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RELEASED

Status Of Demonstration Program
For Extension Of The Navigation
Season On The Great Lakes And
St. Lawrence Seaway B-175460

Corps of Engineers (Civil Functions)
Department of the Army

**BY THE COMPTROLLER GENERAL
OF THE UNITED STATES**

090000

~~913343~~

* FEB. 22, 1973



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON DC 20548

B-175460

Dear Mr. Ruppe

This is our report on the status of the demonstration program for extension of the navigation season on the Great Lakes and St. Lawrence Seaway. This program is administered by the Corps of Engineers, Department of the Army. Our review was undertaken pursuant to your request of March 1, 1972.

The matters presented in this report were discussed with agency officials but their written comments were not obtained.

We do not plan to distribute this report further unless you agree or publicly announce its contents.

Sincerely yours,

A handwritten signature in cursive script that reads "James B. Staats".

Comptroller General
of the United States

The Honorable Philip E. Ruppe
House of Representatives

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ABBREVIATIONS

GAO	General Accounting Office
EPA	Environmental Protection Agency
SLSDC	Saint Lawrence Seaway Development Corporation

D I G E S T

WHY THE REVIEW WAS MADE

Section 107 of the River and Harbor Act of 1970 (Public Law 91-611) authorizes a demonstration program to extend the navigation season on the Great Lakes and St Lawrence Seaway. The program is directed by the Army Corps of Engineers. Results of the program are to be reported to the Congress by June 30, 1974.

Congressman Philip E. Ruppe asked the General Accounting Office (GAO) to review the activities and determine the status of the demonstration program and to specifically consider (1) the factors affecting the economic and environmental aspects of the program and (2) the potential problems caused by extending the navigation season in the St. Marys River area together with the consideration given to these factors and problems.

FINDINGS AND CONCLUSIONS

The objectives of the work groups established to implement the program during its first demonstration year--fiscal year 1972--were generally achieved, except for certain activities assigned to the work group for environmental evaluations. (See pp 7 and 11.) The objectives included

--Surveillance and dissemination of

information on ice and weather conditions during the extended season

- Installation and testing of navigational aids
- Application of ice engineering and ice control techniques to enable winter navigation
- Planning, collecting, and analyzing basic economic data

During fiscal year 1972, \$740,000 was allocated for demonstration program activities. (See p 7.)

Extension of the navigation season during fiscal year 1972 apparently resulted in several problems in the St. Marys River area: the interruption of ferry service to Sugar Island, the reduction in hydroelectric power generation, and damage to shore structures such as boat docks, piers, and boathouses.

The program for fiscal year 1973 will attempt to solve the ferry service problem and other problems will continue to be reviewed and evaluated. (See pp 14 to 21.)

A survey study authorized by the River and Harbor Act of 1970 is scheduled to be completed by June 30, 1976, and will include the economic feasibility of extending the navigation season. (See p 24.)

FEB 22, 1973

Modifications in ship construction, safety and insurance, shore protection, and environmental effects are some of the major elements identified by the Corps which will contribute to the cost of extending the season. The Corps has also identified a number of economic benefits which will result from an extension such as more efficient use of ships and transportation of more cargo by way of the Great Lakes and St. Lawrence Seaway (See p 24) Several shippers have indicated plans for navigation during the fiscal year 1973 extended season (See p 26)

The Chairman of the Winter Navigation Board--which directs the program--told GAO that he and the Board had concluded that an environmental impact statement, provided under the National Environmental Policy Act of 1969, was not required before the

program began because program activities were temporary and transitory. The final impact statement will be prepared at the end of the demonstration program and submitted when the Corps reports to the Congress.

An official of the Council on Environmental Quality told GAO that, in his opinion, the demonstration program was operational in nature, so an impact statement should have been prepared before the program began. The Council plans to meet with the Corps and the Environmental Protection Agency to resolve the question (See pp 22 and 23)

AGENCY ACTIONS AND UNRESOLVED ISSUES

Matters presented in this report were discussed with agency officials but their written comments were not obtained.

CHAPTER 1

INTRODUCTION

At the request of Congressman Philip E. Ruppe (see app I), we reviewed the Federal agency activities under a demonstration program to extend the navigation season on the Great Lakes and St. Lawrence Seaway. The program was authorized by section 107(b) of the River and Harbor Act of 1970 (Public Law 91-611) and is directed by the Corps of Engineers, Department of the Army.

