

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification						DATE: May 2009		
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6					R-1 ITEM NOMENCLATURE 0604258N, TARGET SYSTEMS DEVELOPMENT			
COST (\$ in Millions)	FY 2008	FY 2009	FY 2010					
Total PE Cost	31.545	79.858	79.603					
0609 AERIAL TARGET SYSTEMS DEV	12.909	50.671	55.621					
0610 WPN SYS T&E TRG DEV/PRC	17.429	26.880	22.765					
0612 SURFACE TARGETS DEVELOPMENT	1.207	2.307	1.217					

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

This program element funds the development and procurement of aerial targets, surface targets, control systems, and associated target augmentation & auxiliary systems needed to represent real world threat systems. These capabilities are key enablers to the successful execution of the developmental & operational test and evaluation of naval combat weapons systems and satisfy advanced fleet training requirements.

B. PROGRAM CHANGE SUMMARY

Funding:	FY 2008	FY 2009	FY 2010
Previous President's Budget	31.684	80.337	80.758
Current BES Budget	31.545	79.858	79.603
Total Adjustments	-0.139	-0.479	-1.155

Summary of Adjustments

Congressional Rescissions			
Congressional Adjustments		-0.261	
SBIR/STTR/FTT Assessments	-0.139		
Program Adjustments			-1.148
Rate/Misc Adjustments		-0.218	-0.007
Subtotal	-0.139	-0.479	-1.155

Schedule:N/A

Technical:N/A

EXHIBIT R-2a, RDT&E Project Justification							DATE: May 2009		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-6			PROGRAM ELEMENT NUMBER AND NAME 0604258N, TARGET SYSTEMS DEVELOPMENT			PROJECT NUMBER AND NAME 0609, AERIAL TARGET SYSTEMS DEV			
COST (\$ in Millions)			FY 2008	FY 2009	FY 2010				
0609 AERIAL TARGET SYSTEMS DEV			12.909	50.671	55.621				
RDT&E Articles Qty n/a									

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Aerial target systems, target control, and associated target augmentation and auxiliary systems are developed to support test & evaluation and advanced fleet training for Joint Strike and Littoral Warfare Systems required to defend fleet surface and air units in a hostile environment. This project includes:

- Subsonic Targets. Subsonic Aerial Target (SSAT) development. The SSAT primarily represents subsonic anti-ship cruise missile threats in direct support of the test & evaluation of major combat weapons systems programs and fleet training.
- Supersonic Targets. Supersonic Sea Skimming Target (SSST), Multi-Stage Supersonic Target (MSST) and supersonic high-diver capability development. The family of supersonic target capabilities represent supersonic anti-ship cruise missile threats in direct support of developmental & operational test and evaluation of major combat weapons systems programs in development.
- Target Control (TC) and Target Augmentation & Auxiliary Systems (TA/AS) development. TC provides command and control of targets to enable the execution of threat representative mission profiles. TA/AS enables each target to be uniquely configured for specific mission profiles.

TA/AS configured targets are used for radar acquisition test, electronic countermeasures (jamming) evaluation, infrared measurement/test, radar cross section evaluation, decoy effectiveness, maneuver analysis, electronic warfare, warhead effectiveness and evaluation of fleet tactics. TA/AS scoring capabilities include both surface and airborne scalar and vector scoring systems.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Supersonic Aerial Targets	FY 2008	FY 2009	FY 2010
Accomplishments / Effort / Sub-total Cost	5.695	32.723	44.417
RDT&E Articles Qty			

SUPERSONIC AERIAL TARGETS
 Continue GQM-163A SSST upgrades/evolutionary development to keep pace with evolving threat characteristics. Efforts include: continue to establish operational capability at Pacific Missile Range Facility; integrate ECM capability in the GQM-163A; research and develop performance envelope enhancements to satisfy emerging requirements to include improved flight termination performance; develop Front End Section payload enhancements and continue development of GQM-163A high-diver capability. Continue efforts to meet Threat D Target CDD requirements during the MSST Systems Development and Demonstration (SDD) phase.

