

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2011 Air Force	<b>DATE:</b> February 2010
--	----------------------------

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				PE 0207224F: <i>COMBAT RESCUE AND RECOVERY</i>							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.944	0.000	0.944	0.000	0.000	0.000	0.000	Continuing	Continuing
671325: <i>HH-60G</i>	0.000	0.000	0.944	0.000	0.944	0.000	0.000	0.000	0.000	0.000	0.946

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

The Mode 5 modification program is an OSD-mandated 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 update. Costs are only estimates at this time and are subject to contract negotiation and award.

This program is in Budget Activity 7, Operational System Development, since it improves the already fielded capabilities of the HH-60G Pave Hawk helicopter.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	0.944	0.000	0.944
Total Adjustments	0.000	0.000	0.944	0.000	0.944
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	0.944	0.000	0.944

**UNCLASSIFIED**

R-1 Line Item #139

Page 1 of 8

**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0207224F: COMBAT RESCUE AND RECOVERY	
<p><b>Change Summary Explanation</b></p> <p>The Mode 5 modification program is an OSD-mandated upgrade to the HH-60G's IFF system--the primary means of aircraft identification during Air Defense operations.</p>		

**UNCLASSIFIED**

R-1 Line Item #139

Page 2 of 8

# UNCLASSIFIED

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Air Force								<b>DATE:</b> February 2010			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0207224F: <i>COMBAT RESCUE AND RECOVERY</i>				<b>PROJECT</b> 671325: <i>HH-60G</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
671325: <i>HH-60G</i>	0.000	0.000	0.944	0.000	0.944	0.000	0.000	0.000	0.000	0.000	0.946
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
<b>A. Mission Description and Budget Item Justification</b> The Mode 5 modification is an OSD mandated upgrade to the HH-60G's IFF system (the primary means of aircraft identification during Air Defense operations). The Mode 5 upgrade will increase anti-spoofing/exploitation capabilities, and lower the possibility of aircraft/aircrew loss due to misidentification of friendly aircraft. The modification will include a new Mode 5 crypto applique, new IFF control panel, a circuit card upgrade to the APX-119 transponder, and support equipment upgrades.											
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
							<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>
MAJOR THRUST: Studies, analysis, program office support, development of an acquisition strategy and test plan, support of source selection activities.  <i>FY 2009 Accomplishments:</i> In FY 2009: N/A  <i>FY 2010 Plans:</i> In FY 2010: N/A  <i>FY 2011 Base Plans:</i> In FY 2011: Studies, analysis, program office support, development of an acquisition strategy and test plan, support of source selection activities.  <i>FY 2011 OCO Plans:</i> In FY2011 OCO: N/A							0.000	0.000	0.944	0.000	0.944
Accomplishments/Planned Programs Subtotals							0.000	0.000	0.944	0.000	0.944

UNCLASSIFIED

R-1 Line Item #139

Page 3 of 8

# UNCLASSIFIED

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Air Force								<b>DATE:</b> February 2010		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0207224F: <i>COMBAT RESCUE AND RECOVERY</i>			<b>PROJECT</b> 671325: <i>HH-60G</i>			

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

Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• PE 0207224F: <i>Combat Rescue and Recovery</i>	0.000	0.000	1.780	0.000	1.780	4.880	4.880	4.880	0.000	0.000	0.000

**D. Acquisition Strategy**  
The HH-60 will upgrade its Mode 5/GPS in concert with current modifications as aircraft become available.

