

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0605555N: (U)STRIKE WEAPONS DEVELOPMENT							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	9.757	-	9.757	6.590	0.000	0.000	0.000	0.000	16.347
3212: MEDUSA JCTD	0.000	0.000	0.000	2.000	-	2.000	0.000	0.000	0.000	0.000	0.000	2.000
3412: Hellfire-R Integration	0.000	0.000	0.000	7.757	-	7.757	6.590	0.000	0.000	0.000	0.000	14.347
[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
^{##} The FY 2014 OCO Request will be submitted at a later date												
Note												
Research, Development, Test and Evaluation funding for Strike Weapons has been established to support weapons that will be employed on a multitude of fixed and rotary wing aircraft in support of offensive and defensive land and sea based targets across multiple missions areas. This will include integration as well as High Power Radio Frequency (HPRF) and High Energy Lasers (HEL) project units.												
A. Mission Description and Budget Item Justification												
Research, Development, Test and Evaluation funding for Strike Weapons to be employed from a multitude of fixed and rotary wing aircraft in support of offensive and defensive land and sea based targets across multiple missions areas. Specific efforts include Advanced Precision Kill Weapons System (APKWS), MEDUSA Joint Capability Technology Demonstration (JCTD), and Hellfire-R Integration. This will include High Power Radio Frequency (HPRF) and High Energy Lasers (HEL) as well as Rockets Improvement Program (RIP) and future Program of Record forward firing weapons.												
These projects are funded under Operational Systems Development because they include development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate funding in the current or subsequent fiscal year.												
B. Program Change Summary (\$ in Millions)				FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total				
Previous President's Budget				0.000	0.000	0.000	-	0.000				
Current President's Budget				0.000	0.000	9.757	-	9.757				
Total Adjustments				0.000	0.000	9.757	-	9.757				
• Congressional General Reductions				-	-							
• Congressional Directed Reductions				-	-							
• Congressional Rescissions				-	-							
• Congressional Adds				-	-							
• Congressional Directed Transfers				-	-							
• Reprogrammings				-	-							
• SBIR/STTR Transfer				-	-							
• Rate/Misc Adjustments				0.000	0.000	9.757	-	9.757				

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0605555N: (U)STRIKE WEAPONS DEVELOPMENT				PROJECT 3212: MEDUSA JCTD			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013[#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3212: MEDUSA JCTD	0.000	0.000	0.000	2.000	-	2.000	0.000	0.000	0.000	0.000	0.000	2.000
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012 ^{##} The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification <p>The MEDUSA Joint Capability Technology Demonstration (JCTD) will demonstrate the Low Cost Guided Imaging Rockets (LOGIR) technology currently being developed at the Naval Air Warfare Center Weapons Division, China Lake on the MH-60S. LOGIR provides "fire and forget" capability to 2.75-inch rockets in support of Sea Shield Pillar, increases platform lethality against Fast Attack Craft (FAC). Fast Inshore Attack Craft (FIAC) threat, provides a low-cost Imaging InfraRed precision guidance section for the existing 2.75-inch unguided rockets and provides maximum precision kills per sortie, low cost, minimum collateral damage, increased efficiency, and increased standoff. Initial Program documentation (i.e. Performance Spec, Capabilities Development Document) will be developed within the scope of the JCTD.</p> <p>FY14 funding will be used to cover the operational testing and completion of Quick Reaction Assessment (QRA) for the Digital Rocket Launcher (DRL) which provides 2.75-inch rocket capability on MH-60R/S in support of SEA Shield Pillar, and increases lethality against FAC/FIAC threat. The addition of the APKWS guidance section for the existing 2.75-inch unguided rockets provides maximum precision kills per sortie, minimum collateral damage, increased efficiency, and increased standoff.</p>												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: Digital Rocket Launcher <div style="text-align: right;">Articles:</div>									0.000	0.000	2.000 0	
FY 2014 Plans: FY14 funding will be used to cover the operational testing and completion of Quick Reaction Assessment (QRA) for the Digital Rocket Launcher (DRL).												
Accomplishments/Planned Programs Subtotals									0.000	0.000	2.000	
C. Other Program Funding Summary (\$ in Millions) N/A Remarks												

