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## EXHIBIT R-2, RDT&amp;E Budget Item Justification

DATE:

February 2006

APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE		
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /						0604258N, TARGET SYSTEMS DEVELOPMENT		
BA 6								
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Total PE Cost	31.964	40.759	45.666	42.532	47.149	48.106	49.952	
0609 AERIAL TARGET SYSTEMS DEV	28.096	26.147	30.135	22.891	14.426	12.158	8.281	
0610 WPN SYS T&E TRG DEV/PRC	2.918	10.648	14.315	18.372	30.380	33.759	40.277	
0612 SURFACE TARGETS DEVELOPMENT	.950	2.964	1.216	1.269	2.343	2.189	1.394	
9999 CONGRESSIONAL ADD		1.000						

## (U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This program element funds the development and procurement of aerial targets, surface targets, and associated Target Augmentation and Auxiliary Systems (TA/AS) necessary to duplicate or simulate threat characteristics. This requirement is necessary to support weapons systems test and evaluation as well as fleet training. This program element includes the development of: Subsonic Subscale Aerial Target (SSAT), various TA/AS, Supersonic Sea Skimming Target (SSST), Navy Full Scale Aerial Target (FSAT) for conversions, the FSAT Follow-On (AST), surface targets for test and evaluation, surface towed targets, improved target control system, and an anti-radiation missile target. This program element also includes procurement of TA/AS Vector Scoring.

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EXHIBIT R-2a, RDT&E Project Justification								DATE:
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME	
RDT&E, N /		0604258N, TARGET SYSTEMS DEVELOPMENT					0609, AERIAL TARGET SYSTEMS DEV	
BA 6								
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
0609 AERIAL TARGET SYSTEMS DEV	28.096	26.147	30.135	22.891	14.426	12.158	8.281	
RDT&E Articles Qty								
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>Aerial Target Systems and associated target augmentation and auxiliary systems are developed to test and provide training for Joint Strike and Littoral Warfare Systems required to defend fleet surface and air unit in a hostile environment. The threat envelope covered extends from the surface to 100K feet for speeds in the low subsonic range to MACH 4. This project includes:</p> <ul style="list-style-type: none"> <li>-Subsonic Subscale Aerial Target (SSAT) development (including pre-planned product improvements to the existing recoverable, remote-controlled subsonic target - upgraded engine, fuselage, swept wing configuration). The SSAT simulates the anti-ship Cruise Missile threat.</li> <li>-Supersonic Sea Skimming Target (SSST) development. The current developmental SSST replicates anti-ship cruise missile Threat performance.</li> <li>-Target Augmentation and Auxiliary Systems (TAAS) development. TAAS items allow each target to be uniquely configured for specific mission profiles. TAAS configured targets are used for radar acquisition to electronic countermeasures (jamming) evaluation, infrared measurement/test, radar cross section evaluation, decoy effectiveness, maneuver analysis, electronic warfare, warhead effectiveness and evaluation of fleet tactics, readiness and effectiveness.</li> </ul>								

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## EXHIBIT R-2a, RDT&amp;E Project Justification

DATE:

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APPROPRIATION/BUDGET ACTIVITY

RDT&amp;E, N /

BA 6

PROGRAM ELEMENT NUMBER AND NAME

0604258N, TARGET SYSTEMS DEVELOPMENT

PROJECT NUMBER AND NAME

0609, AERIAL TARGET SYSTEMS DEV

## B. ACCOMPLISHMENTS / PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	4.811	5.888	6.045	
RDT&E Articles Qty				

Continue Target Augmentation and Auxiliary Systems (TA/AS) development.

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	13.270	6.123	1.747	
RDT&E Articles Qty				

Continue Subsonic Subscale Aerial Target (SSAT) Development, including product improvements to the existing SSAT (upgraded engine, swept wing configuration and fuselage upgrades) and evaluation of alternate subsonic subscale Aerial Targets.

