#### **CLASSIFICATION:**

EXHIBIT R-2, RDT&E Budget Item Justification						DATE:	
						Februa	ary 2006
APPROPRIATION/BUDGET ACTIVITY							
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /	BA-5		0604574N / NAVY	TACTICAL COMP	UTER RESOURC	ES	_
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	\$8.169	\$6.487	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
1353 Standard Hardware	\$6.196	\$2.187	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
9579 Compact Ultra Fast Laser System Development	\$1.973						
9999 Congressional Adds		\$4.300					

Defense Emergency Response Funds (DERF): Not applicable.

A. Mission Description and Budget Item Justification: The AN/UYQ-70(V) program must incorporate state-of-the-art Commercial-off-the-Shelf/Open System Architecture (COTS/OSA) technological improvements continuously and rapidly, in order to meet rapidly evolving future customer requirements. The AN/UYQ-70(V) program provides the de facto standard for state-of-the-art commercial-off-the-shelf (COTS) processors and displays for all mission-essential/mission-critical combat systems, weapons systems, self-defense systems, command and control systems, and communications systems utilized in all USN combatants. The Q-70 product baseline continues to require increased capability in order to satisfy the needs of future FORCENET network-centric Open Architecture combat system designs. This funding also supports the continuing spiral development of Q-70 and Common Enterprise Display System (CEDS), which will be the standard display system for all new combat systems on all new ship designs. This CEDS development will incorporate vastly improved HSI (Human Systems Interface) characteristics, and migration to full Open Architecture Computing Environment (OACE) requirements.

\*\*FY05 includes two Congressional Adds totaling 6.0M

#### **CLASSIFICATION:**

## **UNCLASSIFIED**

EXHIBIT R-2a, RDT&E Project Justification						DATE:	
						Februa	ry 2006
APPROPRIATION/BUDGET ACTIVITY	53/Standard Hardw	are					
RDT&E, N / BA-5	0604574N / NAVY	em Development					
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	8.169	6.487	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty							

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

A. Mission Description and Budget Item Justification: The AN/UYQ-70(V) program must incorporate state-of-the-art Commercial-off-the-Shelf/Open System Architecture (COTS/OSA)
technological improvements continuously and rapidly, in order to meet rapidly evolving future customer requirements. The AN/UYQ-70(V) program provides the de facto standard for state-of
the-art commercial-off-the-shelf (COTS) processors and displays for all mission-essential/mission-critical combat systems, weapons systems, self-defense systems, command and control
systems, and communications systems utilized in all USN combatants. The Q-70 product baseline continues to require increased capability in order to satisfy the needs of future FORCENET
network-centric Open Architecture combat system designs. This funding also supports the continuing spiral development of Q-70 and Common Enterprise Display System (CEDS) which will
be the standard display system for all new combat systems on all new ship designs. This CEDS development will incorporate vastly improved HSI (human systems interface) characteristics
and migration to full Open Architecture Computing Environment (OACE) requirements.

R-1 SHOPPING LIST - Item No. 118

**UNCLASSIFIED** 

Exhibit R-2, RDTEN Budget Item Justification (Exhibit R-2, page 2 of 10)

#### **CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	AME; 1353/Standard Hardware
RDT&E, N / BA-5	0604574N / NAVY TACTICAL COMPUTER RESOURCES	9579 Compact Ultra Fast La	aser System Development

#### B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	6.196	2.187	0.000
RDT&E Articles Quantity			

FY2005 Plan: Preparation and commencement of Common Enterprise Display System (CEDS) development contract. Congressional Add of \$4.0M to continue Technology Insertion efforts

on Q-70 production contract.

FY2006 Plan: Continue CEDS development. FY2007 Plan: Continue CEDS development.

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.973	0.000	0.000
RDT&E Articles Quantity			

FY 2005 Plan: FY05 Congressional Add for development of High Energy Laser.

