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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603713N: Ocean Engineering Tech Dev							
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	9.492	17.256	13.560	0.000	13.560	10.251	7.493	7.661	7.819	Continuing	Continuing
0099: Deep Submergence Bio Med Dev	3.276	3.299	3.149	0.000	3.149	3.698	3.763	3.848	3.927	Continuing	Continuing
0394: Shallow Depth Diving EQ	6.216	13.957	10.411	0.000	10.411	6.553	3.730	3.813	3.892	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, 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 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total						
Previous President's Budget	7.716	17.328	0.000	0.000	0.000						
Current President's Budget	9.492	17.256	13.560	0.000	13.560						
Total Adjustments	1.776	-0.072	13.560	0.000	13.560						
• Congressional General Reductions		-0.072									
• Congressional Directed Reductions		0.000									
• Congressional Rescissions	0.000	0.000									
• Congressional Adds		0.000									
• Congressional Directed Transfers		0.000									
• Reprogrammings	1.900	0.000									
• SBIR/STTR Transfer	-0.124	0.000									
• Program Adjustments	0.000	0.000	13.560	0.000	13.560						
Change Summary Explanation											
FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603713N: <i>Ocean Engineering Tech Dev</i>				PROJECT 0099: <i>Deep Submergence Bio Med Dev</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
0099: <i>Deep Submergence Bio Med Dev</i>	3.276	3.299	3.149	0.000	3.149	3.698	3.763	3.848	3.927	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
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, and enhanced underwater swimming efficiency. Requirements: NAPDD #587-873, Deep Submergence Biomedical Development, 23 November 1999.											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
Deep Submergence Bio Med Dev - Diver Health and Safety 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.						1.788	1.643	1.484	0.000	1.484	

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy			DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 ITEM NOMENCLATURE PE 0603713N: Ocean Engineering Tech Dev		PROJECT 0099: Deep Submergence Bio Med Dev	
B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2009 Accomplishments:</i> Continued determining the effectiveness of Propranolol for use by DISSUB Survivors to Reduce CO2 production and anxiety and effects of Inspired CO2 and breathing resistance on exercise. Continued exercise and diver's thermal environment on nitrogen uptake and elimination. Continued the mechanics of isobaric oxygen pre-breath effectiveness.</p> <p><i>FY 2010 Plans:</i> Begin pulmonary oxygen toxicity exposure limits. Survey of long-term health effects of USN Divers. Continue the mechanics of isobaric oxygen pre-breath effectiveness. Screening tests for susceptibility to Immersion Pulmonary Edema (IPE). Continue the effects of exercise and diver's thermal environment on Nitrogen Uptake and Elimination.</p> <p><i>FY 2011 Base Plans:</i> Continue the pulmonary oxygen toxicity exposure limits. Continue screening tests for susceptibility to Immersion Pulmonary Edema (IPE). Continue the effects of exercise and diver's thermal environment on Nitrogen Uptake and Elimination.</p>					
Deep Submergence Bio Med Dev - Submarine Rescue	1.472	1.656	1.665	0.000	1.665
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 rescues. Development of toxic gas analyzer for use in pressurized DISSUB.					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 ITEM NOMENCLATURE PE 0603713N: Ocean Engineering Tech Dev		PROJECT 0099: Deep Submergence Bio Med Dev	
B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2009 Accomplishments: Continued Accelerate Decompression for the Submarine Emergency Operating Procedures. Continued the Impact of Nitric Oxide Donor in 70Kg Swine Saturation Drop Out. Continued the Risk Analysis Program for pressurized Sub Escape training. Continued guidance and protection for exposure to Underwater Blast.					
FY 2010 Plans: Continue the Accelerated Decompression for the Submarine Emergency Operating Procedures. Continue the impact of Nitric Oxide Donor in 70Kg Swine Saturation Drop Out. Continue the risk analysis program for pressurized Sub Escape training. Continue Guidance and Protection for Exposure to Underwater Blast. Development of decompression schedule for Submarine Escape and Rescue Using Sheep Model.					
FY 2011 Base Plans: Continue the Impact of Nitric Oxide Donor in 70Kg Swine Saturation Drop Out. Continue development of decompression schedule for Submarine Escape and Rescue Using Sheep Model.					
Deep Submergence Bio Med Dev - Acquisition Workforce Acquisition Workforce	0.016	0.000	0.000	0.000	0.000
FY 2009 Accomplishments: Defense Acquisition Workforce Development Fund Requirement					
Accomplishments/Planned Programs Subtotals	3.276	3.299	3.149	0.000	3.149

