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U.S. DEPARTMENT OF COMMERCE

BRIEFING HANDBOOK



MANAGEMENT BY OBJECTIVES AND
PRESIDENTIAL MANAGEMENT INITIATIVES

BOOK II OF 2

FISCAL 1977 UNITED STATES TRAVEL SERVICE OBJECTIVES

General. USTS proposed two fiscal 1977 objectives, both follow-ons to its 1976 objectives.

- o Promotion of travel to the U.S.
- o 1977 Domestic tourism promotion program

These objectives encompass USTS's entire program.

Promotion of Travel to the U.S. This objective deals with USTS's central mission and covers 90 percent of its resources. It is expected to result in 600,000 visitor arrivals and \$293 million in foreign exchange earnings. This will be accomplished by the following:

	<u>Arrivals</u>	<u>Exchange Earnings</u> (in millions)
Tour Development	576,200	\$285.5
Convention Program	11,800	4.1
Incentive Travel	12,000	3.6

All of these arrivals and earnings result from specific USTS program actions. USTS cannot say, however, that none would have occurred without these actions.

Total visitor arrivals to the U.S. typically run around 14 million annually.

Domestic Tourism. This is not a Commerce-suggested program, but resulted from a Senate add-on to the 1976 budget. The intent was to key efforts to the upcoming Bicentennial celebration. USTS developed a 1976 objective involving program consisting of advertising, media services, tourism information, and research on American travel behavior.

For fiscal 1977, USTS has developed a substantially different proposal for selling American citizens on traveling in their own country. This proposal relies on financial and staff assistance from the private sector to develop a program of advertising and related material, and to place this advertising in the appropriate media.

USTS is approaching a large number of corporations involved with the travel industry, (for example, American Express, and various airlines) which will provide the bulk of the budget for the effort. On October 4th Secretary Richardson met with travel industry leaders to start the program off.

November 1976

UNITED STATES TRAVEL SERVICE

Promotion of Travel to the United States

1. Proposed Objective.

The objective of USTS' FY 1977 International Marketing Program is to identify in FY 1977 600,000 visitors and \$293 million in foreign exchange earnings as being related to USTS direct impact programs consisting of; Tour Development, Convention Travel and Incentive Travel.

In the first nine months of CY 1976, USTS' objective was to identify 385,000 visitors and \$200 million in foreign exchange earnings related to our direct impact programs. As of June 30, USTS has, through our measurement system, identified arrivals and earnings related to these programs as follows:

	<u>Arrivals</u>	<u>Earnings</u>
Tour Development	338,000	\$172,000,000
Convention Sales	7,950	2,944,000
Incentive Travel	6,104	3,400,000
Total	<u>352,054</u>	<u>\$178,344,000</u>

2. Justification

All USTS programs which make up our total marketing plan are aimed at increasing tourism to the United States which contributes to the economic growth of the total travel industry. This in turn contributes to the tax base and revenue at both the Federal, State, and city levels. In addition, our programs also help in keeping more people employed within the industry by assisting and supporting travel to the United States versus other international vacation destinations.

3. Approach

USTS has identified programs which have both a direct impact and support active effect within an overall marketing plan aimed at promoting travel to the United States. This marketing plan is measured and evaluated during the period of its implementation. USTS has been measuring and evaluating program activities ~~re-~~ related to overall program objectives since 1973. Therefore a base has been established which allows our management group to evaluate, improve and establish realistic objectives which we feel can be achieved during a given period.

At the end of each calendar year, (fiscal year starting in 1977) the results of all program activities are reported to USTS management personnel for evaluation and discussion in order to set forth priorities for the following year in order to achieve program objectives.

4. Resources

For FY 1977, the breakdown of resources to achieve program objectives is as follows:

	<u>Perm.</u> <u>Pos.</u>	<u>Amount</u>
*Promotion of travel to the United States	131	\$12,970,000

It should be noted that consideration is now being given to a proposed rescission in FY 1977, which will affect our resources. The rescission is as follows:

	<u>Present</u> <u>Estimate</u>	<u>Effect of</u> <u>Proposed</u> <u>Rescission</u>	<u>Revised</u> <u>Estimate</u>
	<u>Perm.</u> <u>Pos.</u>	<u>Perm.</u> <u>Pos.</u>	<u>Perm.</u> <u>Pos.</u>
*Promotion of travel to the United States	131	-3	128
	\$12,970,000	\$-500,000	\$12,470,000

5. Responsible Office

Office of Marketing and Field Operations
Mr. William Tolson, Acting Director
Ext. 377-3833

6. Milestones

(Attached)

Objective

The objective of USTS' FY 1977 International Marketing Program is to identify in FY 1977, 600,000 visitors and \$293 million in foreign exchange earnings as being related to USTS direct impact programs consisting of; Tour Development, Convention Travel and Incentive Travel.

Change in Status

Milestones

Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep

Tour Development

FY 1977

- (1) Select specific itineraries, destinations, program objectives and other contractual terms permitting completion of 146 contract/letters of agreements.
- (2) Complete 146 contracts and letters of agreements with tour wholesalers.
- (3) Report final results of FY 1976 tour development program.

FY 1978

- (4) Report final results for FY 1977 tour development program estimated to produce \$285.5 million in foreign exchange earnings.

Milestones	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<p><u>Convention Program</u></p> <p><u>FY 1977</u></p> <p>(5) Establish monthly contact with approximately 25 association headquarters to ascertain existence of U.S. affiliate in order to determine U.S. affiliates' interest in inviting the International Association to hold a Congress in the United States.</p> <p>(6) Issue final report on convention committed during prior years that were held in the U.S. in CY 1976 expected to be 18 conventions with 10,000 delegates producing \$4 million in tourism revenue.</p> <p><u>FY 1978</u></p> <p>(7) Issue final report on conventions committed during prior years to be held in the United States in FY 1977 which is estimated to produce 11,800 delegates and \$4.1 million in foreign exchange earnings.</p>												

1977 DOMESTIC TOURISM PROMOTION PROGRAM

1. Proposed Objective

In FY 1977, USTS will utilize its resources to develop a domestic tourism promotion program involving major travel industry corporations and organizations. Through this joint sponsorship, USTS and the industry expect to develop a promotional marketing plan designed to reach at least 100 million traveling adults in order to encourage them to travel within the United States.

2. Justification

At the present time, no catalyst exists, with sufficient high visibility, to promote travel within the United States while informing the traveling public of national interest issues related to travel like conservation of energy, environmental protection and the beneficial aspect of tourism to our culture and the economy. This proposed promotion marketing plan will be designed to address these needs through the cooperative efforts of Government and industry.

3. Approach

USTS and the Secretary of Commerce will meet with forty leaders of the travel industry in order to outline the domestic tourism promotional program. USTS will then seek industry support in developing, sponsoring and financing a joint promotional marketing plan which will be put into effect during FY 1977. The results of this plan will be measured and evaluated by both the Government and industry sponsors in order to determine its overall effectiveness in informing the traveling public that travel within the United States can be enjoyable, economical, and can be accomplished without compromising the national interests.

4. Resources

For FY 1977, the breakdown of resources to achieve program objectives is as follows:

	Perm.	Amount
Domestic Tourism Program	Pos. 10	\$1,500,000

It should be noted that consideration is now being given by the Administration to a proposed rescission which will affect this program. The rescission is as follows:

	<u>Present Estimates</u>		<u>Effect of Proposed Rescission</u>		<u>Revised Estimates</u>	
	<u>Perm. Pos.</u>	<u>Amount</u>	<u>Perm. Pos.</u>	<u>Amount</u>	<u>Perm. Pos.</u>	<u>Amount</u>
Domestic Tourism Program	10	\$1,500,000	-4	-\$500,000	6	\$1,000,000

5. Responsible Office

Office of Program Services and Development
Hans F. Regh, Managing Director
Tel: 377-4904

6. Milestones

(Attached)

FISCAL 1977 ECONOMIC DEVELOPMENT ADMINISTRATION OBJECTIVES

General. The Economic Development Administration proposed three objectives for fiscal 1977. Two deal with the establishment of management systems in two program areas, and one is concerned with the implementation of a major new program authority (Local Public Works) involving some 85% of EDA's resources. None are follow-on 1976 objectives.

Technical Assistant Evaluation: The objective is the design and implementation of a management system to insure that the Technical Assistance (TA) program relates to other EDA efforts, and agency investment strategies and objectives. From an evaluation of the various TA project types, the program managers will identify those that are most effective. Future program priorities and resource allocations will be based on the results of the evaluation. Because TA has been criticized in the past for lack of a systematic approach to establishing program priorities and because this represents a major management initiative for the TA program, Secretarial tracking is recommended.

Economic Research Impact Review: Under this objective, EDA will establish a management process to identify the policy/operational implications of EDA's economic research and to incorporate appropriate findings into program policy. EDA's economic research efforts have been criticized in the past (by OMB and others) as being largely irrelevant to the program needs of the agency. It was requested that EDA develop a system whereby research could be responsive to and provide information for the other EDA program areas. This objective is directly responsive to that Office of the Secretary request. Secretarial tracking is recommended.

Implementation of the Local Public Works (LPW) Program: EDA's objective is to insure that appropriate management systems, guidelines, and resources are available for the orderly and effective administration of this major new program responsibility. Given the high level of funding and Secretarial interest in the program to date, an objective which follows the implementation of LPW is appropriate for Secretarial tracking.

October 1976

EDA'S TECHNICAL ASSISTANCE EVALUATION

Proposed Objective:

Design/implement a management system to insure the effectiveness of the Technical Assistance program in relation to EDA programs, investment strategies and agency objectives.

This includes a major effort to measure:

Jobs created or saved, the amount of investment, and the time frame of program results.

Justification:

Currently the TA program does not maintain a systematic management approach to determine (a) the extent to which recipients utilize Technical Assistance, or (b) the impact of the Technical Assistance rendered. The need for systematic follow up of Technical Assistance projects is an important element in responding to inquiries received from the Department, OMB and Congressional Committees as to program results. Evaluation of program projects will permit management to:

- o compare the effectiveness of various TA projects.
- o ensure that ineffective or marginal projects are identified, eliminated or reduced.
- o determine future TA program priorities, strategies and objectives.

