Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy											Date: February 2015	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 Program Element (Number/Name) PE 0603713N *I Ocean Engineering Tech Dev*							
COST ($ in Millions)	**Prior Years**	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Cost To Complete**	**Total Cost**
Total Program Element	108.012	7.530	6.264	4.520	-	4.520	5.946	5.906	5.713	5.832	Continuing	Continuing
0099: *Deep Submergence Bio Med Dev*	25.571	3.078	2.173	4.000	-	4.000	4.382	4.437	4.461	4.555	Continuing	Continuing
0394: *Shallow Depth Diving EQ*	82.441	4.452	4.091	0.520	-	0.520	1.564	1.469	1.252	1.277	Continuing	Continuing

A. Mission Description and Budget Item Justification

Developments in this program will enable the U.S. Navy to overcome deficiencies that constrain underwater operations in the areas of search, location, rescue, recovery, salvage, underwater ship husbandry, construction, and protection of offshore assets. This program develops medical technology, diver life support equipment, and the vehicles, systems, tools, and procedures to permit manned underwater operations.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	7.696	7.764	5.372	-	5.372
Current President's Budget	7.530	6.264	4.520	-	4.520
Total Adjustments	-0.166	-1.500	-0.852	-	-0.852
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-1.500			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.004	-			
• SBIR/STTR Transfer	-0.161	-			
• Rate/Misc Adjustments	-0.001	-	-0.852	-	-0.852

Change Summary Explanation

FY 2015 was reduced due to Submarine Rescue System program delay.

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603713N / *Ocean Engineering Tech Dev*	Project (Number/Name) 0099 / *Deep Submergence Bio Med Dev*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
0099: *Deep Submergence Bio Med Dev*	25.571	3.078	2.173	4.000	-	4.000	4.382	4.437	4.461	4.555	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project:
1) Develops advanced biomedical and bioengineering technology for enhancing medical and life support for submarine escape and rescue;
2) Conducts research for diver health, safety and effectiveness; and
3) Supports deeper, longer, and more flexible dives.