FY 2006 Plan: None FY2007 Plan: None

#### CLASSIFICATION:

EXHIBIT R-2a, RDT&	E Project Justification							DATE:						
					February 2006									
APPROPRIATION/BUDGE	ET ACTIVITY	PROGRAM EL	EMENT NUMBE	R AND NAME		PROJECT NU	MBER AND N	ND N.\						
RDT&E, N /	BA-5	0604574N / NA	AVY TACTICAL (	COMPUTER RES	OURCES	9579 / Compa	ct Ultra Fast L	aser System D	evelopment					
D. OTHER PROGR	RAM FUNDING SUMMARY:													
2.0									То	Total				
Line Item No. & N	<u>lame</u>	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	<u>Complete</u>	Cost				
Other Program Fun	iding Summary													
Related R	•													
PE 0603382N	(ADV COMBAT SYS TECHNOLOGY)	61.474	29.705	12.380	22.552	23.213	23.897	25.853						
PF 0603502N	(SHALLOW WATER MCM)	97.892	118.682	130.265	131.401	127.034	194.089	246.993						
1 - 000000211		01.002												
	(AEGIS WEAPON SYS MODS)	148.939	228.932	189.929	209.153	217.909	242.600	268.203						
PE 0604307N	,													
PE 0604307N PE 0604366N	(AEGIS WEAPON SYS MODS)	148.939	228.932	189.929	209.153	217.909	242.600	268.203						
PE 0604307N PE 0604366N PE 0604755N	(AEGIS WEAPON SYS MODS) (STD MSL IMP)	148.939 110.568	228.932 148.532	189.929 186.016	209.153 221.583	217.909 237.085	242.600 159.352	268.203 67.405						
PE 0604307N PE 0604366N PE 0604755N PE 0604503N	(AEGIS WEAPON SYS MÓDS) (STD MSL IMP) (SHIP SELF DEFENSE)	148.939 110.568 68.193	228.932 148.532 56.642	189.929 186.016 10.044	209.153 221.583 6.266	217.909 237.085 5.440	242.600 159.352 0.743	268.203 67.405 0.138						

#### F. MAJOR PERFORMERS:

N/A

#### CLASSIFICATION:

(HIBIT R-2a, RDT&E Project Justification				DATE:
PROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME		PROJECT NUMBER AND N	February 2006  NAME; 1353/Standard Hardware
DT&E, N / BA-5	0604574N / NAVY TACTICAL COMPUTER RESOU		9579 / Compact Ultra Fast L	
JIGE, IL 7 DA G	OUGHT HIT THE COME OF THE COOK	ROLO	30737 Compact Olira Fast E	addi dystem bevelopment
C. PROGRAM CHANGE SUMMARY:				
Funding:	FY 2005	FY 2006	FY 2007	
FY 2006 President's Budget:	8.298	2.220		
FY 2007 Budget Estimate	8.169	2.187	0.000	
Total Adjustments	-0.129	-0.033		
Summary of Adjustments				
Other General Provisions	-0.129	-0.033	-2.713	
Inflation	• • • • • • • • • • • • • • • • • • • •		0.012	
Subtotal	-0.129	-0.033		
Technical:				
N/A				

#### CLASSIFICATION:

								DATE:				
Exhibit R-3 Cost Analysis (pa	ge 1)									February 200	06	
APPROPRIATION/BUDGET ACTIV		PROGRA	M ELEMENT	PROJECT NU	JMBER AND N	AME; 1353/St	andard Hardwa	are		-		
RDT&E, N / BA-5		0604574	N / NAVY TACTICA	4 9579 / Compa	act Ultra Fast La	aser System D	evelopment					
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
Primary Hardware Development	Various	Various	195.500							195.500	195.500	_
Ancillary Hardware Development	Various	Various	0.650	1						0.650	0.650	
Component Development				1						0.000	0.000	
Ship Integration										0.000	0.000	_
Ship Suitability										0.000	0.000	
Systems Engineering	CPFF	Lockheed Martin		3.859	Various	0.000	10/05	0.000		Continuing	Continuing	
Systems Engineering	WX	NSWC/Crane		0.021	02/05	0.695	10/05	0.000		Continuing	Continuing	
Systems Engineering	WX	NSWC/PHD		0.091	02/05	0.130	10/05	0.000		Continuing	Continuing	
Systems Engineering	WX	NSWC/Dahlgren		0.338	02/05	1.011	10/05	0.000		Continuing	Continuing	
Systems Engineering	WX	NUWC/Newport		0.100	02/05	0.000	10/05	0.000		Continuing	Continuing	
Systems Engineering	Various	Various	82.222	1.787	Various	0.351	10/05	0.000		Continuing	Continuing	
Training Development			1.000							1.000	1.000	
Licenses			1.000							1.000	1.000	
Tooling										0.000	0.000	
GFE										0.000	0.000	
Award Fees										0.000	0.000	
Subtotal Product Development			280.372	6.196		2.187		0.000		Continuing	Continuing	
Remarks:												
Development Support	CPFF	Lockheed Martin	1.000	1.973						Continuing	Continuing	
Software Development	Various	Various	40.009							Continuing	Continuing	
Training Development	Various	Various	1.575							Continuing	Continuing	
Integrated Logistics Support	Various	Various	2.472							Continuing	Continuing	
Configuration Management	Various	Various	2.620							Continuing	Continuing	
Technical Data	Various	Various	1.338							Continuing	Continuing	
GFE						_			_	0.000	0.000	
Award Fees										0.000	0.000	
Subtotal Support			49.014	1.973		0.000		0.000		Continuing	Continuing	
Remarks:					- Item No. 1							

