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Exhibit R-2, RDT&E Budget Item Justification							Date: February 1999			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N - BA4					Program Element Name & No. PE 0604327N Hardened Target Munitions					

Cost (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Total PE Cost	4.6	3.0	4.9	0	0	0	0	0	CONT.	CONT.
J2331 Hard Target Munitions	4.6	0	4.9	0	0	0	0	0		
J2629 Hard Target Munitions	0	3.0	0	0	0	0	0	0	CONT	CONT
									CONT	CONT
RDT&E Articles Qty										

A. (U) Mission Description and Budget Item Justification:
 The Advanced Penetrator Definition Program will develop an advanced conventional earth penetrating warhead for use on conventional ballistic missiles.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: The Advanced Penetrator Definition Program is appropriately justified in BA-4, Demonstration and Validation, as this effort evaluates advanced conventional earth penetrating warhead materials in as realistic an operating environment as possible to assess the performance of advanced technology.

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B. (U) Program Change Summary:

	<u>FY 1998</u>	<u>FY1999</u>	<u>FY 2000</u>
FY 1999 President's Budget	4.8	9.8	0
Appropriated Value	4.8	9.8	0
Adjustments to FY 1998 Appropriated/FY 1999 President's Budget	-.2	- 6.8	+4.9
FY 2000/2001 President's Budget Submit	4.6	3.0	4.9

Explanation: In FY 1998, the reduction is attributed to SBIR and economic assumptions. FY 1999 was reduced by Congress. The increase in FY 2000 was to finance the completion of Phase one of the Hard and Deeply Buried Target Defense System (HDBTDS).

- C. (U) Other Program Funding Summary: See enclosed R-2a for each individual project data.
- D. (U) Acquisition Strategy: See enclosed R-2a for each individual project data.
- E. (U) Schedule Profile: Not Applicable.

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Exhibit R-2a, RDT&E Project Justification		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N - BA4	Program Element Name & No. PE 0604327N, Hardened Target Munitions	Project Name and Number. Hard Target Munitions J2331

Cost (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Project Cost J2331 Hard Target Munitions	4.6	0	4.9	0	0	0	0	0	CONT.	CONT.
RDT&E Articles Qty										

A. (U) Mission Description and Budget Item Justification:
 The Advanced Penetrator Definition Program will develop an advanced conventional earth penetrating warhead for use on conventional ballistic missiles.

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Exhibit R-2a, RDT&E Project Justification		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N - BA4	Program Element Name & No. PE 0604327N, Hardened Target Munitions	Project Name and Number. Hard Target Munitions J2331

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1998 ACCOMPLISHMENTS:

- (U) (\$4.6) Initiated Advanced Penetrator Definition program. This is fully obligated. FY 1998 efforts included:
 - (U) Initiate evaluation of reactive materials for penetrator warhead loading.
 - (U) Defined evaluation of reactive materials for penetrator warhead loading.
 - (U) Defined penetrator design options for increased penetration.
 - (U) Completed initial definition of missile functional interfaces in support of providing missile guidance from the warhead

2. (U) FY 1999 PLAN: Funding is provided in Project J2629

3. (U) FY 2000 PLAN:

- (U) (\$4.9) Continue Advanced Penetrator Definition program. Design efforts will focus on risk reduction technology efforts. Full obligation is projected by the 4th quarter of the first year. FY 2000 efforts include:
 - (U) Define penetrator fuze requirements.
 - (U) Initiate testing to obtain environment data on penetrators which impact concrete at velocities up to 4000 feet per second.
 - (U) Initiate preliminary design of the missile/reentry body separation system.
 - (U) Initiate trade studies focusing on internal packaging and system guidance architectures.
 - (U) Define GPS receiver design and data processing options that optimize system accuracy and minimize degradation due to jamming.

4. (U) FY 2001 PLAN: To be addressed by the Navy in the FY 2001 Program Review.

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B. (U) Other Program Funding Summary: (Dollars in Thousands)

<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Complete</u>	<u>Total Programt</u>
N/A	N/A								

(U) Related RDT&E: N/A

C. (U) Acquisition Strategy:
 Contracts will continue to be awarded to those sources who were engaged in the TRIDENT II (D5) development program and are currently engaged in the production and/or operational support of the deployed D5/C4 Strategic Weapons Systems on the basis of Other Than Full and Open Competition pursuant to the authority of 10 U.S.C. 2304 ©(1) and (3) implemented by FAR 6.302-1, 3 4.