**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.

UNCLASSIFIED

R-1 Line Item #139

Page 4 of 8

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Air Force</b>											<b>DATE:</b> February 2010																																																																								
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0207224F: <i>COMBAT RESCUE AND RECOVERY</i>				<b>PROJECT</b> 671325: <i>HH-60G</i>																																																																											
<b>Product Development (\$ in Millions)</b> <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th colspan="4"></th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th colspan="3"></th> </tr> <tr> <th>Cost Category Item</th> <th>Contract Method &amp; Type</th> <th>Performing Activity &amp; Location</th> <th>Total Prior Years Cost</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Cost To Complete</th> <th>Total Cost</th> <th>Target Value of Contract</th> </tr> <tr> <td>NRE</td> <td>TBD/TBD</td> <td>TBD TBD</td> <td align="right">0.000</td> <td align="right">0.000</td> <td></td> <td align="right">0.400</td> <td>Apr 2012</td> <td align="right">0.000</td> <td></td> <td align="right">0.400</td> <td align="right">0.000</td> <td align="right">0.400</td> <td align="right">0.000</td> </tr> <tr> <td>Software Development</td> <td>TBD/TBD</td> <td>TBD TBD</td> <td align="right">0.000</td> <td align="right">0.000</td> <td></td> <td align="right">0.300</td> <td>Apr 2012</td> <td align="right">0.000</td> <td></td> <td align="right">0.300</td> <td align="right">0.000</td> <td align="right">0.300</td> <td align="right">0.000</td> </tr> <tr> <td align="right" colspan="3"><b>Subtotal</b></td> <td align="right">0.000</td> <td align="right">0.000</td> <td></td> <td align="right">0.700</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.700</td> <td align="right">0.000</td> <td align="right">0.700</td> <td align="right">0.000</td> </tr> </table>																		FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	NRE	TBD/TBD	TBD TBD	0.000	0.000		0.400	Apr 2012	0.000		0.400	0.000	0.400	0.000	Software Development	TBD/TBD	TBD TBD	0.000	0.000		0.300	Apr 2012	0.000		0.300	0.000	0.300	0.000	<b>Subtotal</b>			0.000	0.000		0.700		0.000		0.700	0.000	0.700	0.000
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total																																																																									
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract																																																																						
NRE	TBD/TBD	TBD TBD	0.000	0.000		0.400	Apr 2012	0.000		0.400	0.000	0.400	0.000																																																																						
Software Development	TBD/TBD	TBD TBD	0.000	0.000		0.300	Apr 2012	0.000		0.300	0.000	0.300	0.000																																																																						
<b>Subtotal</b>			0.000	0.000		0.700		0.000		0.700	0.000	0.700	0.000																																																																						
<b>Remarks</b>																																																																																			
<b>Support (\$ in Millions)</b> <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th colspan="4"></th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th colspan="3"></th> </tr> <tr> <th>Cost Category Item</th> <th>Contract Method &amp; Type</th> <th>Performing Activity &amp; Location</th> <th>Total Prior Years Cost</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Cost To Complete</th> <th>Total Cost</th> <th>Target Value of Contract</th> </tr> <tr> <td>No text provided</td> <td>TBD/TBD</td> <td>No text provided No text provided</td> <td align="right">0.000</td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td align="right">0.000</td> <td align="right">0.000</td> <td align="right">0.000</td> </tr> <tr> <td align="right" colspan="3"><b>Subtotal</b></td> <td align="right">0.000</td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td align="right">0.000</td> <td align="right">0.000</td> <td align="right">0.000</td> </tr> </table>																		FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	No text provided	TBD/TBD	No text provided No text provided	0.000	0.000		0.000		0.000		0.000	0.000	0.000	0.000	<b>Subtotal</b>			0.000	0.000		0.000		0.000		0.000	0.000	0.000	0.000														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total																																																																									
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract																																																																						
No text provided	TBD/TBD	No text provided No text provided	0.000	0.000		0.000		0.000		0.000	0.000	0.000	0.000																																																																						
<b>Subtotal</b>			0.000	0.000		0.000		0.000		0.000	0.000	0.000	0.000																																																																						
<b>Remarks</b>																																																																																			

**UNCLASSIFIED**

R-1 Line Item #139

Page 5 of 8

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2011 Air Force											<b>DATE:</b> February 2010																																																										
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0207224F: <i>COMBAT RESCUE AND RECOVERY</i>				<b>PROJECT</b> 671325: <i>HH-60G</i>																																																													
<b>Test and Evaluation (\$ in Millions)</b> <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th colspan="4"></th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th colspan="2">FY 2011 Total</th> <th colspan="2"></th> </tr> <tr> <th>Cost Category Item</th> <th>Contract Method &amp; Type</th> <th>Performing Activity &amp; Location</th> <th>Total Prior Years Cost</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Cost To Complete</th> <th>Total Cost</th> <th>Target Value of Contract</th> </tr> <tr> <td>Gov Test and Evaluation (Mode 5)</td> <td>TBD/TBD</td> <td>TBD TBD</td> <td align="right">0.000</td> <td align="right">0.000</td> <td></td> <td align="right">0.244</td> <td>Jun 2012</td> <td align="right">0.000</td> <td></td> <td align="right">0.244</td> <td align="right">0.000</td> <td align="right">0.244</td> <td align="right">0.000</td> </tr> <tr> <td align="right" colspan="3"><b>Subtotal</b></td> <td align="right">0.000</td> <td align="right">0.000</td> <td></td> <td align="right">0.244</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.244</td> <td align="right">0.000</td> <td align="right">0.244</td> <td align="right">0.000</td> </tr> </table>																		FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total				Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	Gov Test and Evaluation (Mode 5)	TBD/TBD	TBD TBD	0.000	0.000		0.244	Jun 2012	0.000		0.244	0.000	0.244	0.000	<b>Subtotal</b>			0.000	0.000		0.244		0.000		0.244	0.000	0.244	0.000
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total																																																											
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract																																																								
Gov Test and Evaluation (Mode 5)	TBD/TBD	TBD TBD	0.000	0.000		0.244	Jun 2012	0.000		0.244	0.000	0.244	0.000																																																								
<b>Subtotal</b>			0.000	0.000		0.244		0.000		0.244	0.000	0.244	0.000																																																								
<b>Remarks</b>																																																																					
<table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th></th> <th>Total Prior Years Cost</th> <th>FY 2010</th> <th>FY 2011 Base</th> <th>FY 2011 OCO</th> <th>FY 2011 Total</th> <th>Cost To Complete</th> <th>Total Cost</th> <th>Target Value of Contract</th> </tr> <tr> <td><b>Project Cost Totals</b></td> <td align="right">0.000</td> <td align="right">0.000</td> <td align="right">0.944</td> <td align="right">0.000</td> <td align="right">0.944</td> <td align="right">0.000</td> <td align="right">0.944</td> <td align="right">0.000</td> </tr> </table>															Total Prior Years Cost	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract	<b>Project Cost Totals</b>	0.000	0.000	0.944	0.000	0.944	0.000	0.944	0.000																																						
	Total Prior Years Cost	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract																																																													
<b>Project Cost Totals</b>	0.000	0.000	0.944	0.000	0.944	0.000	0.944	0.000																																																													
<b>Remarks</b> Total Prior Years Cost may include only FY 2009 data.																																																																					

