#### **CLASSIFICATION:**

## **UNCLASSIFIED**

EXHIBIT R-2, RDT&E Budget Item Justification						DATE:	
						Februa	ry 2006
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMEN	CLATURE		
RESEARCH DEVELOPMENT TEST & EVALUATION,	NAVY / BA-7			PE 0204413N/Am	ohibious Tactical S	upport Units	
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	3.580	4.696	1.812	1.840	2.293	2.294	2.325
1980 AMPHIB OTHER C2	0.158	2.706	0.000	0.000	0.000	0.000	0.000
2231 Technology Transfer	0.000	1.990	1.812	1.840	2.293	2.294	2.325
2909 AMPHIBIOUS LIGHTERAGE DEVELOP	3.422	0.000	0.000	0.000	0.000	0.000	0.000

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This Program Element supports multiple amphibious warfare development and technology insertion efforts.

#### B. PROJECT UNIT EFFORTS are as follows:

AMPHIB OTHER C2 (1980) - SACC-A automates the Supporting Arms Coordination Center (SACC) aboard LHA 1, LHD 1 and LHD 5 ship classes, providing an integrated, automated capability to conduct Amphibious Task Force (ATF) Marine Expeditionary Brigade (MEB) level fire support planning, coordination, deconfliction, and execution of fires utilizing all supporting arms including naval surface fires, air assets, artillery, mines and mortars.

AADS (1980) - This project also contains FY06 funding for the Amphibious Assault Direction System (AADS, AN/KSQ-1), which provides AADS the ability to investigate future Navy C4ISR technical direction, explore technological advances, and analyze interoperability issues in order to develop the requisite technical upgrades.

TECHNOLOGY TRANSFER (2231) - This provides for research efforts on LCAC Future Naval Capabilities (FNC): Current S&T initiatives include the ONR Expeditionary Logistics (EXLOG), LCAC Cargo Griping Lashings System (STTR), Self Contained Rudder Actuator System (STTR), Advanced structural design for LCAC ramps (SBIR), Personal Transport Module (SBIR), Enhanced Skirt Finger Material (FCT), the Lube Oil Cooler (FCT) and the Composit Shroud (FCT).

AMPHIBIOUS LIGHTERAGE DEVELOPMENT (2909) - This project supports development and procurement of technology to develop Navy causeway lighterage. The Improved Navy Lighterage System (INLS) replaces the existing Navy Lighterage (NL) system and supports the US Navy Lighterage recapitalization plan. Current NL will reach the end of its service life and will impact crew safety and operational readiness. INLS will be able to operate in higher sea states and have a longer service life with reduced maintenance costs. INLS will be deployed during Logistic Over The Shore (LOTS) operations, Assault Follow On Echelon (AFOE) operations and Maritime Prepositioning Force (MPF) operations. INLS consists of Warping Tugs, Causeway Ferries, RO/RO Discharge Facilities and Floating Causeway. The design and development for INLS was completed in FY04. Contract for Low Rate Initial Production (LRIP) was awarded in Aug 03. OPEVAL DT/OT took place 4th quarter FY05. In addition, INLS Phase III design process continues with the High Speed Ferry Assault Connector (CFFX) in support of the Seabasing concept.

R-1 SHOPPING LIST - Item No.

175/1

UNCLASSIFIED

Exhibit R-2a, RDTEN Project Justification (page 1 of 21)

#### CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE:		
							February 2006	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEM	ENT NUMBER AND	NAME			PROJECT NUMBE	R AND NAME	
RDT&E,N / BA-7	0204413N/Amp	hibious Tactica	al Support Units	6		1980 AMPHIB O	THER C2	
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		0.158	2.706	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty					_			

#### A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

#### **AMPHIB OTHER C2 includes:**

SACC-A: The FY05-FY06 Supporting Arms Coordination Center - Automation (SACC-A) program automates the SACC aboard LHA & LHD class ships. Currently the process is manual and voice accomplished, unresponsive to the needs of Marine Forces ashore. Specifically, SACC-A is developing a Ship to Objective Maneuver (STOM) Fire's Command & Control cell for the Amphibious Large Deck ships. SACC-A provides an integrated, auto capability to conduct Marine Expeditionary Brigade level fire support planning, coordination, and execution of all supporting arms fires, including Naval Surface Fires, Tactical Air and Artillery & Mortars ashore. SACC-A integrates other Command & Control systems aboard the ship and ashore to provide maximum situational awareness and a common operating picture.