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0605555N: <i>(U)STRIKE WEAPONS DEVELOPMENT</i>	PROJECT 3212: <i>MEDUSA JCTD</i>
<p><u>D. Acquisition Strategy</u></p> <p>The MEDUSA Joint Capability Technology Demonstration was performed in FY09-FY12. The DRL is a Rapid Deployment Capability with Early Operational Capability in FY12; which will be a combination of procurement from government and contractor sources for the final product.</p> <p><u>E. Performance Metrics</u></p> <p>Successful development and test of new warhead, rocket motor and guidance system for FAC/FIAC.</p>		

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>							R-1 ITEM NOMENCLATURE PE 0605555N: <i>(U)STRIKE WEAPONS DEVELOPMENT</i>					PROJECT 3212: <i>MEDUSA JCTD</i>			

Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test	Various	NAWCAD:Patuxent River, MD	0.000	0.000		0.000		2.000	Oct 2013	-		2.000	0.000	2.000	
Subtotal			0.000	0.000		0.000		2.000		0.000		2.000	0.000	2.000	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		0.000		2.000		0.000		2.000	0.000	2.000	

Remarks

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

1319: *Research, Development, Test & Evaluation, Navy*
BA 7: *Operational Systems Development*

R-1 ITEM NOMENCLATURE

PE 0605555N: (U)STRIKE WEAPONS
DEVELOPMENT

PROJECT

3212: MEDUSA JCTD

Medusa/DRL	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Acquisition Milestone																												
Early Operational Capability										EOC ▲																		
Test & Evaluation																												
Quick Reaction Assessment										QRA																		
Quick Reaction Assessment Final Report										QRAFR																		
DRL Operational Test										OT																		

2014PB - 0605555N - 3212

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0605555N: <i>(U)STRIKE WEAPONS DEVELOPMENT</i>	PROJECT 3212: <i>MEDUSA JCTD</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Medusa/DRL				
Acquisition Milestone: Early Operational Capability: Early Operational Capability	2	2014	2	2014
Test & Evaluation: Quick Reaction Assessment: Quick Reaction Assessment	1	2014	2	2014
Test & Evaluation: Quick Reaction Assessment Final Report: Quick Reaction Assessment Final Report	2	2014	2	2014
Test & Evaluation: DRL Operational Test: DRL Operational Test	1	2014	2	2014

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>					R-1 ITEM NOMENCLATURE PE 0605555N: (U)STRIKE WEAPONS DEVELOPMENT				PROJECT 3412: <i>Hellfire-R Integration</i>			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013[#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3412: <i>Hellfire-R Integration</i>	0.000	0.000	0.000	7.757	-	7.757	6.590	0.000	0.000	0.000	0.000	14.347
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012 ^{##} The FY 2014 OCO Request will be submitted at a later date												
Note This is a New Start in FY 2014												
A. Mission Description and Budget Item Justification AGM-114-R is an Engineering Change Proposal to the fielded AGM-114-K, K2, K2A, P, P2, P2A and AGM-114-M missiles. It is intended to address safety, reliability and producibility issues while maintaining the current lethality of fielded versions of the Hellfire missile. The Department of the Navy (DoN) has participated in the development of the AGM-114R, which provides full Unmanned Air Vehicle (UAV), FW (Harvest Hawk) and RW Capabilities. The AGM-114R also increases lethality (Trajectory Shaping), increases Engagement Envelope (360 deg) and roll-tip off safety issues. The AGM-114R will maximize the Warfighter's operational flexibility by allowing them to effectively engage a variety of stationary and mobile targets, including advanced armor, bunkers, buildings, command and control vehicles, transporter/erector launchers and patrol craft. RDT&E funding will support a combination of ground software validation efforts, E3 environmental studies, and aircraft interface and launcher signal validations. In addition, Development Test/Operational Test (DT/OT) Flight tests using all-up rounds will be performed during backwards compatibility System Qualification Testing (SQT).												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2012	FY 2013	FY 2014
Title: Planned Program Entry										0.000	0.000	7.757
Articles:												24
FY 2014 Plans: Procure AGM-114R test articles to support DT/OT events with primary platforms. Conduct aircraft OFP analysis and integration of missile logic for identification and appropriate fire control commands for the KC-130J Harvest Hawk and AH-1Z. Conduct airworthiness analysis to support interim flight clearance and perform captive carriage flight test on KC-130J and AH-1Z.												
Accomplishments/Planned Programs Subtotals										0.000	0.000	7.757
C. Other Program Funding Summary (\$ in Millions) N/A												