Deliverables for DISSUB (disabled submarine) include: medical procedures for submarine escape and rescue (including new Submarine Rescue Diving and Recompression System (SRDRS)), life support parameters, medical procedures for life support, exposure guidance for atmospheric contaminants, non-chemical CO2 scrubbing, prevention and treatment of decompression illness, and senior survivor expert decision system.
Deliverables for diver enhancement include: exposure guidance for diver underwater continuous noise, impulse noise, and underwater blast, exposure guidance for oxygen breathing, collection of operational diving depth/time profiles to predict decompression risk, enhanced underwater swimming efficiency, enhanced diver thermal protection, and real-time decompression guidance.
Requirements: NAPDD #587-873, Deep Submergence Biomedical Development, 23 November 1999.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Deep Submergence Bio Med Dev - Diver Health and Safety	1.539	1.087	2.000	-	2.000
Articles:	-	-	-	-	-
Description: Diver Health and Safety Research: Pulmonary oxygen toxicity exposure limits. Procedures for assessing and mitigating risk for diving in contaminated water. Procedure to determine remaining CO2 scrubber duration. Development of advanced insulation garments for diver thermal protection. Develop guidance for optimizing thermal control during decompression. Continue collection of operational dive profiles for advanced modeling. Novel methods for diver thermal protection. Improve resistance to O2 toxicity. Diver anthropometry. Chemical hardening of diving equipment. Predictive index of visual and auditory O2 toxicity. Guidelines for flying after diving. Guidelines for infra- and ultra-sound diver exposure. Develop an advanced diver thermal model. Electronic collection of operational dive data. Diver sound monitor. Investigation of diver in-water maladies, develop/improve real-time decompression guidance and dive planning.					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603713N / *Ocean Engineering Tech Dev*	**Project (Number/Name)** 0099 / *Deep Submergence Bio Med Dev*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
FY 2014 Accomplishments: Initiate development of a Flexible Portable Double Lock Recompression Chamber. Determine condensation requirements in very high pressure air supplies. Initiate development of recompression treatments for blow up from 300 feet. Evaluate Underwater Breathing Apparatus (UBA) breathing resistance under various conditions. Evaluate human performance during long dives. Continue to evaluate probabilistic and deterministic decompression modeling. Decompression effectiveness of Heliox and Trimix Bounce dives. Develop procedures for contaminated water diving from saturation platform (SAT FADS). ***FY 2015 Plans:*** Continue FY14 projects. ***FY 2016 Base Plans:*** Complete above projects. Initiate scientific and operational studies of enhanced diver communications and hearing protection, cognitive and performance effects of diver CO2 levels, direct contribution of oxygen to decompression stress, identification of decompression sickness biomarkers, development of optimal heat distribution for cold water diving, mitigation of performance decrements from long oxygen diving. ***FY 2016 OCO Plans:*** N/A					
Title: Deep Submergence Bio Med Dev - Submarine Rescue	1.539	1.086	2.000	-	2.000
Articles:	-	-	-	-	-
Description: Submarine Rescue: Decompression procedures for pressurized SRDRS operators. Use of perfluorocarbons to accelerate decompression in submarine rescue. Adjunctive therapies for treating DISSUB survivors. Guidance for food, water, clothing, medical supplies to enhance survival of submarine crews awaiting rescue. Flexible computer generated decompression schedules for wide range of conditions in a DISSUB. Develop DISSUB triage procedures. DISSUB survival trial. Develop oxygen metabolizer for closed vehicles. Treatment guidance for decompression sickness and arterial gas embolism in submarine escape and rescue. Interventions for toxicological problems with rescued submariners. Minimizing decompression sickness and arterial gas embolism with Submarine Escape and Immersion Suit (SEIS) training. Use of pharmacologic agents to reduce decompression risk in submarine rescuees. Development of toxic gas analyzer for use in pressurized DISSUB.					
FY 2014 Accomplishments:					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603713N / *Ocean Engineering Tech Dev*	**Project (Number/Name)** 0099 / *Deep Submergence Bio Med Dev*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Develop Oxygen prebreathe schedules for saturation dropout for DISSUB decompression sickness prediction. Complete prescribed drug efforts from FY13. Use vigabatrin to reduce O2 Central Nervous System (CNS) toxicity in O2 pre-breathe. ***FY 2015 Plans:*** Continue FY14 projects. ***FY 2016 Base Plans:*** Complete Saturation drop out predictions for decompression sickness (DCS). Initiate scientific studies of Titotropium inhaler use to reduce pulmonary oxygen toxicity in DISSUB survivors, and executive decision performance decrements in chronic and acute exposures of submariners to very mild elevations of CO2. ***FY 2016 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	3.078	2.173	4.000	-	4.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Integrated thrust area teams (e.g., decompression research) are established with university, commercial, and in-house Navy labs to jointly execute biomedical R&D. Peer review of research proposals accomplished by independent Technical Advisory Board. Annual review of progress by Executive Review Board (CNO/NAVSEA/ONR/BUMED). Program management by 0-6 Undersea Medical Officer. Contracting by competitive process using BAA and leveraging ONR capabilities.