**AADS:** The FY06 Amphibious Assault Direction System (AADS, AN/KSQ-1) program researches Network Centric Warfare requirements for Amphibious Assault Command and Control, identifies the projected technological advances and requirements of Fleet systems, and identifies the Next Generation AADS operational requirements and capabilities. Technology integration with Expeditionary Strike Group ships is also included.

R-1 SHOPPING LIST - Item No.

#### **CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification			DATE:	
				February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME	
RDT&E, N / BA-7	0204413N/Amphibious Tactical Support Units	1980 AMPHIP OTHER C	2	
		·	-	•

#### B. ACCOMPLISHMENTS/PLANNED PROGRAM

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.158	2.706	0.000
RDT&E Articles Quantity			

SACC-A: System Engineering development for spiral acquisition, including requirements definition and lab-based testing; Acquisition and prototype interface development of AFATDS with other systems and installation and test aboard LHA/LHD; DoD documentation program reviews (e.g. ORD revalidation, APB, TEMP, SEMP, ILSP); Programmatic support (e.g. management, plans, schedule, briefs, travel, studies, etc.); shipboard interface and interoperability testing of spiral development, training, and logistics system development, and system integration and shipboard interface/interoperability testing.

EV 2006

AADS: System Engineering and software development begin in FY06.

# C. Program Change Summary: (U) Funding

FT 2005	F1 2006	F1 2007
0.158	2.748	2.314
<u>0.158</u>	<u>2.706</u>	0.000
0.000	-0.042	-2.314
0.000	0.000	-2.314
0.000	0.000	0.000
0.000	-0.013	0.000
0.000	-0.029	0.000
<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
0.000	-0.042	-2.314
	0.158 0.000 0.000 0.000 0.000 0.000 0.000	0.158       2.748         0.158       2.706         0.000       -0.042         0.000       0.000         0.000       0.000         0.000       -0.013         0.000       -0.029         0.000       0.000

EV 2005

(U) Schedule: Not Applicable

(U) Technical: Not Applicable

R-1 SHOPPING LIST - Item No.

175/3

EV 2007

Exhibit R-2a, RDTEN Project Justification (page 3 of 21)

#### CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE:			
								Februa	ary 2006	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM E	LEMENT NUM	IBER AND NAM	1E	PROJECT NU	JMBER AND N	IAME			
RDT&E, N / BA-7	0204413N/	Amphibious	Tactical Su	pport Units	1980 AMPH	IB OTHER C	2			
D. OTHER PROGRAM FUNDING SUMMARY:								То	Total	
Line Item No. & Name	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Complete	Cost	
SACC-A OPN Line 098100 Items Under \$5M	0.860	0.645	0.726	0.783	0.817	0.795	0.816	0	5.442	
AADS OPN Line 5239 SSDS	0	11.554	10.585	6.746	5.829	1.739	0.016	0	36.469	

SACC-A: The procurement items for SACC-A include Advanced Field Artillery Tactical Data System (AFATDS), Effect Management Tool (EMT), jam boxes, Automated Distribution Network Systems (ADNS), racks, workstations, Large Screen Color Displays (LSCDs), PICT phones, new Theater Tables, communications devices which will be permanent changeouts to the amphibious ships. These need to be in place in order to permit the connection of the automated SACC capabilities. The operations and maintenance efforts are for program, engineering, and technical support, logistics support and technical assists.

AADS: The procurement items for AADS are related to two subsystems: EPLRS and the ship dependent AN/KSQ-1 hardware configurations. Examples of specific items include RT-1720(c) Enhanced PLRS User Unit (EPUU) digital radios, EPLRS Net Control Station (NCS) workstations and other EPLRS equipment.