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	10.015	14.136	22.343	
RDT&E Articles Qty				

Continue QGM-163A Supersonic, Sea-Skimming Target (SSST) Block Upgrades/evolutionary development to keep pace with evolving threat and associated ORD requirements. Efforts include: (1)-Initiate launch study to support operations at Pacific Missile Range Facility (PMRF). (2) Initiate study to develop GQM-163A air-launch capability. (3)-Upgrade GQM-163A to support integration of ULQ-21. (4) Initiate booster enhancement study. Continue analyzing and validating results of study researching suitable alternatives to develop a Threat-D representative SSST. Finalize efforts evaluating an acquisition approach that lower the risk of developing a cost-effective SSST to meet Threat D representation requirements. Prepare for anticipated FY07 Threat D SSST Milestone B decision and program commencement to support a competitive contract award in early FY07.

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APPROPRIATION/BUDGET ACTIVITY

RDT&amp;E, N /

BA 6

PROGRAM ELEMENT NUMBER AND NAME

0604258N, TARGET SYSTEMS DEVELOPMENT

PROJECT NUMBER AND NAME

0609, AERIAL TARGET SYSTEMS DEV

## C. PROGRAM CHANGE SUMMARY

Funding:	FY 2005	FY 2006	FY 2007
Previous President's Budget:	23.439	26.546	30.588
Current BES / President's Budget:	28.096	26.147	30.135
Total Adjustments	4.657	-0.399	-0.453

## Summary of Adjustments

Congressional Reductions

Congressional Rescissions

Congressional Undistributed Reductions

-0.319 -0.278

Congressional Increases

Economic Assumptions

-0.121

Miscellaneous Adjustments

4.976 -0.453

Subtotal 4.657 -0.399 -0.453

Schedule:

Not Applicable.

Technical:

Not Applicable.

## D. OTHER PROGRAM FUNDING SUMMARY:

FY 2005

FY 2006

FY 2007

FY 2008

FY 2009

FY 2010

FY 2011

To Complete

Total Cost

228000 Aerial Target System

69.125

91.539

83.299

612020 Spares and Repair Parts (WPN B.A. 6)

0.545

5.975

5.506

## E. ACQUISITION STRATEGY:

Not Applicable.

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EXHIBIT R-2a, RDT&E Project Justification								DATE:
								February 2006
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME		
RDT&E, N /		0604258N, TARGET SYSTEMS DEVELOPMENT				0610, WPN SYS T&E TRG DEV/PRC		
	BA 6							
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
0610 WPN SYS T&E TRG DEV/PRC	2.918	10.648	14.315	18.372	30.380	33.759	40.277	
RDT&E Articles Qty		2	4	5	6	4	3	

## A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project provides for the development and procurement of Aerial Targets used exclusively for test and evaluation of Naval Weapons Systems which closely replicate current and projected threats to fleet units in the Joint Strike and the Littoral Warfare environments. This replication must include characteristics related to size, performance envelope, and electromagnetic and infrared signatures. As threats change, change must be made to keep the targets as threat representative as possible. This is done in response to changes in the requirements of the developers of Naval weapons.

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## EXHIBIT R-2a, RDT&amp;E Project Justification

DATE:

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APPROPRIATION/BUDGET ACTIVITY

**RDT&E, N /****BA 6**

PROGRAM ELEMENT NUMBER AND NAME

**0604258N, TARGET SYSTEMS DEVELOPMENT**

PROJECT NUMBER AND NAME

0610, WPN SYS T&amp;E TRG DEV/PRC

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	.100	1.750	2.250	
RDT&E Articles Qty				

Target Augmentation and Auxiliary Systems items allow each target to be uniquely configured for specific mission profiles. TAAS configured targets are used for radar acquisition test, electronic countermeasure (jamming) evaluation, infrared measurement/test, radar cross section evaluation, decoy effectiveness, maneuver analysis, electronic warfare, warhead effectiveness and evaluation of fleet tactics, readiness and effectiveness. Continue T&E Target Augmentation and Auxiliary Systems (TA/AS) Vector Scorer development/procurement/support.

