

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification	Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E/BA-7	R-1 ITEM NOMENCLATURE Program Element (PE) Name and No. MARITIME TECHNOLOGY/P.E. 0708730N

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 P.E. Cost	0	19.0	19.7	19.4	19.6	19.5	0	0	0	97.2
MARITECH/S2466	0	19.0	19.7	19.4	19.6	19.5	0	0	0	97.2
Quantity of RDT&E Articles & cost	N/A	N/A								

A. Mission Description and Budget Item Justification

MARITECH was initiated by DARPA in 1994 as part of the President's National Shipbuilding Initiative to enhance the commercial viability of the U.S shipbuilding industry and preserve that section of the defense industrial base. The MARITECH Advanced Shipbuilding Enterprise (ASE) is a Navy program that will build on the progress made by the original DARPA MARITECH. The mission of the program is to manage and focus national research funding on technologies that will reduce the cost of naval ships and will establish U.S. commercial shipbuilding competitiveness. MARITECH ASE will integrate DARPA's MARITECH, the Navy's National Shipbuilding Research Program (NSRP) and Manufacturing Technology efforts. Industry has expanded on the long standing collaborative network of the NSRP to form an organizational structure to execute the research projects to be accomplished under MARITECH ASE.

The industry has developed a landmark long range Strategic Investment Plan which will guide MARITECH ASE investments. This Strategic Investment Plan provides a framework to guide collaborative research and development among all segments of the U.S. ship construction and repair industry, educational and research institutions, and Government. The objective is assist the industry in achieving significant reduction in the cost and time required for both commercial and Navy ship construction, conversion, and repair. The recommended investment portfolio includes major initiatives that tie the strategic vision to proposed industry research through collaborative R&D. The major initiatives include: Shipyard Production Process Technologies, Product Design and Material Technologies, Facilities and Tooling, Business Process Technologies and Systems Technologies. Additionally, several critical success factors were found to cut across all of the major initiatives. These "Crosscut Initiatives" include Education and Training, Technology Transfer, Organizational Change, Environmental Protection and Human Resources.

MARITECH ASE will have a number of distinguishing features. It will: a) be led by an industry collaboration; b) be guided by a Strategic Investment Plan; c) use a structured analytical process for cost/benefit decisions; d) maintain market led benchmarking and metrics to track industry progress; e) promote collaboration with the research and acquisition communities; f) foster cooperation with ship owners, designers, regulators, suppliers and other industry stakeholders; and g) leverage work accomplished by other industries/countries.

The initial collaboration of major shipyards that will lead the program are: Electric Boat Corporation, Bath Iron Works, Newport News Shipbuilding, Atlantic Marine, Ingalls Shipbuilding, Halter Marine Group, Avondale Industries, Inc., NASSCO and Todd Pacific.

FY 1998 ACCOMPLISHMENTS: During FY1998, the industry collaboration brought together experts who represented the broad maritime industry to prepare the five-year Strategic Investment Plan for MARITECH ASE. The industry also developed the organizational structure and operational procedures which will enable them to select, award and manage research projects. This effort was jointly funded by DARPA and industry partners.

FY 1999 PLAN:

- (U) (490K) Establish and staff a co-located multi-agency MARITECH ASE support office (NAVSEA, MARAD, ONR).
- (U) (452K) Establish, develop and execute a Joint Funding Agreement with the shipbuilding industry collaboration using other transactions authority.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification	Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E/BA-7	R-1 ITEM NOMENCLATURE Program Element (PE) Name and No. MARITIME TECHNOLOGY/P.E. 0708730N

- (U) (13,952) Work with the industry collaboration to award cost-shared technology development projects in accordance with the Strategic Investment Plan (SIP) covering the areas of Shipyard Production Processes, Product Design and Material Technologies, Facilities and Tooling, Business Processes, Systems Technologies, and the cross-cut initiatives which include Education and Training, Technology Transfer, Organizational Change, Environmental Protection and Human Resource Optimization.
- (U) (275K) Support Government and university participation on the industry-led major initiative teams. Participants will promote technology transfer between the industry and the R&D community and will act as technology scouts for the industry.
- (U) (503K) Transfer ongoing research projects from DARPA MARITECH and the National Shipbuilding Research Program to the MARITECH ASE program in order to consolidate management resources. Support existing Cooperative Agreements including agents such as MARAD, ONR, NSWC, and NRL to continue and close out the remaining DARPA projects.
- (U) (250K) Perform an annual review and update of the Strategic Investment Plan.
- (U) (200K) Establish a Government team to work with industry on developing a benchmarking study to assess the competitive position of the industry.
- (U) (2,400) As directed by Congress, provide funds to develop advanced concepts to mitigate marine oil spills caused by tanker casualties.
- (U) (478K) Portion of extramural program is reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.

