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 0101221N: *Strategic Sub & Wpns Sys Supt*							
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	619.407	87.454	105.892	98.057	-	98.057	109.021	107.078	103.961	99.577	Continuing	Continuing
0951: *Joint Warhead Fuze Sustainment Program*	35.019	41.498	61.576	81.456	-	81.456	99.417	104.392	101.194	96.700	Continuing	Continuing
2228: *Technical Applications Programs*	574.279	41.425	39.719	0.000	-	0.000	0.000	0.000	0.000	0.024	0.000	655.447
3097: *W78/88-1 Life Extension Program*	0.000	0.000	0.000	14.000	-	14.000	7.000	0.000	0.000	0.000	0.000	21.000
3158: *Integrated Nuclear Weapons Security Sys Dev*	10.109	4.531	4.597	2.601	-	2.601	2.604	2.686	2.767	2.853	Continuing	Continuing
MDAP/MAIS Code(s): 178												

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

The Joint Warhead Fuze Sustainment Program (0951) is an effort to develop advanced components to improve the reliability, safety, and security of Arming, Fuzing and Firing (AF&F) systems for nuclear reentry systems. The current effort is focused on supporting the Alteration of the AF&F system for the MK5/W88 system which will be five years beyond its design life at the scheduled deployment of the AF&F Alteration. This effort also supports future utilization of the developed components by the US Air Force and United Kingdom.

The Technology Applications Program (2228) supports the TRIDENT II (D5) Submarine Launched Ballistic Missile (SLBM) that provides the U.S. a weapon system with greater accuracy and payload capability as compared to the TRIDENT I (C4) system. TRIDENT II enhances U.S. strategic deterrence providing a survivable, sea-based system capable of engaging the full spectrum of potential targets with fewer submarines. This Program Element supports investigations into new technologies which would help mitigate the program impact due to component obsolescence and a rapidly decreasing manufacturing support base. These efforts include Reentry System Applications and Guidance System Applications which will be terminated in 2014.

The W78/88-1 Life Extension Program (3097) is an effort to conduct the Navy portion of a DoD/DOE Nuclear Weapons Council initiated Phase 6.2/6.2A investigation of design options and associated feasibility and cost study for a life extension of the Air Force W78 Reentry Vehicle and Navy W88 Reentry Body. The study will evaluate options and select a preferred solution(s) for a common Nuclear Explosive Package (NEP), including improved safety capabilities, which could be integrated into both the W78 and W88 platforms. In addition the study will conduct a cost study for a refurbishment life extension of the current W88 design.

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 0101221N: *Strategic Sub & Wpns Sys Supt*

The Integrated Nuclear Weapons Security System (INWSS) (3158) efforts support the Nuclear Weapons Security program and SSBN Escort mission. The policies and requirements regarding the safeguard of nuclear weapons within the Department of Defense is established by DoD S5210.41M. Within the Department of the Navy, nuclear weapons are limited to TRIDENT Fleet Ballistic Missiles (FBM), either deployed aboard TRIDENT submarines or located landside at Naval Submarine Base, Kings Bay, or Naval Submarine Base, Bangor where missiles are first assembled as well as repaired. The Chief of Naval Operations (CNO) has assigned the Strategic Systems Programs, the FBM program manager, with mission responsibility for the safeguard of FBM nuclear technologies. This budget supports efforts directed at improving the current technological baseline through a series of studies. These efforts will improve countermeasure technologies to address detection, delay and denial.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	88.873	105.892	123.984	-	123.984
Current President's Budget	87.454	105.892	98.057	-	98.057
Total Adjustments	-1.419	0.000	-25.927	-	-25.927
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.419	0.000			
• Program Adjustments	0.000	0.000	-25.909	-	-25.909
• Rate/Misc Adjustments	0.000	0.000	-0.018	-	-0.018

Change Summary Explanation

Funding reduced in FY 2014 for the cancellation of Re-entry Systems Applications Programs (RSAP). Funding reduced in FY 2014 for the Integrated Nuclear Weapons Security System (INWSS) program to promote synergy in Research, Development, Test & Evaluation projects with Nuclear Security Enhancement Program (NSEP) projects. Funding realigned in FY 2014 from the Joint Warhead Fuze Sustainment Program (0951) to support the W78/88-1 Life Extension Program.

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 0951: *Joint Warhead Fuze Sustainment Program*	

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
0951: *Joint Warhead Fuze Sustainment Program*	35.019	41.498	61.576	81.456	-	81.456	99.417	104.392	101.194	96.700	Continuing	Continuing
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

The Joint Warhead Fuze Sustainment Program is an effort to develop advanced components to improve the reliability, safety, and security of AF&F systems for nuclear reentry systems. The current effort is focused on supporting the Alteration of the AF&F system for the MK5/W88 system which will be five years beyond its design life at the scheduled deployment of the AF&F Alteration. This effort also supports future utilization of the developed components by the US Air Force and United Kingdom.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: TRIDENT II	41.498	61.576	81.456
Articles:	0	0	0
Description: Identify, prioritize, develop, proof, and demonstrate advanced technologies that will be leveraged and incorporated into future AF&Fs.			
FY 2012 Accomplishments: Continued development, proofing, demonstration, and technology maturation of identified advanced technologies for future AF&Fs Supported engineer working groups. Conducted AF&F sub-assembly design demonstrations Continued development of advanced safety and surety architecture solutions. Completed Conceptual Design Review. Commenced detailed design.			
FY 2013 Plans: Continue development, proofing, demonstration, and technology maturation of identified advanced technologies for future AF&Fs Support engineer working groups. Continue AF&F sub-assembly design demonstrations Continue development of advanced safety and surety architecture solutions. Continue detailed design Conduct Performance Assessment of tested designs			