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603713N: <i>Ocean Engineering Tech Dev</i>	PROJECT 0099: <i>Deep Submergence Bio Med Dev</i>
C. Other Program Funding Summary (\$ in Millions) N/A		
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 Medical Dept Officer; contracting by competitive process using BAA and leveraging ONR capabilities.		
E. Performance Metrics Quarterly Program Reviews		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603713N: <i>Ocean Engineering Tech Dev</i>				PROJECT 0099: <i>Deep Submergence Bio Med Dev</i>					
 Test and Evaluation (\$ 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
Development Test & Evaluation	WR	NEDU Panama City, FL	9.991	1.958	Oct 2009	1.884	Oct 2010	0.000		1.884	Continuing	Continuing	Continuing
Development Test & Evaluation	WR	NRC Silver Spring, MD	2.187	1.268	Oct 2009	1.189	Oct 2010	0.000		1.189	Continuing	Continuing	Continuing
Subtotal			12.178	3.226		3.073		0.000		3.073			
Remarks													
 Management Services (\$ 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
Program Management Support	Various/ Various	Various Various	0.027	0.028		0.031		0.000		0.031	Continuing	Continuing	Continuing
Travel	Various/ Various	Various Various	0.093	0.045		0.045		0.000		0.045	Continuing	Continuing	Continuing
*SBIR Assessment	Various/ Various	Various Various	0.182	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Acquisition Workforce	Various/ Various	Various Various	0.016	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Subtotal			0.318	0.073		0.076		0.000		0.076			
Remarks													

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy							DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>			R-1 ITEM NOMENCLATURE PE 0603713N: <i>Ocean Engineering Tech Dev</i>			PROJECT 0099: <i>Deep Submergence Bio Med Dev</i>					
	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	12.496	3.299		3.149		0.000		3.149			
Remarks											

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

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy
BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0603713N: Ocean Engineering Tech Dev

PROJECT

0099: Deep Submergence Bio Med Dev

	FY09				FY10				FY11				FY12				FY13				FY14				FY15			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
FY09																												
FY09 DSBDP R&D Execution																												
FY10																												
1) Broad Agency Announcement Published (DSBDP R&D Priorities); 2) Initiation for FY10 Pre-Proposals; and 3) Submission of FY10 Pre-Proposals																												
1) Request for Full Proposals from Approved Pre-Proposals; and 2) Submission of FY10 Full Proposals																												
1) Full Proposal Review by DSBDP Technical Advisory Board (TAB); 2) TAB Meets to Prioritize DSBDP FY10 Proposals; 3) Brief Sponsor on TAB Prioritized DSBDP FY10 R&D Program; and 4) Forward Proposal Approval Letters, Navy Lab Guidance Letters																												
FY10 DSBDP R&D Execution																												
FY11																												
1) Broad Agency Announcement Published (DSBDP R&D Priorities); 2) Initiation for FY11 Pre-Proposals; and 3) Submission of FY11 Pre-Proposals																												
1) Request for Full Proposals from Approved Pre-Proposals; and 2) Submission of FY11 Full Proposals																												
1) Full Proposal Review by DSBDP Technical Advisory Board (TAB); 2) TAB Meets to Prioritize DSBDP FY11 Proposals; 3) Brief Sponsor on TAB Prioritized DSBDP FY11 R&D Program; and 4) Forward Proposal Approval Letters, Navy Lab Guidance Letters																												
FY11 DSBDP R&D Execution																												
FY12																												
1) Broad Agency Announcement Published (DSBDP R&D Priorities); 2) Initiation for FY12 Pre-Proposals; and 3) Submission of FY12 Pre-Proposals																												
1) Request for Full Proposals from Approved Pre-Proposals; and 2) Submission of FY12 Full Proposals																												
1) Full Proposal Review by DSBDP Technical Advisory Board (TAB); 2) TAB Meets to Prioritize DSBDP FY12 Proposals; 3) Brief Sponsor on TAB Prioritized DSBDP FY12 R&D Program; and 4) Forward Proposal Approval Letters, Navy Lab Guidance Letters																												
FY12 DSBDP R&D Execution																												

