Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy

PE 0604610N: Lightweight Torpedo Development

BA 5: Development & Demonstration (SDD)

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	44.848	23.407	25.282	0.000	25.282	33.700	33.583	21.311	21.753	Continuing	Continuing
2234: Lightweight Hybrid Torpedo	43.252	21.017	25.282	0.000	25.282	33.700	33.583	21.311	21.753	Continuing	Continuing
9999: Congressional Adds	1.596	2.390	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.986

## A. Mission Description and Budget Item Justification

#### A. MISSION DESCRIPTION:

Lightweight Torpedo program designs, integrates and tests the Lightweight Torpedo (LWT, MK54). The Lightweight Torpedo provides performance improvements in shallow water, counter-measure environments. The Engineering Development Model (EDM) contract was awarded to Raytheon Systems Company in June 1996. The EDM contract has delivered twenty-one EDM units to support the in-water test program. Initial Operating Capability (IOC) achieved in 2004.

FY09: Continue development of hardware/software improvements for MK54 Pre-Planned Product Improvement (P3I) program. Continue development of MK54 high altitude launch capability from Maritime Patrol Aircraft (MPA).

FY10: Continue development of hardware/software improvements for P3I program. Continue development of MK54 high altitude launch capability from MPA.

FY11: Continue development of hardware/software improvements for P3I program. Continue development of MK54 high altitude launch capability from MPA.

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	
1319: Research, Development, Test & Evaluation, Navy	PE 0604610N: Lightweight Torpedo Development	
BA 5: Development & Demonstration (SDD)		

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

	FY 2009	FY 2010	<b>FY 2011 Base</b>	FY 2011 OCO	FY 2011 Total
Previous President's Budget	52.103	21.105	0.000	0.000	0.000
Current President's Budget	44.848	23.407	25.282	0.000	25.282
Total Adjustments	-7.255	2.302	25.282	0.000	25.282
<ul> <li>Congressional General Reductions</li> </ul>		-0.098			
<ul> <li>Congressional Directed Reductions</li> </ul>		0.000			
<ul> <li>Congressional Rescissions</li> </ul>	0.000	0.000			
<ul> <li>Congressional Adds</li> </ul>		2.400			
<ul> <li>Congressional Directed Transfers</li> </ul>		0.000			
Reprogrammings	-6.499	0.000			
SBIR/STTR Transfer	-0.756	0.000			
<ul> <li>Program Adjustments</li> </ul>	0.000	0.000	25.282	0.000	25.282

## Congressional Add Details (\$ in Millions, and Includes General Reductions)

**Project:** 9999: Congressional Adds

Congressional Add: Weapon Acquisition and Firing System

Congressional Add: Torpedo Composite Homing Array

	FY 2009	FY 2010
	0.000	2.390
	1.596	0.000
Congressional Add Subtotals for Project: 9999	1.596	2.390
Congressional Add Totals for all Projects	1.596	2.390

# **Change Summary Explanation**

Technical: Not Applicable Schedule: Not applicable.

FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.

**DATE:** February 2010

		0										
APPROPRIATION/BUDGET ACTIV 1319: Research, Development, Test BA 5: Development & Demonstration	& Evaluatio	n, Navy		R-1 ITEM NOMENCLATURE PE 0604610N: Lightweight Torpedo Development  PROJECT 2234: Lightweight Hybrid Torpedo					d Torpedo			
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	
2234: Lightweight Hybrid Torpedo	43.252	21.017	25.282	0.000	25.282	33.700	33.583	21.311	21.753	Continuing	Continuing	
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0			

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

Exhibit R-2A. RDT&E Project Justification: PB 2011 Navv

Lightweight Torpedo / 2234: The program designs, integrates and tests the Lightweight Torpedo (LWT, MK54). The Lightweight Torpedo provides performance improvements in shallow water, counter-measure environments. The Engineering Development Model (EDM) contract was awarded to Raytheon Systems Company in June 1996. The EDM contract has delivered twenty-one EDM units to support the in-water test program. Initial Operating Capability (IOC) achieved in 2004. FY10 delivery includes four Proof of Design/Proof of Manufacturing (POD/POM) and four EDM units of the new array.