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 0951: *Joint Warhead Fuze Sustainment Program*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Conduct Production Engineering ***FY 2014 Plans:*** Continue development, proofing, demonstration, and technology maturation of identified advanced technologies for future AF&Fs Support engineer working groups. Continue AF&F sub-assembly design demonstrations Continue development of advanced safety and surety architecture solutions. Continue detailed design Conduct Performance Assessment of tested designs Conduct Production Engineering Critical Radar Arming and Firing Test (CRAFT) Develop and implement software changes due to AF&F			
Accomplishments/Planned Programs Subtotals	41.498	61.576	81.456

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Contracts will continue to be awarded to those sources who were engaged in the Mk4LE Reentry Body development program and are currently engaged in the production and/or operational support of the deployed Mk4LE Reentry Body on the basis of Other Than Full and Open Competition pursuant to the authority of 10 U.S.C. 2304 (c) (1) and (3) implemented by FAR 6.302.-1, 3, 4

E. Performance Metrics

Due to the relignment of funding in support of the W78/88-1 LEP, the program may not be able to deliver the First Production Unit (FPU) in December 2018 as directed by the Nuclear Weapons Council.

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 0951: *Joint Warhead Fuze Sustainment Program*	

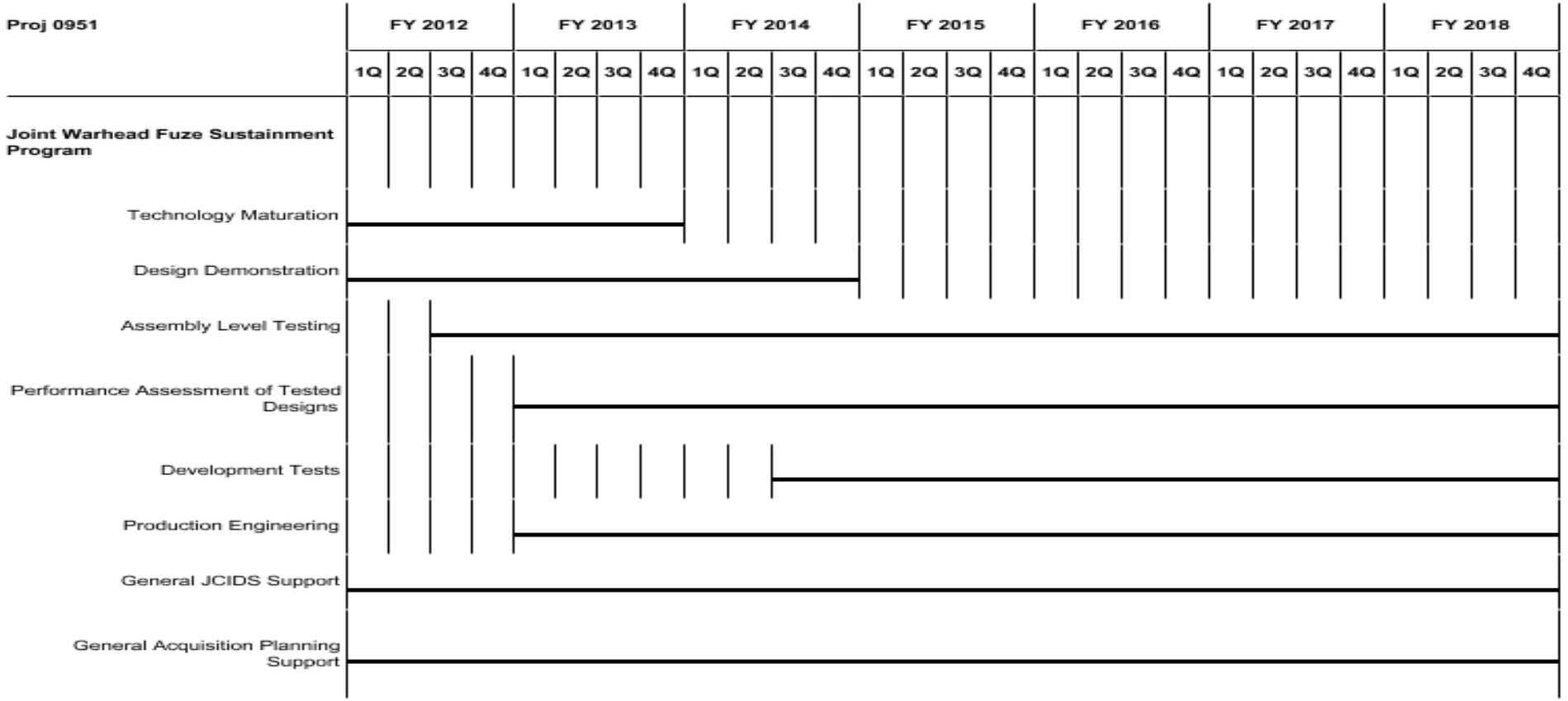
Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Joint Warhead Fuze Sustainment DOE	MIPR	DOE:NM	31.719	38.611	Dec 2011	54.943	Nov 2012	67.265	Oct 2013	-		67.265	Continuing	Continuing	Continuing
Joint Warhead Fuze Sustainment ITT	SS/CPFF	ITT:VA	1.800	1.887	Dec 2011	2.000	Dec 2012	2.000	Oct 2013	-		2.000	Continuing	Continuing	Continuing
Joint Warhead Fuze Sustainment LMMS	SS/CPFF	LMMS:CA	1.500	1.000	Feb 2012	4.000	Dec 2012	6.200	Oct 2013	-		6.200	Continuing	Continuing	Continuing
Joint Warhead Fuze Sustainment	WR	NSWC Carderock:MD	0.000	0.000		0.633	Mar 2013	5.991	Oct 2013	-		5.991	Continuing	Continuing	Continuing
		Subtotal	35.019	41.498		61.576		81.456		0.000		81.456			