Subsonic Aerial Targets	FY 2008	FY 2009	FY 2010
Accomplishments / Effort / Sub-total Cost	1.300	11.668	4.816
RDT&E Articles Qty			

SUBSONIC AERIAL TARGETS
 Continue Subsonic Aerial Target development and upgrades to keep pace with evolving threat requirements. Efforts include: Continue product improvements to the existing SSAT to achieve performance and payload requirements. Continue evaluation of alternate subsonic subscale aerial targets to meet evolving subsonic threat representation requirements. Prepare and conduct a competitive contract award and Milestone B for a target to be developed to achieve approved SSAT requirements. Enter SDD phase for the follow-on SSAT.

APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0604258N, TARGET SYSTEMS DEVELOPMENT	PROJECT NUMBER AND NAME 0609, AERIAL TARGET SYSTEMS DEV
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B. ACCOMPLISHMENTS / PLANNED PROGRAM (CONTINUED):

TC/TAAS	FY 2008	FY 2009	FY 2010	
Accomplishments / Effort / Sub-tota	5.914	6.280	6.388	
RDT&E Articles Qty				

TC/TAAS

Continue Target Control (TC) and TA/AS to development and support to T&E and fleet training activities. TC includes the improved command and control systems capable of controlling multiple targets simultaneously while delivering adequate fidelity of T&E telemetry data.

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2008	FY 2009	FY 2010
228000 Aerial Target System	66.856	78.581	47.003
612020 Spares and Repair Parts	1.153	0.981	0.823

D. ACQUISITION STRATEGY:

Not Applicable

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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&E TRG DEV/PRC																		
COST (\$ in Millions)			FY 2008	FY 2009	FY 2010																			
0610 WPN SYS T&E TRG DEV/PRC			17.429	26.880	22.765																			
RDT&E Articles Qty n/a																								
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides for the development and procurement of aerial targets and associated systems used exclusively for test and evaluation of naval weapons systems which closely represent current and projected threats to fleet units in the Joint Strike and the Littoral Warfare environments. These representations must include characteristics related to size, performance envelope, and electromagnetic and infrared signatures. As threats change, changes must be made to keep the targets threat representative in response to changes in the test requirements of the developers of naval weapons systems.</p>																								
<p>B. ACCOMPLISHMENTS / PLANNED PROGRAM:</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">Air Superiority Target</td> <td style="width:10%;">FY 2008</td> <td style="width:10%;">FY 2009</td> <td style="width:10%;">FY 2010</td> <td style="width:10%;"></td> </tr> <tr> <td>Accomplishments / Effort / Sub-total Cost</td> <td>1.500</td> <td>8.242</td> <td>6.500</td> <td></td> </tr> <tr> <td>RDT&E Articles Qty</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>										Air Superiority Target	FY 2008	FY 2009	FY 2010		Accomplishments / Effort / Sub-total Cost	1.500	8.242	6.500		RDT&E Articles Qty				
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RDT&E Articles Qty																								
<p>AIR SUPERIORITY TARGET The Air Superiority Target (AST) is being developed as the follow-on to the current Full Scale Aerial Target (FAST). The AST will be a supersonic, high altitude, remote-controlled aerial target. This target will have full command and control capability through normal flight maneuvers. Planned efforts continue support for the follow-on FSAT development.</p>																								
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">QF-4 Full Scale Aerial Target</td> <td style="width:10%;">FY 2008</td> <td style="width:10%;">FY 2009</td> <td style="width:10%;">FY 2010</td> <td style="width:10%;"></td> </tr> <tr> <td>Accomplishments / Effort / Sub-total Cost</td> <td>14.809</td> <td>17.593</td> <td>15.225</td> <td></td> </tr> <tr> <td>RDT&E Articles Qty</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>										QF-4 Full Scale Aerial Target	FY 2008	FY 2009	FY 2010		Accomplishments / Effort / Sub-total Cost	14.809	17.593	15.225		RDT&E Articles Qty				
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RDT&E Articles Qty																								
<p>QF-4 FULL SCALE AERIAL TARGET The FSAT 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 FSAT, including Aviation Depot Level Repairables (AVDLR), procurement of kit material and conversion of F-4 aircraft into FSAT targets. QF-4 procurements support aircraft and weapons systems including JSF, AIM-9X, AMRAAM and SM-6.</p>																								
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">TC/ TAAS & Scoring Systems</td> <td style="width:10%;">FY 2008</td> <td style="width:10%;">FY 2009</td> <td style="width:10%;">FY 2010</td> <td style="width:10%;"></td> </tr> <tr> <td>Accomplishments / Effort / Sub-total Cost</td> <td>1.120</td> <td>1.045</td> <td>1.040</td> <td></td> </tr> <tr> <td>RDT&E Articles Qty</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>										TC/ TAAS & Scoring Systems	FY 2008	FY 2009	FY 2010		Accomplishments / Effort / Sub-total Cost	1.120	1.045	1.040		RDT&E Articles Qty				
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<p>TC/TAAS & SCORING SYSTEMS</p> <p>Continue to support Target Control (TC) and Target Auxiliary & Augmentation Systems (TA/AS) capable of supporting T&E activities. TC involves the improved command and control systems capable of controlling multiple targets simultaneously while delivering adequate fidelity of T&E telemetry data. Augmentation and Auxiliary systems must be capable of augmenting targets in support of radar acquisition test, 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 training. Scoring systems include both surface and airborne scalar and vector scoring.</p>																								