## B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MK54 Pre-Planned Product Improvement (incl.MK54 VLA Integr & HAAWC prog)	43.026	21.017	25.282	0.000	25.282
FY 2009 Accomplishments: Continued development of hardware/software improvements for P3I program Block Upgrade (BUG)/ Classifier and Track (CAT) and Advanced Processor Build (APB) (\$16.344M). Continued development of P3I Program hardware/software for the new array (\$16.205M). Continued development of MK54 high altitude launch capability from MPA (\$10.127M). Conducted Operational Testing (OT) of VLA54 (\$0.350M).					
FY 2010 Plans: Continue development of hardware/software improvements for P3I program BUG/CAT and APB (\$5.206M). Continue development of P3I Program hardware/software for the new array (\$3.811M). Continue development of MK54 high altitude launch capability from MPA (\$12.000M).					

#### **UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy DATE: February 2010

#### APPROPRIATION/BUDGET ACTIVITY

**R-1 ITEM NOMENCLATURE PROJECT** 1319: Research, Development, Test & Evaluation, Navy

BA 5: Development & Demonstration (SDD)

PE 0604610N: Lightweight Torpedo Development

2234: Lightweight Hybrid Torpedo

### B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: Continue development of hardware/software improvements for P3I program BUG/CAT and APB (\$4.533M). Continue development of hardware/software for the new array (\$2.549M). Continue development of MK54 high altitude launch capability from MPA (\$18.200M).					
Acquisition Workforce Fund	0.226	0.000	0.000	0.000	0.000
FY 2009 Accomplishments: Funded DoD Acquisition Workforce Fund					
Accomplishments/Planned Programs Subtotals	43.252	21.017	25.282	0.000	25.282

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

			FY 2011	FY 2011	FY 2011					Cost To	
<u>Line Item</u>	FY 2009	FY 2010	<u>Base</u>	OCO	<u>Total</u>	FY 2012	FY 2013	FY 2014	FY 2015	<b>Complete</b>	<b>Total Cost</b>
WPN/3215: MK54 Torpedo Mods	27.008	89.985	42.144	0.000	42.144	91.508	100.979	153.699	203.089	Continuing	Continuing

## **D. Acquisition Strategy**

The EDM contract is held by Raytheon Systems Company. The contract was awarded as a Cost-Plus-Award Fee in June 1996 and was converted to Cost-Plus-Incentive Fee in December 1998. Sole Source Production Contract awarded in FY 2004 for MK48 ADCAP MODS/CBASS and MK54 Lightweight Torpedoes. P3I spiral acquisition strategy is to award EDM contracts among qualified producers.