	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	35.019	41.498		61.576		81.456		0.000		81.456			

Remarks

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 0951: *Joint Warhead Fuze Sustainment Program*



2014OSD - 0101221N - 0951

Exhibit R-4A, RDT&E Schedule Details: 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 0101221N: *Strategic Sub & Wpns Sys Supt*	**PROJECT** 0951: *Joint Warhead Fuze Sustainment Program*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0951				
Joint Warhead Fuze Sustainment Program: Technology Maturation:	1	2012	4	2013
Joint Warhead Fuze Sustainment Program: Design Demonstration:	1	2012	4	2014
Joint Warhead Fuze Sustainment Program: Assembly Level Testing:	3	2012	4	2018
Joint Warhead Fuze Sustainment Program: Performance Assessment of Tested Designs:	1	2013	4	2018
Joint Warhead Fuze Sustainment Program: Development Tests:	3	2014	4	2018
Joint Warhead Fuze Sustainment Program: Production Engineering:	1	2013	4	2018
Joint Warhead Fuze Sustainment Program: General JCIDS Support:	1	2012	4	2018
Joint Warhead Fuze Sustainment Program: General Acquisition Planning Support:	1	2012	4	2018

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 2228: *Technical Applications Programs*	

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
2228: *Technical Applications Programs*	574.279	41.425	39.719	0.000	-	0.000	0.000	0.000	0.000	0.024	0.000	655.447
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

This project supports implementation of a coordinated Navy/Air Force Reentry System Applications Program (RSAP), and a coordinated Navy/Air Force Strategic Guidance Applications Program (GAP). RSAP and GAP funding are critical to respond to future requirements. The December 2001 DOD Nuclear Posture Review determined that infrastructure is a critical part of the new triad and these efforts form part of the infrastructure that supports the nuclear force structure.

The RSAP program, through sustainment of the reentry vehicle technology base, will maintain confidence in the dependability and reliability of strategic SLBM and ICBM weapon systems over the long term when no new systems will be in development. Critical and unique attributes necessary for the design, development and in-service support of current and modernized SLBM reentry systems have been defined and will be maintained to ensure a functioning readiness application technical capability in reentry is preserved. Working closely with the Air Force, Navy and Air Force requirements have been integrated into a comprehensive program. The program maintains close coordination with the DOD Science and Technology (S&T) community in order to: leverage S&T programs, ensure system driven technology base requirements are considered in contract awards, eliminate duplication of effort and provide an opportunity to demonstrate appropriate emerging technologies through a reentry flight test evaluation process.

The GAP program provides a minimum strategic guidance core technology development capability consistent with the Strategic Advisory Group (SAG) recommendations to COMSTRATCOM. The SAG recommended that SSP establish a program which preserves this critical design and development core. It is a basic bridge program which develops critical guidance technology applicable to any of the existing Air Force/Navy strategic missiles. The objective is to transition from current capability to a long term readiness status required to support deployed systems. Efforts are focused on alternatives to technologies identified as system "weak links." Currently, system accuracy and functionality depends upon key technologies which provide radiation hardened velocity, attitude and stellar sensing capabilities. As the underlying technologies that currently provide these capabilities age and are no longer technically supportable, modern alternatives must be made available in order to allow for orderly replacement. There is no commercial market for these technologies and their viability depends on the strategic community.

Both RSAP and GAP programs end by FY14.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Technical Applications Program	41.425	39.719	0.000
Articles:	0	0	

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 2228: *Technical Applications Programs*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: ($21.202) Reentry System Applications Program (RSAP): Maintained the current capability and support the planned service life extension of Navy reentry systems. Continued development and ground testing of reentry vehicle candidate heat shield and nose tip materials including those available from Science & Technology (S&T) Continued testing of alternative low-cost heat shield and replacement nose tip material. Analyzed advanced aging material to determine its effectiveness. Continued testing of operationally aged heat shields to support aging trends and replacement materials assessments. Maintained RSAP technical program plan, conduct system assessments and continue Vulnerability & Hardening certification process development in absence of Nuclear Under Ground Testing (UGT) facilities. Continued Reentry Body material development and advanced flight test instrumentation activities. Conducted Ground test advanced reentry material systems and advanced instrumentation components. Continued design development evaluation of Avionics Batteries and Avionics Computers. ($20.223) Strategic Guidance Applications Programs (GAP): Continued to develop new architectures using telecom-based optical components for high-precision strategic gyro. Continued to evaluate emergent alternate sensor technologies, (accelerometer, gyro, and stellar) with an emphasis on providing existing performance in a significantly reduced form factor. Assessed feasibility of advanced stellar sensor technologies for use in strategic applications; specifically, active pixel and camera-on-a-chip architectures will be evaluated. Utilized the capabilities of the Virtual System Simulation (VSSim) to conduct system trade studies that support precision guidance application for boost phase and boost-thru-reentry scenarios. Investigated concepts for enhanced system test and analysis Conducted investigations to improve circumvention and recovery performance.			
FY 2013 Plans: ($24.566) Reentry System Applications Program (RSAP): Maintain the current capability and support the planned service life extension of Navy reentry systems. Continue development and ground testing of reentry vehicle candidate heat shield and nose tip materials including those available from Science & Technology (S&T) Continue testing of alternative low-cost heat shield and replacement nose tip material. Analyze advanced aging material to determine its effectiveness. Continue testing of operationally aged heat shields to support aging trends and replacement materials assessments.			