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0605555N: (U)STRIKE WEAPONS DEVELOPMENT	PROJECT 3412: <i>Hellfire-R Integration</i>
C. Other Program Funding Summary (\$ in Millions)		
Remarks		
D. Acquisition Strategy The US Army is currently in the developmental test phase of the AGM-114R and qualifying both the Integrated Blast Fragmentation Warhead as well as the Production Pilot Line. Missiles from this first Low Rate Initial Production will support Army/Air Force DT/OT Firings, as well as, Live Fire Test and Evaluation in FY13. FY14 Full Rate Production will support Army and Air Force fielding and will be used to provide missiles to support US Navy Platform Integration.		
E. Performance Metrics Successful completion of Army Live Fire Test and Evaluation in FY14.		

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0605555N: (U)STRIKE WEAPONS DEVELOPMENT				PROJECT 3412: Hellfire-R Integration					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	C/BOA	Lockheed Martin:Palmdale, CA	0.000	0.000		0.000		1.100	Dec 2013	-		1.100	0.000	1.100	1.100
Systems Engineering	C/BOA	Lockheed Martin:GRA, Huntsville	0.000	0.000		0.000		0.259	Oct 2013	-		0.259	0.000	0.259	0.259
Subtotal			0.000	0.000		0.000		1.359		0.000		1.359	0.000	1.359	1.359
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Studies & Analyses	TBD	TBD:TBD	0.000	0.000		0.000		1.227	Nov 2013	-		1.227	0.000	1.227	1.227
Subtotal			0.000	0.000		0.000		1.227		0.000		1.227	0.000	1.227	1.227
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NAWCWD:China Lake, CA	0.000	0.000		0.000		1.600	Nov 2013	-		1.600	0.000	1.600	
Test Articles	C/FFP	Lockheed Martin:Orlando, FL	0.000	0.000		0.000		1.560	Feb 2014	-		1.560	0.000	1.560	1.560
Operational Test & Evaluation	WR	NAWCAD:Patuxent River, MD	0.000	0.000		0.000		1.250	Nov 2013	-		1.250	0.000	1.250	
Subtotal			0.000	0.000		0.000		4.410		0.000		4.410	0.000	4.410	

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>						R-1 ITEM NOMENCLATURE PE 0605555N: <i>(U)STRIKE WEAPONS DEVELOPMENT</i>				PROJECT 3412: <i>Hellfire-R Integration</i>					

Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	Various	Various:Various	0.000	0.000		0.000		0.500	Nov 2013	-		0.500	0.000	0.500	
Program Management Support	Various	Various:Various	0.000	0.000		0.000		0.250	Nov 2013	-		0.250	0.000	0.250	
Travel	WR	Various:Various	0.000	0.000		0.000		0.011	Nov 2013	-		0.011	0.000	0.011	
Subtotal			0.000	0.000		0.000		0.761		0.000		0.761	0.000	0.761	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000	0.000	7.757	0.000	7.757	0.000	7.757	