#### **E. Performance Metrics**

Milestone Reviews.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy

**DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604610N: Lightweight Torpedo

Development

**PROJECT** 

2234: Lightweight Hybrid Torpedo

## **Product Development (\$ in Millions)**

			FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
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
WR	NUWC Newport/Keyport	27.861	2.925	Oct 2009	3.017	Oct 2010	0.000		3.017	Continuing	Continuing	Continuing
C/CPAF	Raytheon Not Specified	3.530	0.000		0.000		0.000		0.000	0.000	3.530	Continuing
WR	NSWC Indian Head, MD	0.482	0.200	Oct 2009	0.211	Oct 2010	0.000		0.211	Continuing	Continuing	Continuing
WR	NUWC Newport/Keyport	16.954	1.535	Oct 2009	0.231	Oct 2010	0.000		0.231	Continuing	Continuing	Continuing
SS/FP	Lockheed Martin - VLA Akron, OH	2.501	0.000		0.000		0.000		0.000	0.000	2.501	Continuing
WR	PEO-IWS 3, Dahlgren, VA	2.882	0.000		0.000		0.000		0.000	0.000	2.882	Continuing
WR	PEO-IWS 5, Dahlgren, VA	2.223	0.000		0.000		0.000		0.000	0.000	2.223	Continuing
WR	NSWC PMA 290 Not Specified	3.865	0.555	Oct 2009	1.769	Oct 2010	0.000		1.769	Continuing	Continuing	Continuing
WR	NAWCWD China Lake	0.379	0.000		0.000		0.000		0.000	0.000	0.379	Continuing
SS/FP	SPA Inc. Not Specified	0.640	0.000		0.000		0.000		0.000	0.000	0.640	Continuing
SS/FP	Progeny Systems Not Specified	24.394	0.000		1.275	Oct 2010	0.000		1.275	Continuing	Continuing	Continuing
SS/FP	Mikel Inc. Middleton, RI	0.000	2.390	Mar 2010	0.000		0.000		0.000	0.000	2.390	Continuing
	Method & Type  WR  C/CPAF  WR  WR  SS/FP  WR  WR  WR  SS/FP  SS/FP	Method & Type  WR NUWC Newport/Keyport  C/CPAF Raytheon Not Specified  WR NUWC Indian Head, MD  WR NUWC Newport/Keyport  Lockheed Martin - VLA Akron, OH  WR PEO-IWS 3, Dahlgren, VA  WR NSWC Indian Head, MD  WR SS/FP Lockheed Martin - VLA Akron, OH  WR PEO-IWS 5, Dahlgren, VA  WR NSWC PMA 290 Not Specified  WR NAWCWD China Lake  SS/FP SS/FP Progeny Systems Not Specified  Mikel Inc.	Method & Type         Activity & Location         Total Prior Years Cost           WR         NUWC Newport/Keyport         27.861           C/CPAF         Raytheon Not Specified         3.530           WR         NSWC Indian Head, MD         0.482           WR         NUWC Newport/Keyport         16.954           SS/FP         Lockheed Martin - VLA Akron, OH         2.501           WR         PEO-IWS 3, Dahlgren, VA         2.882           WR         PEO-IWS 5, Dahlgren, VA         2.223           WR         NSWC PMA 290 Not Specified         3.865           WR         NAWCWD China Lake         0.379           SS/FP         SPA Inc. Not Specified         0.640           SS/FP         Progeny Systems Not Specified         24.394	Contract Method & Type         Performing Activity & Location         Total Prior Years Cost         Cost           WR         NUWC Newport/Keyport         27.861         2.925           C/CPAF         Raytheon Not Specified         3.530         0.000           WR         NSWC Indian Head, MD         0.482         0.200           WR         NUWC Newport/Keyport         16.954         1.535           SS/FP         Lockheed Martin - VLA Akron, OH         2.501         0.000           WR         PEO-IWS 3, Dahlgren, VA         2.882         0.000           WR         PEO-IWS 5, Dahlgren, VA         2.223         0.000           WR         NSWC PMA 290 Not Specified         3.865         0.555           WR         NAWCWD China Lake         0.379         0.000           SS/FP         SPA Inc. Not Specified         0.640         0.000           SS/FP         Progeny Systems Not Specified         24.394         0.000           SS/FP         Mikel Inc.         0.000         2.390	Contract Method & Type         Performing Activity & Location         Total Prior Years Cost         Award Date           WR         NUWC Newport/Keyport         27.861         2.925         Oct 2009           C/CPAF         Raytheon Not Specified         3.530         0.000         Oct 2009           WR         NSWC Indian Head, MD         0.482         0.200         Oct 2009           WR         NUWC Newport/Keyport         16.954         1.535         Oct 2009           SS/FP         Lockheed Martin - VLA Akron, OH         2.501         0.000         0.000           WR         PEO-IWS 3, Dahlgren, VA         2.882         0.000         0.000           WR         PEO-IWS 5, Dahlgren, VA         2.223         0.000         0.000           WR         NSWC PMA 290 Not Specified         3.865         0.555         Oct 2009           WR         NAWCWD China Lake         0.379         0.000         0.000           SS/FP         Progeny Systems Not Specified         0.640         0.000         0.000           SS/FP         Mikel Inc.         0.000         2.390         Mar 2010	Contract Method & Type	Contract Method & Type         Performing Activity & Location         Total Prior Years Cost         Cost         Award Date         Award Date           WR         NUWC Newport/Keyport         27.861         2.925         Oct 2009         3.017         Oct 2010           C/CPAF         Raytheon Not Specified         3.530         0.000         0.000         0.000           WR         NSWC Indian Head, MD         0.482         0.200         Oct 2009         0.211         Oct 2010           WR         NUWC Newport/Keyport         16.954         1.535         Oct 2009         0.231         Oct 2010           SS/FP         Lockheed Martin - VLA Akron, OH         2.501         0.000         0.000         0.000           WR         PEO-IWS 3, Dahlgren, VA Akron, VA         2.882         0.000         0.000         0.000           WR         PEO-IWS 5, Dahlgren, VA Dahlgren, VA         2.223         0.000         0.000         0.000           WR         NSWC PMA 290 Not Specified         3.865         0.555         Oct 2009         1.769         Oct 2010           WR         NAWCWD China Lake         0.379         0.000         0.000         0.000           SS/FP         Progeny Systems Not Specified         24.394         0.000	FY 2010   Base   OCC	Contract Method & Performing Activity & Location   Possible Cost   Cost   Date   Date   Cost   Date   Dat	Contract   Performing Activity & Location   Total Prior Years Cost   Cost   Date   Date   Cost   Date   D	Contract   Contract	Contract Method & Total   Performing Method & Total   Prior Vears Cost   Cost   Date   Date