Approach:

A test evaluation of a proposed follow-up system is currently being conducted. Data is being requested from approximately 600 recipients of EDA Technical Assistance. This group of addressees received Technical Assistance during Fiscal Years 1970, 1971, 1972, and 1973. Telephone calls will be made, as necessary, to addressees to achieve maximum response rate and to verify data sent back. When sufficient data has been collected, it will be tabulated, analyzed and a report will be prepared. Following completion of the evaluation the Office of Technical Assistance will implement a systematic follow-up to provide the framework for determining future program policies and objectives.

Resources:

It is estimated that 1 professional manyear and 3 clerical manmonths will be required annually for this effort.

OTA cont.

Responsible Office:

The Office immediately charged with line responsibility for this effort is the EDA Office of Technical Assistance, I. M. Baill, Director, under the Deputy Assistant Secretary for Economic Development Operations, William Henkel, Jr.

<p><u>Objective</u> - EDA's TECHNICAL ASSISTANCE EVALUATION</p> <p>Design/implement a management system to insure the effectiveness of the Technical Assistance program in relation to EDA programs, investment strategies and agency objectives. This includes a major effort to measure: Jobs created or saved, the amount of investment, and the time frame of program results.</p>	<p><u>Change in Status</u></p>												
<p>Milestones</p>	1976			1976			1977			1977			
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	
1. OMB Clearance/Approval of grantee questionnaire	•												
2. OTA distribute questionnaire to selected grantees			•										
3. OTA verify grantee responses						o							
4. OTA initiate analysis of data							o						
5. OTA submit interim report of funding							o						
6. OTA, based on comments on interim report, completes report.								o					
7. OTA issue final report									o				
8. OTA prepare objectives/policy for FY 79 PREVIEW ESTIMATES based on final report recommendations											o		
9. OTA implement approved evaluation system													o
<p>Milestones continued on next page.</p>													

ECONOMIC RESEARCH IMPACT REVIEW

Proposed Objective:

Establish a management process to identify policy/operational implications of EDA's economic research and incorporate appropriate findings into Agency Program policy.

Justification:

EDA has supported a number of highly useful research projects dealing with many aspects of sub-national economic development. Often this research has formulated policy and operational choices that should be considered by EDA management but, due to the lack of formal mechanisms, do not receive adequate attention and consideration by senior policy makers. The purpose of this effort would be to correct this deficiency and insure regular review of policy and operational alternatives that arise from EDA research.

Approach:

The strategy to be used in achieving this objective is to create a Research Review Board composed of senior policy personnel of the Agency and involving senior operational staff at both the Washington and Regional Office levels. Under the guidance of this Board, there will be at least quarterly briefings and discussions of policy and operational alternatives that arise from EDA research.

Resources:

No additional resources required.

Responsible Office:

The Office immediately charged with line responsibility for this effort is the EDA Office of Economic Research, Pat Choate, Director, under the Deputy Assistant Secretary for Economic Development Planning, Joseph G. Hamrick.

Objective - ECONOMIC RESEARCH IMPACT REVIEW Establish a management process to identify policy/operational implications of EDA's economic research and incorporate appropriate findings into Agency program policy.	Change in Status											
Milestones	1976			1976			1977			1977		
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
1. OER prepare Directive establishing Research Review Board (RRB)		o										
2. EDA clear/approve Directive				o								
3. OER present proposed FY 1977 research program to RRB				o	o							
4. RRB approve the overall FY 1977 research program					o							
5. RRB identify a portion of the FY 77 Research program to be incorporated into the policy and objectives of a specific program area (i.e. 304, Title II etc.) for FY-78					o							
6. OER prepare work plan to include contracting schedule, and project target date, etc.						o						
7. OER brief executive staff on the possible policy and operational implications of selected EDA research for FY 77							o					
8. Progress Report of the FY 1977 research program Milestones continued on next page.									o			

IMPLEMENTATION OF THE LOCAL
PUBLIC WORKS (LPW) ACT

Proposed Objective:

To insure that appropriate management systems, guidelines and resources are available to conduct an orderly and effective administration of the LPW program.

Justification:

The LPW program may involve upwards of \$2 billion. The administration of a program of this magnitude will require specific rules and regulations, guidelines, procedures, personnel resources and management control to insure appropriate administration of the program.

Approach:

While some ad hoc task forces will be established for specific purposes (e.g., prepare procedures, develop application forms, etc), the program will be primarily administered within the existing organization structure of EDA.

Resources:

An estimated 325 additional employees will be required early in the FY, with this number tapering off sometime after March 1977 to a base number (yet to be determined). This base number will be required into FY 78 for project monitoring. Funds, not to exceed \$10 million, are expected to be available for administrative expenses during FY 77.

Responsible Office:

The Office immediately charged with line responsibility for this effort is the EDA Office of Public Works, George Karras, Director, under the Deputy Assistant Secretary for Economic Development Operations, William Henkel, Jr.

Implementation of the Local Public Works (LPW) Act (Cont.)

Milestones	1976			1976			1977			1977		
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAR	JUN
10. Congress appropriates LPW program funds				o								
11. OMB apportions LPW program funds				o								
12. EDA begins hiring additional employees for LPW program				•								
13. EDA accepts LPW applications				•								
14. EDA obtains space, furniture and equipment for LPW employees.				• ← o								
15. EDA completes hiring of LPW employees						o						
16. Assistant Secretary begins approval of applications						o						
17. EDA completes space, equipment and furniture evaluation needs for LPW in light of personnel phase down								o				
18. EDA begins phase down of LPW employees									o			
19. EDA begins to terminate contracts for space, equipment and furniture rentals in accordance with LPW personnel phase down plans (See Milestones 8 and 17)										o		
20. EDA accelerates phase down of LPW employees												o
Milestones continued on next page.												

Implementation of the Local Public Works (LPW) Act (Cont.)

Milestones	1977			1977				
	JUL	AUG	SEP	OCT	NOV	DEC		
21. EDA completes LPW employee phase down (approximately 100 employees retained for servicing/monitoring)			o					
22. EDA completes termination of appropriate contracts for space, equipment and furniture rentals			o					

MARAD

FISCAL 1977 MARITIME ADMINISTRATION OBJECTIVES

General. MARAD proposed five fiscal 1977 objectives, all but one (the last one listed) being carry-ons from the 1976 MBO program.

- o Operating differential subsidy
- o Ship construction
- o US/USSR Maritime Agreement
- o Equal opportunity in maritime industries
- o Ready reserve fleet plan

These objectives account for about 92% of MARAD's total program.

Operating Differential Subsidy: This objective aims at the reduction of the cost of the operating differential subsidies through review of possible changes in the ODS system (principally the essential trade route concept) and the elimination of maintenance and repair coverage from ODS contracts. A study of the ODS program to identify more effective use of ODS funds without adversely U.S. merchant fleet capacity to meet commercial and national security needs will be completed in February. Maintenance and repair coverage provisions are being deleted from the twenty-year ODS contracts as they are being renewed.

Ship Construction Program: This objective is designed to continue the ship construction program initiated by the Merchant Marine Act of 1970. Because CDS*applications generally reflect market forces not controlled by MARAD, however, MARAD inducements in this area are limited to leverage provided by ODS funds and obligations, and financial incentives allowed by legislation.

U.S./U.S.S.R. Maritime Agreement: The purpose of this objective is to renegotiate new shipping rates for the U.S./U.S.S.R. Maritime Agreement and to monitor performance against the Agreement. The current charter rate for grain cargoes expires on December 31, 1976 and there are issues with respect to

* Construction Differential Subsidy

compliance with the 1975 agreement that must be resolved before a new agreement can be signed.

Equal Opportunity in Maritime Industries: The purpose of this objective is to achieve full minority and female participation in the maritime industries' workforce and to promote the development of related minority business enterprises by enforcing equal opportunity compliance procedures and promoting the greater use of minority business in maritime contracting.

Ready Reserve Fleet Plan: This objective is designed to provide a significant number of ships in the National Defense Reserve Fleet in an advanced state of readiness (five to ten days). The Navy (DOD) will fund the preactivation shipyard work for five ships per year (for up to six years), while MARAD will provide the supervision, inspection and maintenance of the ships with this readiness capacity in the Reserve Fleet.

November 1976

Operating-Differential Subsidy

1. Proposed Objective

This objective aims at the reduction of the cost of Operating-differential subsidies through review of possible changes in the ODS system (principally the essential trade route concept) and elimination of maintenance and repair coverage from ODS contracts. Although the specific milestones involved are scheduled to be completed by July 1977, reduction of ODS costs is a continuing objective of MarAd.

2. Justification

Operating-differential subsidy (ODS) is one of the key programs under the Merchant Marine Act. It provides for the payment of ODS to qualified U.S.-flag shipping companies for the operation of ships in essential services in the foreign commerce of the United States. In general, this program has been needed in order to equalize the disparities in operating costs between American ships and their foreign competitors. These disparities have been primarily in wages of officers and crews, insurance, and maintenance and repairs not compensated by insurance. In order to carry out this program, the Maritime Subsidy Board, as the representative of the Secretary of Commerce, is authorized to enter into ODS contracts for either liner or bulk carrier operations for a term up to 20 years.

In recent years, overall ODS program costs are increasing and are projected to increase further due to inflation. The purpose of our objective in the ODS area is to reduce the cost of the ODS program.

3. Approach

A Department of Commerce audit report of May 1976 recommended that MarAd document essential trade route and service criteria. The Office of Audits suggested consideration of the following:

"Developing guides for use in determining when the amount and value of cargo carried over certain routes is sufficient to warrant designation as an essential trade route.

"Including, in the essential service criteria, consideration of such factors as availability of cargo, extent of vessel utilization, and degree of U.S.-flag participation considered attainable and any other matters deemed pertinent.

"Insuring that the procedures include provision for adequately documenting the files to clearly show the principal considerations and issues involved in the evaluation process."

We agree with the Office of Audits that it would be desirable and useful to prepare a formal description of the criteria and procedures used for (1) determining the essentiality of a United States foreign trade route, and (2) determining the requirements for U.S.-flag service on the route. We are, therefore, preparing such documentation.

MarAd has begun a study of the ODS system. This study will involve reexamination of the concept to determine whether it realistically promotes the interests of the United States and the operators of the U.S. merchant fleet. The overall study will include an assessment of fleet productivity in relation to subsidy expenditures, an evaluation of the relationship of ODS to management decisions, and consideration of modifications to the current system. Special emphasis will be placed on an examination of potential benefits which might result from greater flexibility in the essential trade route concept.

