Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy

PE 0603564N: Ship Prel Design & Feasibility Studies

BA 4: Advanced Component Development & Prototypes (ACD&P)

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	22.884	38.197	1.796	0.000	1.796	0.285	0.360	0.402	0.409	Continuing	Continuing
0408: Ship Development (ADV)	4.391	1.478	0.437	0.000	0.437	0.285	0.360	0.402	0.409	Continuing	Continuing
3195: <i>JCC(X)</i>	8.281	25.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	35.280
3226: Green Water Craft	0.000	1.476	1.359	0.000	1.359	0.000	0.000	0.000	0.000	0.000	2.835
9999: Congressional Adds	10.212	10.198	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	32.261

A. Mission Description and Budget Item Justification

0408 - SURFTECH - Ship Development project supports the evaluation of advanced and alternative technologies through the Surface Ship Technology (SURFTECH) process for suitability for meeting total ship concepts capability needs.

- OCEAN CLASS AGOR Ship Preliminary Design and Feasiblility Studies to support procurement of two AGOR ocean Class vessels in FY11 and FY12.
- 3195 JCC(X) was planned as a mobile, self-sustaining platform with robust C4ISR capability for a Joint Force Commander and staff and provides in-theater command and control should a land-based headquarters be unavailable, constrained or threatened.
- 3226 Green Water Craft which will provide maritime security and stability operations and increased maritime domain awareness in compliance with Global Maritime Security objectives and in direct support of Global Fleet Stations (GFS). Funding will provide for craft feasibility and sizing study and subsystem Mockups in support of initial craft production.

Congressional Adds:

Support for Naval Ship Hydrodynamic Test Facility, Bow Lifting Body Ship Research and Low Signature Defensive Weapon System for Surface Combatant Craft.

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	
1319: Research, Development, Test & Evaluation, Navy	PE 0603564N: Ship Prel Design & Feasibility Studies	
BA 4: Advanced Component Development & Prototypes (ACD&P)		

B. Program Change Summary (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	24.781	28.135	0.000	0.000	0.000
Current President's Budget	22.884	38.197	1.796	0.000	1.796
Total Adjustments	-1.897	10.062	1.796	0.000	1.796
 Congressional General Reductions 		-0.158			
 Congressional Directed Reductions 		0.000			
 Congressional Rescissions 	0.000	-0.020			
 Congressional Adds 		10.240			
 Congressional Directed Transfers 		0.000			
Reprogrammings	-1.500	0.000			
 SBIR/STTR Transfer 	-0.396	0.000			
 Program Adjustments 	0.000	0.000	1.796	0.000	1.796
 Rate/Misc Adjustments 	-0.001	0.000	0.000	0.000	0.000

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 9999: Congressional Adds

Congressional Add: Low Signature Defensive Weapon System for Surface Combatant Craft

Congressional Add: SUPPORT FOR NAVAL SHIP HYDRODYNAMICS TEST FACILITI

Congressional Add: Bow Lifting Body Ship Research

	FY 2009	FY 2010
atant Craft	0.000	3.824
CILITI	3.989	3.187
	6.223	3.187
Congressional Add Subtotals for Project: 9999	10.212	10.198
Congressional Add Totals for all Projects	10.212	10.198

Congressional Add Totals for all Projects

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.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy **DATE:** February 2010 **PROJECT** APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE 1319: Research, Development, Test & Evaluation, Navy PE 0603564N: Ship Prel Design & Feasibility 0408: Ship Development (ADV) Studies

BA 4: Advanced Component Development & Prototypes (ACD&P)

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
0408: Ship Development (ADV)	4.391	1.478	0.437	0.000	0.437	0.285	0.360	0.402	0.409	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 unit supports two efforts.