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&E TRG DEV/PRC
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C. OTHER PROGRAM FUNDING SUMMARY:	FY 2008	FY 2009	FY 2010
228000 Aerial Target System	66.856	78.581	47.003
612020 Spares and Repair Parts (WPN B.A. 6)	1.153	0.981	0.823

D. ACQUISITION STRATEGY:
Not Applicable

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EXHIBIT R-2a, RDT&E PROJECT JUSTIFICATION						DATE		
						May 2009		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME		
RD TEN/BA 6		0604258N/TARGET SYSTEMS DEVELOPMENT				0612/SURFACE TARGETS DEV		
COST (In Millions)	FY 2008	FY 2009	FY 2010					
Project Cost	1.207	2.307	1.217					
RDT&E Articles Qty	0	0	0					

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:
 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.

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APPROPRIATION/BUDGET ACTIVITY RD TEN/BA 6	PROGRAM ELEMENT NUMBER AND NAME 0604258N/TARGET SYSTEMS DEVELOPMENT	PROJECT NUMBER AND NAME 0612/SURFACE TARGETS DEV		
B. ACCOMPLISHMENTS/PLANNED PROGRAM:				
	FY 2008	FY 2009	FY 2010	
Accomplishments/Effort/Subtotal Cost	1.207	2.307	1.217	
RDT&E Articles Quantity	0	0	0	0
<ul style="list-style-type: none"> - Continued requirements Study Analysis of target requirements in response to weapons systems development and upgrades. - Continued testing of real-time surface target scoring systems, including shift to seaborne platform based vector scorer. - Continued command and control upgrade development including LEO uplink/downlink. - Continued Weapons System/Emitter, Target Augmentation System(TAS) upgrade. - Continued Target/Threat Characterization and Validation. - Complete technical effort for 40M MST T&E platform procurement. - Refine performance spec based on prototype FACT results prior to follow-on FY08 procurement. - Finalize reports and prepare procurement recommendations to sponsors. - Conduct testing of improved EO/IR augmentation on powered platforms. - Adapt augmentation for use on tow platforms to enhance powered vessel survivability. - Development of performance platforms for advanced sea-state testing. 				

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COST (In Millions)	FY 2008	FY 2009	FY 2010					
Project Cost	1.207	2.307	1.217					
RDT&E Articles Qty								
C. OTHER PROGRAM FUNDING SUMMARY:								
	FY2008	FY2009	FY2010					
OPN Line 5455 ASW Rang SE	8.861	17.148	7.256					
D. ACQUISITION STRATEGY: Not applicable								