E. Performance Metrics

Quarterly Program Reviews

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603713N / *Ocean Engineering Tech Dev*	Project (Number/Name) 0099 / *Deep Submergence Bio Med Dev*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Diving Equipment Product Development	C/CPAF	Phoenix International : Largo, MD	0.000	0.738	Jun 2014	-		-		-		-	-	0.738	-
Diving Equipment Product Development	WR	Various : Various	0.000	0.600	May 2014	-		-		-		-	-	0.600	-
		Subtotal	0.000	1.338		-		-		-		-	-	1.338	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test & Evaluation	WR	NEDU : Panama City, FL	17.733	0.958	Apr 2014	1.239	Nov 2014	1.100	Nov 2015	-		1.100	Continuing	Continuing	Continuing
Development Test & Evaluation	WR	NMRC : Silver Spring, MD	6.548	0.456	Apr 2014	0.247	Nov 2014	0.250	Nov 2015	-		0.250	Continuing	Continuing	Continuing
Development Test & Evaluation	WR	DUKE UNIV : Durham, NC	0.300	0.238	Jun 2014	0.300	Nov 2014	0.300	Nov 2015	-		0.300	-	1.138	-
Development Test & Evaluation	WR	NIST : Gaithersburg, MD	0.040	-		-		-		-		-	-	0.040	-
Development Test & Evaluation	C/CPAF	GPC : Irvine, CA	0.200	-		-		-		-		-	-	0.200	-
Development Test & Evaluation	C/CPFF	ROH : Arlington, VA	0.000	0.030	Apr 2014	-		-		-		-	-	0.030	-
Development Test & Evaluation	TBD	TBD : Not Specified	0.000	-		0.217	Nov 2014	2.230	Oct 2015	-		2.230	-	2.447	-
Development Test & Evaluation	WR	NSWCCD-NAVSSES : Philadelphia, PA	0.000	-	Aug 2014	-		-		-		-	-	-	-
Development Test & Evaluation	C/CPFF	Unknown : Not Specified	0.000	-		0.050	Mar 2015	-		-		-	-	0.050	-
		Subtotal	24.821	1.682		2.053		3.880		-		3.880	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603713N / *Ocean Engineering Tech Dev*	**Project (Number/Name)** 0099 / *Deep Submergence Bio Med Dev*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various	NEDU : Panama City	0.229	-		-		-		-		-	-	0.229	-
Travel	Various	Various : Various	0.323	0.058	Jul 2014	0.070	Oct 2014	0.070	Oct 2015	-		0.070	Continuing	Continuing	Continuing
*SBIR Assessment	Various	Various : Various	0.182	-		-		-		-		-	Continuing	Continuing	Continuing
Acquisition Workforce	Various	Various : Various	0.016	-		-		-		-		-	Continuing	Continuing	Continuing
Program Management Support	C/CPFF	Unknown : Not Specified	0.000	-		0.050	Mar 2015	0.050	Oct 2015	-		0.050	-	0.100	-
		Subtotal	0.750	0.058		0.120		0.120		-		0.120	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	25.571	3.078		2.173		4.000		-		4.000	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603713N / *Ocean Engineering Tech Dev*	**Project (Number/Name)** 0099 / *Deep Submergence Bio Med Dev*