In the area of the elimination of maintenance and repair subsidy, MarAd policy concerning subsidies for maintenance and repairs (M&R) has been to eliminate this expense from recent renewals of long-term Operating-differential subsidy contracts. The goal for June 1977 is to eliminate M&R subsidy from all contracts signed by that date. The following contracts are those likely to be renewed by that date:

- American President Lines' long-term contract (in part) expires in December 1976. This involves 14 ships.
- States and Prudential long-term agreements expire in December 1977. These contracts involve 29 ships.
- Lykes Bros. contract involving 41 ships expires December 1977.
- Waterman new long-term agreement: Application for service on TR 12 and 22 has been approved, contract to be signed shortly. Application for service on TR 21 is pending.

4. Resources

The ODS studies are projected to require $3\frac{1}{2}$ man-years and \$40,000. It is not possible to estimate the resources involved in eliminating M&R coverage from ODS contracts being renewed, because it is part of the entire ODS renewal process. (However, M&R represents about 4.8 percent of ODS costs estimated for FY 1977.)

5. Responsible Office

(a) Office Responsible for Administration of ODS Program:

Assistant Administrator for Maritime Aids
Mr. Roy E. Yowell

(b) Office Responsible for Evaluation:

Assistant Administrator for Policy and Administration
Mr. Russell F. Stryker

6. Milestones

- (a) Document criteria and procedures currently used in the establishment of essential trade routes and services of U.S. foreign commerce.

Original:

October 1976

Revised:

November 1976

- (b) Conduct a study of the ODS Program to identify feasible changes which might bring about the most realistic promotion of the interests of the United States and the operators of the U.S. merchant fleet.

February 1977

- (c) Eliminate maintenance and repair coverage from ODS contracts being renewed.

June 1977

- (d) Reduce the gap between the calculation of tentative ODS rates and the development of final ODS rates in order to complete final settlement of subsidy and permit operator to submit bill and receive payment.

September 1977

Objective

Reduction of the cost of Operating-differential subsidies through review of possible changes in the ODS system and elimination of maintenance and repair coverage from ODS contracts.

Change in Status

On schedule except for one slight variance.

Milestones

Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep

- (a) Document criteria and procedures currently used in the establishment of essential trade routes and services of U.S. foreign commerce.
- (b) Conduct a study of the ODS Program to identify feasible changes which might bring about the most realistic promotion of the interests of the United States and the operators of the U.S. merchant fleet.
- (c) Eliminate maintenance and repair coverage from ODS contracts being renewed.
- (d) Reduce the gap between the calculation of tentative ODS rates and the development of final ODS rates in order to complete final settlement of subsidy and permit operator to submit bill and receive payment.

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MARITIME ADMINISTRATION
OPERATING-DIFFERENTIAL SUBSIDIES

Extension of ODS Contracts

Renewal of ODS agreements for new 20-year agreements have been signed by the following companies:

Moore-McCormack Lines, Inc. - effective through December 31, 1994
Delta Steamship Lines, Inc. - effective through December 31, 1995
Farrell Lines Incorporated - effective through December 31, 1995

Five other renewal applications have been filed:

<u>Company</u>	<u>Termination of Present Contract</u>
American President Lines, Ltd.	December 31, 1976 ^{1/}
American President Lines, Ltd.	December 31, 1978
States Steamship Company	December 31, 1977
Lykes Bros. Steamship Co., Inc.	December 31, 1977
Prudential Lines, Inc	December 31, 1977
Pacific Far East Line, Inc.	December 31, 1978

^{1/} This application also involves a two-year contract covering their existing service, if agreement cannot be reached on a new 20-year contract by December 31, 1976. The two-year contract would terminate concurrently with the current ODS agreement of APL's American Mail Line Division, December 31, 1978.

These renewal applications are in various stages of administrative processing and review. Other U.S.-flag operators have intervened on all ODS contract renewals based on services which are directly competitive with the subsidized operators service.

UNITED STATES
 MERCHANT FLEET AGE ANALYSIS
 OCEANGOING SHIPS OF 1,000 GROSS TONS AND OVER
 (TONAGE IN THOUSANDS)
 JUNE 30, 1976

SUBSIDIZED FLEET	TOTAL	GROSS	DEAD	AVG/AGE	0-5	6-10	11-15	16-20	OVER 20	% OVER 20
COMBINATIONS	6	744	503	16.3	0	0	4	0	2	033.3
FREIGHTERS	174	24,030	29,009	11.0	30	46	68	9	21	012.0
BULK CARRIERS	2	802	1,644	02.5	2	0	0	0	0	000.0
TANKERS	12	3,959	7,726	01.2	12	0	0	0	0	000.0
TOTAL SUBSIDIZED	194	29,535	38,802	11.2	44	46	72	9	23	011.8
NON-SUBSIDIZED FLEET										
COMBINATIONS	0	0	0	00.0	0	0	0	0	0	000.0
FREIGHTERS	130	20,603	20,767	20.3	24	16	16	1	73	056.1
BULK CARRIERS	16	2,126	3,649	28.1	1	0	1	0	14	087.5
TANKERS	237	50,640	91,263	19.5	35	19	21	53	109	045.9
TOTAL NON-SUBSIDIZED	383	73,369	115,679	20.1	60	35	38	54	196	051.1
PRIVATE OWNED FLEET										
COMBINATIONS	6	744	503	16.3	0	0	4	0	2	033.3
FREIGHTERS	304	44,633	49,776	15.4	54	62	84	10	94	030.9
BULK CARRIERS	18	2,920	5,293	25.3	3	0	1	0	14	077.7
TANKERS	249	54,599	98,989	18.6	47	19	21	53	109	043.7
TOTAL PRIVATE OWNED FLEET	577	102,904	154,561	17.1	104	81	110	63	219	037.9

Ship Construction Program

1. Proposed Objective

The primary purpose of this objective is to continue the ship construction program initiated by the Merchant Marine Act, 1970. This objective is included because of its importance, even though its inclusion may not be justified by the guidance that MBO objectives should not deal with problems beyond the control of the Department. MarAd influence is limited in this area because CDS applications generally reflect market forces that MarAd does not control. The actual control which can be exerted by MarAd stems from control over ODS contracts and leverage provided by replacement obligations, the persuasion and promotion exercised through mechanisms like meetings with shippers and implementation of legislative and administrative changes which will facilitate the ship construction process.

2. Justification

Under the 1970 Act, the Maritime Administration has been embarked on a program to strengthen the technical capability and increase the productive efficiency of U.S. shipyards. In addition, there have been specialized ship construction efforts especially for the carriage of energy materials like oil and liquefied natural gas.

In recent periods, tanker business worldwide has fallen off and contracts for some tankers were cancelled and thousands of jobs have been lost. Of 13 major U.S. shipyards, which provide approximately 40,000 jobs, it is estimated that at least six will need new work in FY 1977. These are (1) Seatrain Shipbuilding, Brooklyn, New York; (2) Sun Shipbuilding, Chester, Pennsylvania; (3) Bethlehem Steel, Sparrows Point, Maryland; (4) Newport News (Commercial), Newport News, Virginia; (5) Litton/Ingalls, Pascagoula, Mississippi; and (6) Avondale Shipyard, New Orleans, Louisiana.

Although in recent years there has not been a substantial number of orders for general cargo vessels (container, LASH, Ro/Ro, etc.), we anticipate substantially increased intent for this type of vessel in the near future. It is further anticipated that this intent will result in contracts for construction of this type of vessel.

In addition, there is a new emphasis toward dry bulk ship construction. Dry bulk construction is a special objective and the following facts are noteworthy:

- o In 1974, dry bulk cargoes constituted 45 percent of U.S. foreign trade.
- o Dry bulk ships carry principally grains, coal, and ores.
 - A large part of the grain shipments are aid program shipments by the U.S. Government to foreign countries.
 - A minimum of 50 percent of these shipments has been reserved for U.S.-flag ships under Public Law 664.
- o The 1970 Merchant Marine Act envisaged the construction of substantially increased dry bulk carrier capacity.
- o To date, this objective has not been met.
 - The U.S. bulk fleet consists of only 19 vessels with an average age of well over 25 years.
 - U.S.-flag dry bulk carriers move only approximately two percent of all such cargoes moving in U.S. foreign commerce.

3. Approach

The approach will include, in addition to the normal operations of MarAd's ship construction program, assessing ship demand quarterly prior to each briefing of the Secretary of Commerce on MarAd's objectives. The status of existing ship construction projects in order to determine the most active and viable contracts will be examined. At the present time, Exhibit 1 presents tabular type data on the active projects as of October 1976.

The Maritime Administration currently has underway an expanded marketing effort designed to demonstrate the advantages of construction and operation of U.S.-flag ships to major operators and shippers of bulk cargoes. The promotion of dry bulk carrier construction will be implemented by conducting promotional meetings with six individual companies by December 1976, developing an agency-wide strategy to achieve legislative, regulatory and administrative changes for presentation to Congress.

4. Resources

The magnitude of the resources involved in this objective can be approximated by the projected \$214 million in ship construction obligations for FY 1977 and a rough estimate of 123 positions for those MarAd offices directly involved in the ship construction program.