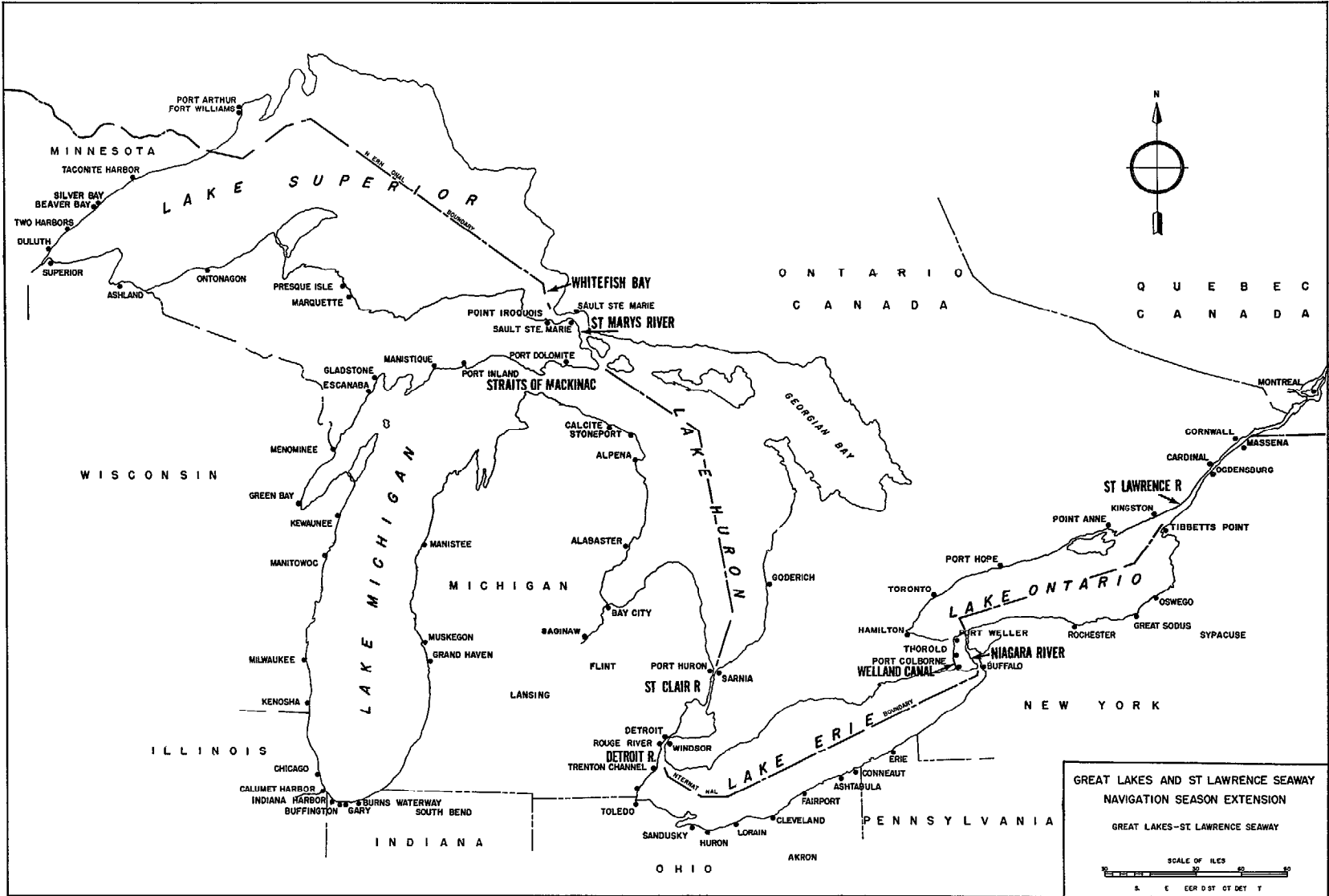
Our review was directed primarily toward determining the status of the work activities under the program, the consideration given to economic and environmental factors, and problems in the St. Marys River area caused by extending the navigation season.

The navigation system of the Great Lakes and St. Lawrence Seaway includes the five lakes (Superior, Michigan, Huron, Erie, and Ontario), their connecting waterways (rivers, lakes, straits, and canals), and the St. Lawrence Seaway which provides access between the lakes and the Atlantic Ocean. (See map on p. 4.)

Although the actual opening and closing dates of the navigation season on the Great Lakes and St. Lawrence Seaway generally depend on weather conditions and ice formation, they normally extend from about April 1 to about December 15. In fiscal year 1972--the first year of the program--the season was extended to February 1, 1972, in the St. Marys River area.

