DEPARTMENT OF THE NAVY
SPACE AND NAVAL WARFARE SYSTEMS COMMAND
ARLINGTON VA 22245-5200

IN REPLY REFER TO

SPAWARINST 4800.2B
SPAWAR 333
10 May 1993

SPAWAR INSTRUCTION 4800.2B

From: Commander, Space and Naval Warfare Systems Command

Subj: MANUFACTURING TECHNOLOGY PROGRAM

Ref: (a) DODINST 4200.15 of 24 May 85
(b) SECNAVINST 4800.11B of 10 Dec 86
(c) OPNAVINST 4800.12 of 3 Feb 86

Encl: (1) Exhibit RD-6, Project Proposal Brief Format
(2) Manufacturing Technology Project Status Report
(3) Sample End of Project Briefing/Demonstration Invitation

1. Purpose. The purpose of this instruction is to implement a Manufacturing Technology (ManTech) program within SPAWARSYSCOM in accordance with references (a) through (c) and the SPAWARSYSCOM Productivity Improvement Program; to assign responsibilities for ManTech program management within SPAWARSYSCOM; and to provide direction for the continued planning, implementation, review, and administration of ManTech projects within SPAWARSYSCOM.

2. Cancellation. SPAWAR Instruction 4800.2A is canceled.

3. Scope and Applicability. This instruction is applicable to all SPAWARSYSCOM organizations. It applies to all SPAWARSYSCOM efforts, commercial concerns, and other government agencies when they submit proposals to conduct ManTech projects for SPAWARSYSCOM.

4. Background. The Department of Defense (DOD) is emphasizing Defense Industrial Base programs, including ManTech, as an important initiative for reducing the cost of weapon systems and for improving the productivity of DOD facilities and contractors. Reference (c) establishes as Navy ManTech program policies and objectives within the Department of the Navy assigns the Systems Command (SYSCOM) Commanders the responsibility for ManTech program execution and administration within respective commands. Responsibility for the centralized management of the overall Navy ManTech program resides within the Office of Naval Research (ONR) Code 34.

5. Definitions.

a. ManTech. ManTech develops or improves manufacturing processes, methods, techniques or equipment used in production of weapon systems hardware. The purpose is to reduce the cost of defense material and/or weapon systems through first-of-a-kind application of new or improved processes, methods, techniques or equipment to industrial scale operations. These new developments or improvements are normally based on production oriented Research and Development (R&D). Productivity enhancement programs which

establish or improve manufacturing processes, methods, techniques, or equipment to ensure the efficient production, maintenance, remanufacture, repair, or overhaul of current and future systems can be included in the ManTech program.

b. ManTech Projects. ManTech projects are formal, planned efforts that improve any aspect of production capability by translating feasible proposals into demonstrated operational processes, methods, techniques, or equipment. ManTech projects should result in implementing a full-scale demonstration of the technology.

6. Program Objectives. The primary concern of the SPAWARSYSCOM ManTech Program is to increase manufacturing productivity for systems and equipment being procured by the Navy. Increased productivity should result in a high return on invested resources. Specific ManTech program objectives are:

a. Reduce cost and improve quality of current/emerging SPAWARSYSCOM products/acquisitions.

b. Provide incentives for investment in new manufacturing techniques.

c. Provide the technology required to advance manufacturing capability.

d. Provide maximum dissemination of the result of ManTech projects.

e. Strengthen the defense industrial base.

f. Provide a mechanism to transition R&D advances to production status.