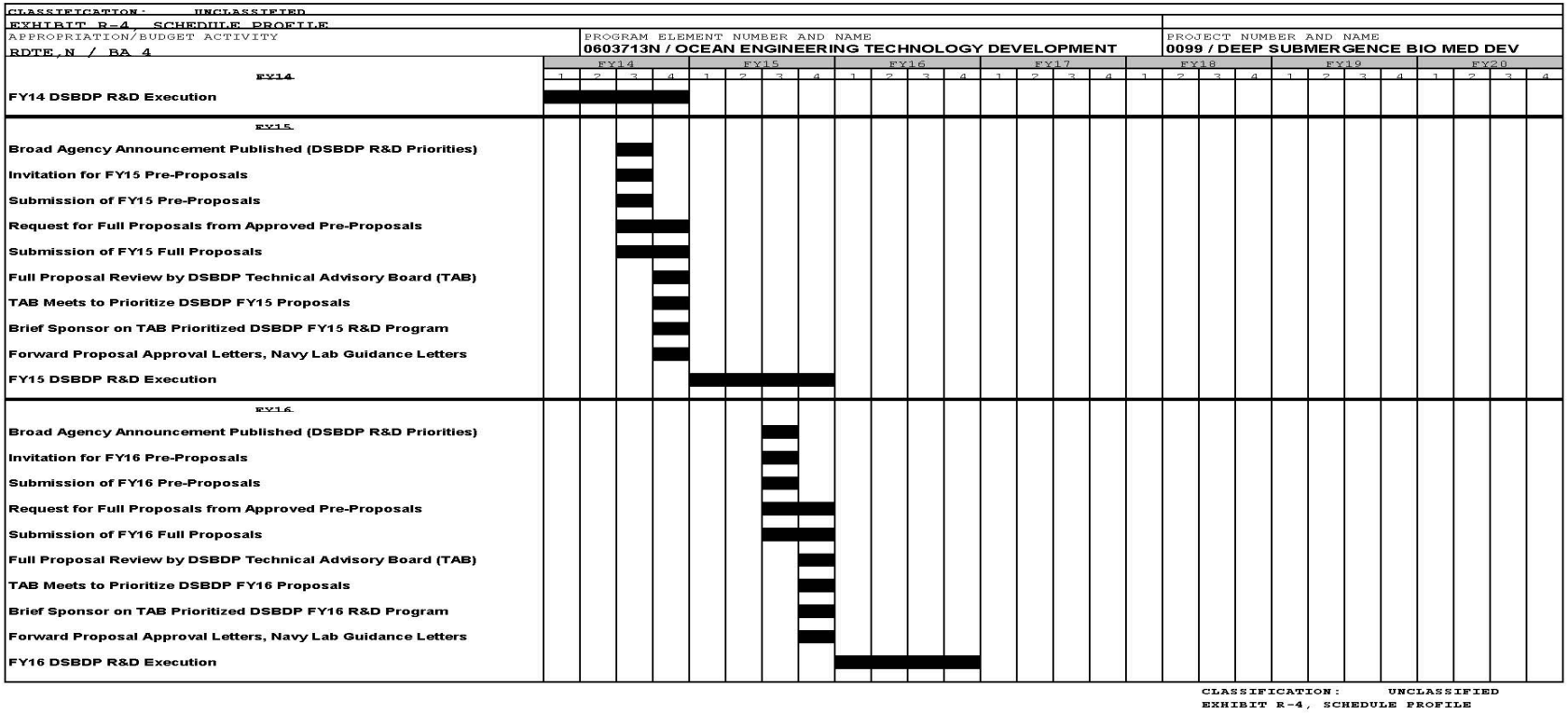


Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603713N / *Ocean Engineering Tech Dev*	**Project (Number/Name)** 0099 / *Deep Submergence Bio Med Dev*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0099				
FY14 DSBDP R&D Execution	1	2014	4	2014
FY15 Broad Agency Announcement Published (DSBDP R&D Priorities)	3	2014	3	2014
Invitation for FY15 Pre-Proposals	3	2014	3	2014
Submission of FY15 Pre-Proposals	3	2014	3	2014
Request for Full Proposals from Approved FY15 Pre-Proposals	3	2014	4	2014
Submission of FY15 Full Proposals	3	2014	4	2014
Full FY15 Proposal Review by DSBDP Technical Advisory Board (TAB)	4	2014	4	2014
TAB Meets to Prioritize DSBDP FY15 Proposals	4	2014	4	2014
Brief Sponsor on TAB Prioritized DSBDP FY15 R&D Program	4	2014	4	2014
Forward FY15 Proposal Approval Letters, Navy Lab Guidance Letters	4	2014	4	2014
FY15 DSBDP R&D Execution	1	2015	4	2015
FY16 Broad Agency Announcement Published (DSBDP R&D Priorities)	3	2015	3	2015
Invitation for FY16 Pre-Proposals	3	2015	3	2015
Submission of FY16 Pre-Proposals	3	2015	3	2015
Request for Full Proposals from Approved FY16 Pre-Proposals	3	2015	4	2015
Submission of FY16 Full Proposals	3	2015	4	2015
Full FY16 Proposal Review by DSBDP Technical Advisory Board (TAB)	4	2015	4	2015
TAB Meets to Prioritize DSBDP FY16 Proposals	4	2015	4	2015
Brief Sponsor on TAB Prioritized DSBDP FY16 R&D Program	4	2015	4	2015
Forward FY16 Proposal Approval Letters, Navy Lab Guidance Letters	4	2015	4	2015
FY16 DSBDP R&D Execution	1	2016	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603713N / *Ocean Engineering Tech Dev*	Project (Number/Name) 0394 / *Shallow Depth Diving EQ*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
0394: *Shallow Depth Diving EQ*	82.441	4.452	4.091	0.520	-	0.520	1.564	1.469	1.252	1.277	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Submarine Rescue manned under PMS 391. Efforts through FY15 focus on the Submarine Rescue Diving and Recompression System (SRDRS) to provide a new rapidly deployed emergency submarine rescue capability. SRDRS provides a new capability of pressurized transportation of rescuees from a stricken submarine directly to the decompression system replacing the Deep Submergence Rescue Vehicles and Mother Submarines. SRDRS includes an air transportable rapid Assessment/ Underwater Work System (AUWS), a Pressurized Rescue Module (PRM) or Rescue Capable System (RCS), and a Submarine Decompression System (SDS). The AUWS is a manned system that provides intervention system capability. To reduce operational risk, an initiative is in process to transition from AUWS to an unmanned Remote Operated Vehicle (ROV). Intervention assets support clearing disabled submarine seating surfaces, delivery of emergency life support stores, and disabled submarine assessment. The Submarine Rescue System-Rescue Capable System (SRS-RCS) completed OPEVAL in FY08 and is rescue ready. The Submarine Rescue System-Submarine Decompression System (SRS-SDS) Initial Operational Capability (IOC) and SRDRS Full Operational Capability (FOC) have been delayed due to efforts associated with Pressurized Rescue Module (PRM) restoration to service. The SRDRS will provide a global rapid response capability to support submarine rescue missions with an increase in capability at a fraction of the cost of the currently available systems.