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 2228: *Technical Applications Programs*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Maintain RSAP technical program plan, conduct system assessments and continue Vulnerability & Hardening certification process development in absence of Nuclear Under Ground Testing (UGT) facilities. Continue Reentry Body material development and advanced flight test instrumentation activities. Ground test advanced reentry material systems and advanced instrumentation components. Continue design development evaluation of Avionics Batteries and Avionics Computers. Program ends in FY 2014. ($15.153) Strategic Guidance Applications Programs (GAP): Continue to evaluate emergent alternate sensor technologies, (accelerometer, gyro, and stellar) with an emphasis on providing existing performance in a significantly reduced form factor. Assess feasibility of advanced stellar sensor technologies for use in strategic applications; specifically, active pixel and camera-on-a-chip architectures will be evaluated. Utilize the capabilities of the Virtual System Simulation (VSSim) to conduct system trade studies that support precision guidance application for boost phase and boost-thru-reentry scenarios. Investigate concepts for enhanced system test and analysis Complete to the maxium extent possible all GAP development effort. Commence the orderly phase out and termination of the GAP program. Program ends in FY 2014.			
Accomplishments/Planned Programs Subtotals	41.425	39.719	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Contracts will continue to be awarded to those sources who were engaged in the TRIDENT II (D5) development program and are currently engaged in the production and/or operational support of the deployed D5 Strategic Weapons Systems on the basis of Other Than Full and Open Competition pursuant to the authority of 10 U.S.C. 2304 (c) (1) and (3) implemented by FAR 6.302.-1, 3, 4

E. Performance Metrics

Not applicable

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 2228: *Technical Applications Programs*

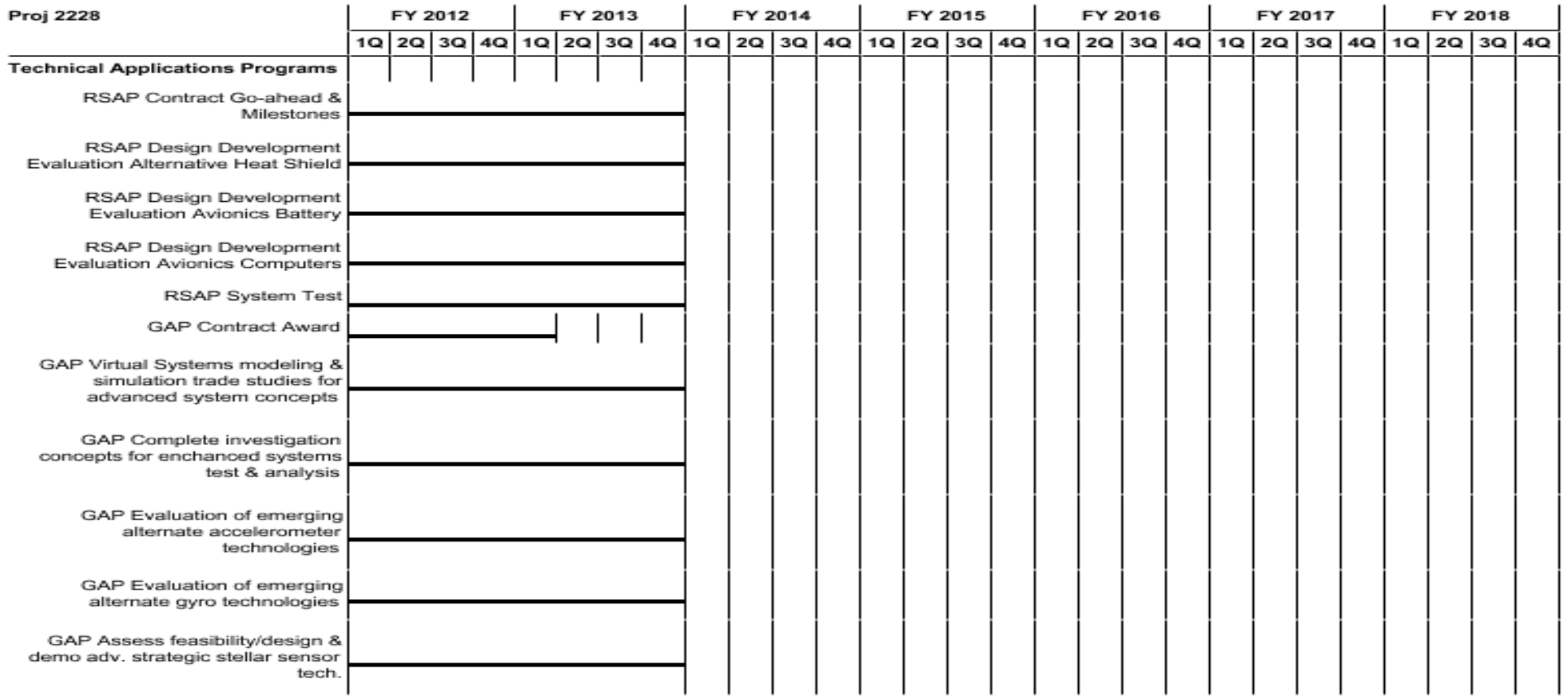
Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technology Applications LMSS	SS/CPFF	LMSS:CA	149.795	9.530	Dec 2011	10.000	Dec 2012	0.000		-		0.000	0.000	169.325	
Technology Applications NSWC	WR	NSWC:VA	83.710	6.825	Oct 2011	7.225	Jan 2013	0.000		-		0.000	0.000	97.760	
Technology Applications DOE	MIPR	DOE:NM	30.558	1.406	Oct 2011	1.663	Jan 2013	0.000		-		0.000	0.000	33.627	
Technology Applications ITT	SS/CPFF	ITT:CO	10.799	0.000	Oct 2011	1.395	Dec 2012	0.000		-		0.000	0.000	12.194	
Technology Applications CSDL	SS/CPFF	CSDL:MA	280.059	22.434	Nov 2011	17.975	Dec 2012	0.000		-		0.000	0.024	320.492	
Technology Applications AERO	SS/CPFF	AERO:CA	1.134	1.137	Jul 2012	1.461	Mar 2013	0.000		-		0.000	0.000	3.732	
Technology Applications VAR	Various	Various:Various	18.224	0.093	Oct 2011	0.000		0.000		-		0.000	0.000	18.317	
		Subtotal	574.279	41.425		39.719		0.000		0.000		0.000	0.024	655.447	