## **UNCLASSIFIED**

R-1 Line Item #116 Page 5 of 12

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy

**DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604610N: Lightweight Torpedo

Development

**PROJECT** 

2234: Lightweight Hybrid Torpedo

## **Product Development (\$ in Millions)**

				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
Hardware Development	C/CPAF	TBD for HAAWC Not Specified	4.692	6.900	Oct 2009	13.269	Dec 2010	0.000		13.269	Continuing	Continuing	Continuing
Software Development	WR	NUWC Newport/Keyport	13.543	3.579	Oct 2009	4.239	Oct 2010	0.000		4.239	Continuing	Continuing	Continuing
Systems Engineering	WR	Naval Operational Logistics Support Center (NOLSC) Not Specified	0.025	0.000		0.000		0.000		0.000	0.000	0.025	Continuing
	<b>Subtotal</b> 103.971			18.084		24.011		0.000		24.011			

#### Remarks

## **Support (\$ in Millions)**

				FY 2010		FY 2011 Base		_		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
System Test and Evaluation	WR	NUWC Newport/Keyport	15.143	2.324	Oct 2009	0.000		0.000		0.000	Continuing	Continuing	Continuing
	•	Subtotal	15.143	2.324		0.000		0.000		0.000			

#### Remarks

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy

**DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

**PROJECT** 

1319: Research, Development, Test & Evaluation, Navy

PE 0604610N: Lightweight Torpedo

2234: Lightweight Hybrid Torpedo

BA 5: Development & Demonstration (SDD)

Development

## Test and Evaluation (\$ in Millions)

		FY 2010			FY 2011 Base		011 O	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
System Test and Evaluation	WR	OPTEVFOR Not Specified	1.122	0.150	Oct 2009	0.287	Oct 2010	0.000		0.287	Continuing	Continuing	Continuing
System Test and Evaluation	WR	NUWC Newport/Keyport	13.231	0.000		0.600	Oct 2010	0.000		0.600	Continuing	Continuing	Continuing
		Subtotal	14.353	0.150		0.887		0.000		0.887			

#### Remarks

## **Management Services (\$ in Millions)**

				FY 2	010	FY 2 Ba				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
Program Management Support	C/Various	Alion Science Not Specified	1.184	0.401	Oct 2009	0.326	Oct 2010	0.000		0.326	0.000	1.911	Continuing
Travel	WR	NAVSEA Not Specified	0.192	0.058	Oct 2009	0.058	Oct 2010	0.000		0.058	0.000	0.308	Continuing
Acquisition Workforce Fund	Various/ Various	Various Various	0.226	0.000		0.000		0.000		0.000	0.000	0.226	Continuing
	_	Subtotal	1.602	0.459		0.384		0.000		0.384	0.000	2.445	

#### Remarks

Development

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy

**DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

**PROJECT** 

1319: Research, Development, Test & Evaluation, Navy

PE 0604610N: Lightweight Torpedo

2234: Lightweight Hybrid Torpedo

BA 5: Development & Demonstration (SDD)

