UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification							DATE:	
							Februa	ry 2006
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMEN	CLATURE		
RESEARCH DEVELOPMENT TEST & EVALUAT	ION, NAVY /	BA-4			0603713N/Ocean I	Engineering Techn	ology Development	
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Total PE Cost	25.442	24.462	16.324	3.717	3.752	3.827	3.901	
0099/Deep Submergence Biomedical Development	3.239	2.944	2.998	3.717	3.752	3.827	3.901	
0394/Shallow Depth Diving Equipment	22.203	21.518	13.326	0	0	0	0	

Defense Emergency Response Funds (DERF) Funds: N/A.

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.

R-1 SHOPPING LIST - Item No.

61

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justificati	ion						DATE:			
							Februa	ry 2006		
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEME	ENT NUMBER AND	O NAME		PROJECT NUMBE	ER AND NAME	•			
RDT&E, N / BA-4										
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011			
Project Cost	3.239	2.944	2.998	3.717	3.752	3.827	3.901			
RDT&E Articles Qty										

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Develops advanced biomedical and bioengineering technology for enhancing medical and life support for submarine escape and rescue; and for diver safety and effectiveness; 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.

R-1 SHOPPING LIST - Item No.

61

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification				DATE:
				February 2006
PROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUM	IBER AND NAME	PROJECT NUMBER AND I	NAME
DT&E, N / BA-4	0603713N/Ocean Engineerin	ng Technology Developm	nent 0099/Deep Submergence	Biomedical Development
Accomplishments/Planned Program				
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	1.820	1.684	1.689	
RDT&E Articles Quantity				
Diver Health and Safety Research: Pulmonary or	kygen toxicity exposure limits. Pi	rocedures for assessing	and mitigating risk for diving in c	ontaminated water. Procedure to determine
remaining CO2 scrubber duration. Development of	of advanced insulation garments	for diver thermal, protect	ion Develop final guidance for v	warm water diving. Continue collection of
operational dive profiles for advanced modeling. S	Submarine ballast tank air quality	survey. Novel methods	for diver thermal protection. Im	prove resistance to O2 toxicity. Diver
anthropometry. Chemical hardening of diving equ				
exposure. Develop an advanced diver thermal mo	del. Guidelines for ballast tank	diving. Protective gear for	or diver noise exposure. Electroi	nic collection of operational dive data.
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	1.423	1.305	1.304	
RDT&E Articles Quantity				
Cultura mine Deserver Deserver and in management of	an annual CDDDC an anatom		t	in a colone and a constant of the constant for the
Submarine Rescue: Decompression procedures f	or pressurized SRDRS operators	s. Use of perfluorocarbo	ns to accelerate decompression	in submarine rescue. Adjunctive therapies for tre
DISSUB survivors. Guidance for food, water, cloth	ning, medical supplies to enhance	e survival of submarine of	crews awaiting rescue. Flexible of	computer generated decompression schedules for
range of conditions in a DISSUB. Develop DISSU	B triage procedures. DISSUB st	urvivai triai. Develop oxy	gen metabolizer for closed venic	les. Accelerate decompression by negative pres
breathing. Treatment guidance for decompression	sickness and arterial das embo	lism in submarine escan	e and rescue. Interventions for t	oxicological problems with rescued submariners
Minimizing decompression sickness and arterial ga	as embolism with Submarine Esc	cape and Immersion Suit	t (SEIS) training. Use of pharma	cologic agents to reduce decompression risk in s
rescuees.				
Tooddoos.				
			1	
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000	
RDT&E Articles Quantity				
•				<u></u>
1				

R-1 SHOPPING LIST - Item No.

61

Exhibit R-2, RDTEN Budget Item Justification (Exhibit R-2, page 3 of 16)

CLASSIFICATION:

HIBIT R-2a, RDT&E Project Justification			DATE:	February 2006		
PROPRIATION/BUDGET ACTIVITY	PROGRAM ELEM	IENT NUMBER AND NAME		PROJECT NUMB	ER AND NAME	i ebi dai y 2000
DT&E, N / BA-4		Engineering Technology Deve	lopment		mergence Biomedic	al Development
O DDOODAN QUANCE QUANADY	•					·
C. PROGRAM CHANGE SUMMARY:						
Funding:		FY 2005	FY 2006	FY 2007		
Previous President's Budget: (FY 06 President)	nt's Controls)	3.248	2.989	2.993		
Current Budget (FY07 OSD Budget)	_	3.239	2.944	2.998		
Total Adjustments		-0.009	-0.045	0.005		
Summary of Adjustments						
60173 Nuclear Physical Security		0.001				
74501 Department of Energy Tra		-0.002				
90002 Cancelled Accounts Liabili		-0.008				
62428 Sec. 8125: Revised Econo			-0.014			
63206 Congressional Action 1% I			-0.031			
51002 Contract Support Reduction	on			-0.010		
51078 N7 Respread of Contracto	r Supp			-0.002		
61956 Inflation	TE			0.013		
62069 CIVPERS PAY RAISE RA	IE	-0.009	-0.045	0.004 0.005		
		-0.009	-0.043	0.005		
Schedule:						
Not Applicable						
Tooknical						
Technical:						
Not Applicable						
						

CLASSIFICATION:

EXHIBIT R-2a, RDT&E F										
	rojoot dudiiioution							DATE:		February 2006
APPROPRIATION/BUDGET /	ACTIVITY	PROGRAM E	LEMENT NUME	BER AND NAM	1E	PROJECT NU	MBER AND N	AME		
RDT&E, N /	BA-4	0603713N/Oc	ean Engineerin	g Technology [Development	0099/Deep S	ubmergence	Biomedical I	Development	
D. OTHER PROGRAM	I FUNDING SUMMARY:								То	Total
Line Item No. & Nam	<u>ie</u>	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	<u>Complete</u>	Cost
Not Applicable										
E. ACQUISITION STRAT	TEGY: *									
proposals accomp	rea teams (e.g. decompression research lished by independent Technical Adviso acting by competitive process using BA	ry Board; annual	review of progr	ess by Executi						
F. MAJOR PERFORME	?5: **									
Navy Experimen	tal Diving Unit (NEDU) (Oct/each FY) is IEDU during the last BRAC.	the center for ma	anned diving bio	omedical resea	rch and devel	opment for the N	Navy. All Navy	manned divir	ng research fac	ilities were

CLASSIFICATION:

												DAT	E:			
Exhibit R-3 Cost A	nalysis (page	e 1)											Fe	bruary 2006	<u>; </u>	
APPROPRIATION/BU		ΓΥ			M ELEMENT			PROJECT NU								
RDT&E, N /	BA-4			0603713N		ering Technolo	gy Developme	er 0099/Deep S		ce Biomedical D						
Cost Categories		Contract Method & Type	Performing Activity & Location		Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date			Cost to Complete		Target Value of Contract
Primary Hardware Dev	elopment														0.000	
Ancillary Hardware De	velopment														0.000	
Component Developm	ent														0.000	
Ship Integration															0.000	
Ship Suitability															0.000	
Systems Engineering															0.000	
Training Development															0.000	
Licenses															0.000	
Tooling															0.000	
GFE															0.000	
Award Fees															0.000	
01//10 1/0					0.000									0.000	0.000	
	opment		1		0.000	0.000)	0.000)	0.000				0.000	0.000	
Subtotal Product Develor Remarks:	рртепт				0.000	o.000	<u> </u>	0.000	<u> </u>	0.000		l		J 0.00C	<u> </u>	
Remarks:	рртепт				0.000	J 0.000) 	0.000		0.000				0.000	0.000	
	рртепт				0.000	0.000		0.000		0.000				0.000		
Remarks:	рртепт				0.000	0.000		0.000		0.000				0.000	0.000	
Remarks: Development Support Software Development					0.000	0.000		0.000		0.000				0.000	0.000	
Remarks: Development Support Software Development Training Development	port				0.000	0.000		0.000		0.000				0.000	0.000 0.000 0.000	
Development Support Software Development Training Development Integrated Logistics Supp	port				0.000	0.000		0.000		0.000				0.000	0.000 0.000 0.000 0.000	
Development Support Software Development Training Development Integrated Logistics Supp Configuration Manageme	port				0.000	0.000		0.000		0.000				0.000	0.000 0.000 0.000 0.000	
Development Support Software Development Training Development Integrated Logistics Supp Configuration Manageme Technical Data	port				0.000	0.000		0.000		0.000				0.000	0.000 0.000 0.000 0.000 0.000	

CLASSIFICATION:

											DATE:				
Exhibit R-3 Cost Analysis (pag APPROPRIATION/BUDGET ACTIVI	e 2)											Fel	bruary 2006		
	TY		PROGRAM I				PROJECT NU								
RDT&E, N / BA-4			0603713N/O	cean Engine	ering Technolog		0099/Deep S		Biomedical D						
Cost Categories	Contract Method	Performing Activity &	ļ.	Total PY s	FY 05	FY 05 Award	FY 06	FY 06 Award	FY 07	FY 07 Award			Cost to		Target Value
	& Type	Location	(Cost	Cost	Date	Cost	Date	Cost	Date			Complete		of Contract
Developmental Test & Evaluation	WX	NEDU		23.656	3.017	10/04	2.741	10/05	2.787	10/06			Continous	32.201	
	CPIF	OceanWorks		1.171										1.171	1.171
Operational Test & Evaluation														0.000	
Live Fire Test & Evaluation														0.000	
Test Assets														0.000	
Tooling														0.000	
GFE														0.000	
Award Fees														0.000	
Subtotal T&E				24.827	3.017		2.741		2.787				0.000	33.372	
Contractor Engineering Support														0.000	
Government Engineering Support														0.000	
Program Management Support	Various			0.217	•									0.217	
Travel				0.056	0.025	various	0.025	various	0.033	various			Continous	0.139	
Labor (Research Personnel)														0.000	
*SBIR Assessment				0.146		various	0.178	various	0.178					0.699	
Subtotal Management				0.419	0.222		0.203		0.211				0.000	1.055	
Remarks:*SBIR Assessment inlude	es other ext	ramural prograr	n assessmen	ts.											
Total Cost				25.246	3.239		2.944		2.998				0.000	34.427	
Remarks:															
<u>L</u>				D 4 01105	DINCLICT	I. N.	61		-						

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification							DATE:	
							Februa	ry 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEM	ENT NUMBER AND	NAME		PROJECT NUMBE	R AND NAME		
RDT&E, N / BA-4	0603713N/Ocean E	Engineering Techno	ology Development		0394/Shallow De	pth Diving Equipn	nent	
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Project Cost	22.203	21.518	13.326	0	0	0	0	
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project is to develop 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. Efforts are currently (through FY 07) focused on the Submarine Rescue Diving and Recompression System (SRDRS) to provide a new rapidly deployed emergency submarine rescue capability. SRDRS will fill the gap created by the decommissioning of USS PIGEON (ASR 21) and USS ORTOLAN (ASR 22) and provide a new capability of pressurized transportation of rescuees from a stricken submarine directly to the decompression system eliminating the requirement for Deep Submergence Rescue Vehicles, Mother Submarines and Submarine Rescue Chambers. SRDRS is to include an air transportable rapid assessment/underwater work system, a decompression chamber system and a pressurized rescue module. 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. FY05-07 budget as indicated above is solely for the SRDRS program acquisition.

R-1 SHOPPING LIST - Item No.

61

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justificat	ion			DATE: February 2006
PROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUM	MBER AND NAME	PROJECT NUMBER AND NA	
DT&E, N / BA-4	0603713N/Ocean Engineeri	ing Technology Developmer	t 0394/Shallow Depth Diving	
	100007 TOTA COCATT ETIGITICOTS	ing realinology Bevelopmer	ic poor in Orland w Bopan Brining	у Ечартоп
Accomplishments/Planned Program				
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	22.203	21.518	13.326	
RDT&E Articles Quantity				
Complete fabrication and acceptance testing prototype Pressurized Rescue Module and sup				i, begin fabrication and acceptance testing of
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				

R-1 SHOPPING LIST - Item No.

61

Exhibit R-2, RDTEN Budget Item Justification (Exhibit R-2, page 9 of 16)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification					DATE:	
						February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBE	R AND NAME		PROJECT NUMBER A	ND NAME	
RDT&E, N / BA-4	0603713N/Ocean Engineering	Technology Deve	lopment	0394/Shallow Depth	Diving Equipment	
C. PROGRAM CHANGE SUMMARY:						
Funding:		FY 2005	FY 2006	FY 2007		
Previous President's Budget: (FY 06 F	resident's Budget Controls)	22.730	21.631	12.036		
Current Budget (FY07 President's Bud	lget Controls)	22.203	21.518	13.326		
Total Adjustments		-0.527	-0.113	1.290		
Summary of Adjustments						
	18284 SRDRS Delivery Funding	{		1.300		
	51002 Contract Support Reduc	tion		-0.641		
	51051 NWCF Civpers Efficienc	es		-0.005		
	51078 N7 Respread of Contrac	t Support Reducti	on	0.558		
	61956 Inflation			0.059		
	62069 CIVPERS Pay Raise Ra			0.019		
	62428 Sec. 8125: Revided Eco	nomic	-0.098			
	62430 Hurricane Expenses		0.237			
	62432 Sec. 205: Hurricane Fina		-0.026			
	60070 Small Business Innovation					
	63206 Congressional Action 1%		-0.226			
	74501 Department of Energy T					
		-0.527	-0.113	1.290		
Not Applicable						
Technical:						
Not Applicable						

