

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: February 2007
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APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-4	R-1 ITEM NOMENCLATURE 0603724N/Navy Energy Program
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COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	8.217	1.594	5.335	5.635	5.839	6.010	6.118	6.228
0829/Energy Conservation	0.000	0.000	3.737	3.899	4.021	4.138	4.213	4.290
0838/Navy Mobility Fuels	1.561	1.594	1.598	1.736	1.818	1.872	1.905	1.938
9999/Congressional Adds	6.656	0.000	0.000	0.000	0.000	0.000	0.000	0.000

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:
 This program supports projects to evaluate, adapt, and demonstrate energy related technologies for Navy aircraft and ship operations to: (a) increase fuel-related weapons systems capabilities such as range and time on station; (b) reduce energy costs; (c) apply energy technologies that improve environmental compliance; (d) relax restrictive fuel specification requirements to reduce cost and increase availability worldwide; (e) provide guidance to fleet operators for the safe use of commercial grade or off-specification fuels when military specification fuels are unavailable or in short supply; and (f) make needed periodic changes to fuel specifications to ensure fuel quality and avoid fleet operating problems. This program supports the achievement of legislated, White house, Department of Defense, and Navy Energy Management Goals. It also responds to direction from the Office of the Secretary of Defense, the Secretary of the Navy, and the Chief of Naval Operations to make up-front investment in technologies that reduce future cost of operation and ownership of the fleet and supporting infrastructure.

(U) Project 0829 - The Fleet Readiness R&D Program is designed to develop and implement energy and maintenance saving improvements into existing Fleet assets. This Fleet driven program, managed through NAVSEA 05N, will identify mature potential energy saving and maintenance improvement areas, by involvement with Life-Cycle Managers (LCMs), NAVSEA Technical Warrant Holders, In-Service Engineering Agents (ISEAs), PEO, and the TMA/TMI community.

(U) Project 0838- This project provides data through engine and fuel system tests which relate the effects of changes in Navy fuel procurement specification properties to the performance and reliability of Naval ship and aircraft engines and fuel systems.

(U) Project 9999: See project description on the R2a.

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APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-4	R-1 ITEM NOMENCLATURE 0603724N/Navy Energy Program
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C. PROGRAM CHANGE SUMMARY:

Funding:	FY 2006	FY 2007	FY 2008	FY 2009
FY 2007 President's Budget:	8.521	1.600	1.586	1.750
FY 2008/09 President's Budget:	8.217	1.594	5.304	5.666
Total Adjustments	-0.304	-0.006	3.718	3.916

Summary of Adjustments

SBIR Reductions	-0.206	0.000	0.000	0.000
Program adjustments	-0.030	-0.006	0.001	0.085
CIVPERS/CS Adjustment	0.000	0.000	-0.018	-0.020
Congressional Action 1% Reduction	-0.068	0.000	0.000	0.000
RS Technical Adjustment	0.000	0.000	3.735	3.851
Subtotal	-0.304	-0.006	3.718	3.916

Schedule: Not Applicable .

Technical: Not Applicable .

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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-4		PROGRAM ELEMENT NUMBER AND NAME 0603724N/Navy Energy Program			PROJECT NUMBER AND NAME 0829/Energy Conservation			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	0.000	0.000	3.737	3.899	4.021	4.138	4.213	4.290
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Fleet Readiness R&D Program is designed to develop and implement energy and maintenance saving improvements into existing Fleet assets. This Fleet driven program, managed through NAVSEA 05N, will identify mature potential energy saving and maintenance improvement areas, by involvement with Life-Cycle Managers (LCMs), NAVSEA Technical Warrant Holders, In-Service Engineering Agents (ISEAs), PEO, and the TMA/TMI community. Potential technology target areas will include: Hull Hydrodynamics, Hull Husbandry, Heating, Ventilation & Air Conditioning (HVAC) Systems, Thermal Management, Propulsion Systems, Electrical Systems, and Power Generation and Storage systems. The program directly supports Fleet requirements to reduce energy consumption and lower maintenance costs. The program will focus on research and development across the following major areas:

