CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification							DATE:	
_							Februai	y 2005
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMEN	CLATURE		
RESEARCH DEVELOPMENT TEST & EVALUAT	ION, NAVY /	BA-6			0604258N/Target	Systems Developm	nent	
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	34.821	35.325	52.963	46.516	43.288	47.982	49.093	51.004
0609 Aerial Target Systems Development	25.184	23.439	26.546	30.588	23.337	15.008	12.904	9.140
0610 Wpn Systs T&E Development/Procurement	8.627	10.934	23.408	14.713	18.683	30.655	34.013	40.481
0612 Surface Targets Development	0.855	0.952	3.009	1.215	1.268	2.319	2.176	1.383
3045 Terrier/SSST	0.155	0.000	0.000	0.000	0.000	0.000	0.000	0.000

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This program element funds the development and procurement of aerial and 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 and 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 (FO), surface targets for test and evaluation, surface towed targets, improved target control system, and an anti-radiation missile target. This program element also includes Vandal Extended Range testing and procurement of TA/AS Vector Scoring.

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEM	ENT NUMBER AN	D NAME		PROJECT NUMBE	ER AND NAME		
RDT&E, N / BA-6	0604258N/Target	Systems Developm	ent		0609/Aerial Target	Systems Develop	ment	
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	25.184	23.439	26.546	30.588	23.337	15.008	12.904	9.140
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

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 units 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:

- -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.
- -Supersonic Sea Skimming Target (SSST) development. The current developmental SSST replicates anti-ship cruise missile Threat performance.
- -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 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 effectiveness.

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME
RDT&E, N / BA-6	0604258N/Target Systems Development	0609/Aerial Target Systems	Development

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Continued Subsonic Subscale Aerial Target Dev.	13.387	11.395	6.123	1.747
RDT&E Articles Quantity				

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

	FY 04	FY 05	FY 06	FY 07
Continued Target Augmentation and Auxillary System	2.354	5.012	5.888	6.044
RDT&E Articles Quantity				

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

	FY 04	FY 05	FY 06	FY 07
Supersonic Sea Skimming Target (SSST)	9.443	7.032	14.535	22.797
RDT&E Articles Quantity				

Complete GQM-163A SSST Engineering and Manufacturing Development and initiate Block Upgrades/evolutionary development to keep pace with evolving threat and associated ORD requirements. Efforts include: (1)-Initiate development of salvo firing and multiple target control capabilities. (2)-Conduct alternative booster system study and initiate alternative booster system development. (3)-Continue improvement of system deficiencies identified during EMD. (4)-Conduct Aerial Target Launch Ship (ATLS) integration. (5)-Develop improved telemetry transmission capabilities. Continue SSST Threat-D study to reduce the risk of developing a cost-effective alternative to meet Threat D requirements and down-select the best candidate target system. This study advances the prospect of developing a low risk Threat D target system using either domestic or foreign acquisition approaches.

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER A	AND NAME		PROJECT NUME	BER AND NAME	
RDT&E, N / BA-6	0604258N/Target Systems Develo	pment		0609/Aerial Targe	et Systems Development	
C. PROGRAM CHANGE SUMMARY:						
Funding:	FY 04	FY 05	FY 06	FY 07		
Previous President's Budget:	21.942	23.660	31.336	31.428		
Current President's Budget	25.184	23.439	26.546	30.588		
Total Adjustments	3.242	-0.221	-4.790	-0.840		
Summary of Adjustments						
Congressional program reductions						
Congressional undistributed reductions Congressional rescissions		-0.216				
SBIR/STTR Transfer	-0.371					
Program Adjustments		-0.005	-5.088	-1.244		
Economic Assumptions	-0.020		0.298	0.404		
Reprogrammings	3.633					
Congressional increases						
Subtotal	3.242	-0.221	-4.790	-0.840		
Schedule:						
Not Applicable.						
Technical:						
Not Applicable.						
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ROPRIATION/BUDGET ACTIVITY		PROGRAM EI	LEMENT NUMI	BER AND NAM	ИΕ	PROJECT NU	MBER AND N	L AME	i GDI U	ary 2005
&E, N / BA-6			0604258N/Target Systems Development 0609/Aerial Target Systems							
D. OTHER PROGRAM FUNDING SUMMARY:			<u> </u>	•			,	·	_	Tatal
Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To <u>Complete</u>	Total <u>Cost</u>
WPN 228000 Aerial Targets WPN 612020 Initial Spares - Aerial Targets	74.282 0.832	72.405 0.768	101.882 4.039	83.045 3.879	80.156 4.534	81.961 0.710	83.815 0.490	85.710 0.490	Continuing Continuing	Continuing Continuing