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Pro	ject Justification							DATE:	
									February 2006
APPROPRIATION/BUDGET AC	TIVITY	PROGRAM E	LEMENT NUM	BER AND NAM	IE	PROJECT NUI	MBER AND N	AME	
RDT&E, N /	BA-4	0603713N/Oc	ean Engineerir	ng Technology [Development	0394/Shallow	Depth Divin	g Equipment	
D. OTHER PROGRAM F	UNDING SUMMARY:							То	Total
Line Item No. & Name	FY 200	5 FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Complete	Cost
Not Applicable									
E. ACQUISITION STRATEG	GY: *								
The SRS segment is considerations (best February 2003 realign	ue System (SRS) segment of the S being procured using performance value). Program Management of S ning the responsibility from SEA00 rnment Owned/Commercially Oper	based specification RDRS is accomplis C to PEOSUB. Th	ns. Many of the hed through the	SRS contracts e use of Progra	were awarde m Executive (d competitively a	and were base nes (PEO SUE	ed on technical of 3) leadership. T	capability and cost This change was enacted in
F. MAJOR PERFORMERS:	**								
Oceaneering Interna	ational is providing systems engine	ering and integration	n support for the	he SRS. Ocear	nworks, Inc. is	the detailed de	signer and fab	rication of the P	Pressurized Rescue Module.

UNCLASSIFIED

								DATE:					
Exhibit R-3 Cost Analysis (page 1)										February	2006		
APPROPRIATION/BUDGET ACTIVITY		PRO	GRAM ELEME	NT		PROJECT	NUMBER	AND NAME					
RDT&E, N / BA-4		0603	713N/Ocean E	ngineering ⁻	Technology	0394/Sha	llow Depth	n Diving Ed	quipment				
Cost Categories	Contract	Performing	Total		FY 05		FY 06		FY 07				
	Method	Activity &	PY s		Award		Award	FY 07	Award		Cost to	Total	Target Value
	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date		Complete	Cost	of Contract
Primary Hardware Development													
Ancillary Hardware Development													
Design, System integration	CPAF	Oceaneering (remar	k 2) 6.638	1	N/A		N/A		N/A			6.638	
Decompression Chambers (SDC 1 and 2)	FFP	NFESC	3.317	•	N/A		N/A		N/A			3.317	
Various Mission Support Equip. (MSE)	Various	GPC(Past)/Various	Futt 8.259	1.243	Various	0.000	Various	0.000	Various			9.502	
Pressurized Rescue Module Sys. (PRMS)	CPIF	Oceanworks	32.785	6.390	Various	9.649	Various	0.483	Various			49.307	
Various PRMS MSE	Various	Miscellaneous	6.094	4.742	Various	2.799	Various	0.000	Various			13.635	
Systems Engineering - Design, Integration	Various	Oceaneering	12.845	1.692	Various	0.829	Various	7.011	Various			22.377	
Systems Engineering - Technical	Various	Various	4.140	0.403	Various	0.537	Various	0.314	Various			5.394	
Licenses												0.000	
GFE												0.000	
Award Fees	CPAF	Oceaneering	1.234		N/A		N/A		N/A			1.234	
	CPAF	GPC	0.254	0.172	Various	0.000	Various	0.000	Various			0.426	
												0.000	
Subtotal Product Development			75.566	14.642		13.814		7.808			0.000	111.830	

Remarks:

- 1. Restructuring or rephasing of non-rescue related subsytems and components done with N773 and CNSF staff concurrence.
- 2. Prior year values adjusted to match Submarine Rescue System (SRS) portion only. Other PY costs are for the Assessment/Underwater Work System (AUWS) managed by PMS 394C.
- 3. SDC-1 and SDC-2 chambers under a FFP contract through NFESC. Contract completion date (CCD) remains 31 August 2003 and was missed. Liquidated damages are being assessed per the FAR. A significant Request for Equitable Adjustment (REA) has been submitted and denied within NAVFESC. Further adjudication or financial liability to program is not included in controls.
- 4. Adjustments for Oceanworks PRMS cost growths under negotiation with NAVSEA02 and Canadian Commercial Corporation.