#### E. ACQUISITION STRATEGY:

The SACC-A effort will develop and field a Naval Fire Control System (NFCS) that satisfies the requirements of naval and supported forces. The NFCS is to be an ACAT III program under Navy management. The AADS strategy is to develop a software interface to ensure integrated communications and joint operations for joint forces.

#### F. MAJOR PERFORMERS:

Field Activities & Locations - Work Performed:

NSWC DD Dablaren VA - Hardware Develop

 $NSWC\ DD,\ Dahlgren,\ VA-Hardware\ Development,\ Systems\ Engineering,\ Training,\ ILS,\ T\&E$ 

NSWC CSS, Panama City, FL - Hardware Development, System Engineering

SPAWAR-SD - Hardware Development, System Engineering

ARMY - Hardware Development

Contractors & Locations - Work Performed:

TBD - Software Development

Universities & Locations - Work Performed:

R-1 SHOPPING LIST - Item No.

### CLASSIFICATION:

							DATE:						
Exhibit R-3 Cost Analysis (pa	ge 1)								F	ebruary 2	2006		
APPROPRIATION/BUDGET ACTIV	/ITY		PROGRAM EL		PROJECT NU								
RDT&E, N / BA-7	Ta	T=	0204413N/Amp	phibious Tactical Support Uni	tt 1980 / AMPI		R C2	I=1 / 2 2		I=1		1	T
Cost Categories	Contract Method	Performing Activity &		Total PY s	FY 05	FY 05 Award	FY 06	FY 06 Award	FY 07	FY 07 Award	Cost to	Total	Target Value
	& Type	Location		Cost	Cost	Date	Cost	Date	Cost	Date	Complete	Cost	of Contract
Primary Hardware Development	1												
Ancillary Hardware Development	WX	SPAWAR		0.755			0.025	03/06					
Aircraft Integration													
Ship Integration	WX	NSWC DD		3.000	0.011		0.205	02/06					
Ship Suitability													
Systems Engineering	WX	NSWC CSS,	APL	0.600			0.265	12/05					
Training Development													
Licenses													
Tooling													
GFE													
Award Fees													
Subtotal Product Development				4.355	0.011		0.495	5	0.000		0.000	4.861	
Development Support													
Software Development	WX	CSS			0.147	12/04	2.211	12/05		12/06		2.358	
Integrated Logistics Support													
Configuration Management													
Technical Data													
Studies & Analyses													
GFE													
Award Fees													
Subtotal Support				0.000	0.147		2.211		0.000		0.000	2.358	
Remarks:													
<u> </u>				R-1 SHOPPING LIST	175/5								

### CLASSIFICATION:

							DATE:						
Exhibit R-3 Cost Analysis (pa	ige 2)								F	ebruary	2006		
APPROPRIATION/BUDGET ACTIV	VITY		PROGRAM E	LEMENT	PROJECT N	UMBER AND	NAME						
RDT&E, N / BA-7			0204413N/Am	nphibious Tactical Support Ur	1980 AMPH	IB OTHER	C2						
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
D 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	& Type	Location		Cost	Cost	Date	Cost	Date	Cost	Date	Complete	Cost	of Contract
Developmental Test & Evaluation													
Operational Test & Evaluation													
Live Fire Test & Evaluation								-					
Test Assets													
Tooling							1						
GFE							1						
Award Fees		+											
Subtotal T&E				0.000	0.000	ס	0.000	ס	0.000	)	0.000	0.000	
Contractor Engineering Support													
Government Engineering Support													
Program Management Support													
Travel													
Transportation													
SBIR Assessment													
Subtotal Management				0.000	0.000	D	0.000	D	0.000	)	0.000	0.000	
Remarks:													
Total Cost				4.355	0.158	3	2.706	6	0.000		0.000	7.219	
Remarks:		-				•		•		•		•	•