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

Event	Start		End	
	Quarter	Year	Quarter	Year
FY09 DSBDP R&E Execution	1	2009	4	2009
FY10 Broad Agency Announcement Published (DSBDP) R&D Priorities	3	2009	3	2009
Invitation for FY10 Pre-Proposals	3	2009	3	2009
Submission of FY10 Pre-Proposals	3	2009	3	2009
Request for Full Proposals from Approved FY10 Pre-Proposals	3	2009	4	2009
Submission of FY10 Full Proposals	3	2009	4	2009
Full FY10 Proposal Review by DSBDP Technical Advisory Board (TAB)	4	2009	4	2009
TAB Meets to Prioritize DSBDP FY10 Proposals	4	2009	4	2009
Brief Sponsor on TAB Prioritized DSBDP FY10 R&D Program	4	2009	4	2009
Forward FY10 Proposal Approval Letters, Navy Lab Guidance Letters	4	2009	4	2009
FY10 DSBDP R&D Execution	1	2010	4	2010
FY11 Broad Agency Announcement Published (DSBDP R&D Priorities)	3	2010	3	2010
Invitation for FY11 Pre-Proposals	3	2010	3	2010
Submission of FY11 Pre-Proposals	3	2010	3	2010
Request for Full Proposals from Approved FY11 Pre-Proposals	3	2010	4	2010
Submission of FY11 Full Proposals	3	2010	4	2010
Full FY11 Proposal Review by DSBDP Technical Advisory Board (TAB)	4	2010	4	2010
TAB Meets to Prioritize DSBDP FY11 Proposals	4	2010	4	2010

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
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Event	Start		End	
	Quarter	Year	Quarter	Year
Brief Sponsor on TAB Prioritized DSBDP FY11 R&D Program	4	2010	4	2010
Forward FY11 Proposal Approval Letters, Navy Lab Guidance Letters	4	2010	4	2010
FY11 DSBDP R&D Execution	1	2011	4	2011
FY12 Broad Agency Announcement Published (DSBDP R&D Priorities)	3	2011	3	2011
Invitation for FY12 Pre-Proposals	3	2011	3	2011
Submission of FY12 Pre-Proposals	3	2011	4	2011
Request for Full Proposals from Approved FY12 Pre-Proposals	3	2011	4	2011
Full FY12 Proposal Review by DSBDP Technical Advisory Board (TAB)	4	2011	4	2011
TAB Meets to Prioritize DSBDP FY12 Proposals	4	2011	4	2011
Brief Sponsor on TAB Prioritized DSBDP FY12 R&D Program	4	2011	4	2011
Forward FY12 Proposal Approval Letters, Navy Lab Guidance Letters	4	2011	4	2011
FY12 DSBDP R&D Execution	1	2012	4	2012

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APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603713N: <i>Ocean Engineering Tech Dev</i>				PROJECT 0394: <i>Shallow Depth Diving EQ</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
0394: <i>Shallow Depth Diving EQ</i>	6.216	13.957	10.411	0.000	10.411	6.553	3.730	3.813	3.892	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification <p>This project is to develop systems to support submarine escape, survivability, 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. Efforts are currently (through FY13) focused 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 in service and supports 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) is scheduled for IOC in FY13. 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.</p> <p>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. Current plans are to perform R&D in the areas of contaminated water diving, diver thermal protection, and diver sound protection.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
Shallow Depth Diving EQ - SRDRS						4.958	12.729	9.246	0.000	9.246	
Continue design, fabrication, and acceptance testing of the prototype Submarine Decompression System and support equipment. Continue integration of all SRDRS components.											

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2009 Accomplishments: The Transfer Under Pressure (TUP) contract option was awarded, TUP System Design Review was completed, the Auxiliary Van material audit was completed, and the Pressurized Flexible Manway 1 and 2 Critical Design Reviews were completed.						
FY 2010 Plans: Plan to complete the following: Pressurized Flexible Manway 3 Critical Design Review, Submarine Decompression Chamber 1 and 2 repairs, Submarine Decompression System Gas Rack fabrication. Also, plan to begin Deck Transfer Lock fabrication.						
FY 2011 Base Plans: Plan to conduct Submarine Decompression System Ship Interface Template System Critical Design Review and deliver Modified Transfer Lock Bases and Pressurized Flexible Manways 1 and 2.						
Shallow Depth Diving EQ - Diving Continue research on contaminated water diving and research on diver thermal protection and CO2 monitors, and diver sound protection.		1.237	1.228	1.165	0.000	1.165
FY 2009 Accomplishments: Continued research on contaminated water diving, continued research on diver thermal protection, CO2 monitors, and diver sound protection. Continued research on prototype diver cooling system.						
FY 2010 Plans: Continue research on contaminated water diving, diver thermal protection, CO2 monitors, and diver sound protection. Continue the research on prototype diver cooling system. Begin research on validation of air and oil monitors.						