Shallow Depth Diving Equipment managed under SEA00C - This project develops systems to support submarine escape and rescue missions, and conventional diver operations. Diver operations include ship husbandry, salvage/recovery, and submarine rescue operations to support national, as well as Navy, needs around the world. Modern certifiable diving systems that ensure diver safety and allow maximum work efficiency will replace currently antiquated systems. R&D will be performed in the areas of contaminated water diving, diver thermal protection, and diver sound protection.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Shallow Depth Diving EQ - SRDRS	3.430	2.733	-	-	-
Articles:	-	-	-	-	-
Description: Continue acceptance testing of the prototype Submarine Decompression System and support equipment. Continue integration and testing of all SRDRS components.					
FY 2014 Accomplishments: Plan to continue design/development/fabrication of Pressurized Rescue Module System 6 atmospheres absolute (ata) efforts. Plan to complete material audit for Vital System Monitoring Network.					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603713N / *Ocean Engineering Tech Dev*	**Project (Number/Name)** 0394 / *Shallow Depth Diving EQ*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Plan to complete Submarine Decompression System Element Integration Testing at Oceaneering and Deliver Submarine Decompression System to Undersea Rescue Command to begin integration with the Submarine Rescue System. Begin Post Delivery Element Shakedown efforts. ***FY 2015 Plans:*** Plan to continue design/development/fabrication of Pressurized Rescue Module System 6 atmospheres absolute (ata) efforts. Plan to continue development of Operating Procedures, Emergency Procedures, and Test Procedures in support of future evolutions including Unmanned Testing, Manned Testing and Sea Trials. Continue Post Delivery Element Shakedown efforts. ***FY 2016 Base Plans:*** N/A ***FY 2016 OCO Plans:*** N/A					
Title: Shallow Depth Diving EQ - Diving	1.022	1.358	0.520	-	0.520
Articles:	-	-	-	-	-
Description: Continued research on contaminated water diving and research on diver thermal protection, CO2 monitors, and diver sound protection. ***FY 2014 Accomplishments:*** Continue improvements to a free diver heating system (FDHS). Complete development of a prototype Underwater Breathing Apparatus (UBA)/CO2 monitor and qualification testing of quick disconnects for use in high pressure oxygen environments. Cold water testing of various diving equipment. ***FY 2015 Plans:*** Start development of a double-lock flexible recompression chamber. Complete testing of production models of the free diver heating system (FDHS). Conduct testing of portable air monitor devices. ***FY 2016 Base Plans:*** Continue development work on a double lock flexible recompression chamber. ***FY 2016 OCO Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603713N / *Ocean Engineering Tech Dev*	**Project (Number/Name)** 0394 / *Shallow Depth Diving EQ*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
N/A					
Accomplishments/Planned Programs Subtotals	4.452	4.091	0.520	-	0.520