7. Policy. A continuing ManTech program will be maintained in SPAWARSYSCOM. Projects funded within the SPAWARSYSCOM ManTech program shall meet the following criteria:

a. Department of the Navy Requirements. Every project shall satisfy a current or anticipated Navy requirement for which ManTech will provide increased productivity or process applicability. Although future requirements may be qualitative in nature, they must be directed toward adopting a ManTech which will increase general productivity.

b. Problem Solutions. ManTech requires establishment of new, improved, or more economical manufacturing processes, methods, techniques, or equipment. The mere application of existing and proven processes, methods, techniques, or equipment to solve an existing problem would not normally be a valid project justification.

c. Adequate State-of-the-Art. Qualitative prototype feasibility of the processes, methods, techniques, or equipment must have been previously demonstrated to indicate a high probability of the technology's successful production application.

d. Duplication of Effort. The project effort under consideration must not be otherwise available on a timely basis from other known programs or sources.

e. Beyond the Normal Risk of Industry. A project will not be undertaken or continued with SPAWARSYSCOM funds when qualified segments of industry will commit private capital to develop the required processes, methods, techniques, or equipment and make them available on a timely basis to support Navy requirements.

8. Responsibilities.

a. SPAWAR 23A is responsible for the conduct and central management of SPAWARSYSCOM ManTech programs; for ensuring the SPAWARSYSCOM ManTech efforts are directed to the areas of greatest need and payback; for effective management and coordination of SPAWARSYSCOM ManTech projects; and for promoting the optimum utilization of project results. In carrying out these responsibilities, SPAWAR 23A will:

(1) Foster positive and continuing program coordination among SPAWARSYSCOM Program Directors and Program Managers, other SYSCOM ManTech offices, Naval Industrial Resources Support Activity (NAVIRSA) and ONR Code 34.

(2) Solicit proposals from directorates, program offices, and field activities, and from industrial sources in areas where ManTech programs can effectively satisfy identified needs. Proposals will be accepted for funding consideration and prioritized according to command priorities and funding availability.

(3) Submit proposed new start ManTech projects to ONR Code 34, by 1 June of each calendar year.

(4) Submit a plan annually on 1 July to ONR Code 34, that constitutes a balanced five-year program. Projects submitted will be constrained by the budget guidance provided by ONR Code 34. In conjunction with the annual proposed five-year program submission, a Project Proposal Brief will be submitted on an Exhibit RD-6 for each project listed in the first fiscal year of the proposed five-year program. The format for preparing an Exhibit RD-6 is contained in enclosure (1).

(5) Submit a ManTech Project Status Report (PSR) to ONR Code 34, quarterly until each project is completed. A project shall be subject to this reporting requirement as of the date the project is approved for execution by ONR Code 34. The PSR format is delineated in enclosure (2). The PSR is due at ONR Code 34, on the 15th of each month following the fiscal year quarter.

(6) At the completion of each project, submit to ONR Code 34, an End of Project Report (EPR) providing a complete description of all work accomplished including processes, methods, techniques or equipment developed; results and actions taken; and implementation recommendations.

(7) Maintain a close working relationship with R&D technology communities and SPAWARSYSCOM divisions and directorates to ensure efficient transfer of emerging technologies to production and to ensure needed R&D efforts are identified and implemented to support future ManTech Program requirements/projects.

(8) Nominate ManTech Advisory Group (MTAG) subcommittee members when requested by ONR Code 34.

b. SPAWARSYSCOM Activities. The Naval Command, Control and Ocean Surveillance Center (NCCOSC, RDT&E Division (NRaD), Code 936) is responsible for implementing the SPAWARSYSCOM ManTech programs; for ensuring that the SPAWARSYSCOM ManTech efforts are directed to the areas of greatest need and payback; for effective management and coordination of SPAWARSYSCOM ManTech projects; and for promoting optimum utilization of the results of those projects. In carrying out these responsibilities, NCCOSC NRaD Code 936 will:

(1) Foster positive and continuing program coordination among SPAWARSYSCOM Program and Project Managers, within SPAWARSYSCOM, other SYSCOM ManTech Offices, NAVIRSA, and ONR Code 34.

(2) Examine current and future procurements within SPAWARSYSCOM and determine where critical gaps or limitations exist. Ensure the SPAWARSYSCOM ManTech program planning and development identify these generic needs through detailed short-range and general long-range plans.

