G is to conduct day / night / marginal weather Combat Search and Rescue (CSAR) in order to recover downed aircrew or other isolated personnel in hostile or permissive environments. Other mission areas include casualty evacuation (CASEVAC), medical evacuation (MEDEVAC), non-combatant evacuation operations, civil search and rescue, international aid, disaster humanitarian relief, and insertion/extraction of combat forces.

671325 - The Mode 5 modification program is an upgrade to the HH-60G's Identification, Friend or Foe (IFF) system--the primary means of aircraft identification during Air Defense operations. In order to fully implement Mode 5, the HH-60G aircraft is also updating its Global Positioning System.

676016 - The Air Force Rotary Wing Avionics Development and Integration effort will 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. This 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 or subsequent fiscal year.

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B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	0.944	2.292	2.091	-	2.091
Current President's Budget	0.912	2.292	2.095	-	2.095
Total Adjustments	-0.032	-	0.004	-	0.004
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.027	-			
• Other Adjustments	-0.005	-	0.004	-	0.004

Change Summary Explanation

FY11 Congressional General Reduction of 0.005M in Other Adjustment row.

FY13 slight funding increase to support program efforts.

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COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
671325: <i>HH-60G</i>	0.912	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Mode 5 modification program is an upgrade to the HH-60G's Identification, Friend or Foe (IFF) system--the primary means of aircraft identification during Air Defense operations. In order to fully implement Mode 5, the HH-60G aircraft require a Global Positioning System (GPS) update. RDT&E funding will be used to design, integrate, and test a Mode 5/GPS capability.

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

	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: Mode 5/GPS	0.912	-	-	-	-
Description: Develop, integrate, and test a Mode 5/GPS capability to meet up-to-date IFF requirements.					
FY 2011 Accomplishments: Develop, integrate, and test a Mode 5/GPS capability to meet up-to-date IFF requirements.					
FY 2012 Plans: N/A					
Accomplishments/Planned Programs Subtotals	0.912	-	-	-	-

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PE 0207224F, Combat Rescue and R...: <i>Mode 5</i>	1.700	7.800	7.900	0.000	7.900	5.600	1.600	6.700	0.100	0.000	16.420

D. Acquisition Strategy

The RDT&E funding for this program will procure the NRE and Group A trial install kit. Options are included on the contract for the production kits. The Raytheon APX-119 IFF is being purchased through the DoD centralized catalog (iGATM), with funding documents being issued to Electronic Systems Center. The production installation will be in concert with current modifications as aircraft become available.

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E. 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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COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
676016: <i>Avionics Development and Integration</i>	-	2.292	2.095	-	2.095	3.633	4.555	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

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. This effort was initiated by the Defense Safety Oversight Council.

Funding for this effort was transferred in FY12 from PE 0605229, Project Number 657001 in order to effectively execute this effort for currently fielded HH-60G helicopters.

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

	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: Avionics Development and Integration	-	2.292	2.095	-	2.095
Description: This program focuses on developing and integrating technologies that will increase the situational awareness of helicopter crews in a degraded visibility environment.					
FY 2011 Accomplishments: N/A					
FY 2012 Plans: Provide hot bench testing for initial integration efforts, engineering support, and program management.					
FY 2013 Base Plans: Provides integration contracting support, program management, engineering, simulation, software support, and initial flight test.					
FY 2013 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	-	2.292	2.095	-	2.095

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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u> <u>Base</u>	<u>FY 2013</u> <u>OCO</u>	<u>FY 2013</u> <u>Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• RDT&E, PE 0605229 Project 65...: <i>Avionics Development and Integration</i>	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

D. Acquisition Strategy

The Air Force is in the process of integrating the Three Dimensional Landing Zone (3D-LZ) technology into an air worthy 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.

E. 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-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force		DATE: February 2012
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Program Management, Engineering and Hot Bench Integration for Payload Design	1	2012	1	2013
Commercial Flight Test and Evaluation	1	2013	4	2013
Documentation and Reports	4	2013	3	2014
Initial HH-60G Flight Test	3	2014	4	2014
Documentation and Reporting	4	2014	1	2015
Purchase Production Representative Test Articles for flight test	1	2015	4	2015