	Total Prior Years Cost	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	135.069	21.017	25.282	0.000	25.282	•		

Remarks

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

**DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

**R-1 ITEM NOMENCLATURE** 

**PROJECT** 

1319: Research, Development, Test & Evaluation, Navy

PE 0604610N: Lightweight Torpedo

2234: Lightweight Hybrid Torpedo

BA 5: Development & Demonstration (SDD) Development FY09 FY10 FY11 FY12 FY13 FY14 FY15 Q1 Q2 Q3 Q4 HARDWARE SPIRALS OT IOC MK54 VLA Tech Insertion 1 (TI-1) / New Array ОТ DT lioc SOFTWARE SPIRALS BUG / CAT DT ОТ ioc Advanced Processor Build (APB) APB SPIRAL 5 APB SPIRAL 6 HIGH ALTITUDE ASW CAPABILITY (HAAWC) DESIGN DEVELOPMENT AND QUALIFICATION  $\wedge$ PRR DESIGN DEVELOPMENT AND QUALIFICATION Production Readiness Review (PRR)

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

**R-1 ITEM NOMENCLATURE** 1319: Research, Development, Test & Evaluation, Navy PE 0604610N: Lightweight Torpedo

BA 5: Development & Demonstration (SDD) Development **PROJECT** 

2234: Lightweight Hybrid Torpedo

## Schedule Details

	Sta	End		
Event	Quarter	Year	Quarter	Year
Hardware Spirals MK54 OT	2	2009	2	2009
Hardware Spirals MK54 IOC	2	2010	2	2010
Tech Insertion 1 (TI-1) /New Array Production Readiness Review (PRR)	3	2012	3	2012
Tech Insertion 1 (TI-1) /New Array Developmental Testing (DT)	3	2012	4	2013
Tech Insertion 1 (TI-1) /New Array OT	1	2014	4	2014
Tech Insertion 1 (TI-1) /New Array IOC	2	2015	2	2015
Software Spirals BUG/CAT DT	2	2010	2	2011
Software Spirals BUG/CAT OT	4	2011	2	2012
Software Spirals BUG/CAT IOC	4	2012	4	2012
APB Spiral 5	3	2009	4	2014
APB Spiral 6	1	2014	4	2015
HAAWC Design/Development/Qualification	1	2009	4	2014
HAAWC Production Readiness Review (PRR)	4	2014	4	2014
HAAWC DT	4	2014	2	2015
HAAWC OT	3	2015	4	2015

DATE: February 2010

Exhibit R-2A, RDT&E Project Sustification. 1 B 2011 Navy										DATE. 1 Edition 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604610N: Lightweight Torpedo Development				PROJECT 9999: Congressional Adds					
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		
9999: Congressional Adds	1.596	2.390	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.986		
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0				

## A. Mission Description and Budget Item Justification

Exhibit R-24 RDT&F Project Justification: PB 2011 Navy

The composite array effort will develop and test a 112 element array for the Tech Insertion-1 (TI-1) project. This array will be evaluated for its performance in providing higher fidelity for detecting targets in harsh environments. The increase in channels will provide for more flexibility in beam formation and signal processing that will ultimately lead to a more capable weapon.

## B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010
	0.000	2.390
Congressional Add: Weapon Acquisition and Firing System		
FY 2010 Plans:		
Weapons Acquisition and Firing System (WAFS) will be developed to create automated weapon setting tools by fusing available platform and target information. Improved operator performance through automated tools will improve torpedo placement and overall weapon effectiveness.		
Congressional Add: Torpedo Composite Homing Array	1.596	0.000
FY 2009 Accomplishments: Funding on contract with Progeny Systems Corporation (PSC) to continue efforts at Material Systems Incorporated (MSI) for new array development. Tasking includes fabrication of array elements, array frame procurement, and delivery of new arrays for qualification testing.		
Congressional Adds Subtotals	1.596	2.390

#### **UNCLASSIFIED**

	DATE: February 2010
	ongressional Adds
C. Other Program Funding Summary (\$ in Millions) N/A	
D. Acquisition Strategy N/A	
E. Performance Metrics N/A	