(3) Evaluate all proposals received, ensuring that SPAWAR 23A has received a copy, and consider each for possible inclusion in the next five-year plan submission.

(4) Perform cost analyses of candidate ManTech projects to determine actual and projected Return On Investment (ROI).

(5) Submit proposed new start ManTech projects to SPAWAR 23A by 15 April.

(6) Manage all SPAWARSYSCOM related ManTech projects being accomplished by contractors and field activities, including coordination and programming/budgeting of funds.

(7) Submit a ManTech Program Project Status Report (PSR) to SPAWAR 23A (copy to NAVIRSA) quarterly until each project is completed. The PSR format is provided in enclosure (2). The PSR is due at SPAWAR 23A on the first day of each fiscal year quarter.

(8) At the completion of each project submit to SPAWAR 23A and the Defense Technical Information Center (copy to NAVIRSA) an End of Project Report (EPR) providing a complete description of all work accomplished including processes, methods, techniques or equipment developed, technical results and action taken. The EPR shall also provide a listing of benefits

derived from the project, including potential value to the Navy, other product applications and cost savings. Publish and distribute the EPR to other cognizant government activities and government contractors.

(9) Coordinate end of project briefings and demonstrations, open to all interested parties, by the cognizant contractor or facility. SPAWAR 23A, ONR Code 34, and NAVIRSA will be informed of the briefing/demonstration a minimum of 90 days prior to the scheduled dates. A sample invitation is provided in enclosure (3).

(10) Maintain a close working relationship between the ManTech Program Office and R&D technology communities to ensure efficient transfer of emerging technologies to production status and to ensure identification and implementation of needed R&D efforts to support future acquisitions.

(11) Advise SPAWAR 23A of related technical developments which may have an impact on Manufacturing Technology.

9. Action.

a. SPAWARSYSCOM Program/Project/Acquisition Managers shall assist SPAWAR 23A in the identification of high cost drivers associated with new acquisition programs to determine candidate ManTech projects that will benefit SPAWARSYSCOM and are generic to the industrial base.

b. SPAWARSYSCOM activities shall support the SPAWARSYSCOM ManTech programs by carrying out task assignments under the direction of SPAWAR 23A. Field activities which originate ManTech proposals shall submit them to SPAWAR 23A via NCCOSC NRaD Code 936. Additionally, SPAWARSYSCOM activities are responsible for the following:

(1) For each approved ManTech project, submit a PSR to NCCOSC NRaD Code 936 quarterly until the project is completed.

(2) At the completion of each ManTech project, submit to NCCOSC NRaD Code 936 an EPR providing a complete description of all work accomplished including processes, methods, techniques, or equipment developed, the results and action taken.

(3) Provide for an end of project briefing and demonstration open to all interested parties and performed by the cognizant contractor or facility. Inform NCCOSC NRaD Code 936, SPAWAR 23A, ONR Code 34, and NAVIRSA at least 90 days in advance of the scheduled dates.

10. Reports and Forms.

a. Reports. Required reports will be submitted as appropriate.

b. Forms. Descriptions of ManTech program project reports are provided in enclosures (1) through (3).

W. H. Cantrell

W. H. CANTRELL
Rear Admiral, U.S. Navy

Distribution:
SPAWAR List 5

SNDL Part II:
AIJ (ASN(RD&A))
FKAI (SYSCOMs less SPAWARSYSCOM)
FKQ (SPAWARSYSCOM activities)

Stocked:
Room 113 (SPAWAR Directives and Forms Room)

EXHIBIT RD-6 PROJECT PROPOSAL BRIEF FORMAT

1. Date:

2. ManTech Project ID: (Assigned by HQ)

3. Source of Funds: (Enter the following)
Appropriation: 17*1319
(*last digit of first FY)
Program Element: 78011N
Project Number: Z1050

4. Title: Enter the title of the ManTech project

5. Cost: Enter cost values (in thousands) in the table

Planned cost shall represent the total funds required for each period listed. This total shall be further split into "In-house" funds and "Contract" funds. This will enable the sponsor to provide funds by means of a "Work Request" (WR) for in-house effort and a "Request for Contractual Procurement" (RCP) for contractor work required.