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The Submarine Rescue system (SRS) segment of the SRDRS is largely based on the use of Commercial-Off-the-Shelf (COTS) technology and maximum use of Non-Developmental Items (NDI). The SRS segment is being procured using performance based specifications. Many of the SRS contracts were awarded competitively and were based on technical capability and cost considerations (best value). Program management of SRDRS is accomplished through the use of Program Executive Officer, Submarines (PEO SUB) leadership. This change was enacted in February 2003 realigning the responsibility from SEA00C to PEOSUB. The Prototype system provides full operational capability and no additional procurement is planned. The system is designed to be Government Owned/Commercially Operated/Commercially Maintained (GO/CO/CM).

E. Performance Metrics

Quarterly Program Reviews and Critical Design Reviews.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603713N / *Ocean Engineering Tech Dev*	**Project (Number/Name)** 0394 / *Shallow Depth Diving EQ*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Pressurized Rescue Module System (PRMS)	C/CPIF	Oceanworks : Ontario, Canada	23.824	-		-		-		-		-	-	23.824	-
PRMS	C/FFP	Oceanworks : Ontario, Canada	4.150	-		-		-		-		-	-	4.150	-
Systems Engineering - Design, Integration	C/CPAF	Oceaneering : Hanover, MD	21.579	0.722	Dec 2013	1.271	Feb 2015	-		-		-	Continuing	Continuing	Continuing
Systems Engineering - Technical	Various	Various : Various	0.537	-		-		-		-		-	Continuing	Continuing	Continuing
Systems Engineering - Design, Integration	C/CPAF	Oceaneering : Hanover, MD	5.101	1.290	Mar 2014	0.442	May 2015	-		-		-	-	6.833	-
Systems Engineering - Design, Integration	C/CPAF	Oceaneering : Hanover, MD	2.873	-	Apr 2014	0.125	Aug 2015	-		-		-	-	2.998	-
Systems Engineering - Design & Integration	C/CPAF	Oceaneering : Hanover, MD	1.380	0.517	Aug 2014	-		-		-		-	-	1.897	-
Diving Equipment Product Development (00C)	Various	Various : Various	1.556	0.497	Sep 2014	0.586	Jun 2015	-		-		-	-	2.639	-
Diving Equipment Product Development (00C)	C/CPFF	GPC : Irvine, CA	0.477	0.525	Apr 2014	0.363	Aug 2015	-		-		-	-	1.365	-
Diving Equipment Product Development (00C)	C/CPFF	PCCI : Alexandria, VA	0.000	-		0.329	Dec 2014	0.452	Jan 2016	-		0.452	-	0.781	-
Diving Equipment Product Development (00C)	C/CPFF	RINI TECHOLOGIES : Oviedo, FL	0.000	-		-		-		-		-	-	-	-
		Subtotal	61.477	3.551		3.116		0.452		-		0.452	-	-	-