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010	
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B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<i>FY 2011 Base Plans:</i> Continue research on contaminated water diving, CO2 monitors, and diver sound protection. Continue research on the prototype diver cooling system. Continue research on validation of air and oil monitors.					
Shallow Depth Diving Eq - Acquisition Workforce Acquisition Workforce <i>FY 2009 Accomplishments:</i> Defense Acquisition Workforce Development Fund Requirement	0.021	0.000	0.000	0.000	0.000
Accomplishments/Planned Programs Subtotals	6.216	13.957	10.411	0.000	10.411
C. Other Program Funding Summary (\$ in Millions) N/A					
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					

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010			
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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	
Pressurized Rescue Module System (PRMS)	C/CPIF	Oceanworks Ontario, Canada	23.824	0.000		0.000		0.000		0.000	0.000	23.824	Continuing	
PRMS	C/FFP	Oceanworks Ontario, Canada	4.150	0.000		0.000		0.000		0.000	0.000	4.150	Continuing	
Systems Engineering - Design, Integration	Various/ Various	Oceaneering Hanover, MD	6.803	11.175		7.558		0.000		7.558	Continuing	Continuing	Continuing	
Systems Engineering - Technical	Various/ Various	Various Various	0.537	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing	
Subtotal			35.314	11.175		7.558		0.000		7.558				
Remarks														
1. Oceaneering is the prime for SRDRS Transfer Under Pressure (TUP) capability; scheduled for IOC in FY13.														
Support (\$ 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	
Development Support	Various/ Various	Various Various	2.443	1.213		1.150		0.000		1.150	Continuing	Continuing	Continuing	
Integrated Logistics Support	Various/ Various	Various Various	0.841	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing	
Configuration Management	C/CPAF	Oceaneering Hanover, MD	0.489	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603713N: <i>Ocean Engineering Tech Dev</i>				PROJECT 0394: <i>Shallow Depth Diving EQ</i>					
Support (\$ 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
Subtotal			3.773	1.213		1.150		0.000		1.150			
Remarks													
Test and Evaluation (\$ 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
Developmental Test & Evaluation	Various/ Various	Various Various	3.187	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Operational Test & Evaluation	WR	COMOPTEVFOR Norfolk, VA	0.450	0.075		0.050		0.000		0.050	Continuing	Continuing	Continuing
Subtotal			3.637	0.075		0.050		0.000		0.050			
Remarks													

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603713N: <i>Ocean Engineering Tech Dev</i>				PROJECT 0394: <i>Shallow Depth Diving EQ</i>					
Management Services (\$ 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
Contractor Engineering Support	Various/ Various	QBS/Various Richmond BC, Canada/Various	0.074	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Government Engineering Support	WR	NFESC Port Hueneme, CA	0.197	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Government Engineering Support	WR	PSNSY/ Various Bremerton, WA/ Various	2.120	0.000		0.077		0.000		0.077	Continuing	Continuing	Continuing
Government Engineering Support	Various/ Various	Various Various	1.859	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Program Management Support	Various/ Various	Various Various	0.706	1.404		1.461		0.000		1.461	Continuing	Continuing	Continuing
Travel	Various/ Various	Various Various	0.384	0.090		0.115		0.000		0.115	Continuing	Continuing	Continuing
SBIR Assessment	Various/ Various	Various Various	0.443	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Acquisition Workforce	Various/ Various	Various Various	0.021	0.000		0.000		0.000		0.000	Continuing	Continuing	Continuing
Subtotal			5.804	1.494		1.653		0.000		1.653			
Remarks													

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy							DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603713N: <i>Ocean Engineering Tech Dev</i>			PROJECT 0394: <i>Shallow Depth Diving EQ</i>				
	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	48.528	13.957		10.411		0.000		10.411			
Remarks											