- (U) Hull Hydrodynamic Project(s) - This project area will accomplish prototype development, laboratory and Fleet testing to determine overall mission and cost effectiveness of these improvements.
- (U) Hull Husbandry Project(s) - Project funds will be utilized to identify and evaluate new underwater hull coating systems and underwater hull cleaning and maintenance techniques both landbased and shipboard to reduce hydrodynamic drag on the hull and thereby increase fuel efficiency.
- (U) HVAC Projects (s) - Project funds will be utilized to accomplish prototype development, land and shipboard testing to determine overall mission and cost effectiveness of these improvements.
- (U) Thermal Management Project(s) - Project funds will be utilized to identify and evaluate potential uses for Thermal Management techniques designed to reduce overall shipboard heat generation and reduce the overall need for HVAC.
- (U) Propulsion Systems Project(s) - Project funds will be utilized to identify, perform landbased and ship board testing of ship propulsion system improvements, on Gas Turbine and Diesel Engine systems to reduce overall fuel consumption and lower maintenance costs. (SCD# 1801 - Online Waterwash System for GTM/GTG, SCD# 1808 Power Conservation Management)
- (U) Electrical Systems Project(s) - Project funds will be utilized to identify, perform landbased and ship board testing of ship electrical system improvements, to reduce overall fuel consumption and lower maintenance costs. (SCD# 1817 Variable Speed Drive VSD) for 1000 Gal. Firemain System, (SCD# 1818 VSD-IMP for 2000 Gal. Firepumps)
- (U) Power Generation & Storage System Project(s) - This project area will accomplish prototype development, laboratory and Fleet testing to determine overall mission and cost effectiveness of these improvements.

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603724N/Navy Energy Program	PROJECT NUMBER AND NAME 0829/Energy Conservation

B. Accomplishments/Planned Program

	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.934	0.973
RDT&E Articles Quantity	N/A	N/A	N/A	N/A

(U) Hull Hydrodynamic Project(s) - This project area will accomplish prototype development, laboratory and Fleet testing to determine overall mission and cost effectiveness of these improvements.

	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.187	0.195
RDT&E Articles Quantity	N/A	N/A	N/A	N/A

(U) Hull Husbandry Project(s) - Project funds will be utilized to identify and evaluate new underwater hull coating systems and underwater hull cleaning and maintenance techniques both landbased and shipboard to reduce hydrodynamic drag on the hull and thereby increase fuel efficiency.

	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.187	0.194
RDT&E Articles Quantity	N/A	N/A	N/A	N/A

(U) HVAC Projects (s) - Project funds will be utilized to accomplish prototype development, land and shipboard testing to determine overall mission and cost effectiveness of these improvements.

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B. Accomplishments/Planned Program (Cont.)

	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.188	0.194
RDT&E Articles Quantity	N/A	N/A	N/A	N/A

(U) Thermal Management Project(s) - Project funds will be utilized to identify and evaluate potential uses for Thermal Management techniques designed to reduce overall shipboard heat generation and reduce the overall need for HVAC.

	FY 05	FY 06	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.000	0.000	1.119	1.175
RDT&E Articles Quantity	N/A	N/A	N/A	N/A

(U) Propulsion Systems Project(s) - Projects funds will be utilized to identify, perform landbased and ship board testing of ship propulsion system improvements, on Gas Turbine and Diesel Engine systems to reduce overall fuel consumption and lower maintenance costs. (SCD# 1801 - Online Waterwash System for GTM/GTG, SCD# 1808 Power Conservation Management)

	FY 05	FY 06	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.934	0.973
RDT&E Articles Quantity	N/A	N/A	N/A	N/A

(U) Electrical Systems Project(s) - Projects funds will be utilized to identify, perform landbased and ship board testing of ship electrical system improvements, to reduce overall fuel consumption and lower maintenance costs. (SCD# 1817 Variable Speed Drive VSD) for 1000 Gal. Firemain System, (SCD# 1818 VSD-IMP for 2000 Gal. Firepumps)

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603724N/Navy Energy Program	PROJECT NUMBER AND NAME 0829/Energy Conservation

B. Accomplishments/Planned Program (Cont.)

	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.188	0.195
RDT&E Articles Quantity	N/A	N/A	N/A	N/A

(U) Power Generation & Storage System Project(s) - This project area will accomplish prototype development, laboratory and Fleet testing to determine overall mission and cost effectiveness of these improvements.

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603724N/Navy Energy Program	PROJECT NUMBER AND NAME 0829/Energy Conservation
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C. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</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>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Complete</u>	<u>Total Cost</u>
N/A										

D. ACQUISITION STRATEGY:

This is a non acquisition program that develops, evaluates, and validates mature technologies in support of Fleet fuel and maintenance savings.