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	2.485	7.099	10.644	
RDT&E Articles Qty		2	4	

The Full Scale Aerial Target is a supersonic, high altitude, remote-controlled aerial target. This target has full command and control capability through normal flight maneuvers. Continued program, engineering and logistics support for the Full Scale Aerial Target (FSAT), including Aviation Depot Level Repairables (AVDLR), procurement of kit material and conversion of F-4 aircraft into FSAT targets. The Navy began joint procurement of QF-4 T&E assets with USAF in FY03. FY07 QF-4 procurements deliver FSATs in FY09 supporting JSF, AIM-9X, AMRAAM and SM-6.

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	.333	1.799	1.421	
RDT&E Articles Qty				

The Air Superiority Target (AST) is being developed as the follow-on to the current FSAT. AST will be a supersonic, high altitude, remote-controlled aerial target. This target will have full command and control capability through normal flight maneuvers. Continue support of the follow-on FSAT development.

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EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
<b>RDT&amp;E, N /</b>	<b>BA 6</b>	<b>0604258N, TARGET SYSTEMS DEVELOPMENT</b>	
		0610, WPN SYS T&E TRG DEV/PRC	

C. PROGRAM CHANGE SUMMARY

Funding:	FY 2005	FY 2006	FY 2007
Previous President's Budget:	10.934	23.408	14.713
Current BES / President's Budget:	2.918	10.648	14.315
Total Adjustments	-8.016	-12.760	-0.398
Summary of Adjustments			
Congressional Reductions		-12.408	
Congressional Rescissions			
Congressional Undistributed Reductions	-0.263	-0.245	
Congressional Increases			
Economic Assumptions		-0.107	
Miscellaneous Adjustments	-7.753		-0.398
Subtotal	-8.016	-12.760	-0.398

Schedule:  
Not Applicable.

Technical:  
Not Applicable.

D. OTHER PROGRAM FUNDING SUMMARY:	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
228000 Aerial Target System (WPN)	69.125	91.539	83.299						
612020 Spares and Repair Parts (WPN B.A. 6)	0.545	5.975	5.506						

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2006</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-6</b>		PROGRAM ELEMENT NUMBER AND NAME 0604258N, Target Systems Development			PROJECT NUMBER AND NAME 0612, Surface Targets Development			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Project Cost	<b>0.950</b>	<b>2.964</b>	<b>1.216</b>	<b>1.269</b>	<b>2.343</b>	<b>2.189</b>	<b>1.394</b>	
RDT&E Articles Qty	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	
<b>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</b> This project develops seaborne targets systems and their related target augmentation systems in support of air-to-surface and surface-to-surface weapons test and evaluation and fleet training.								

R-1 SHOPPING LIST - Item No.

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## CLASSIFICATION:

EXHIBIT R-2a, RDT&amp;E Project Justification

DATE:

February 2006

APPROPRIATION/BUDGET ACTIVITY

RDT&amp;E, N / BA-6

PROGRAM ELEMENT NUMBER AND NAME

0604258N, Target Systems Development

PROJECT NUMBER AND NAME

0612, Surface Targets Development

## B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	0.200	0.231	0.249	
RDT&E Articles Quantity				

-Continued requirements Study/Analysis of target requirements in response to weapons systems development and upgrades.  
 -Continued development of real-time surface target scoring systems, including move to vector scorer.  
 -Continued command and control upgrade development.  
 -Continued Weapons System/Emitter, Target Augmentation System (TAS) upgrade.  
 -Continued Target/Threat Characterization and Validation.

	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	0.750	2.733	0.967	
RDT&E Articles Quantity	1	1	1	

-Procured prototype 50 foot - 50 knot Fast Attack Craft Target (FACT) for testing and evaluation of concept validation.  
 -Complete evaluation and finalize configuration for FACT production.  
 -Finalize reports and prepare procurement recommendations to sponsors.  
 -Procured QST-35i, a 60 foot candidate replacement for QST-35A.  
 -Evaluate suitability of QST-35i and develop procurement package for follow-on production.  
 -Update design package for medium (40M) Coastal Patrol Craft threat in FY05.  
 -Procure prototype Medium (40M) missile-capable, patrol craft threat to address known threat design in FY06. Integrate of on-board control system in FY07 upon receipt of vessel.  
 -Conduct testing of small, high-speed, missile capable patrol craft threat.  
 -Complete high-speed (>45 knots) tow platform to be utilized in conjunction with small high-speed patrol craft threat to enhance platform survivability.