### **CLASSIFICATION:**

EXHIBIT R4, Schedule F	Profile																				DATE	:						
																							Fe	ebrua ≥	ary 20	06		
APPROPRIATION/BUDGET	ACTIVI	ΤΥ			PROG	RAM E	LEMI	ENT N	JMBE	R AND	NAM	E					PROJ	IECT N	UMBE	R AND	D NAM	E						
RDT&E, N / BA-7					0204	413N	/Amp	hibio	us Ta	actica	al Su <sub>l</sub>	port	Units	5			1980	/AMPI	нв о	THER	C2							
Fiscal Year		20	05			200	06			20	07			20	08			200	09			20	10			20	11	
	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
Software Development					_																							
Systems Engineering					$\triangle$																							

R-1 SHOPPING LIST - Item No. 175/7

## **CLASSIFICATION:**

Exhibit R-4a, Schedule Detail					DATE:		
						February 20	06
APPROPRIATION/BUDGET ACTIVITY				PROJECT NU	IMBER AND N	AME	
RDT&E, N / BA-7				1980/AMPH	B OTHER C2	2	
Schedule Profile	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Software Development		1Q - 4Q	1Q, 2Q				
Systems Engineering		1Q - 4Q	1Q - 4Q				

R-1 SHOPPING LIST - Item No.

#### CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE:		
							February 2006	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEM	ENT NUMBER AND	NAME			PROJECT NUMBE	R AND NAME	
RDT&E,N / BA-7	0204413N/Amp	hibious Tactica	al Support Units	S		2231 TECHNOL	OGY TRANSITIO	N
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		0.000	1.990	1.812	1.840	2.293	2.294	2.325
RDT&E Articles Qty								

### A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: TECHNOLOGY TRANSITION (2231) -

FY06-FY11 TECHNOLOGY TRANSITION: Provides for research efforts on LCAC Future Naval Capabilities (FNC): Current S&T initiatives include the ONR Expeditionary Logistics (EXLOG), LCAC Cargo Griping Lashings System (STTR), Self Contained Rudder Actuator System (STTR), Advanced structural design for LCAC ramps (SBIR), Personal Transport Module (SBIR), Enhanced Skirt Finger Material (FCT), the Lube Oil Cooler (FCT), and the Composite Shroud (FCT).

R-1 SHOPPING LIST - Item No.

### **CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification

Sec 8125 Revised Economic Assmp

Congressional Action 1% Reduction

(U) Schedule: Not Applicable(U) Technical: Not Applicable

Subtotal

				February 2006
PROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER A	AND NAME	PROJECT NUMBER AND	NAME
DT&E, N / BA-7	0204413N/Amphibious Tac	tical Support Units	2231 / TECHNOLOGY	FRANSITION
ACCOMPLISHMENTS/PLANNED PROGRAM				
	FY 05	FY 06	FY 07	٦
Accomplishments/Effort/Subtotal Cost	0.000	1.990	1.812	<del> </del>
RDT&E Articles Quantity				7
C. Program Change Summary:				
C. Program Change Summary: (U) Funding	FY 2005	FY 2	006 FY 200	7
	FY 2005 0.000		006 FY 200 020 1.87	
(U) Funding		2.		6
(U) Funding  (U) FY 2006 President's Budget  (U) FY 2007 President's Budget  (U) Total Adjustments	0.000	2. <u>1.</u>	020 1.87	6 <u>2</u>
(U) FY 2006 President's Budget (U) FY 2007 President's Budget	0.000 <u>0.000</u> 0.000	2.1. 1 -0.1	020 1.87 090 1.81	6 <u>2</u> 4

R-1 SHOPPING LIST - Item No.

-0.009

-0.021

-0.030

0.000

0.000

0.000

175/10

0.000

0.000

-0.064

DATE:

#### **CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		•	•	•		•	DATE:		•
								Februa	ry 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM E	LEMENT NUM	BER AND NAM	E	PROJECT NU	IMBER AND N	AME		
RDT&E, N / BA-7	0204413N/	Amphibious	Tactical Su	pport Units	2231 / TECH	NOLOGY TR	ANSFER		
D. OTHER PROGRAM FUNDING SUMMARY:									
								То	Total
Line Item No. & Name	<u>FY 2005</u>	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	<u>Complete</u>	Cost
OPN Line 098100 LCAC HM&E < 5,000K		5.308	5.914	6.484	6.514	6.768	6.993		37.981

#### E. ACQUISITION STRATEGY:

TECHNOLOGY TRANSFER - RDT&E efforts commence in FY06. Multiple contracts and Field Activities will be involved through FY11 to complete the various projects.