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

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

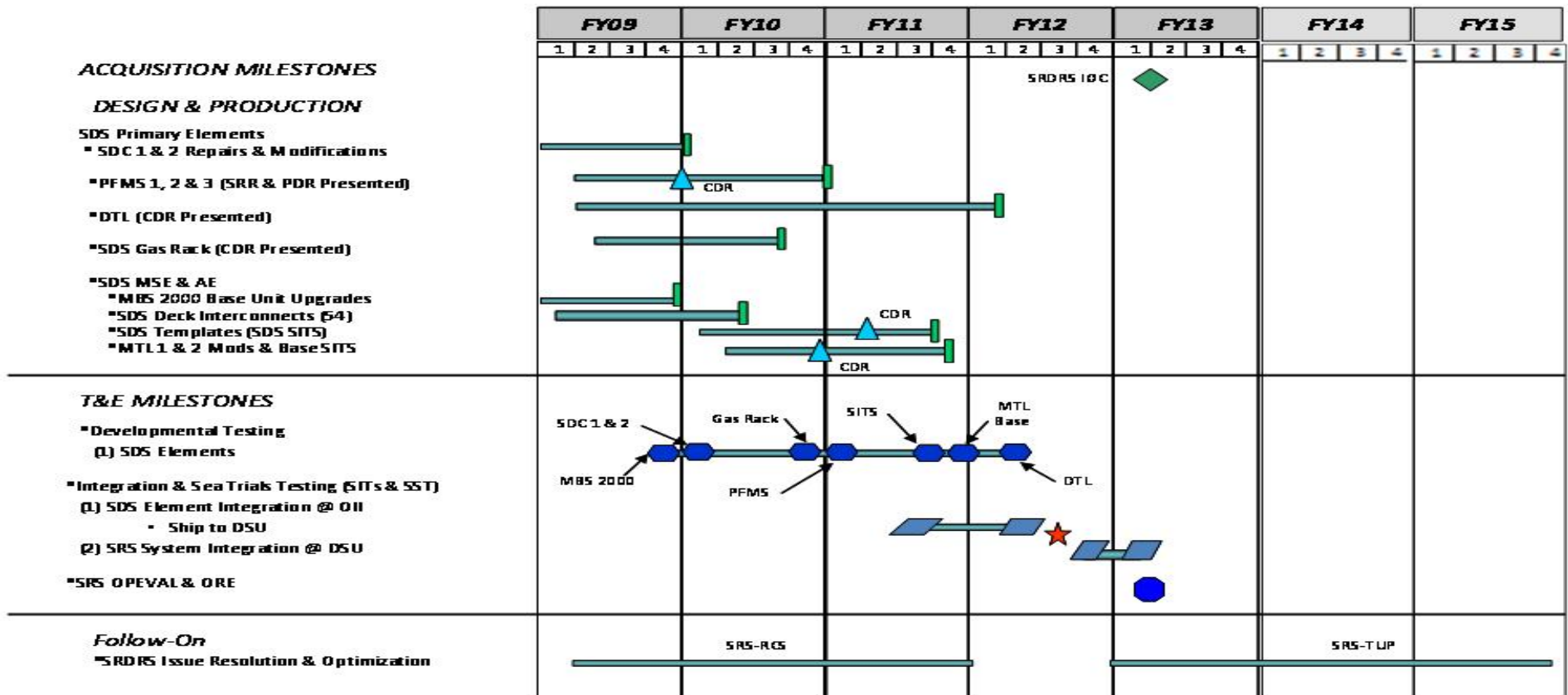
1319: Research, Development, Test & Evaluation, Navy
BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0603713N: Ocean Engineering Tech Dev

PROJECT

0394: Shallow Depth Diving EQ



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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603713N: <i>Ocean Engineering Tech Dev</i>	PROJECT 0394: <i>Shallow Depth Diving EQ</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Acquisition Milestones	1	2009	4	2015
SRDRS IOC	1	2013	2	2013
Design & Production-SDS Primary Elements	1	2009	2	2012
SDC 1 & 2 Repairs & Modifications	1	2009	1	2010
PFMS 1, 2, & 3 (SRR & PDR Presented)	2	2009	1	2011
DTL (CDR Presented)	2	2009	2	2012
SDS Gas Rack (CDR Presented)	2	2009	3	2010
SDS MSE & AE	1	2009	4	2011
MBS 2000 Base Unit Upgrades	1	2009	4	2009
SDS Deck Interconnects (54)	1	2009	2	2010
SDS Templates (SDS SITS)	1	2010	4	2011
MTL 1 & 2 Mods & Base SITS	2	2010	4	2011
T&E Milestones	4	2009	2	2012
Developmental Testing (SDS Elements)	4	2009	2	2012
Integration & Sea Trials Testing (SITS & SST)	3	2011	2	2013
SDS Element Integration @ OII	3	2011	2	2012
Ship to DSU	3	2012	3	2012
SRS System Integration @ DSU	4	2012	1	2013

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 ITEM NOMENCLATURE PE 0603713N: Ocean Engineering Tech Dev		PROJECT 0394: Shallow Depth Diving EQ
	Start		End	
Event	Quarter	Year	Quarter	Year
SRS OPEVAL & ORE	1	2013	2	2013
Follow-On	2	2009	4	2015
SRDRS Issue Resolution and Optimization	2	2009	4	2015
SRS-RCS	2	2009	1	2012
SRS-TUP	4	2012	4	2015

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