SURFTECH - The evaluation of advanced and alternative technologies through the Surface Ship Technology (SURFTECH) process for examining suitability for meeting total ship concepts capability needs. The objective of this project is to provide decision makers with feasible, affordable alternatives to be selected for further development. In support of surface ship advanced technology development and transformation, the surface ship community has instituted a technology evaluation process to coordinate, identify, prioritize, and integrate technology insertion and development efforts and assist RDT&E community efforts to initiate appropriate technology development. The current acquisition guidelines require the development of critical technologies after Milestone A. If significant gap analysis, planning, and early development efforts are not conducted in parallel with Concept Development the Navy will not be able to provide broad, cross-platform direction to surface navy development efforts in an effective manner and will not effectively leverage limited resources to guicken the pace of both development and transition of critical mission technologies for timely acquisition.

AGOR OCEAN - Funding supports the acquisition of general purpose research vessels which will conduct science, educational and engineering operations in all oceans, and will be operated by the University Oceanographic Laboratory System (UNOLS).

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Ocean Class AGOR	3.823	0.967	0.000	0.000	0.000
FY 2009 Accomplishments: Funding supports necessary preliminary efforts in order to award detail design and procurement contract.					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

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

R-1 ITEM NOMENCLATURE
PE 0603564N: Ship Prel Design & Feasibility
Studies

PROJECT
0408: Ship Development (ADV)

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: Continued support for necessary preliminary efforts in order to award detail design and procurement contract.					
SURFTECH	0.545	0.511	0.437	0.000	0.437
FY 2009 Accomplishments: As new ship concepts with desired mission capabilities are developed, SURFTECH will continuously identify, prioritize, and integrate technology insertion and development efforts and assist the RDT&E community efforts to initiate appropriate technology development. SURFTECH will provide continuous analysis of and feedback to ongoing technology development efforts to ensure project relevance and timely transition to meet acquisition schedules, which will be documented in the Technology Plan. FY 2010 Plans: Continued identification, prioritization, and integration of technology insertion and development efforts and assist the RDT&E community efforts to initiate appropriate technology development. SURFTECH will provide continuous analysis of and feedback to ongoing technology development efforts to ensure project relevance and timely transition to meet acquisition schedules, which will be documented in the Technology Plan.					
FY 2011 Base Plans: Continued identification, prioritization, and integration of technology insertion and development efforts and assist the RDT&E community efforts to initiate appropriate technology development. SURFTECH will provide continuous analysis of and feedback to ongoing technology development efforts to ensure project relevance and timely transition to meet acquisition schedules, which will be documented in the Technology Plan.					
Defense Acquisition Wokforce Development Fund (DAWDF)	0.023	0.000	0.000	0.000	0.000

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R-1 Line Item #44 Page 4 of 15

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 0603564N: Ship Prel Design & Feasibility

Studies

PROJECT

0408: Ship Development (ADV)

B. Accomplishments/Planned Program (\$ in Millions)

FY 2009 Accomplishments:		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Defense Acquisition Wokforce Development Fund	Accomplishments/Planned Programs Subtotals	4.391	1.478	0.437	0.000	0.437

C. Other Program Funding Summary (\$ in Millions)

			FY 2011	FY 2011	FY 2011					Cost To	
<u>Line Item</u>	FY 2009	FY 2010	<u>Base</u>	OCO	<u>Total</u>	FY 2012	FY 2013	FY 2014	FY 2015	Complete	Total Cost
 SCN/5087: Oceanographic Ships 	0.000	0.000	89.093	0.000	89.093	0.000	0.000	0.000	0.000	0.000	89.093

D. Acquisition Strategy

N/A

E. Performance Metrics

NONE

PROJECT

DATE: February 2010 Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE**

3195: JCC(X) 1319: Research, Development, Test & Evaluation, Navy PE 0603564N: Ship Prel Design & Feasibility

BA 4: Advanced Component Develo	pment & Pro	ototypes (AC	D&P)	Studies							
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
3195: <i>JCC(X)</i>	8.281	25.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	35.280
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