5. Responsible Office

Assistant Administrator for Operations
Mr. J. J. Nachtsheim

6. Milestones

- | | |
|--|----------------|
| (a) During FY 1977, contract for 14 ships. | September 1977 |
| (b) Promote the construction of dry bulk carriers in U.S. shipyards: | |
| (1) Conduct a series of promotional meetings with six individual companies by December 1976. | January 1977 |
| (2) Develop an agency-wide strategy to achieve bulk vessel construction. | January 1977 |
| (3) Draft necessary revised legislative changes for presentation to Congress. | February 1977 |
| (c) Assess the actual ship construction that has been contracted for in FY 1977. | September 1977 |

<u>Objective</u> Continue the ship construction program initiated by the Merchant Marine Act, 1970.	<u>Change in Status</u> On schedule.											
Milestones	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	S.
(a) During FY 1977, contract for 14 ships. (b) Promote the construction of dry bulk carriers in U.S. shipyards: (1) Conduct a series of promotional meetings with six individual companies by December 1977. (2) Develop an agency-wide strategy to achieve bulk vessel construction. (3) Draft necessary revised legislative changes for presentation to Congress. (c) Assess the actual ship construction that has been contracted for in FY 1977.				o								

ACTIVE SHIP CONSTRUCTION PROJECTS

<u>Number of Type of Ship</u>	<u>DWT</u>	<u>Estimated CDS Funding</u>	<u>Purchaser</u>	<u>Potential Fiscal Year</u>	<u>Commitment</u>
<u>Containerships</u>					
* 2 CNTR	18,000	60,000,000	American President Lines Ltd.	1978	Accelerated replacement obligation Confidential conversations with MARAD officials/Exploratory meetings with shipyards
* 4 CNTR	28,000	120,000,000	Sea-Land Corporation	1978	
<u>LASH</u>					
* 4 LASH	38,000	76,000,000	Waterman Steamship Corporation	1977	CDS Application/Condition of proposed ODS contract
2 LASH	38,000	42,000,000	Waterman Steamship Corporation	1978	
<u>Roll-on/Roll-off</u>					
3 1/2 Ro/Ro's	14,500	70,000,000	Waterman Steamship Corporation	1978	Replacement obligation CDS Application
1 Ro/Ro-Barge	(113 trailers)	4,500,000	Cumberland Shipping Company	1977 or 78	CDS Application
1 Ro/Ro-Barge	(" ")	4,500,000	Rail-Sea Corporation	1977 or 78	CDS Application
1 Ro/Ro-Barge	" "	6,000,000	Cove Carriers, Inc.	1977 or 78	CDS Application
<u>Liquefied Natural Gas Carriers</u>					
* 2 LNG's	125,000m ³	66,000,000	Panhandle Eastern (Lachmar)	1977	CDS Application
* 3 LNG's	125,000m ³	99,000,000	Pacific Lighting (Zapata)	1977 or 78	CDS Application
* 5 LNG's	125,000m ³	180,000,000	El Paso II	1978	FPC hearings underway
<u>Breakbulk Ships</u>					
* 3 Breakbulk	2,000	9,000,000	American Atlantic Shipping (American Marine Industries)	1977	CDS Application
* 2 Breakbulk/Container/Ro-Ro	13,000	35,000,000	Prudential Lines, Inc.	1978	Replacement obligation and meetings with MARAD officials
<u>Heavy Lift Ships</u>					
* 2 Heavy Lift	4,500	10,000,000	American Heavy Lift Shipping Company	1977	CDS Application

<u>Number of Type of Ship</u>	<u>DWT</u>	<u>Estimated CDS Funding</u>	<u>Purchaser</u>	<u>Potential Fiscal Year</u>	<u>Commitment</u>
<u>Bulk Carriers</u>					
3 ^{1/2} Bulk	35,000	\$61,000,000	Falcon Cargo Ships	1977 or 78	CDS Application
2 ^{2/3} Bulk-ore	35,000	11,000,000	E.I. Du Pont de Nemours	1977 or 78	Communication with MarAd officials
1 Chemical	6,500	8,000,000	E.I. Du Pont de Nemours	1977 or 78	Communication with MarAd officials
<u>Conversions</u>					
(2) Conversions		10,000,000	Lykes Bros. Steamship Co., Inc.	1977 or 78	Communication with MarAd officials
(2) Conversions		10,000,000	Moore-McCormack Lines	1977 or 78	Communication with MarAd officials
(2) Conversions		5,000,000	E.I. Du Pont de Nemours	1977 or 78	Communication with MarAd officials
(1) Conversions		5,000,000	American President Lines	1977	CDS Application (dl-0-75)
41 + (p)	Totals	272,000,000			

* These projects appear in the ship mix for the 1978 budget although all the ships in each project may not be funded.

1/ Option for a fourth.

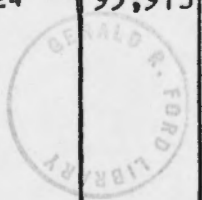
2/ Option for a third.

SHIPYARD EMPLOYMENT
(EXCLUDING SUBCONTRACTED WORK) in yards with shipbuilding facilities for ships 475 by 68 feet

All Employees <u>95,973</u> Production Workers <u>77,922</u>	Total Plant Employees	PRODUCTION WORKERS										
		Total Production Workers	SHIPBUILDING					SHIP REPAIR				
			Total Construction	Mixed	Naval	Other Federal	Private	Total Repair	Mixed	Naval	Other Federal	Private
Yards	1	2	3	4	5	6	7	8	9	10	11	
GRAND TOTAL	95,973	77,922	64,007	17,214	4,774	445	3,994	2,397	-	2,217	-	-
ATLANTIC COAST	42,139	31,107	27,527	7,252	1,971	-	4,114	2,017	-	14	-	-
Bath Iron Works	1,066	2,180	1,339	1,038	612	-	150	121	-	121	-	-
General Dynamics Quincy	4,735	2,504	2,343	1,361	7	-	960	42	-	12	-	-
Seatrain Shipbldg., Brooklyn	1,604	1,274	1,274	841	+	-	433	-	-	-	-	-
Sun Shipbldg., Drydock	3,725	3,017	2,522	-	-	-	2,222	221	-	-	-	-
Harland Shipbldg. & Drydock	1,527	900	252	-	-	-	252	675	-	233	-	210
Bethlehem Steel, Sparrows Point	1,606	2,235	2,178	2,152	16	-	-	60	-	-	-	60
Newport News Shipbldg. & Drydock	21,667	18,912	16,893	2,396	11,107	-	-	1,223	-	218	-	1,175
GULF COAST	36,192	29,593	24,905	1,907	17,274	-	5,050	5,329	-	2,217	-	2,893
Alabama Drydock & Shipbldg.	1,153	2,206	1,021	-	-	-	1,021	432	-	-	-	132
Walter/Ingalls, Pascagoula	22,602	19,498	17,273	-	17,278	-	-	2,329	-	2,217	-	-
Avondale Shipyards	6,499	5,795	3,779	1,297	-	-	1,872	2,916	-	-	-	2,226
Levington Shipbldg., Orange	2,028	1,556	1,109	-	-	-	1,109	123	-	-	-	123
Bethlehem Steel, Beaumont	1,072	816	383	-	-	-	383	291	-	-	-	291
Marathon Shipbldg., Brownsville	748	618	618	-	-	-	618	-	-	-	-	-
PACIFIC COAST	14,601	12,952	9,987	4,013	2,124	445	3,319	1,451	-	567	114	712
National Steel & Shipbldg.	6,356	5,807	2,227	1,142	111	-	1,004	457	-	411	-	28
Toll Shipyard, San Pedro	2,130	2,024	1,471	941	16	-	514	145	-	12	-	12
Bethlehem Steel, San Francisco	270	310	141	-	-	-	141	211	-	50	72	-
INS Corp., Portland	2,104	1,702	928	-	-	-	928	-	-	-	-	-
Lockheed Shipbldg., Seattle	2,388	2,123	1,795	-	1,150	445	-	220	-	-	0	272
Toll Shipyard, Seattle	971	627	340	-	115	-	203	337	-	101	31	215
GREAT LAKES	2,850	2,370	1,704	-	-	-	1,794	675	-	-	21	215
American Shipbldg., Lorain	1,072	827	629	-	-	-	629	260	-	-	-	260
American Shipbldg., Toledo	764	227	307	-	-	-	307	-	-	-	-	-
Defco Shipbldg., Bay City	14	-	-	-	-	-	-	-	-	-	-	-
Bay Shipbldg., Sturgeon Bay	1,150	1,031	737	-	-	-	737	127	-	-	21	176
Fraser Shipyard, Superior	192	123	122	-	-	-	122	-	-	-	-	-

AVERAGE MONTHLY SHIPYARD EMPLOYMENT
 FACILITIES TO CON. CT SHIPS 475 BY 68 FEET

YEAR	MONTH	NO. YARDS	TOTAL PLANT	TOTAL DIRECT LABOR	SHIP CONSTRUCTION AND CONVERSION					SHIP REPAIR				
					TOTAL	MARAD	NAVY	OTHER		TOTAL	MARAD	NAVY	OTHER	
								FED	PRIVATE				FED.	PRIVATE
1959	JAN	21	65,458	54,715	45,744	2,082	24,016	-	19,646	6,562	25	1,654	-	4,883
1960	JAN	21	65,848	54,991	47,460	8,294	30,799	-	8,367	4,922	-	312	-	4,610
1961	JAN	21	66,682	54,091	46,314	9,008	32,913	-	4,393	5,629	16	1,470	-	4,143
1962	JAN	20	59,328	51,521	41,623	13,554	25,808	-	2,261	6,725	-	1,948	-	4,777
1963	JAN	20	57,477	49,292	40,873	11,522	27,090	-	2,261	5,524	-	1,106	-	4,418
1964	JAN	21	51,381	43,695	35,710	6,215	26,999	-	2,496	5,934	-	1,638	-	4,296
1965	JAN	21	65,736	55,264	42,606	6,821	30,127	-	5,658	11,021	-	5,775	-	5,246
1966	JAN	21	72,612	57,208	44,193	5,638	31,975	120	6,460	11,324	653	5,148	-	5,523
1967	JAN	21	72,416	59,159	42,360	8,113	29,171	840	4,236	14,173	288	6,171	-	7,714
1968	JAN	20	75,368	62,234	47,263	10,462	28,930	2,025	5,846	12,887	2	5,901	251	6,733
1969	JAN	20	77,888	63,746	50,417	11,313	30,285	139	8,680	11,803	10	5,763	79	5,951
1970	JAN	21	78,984	61,770	43,961	2,763	30,373	-	10,825	16,085	-	10,127	95	5,863
1971	JAN	19	73,388	60,701	44,144	8,196	27,412	-	8,536	14,920	55	6,499	238	8,128
1972	JAN	20	78,079	64,690	49,546	13,565	26,166	26	9,789	12,858	1	5,793	208	6,856
1973	JAN	19	81,527	64,929	54,950	11,875	31,937	445	10,693	7,631	-	2,778	61	4,792
1974	JAN	25	90,028	74,094	60,953	8,869	33,844	865	17,375	9,651	-	4,160	68	5,423
1975	JAN	24	95,337	75,882	62,393	11,878	34,006	1,217	15,292	9,357	-	2,756	212	6,389
1976	JAN	24a/	96,546	78,614	67,606	14,923	35,076	495	17,112	7,175	-	2,806	91	4,278
	FEB	24a/	97,008	83,784	71,518	16,582	37,412	507	17,017	8,525	-	3,661	116	4,748
	MAR	24b/	94,329	74,577	64,061	15,440	33,859	557	14,205	6,786	-	2,067	298	4,421
	APR	24c/	96,199	76,320	64,135	14,710	34,694	542	14,189	8,481	-	2,808	155	5,518
	MAY	24	97,098	80,728	66,782	15,186	35,955	533	15,108	9,929	-	3,737	162	6,030
	JUN	24d/	97,345	81,289	67,556	14,771	37,422	445	14,918	9,920	-	3,549	172	6,199
	JUL	24	95,973	77,022	64,083	13,814	34,603	445	15,221	9,498	-	3,398	135	5,965
	AUG													
	SEP													
	OCT													
	NOV													
	DEC													



a/ Includes Maryland Shipbuilding and Drydock, which was strikebound.
 b/ Includes Maryland Shipbuilding and Drydock and Alabama Drydock and Shipbuilding.