	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	574.279	41.425		39.719		0.000		0.000		0.000	0.024	655.447	

Remarks

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 2228: *Technical Applications Programs*



2014OSD - 0101221N - 2228

Exhibit R-4A, RDT&E Schedule Details: 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 0101221N: *Strategic Sub & Wpns Sys Supt*	**PROJECT** 2228: *Technical Applications Programs*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2228				
Technical Applications Programs: RSAP Contract Go-ahead & Milestones:	1	2012	4	2013
Technical Applications Programs: RSAP Design Development Evaluation Alternative Heat Shield:	1	2012	4	2013
Technical Applications Programs: RSAP Design Development Evaluation Avionics Battery:	1	2012	4	2013
Technical Applications Programs: RSAP Design Development Evaluation Avionics Computers:	1	2012	4	2013
Technical Applications Programs: RSAP System Test:	1	2012	4	2013
Technical Applications Programs: GAP Contract Award:	1	2012	1	2013
Technical Applications Programs: GAP Virtual Systems modeling & simulation trade studies for advanced system concepts:	1	2012	4	2013
Technical Applications Programs: GAP Complete investigation concepts for enchanced systems test & analysis:	1	2012	4	2013
Technical Applications Programs: GAP Evaluation of emerging alternate accelerometer technologies:	1	2012	4	2013
Technical Applications Programs: GAP Evaluation of emerging alternate gyro technologies:	1	2012	4	2013
Technical Applications Programs: GAP Assess feasibility/design & demo adv. strategic stellar sensor tech.:	1	2012	4	2013

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 3097: *W78/88-1 Life Extension Program*	

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
3097: *W78/88-1 Life Extension Program*	0.000	0.000	0.000	14.000	-	14.000	7.000	0.000	0.000	0.000	0.000	21.000
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

The W78/88-1 Life Extension Program (3097) is an effort to conduct the Navy portion of a DoD/DOE Nuclear Weapons Council initiated Phase 6.2/6.2A investigation of design options and associated feasibility and cost study for a life extension of the Air Force W78 Reentry Vehicle and Navy W88 Reentry Body. The study will evaluate options and select a preferred solution(s) for a common Nuclear Explosive Package (NEP), including improved safety capabilities, which could be integrated into both the W78 and W88 platforms. In addition the study will conduct a cost study for a refurbishment life extension of the current W88 design.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: New Accomplishment/Planned Program Entry	0.000	0.000	14.000
Articles:			0
FY 2014 Plans: Review and update the Military Characteristics (MCs), Stockpile to Target Sequence (STS) and Interface Control Documents (ICDs) including analysis of each of the NEP options operational impacts and benefits. Develop and approve system level design requirements. Develop new or modified environments Conduct initial loads and dynamics assessments. Identify Critical Performance Parameters. Continue development of advanced safety and surety architecture solutions. Conduct detailed analysis of each design option and integration impacts working towards selection of a single point design solution. Evaluate system performance impacts. Update structural designs and analytical models. Develop and document production strategy, procurement strategy, and handling and support equipment acquisition strategy			
Accomplishments/Planned Programs Subtotals	0.000	0.000	14.000

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 3097: *W78/88-1 Life Extension Program*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Contracts will be awarded to those sources who were engaged in the W78/88-1 Life Extension Program and are currently engaged in the production and/or operational support of the deployed W78/88-1 Systems on the basis of Other Than Full and Open Competition pursuant to the authority of 10 U.S.C. 2304 (c) (1) and (3) implemented by FAR 6.302.-1, 3, 4