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							Februa	ry 2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEM	ENT NUMBER ANI	O NAME		PROJECT NUMBE	ER AND NAME		
RDT&E, N / BA-6	0604258N/Target \$	Systems Developm	ent		0610/Weapons Sy	stems T&E Develo	pment Procuremen	t
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	8.627	10.934	23.408	14.713	18.683	30.655	34.013	40.481
RDT&E Articles Qty	4	3	9	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, changes 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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			February 2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	NAME
RDT&E, N / BA-6	0604258N/Target Systems Development	0610/Weapons Systems T&	E Development Procurement

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Continue Full Scale Aerial Target support	8.579	9.199	19.507	10.684
RDT&E Articles Quantity	4	3	9	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 three F-4 aircraft into FSAT targets. The Navy began joint procurement of QF-4 T&E assets with USAF in FY03.

	FY 04	FY 05	FY 06	FY 07
Continue T&E TAAS Vector Scorer	0.048	1.250	1.750	2.250
RDT&E Articles Quantity				

Target Augmentation and Auxillary Systems items allow each target to be uniquely configured for specific mission profiles. TAAS configured targets are used for radar acquistion 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 effectiveness. Continue T&E Target Augmentation and Auxillary Systems (TA/AS) Vector Scorer development/procurement/support.

	FY 04	FY 05	FY 06	FY 07
Support of follow-on FSAT development		0.485	2.151	1.779
RDT&E Articles Quantity				

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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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER	AND NAME		PROJECT NUME	BER AND NAME	
RDT&E, N / BA-6	0604258N/Target Systems Develo	pment		0610 Weapons S	Systems T&E Developme	ent Procurement
C. PROGRAM CHANGE SUMMARY:						
Funding:	FY 04	FY 05	FY 06	FY 07		
Previous President's Budget:	11.547	11.049	9.238	10.361		
Current President's Budget	8.627	10.934	23.408	14.713		
Total Adjustments	-2.920	-0.115	14.170	4.352		
Summary of Adjustments						
Congressional program reductions Congressional undistributed reductions		-0.112				
Congressional rescissions)	-0.112				
SBIR/STTR Transfer	-0.088					
Program Adjustments		-0.003	13.933	4.160		
Economic Assumptions			0.237	0.192		
Reprogrammings	-2.832					
Congressional increases						
Subtotal	-2.920	-0.115	14.170	4.352		
Schedule:						
Not Applicable.						
Technical:						
Not Applicable.						
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IIBIT R-2a, RDT&E Project Justification								DATE:	Februa	ary 2005
ROPRIATION/BUDGET ACTIVITY		PROGRAM E	LEMENT NUMI	BER AND NAM	ЛЕ	PROJECT NU	MBER AND N	AME		
'&E, N / BA-6		0604258N/Tai	get Systems D	evelopment		0610/Weapon	s Systems T&E	E Developmen	t/Procurement	
D. OTHER PROGRAM FUNDING SUMMARY:										
Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Complete	Cost
WPN 228000 Aerial Targets WPN 612020 Initial Spares - Aerial Targets	74.282 0.832	72.405 0.768	101.882 4.039	83.045 3.879	80.156 4.534	81.961 0.710	83.815 0.490	85.710 0.490	Continuing Continuing	Continuing Continuing

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEM	ENT NUMBER AND	O NAME		PROJECT NUMBE	R AND NAME		
RDT&E, N / BA-6	0604258N/Target S	Systems Developm	ent		0612/Surface Targ	ets Development		
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	0.855	0.952	3.009	1.215	1.268	2.319	2.176	1.383
RDT&E Articles Qty	1	1	1	1	1	1	1	1

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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			February 2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME
RDT&E, N / BA-6	0604258N/Target Systems Development	0612/Surface Targets Devel	opment

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.192	0.202	0.235	0.249
RDT&E Articles Quantity				

-Continued requirements StudyAnalysis 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 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.663	0.750	2.774	0.966
RDT&E Articles Quantity	1	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.