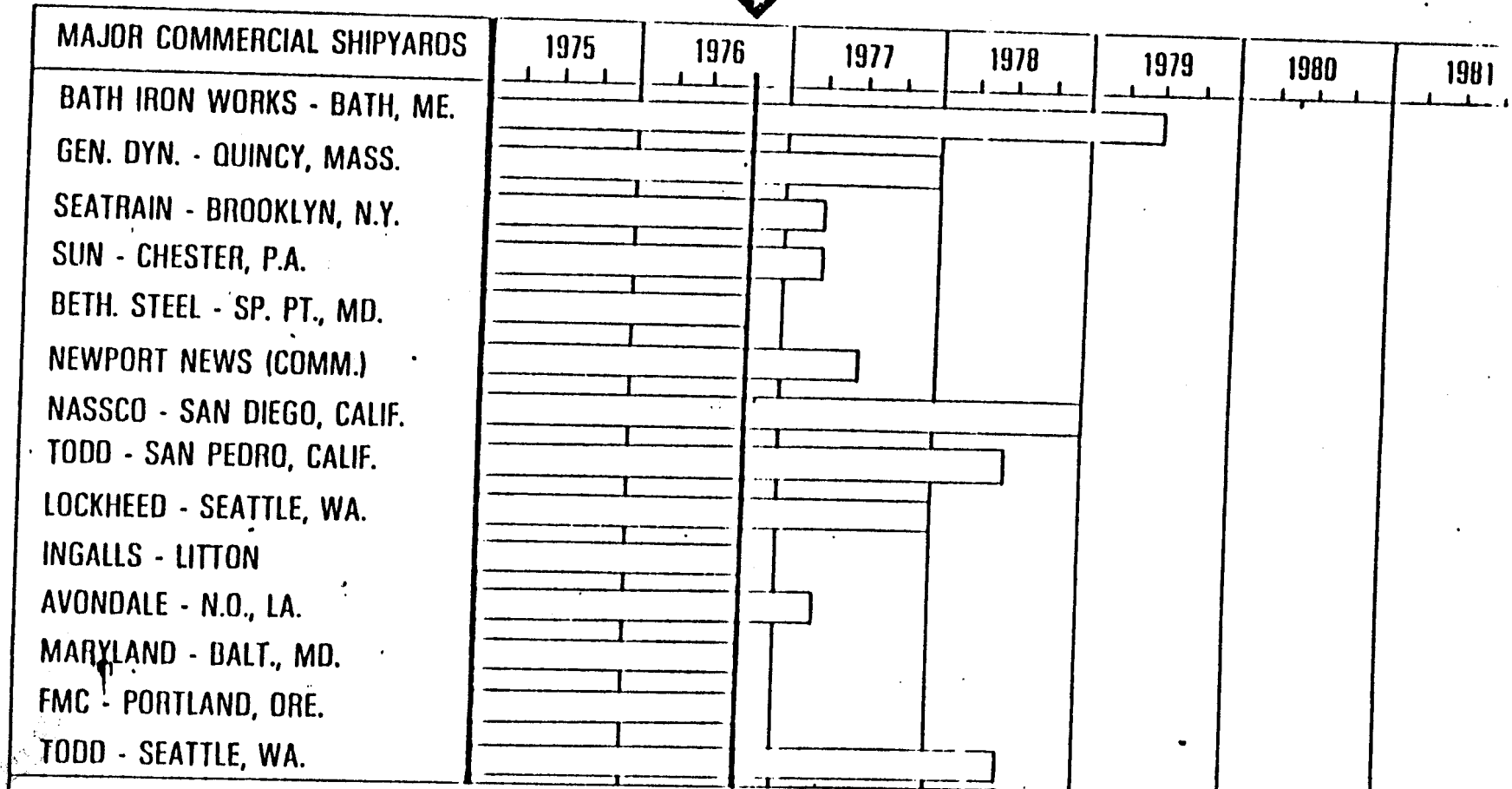
SHIPYARD STATUS: NEED FOR NEW BUSINESS

U.S. DEPARTMENT OF COMMERCE

MARITIME ADMINISTRATION

(As of 10-1-76*)

TIME NOW



END OF BAR INDICATES WHEN YARD NEEDS NEW CONTRACTS IN ORDER TO MAINTAIN ADEQUATE BACKLOG FOR AVAILABLE FACILITIES AND MANPOWER. ASSUME 8 MONTH ADMINISTRATIVE AND PRE-FAB TIME (LEAD TIME BEFORE KEEL LAYING).

U.S./U.S.S.R. Maritime Agreement

1. Proposed Objective

The purpose of this objective is to renegotiate new shipping rates for the U.S./U.S.S.R. Maritime Agreement and to monitor performance against the Agreement. The U.S./U.S.S.R. Maritime Agreement is an important impetus to the normalization and expansion of commercial relationships between the United States and the Soviet Union. The negotiation of new shipping rates and the monitoring of cargoes under the Agreement will be instrumental in guaranteeing a fair share of the trade to U.S.-flag vessels.

2. Justification

An historic maritime agreement was signed on October 14, 1972 which provides the broad framework and ground rules for maritime activities between the United States and the Soviet Union. A new six-year agreement was signed on December 29, 1975, which supplants the original agreement. The new agreement maintains the two basic objectives of the old agreement; first, it keeps open the channels of maritime commerce between the two nations by continuing to facilitate access to major U.S.-flag and Soviet-flag vessels; and, second, it affords to U.S. and Soviet vessels the opportunity to participate equally and substantially in the carriage of all cargoes moving by sea between two nations.

Directly attributable to the Maritime Agreements are the improved lines of communication between U.S. and Soviet shipping officials and scientific personnel. Under the auspices of the Joint U.S./U.S.S.R. Commission on Cooperation in Transportation, maritime industry officials from the two countries have exchanged visits. Cooperative programs have been established in the areas of port and cargo operations, handling of hazardous cargo, port management training, and marine terminal technology and control systems.

With respect to liner service, U.S.-flag carriers have experienced no difficulty in participating in the U.S./U.S.S.R. trade at existing rate levels and will continue to do so under the terms of the new 1975 Agreement. However, the matter of freight rates to be paid to U.S. vessels in the bulk trades is an important provision of the Agreement. The most important category of charter rates is for agricultural commodities and products. Under terms of the Agreement such cargoes shall be carried at a mutually acceptable rate. For fixtures made between 1/1/76 and 12/31/76, both sides agreed to continue the indexing method arrived at on September 17, 1975 for the establishment of charter rates for U.S.-flag vessels.

Both sides have further agreed to meet during 1976 to discuss and reach agreement upon rates for fixtures made after December 31, 1976. This agreement on new rates is the primary purpose of the objective stated for this program area.

3. Approach

The approach to developing a new agreement for 1977 shipping rates will be to conduct a full scale negotiating meeting in Washington, D.C. where the remaining issues will be assessed and the requirements for a follow-on meeting determined. By the end of the calendar year, it is expected that a final agreement will be completed. Successful resolution of rate issues will provide the opportunity for U.S. carriage currently estimated at a total of 4.39 million tons in 1977.

Major issues for negotiation will include the following:

- o Expiration of rate for grain cargoes. The current charter rate expires December 31, 1976. A new rate is needed effective January 1, 1977. The U.S. is seeking continuation of the \$16 rate which is considered acceptable. It is expected that this will be resolved prior to the expiration date.
- o Implementation and compliance with provisions of the 1975 Agreement.
 - imbalances in carriage of grain for 1975 and 1976
 - imbalance in carriage of other bulk cargoes in 1975
 - resolution of controlled cargo issue. The point of contention is the obligation of Soviet Foreign Trade Organizations to execute purchase and sales contracts to meet the objectives of the Agreement. The U.S.S.R. maintains that the FTO's are not affected and that it is only the Soviet shipping entities, SOVINFLLOT and SOVFRACHT, that are involved and only to the extent that the terms of shipment provide a basis for routing cargo to specific carriers.
 - imbalance in carriage of liner cargoes in 1976.
 - Based on the results of the June meeting with U.S.S.R. representatives, it appears this issue will be resolved prior to December 31, in the rate negotiation framework. It is anticipated the Soviets will bargain severely and in order to obtain a favorable agreement on freight rates, it may be appropriate for them to compromise on imbalance issues.

- o Since 1972 the U.S. has carried about 23.5 percent of the grain cargoes which is less than its one-third share allowed under the maritime agreement. This is currently due to the existence of disputes over certain ships and routes not acceptable by the Soviets. There is and has been sufficient U.S.-flag tonnage to carry our share of the projected grain purchases.

4. Resources

Although it is difficult to estimate the dollars and man-years involved in the negotiating process because of the inherent uncertainties, the negotiation will be conducted with existing resources.