E. MAJOR PERFORMERS:

Field Activities & Locations - Work Performed:

NSWC Carderock, Bethesda, MD and Philadelphia- Utilize various engineering capabilities and core equities within the Carderock Division to support the goals of the program. This aligns within the Ship and Ships Systems Product Area.

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Exhibit R-3 Cost Analysis (page 1)								DATE: February 2007						
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME							
RD&E, N/BA-4			0603724N/Navy Energy Program				0829/Energy Conversation							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development		NAVSEA, Carderock						0.374		0.387		Continuing	Continuing	
Systems Engineering		NAVSEA, Carderock						0.374		0.387		Continuing	Continuing	
Engineering Development		NAVSEA, Carderock						0.747		0.778		Continuing	Continuing	
Demonstration & Evaluation		NAVSEA, Carderock						0.748		0.783		Continuing	Continuing	
												Continuing	Continuing	
Licenses														0.000
Tooling												0.000		0.000
GFE														0.000
Award Fees														0.000
Subtotal Product Development			0.000	0.000		0.000		2.243		2.335		0.000		4.578
Remarks:														
Development Support														0.000
Software Development														0.000
Training Development														0.000
Integrated Logistics Support														0.000
Configuration Management														0.000
Technical Data														0.000
GFE														0.000
Award Fees														0.000
Subtotal Support			0.000	0.000		0.000		0.000		0.000		0.000		0.000
Remarks:														

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Exhibit R-3 Cost Analysis (page 2)								DATE: February 2007						
APPROPRIATION/BUDGET ACTIVITY				PROGRAM ELEMENT				PROJECT NUMBER AND NAME						
RDT&E, N /BA-4				0603724N/Navy Energy Program				0829/Energy Conversation						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation		NAVSEA, Carderock						0.747		0.783		Continuing	Continuing	
Operational Test & Evaluation		NAVSEA, Carderock						0.187		0.195		Continuing	Continuing	
Live Fire Test & Evaluation													0.000	
Test Assets		NAVSEA, Carderock						0.187		0.195		Continuing	Continuing	
Tooling													0.000	
GFE													0.000	
Award Fees													0.000	
Subtotal T&E			0.000	0.000		0.000		1.121		1.173		0.000	1.121	
Remarks:														
Contractor Engineering Support													0.000	
Government Engineering Support													0.000	
Program Management Support		NAVSEA, Carderock						0.261		0.275		Continuing	Continuing	
Travel		NAVSEA, Carderock						0.037		0.039		Continuing	Continuing	
Labor (Research Personnel)		NAVSEA, Carderock						0.075		0.077		Continuing	Continuing	
SBIR Assessment													0.000	
Subtotal Management			0.000	0.000		0.000		0.373		0.391		0.000	0.764	
Remarks:														
Total Cost			0.000	0.000		0.000		3.737		3.899		0.000	7.636	
Remarks:														

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EXHIBIT R4, Schedule Profile																							DATE: February 2007													
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-4					PROGRAM ELEMENT NUMBER AND NAME 0603724N/Navy Energy Program										PROJECT NUMBER AND NAME 0829/Energy Conversation																					
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Engineering Milestones																																				
Proposal Development																																				
Proposal Acceptance																																				
Modeling and Simulation (If Required)																																				
Prototype Development																																				
Prototype Demo																																				
Land- based Testing																																				
Determine Fuel & Maintenance Savings																																				
Shipboard Eval																																				
Component Implementation																																				

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-4		PROGRAM ELEM PROGRAM ELEMENT NUMBER AND NAME 0603724N/ NAVY ENERGY PROGRAM			PROJECT NUMBER AND NAME 0838/ NAVY MOBILITY FUELS			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	1.561	1.594	1.598	1.736	1.818	1.872	1.905	1.938
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: A. (U) This project provides data through engine and fuel system tests which relate the effects of changes in Navy fuel procurement specification properties to the performance and reliability of Naval ship and aircraft engines and fuel systems. This information is required to: (a) determine the extent to which unnecessarily restrictive specification features can be relaxed to reduce cost and increase availability worldwide; (b) provide guidance to fleet operators for the safe use of off-specification or commercial grade fuels when military specification fuels are unavailable or in short supply; and (c) make needed periodic changes to fuel specifications to ensure fuel quality and avoid fleet operating problems while accommodating evolutionary changes in the fuel supply industry. Recent problems with fuel quality have adversely affected ship and aircraft system performance and reliability and resulted in degradation of fuel in storage. The resulting readiness impacts, additional maintenance costs, and the cost of lost equipment, although difficult to quantify, are many times the cost of this product. Over the next decade, the potential for fuel quality related problems will increase because of changing industry practices required to comply with new environmental regulations.