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PPROPRIATION/BUDGET ACTIVITY	PROGRAM ELE	MENT NUMBER	R AND NAME		PROJECT NUM	MBER AND N		•		
DT&E, N / BA-6	0604258N/Targ	et Systems Deve	lopment		0612/Surface T	argets Devel	opment			
C. PROGRAM CHANGE SUMMARY:	<u> </u>	•	•				·			
Funding:		FY 2004	FY2005	FY 2006	FY2007					
Previous President's Budget: (FY05 Pres Controls		0.855	0.968	0.990	1.190					
Current President's Budget: (FY06 Pres Controls)		0.855	0.952	3.009	1.215					
Total Adjustments		0.000	-0.016	2.019	0.025					
Summary of Adjustments										
Congressional Reductions			-0.016							
Program Adjustments				2.019	0.025					
Subtotal			-0.016	2.019	0.025					
Schedule:										
Not applicable										
Technical: Not applicable										
D. OTHER PROGRAM FUNDING SUMMARY:									_	T . ()
	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To <u>Complete</u>	Tota <u>Cos</u>
OPN Line 545500 ASW Range Spt Equipment	10.171	7.131	7.232	7.248	7.454	7.607	8.107	8.278		63.22
E. ACQUISITION STRATEGY:										
Not applicable										
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Exhibit R-2, RDTEN Budget Item Justification

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMI	ENT NUMBER AND	NAME		PROJECT NUMBE	ER AND NAME		
RDT&E, N / BA-6	0604258N TARGE	T SYSTEMS DEVE	LOPMENT (TSD)		3045 Terrier/SSST	•		
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	0.155	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project funds the Terrier Supersonic Sea Skimming Target (SSST) development to provide both a low-fidelity and a moderate-fidelity Terrier Missile Target (TMT) for Fleet training against a supersonic sea skimming threat. Major efforts involve integrating a Flight Termination System (FTS), running 6-DOF simulations, recertifying rocket motors, modifying the launch control system, modifying the initialization code, and the build up and firing of rounds.

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	AME	
RDT&E, N / BA-6	0604258N TARGET SYSTEMS DEVELOPMENT (TSD)	3045 Terrier/SSST		
		•	•	

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.155			
RDT&E Articles Quantity				

Efforts include: Integration of a Flight Termination System (FTS), 6-DOF simulations, rocket motors recertification, and modification of the launch control system and the initializer for the low-fidelity Terrier SSST configuration.

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	NUMBER AND NAME		PROJECT NUMI	BER AND NAME	i ebidai y 2003
RDT&E, N / BA-6	0604258N TARGET S	YSTEMS DEVELOPMENT	(TSD)	3045 Terrier/SSS	ST	
C. PROGRAM CHANGE SUMMARY:						
Funding:		FY 2004	FY 2005	FY 2006	FY 2007	
Previous President's Budget: (FY05 Pres	Controls)	2.875	0.000	0.000	0.000	
Current President's Budget: (FY06 Pres C		0.155	0.000	0.000	0.000	
Total Adjustments		-2.720	0.000	0.000	0.000	
Summary of Adjustments						
SBIR		-0.071				
Congressional Reductions						
Execution Realignment		-2.649				
Subtotal:		-2.720	0.000	0.000	0.000	
D. OTHER PROGRAM FUNDING SUMMA	RY: Not Applicable					
D. OTHER PROGRAM FUNDING SUMMA E. ACQUISITION STRATEGY: * Not Applicate						

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