#### F. MAJOR PERFORMERS:

Field Activities & Locations - Work Performed:

NSWC, Bethesda, MD - System engineering, test and evaluation.

NSWC (CSS) Panama City, FL - System engineering

NSWC Philadelphia, PA - Systems engineering

Contractors & Locations - Work Performed:

Universities & Locations - Work Performed Not applicable

R-1 SHOPPING LIST - Item No.

175/11

### CLASSIFICATION:

						DATE:						
Exhibit R-3 Cost Analysis (page 1)	)								February	2006		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT	PROJECT N	NUMBER A	ND NAME						
RDT&E, N / BA-7			0204413N/Amphibious Tactical Support Units	2231 / TEC	CHNOLOG	Y TRANSFE	₹					
	Contract	Performing	Total		FY 05		FY 06		FY 07			
S .		Activity &	PY s	FY 05	Award	FY 06	Award		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												
	WX/CPAF	Various				0.150	02/05	0.150	01/07	0.600	0.900	
Ship Design												
Ship Suitability												
Systems Engineering	FFP/CPF	Various	2.841			0.550	02/05	0.779	01/07	3.600	7.770	
Training Development												
Licenses												
Tooling												
	WX		0.110								0.110	
Award Fees												
Subtotal Product Development			2.951	0.000	)	0.700		0.929		4.200	8.780	
Development Support	WX	Various	2.467			0.685	10/05	0.290	10/06	2.112	5.554	
Software Development												
Training Development												
Integrated Logistics Support												
Configuration Management												
Technical Data												
Studies & Analyses	WX	ONR	0.254								0.254	
GFE												
Award Fees												
Subtotal Support			2.721	0.000	)	0.685		0.290		2.112	5.808	
Remarks:												

R-1 SHOPPING LIST - Item No. 175/12

### **CLASSIFICATION:**

							DATE:						
Exhibit R-3 Cost Analysis (pa	ge 2)								F	ebruary	2006		
APPROPRIATION/BUDGET ACTIV	/ITY		PROGRAM EI	LEMENT	PROJECT NU	JMBER AN	D NAME						
RDT&E, N / BA-7			0204413N/Am	phibious Tactical Support Ur	2231 / TECH	HNOLOGY	TRANSFER						
Cost Categories	Contract	Performing		Total		FY 05		FY 06		FY 07			
	Method	Activity &		PY s	FY 05	Award	FY 06 Cost	Award	FY 07	Award Date	Cost to	Total	Target Value of Contract
Davida assetal Test 9 Findingtion	& Type WX	Location		Cost	Cost	Date		Date 40/05	Cost		Complete	Cost	
Developmental Test & Evaluation	WX	Various		0.290			0.100		0.098		0.400		.329
Operational Test & Evaluation	VVX	Various		0.029			0.050	10/05	0.050	10/06	0.200	1	.329
Live Fire Test & Evaluation							0.400	40/05	0.400	40/00	0.400		222
Test Assets							0.100	10/05	0.100	10/06	0.400	0	.600
Tooling													
GFE													
Award Fees													
Subtotal T&E				0.319	0.000		0.250		0.248		1.000	) 1	.817
Contractor Engineering Support	FFP	VARIOUS		1.195			0.200	10/05	0.194	10/06	0.820	) 2	.409
Government Engineering Support	wx	VARIOUS		0.812								0	.812
Program Management Support	CPFF	VARIOUS		0.457			0.100	10/05	0.096	10/06	0.400	1	.053
Travel	PD	NAVSEA TRA	VEL	0.067			0.055	10/05	0.055	10/06	0.220	0	.397
Labor (Research Personnel)													
SBIR Assessment													
Subtotal Management				2.531	0.000		0.355		0.345		1.440	4	.671
Remarks:													
T. 10.	1	1		0.500			1 1000	T	1 4 040	П	0.750	.l 04	070
Total Cost		1		8.522	0.000	'	1.990		1.812		8.752	: 21	.076
Remarks:				D 4 QUODDING LIGT									