Development Support	Various	Miscellaneous	0.279		N/A		N/A		N/A		0.279	
Software Development	WR	NSWC CD	0.221		N/A		N/A		N/A		0.221	
Integrated Logistics Support	MIPR	DOI, Titan	2.294		N/A		N/A		N/A		2.294	
Integrated Logistics Support	Various	Miscellaneous	0.293	0.841	Various	0.837	Various	0.746	Various		2.717	
Configuration Management	CPAF	Oceaneering	0.170	0.489	Various	0.505	Various	0.340	Various		1.504	
Technical Data											0.000	
GFE											0.000	
Award Fees	CPAF	Phoenix International	0.023		N/A		N/A		N/A		0.023	
Subtotal Support			3.280	1.330		1.342		1.086		0.000	7.038	

Remarks:

CLASSIFICATION:

								DATE:					
Exhibit R-3 Cost Analysis (pag	ge 2)									Februa	ry 2006		
APPROPRIATION/BUDGET ACTIV	/ITY	PRO	GRAM ELEN	IENT		PROJECT	NUMBER	AND NAM	E				
RDT&E, N / BA-4		0603	713N/Ocean	Engineerin	g Technolo	0394/Sha	Illow Dept	th Diving E	quipment				
Cost Categories	Contract	Performing	Total		FY 05		FY 06		FY 07				
	Method	Activity &	PY s	FY 05	Award	FY 06	Award	FY 07	Award		Cost to	Total	Target Value
	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date		Complete	Cost	of Contract
Developmental Test & Evaluation	Various	Miscellaneous	1.093	1.830	Various	2.762	Various	1.903	Various			7.588	3
Operational Test & Evaluation	WX	COMOPTEVFOR	0.035	1.678	Various	0.306	Various	0.140	Various			2.159	,
												0.000	,
Tooling												0.000)
GFE												0.000)
Award Fees												0.000)
Subtotal T&E			1.128	3.508		3.068		2.043			0.000	9.747	,
Remarks:	lv.	longs, :	1 1010	1	T v	T	Ι	1 0054	T v	T T		T	
Contractor Engineering Support	Various	QBS/Various	1.318			0.074	Various	0.051	Various			1.539	
Government Engineering Support	WX	NFESC	0.476	0.050			N/A		N/A			0.526	
Government Engineering Support	MIPR	DOI	1.161		N/A		N/A		N/A			1.161	
Government Engineering Support	WX	PSNSY, Various	0.223		1	0.339		0.350				1.242	
Government Engineering Support	Various	Miscellaneous	1.617	1.017	Various	1.466	Various	0.950	Various			5.050	1
Program Management Support	Various	Miscellaneous	0.749	0.386	Various	0.398	Various	0.410	Various			1.943	i
Travel	Various	Various	0.817	0.371	Various	0.574	Various	0.382	Various			2.144	,
SBIR Assessment (remark 1)			0.897	0.473	Various	0.443	Various	0.246	Various			2.059)
												<u> </u>	<u> </u>
Subtotal Management			7.258	2.723		3.294		2.389			0.000	15.664	,
Remarks: SEA 00C to determine FY08 and	СТС												
Total Cost			74.434	22.203		21.518		13.326	;		0.000	131.481	
Remarks: 1. SBIR Assessment includes other	er extramura	al program assessme	nts FY 02-05										