Remarks

1. Oceaneering is the prime for SRDRS Transfer Under Pressure (TUP) capability. SRDRS Full Operational Capability (FOC) has been delayed due to efforts associated with Pressurized Rescue Module (PRM) restoration to service; FY15 funding decrease is due to program delays.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603713N / *Ocean Engineering Tech Dev*	**Project (Number/Name)** 0394 / *Shallow Depth Diving EQ*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support (00C)	Various	Various : Various	4.806	-		-		-		-		-	Continuing	Continuing	Continuing
Integrated Logistics Support	Various	Various : Various	0.841	-		-		-		-		-	Continuing	Continuing	Continuing
Configuration Management	C/CPAF	Oceaneering : Hanover, MD	0.489	-		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	6.136	-		-		-		-		-	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various : Various	3.187	-		-		-		-		-	Continuing	Continuing	Continuing
Operational Test & Evaluation	WR	COMOPTEVFOR : Norfolk, VA	0.655	0.244	Jan 2014	0.050	Mar 2015	-		-		-	Continuing	Continuing	Continuing
Test Baseline Documentation	WR	NUWC Keyport : Keyport, WA	0.000	0.032	Feb 2014	0.075	Oct 2014	-		-		-	-	0.107	-
		Subtotal	3.842	0.276		0.125		-		-		-	-	-	-

Remarks

FY14-FY15 funding supports Operational Evaluation Testing requirements.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	Various	QBS/Various : Richmond BC, Canada/Various	0.074	-		-		-		-		-	Continuing	Continuing	Continuing
Government Engineering Support	WR	NFESC : Port Hueneme, CA	0.197	-		-		-		-		-	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603713N / *Ocean Engineering Tech Dev*	Project (Number/Name) 0394 / *Shallow Depth Diving EQ*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	PSNSY/ Various : Bremerton, WA/ Various	2.197	-		-		-		-		-	Continuing	Continuing	Continuing
Government Engineering Support	Various	Various : Various	1.859	-		-		-		-		-	Continuing	Continuing	Continuing
Program Management Support	Various	Perot : Washington, DC	2.110	-		-		-		-		-	Continuing	Continuing	Continuing
Travel (Submarine Rescue)	Various	NAVSEA : Washington, DC	0.759	0.025	Oct 2013	0.050	Oct 2014	-		-		-	Continuing	Continuing	Continuing
Travel (00C)	Various	NAVSEA : Washington, DC	0.100	-	Oct 2013	0.050	Oct 2014	0.037	Oct 2015	-		0.037	-	0.187	-
SBIR Assessment	Various	Various : Various	0.443	-		-		-		-		-	Continuing	Continuing	Continuing
Acquisition Workforce	Various	Various : Various	0.021	-		-		-		-		-	Continuing	Continuing	Continuing
Program Management Support	C/CPIF	Dell Federal : Washington, DC	0.674	-		0.200	Nov 2014	-		-		-	-	0.874	-
Program Management Support	C/CPIF	Dell Federal : Washington, DC	0.993	-		0.189	Jan 2015	-		-		-	-	1.182	-
Program Management Support	C/CPIF	Dell Federal : Washington, DC	1.072	0.600	Jun 2014	0.306	Jun 2015	-		-		-	-	1.978	-
Government Engineering Support	WR	PNSY : Portsmouth, NH	0.427	-	Oct 2013	0.025	Feb 2015	-		-		-	-	0.452	-
Program Management Support (00C)	WR	NEDU : Panama City, FL	0.060	-		-		-		-		-	-	0.060	-
Program Management Support (00C)	C/CPFF	Unknown : Not Specified	0.000	-		0.030	Mar 2015	0.031	Nov 2015	-		0.031	-	0.061	-
		Subtotal	10.986	0.625		0.850		0.068		-		0.068	-	-	-