#### CLASSIFICATION:

				DATE:												
Exhibit R-3 Cost Analysis (page	ge 2)							February 2006								
APPROPRIATION/BUDGET ACTIV	/ITY		PROGRAM ELEMENT	PROJECT N	UMBER AND N	NAME; 1353/Sta	andard Hardwa	ire		•						
RDT&E, N / BA-5			0604574N / NAVY TACT	ICA 9579 / Comp		aser System D	evelopment									
Cost Categories	Contract	Performing	Total		FY 05		FY 06		FY 07							
	Method	Activity &	PY s Cost	FY 05 Cost	Award Date	FY 06 Cost	Award Date	FY 07 Cost	Award Date	Cost to	Total Cost	Target Value of Contract				
Developmental Test & Evaluation	& Type Various	Location Various	26.300		Date	0.000	Date	0.000	Date	Complete Continuing		Continuing				
Operational Test & Evaluation	Various		18.428			0.000				Continuing	Continuing					
	various	Various	10.420	0.000		0.000		0.000		Continuing	Continuing	Continuing				
Live Fire Test & Evaluation Test Assets																
				+												
Tooling GFE																
Award Fees			44.700	0.000		0.000		0.000		Cantinuina	Continuing					
Subtotal T&E			44.728	0.000		0.000		0.000		Continuing	Continuing					
Government Engineering Services																
Program Management Support			1.000	0.000		0.000		0.000		Continuing	Continuing					
Subtotal Management			1.000	0.000		0.000		0.000		Continuing	Continuing					
Total Cost  Remarks:			375.114	8.169		2.187		0.000		Continuing	Continuing					

#### **CLASSIFICATION:**

Exhibit R-4a, Schedule Detail						DATE:						
	Not Applicable	e					Februar	y 2006				
APPROPRIATION/BUDGET ACTIVITY	PROGRAM E	LEMENT			PROJECT NU	JMBER AND NAME; 1353/Standard Hardware						
RDT&E, N /BA-5	0604574N / N			mpact Ultra Fast Laser System Development								
Schedule Profile	FY 2005		FY 2007	FY 2008		FY 2010						
3.1.3.4.1.3.1.3.1.3			00.									
			+									

#### CLASSIFICATION:

EXHIBIT R4, Schedule Profile  Not Applicable  APPROPRIATION/BUDGET ACTIVITY PROGRAM ELEMENT NUMBER AND NAME PROJECT NUMBER AND NAME PROJECT NUMBER AND NAME														DATE	:		_		DATE: February 2006									
APPROPRIATION/BUDGET	ACTIVI	TY			PROG	SRAM I	ELEMF	NT NI	JMBEF	R AND	NOT A	Appli	cable				PROJEC	T NUN	/BER	AND NA	ME: 13	53/Sta	Fondard	ebrua Hardwa	<b>ry 20</b> 0 are	06		
RDT&E,N / BA-5						574N / I															ser System Development							
Fiscal Year		20	05			20	06		2007			2008			2009			2010			2011							
	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

 $<sup>^{\</sup>star}$  Not required for Budget Activities 1, 2, 3, and 6

#### **CLASSIFICATION:**

XHIBIT R-2a, RDT&E Project Justificati	ion	DATE:	
ROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME:VARIOUS	006
Γ&E, N / BA-5	0604574N / NAVY TACTICAL COMPUTER RESOURCES	CONGRESSIONAL PLUS-UPS	
CONGRESSIONAL PLUS-UPS:			
	FY 06		
1353C	4.300		
Q-70 Systems Technology Improvements			
FY 2006 Plan: FY06 Congressional Add will all	low for Q-70 System Technology Improvements.		