D. (U) Schedule Profile: Not Applicable.

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Exhibit R-3, Cost Analysis		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N - BA4	Program Element Name & No. PE 0604327N, Hardened Target Munitions	Project Name and Number. Hard Target Munitions J2331

Cost Categories	Contract Method & Type	Performing Activity & Location	Total Pys Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date	FY01 Cost	FY01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
<u>Product Development</u>												
Ancillary Hardware Development	SS/CPFF	LMDS/CAL.	1.2	0.0	10/98	2.2	10/99		N/A	Cont.	Cont.	Cont.
Ancillary Hardware Development	SS/CPFF	SPA/MD	0.2	0.0	10/98	.1	10/99		N/A	Cont.	Cont.	Cont.
Ancillary Hardware Development	WR	NAWC/NJ	0.6	0.0	10/98	1.0	10/99		N/A	Cont.	Cont.	Cont.
Ancillary Hardware Development	WR	SNL/NM	1.5	0.0	10/98	.7	10/99		N/A	Cont.	Cont.	Cont.
Ancillary Hardware Development	WR	ARMY/ALA	1.1	0.0	10/98	.4	10/99		N/A	Cont.	Cont.	Cont.
Ancillary Hardware Development	PD	Air Force	0.0	0.0		.2	10/99		N/A			
Ancillary Hardware Development	SS/CPFF	CSDL/MA	0.0	0.0		.3	10/99		N/A			
Subtotal Product Development			4.6	0.0		4.9						
Remarks:												
Total Cost			4.6	0.0		4.9				Cont.	Cont.	Cont.
Remarks:												

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Exhibit R-2a, RDT&E Project Justification		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N - BA4	Program Element Name & No. PE 0604327N Hardened Target Munitions	Project Name and Number. Hard Target Munitions - J2629

Cost (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Project J2629 Hard Target Munitions	0*	3.0	0*	0	0	0	0	0	CONT.	CONT.
RDT&E Articles Qty										

A. (U) Mission Description and Budget Item Justification:
 The Advanced Penetrator Definition Program will develop an advanced conventional earth penetrating warhead for use on conventional ballistic missiles.

* Funded in Project J2331

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Exhibit R-2a, RDT&E Project Justification		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N - BA4	Program Element Name & No. PE 0604327N Hardened Target Munitions	Project Name and Number. Hard Target Munitions - J2629

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1998 Accomplishments: funded in Project J2331

2. (U) FY 1999 Plan (3.0) This will support a Milestone I acquisition decision. Conduct a joint Navy/Air Force Analysis of Alternatives (AOA) as well as initial planning efforts associated with establishing a joint hard and deeply buried target defeat program. Full obligation is projected by the 4th quarter of the 1st year. FY 1999 efforts include:
 - (U) Program Office AOA support for the Generic Super Sonic Cruise Missile
 - (U) Completion of AOA Studies/Analysis.
 - (U) Produce documentation for Defense Acquisition Board (DAB), Support AOA efforts and DAB activities.
 - (U) Support AOA Alternative Defeat Analysis.

3. (U) FY 2000 Plan: Funded in Project J2331

4. (U) FY 2001 Plan: N/A

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Exhibit R-2a, RDT&E Project Justification		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E,N - BA4	Program Element Name & No. PE 060437N Hardened Target Munitions	Project Name and Number. Hard Target Munitions - J2629

B. (U) Other Program Funding Summary: (Dollars in Thousands)

<u>FY 1998</u> <u>ESTIMATE</u>	<u>FY 1999</u> <u>ESTIMATE</u>	<u>FY 2000</u> <u>ESTIMATE</u>	<u>FY 2001</u> <u>ESTIMATE</u>	<u>FY 2002</u> <u>ESTIMATE</u>	<u>FY 2003</u> <u>ESTIMATE</u>	<u>FY 2004</u> <u>ESTIMATE</u>	<u>FY 2005</u> <u>ESTIMATE</u>	<u>To</u> <u>COMPLETE</u>	<u>TOTAL</u> <u>PROGRAM</u>
N/A	N/A	N/A							

(U) Related RDT&E: N/A

C. (U) Acquisition Strategy:

Contracts will continue to be awarded to those sources who were engaged in the TRIDENT II (D5) development program and are currently engaged in the production and/or operational support of the deployed D5/C4 Strategic Weapons Systems on the basis of Other Than Full and Open Competition pursuant to the authority of 10 U.S.C. 2304 (c) (1) and (3) implemented by FAR 6.302.-1, 3 4.

D (U) Schedule Profile: Not Applicable

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Cost Categories	Contract Method & Type	Performing Activity & Location	Total PYS Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date	FY01 Cost	FY01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
<u>Product Development</u>												
Ancillary Hardware Development	SS/CPFF	LMDS/CAL.	00.	.2	12/98	0.0	N/A		N/A	Cont.	Cont.	Cont.
Ancillary Hardware Development	SS/CPFF	SPA/MD	00.	.2	12/98	0.0	N/A		N/A	Cont.	Cont.	Cont.
Ancillary Hardware Development	WR	NAWC/NJ	00.	.5	12/98	0.0	N/A		N/A	Cont.	Cont.	Cont.
Ancillary Hardware Development	WR	SNL/NM	00.	.1	12/98	0.0	N/A		N/A	Cont.	Cont.	Cont.
Ancillary Hardware Development	WR	ARMY/ALA	00.	.4	12/98	0.0	N/A		N/A	Cont.	Cont.	Cont.
Ancillary Hardware Development	PD	Air Force	00.	1.5	12/98	0.0	N/A		N/A			
Ancillary Hardware Development	SS/CPFF	CSDL/MA	00.	.1	12/98	0.0	N/A		N/A			
Subtotal Product Development			00.	3.0		0.0						
Remarks:												
Total Cost			00.	3.0		0.0				Cont.	Cont.	Cont.
Remarks:												

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Exhibit R-2a RDT&E Project Justification
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