<b>CLASSIFICATION:</b>									
EXHIBIT R-2a, RDT&E Project Justification								DATE: <b>February 2006</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-6</b>			PROGRAM ELEMENT NUMBER AND NAME 0604258N, Target Systems Development				PROJECT NUMBER AND NAME 0612, Surface Targets Development		
<b>C. PROGRAM CHANGE SUMMARY:</b>									
Funding:			FY2005	FY 2006	FY2007				
Previous President's Budget: (FY06 Pres Controls)			0.952	3.009	1.215				
Current BES/President's Budget: (FY07 Pres Controls)			0.950	2.964	1.216				
Total Adjustments			-0.002	-0.045	0.001				
Summary of Adjustments									
Congressional Reductions									
Congressional Rescissions									
Congressional Undistributed Reductions				-0.031					
Congressional Increases									
Economic Assumptions				-0.014					
Miscellaneous Adjustments			-0.002		0.001				
Subtotal			-0.002	-0.045	0.001				
Schedule:									
Not applicable									
Technical:									
Not applicable									
<b>D. OTHER PROGRAM FUNDING SUMMARY:</b>									
	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	To Complete	Total Cost
OPN Line 545500 ASW Range Spt Equipment	7.126	7.136	7.188						
<b>E. ACQUISITION STRATEGY:</b>									
Not applicable									

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EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2006</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-6</b>		PROGRAM ELEMENT NUMBER AND NAME 0604258N, Target Systems Development			PROJECT NUMBER AND NAME 9999, Congressional Add			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Project Cost		<b>1.000</b>						
RDT&E Articles Qty								
<b>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</b> Congressional Add.								

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EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>February 2006</b>																
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-6</b>	PROGRAM ELEMENT NUMBER AND NAME 0604258N, Target Systems Development	PROJECT NUMBER AND NAME 9999, Congressional Add																	
<b>B. Accomplishments/Planned Program</b>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 30%;"></th><th style="width: 15%;">FY 05</th><th style="width: 15%;">FY 06</th><th style="width: 15%;">FY 07</th><th style="width: 25%;"></th></tr></thead><tbody><tr><td>Accomplishments/Effort/Subtotal Cost</td><td></td><td>1.000</td><td></td><td></td></tr><tr><td>RDT&amp;E Articles Quantity</td><td></td><td></td><td></td><td></td></tr></tbody></table>						FY 05	FY 06	FY 07		Accomplishments/Effort/Subtotal Cost		1.000			RDT&E Articles Quantity				
	FY 05	FY 06	FY 07																
Accomplishments/Effort/Subtotal Cost		1.000																	
RDT&E Articles Quantity																			
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<b>C. PROGRAM CHANGE SUMMARY:</b>									
Funding:			FY2005	FY 2006	FY2007				
Previous President's Budget:									
Current BES/President's Budget:				1.000					
Total Adjustments			0.000	1.000	0.000				
Summary of Adjustments									
Congressional Reductions									
Congressional Rescissions									
Congressional Undistributed Reductions									
Congressional Increases				1.000					
Economic Assumptions									
Miscellaneous Adjustments									
Subtotal			0.000	1.000	0.000				
Schedule:									
Not applicable									
Technical:									
Not applicable									
<b>D. OTHER PROGRAM FUNDING SUMMARY:</b>									
	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	To Complete	Total Cost
WPN 228000 Aerial Targets	69.125	91.539	83.299						
612020 Spares and Repair Parts (WPN B.A. 6)	0.545	5.975	5.506						
<b>E. ACQUISITION STRATEGY:</b>									
Not applicable									

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