**UNCLASSIFIED**

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

DATE: February 2010

**APPROPRIATION/BUDGET ACTIVITY**

3600: Research, Development, Test & Evaluation, Air Force  
BA 7: Operational Systems Development

**R-1 ITEM NOMENCLATURE**

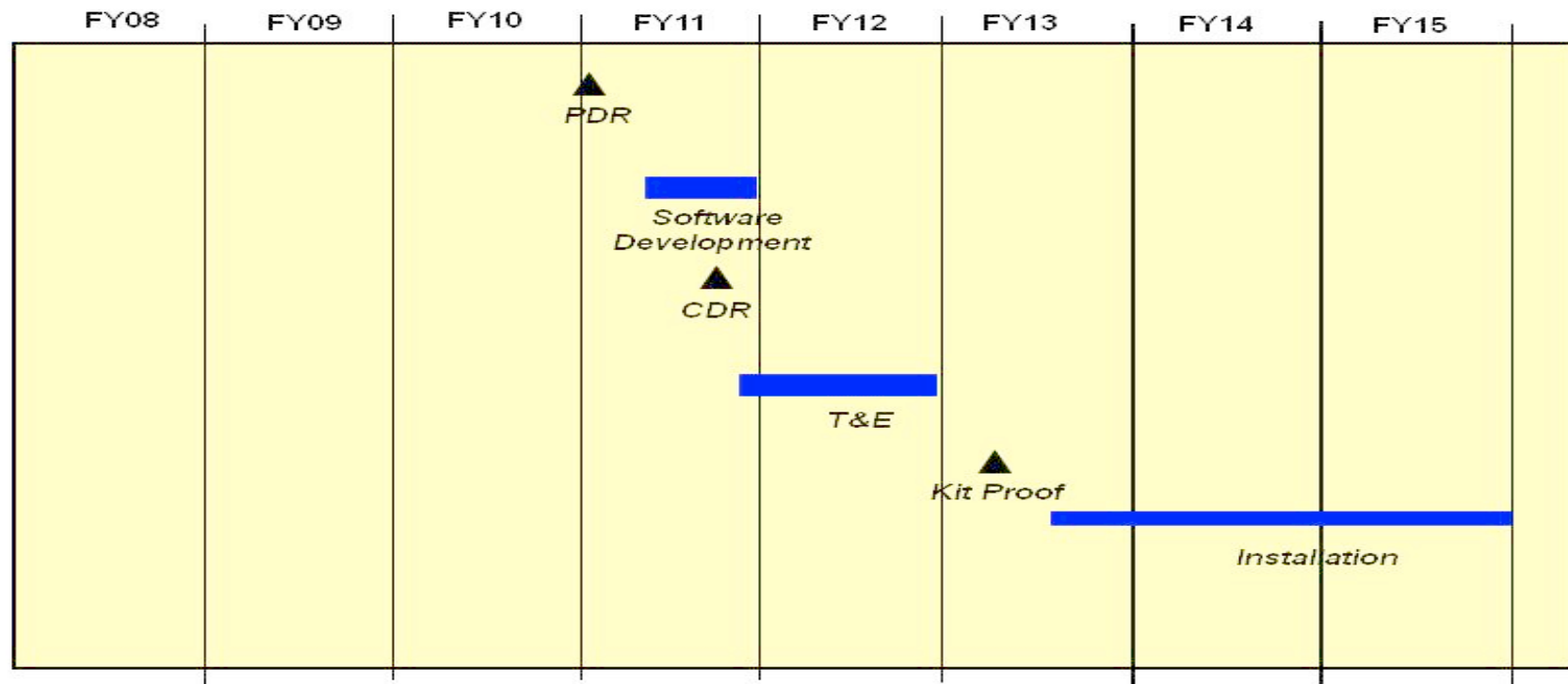
PE 0207224F: COMBAT RESCUE AND  
RECOVERY

**PROJECT**

671325: HH-60G



## HH-60G Mode 5 Schedule



UNCLASSIFIED

R-1 Line Item #139

Page 7 of 8

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2011 Air Force			<b>DATE:</b> February 2010
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0207224F: <i>COMBAT RESCUE AND RECOVERY</i>	<b>PROJECT</b> 671325: <i>HH-60G</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Preliminary Design Review (PDR)	1	2011	1	2011
Critical Design Review	4	2011	4	2011

**UNCLASSIFIED**

R-1 Line Item #139

Page 8 of 8