5. Responsible Office

Assistant Secretary for Maritime Affairs
Mr. Robert J. Blackwell

6. Milestones

- (a) Obtain new freight rate agreement with Soviets for period beginning 1-1-77.
 - (1) Continue full scale meetings on rate negotiations Oct. 1976
 - (2) Conclude final agreement for rates effective 1-1-77 Dec. 1976
- (b) Monitor the carriage of cargoes moving between the U.S. and U.S.S.R. to assure the equal access to shipping trade, and provide annual accountings of movement.
 - (1) Develop preliminary accounting for calendar year 1976. Jan. 1977
 - (2) Adjust for any imbalances and develop final accounting for calendar year 1976. Mar. 1977

<p><u>Objective</u></p> <p>Renegotiate new shipping rates for the U.S./U.S.S.R. Maritime Agreement and monitor performance against the agreement.</p>	<p><u>Change in Status</u></p> <p>On schedule.</p>
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Milestones	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
<p>(a) Obtain new freight rate agreement with Soviets for period beginning 1-1-77.</p> <p>(1) Continue full scale meetings on rate negotiations.</p> <p>(2) Conclude final agreement for rates effective 1-1-77.</p> <p>(b) Monitor the carriage of cargoes moving between the U.S. and U.S.S.R. to assure the equal access to shipping trade, and provide annual accountings of movement.</p> <p>(1) Develop preliminary accounting for calendar year 1976.</p> <p>(2) Adjust for any imbalances and develop final accounting for calendar year 1976.</p>	•		o								

Ready Reserve Fleet Plan

1. Proposed Objective

The purpose of the Ready Reserve Fleet Plan is to provide a significant number of ships in the National Defense Reserve Fleet in an advanced state of readiness. This will be carried out through a Joint Navy-MarAd program, with the bulk of the dollar resources being supplied by DOD (Navy).

2. Justification

The National Defense Reserve Fleet is the only source of reserve U.S.-flag break-bulk shipping capacity available to the United States during a military or commercial shipping crisis. DOD (Navy) considers the NDRF to be a vital asset in contingency planning. During the past two decades the reserve fleet has served the nation on a number of occasions by supplementing existing commercial and military sealift capacity. In these earlier call-ups of NDRF ships, breakout time was not a dominating consideration. Ships were put in service over a period of weeks or months. Current DOD contingency planning, however, calls for supplementary sealift in a much shorter time; within the first 10-15 days of a commitment of American forces or material.

3. Approach

Under the present NDRF preservation program, the ships in the NDRF are merely maintained and preserved in the condition in which they were in when deactivated and delivered to the fleet sites. The time required to reactivate ships in this state of preservation would not be responsive to early DOD needs at the start of the contingency. DOD (Navy) has included funding in their 1977 and out-year financial plans to commence a program to upgrade up to 30 selected ships, at the rate of up to five ships per year, to an advanced state of reactivation readiness. The Ready Reserve Fleet Plan consists of three phases: preactivation, NDRF maintenance and repair, and a five to ten day reactivation if and when required. Preactivation includes performance of certain shipyard work required to improve the material condition of the ships so that they may be reactivated within a five to ten day timeframe. Upon return to the NDRF, the ships must be maintained in an advanced state of maintenance and repair far beyond the state provided in the minimal preservation program now in effect. Navy will fund preactivation shipyard work. However, MarAd will provide the supervision and inspection of upgrading and then continue to maintain the ships in the NDRF at an advanced state of readiness after upgrading has been completed. By the end of 1976 the plan calls for ten ships to be upgraded to an

advanced state of readiness. It is estimated that there will be approximately 180 commercial ships for retention in the National Defense Reserve Fleet at the end of FY 1978. These 18 ships in an advanced state of readiness will thus be only about 5 percent of the NDRF at the end of FY 1978. Present plans calling for the upgrading of 30 ships at a rate of 5 ships per year means that it will take six years to place approximately 18 percent of the commercial ships in the NDRF (based upon FY 1978 number of vessels) in an advanced state of readiness.

4. Resources

It is expected that DOD (Navy) will transfer \$5.3 million to MarAd for FY 1977 funding of the Ready Reserve Fleet Plan. It is estimated that MarAd personnel will contribute five man-years of effort in FY 1977, and that 220,000 man-days of effort will be contracted out.

5. Responsible Office

(a) Office Responsible for Ship Lay-up:

Assistant Administrator for Operations
Mr. J. J. Hachtshain

(b) Office Responsible for Interaction with Navy:

Assistant Administrator for Policy and Administration
Mr. Russell F. Stryker

6. Milestones

Place five ships in shipyard for activation:*

(1) First Ship	January 1977
(2) Second Ship	March 1977
(3) Third Ship	May 1977
(4) Fourth Ship	July 1977
(5) Fifth Ship	October 1977

*Schedule and number of ships tentative (total number of ships to be equivalent to five Victory ships).



Equal Opportunity in Maritime Industries

1. Proposed Objective

The purpose of this objective is to attain equal opportunity in the maritime industries by achieving full minority and female participation in all segments of the maritime industries' workforces and by promoting the development of minority business enterprise. Achievements in the attainment of full minority and female participation will be compiled in June 1977 (for specifics, see Milestones below).

2. Justification

The Maritime Administration is responsible for securing contractual EEO compliance by maritime industry contractors located in coastal states. This responsibility derives from Executive Orders 11246 and 11375 and is delegated to the Department of Commerce by the Office of Federal Contract Compliance Programs Order No. 1.

The Maritime Administration also promotes the use of minority business enterprises by MarAd contractors and subcontractors. The authority for this program is derived from Executive Order 11625. In addition, Federal Procurement Regulations require that all government contracts which may exceed \$500,000 include a clause assuring minority business enterprises the maximum practicable opportunity to participate in the performance of government contracts.

3. Approach

Within the Maritime Administration, responsibility for this objective is delegated to the Office of Civil Rights. This office develops, disseminates and coordinates policies, procedures and directives to ensure the proper implementation of these programs in Washington and the field. In this regard, MarAd's Eastern, Central and Western Regions have civil rights specialists who carry out compliance and promotional responsibilities related to the two programs. Equal Employment Opportunity responsibilities include the conduct of comprehensive on-site EEO compliance reviews and investigation of discrimination complaints. Duties related to the minority enterprise program include efforts to encourage maritime contractors to make greater use of minority businesses and to create a greater awareness by minority enterprises of the opportunities to supply goods and services to the maritime industry.

In the area of contract compliance, MarAd will make use of on-site compliance reviews, investigation of complaints and affirmative action plans to achieve its goals for minority and female employment in the maritime industry. If deficiencies are encountered during these reviews or investigations, then conciliation agreements and affirmative action plans with specific commitments, goals and timetables will be developed. Admittedly, these goals do not call for substantial gains over the 1976 level. However, if industry employment declines and the last hired-first fired guideline is used as expected, maintenance of gains in minority employment will be a significant achievement.

In the areas of minority business enterprise, MarAd will continue previous efforts by promoting greater use of those minority businesses which now have maritime contracts in operation as well as other minority firms desiring to enter the maritime field. MarAd will also assist minority entrepreneurs who wish to form companies providing services or goods to the maritime industry. Assistance will be offered in introducing prospective minority contractors to maritime industry officials and by coordinating with other Federal agencies such as OMBE and SBA.

Activities planned to achieve goals include visits to major shipyards and to major shipping companies to encourage greater use of minority firms, showings of MarAd's minority business exhibit at conventions held by minority groups such as the Minority Businessmen's Group and the Urban League, distribution of the Minority Business Directory to all major shipyards and all shipping companies, and arrangement of meetings between individual entrepreneurs and maritime contractors.

4. Resources

For the full FY 1977, approximately \$620,000 and 28 man-years are to be committed to the Maritime Administration's equal opportunity efforts.

5. Responsible Office

Office of Civil Rights
Director: Mr. John M. Heneghan

6. Milestones

- (a) Attain minority and female participation in the maritime industry in CY 1976 as follows: 28.0 percent minority in the total workforce, 30.0 percent minority representation in skilled jobs, 10.7 percent minority representation in salaried white collar positions, and 5.0 percent female representation in the blue collar workforce.

April 1977

(b) Achieve \$12.0 million in contracts placed with minority and female businesses which deal with the maritime industries between July 1, 1976 and June 30, 1977

June 1977

(c) Establish six minority and female contractors within the maritime industry between July 1, 1976 and June 30, 1977.

June 1977

Equal Opportunity in Maritime Industries

Objective

Attain equal opportunity in the maritime industries by achieving full minority and female participation in all segments of the maritime industries' workforces and by promoting the development of minority business enterprise.

Change in Status

On schedule.

Milestones	Oct: Nov Dec			Jan Feb Mar			Apr May Jun			Jul Aug Sep		
	a) Attain minority and female participation in the maritime industry in CY 1976 as follows: 28.0 percent minority in the total workforce, 30.0 percent minority representation in salaried white collar positions, and 5.0 percent female representation in the blue collar workforce.							o				
b) Achieve \$12.0 million in contracts placed with minority and female businesses which deal with the maritime industries between July 1, 1976 and June 30, 1977.										o		
c) Establish six minority and female contractors within the maritime industry between July 1, 1976 and June 30, 1977.										o		

FISCAL 1977 NFPCA OBJECTIVES

General. NFPCA proposed six fiscal 1977 objectives. The three listed first are completely new; the other three are successors to fiscal 1976 objectives.

- o Public education assistance.
- o Residential Fire Safety Research.
- o Residential Fire Protection systems.
- o Education and training program of the National Academy.
- o Fire protection master planning
- o National Fire Statistics.

These six objectives cover about 64% of NFPCA's program.

Public Education Assistance. This objective aims at establishing plans, guidelines and program models for the delivery of effective public education programs to states and communities.

Residential Fire Safety Research. This objectives involves development of a program of recommended standards and practices to reduce residential fire deaths. The program will include: (1) validation of a flammability test method for wearing apparel; (2) development of criteria for limiting fire spread in mobile homes; (3) developing a protocol for full-scale room fire tests; (4) developing optimum siting for residential smoke detectors; and (5) developing a test protocol for screening materials for extremely toxic combustion products. Work is carried out by NBS and should be essentially completed by September 30, 1977.

Residential Fire Protection Systems. The objective here involves development of the required systems performance specifications for (1) a low-cost automatic residential fire alarm system and (2) a fire suppression system. Both systems will be aimed at reducing residential fire deaths, injuries, and property losses.

Education and Training Program Of the National Academy. This objective encompasses the development, delivery, and testing of the effectiveness of courses for use by the Academy, state and local governments, colleges, and universities. Ten courses will be conducted for 1900 students by October 1977.