This project represents the only investment designed to maintain the Navy's ability to operate as a "smart" customer for fuels that cost over \$2.5 B per year for procurement, transport, storage and consuming and are essential to fleet operations.

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603724N/ NAVY ENERGY PROGRAM	PROJECT NUMBER AND NAME 0838/ NAVY MOBILITY FUELS

B. Accomplishments/Planned Program

	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.785	0.794	0.791	0.879
RDT&E Articles Quantity	N/A	N/A	N/A	7

(U) Aircraft Fuels

Performs development, test and evaluation work on Naval aircraft fuels to: a) determine the extent to which unnecessarily restrictive specification features can be relaxed to reduce cost and increase availability worldwide; b) provide guidance to fleet operators for the safe use of military aircraft that include new additives or are from new sources including synthetics; and c) make needed periodic changes to the fuel specifications to ensure fuel quality and avoid fleet operating problems while accommodating evolutionary changes in the fuel supply industry.

Continue development of a qualification procedure to evaluate and approve utilization of synthetic and ultra clean, low sulfur jet fuels. Continue development and evaluation of JP-5 copper contamination removal system. Initiate development of shipboard-based sensors and instruments to rapidly determine critical jet fuel properties. Implement +100 thermal stability enhancing jet fuel additive across T-45 (Training aircraft fleet) fleet for shore-based application.

Continue development of JP-5 copper contamination removal system. Continue development of a qualification procedure to evaluate and approve utilization of synthetic and ultra-clean, lowsulfur jet fuels. Continue development of shipboard-based sensors and instruments to rapidly determine critical jet fuel properties.

Conduct field trial of copper contamination system. Continue development of shipboard-based sensors and instruments to rapidly determine critical jet fuel properties. Continue development of a qualification procedure to evaluate and approve utilization of synthetic and ultra-clean, low sulfur jet fuels.

Continued development and evaluation of JP-5 copper contamination removal system. Initiated development of an equipment/fuel qualification procedure to evaluate and approve synthetic aircraft fuels. Completed evaluation of impacts of copper contamination on aircraft engine maintenance/performance.

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603724N/ NAVY ENERGY PROGRAM	PROJECT NUMBER AND NAME 0838/ NAVY MOBILITY FUELS

B. Accomplishments/Planned Program

	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.776	0.800	0.807	0.857
RDT&E Articles Quantity	N/A	N/A	N/A	N/A

(U) Ship Fuels
 Performs development, test and evaluation work on Naval ship propulsion fuels to: a) determine the extent to which unnecessarily restrictive specification features can be relaxed to reduce cost and increase availability worldwide; b) provide guidance to fleet operators for the safe use of off-specification or commercial grade fuels when military fuels are unavailable or in limited supply; and c) make needed periodic changes to fuel specifications to ensure fuel quality and avoid fleet operating problems while accomodating evolutionary changes in the fuel supply industry.

Continued assessment of the feasibility of specifying JP-5 (jet fuel) as the single fuel at sea for use by all Naval Systems (ships, aircraft and ground equipment). Continued review of the F-76 ship distillate fuel specification and test requirements evaluation to remove any unnecessary requirements to increase availability. Completed development and acceptance of commercial fuel specification American Society For the Testing of Materials (ASTM D6985 Specification For Middle Distillate Fuel Oil- Military Marine Applications). Initiated development of a qualification procedure to evaluate and approve utilization of synthetic and ultra-clean, low sulfur ship fuels.

Complete assessment of the feasibility of specifying JP-5 as the Single Fuel at-sea for use by all Naval Systems (ships, aircraft and ground equipment). Continue development of a qualification procedure to evaluate and approve utilization of synthetic and ultra clean, low sulfur ship fuels. Complete F-76 specification and test requirements evaluation to determine, modify and/or remove any unnecessary requirements to increase availability.

Conduct JP-5 single fuel at sea iniative field trial. Continue development of a qualification procedure to evaluate and approve utilization of synthetic and ultra-clean, low sulfur ship fuels. Initiate development of shipboard-based sensors and instruments to rapidly determine critical ship fuel properties.