JCC(X) was planned to be a mobile, self-sustaining platform with robust C4ISR capability for a Joint Force Maritime Component Commander (JFMCC) or Joint Force Commander and staff and provides in-theater command and control should a land-based headquarters be unavailable, constrained or threatened. The JCC(X) program has been deferred. C2 capability will remain resident in CVNs and large-deck amphips. Assessments of the LCC 19 & 20 will be conducted to determine life extensions.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
JCC (X)	8.232	25.045	0.000	0.000	0.000
Budgeted funds provides the afloat/ashore command and control (C2) preliminary design and feasibility study efforts.					
FY 2009 Accomplishments: N/A					
FY 2010 Plans: N/A					
DAWDF	0.049	0.000	0.000	0.000	0.000
Defense Acquisition Workforce Development Fund					
FY 2009 Accomplishments: N/A					

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

PROJECT

PE 0603564N: Ship Prel Design & Feasibility

Studies

3195: *JCC(X)*

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Accomplishments/Planned Programs Subtotals	8.281	25.045	0.000	0.000	0.000

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy PE 0603564N: Ship Prel Design & Feasibility 3226: Green Water Craft

BA 4: Advanced Component Development & Prototypes (ACD&P)

Studie

DA 4. Advanced Component Develo	pineni a ric	notypes (AC	DQF)	Studies							
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
3226: Green Water Craft	0.000	1.476	1.359	0.000	1.359	0.000	0.000	0.000	0.000	0.000	2.835
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Green Water Craft which will provide maritime security and stability operations and increased maritime domain awareness in compliance with Global Maritime Security objectives and in direct support of Global Fleet Stations (GFS). Funding will provide for craft feasibility and sizing study and subsystem Mockups in support of initial craft production.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Green Water Craft	0.000	1.476	1.359	0.000	1.359
In support of initial craft production, Government and contractor engineering support will conduct craft feasibility and sizing studies to be used to develop Command and Control System and Pilot House Static Mockups. FY 2010 Plans: N/A FY 2011 Base Plans: N/A					
Accomplishments/Planned Programs Subtotals	0.000	1.476	1.359	0.000	1.359

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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 0603564N: Ship Prel Design & Feasibility Studies	PROJECT 3226: Gree	n Water Craft
C. Other Program Funding Summary (\$ in Millions) N/A			
D. Acquisition Strategy N/A			
E. Performance Metrics N/A			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

1319: Research, Development, Test & Evaluation, Navy

PE 0603564N: Ship Prel Design & Feasibility

3226: Green Water Craft

BA 4: Advanced Component Development & Prototypes (ACD&P)

Studies

Product Development (\$ in Millions)

				FY 2	010	FY 2011 Base		FY 2		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
Craft Sizing Study	Various/FP	TBD TBD	0.000	0.300	Feb 2010	0.000		0.000		0.000	0.000	0.300	Continuing
Command and Control Mockup Design and Prototype Development	Various/FP	TBD TBD	0.000	0.850	Feb 2010	0.589	Nov 2010	0.000		0.589	0.000	1.439	Continuing
Pilot House Static Mockup	Various/FP	TBD TBD	0.000	0.000		0.438	Nov 2010	0.000		0.438	0.000	0.438	Continuing
		Subtotal	0.000	1.150		1.027		0.000		1.027	0.000	2.177	

Remarks

Management Services (\$ in Millions)

				FY 2010		FY 2 Ba		FY 2 OC		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 (Green Water)	Various/ Various	CSC Not Specified	0.000	0.070	Feb 2010	0.070	Nov 2010	0.000		0.070	0.000	0.140	Continuing
Government Engineering Support (Green Water)	WR	NSWCCD CCD Not Specified	0.000	0.222	Feb 2010	0.222	Nov 2010	0.000		0.222	0.000	0.444	Continuing
Travel (Green Water)	Reqn	NAVSEA Not Specified	0.000	0.034	Feb 2010	0.040	Dec 2010	0.000		0.040	0.000	0.074	Continuing
		Subtotal	0.000	0.326		0.332		0.000		0.332	0.000	0.658	

Exhibit R-3, RDT&E Project Cost Analysis: 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 0603564N: Ship Prel Design & Feasibility

Studies

PROJECT

3226: Green Water Craft

Management Services (\$ in Millions)