E. Performance Metrics

Not applicable

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 3097: *W78/88-1 Life Extension Program*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
W78/88-1 Life Extension Program	MIPR	DOE:NM	0.000	0.000		0.000		4.200	Oct 2013	-		4.200	0.700	4.900	
W78/88-1 Life Extension Program	C/CPFF	ITT:VA	0.000	0.000		0.000		1.500	Oct 2013	-		1.500	1.100	2.600	
W78/88-1 Life Extension Program	C/CPFF	LMMS:CA	0.000	0.000		0.000		7.500	Oct 2013	-		7.500	4.700	12.200	
W78/88-1 Life Extension Program	WR	NSWC Dahlgren:VA	0.000	0.000		0.000		0.800	Oct 2013	-		0.800	0.500	1.300	
		Subtotal	0.000	0.000		0.000		14.000		0.000		14.000	7.000	21.000	

	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		14.000		0.000		14.000	7.000	21.000	

Remarks

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 3097: *W78/88-1 Life Extension Program*

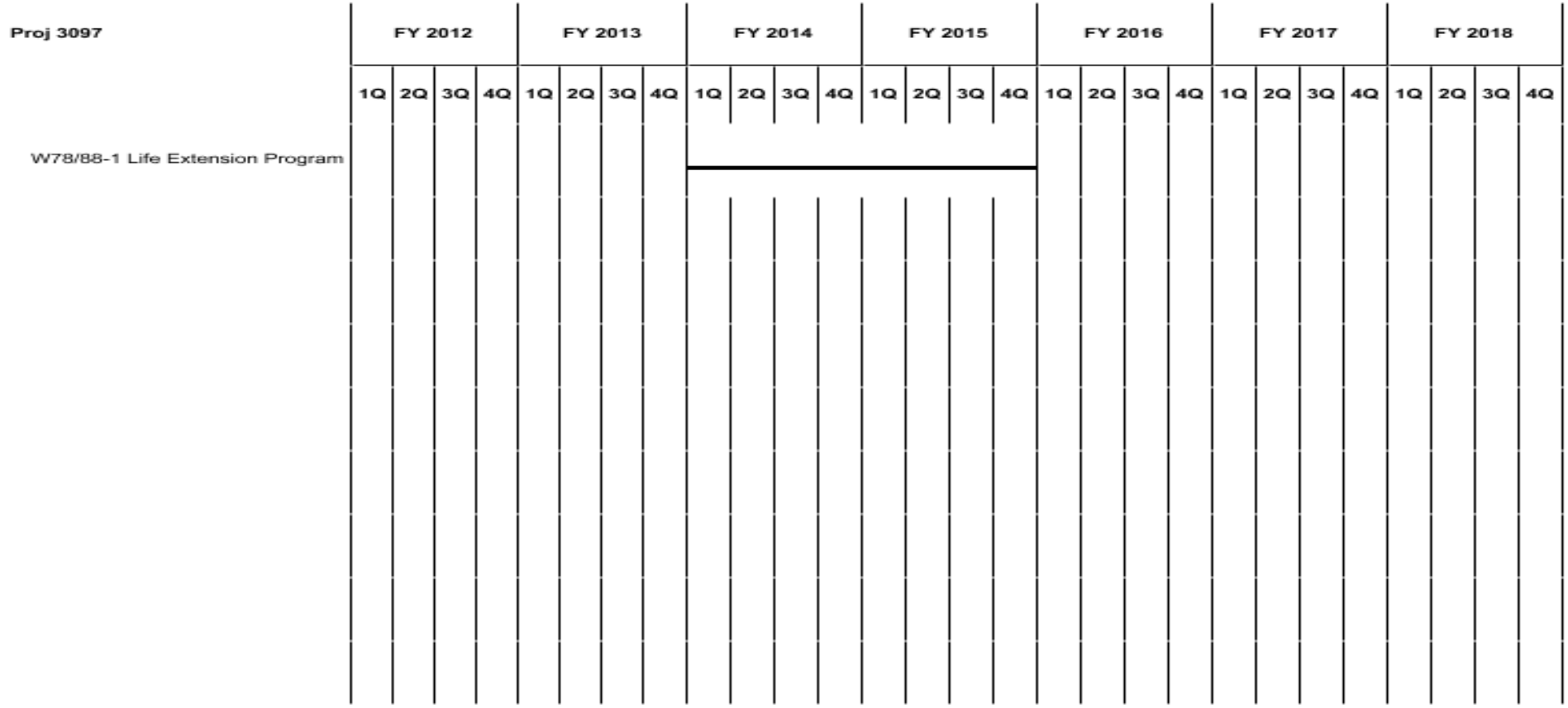


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 3097: *W78/88-1 Life Extension Program*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3097				
W78/88-1 Life Extension Program: W78/88-1 Study	1	2014	4	2015

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 3158: *Integrated Nuclear Weapons Security Sys Dev*	

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
3158: *Integrated Nuclear Weapons Security Sys Dev*	10.109	4.531	4.597	2.601	-	2.601	2.604	2.686	2.767	2.853	Continuing	Continuing
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