Remarks

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

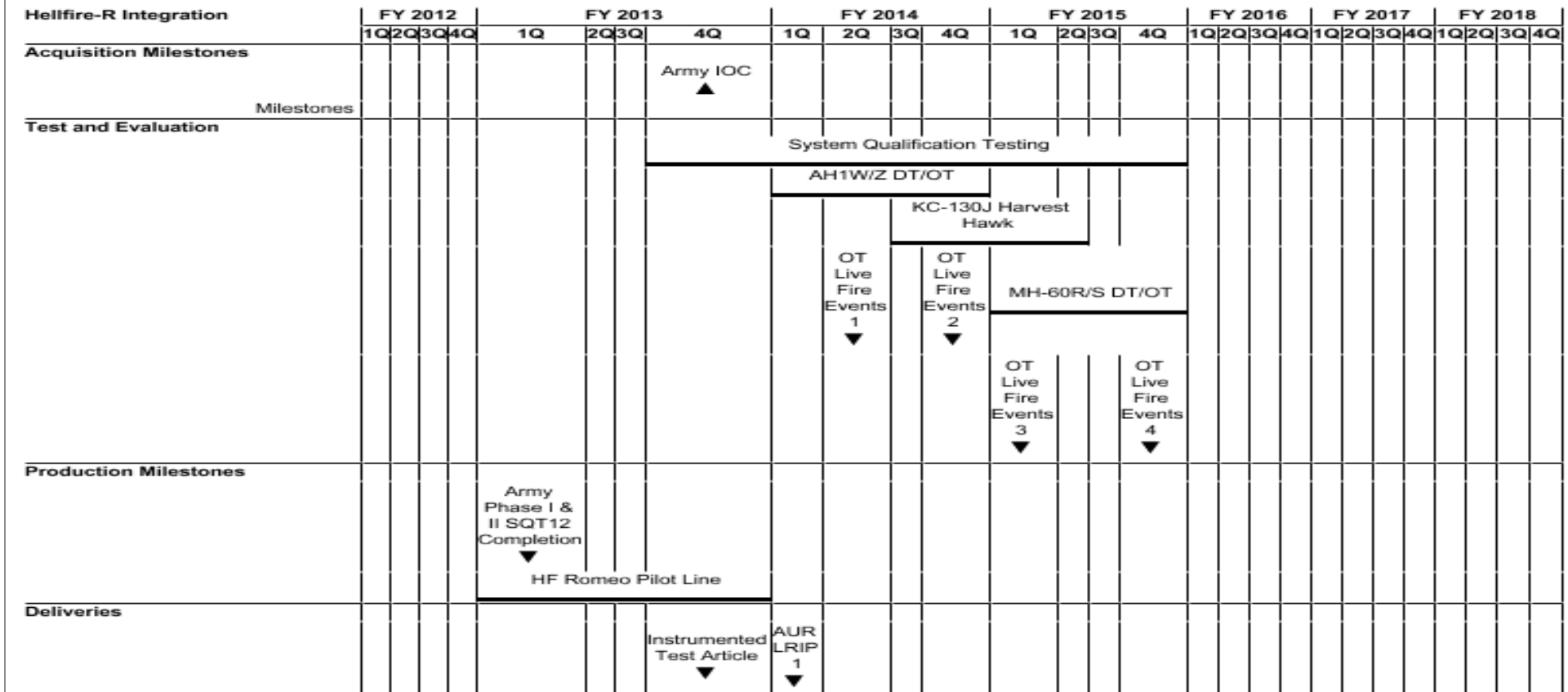
1319: Research, Development, Test & Evaluation, Navy
BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0605555N: (U)STRIKE WEAPONS
DEVELOPMENT

PROJECT

3412: Hellfire-R Integration



UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0605555N: (U)STRIKE WEAPONS DEVELOPMENT	PROJECT 3412: <i>Hellfire-R Integration</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Hellfire-R Integration</i>				
Acquisition Milestones: Army IOC	4	2013	4	2013
Test and Evaluation: System Qualification Testing	4	2013	4	2015
Test and Evaluation: AH1W/Z DT/OT	1	2014	4	2014
Test and Evaluation: KC-130J Harvest Hawk	3	2014	2	2015
Test and Evaluation: MH-60R/S DT/OT	1	2015	4	2015
Test and Evaluation: OT Live Fire Events 1	2	2014	2	2014
Test and Evaluation: OT Live Fire Events 2	4	2014	4	2014
Test and Evaluation: OT Live Fire Events 3	1	2015	1	2015
Test and Evaluation: OT Live Fire Events 4	4	2015	4	2015
Production Milestones: Army Phase I & II SQT12 Completion	1	2013	1	2013
Production Milestones: HF Romeo Pilot Line	1	2013	4	2013
Deliveries: AUR LRIP 1	1	2014	1	2014
Deliveries: Instrumented Test Article	4	2013	4	2013