UNCLASSIFIED

EXHIBIT R4, Schedule F																									DATE:		Fel	bruar	y 200	6	
PPROPRIATION/BUDGET									PROG																NAME						
RDT&E, N /	BA-4				1				06037	13N/O	cean E	ngine	ering T	echno	logy D	evelop	ment			(0394/	Shallo	w Dep	oth Div	ving E	quipm	ent				
Fiscal Year		20	004			20	05			200	06			200)7			200	8			200	9			20	10			201	1
	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	1	2	3
Acquisition Milestones																			MS	C/10	ЭС										
esign/Development Submarine Decompression System (SDS)																															
-,			SDCs	and N	ISE																										
			PFMS	(to S	DCs ar	nd PRN	1) and																								
												DTL	and N	ЛSE																	
Pressurized Rescue Module System (PRMS)				PRI	/I-1 and	MSF																									
			PRM CDR		i i and	WIOL						PRM-2	! (unfui	nded p	er N77	in POI	M06)														
Delivery : 1) Rescue 2) Transfer Under Pressure TUP)													Resc Reac	ue Re y	compr	ession			PRN (unf	M-2 undec	TUE	7									
Configuration Audits				SE					PRM-1 FCA	PRN PCA	l -1					PRM-2 FCA	2	PRM-2 PCA													
Physical Configuration Audits Functional Configuration Audits					\ T				\triangle	\triangle	7					\triangle															
Fest & Evaluation																	DT	-SDS	T-TUP	,											
Development Test: 1) SDS 2) TUP 3) PRMS												DT-	PRMS					oo sp													
Operational Test: 1) SDS 2) TUP 3) PRMS													OOC PRMS						OPE	VAL -	SRDR	S									
Production Milestones Deliveries								SDC	-1 and	SDC-	2	PI	RM-1					DT_		PRN	Л-2 I	FULL	UP SR	DRS							
													\bigvee					\(\sqrt{\sqrt{\chi}}	7	Z/V	7	$\frac{1}{2}$									

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE:		
						F	ebruary 200	06
APPROPRIATION/BUDGET ACTIVITY	PROGRAM EI	LEMENT			PROJECT NU	MBER AND NA		
RDT&BA-4	0603713N/Oc	ean Engineerin	g Technology [Development	0394/Shallov	v Depth Diving	g Equipment	
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Milestone II (MSII)								
Detail Design/Development and Fab (SDS - SDC, PFMS,	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-2Q			
Detail Design/Devel. and Fab (PRMS - PRMS-1 and PRM		1Q-4Q	1Q-4Q	1Q-4Q	1Q-3Q			
Critical Design Review (CDR) - PRMS	3Q							
Physical Configuration Audit - SDC			2Q					
Hardware Delivery - SDC-1 and SDC 2			2Q-3Q					
Functional Configuration Audit (FCA) - PRM			3Q-4Q					
Developmental Testing (DT-SDS)					1Q-2Q			
Physical Configuration Audit - PRM			4Q					
Hardware Delivery - PRM-1 and PRMS			*	1Q				
Developmental Testing (DT-PRMS)			4Q	1Q				
Operational Testing (OPEVAL-PRMS)				1Q				
Acquisition Capability Delivery - Rescue Ready				2Q				
Hardware Delivery - DTL					2Q-3Q			
Developmental Testing (DT-TUP)					3Q			
Operational Testing (OT-TUP)					4Q	1Q		
Acquisition Capability Delivery - TUP						2Q-3Q		
Physical Configuration Audit - PRM-2					2Q			
Hardware Delivery - PRM-2					4Q	1Q		
Operational Evaluation Full SRDRS					4Q	1Q		
Milestone C						2Q		
Acquisition Capability Delivery - Full Up SRDRS						2Q		
First Deployment (Rescue Ready (DSRV Equiv.)				3Q				
First Deployment (Fly Away Recompression w/ TUP)						1Q		
First Deployment Full -Up SRDRS						1Q		
Initial Operational Capability (IOC) of Full Up SRDRS						2Q		

R-1 SHOPPING LIST - Item No.

61

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	on		DATE:					
		Feb	ruary 2006					
PROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME						
		0394/Shallow Depth Div	ing Equipmen					
T&E, N / BA-4	0603713/Ocean Engineering Technology	Congressional Plus-Up						
•	, , , , , , , , , , , , , , , , , , , ,							
CONCRECCIONAL PLUC UPC.								
CONGRESSIONAL PLUS-UPS:	TV 00	<u> </u>						
	FY 06							
Identify Project Number	N/A							
Title of Congressional Add	\$\$\$\$							
	FY 06							
Identify Project Number	N/A	+						
Title of Congressional Add	\$\$\$\$							
Title of Congressional Add	ψψψψ							
	FY 06							
Identify Project Number	N/A							
Title of Congressional Add	\$\$\$\$							
Title of Congressional Add	ΨΨΨΨ							
	P-1 SHODDING LIST - Itam No. 61							