Remarks

Submarine Rescue travel increase in FY15 is related to Transfer Under Pressure integration efforts scheduled at Undersea Rescue Command, San Diego during FY15.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603713N / *Ocean Engineering Tech Dev*	Project (Number/Name) 0394 / *Shallow Depth Diving EQ*	

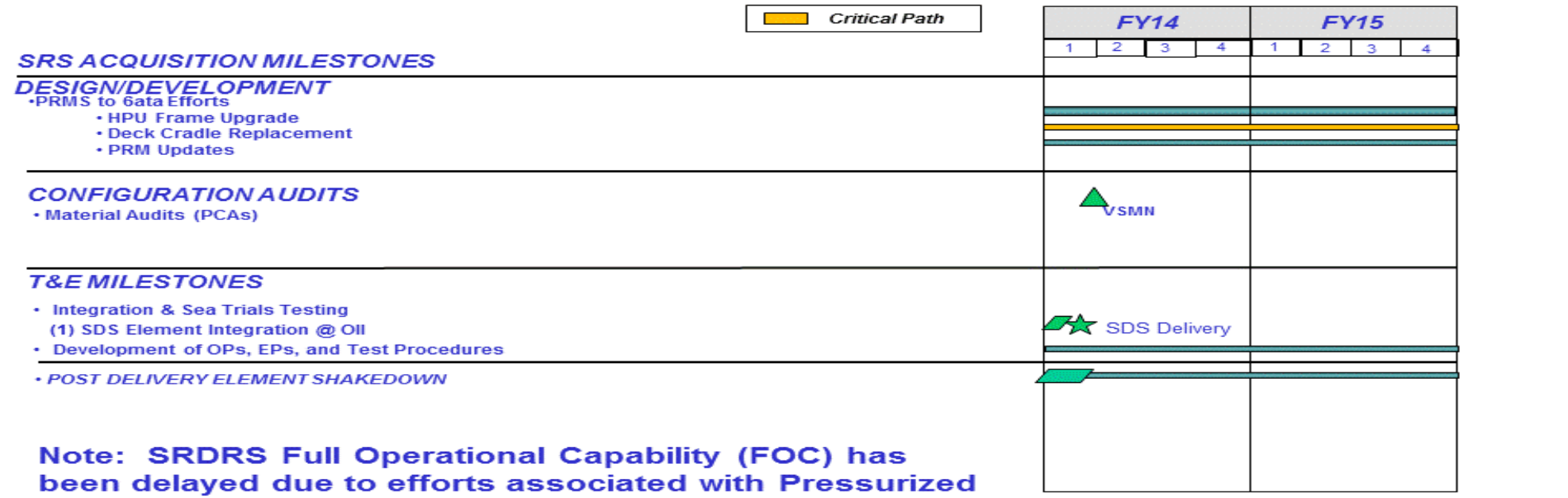
	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	82.441	4.452		4.091		0.520		-		0.520	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603713N / *Ocean Engineering Tech Dev*	**Project (Number/Name)** 0394 / *Shallow Depth Diving EQ*

SRDRS Acquisition
Transfer Under Pressure

Update 8 Jan 2015



Note: SRDRS Full Operational Capability (FOC) has been delayed due to efforts associated with Pressurized Rescue Module (PRM) restoration to service; FY15 funding decrease is due to program delays.

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603713N / *Ocean Engineering Tech Dev*	**Project (Number/Name)** 0394 / *Shallow Depth Diving EQ*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0394				
Design and Development	1	2014	4	2015
HPU Frame Upgrade	1	2014	4	2015
Deck Cradle Replacement	1	2014	4	2015
PRM Updates	1	2014	4	2015
Configuration Audits	1	2014	1	2014
VSMN Material Audit	1	2014	1	2014
T&E Milestones	1	2014	4	2015
SDS Element Integration at OII and SDS Delivery	1	2014	1	2014
Development of OPs, EPS, and Test Procedures	1	2014	4	2015
Post Delivery Element Shakedown	1	2014	4	2015