The Enhanced Special Weapons effort supports the Nuclear Weapons Security program and SSBN Escort mission. The policies and requirements regarding the safeguard of nuclear weapons within the Department of Defense is established by DoD S5210.41M. Within the Department of the Navy, nuclear weapons are limited to TRIDENT Fleet Ballistic Missiles (FBM), either deployed aboard TRIDENT submarines or located landside at Naval Submarine Base, Kings Bay or Naval Submarine Base, Bangor where missiles are first assembled as well as repaired. The Chief of Naval Operations (CNO) has assigned the Strategic Systems Programs, the FBM program manager, with mission responsibility for the safeguard of FBM nuclear assets. More specifically, the mission includes landside and pier operations as well as transits to and from the dive point, each of which present challenges to personnel as well as existing technologies. This budget supports efforts directed at improving the current technological baseline through a series of studies focusing on land and in transit requirements. Collectively, these efforts will improve countermeasure technologies addressing detection, delay and denial.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Integrated Nuclear Weapons Security Sys Dev	4.531	4.597	2.601
Articles:	0	0	0

FY 2012 Accomplishments:

Continued efforts focused on developing an advanced underwater vehicle and diver detection and deterrence system, and enhanced underwater and surface barriers.

Continued development of advanced technologies for Site-Wide Nuclear Weapons Security Systems including a secure wireless command network and enhanced automated security systems.

Continued development of advanced technologies for Limited Area/Convoy Route Nuclear Weapons Security Systems including extended perimeter detection, vehicle barrier systems at entry control points, and enhanced tracking capabilities.

FY 2013 Plans:

Continue efforts focused on developing an advanced underwater vehicle and diver detection and deterrence system, and enhanced underwater and surface barriers.

Continue development of advanced technologies for Site-Wide Nuclear Weapons Security Systems including a secure wireless command network and enhanced automated security systems.

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 3158: *Integrated Nuclear Weapons Security Sys Dev*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue development of advanced technologies for Limited Area/Convoy Route Nuclear Weapons Security Systems including extended perimeter detection, vehicle barrier systems at entry control points, and enhanced tracking capabilities. ***FY 2014 Plans:*** Continue development of advanced technologies for Site-Wide Nuclear Weapons Security Systems including a secure wireless command network and enhanced automated security systems. Continue development of advanced technologies for Limited Area/Convoy Route Nuclear Weapons Security Systems including extended perimeter detection, vehicle barrier systems at entry control points, and enhanced tracking capabilities.			
Accomplishments/Planned Programs Subtotals	4.531	4.597	2.601

C. Other Program Funding Summary ($ in Millions)

Line Item	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
• MCN/Various-1: *MILCON (CNI) (Nuclear Weapons Security)*	43.842	0.000	0.000		0.000	48.321	0.000	0.000	0.000	0.000	405.091
• OPN/Various-2: *OPN (Nuclear Weapons Security)*	58.518	61.981	52.605		52.605	50.084	68.809	70.042	71.300	Continuing	Continuing
• OMN/11D2D-3: *Fleet Ballistic Missile (Nuclear Weapons Security)*	76.402	80.245	85.249		85.249	88.965	90.549	92.099	93.724	Continuing	Continuing
• OMN/11D2D-5: *Fleet Ballistic Missile (Transit/Escort)*	130.290	115.516	120.510		120.510	83.737	85.215	87.195	88.756	Continuing	Continuing

Remarks

D. Acquisition Strategy

Procurements are being executed through a combination of private contractors (large and small business), government Centers of Excellence (COEs), other government agencies and the Naval Submarine Bases, Kitsap and Kings Bay. Contract awards are based upon "best value" determinations, and where practical will be performance based or include incentive provisions.

E. Performance Metrics

Not applicable

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 3158: *Integrated Nuclear Weapons Security Sys Dev*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Nuclear Weapons Security Sys Dev	WR	NFESC:CA	1.355	0.410	Nov 2011	0.500	Mar 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Integrated Nuclear Weapons Security Sys Dev	WR	CNWS:CA	0.404	0.000	Oct 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Integrated Nuclear Weapons Security Sys Dev	SS/CPFF	JHU APL:MD	1.819	1.043	Oct 2011	0.492	Mar 2013	0.202	Oct 2013	-		0.202	Continuing	Continuing	Continuing
Integrated Nuclear Weapons Security Sys Dev	WR	SNWS:CA	2.194	1.458	Dec 2011	0.550	Mar 2013	0.400	Oct 2013	-		0.400	Continuing	Continuing	Continuing
Integrated Nuclear Weapons Security Sys Dev	WR	NSWC:VA	2.017	0.500	Oct 2011	0.300	Mar 2013	0.300	Oct 2013	-		0.300	Continuing	Continuing	Continuing
Integrated Nuclear Weapons Security Sys Dev	SS/CPFF	JRC:VA	0.501	0.250	Oct 2011	0.816	Mar 2013	0.225	Oct 2013	-		0.225	Continuing	Continuing	Continuing
Integrated Nuclear Weapons Security Sys Dev	WR	NUWC:RI	0.450	0.345	Nov 2011	0.093	Feb 2013	0.040	Oct 2013	-		0.040	Continuing	Continuing	Continuing
Integrated Nuclear Weapons Security Sys Dev	WR	NEDU:FL	0.383	0.000	Oct 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Integrated Nuclear Weapons Security Sys Dev	SS/CPFF	LMMS:CA	0.506	0.200	Feb 2012	0.456	Mar 2013	0.175	Oct 2013	-		0.175	Continuing	Continuing	Continuing
Integrated Nuclear Weapons Security Sys Dev	MIPR	DOEI:ID	0.180	0.000	Oct 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Integrated Nuclear Weapons Security Sys Dev	MIPR	DOE:NM	0.300	0.125	Oct 2011	0.000		0.300	Oct 2013	-		0.300	Continuing	Continuing	Continuing