R-1 SHOPPING LIST 175/13

### **CLASSIFICATION:**

EXHIBIT R4, Schedule	Profile																				DATE	:						
																							F	ebrua	ry 20	06		
APPROPRIATION/BUDGET	ACTIVI	TY			PROC	3RAM	ELEM	ENT N	UMBE	R AND	NAM (	E					PROJ	ECT N	IUMBE	R AND	D NAM	E						
RDT&E, N / BA-7					0204	413N	/Amp	hibio	us T	actica	al Su	pport	Units	5			2231	/TEC	HNO	OGY	TRAI	NSFE	R					
Fiscal Year		20	05			20	06			20	07			20	08			20	09			20	10			20	11	
	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
Acquisition Milestones	MS B																											
Contract Award	$\triangle$																											
LCAC S&T Initiatives					$\triangle$																							

R-1 SHOPPING LIST - Item No. 175/14

## **CLASSIFICATION:**

Exhibit R-4a, Schedule Detail						DATE:	
						F	ebruary 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM E	LEMENT			PROJECT NU	MBER AND NA	AME
RDT&E, N / BA-7	0204413N/A	mphibious T	actical Supp	ort Units	2231 / TECH	<b>NOLOGY TR</b>	ANSFER
Schedule Profile	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Milestone B							
Contract Award	1Q						
LCAC S&T Initiatives		1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q

R-1 SHOPPING LIST - Item No.

#### CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justific	ation						DATE:			
								Feb	ruary 2006	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM EL	EMENT NAME	AND NUMBER		PROJECT N	AME AND NU	MBER			
RDT&E,N/BA7	0204413N/A	mphibious	Tactical Supp	ort Units	Amphibious	Lighterage De	velopment/290	)9		
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Cost to Complete	Total Cost
Project Cost		3.422	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.422
RDT&E Articles Qty		30	N/A	N/A	N/A	N/A	N/A	N/A		

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

This project supports development and procurement of technology to develop Navy causeway lighterage. The Improved Navy Lighterage System (INLS) replaces the existing Navy Lighterage (NL) system and supports the US Navy Lighterage recapitalization plan. Current NL will reach the end of its service life and will impact crew safety and operation readiness. INLS will be capable of operations in higher sea states, have a greater service life, and have reduced maintenance costs. INLS will be deployed during Logistic Over The Shore (LOTS) operations, Assault Follow On Echelon (AFOE) operations and Maritime Prepositioning Force (MPF) operations. INLS consists of Warping Tugs, Causeway Ferries, RO/RO Discharge Facilities and Floating Causeway. The design and development for INLS was completed in FY04. Contract for Low Rate Initial Production (LRIP) was awarded in Aug 03. OPEVAL DT/OT took place 4th quarter in FY05. In addition, INLS Phase III design process continues with the High Speed Ferry Assault Connector (CFFX) in support of the Seabasing concept.

#### B. ACCOMPLISHMENTS/PLANNED PROGRAM:

FY2005: \$2.442M for INLS OPEVAL and \$1.0M for CFFX

	FY2005	FY2006	FY2007
INLS OPEVAL	2.422	0.000	0.000
CFFX	1.000	0.000	0.000
RDT&E Articles Qty	30	N/A	N/A

Operation and evaluation testing began in FY2005.

CFFX Technology development in FY2005, contract awarded April 05.