Initiate implementation of JP-5 as Single Naval Fuel At-Sea. Continue development of a qualification procedure to evaluate and approve utilization of synthetic and ultra-clean, low sulfur ship fuels. Continue development of shipboard-based sensors and instruments to rapidly determine critical ship fuel properties.

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-4		PROGRAM ELEMENT NUMBER AND NAME 0603724N/ NAVY ENERGY PROGRAM			PROJECT NUMBER AND NAME 0838/ NAVY MOBILITY FUELS					
C. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</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>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Complete</u>	<u>Total Cost</u>
Not Applicable.										
D. ACQUISITION STRATEGY:										
Not Applicable.										
E. MAJOR PERFORMERS:										
NAWCAD, Patuxent River, MD	Technical engineering support		FY06 Award	FY07 Award	FY08 Award					
to help identify and execute	requirements associated with		Date	Date	Date					
Navy Mobility Fuels Program.			Oct-05	Oct -06	Oct -07					

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APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME							
RD&E, N/BA-4			0603724N/ NAVY ENERGY PROGRAM				0838/ NAVY MOBILITY FUELS							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development													0.000	
													0.000	
Systems Development		NRL, Washington DC	0.350										0.350	
													0.350	
Licenses													0.000	
Tooling												0.000	0.000	
GFE													0.000	
Award Fees													0.000	
Subtotal Product Development			0.350	0.000		0.000		0.000		0.000		0.000	0.350	
Remarks:														
Development Support													0.000	
Software Development													0.000	
Training Development													0.000	
Integrated Logistics Support													0.000	
Configuration Management													0.000	
Technical Data													0.000	
GFE													0.000	
Award Fees													0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														

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APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME							
RDT&E, N/BA-4			0603724N/ NAVY ENERGY PROGRAM				0838/ NAVY MOBILITY FUELS							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various	0.862	0.781	Various	0.794	Various	0.791	Various	0.879	Various		3.228	
Developmental Test & Evaluation	MIPR	Army Tank & Armaments	0.228										0.228	
Live Fire Test & Evaluation													0.000	
Test Assets													0.000	
Tooling													0.000	
GFE													0.000	
Award Fees													0.000	
Subtotal T&E			1.090	0.781		0.794		0.791		0.879		0.000	3.456	
Remarks:														
Contractor Engineering Support													0.000	
Program Management Support	Various	Various	1.216	0.780	Various	0.453	Various	0.807	Various	0.857	Various		3.256	
Program Management Support		Army Tank & Armaments	0.339			0.347							0.686	
Travel														
Labor (Research Personnel)													0.000	
SBIR Assessment													0.000	
Subtotal Management			1.555	0.780		0.800		0.807		0.857		0.000	4.019	
Remarks:														
Total Cost			2.995	1.561		1.594		1.598		1.736		0.000	7.923	
Remarks:														

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0603724N/ NAVY ENERGY PROGRAM	PROJECT NUMBER AND NAME Project Unit (PU) No. and Name: Congressional Plus-Ups : VARIOUS
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CONGRESSIONAL PLUS-UPS:

	FY 06	FY 07	FY 08	FY 09
9498N				
Megawatt (MW) Molten Carbonate Fuel Cell Demo	3.064	0.000	0.000	0.000
RDT&E Articles Quantity	1	N/A	N/A	N/A

(U) Design and manufacture one 1 MW molten carbonate fuel cell and install at MCB Camp Pendleton in California, operate for 12 months, collect and report performance data. The purpose of the field test is to demonstrate the feasibility of the molten carbonate fuel cell to interface with the associated power electronics for electrical grid connection and provide reliable electrical power. The military requirement addressed is the facility requirement for electrical power and the need to find alternative, affordable energy sources.

	FY 06	FY 07	FY 08	FY 09
9769N				
Megawatt (MW) Molten Carbonate Fuel Cell Demo	3.592	0.000	0.000	0.000
RDT&E Articles Quantity	1	N/A	N/A	N/A

(U) Design and manufacture one 1 MW molten carbonate fuel cell and install at NAS Pearl Harbor in Hawaii. Operate for 12 months, collect and report performance data. The purpose of field test is to demonstrate the feasibility of the molten carbonate fuel cell operating on propane fuel and interfacing with the associated power electronics for electrical grid connection and provide reliable electrical power. The military requirement addressed is the facility requirement for electrical power and the need to find alternative, affordable energy sources.