				FY 2	2010	FY 2 Ba	2011 ise		2011 CO	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

Remarks

	Total Prior Years Cost	FY 2	2010	FY 2	2011 se	FY 2	-	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	1.476		1.359		0.000	1.359	0.000	2.835	

Remarks

Exhibit R-4, RDT&E					PB 2	011 N	avy				D 4 I	T = N.A	NON	ENICI	ATI 11					PRO	ILO.		TE:	Febru	ary 2	010		
1319: Research, Deve 3A 4: Advanced Com	elopm	ent,	Test	& E				ACD	& <i>P</i>)		R-1 ITEM NOMENCLATURE PE 0603564N: Ship Prel Design & Feasibility Studies							lity	1		een W	/ater	Craft					
		20	00				240			2	74.4			20	112			20	140			20	4.4			20	4 <i>5</i>	
Fiscal Year		20	US				010				011			21	112			20)13			20	14			20	15	
	1	2	3		4	1 2	2 3	4	1	2	? 3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	
reen Water Craft iizing Study Award						Λ																						
						Ι,																						
Command and Control Tockup Award						$\perp \triangle$																						
ireen Water Craft Sizing Study Delivery							Δ																					
Command and Control Mockup Delivery									Δ																			
Pilot House Static									Δ																			
Meckup Award	$\overline{}$											٨																
Pilot House Static Mockup Delivery												Δ																

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R-1 Line Item #44 Page 12 of 15

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

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0603564N: Ship Prel Design & Feasibility

Studies

PROJECT

3226: Green Water Craft

Schedule Details

	St	art	E	nd		
Event	Quarter	Year	Quarter	Year		
Green Water Craft Sizing Study Award	2	2010	2	2010		
Command and Control Mockup Award	2	2010	2	2010		
Green Water Craft Sizing Study Report	3	2010	3	2010		
Command and Control Mockup Delivery	1	2011	1	2011		
Pilot House Static Mockup Award	1	2011	1	2011		
Pilot House Static Mockup Delivery	4	2011	4	2011		

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY

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

COST (\$ in Millions)

FY 2009

FY 2010

R-1 ITEM NOMENCLATURE
PE 0603564N: Ship Prel Design & Feasibility
Studies

FY 2011
FY 2011
FY 2011
FY 2011
FY 2011
FY 2011
FY 2012
FY 2013
FY 2014
FY 2015
Cost To
Total

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
9999: Congressional Adds	10.212	10.198	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	32.261
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Congressional Adds.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010
Commencional Add Law Cinneton Defensive Weener Content for Confess Combetant Conf	0.000	3.824
Congressional Add: Low Signature Defensive Weapon System for Surface Combatant Craft		
FY 2010 Plans:		
Low Signature Defensive Weapon System for Surface Combatant Craft		
	3.989	3.187
Congressional Add: SUPPORT FOR NAVAL SHIP HYDRODYNAMICS TEST FACILITI		
FY 2009 Accomplishments:		
(U) NSWCCD has implemented a five year, five phase fixed price contract to replace the wavemaking system in the Manuevering and Seakeeping (MASK) Basin with modern systems capable of supporting current and future Navy needs. This 3rd year effort will fund the 3rd phase of the contract to continue developing components for the wavemaker.		
FY 2010 Plans:		
This 4th year effort will fund the 4th phase of the contract to continue developing components for the wavemaker.		
	6.223	3.187

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0603564N: Ship Prel Design & Feasibility	9999: Cong	ressional Adds
BA 4: Advanced Component Development & Prototypes (ACD&P)	Studies		

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	
Congressional Add: Bow Lifting Body Ship Research			
FY 2009 Accomplishments: Bow Lifting Body Ship Research project will develop and transition lifting body technologies to support future acquisition programs that consider single hull configurations.			
FY 2010 Plans: Continue developing and transitioning lifting body technologies to support future acquisition programs that consider single hull configurations.			
Congressional Adds Subtotals	10.212	10.198	

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

Congressional Adds.