Actual cost for prior two years and estimated cost for budget and FY+1 years shall be included. The total additional out-years cost column should include all ManTech Program Funds required, even if they are not included in other columns.

6. Project Manager and Performing Contractor: Enter the name of the project manager and the name and location of the performing contractor.

7. Material Supported: Enter the names of the weapon systems and/or end items, components, or assemblies DoD is purchasing or will purchase that will benefit from the implementation of the project results.

8. Material Requirements: Enter the anticipated or known material requirement by fiscal year (or cite a classified document containing this information).

9. Problem: Discuss the problem and why a solution is required. This discussion should include the specific production situation in which it is believed that the development and implementation of advanced technology will result in fewer DoD resources (money, time, material, etc.) being required to produce DoD material than is now needed.

10. Solution: Discuss what this project will accomplish. If this is part of a multi-year project, identify the accomplishments of the other years. This data element should describe the end result of the ManTech project that is expected to solve the problem and that should result in more productive DoD production resources.

11. Technical Plan: Discuss how the problem will be solved. Do not describe the step-by-step process of achieving the result.

12. End Products/Deliverables: Specify products (both hardware and software) the government will receive (e.g., process and manufacturing data, prototype model, pilot line, special tools/special test equipment, quality control data,and inspection aids to include production test techniques, test data, or technical reports).

13. Benefits: Briefly describe (a) any financial benefits expected and when they are expected and/or (b) any non-financial benefits expected and when they will begin. The Cost/Benefit Determination shall be prepared as a working paper in support of savings cited herein. The instruction of exhibit 3-1 shall be used to prepare the Cost/Benefit Determination.

14. Starting Date: Enter estimated month and year of contract award.

15. Completion Date: Enter estimated month and year of contract completion.

16. Related Efforts: Discuss the relationship between this and other private sector and/or government efforts in this area. If it parallels other efforts, justify project necessity in terms of urgency, cost savings, and increase deficiency. State whether similar efforts were previously undertaken and explain the relationship. State whether there are similar projects in the budget year program, describe their association, and state why they require separate action and do not overlap.

17. Implementation Plan: Describe any planned commitment obtained from potential user(s) to implement the result of the successfully complete ManTech project. State where, when, how and who will be implementing. Indicate the implementation cost, if any.

18. Remarks: Include other factors that will help to evaluate the project, such as:

- o Impact, if not funded.
- o Why private industry cannot or will not fund the effort.

Include actions taken to induce industry to perform the work requested.

Note: The ManTech Project Number is to be repeated at the lower right hand corner of every page of the project report when revised.

FORMAT AND INSTRUCTIONS FOR QUARTERLY MANUFACTURING TECHNOLOGY PROJECT STATUS REPORT

1. Project No: Insert the project identification number exactly as assigned.

2. Project Title: Enter the title of the project exactly as it was list the approved Project Proposal Brief Form (RD-6).

3. Project Objective: Insert brief abstract describing project objectives. The first paragraph of the RD-6 will suffice.

4. Period Covered: Insert the dates of the period covered by the report. If final report, so state.

5. System Command: Insert the name of the Systems Command, the appropriate contact person, and the current code for the Systems Command.

6. Responsible Individual: Insert the name, code, field activity, city,state, zip code, and telephone number (DSN) of the individual responsible for technical supervision of the project.