Fire Protection Master Planning. This objective aims at providing the Nation's fire services with essential tools to develop and implement their own fire protection master planning programs, with specific products to be available by March 1977.

National Fire Statistics. The objective here would establish a rudimentary national fire data base and produce the first NFPCA statistical tables and summaries of the national, state, and local experience by October 1977.

These tables and summaries will:

- o describe the United States fire experience quantitatively, in terms of fire incidence, losses, casualties, and causes;
- o compare state and local experience against the national picture (for states with available data);
- o identify specific fire protection problem areas; and
- o provide feedback to state and local level.

November 1976



OBJECTIVE NO. 1

THE EDUCATION AND TRAINING PROGRAM OF THE
NATIONAL ACADEMY FOR FIRE PREVENTION AND
CONTROL

1. Proposed Objective. To develop, deliver, and test the effectiveness of courses for use by the Academy, state and local governments, colleges and universities. Ten courses will be conducted for 1900 students by October 1977.
2. Justification. There is a need to up-grade the professional ability of state and local personnel to prevent and control fire losses and to train trainers for a multiplier effect. Course subjects are based upon priority needs assessment.
3. Approach. The National Academy for Fire Prevention and Control will select outside contractors to perform task analyses; develop performance objectives; design instructional methods and materials; package, test, validate and revise courses as necessary. The Academy will conduct courses and deliver packages for dissemination and implementation on the state and local level.
4. Resources. \$1,088,000 and fifteen man-years.
5. Responsible Office. The National Academy for Fire Prevention and Control will execute this initiative with primary responsibility resting with the Superintendent, David M. McCormack.
6. Program and Milestones.

A. Labor/Management Relations

- | | |
|--|-------|
| 1. Conduct task analysis and needs identification | 7/76 |
| 2. Determine performance objectives | 7/76 |
| 3. Develop instructional methods and materials | 12/76 |
| 4. Validate and test instructional materials | 2/77 |
| 5. Amend and revise as necessary | 4/77 |
| 6. Implement course delivery | 4/77 |
| 7. Conduct evaluation of course material | 4/77 |
| 8. Measure student retention on a continuing basis | 4/77 |

Purpose. This course is designed to give local government officials and fire service chief administrators insight in current federal legislation and methods for developing and maintaining sound labor relations with fire service unions and public employee groups.

B. Overview of Master Planning.

- | | |
|--|------|
| 1. Conduct task analysis and needs identification | 5/76 |
| 2. Determine performance objectives | 5/76 |
| 3. Develop instructional methods and materials | 4/77 |
| 4. Validate and test instructional materials | 5/77 |
| 5. Amend and revise as necessary | 5/77 |
| 6. Implement course delivery | 6/77 |
| 7. Conduct evaluation of course material | 7/77 |
| 8. Measure student retention on a continuing basis | 7/77 |

Purpose. This is an overview course designed to assist local government officials in understanding the master planning concept and a method for organizing the community to prepare for its implementation.

C. Systems Requirements.

- | | |
|--|-------|
| 1. Conduct task analysis and needs identification | 1/75 |
| 2. Determine performance objectives | 1/75 |
| 3. Develop instructional methods and materials | 4/75 |
| 4. Validate and test instructional materials | 6/75 |
| 5. Amend and revise as necessary | 5/76 |
| 6. Implement course delivery | 7/76 |
| 7. Conduct evaluation of course material | 11/76 |
| 8. Measure student retention on a continuing basis | 11/76 |

Purpose. The Systems Requirements course will provide responsible fire service management personnel with administrative tools to analyze fire department operations in order to improve evolutions, safety and equipment utilization.

D. Arson I

- | | |
|--|-------|
| 1. Conduct task analysis and needs identification | 2/76 |
| 2. Determine performance objectives | 3/77 |
| 3. Develop instructional methods and materials | 4/77 |
| 4. Validate and test instructional materials | 10/77 |
| 5. Amend and revise as necessary | 11/77 |
| 6. Implement course delivery | 12/77 |
| 7. Conduct evaluation of course material | 12/77 |
| 8. Measure student retention on a continuing basis | 1/78 |

Purpose. The Arson Investigator I course will provide technical competence for entry level Arson Investigation Personnel in the full range of applicable subject areas.

E. Data and Coding Format.

- | | |
|--|-------|
| 1. Conduct task analysis and needs identification | 12/76 |
| 2. Determine performance objectives | 12/76 |
| 3. Develop instructional methods and materials | 1/77 |
| 4. Validate and test instructional materials | 3/77 |
| 5. Amend and revise as necessary | 3/77 |
| 6. Implement course delivery | 7/77 |
| 7. Conduct evaluation of course material | 7/77 |
| 8. Measure student retention on a continuing basis | 7/77 |

Purpose. The course is designed to train fire departments and state personnel in the utilization of the National Fire Data System forms and format.

F. Fire Safety Design for Architects.

- | | |
|--|-------|
| 1. Conduct task analysis and needs identification | 12/75 |
| 2. Determine performance objectives | 1/76 |
| 3. Develop instructional methods and materials | 6/76 |
| 4. Validate and test instructional materials | 9/76 |
| 5. Amend and revise as necessary | 11/76 |
| 6. Implement course delivery | 1/77 |
| 7. Conduct evaluation of course material | 1/77 |
| 8. Measure student retention on a continuing basis | 1/77 |

Purpose. This course designed for practicing architects will provide an architectural education component by which fire safety will be considered in building design along with traditional considerations such as: "function, form, and building materials".

G. Implementation of Master Planning.

- | | |
|--|-------|
| 1. Conduct task analysis and needs identification | 2/77 |
| 2. Determine performance objectives | 2/77 |
| 3. Develop instructional methods and materials | 5/77 |
| 4. Validate and test instructional materials | 7/77 |
| 5. Amend and revise as necessary | 9/77 |
| 6. Implement course delivery | 11/77 |
| 7. Conduct evaluation of course material | 11/77 |
| 8. Measure student retention on a continuing basis | 11/77 |

Purpose. This course is designed to assist local government officials in implementing the master planning concept within their respective communities by providing the necessary organizational methods and guidance.

H. Instructor One.

- | | |
|--|-------|
| 1. Conduct task analysis and needs identification | 7/76 |
| 2. Determine performance objectives | 8/76 |
| 3. Develop instructional methods and materials | 11/76 |
| 4. Validate and test instructional materials | 6/77 |
| 5. Amend and revise as necessary | 7/77 |
| 6. Implement course delivery | 7/77 |
| 7. Conduct evaluation of course material | 8/77 |
| 8. Measure student retention on a continuing basis | 8/77 |

Purpose. The Instructor One course will provide state and local personnel with instructional techniques compatible with the Instructor One Standards of the National Professional Qualifications Board.

I. Management of Fire Prevention Programs.

1. Conduct task analysis and needs identification 2/77
2. Determine performance objectives 2/77
3. Develop instructional methods and materials 5/77
4. Validate and test instructional materials 7/77
5. Amend and revise as necessary 9/77
6. Implement course delivery 11/77
7. Conduct evaluation of course material 11/77
8. Measure student retention on a continuing basis 11/77

Purpose. The Management of Fire Prevention Programs courses will provide local fire departments and public officials with techniques and methods for planning, initiating, effectively managing and evaluating fire prevention programs.

OBJECTIVE NO. 2

PUBLIC EDUCATION ASSISTANCE PROGRAM

1. Proposed Objective. To establish plans, guidelines and program models for the delivery of effective public education programs to states and communities.
2. Justification. Many model community public fire education programs which are effective in fire loss reduction have been developed. To achieve the national fire loss reduction goal, these fire education programs must be implemented at the local level. The Public Education Assistance Program will establish the mechanism to deliver to communities tested fire education programs which have been proven to have loss reduction capability.
3. Approach. Four pilot states will be selected to receive planning grants to establish model fire education delivery systems. The community public education process will be used to analyze state fire problems which can be effected through public education methods. An inventory of existing state public education resources, training capabilities, and communications capabilities will be made for each state. An assessment will be made of the optimum use of NFPCA grant and technical assistance in developing state public education program delivery and resource capability.

The results of this activity will be drawn up as a model for the establishment of state public fire education programs and NFPCA public education grant and technical assistance. In FY '78, grants will be provided to the four pilot states to carry out the planned program.

4. Resources.

FY '77	\$267,000 and 2.7 man-years
FY '78	\$500,000 and 6.0 man-years
FY '79	\$750,000 and 7.0 man-years

The Public Education Assistance Program will continue at this level until 1986 when all states will have completed the program.

5. Responsible Office. The Public Education Office will execute this initiative with primary responsibility resting with the Associate Administrator for Public Education, Richard R. Strother.

6. Milestones.

1. Select four pilot states 10/76
2. Identify state fire problems 3/77
3. Inventory existing state resources, communications networks and program capabilities 4/77
4. Determine optimal role for Federal technical and grant assistance 6/77
5. Draft guidelines and criteria 7/77
6. Publish guidelines and criteria 9/77

OBJECTIVE NO. 3

FIRE PROTECTION MASTER PLANNING

1. Proposed Objective. To provide the Nation's fire services with essential tools to develop and implement their own fire protection master planning programs, with specific products to be available by March 1977.
2. Justification. The concept of fire protection master planning has been proposed as a method for improving the delivery of fire protection services. Planning guidelines and tools are needed by local jurisdictions to apply the concepts of master planning. These specific products are necessary in determining the ultimate impact of the master planning process.
3. Approach. Because of the differing nature and make-up of the Nation's political jurisdictions, specific manuals will be developed for application in four categories of jurisdictions: (a) urban communities, (b) rural and small communities, (c) county-level jurisdictions, and (d) state-level jurisdictions. Step-by-step manuals will be developed for each of these categories and field tested before general national distribution.
4. Resources. \$500,00 and four (4) man-years are estimated resource requirements for this objective.
5. Responsible Office. Charles H. Boehne, Program Manager, Planning and Management Research, National Fire Safety and Research Office.
6. Milestones.
 1. Produce a manual for use by urban communities.

a. delivery of camera-ready copy of community manual to NFPCA from the grantee	12/76
b. delivery of printed community manual for national distribution	3/77
c. initiation of community manual mailing	4/77
d. receive and review results of grant to evaluate the usefulness and applicability of community manual	7/77

2. Produce a manual for use by rural and small communities
 - a. completion of field validation of rural and small community manual 5/77
 - b. delivery of camera-ready copy of rural and small community manual to NFPCA from grantee 6/77
 - c. delivery of printed rural and small community manual for national distribution 9/77
3. Determine need for manual for use by county or multi-jurisdictional locations
 - a. complete study on need for county-level manual 3/77
 - b. determine whether or not to proceed with development of the manual 4/77
 - c. award grant, if appropriate, for development of the manual 5/77
4. Produce state-level master planning guidelines
 - a. award grant to develop state master planning guidelines (in cooperation with Data, Academy and Legal Office) 12/76
 - b. identify state(s) appropriate to initiate pilot efforts in planning and organizing state-level activities 12/76
 - c. award grant(s) to initiate pilot efforts in state(s) 3/77
 - d. initiate national survey of state government activities in master planning 9/77

OBJECTIVE NO. 4

NATIONAL FIRE STATISTICS

1. Proposed Objective. To establish a rudimentary national fire data base and produce the first NFPCA statistical tables and summaries of the national, state, and local experience by October 1977.