FY 2000 PLAN:

- (U) (18,150) Solicit new proposals and continue to fund technology development projects in accordance with the Strategic Investment Plan.
- (U) (500K) Operate multi-agency support office to facilitate technology transfer between Government and industry.
- (U) (300K) Support Government and university participation on the industry-led major initiative teams. Participants will promote technology transfer between the industry and the R&D community and will act as technology scouts for the industry.
- (U) (300K) Close out DARPA MARITECH and NSRP projects that transferred to MARITECH ASE.
- (U) (250K) Perform annual review of Strategic Investment Plan.
- (U) (200K) Update benchmark study and assess progress being made by industry to achieve competitive levels.

B. Program Change Summary:

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>
FY 1999 President's Budget:	0	0	0
Appropriated Value:	0	0	0
Adjustment to FY 1998 Appropriated Value/			
FY 1999 President's Budget:	0	0	+19.7
FY 2000 PRES Budget Submit:	0	+19.0	0

Funding: Transferred from DARPA (MARITIME TECHNOLOGY, PE 0603746E)

Schedule: 2nd qtr FY1999: Execute Joint Funding Agreement, Release Research Announcement, Receive first research proposals. 3rd Quarter FY 1999: Award Research Agreements for research projects, Update SIP and Program Plan, Update benchmarking study. 4th Quarter FY 1999: Initiate 2nd solicitation for technology developed projects.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification	Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E/BA-7	R-1 ITEM NOMENCLATURE Program Element (PE) Name and No. MARITIME TECHNOLOGY/P.E. 0708730N

Technical: Not applicable.

C. Other Program Funding Summary (Related RDT&E): DARPA P.E. 0603746E (MARITECH) - MARITECH ASE follows the original DARPA MARITECH program . Work remaining under the original DARPA program will transition to the MARITECH ASE program.

D. Acquisition Strategy: R&D projects will be solicited and awarded by an industry collaboration represented by the Executive Control Board (ECB) of the National Shipbuilding Research Program (NSRP). The Navy will enter into an agreement with the industry collaboration using "other transaction" authority pursuant to 10 U.S.C. 2371.

E. Schedule Profile:

	<u>FY 98</u>	<u>FY 99</u>	<u>FY 00</u>
Engineering Milestones: N/A			
T&E Milestones: N/A			
Contract Milestones:	N/A	2Q Sign "Other Transactions" Agreement w/Industry 2Q Solicit Proposals for Technology Developed Projects 3Q Evaluate Proposals 4Q Initiate 2 nd Solicitation for Technology Developed Projects	
Other Program Events:	N/A	2Q Staff Multi-Agency Program Office 3Q Initiate New Technology Development Projects 3Q Begin Update of Benchmarking Study/SIP	1Q Initiate 2 nd Set of Technology Developed Projects

UNCLASSIFIED

Exhibit R-3 Cost Analysis		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E/BA-7	PROGRAM ELEMENT NAME AND NUMBER MARITIME TECHNOLOGY-P.E. 0708730N	PROJECT NAME AND NUMBER MARITECH/S2466

Cost Categories (Tailor to WBS, or System/Item Requirements)	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
Technology Development	SS OT*	ECB NSRP**	0	15.5M	2Q99	17.8M	2Q 00			52.8M	86.1M	86.1M
Subtotal Technology Development			0	15.5M		17.8M				52.8M	86.1M	86.1M
Remarks: * Other Transaction IAW 10 USC 2371 ** Executive Control Board of the National Shipbuilding Research Program												
Government Support Services Other Agencies	MIPR/ WR	Various	0	2.4M	2Q99	.4M	1Q 00			1.2M	4.0M	4.0M
Support Services Revolving Accounts	MIPR/ WR	Various	0	.3M	2Q99	.3M	1Q 00			.9M	1.5M	1.5M
Subtotal Support			0	2.7M	NA	.7M				2.1M	5.5M	5.5M
Remarks:												

R-1 Item No 193-4 of 193-5

Exhibit R-3 RDT&E Budget Item Justification
(Exhibit R-3, Page 4 of 5)

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-3 Cost Analysis		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY RDT&E/BA-7	PROGRAM ELEMENT NAME AND NUMBER MARITIME TECHNOLOGY-P.E. 0708730N	PROJECT NAME AND NUMBER MARITECH/S2466

Cost Categories (Tailor to WBS, or System/Item Requirements)	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
Subtotal T&E (Not applicable)												
Remarks:												
Contract Support Services	Reqn *	TBD	0	.8M	2Q99	1.2M	1Q 00			3.6M	5.6M	5.6M
Subtotal Management												
Remarks: * Procure Under GSA Schedule												
Total Cost												
			0	19.0M	NA	19.7M				58.5M	97.2M	97.2M

R-1 Item No 193-5 of 193-5

Exhibit R-3 RDT&E Budget Item Justification
(Exhibit R-3, Page 5 of 5)

UNCLASSIFIED