7. Funding Status:

a. Insert the total funds authorized and the date funds were made available to the Systems Command. Indicate all reprogramming actions and dates. Use the following format:

FUNDING DOCUMENT	AMENDMENT ACCEPTED	ACTION	AMOUNT

b. Insert an expenditure plan in the format below:

(1) Contractor

Contract Value	Award Date	Obligated
xxx	$xxx.x K	xx/xx/xx	$xxx.x K

(2) Technical Support Contracts:

Contractor	Contract Value	Award Date	Obligated
xxx	$xxx.x K	xx/xx/xx	$xxx.x

(3) In-House: Planned $xxx.x K Actual $xxx.x K

(List by contractor for each contract let. If contract is still to be let, enter "TBD," estimate the contract value, and leave the remaining two columns blank.)

8. Milestone Chart: Include the project milestone chart indicating the timing of the major events. Events to include will depend somewhat on the area of technology; however, the milestone plan must include:

a. Acceptance Funding
b. Contract Award
c. End-of-Contract Demonstration
d. Final Report

This plan will be updated as necessary with each status report. Current position on the milestone chart will be noted. Slippage will be measured in terms of the original chart.

9. Work Accomplished: Insert a brief technical discussion of the work performed during the reporting period or, if this is a final report, a summary of the technical work accomplished. State whether on, ahead, or behind schedule.

10. Problem Areas: Include a narrative discussion of any difficulties encountered, such as slippage in project milestones. Indicate what actions have been or could be taken to overcome these difficulties.

11. Future Work: Insert a brief outline of the work to be performed in the next reporting period.

12. Comments: Under this item include:

a. Any updates, changes, or necessary application of the data contained in the approved Project Report (RD-6). If there are no changes in the scope of work from the approved Project Report (RD-6), so state.

b. The current status of the project.

13. Benefits: This item only needs to be completed with the final report.

a. Discuss the benefits to be derived from this project and explain their potential value to the Navy.

b. List by-product discoveries that may have other applications.

c. List accrued and/or anticipated cost savings as a result of project application.

14. Implementation Procedure: This item only needs to be completed with the final report. Insert a detailed description of the action that will be or has been taken by the activity to implement the results of this project. For projects that will require procurement appropriation funds for implementation, this section should include identification of the project number(s) and dollar value(s) that will be used for this purpose.

3900
Ser 936/**_**
Date

From: Commander, Naval Command, Control and Ocean Surveillance Center, RDT&E Division

Subj: MANUFACTURING TECHNOLOGY END OF CONTRACT DEMONSTRATION FOR DN NUMBER PROJECT TITLE (in quotes)

Encl: (1) Export - Controlled DOD Technical Data Agreement, Form DD 2345
(2) End-of-Contract Demonstration Agenda
(3) Visitors' Accommodations/Area Directions

1. The contractor name will conduct a presentation/demonstration of work performed under the SYSCOM, e.g., Naval Air Systems Command Manufacturing Technology Project Title (in quotes). You are invited to attend the briefing/demonstration of this recently completed program. Brief description of the project, approximately 1-3 sentences. A detailed briefing and demonstration of the generic technology will be held on day, date at time at the following location:

Location Name
Street
City, State Zip
Building, Room

2. This briefing contains information that falls under the purview of the U.S. Munitions List, Section 121.1, International Traffic in Arms Regulations, and is subject to restrictions of U.S. Military Critical Technology. As a consequence, ATTENDANCE IS STRICTLY LIMITED TO U.S. CITIZENS REPRESENTING U.S. OWNED COMPANIES HAVING A GOVERNMENT SECURITY CLEARANCE. You are invited to send a representative who must submit proof of citizenship as directed in the attached From DD 2345, enclosure (1). Please send or bring the completed From DD 2345 in advance of the demonstration date to:

Name
ManTech Contractor
Street or P.O. Box
City, State Zip
Phone number

3. Enclosures (2) and (3) are provided for your guidance. If you require further information, contact Project Manager, NCCOSC RDT&E Division, Code 936, (619) 553-****, DSN 553-****.

By direction

Distribution:
xxxxxx
xxxxxx
xxxxxx

Enclosure (3)