These tables and summaries will:

- o describe the United States fire experience quantitatively, in terms of fire incidence, losses, casualties, and causes;
- o compare state and local experience against the national picture (for states with available data);
- o identify specific fire protection problem areas; and
- o provide feedback to state and local level.

2. Justification. A national fire incident data base and resulting summaries are required for:

- o providing better analytical information to state and local problem solvers;
- o determining the magnitude of the overall fire problem in the United States;
- o identifying specific fire protection trends and problem areas;
- o measuring the effectiveness of fire prevention and control programs; and
- o establishing priorities for new fire protection programs.

The statewide data collection systems developed under this program are also intended to stimulate state and local collection and use of fire data for decision-making at those government levels.

3. Approach. The fire incident data collection system (forms, training manuals and ADP programs) for use at the state and local level was developed in FY 1976. Data are collected from local fire departments, aggregated at a state level, and submitted to the NFPCA for analysis. During FY 1977, nine new states will be added, bringing the total participating to 16. At the national level, fire data from the reporting states will be combined with data from other sources, e.g., Federal agencies and industry, to produce the national data base. Census Bureau data and personnel will be used to help analyze the fire data relative to community socio-economic and building characteristics. Tables and summaries will be prepared and fed back to state and local levels.
4. Resources. FY 1977 -- 12 man-years, \$850,000 (in-house, plus outside costs).
5. Responsible Office. National Fire Data Center. Philip S. Schaenman, Acting Associate Administrator (in charge of the Center)
6. Milestones.
 1. Issue start-up grants to nine new states 1/77
 2. Produce statistical tables and summaries of the national fire experience 5/77
 3. Complete initial, small-scale validation study 7/77
 4. Complete system installation in the nine states expected to join the network in FY 1977 9/77

RESIDENTIAL FIRE SAFETY RESEARCH (NBS)

Objective: To develop, through research, a program of recommended standards and practices to reduce residential fire deaths. The program will include: validation of a flammability test method for wearing apparel; development of criteria for limiting fire spread in mobile homes; developing a protocol for full-scale room fire tests; developing optimum siting for residential smoke detectors; and developing a test protocol for screening materials for extremely toxic combustion products. The program will be essentially completed by September 30, 1977.

Justification: About 86% of all fire deaths and approximately one billion dollars of annual property losses are the results of residential fire incidents. Consequently, any program to reduce these losses must make residential fire safety a top priority. The Center for Fire Research has developed a comprehensive research plan which identifies key research objectives in terms of their potential impact on fire loss reduction. The projects presented here are critical technical steps in reducing losses in the most glaring area: residences.

By limiting apparel flammability, residential deaths and injuries from burns due to these fires can be substantially reduced. NBS has proposed a general apparel standard to the Consumer Product Safety Commission, and, in FY 77, this method will be field tested and refined through a round robin interlaboratory test program. Mobile homes, which house more Americans each year, offer substantially greater risks from fire than do conventional dwellings. NBS, in cooperation with HUD, is carrying out an extensive program on mobile home fire safety, to be completed by the end of FY 77.

In conventional dwellings, the contents of the home, rather than the structure itself, may be the greatest fire threat. Before the relative roles of building structure and building contents in fire severity can be understood, however, researchers must agree on a standard method of carrying out full-scale room fire studies. NBS has undertaken the development of such a standard protocol, and will have obtained its acceptance by voluntary standards groups by the end of fiscal year 1977.

Smoke detectors, which are an important fire safety measure, are now available at reasonable cost. However, proper placement of the detector in the home, which is as important as the ability of the detector to respond to smoke, has until now been an empirical and imprecise business. NBS will publish scientifically-based recommended locations (siting) for residential detectors in fiscal year 1977. In most cases, toxic combustion gases, not heat and flame, are the cause of residential fire deaths. A test method will be developed in FY 77 to permit manufacturers to screen potential new products and materials, especially for unusually toxic combustion products, prior to introducing them into the environment.

Approach: Intervening in typical residential fire scenarios can take place in four distinct ways: 1) preventing or controlling unwanted ignitions; 2) controlling spread and growth of fire; 3) detecting and suppressing the fire; and 4) providing means of protection for fire victims. Various combinations of these are used, depending on the problem. In this case the following are used:

1. Ignition - Round-robin validation of a proposed test method for general apparel flammability.
2. Spread and Growth - a) Recommend criteria for limiting fire growth in mobile homes. b) Propose a protocol for full-scale room fire tests.
3. Detection - Recommend test locations for smoke detectors in residences.
4. Victim Protection - Propose a test protocol for screening materials to identify extremely toxic combustion products.

Resources: \$1000 K (about \$800 K DoC and another \$200 K from HUD and CPSC) and 16 man years.

Responsible Officer: Center for Fire Research under the direction of Dr. J. W. Lyons, Director.

Milestone:

<u>Project</u>	<u>Milestone</u>	<u>Month Passed</u>
General Apparel	1. Complete preliminary round-robin testing of proposed test method.	April 1977
	2. Complete extended round-robin (\approx 30 labs)	Sept. 1977
	3. Forward revised recommended test method to U.S. Consumer Product Safety Commission.	Dec. 1977
Mobile Home Fire Safety	1. Complete full-scale experimental work on mobile homes.	June 1977
	2. Forward criteria for limiting fire growth to U.S. Department of Housing and Urban Development.	Sept. 1977
Room Fire Test	1. Complete development work on recommended practices.	Oct. 1976
	2. Report submitted to model building code group on standard test method.	June 1977
	3. Approvals by ASTM and code group.	Dec. 1977
Detector Siting	1. Complete experimental work on detector siting.	Sept. 1976
	2. Submit recommendations to National Fire Protection Association Committees on Detection.	May 1977
	3. Secure NFPA approval.	Nov. 1977

<u>Project</u>	<u>Milestone</u>	<u>Month Passed</u>
	4. Complete report and submit to National Fire Prevention and Control Administration for broad public dissemination.	June 1977
Toxicity Test Protocol	1. Review and analyze reports from grantees at University of Utah, University of Pittsburgh, and Johns Hopkins University.	March 1977
	2. Draft preliminary protocol and circulate for comment.	May 1977
	3. Publish recommended protocol and submit to ASTM Committee E-39.	Sept. 1977

OBJECTIVE NO. 6

RESIDENTIAL FIRE PROTECTION SYSTEMS

1. Proposed Objective. To develop the required systems performance specifications for a low-cost automatic residential fire alarm system and a fire suppression system, aimed at reducing residential fire deaths, injuries, and property losses.
2. Justification. About 86% of all fire deaths and approximately one billion dollars of annual property losses are the results of residential fire incidents. Consequently, any program to reduce fire losses must make residential fire safety a top priority. Currently, expensive systems in commercial application show promise as a base for development of low-cost systems for residences. The first step toward production of such a system is to establish the systems performance requirements.
3. Approach. Three interlocking projects are being conducted to determine the specification requirements of both the suppression system and the alarm system.

1. Develop and test experimental automatic residential suppression system.

An experimental suppression system will be developed and tested in a variety of live residential type fire incidents. The data collected will be evaluated and used to determine a part of the performance requirements of both the suppression system and the alarm system.

2. Estimate potential impact of automatic residential suppression systems and residential alarm systems against real fire incidents.

The potential impact of automatic residential suppression systems and automatic residential fire alarm systems will be evaluated against fire incidents involving fatalities in the State of Maryland. Each incident will be a separate case study which will be analyzed for "inputs" to the performance specifications.

3. Determine "user requirements".

The "user requirements" of code officials, residents, landlords, builders and architects will be obtained through surveys, meetings and literature searches. These requirements will be added to the performance and physical requirements of the suppression and alarm systems.

4. Resources. The program will require \$245,000 and 0.5 manyears.
5. Responsible Office. The Technology Development Program of the National Fire Safety and Research Office under the direction of Harry Shaw.
6. Milestones.

1. Develop and test experimental automatic residential system.

- | | |
|--|-------|
| a. select contractor (Factory Mutual) | 7/76 |
| b. complete evaluation of current suppression technologies | 10/76 |
| c. start fabrication of experimental system | 3/77 |
| d. complete test program | 5/77 |
| e. final report from contractor will include evaluations of: | 7/77 |
| -- current suppression technologies | |
| -- performance of experimental system | |

2. Estimate potential impact of automatic residential suppression systems and residential alarm systems against real fire incidents.

- | | |
|--|-------|
| a. select contractor (APL) | 7/76 |
| b. review first group of case studies | 12/76 |
| c. review project approach and modify as necessary | 12/76 |

- d. review second group of case studies 4/77
 - e. review third group of case studies 9/77
 - f. final report from contractor will include: 10/77
 - analysis of the impact of automatic residential suppression systems and automatic fire alarm systems
 - significant performance aspects of each system required for maximum effectiveness.
3. Determine "user requirements".
- a. select contractor (Rolf Jensen, Inc.) 6/76
 - b. establish system requirements 12/76
 - c. establish system design concepts 1/77
 - d. final report from contractor will include the performance and physical requirements for the system 4/77
4. Develop performance specifications.
- a. prepare preliminary performance specifications 7/77
 - b. review preliminary performance specifications 9/77
 - c. prepare final performance specifications 10/77