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 3158: *Integrated Nuclear Weapons Security Sys Dev*	

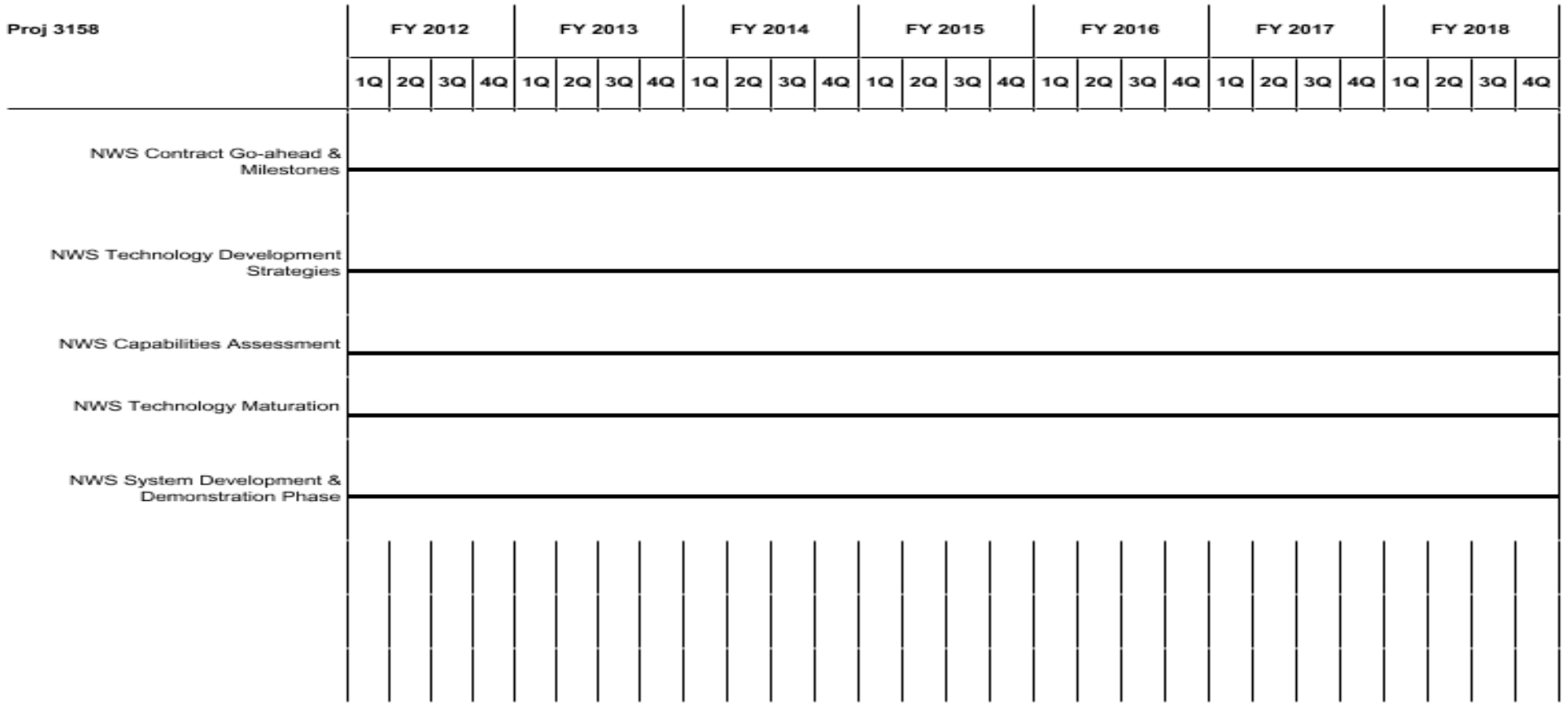
Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Nuclear Weapons Security Sys Dev	SS/CPFF	ARL:TX	0.000	0.200	Oct 2011	0.768	Mar 2013	0.709	Oct 2013	-		0.709	Continuing	Continuing	Continuing
Integrated Nuclear Weapons Security Sys Dev	WR	NUWD:WA	0.000	0.000	Oct 2011	0.622	Feb 2013	0.250	Oct 2013	-		0.250	Continuing	Continuing	Continuing
		Subtotal	10.109	4.531		4.597		2.601		0.000		2.601			

	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	10.109	4.531		4.597		2.601		0.000		2.601			

Remarks

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 0101221N: *Strategic Sub & Wpns Sys Supt*	PROJECT 3158: *Integrated Nuclear Weapons Security Sys Dev*



2014OSD - 0101221N - 3158

Exhibit R-4A, RDT&E Schedule Details: 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 0101221N: *Strategic Sub & Wpns Sys Supt*	**PROJECT** 3158: *Integrated Nuclear Weapons Security Sys Dev*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3158				
NWS Contract Go-ahead & Milestones:	1	2012	4	2018
NWS Technology Development Strategies:	1	2012	4	2018
NWS Capabilities Assessment:	1	2012	4	2018
NWS Technology Maturation:	1	2012	4	2018
NWS System Development & Demonstration Phase:	1	2012	4	2018