R-1 SHOPPING LIST - Item No. 175-16

FIED Exhibit R-2a, RDTEN Project Justification (page 16 of 21)

## **CLASSIFICATION:**

EXHIB	IT R-2a, RDT&E Project	t Justificatio	on			DATE:	Feb	ruary 2006	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NAM	ME AND NUM	1BER	PROJECT NA	ME AND NU	MBER		100.1	
RDT&E,N/BA7	0204413N/Amphibiou			Amphibious Li			09		
C. Program Change Summary:									
			FY2005	FY2006	FY2007				
(U) FY 2006 President's Budget			3.510	0.000	0.000				
(U) FY 2007 President's Budget			3.422	0.000	0.000				
Total Adjustments			-0.088	0.000	0.000				
Summary of Adjustments									
Other general provisions			-0.088	0.000	0.000				
			-0.088	0.000	0.000				
D. Other Program Funding Summary	(INLS Development)								
	FY2005	FY2006	FY2007	FY2008	FY2009	FY20010	FY2011	To Complete	Total Cost
CESE Line 6033 Amphib Equip (OPN) (U) Related RDT&E: NA	11.5	149.700	86.300	104.800	13.900	0	0	0	366.2
E. Acquisition Strategy (JMLS/INLS):			n Aug 03 with OP nt began in FY05			ation testing wi	ll begin in FY20	005.	
F. Major Performer:									
Activities & Location	Work Performed								
OPTEVFOR, Norfolk, VA	OPEVAL of LRIP Quantities								
Art Anderson Associates	CFFX Technology Develope								
US Marine Corp Camp Pendleton CA	Developmental Testing of IN								
NFESC Port Huneme CA Titan Corp CA	Developmetal Testing of IN OPEVAL of LRIP Quantities		Ι						
Titan Corp CA	OFEVAL OFERIT QUANTILES	•							

R-1 SHOPPING LIST - Item No. 175-17

### CLASSIFICATION:

# **UNCLASSIFIED**

Exhibit R-3 Cost Analysis (pag APPROPRIATION/BUDGET ACTIVI' RDT&E,N/BA7									E . 1			
APPROPRIATION/BUDGET ACTIVI									February	/ 2006		
RDT&F N/RA7	ITY		PROGRAM ELEMENT			PROJECT	NAME AND	NUMBER				
			0204413N/Amphibious Tac	ctical Support	Units	Amphibiou	ıs Lighterage	Developmen	nt/2909			
Cost Categories	Contract	Performing	Total		FY 05		FY 06		FY 07			
Tailor to WBS, or System/Item	Method	Activity &	PY s	FY 05	Award	FY 06	Award	FY 07	Award	Cost to	Total	Target Value
Requirements)	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Complete	Cost	of Contract
Primary Hardware Development										0.000	0.000	
Ancillary Hardware Development										0.000	0.000	
Systems Engineering	RCP	AAA - CA		1.000	04/05					0.000	1.000	
Licenses			1.555								0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			0.000	1.000		0.000		0.000		0.000	1.000	
Remarks:												
Development Support Equipment											0.000	
Development Support Equipment Software Development											0.000	
Development Support Equipment Software Development Fraining Development											0.000	
Development Support Equipment Software Development Fraining Development ntegrated Logistics Support										0.000	0.000 0.000 0.000	
Development Support Equipment Software Development Fraining Development Integrated Logistics Support Configuration Management										0.000	0.000 0.000 0.000 0.000	
Development Support Equipment Software Development Fraining Development Integrated Logistics Support Configuration Management Fechnical Data										0.000	0.000 0.000 0.000 0.000 0.000	
Development Support Equipment Software Development Fraining Development ntegrated Logistics Support Configuration Management			0.000	0.000		0.000		0.000		0.000	0.000 0.000 0.000 0.000	

R-1 SHOPPING LIST - Item No. 175-18

### CLASSIFICATION:

# **UNCLASSIFIED**

Exhibit R-3 Cost Analysis (pa	nao 3)							February 2	0006			
APPROPRIATION/BUDGET ACTI		PROGRAM ELEMENT		PRO IECT	NAME AND N	IIIMRED		rebruary 2	2006			
RDT&E,N	VIII	0204413N/Amphibious Tac	tical Cumport Units				0000					
	10			Amphibious	Lighterage D	evelopment/.			E) / 07	1		1
Cost Categories	Contract	Performing	Total	FY 05	FY 05	EV 00	FY 06	FY 07	FY 07	0	T-4-1	T 1 \ /-!
Tailor to WBS, or System/Item	Method	Activity &	PY s		Award	FY 06	Award		Award	Cost to	Total	Target Value
Requirements)	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Complete	Cost	of Contract
Developmental Test & Evaluation	WR	NFESC		0.350	04/05	+				0.000	0.350	
Developmental Test & Evaluation	MIPR	USMC	0.050	0.100	06/05	<b>#</b> 0.000		0.000		0.000	0.100	
Operational Test & Evaluation	WR	OPTEVFOR	0.050	1.802	12/05	\$0.000		0.000		0.000	1.852	
Operational Test & Evaluation	RCP	Titan		0.170	03/05						0.170	
ooling											0.000	
GFE											0.000	
Subtotal T&E			0.050	2.422		0.000		0.000		0.000	2.472	
				1							0.000	
Contractor Engineering Support Government Engineering Support											0.000	
Government Engineering Support Program Management Support											0.000	
Government Engineering Support Program Management Support Travel											0.000 0.000 0.000	
Government Engineering Support Program Management Support Travel Labor (Research Personnel)											0.000 0.000 0.000 0.000	
Government Engineering Support Program Management Support Fravel Labor (Research Personnel) Dverhead											0.000 0.000 0.000 0.000 0.000	
Government Engineering Support Program Management Support Travel Labor (Research Personnel)			0.000	0.000		0.000		0.000		0.000	0.000 0.000 0.000 0.000	
tovernment Engineering Support rogram Management Support ravel abor (Research Personnel) iverhead Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000 0.000 0.000 0.000 0.000	
overnment Engineering Support rogram Management Support ravel abor (Research Personnel) verhead Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000 0.000 0.000 0.000 0.000	
Government Engineering Support Program Management Support Program Management Support Pravel But (Research Personnel)			0.000	0.000		0.000		0.000		0.000	0.000 0.000 0.000 0.000 0.000	
Sovernment Engineering Support Program Management Support Program Management Support Provel Proventier (Research Personnel) Proverhead Proventier (Research Personnel) Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000 0.000 0.000 0.000 0.000	
iovernment Engineering Support rogram Management Support ravel abor (Research Personnel) everhead Subtotal Management Remarks:											0.000 0.000 0.000 0.000 0.000 0.000	
overnment Engineering Support rogram Management Support ravel abor (Research Personnel) verhead Subtotal Management  Remarks:											0.000 0.000 0.000 0.000 0.000 0.000	

R-1 SHOPPING LIST - Item No. 175-19

### **CLASSIFICATION:**

EXHIBIT R4, Schedule	Profile																				DATE	:						
APPROPRIATION/BUDGET	ACTIVI	TV			DDO	GRAM	ELEM	ENIT N	LIMBE	D AND	NIAM	=					DDO I	ECT N	IIIMRE	D ANI	) NAM	IE		Febr	uary	2006		
RDT&E, N /	BA-7					1413N							Unit	S				ibious					2909					
Fiscal Year		20	05			20				20		•		200	)8			200				20				20	11	
	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
INLS Acquisition Milestones					10	/ حا	RP																					
Test & Evaluation Milestones				OPE	VAL																							
Operational Test																												
Production Milestones																												
LRIP AUG 2003																												
						FRP	Start															FOC						
FRP FY 09																												
Deliveries	LRIP [	Deliverie	es																									

R-4 Schedule Profile - Item No. 175-20

## **CLASSIFICATION:**

Exhibit R-4a, Schedule Detail					DATE:	ebruary 200	)6
APPROPRIATION/BUDGET ACTIVITY	PROGRAM E	LEMENT				IMBER AND N	
RDT&E, N / BA-7	0204413N/	Amphibious	Tactical Su	pport	Amphibious Li	ghterage Deve	lopment/2909
Schedule Profile (MHP)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Start Low-Rate Initial Production I (LRIP) 4Q FY03							
Low-Rate Initial Production Delivery	3Q						
Operational Test & Evaluation (OPEVAL)	4Q						
Full Rate Production (FRP) Decision		1Q					
Full Rate Production Start		2Q					
Full Operation Capability						2Q	
CFFX - SBIR Phase III Continues	2Q						
CFFX Technology Final Report	4Q						
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R-4a Schedule Detail - Item No 175-21