RIVER AND HARBOR ACT OF 1970

The River and Harbor Act of 1970 authorized the Corps of Engineers to undertake a program to demonstrate the practicability of extending the navigation season on the Great Lakes and St. Lawrence Seaway. The demonstration program is conducted in cooperation with the Departments of Transportation (Coast Guard and Saint Lawrence Seaway Development



Corporation), the Interior, and Commerce (Maritime Administration), the Environmental Protection Agency (EPA), other Federal agencies, and non-Federal public and private interests

The program includes

- ship voyages extending beyond the normal navigation season,
- observation and surveillance of ice conditions and ice forces,
- environmental and ecological investigations,
- collection of technical data on improved vessel design, ice control facilities, and aids to navigation, and
- collection and dissemination of information to shippers on weather and ice conditions

The Secretary of the Army was authorized \$6 5 million to carry out the program and to report program results to the Congress by July 30, 1974

The program is directed by a Winter Navigation Board chaired by the Corps' Division Engineer, North Central Division, Chicago, Illinois. The next level of organization is the working committee under the direction of the Corps' District Engineer, Detroit, Michigan, responsible for formulating, coordinating, and reporting program activities. Seven work groups, each under the leadership of a designated Federal agency (referred to as a lead agency), have been established to carry out the approved program activities. There are also advisory groups, technical advisors, and observers at the various levels of organization. Details on the multi-agency organization for the fiscal year 1972 program are shown in appendix II.

The act also authorized a survey study to determine the feasibility of extending the navigation season and an insurance study to examine factors such as insurance rates and construction of the Great Lakes vessels.

SCOPE OF REVIEW

Our review was made at the Office of the Chief of Engineers, Washington, D C , its North Central Division office in Chicago, its district office in Detroit, and its area office in Sault Ste Marie, Michigan, at EPA, region V, Chicago, at the Coast Guard headquarters office in Washington, D C , and its 9th District office in Cleveland, Ohio, and at the Maritime Administration headquarters in Washington, D C We also visited the St. Marys River area and discussed program activities with the Chairman of the Board of Commissioners, Chippewa County, Michigan, and with the principal officers of the Wellington Transportation Company

We examined the program's organization and reviewed its records, reports, and related materials We also discussed the program's status and activities with officials of participating Federal agencies.

CHAPTER 2

STATUS OF DEMONSTRATION PROGRAM

During fiscal year 1972, a total of \$740,000--including \$60,000 for program management by the Corps--was allocated for program activities. The following sections of this chapter summarize the activities of each of the work groups during fiscal year 1972. With the exception of certain activities assigned to the Environmental Evaluation Work Group, it appears that each of the work groups generally achieved its planned objectives during the year.

ICE INFORMATION

The National Oceanic and Atmospheric Administration, Lake Survey Center, was the lead agency for this work group. The work group was allocated \$275,000 for its activities which included surveillance and dissemination of information on ice and weather conditions during the extended season.

Surveillance included observing ice movement, measuring waterflows, monitoring water levels, measuring ice thickness, and observing the effect of the extended season on shore structures. The Coast Guard's Ice Navigation Center at Cleveland disseminated information on ice and weather conditions to ships and shore installations on the lakes.

In addition to continuing and expanding those activities conducted during the fiscal year 1972, the fiscal year 1973 activities will include a detailed study of ice movement in the St. Marys River and its effect on shore erosion.

ICE NAVIGATION

The activities for this work group included installing and testing various navigational aids such as ice buoys, temporary on-ice structures, and electronic devices, modifying a small icebreaker to test a method for increasing icebreaking capability, and improving a docking area for the polar-type icebreaker EDISTO which the Coast Guard assigned to the Great Lakes to support the program. The Coast Guard was the lead agency for the work group, which was allocated \$170,000 for its activities. The improvement of the docking area at Milwaukee, Wisconsin, for the EDISTO was accomplished.

Results on the testing of navigational aids and modification of the icebreaker were awaiting field evaluation reports and finalization of data acquired at the time of our fieldwork.

The activities for fiscal year 1973 will include installing and testing more navigational aids, conducting a study of the safety and survival of personnel on commercial vessels during an extended season, and initiating a program to identify the needs of a traffic control system to facilitate ship movements through locks.

ICE ENGINEERING

The work group's activities included a study of ice forces on ice booms--large timbers fastened to a cable placed across the navigational channel--and on permanent structures such as pilings, and a study of the need for an ice-engineering modeling facility to aid in solving engineering problems associated with winter navigation. The U.S. Army Cold Regions Research and Engineering Laboratory, Corps of Engineers, Hanover, New Hampshire, was the lead agency and \$60,000 was allocated for the work group's activities.

The study of ice forces was not completed, however, the study of the ice-engineering modeling facility was completed and set forth the justification for the facility. Accordingly, the fiscal year 1973 activities will include the continuation of the 1972 activities and the design of a modeling facility. A Department of Commerce official estimated that the total design and construction costs of the facility would be about \$1.9 million.

ICE CONTROL

The activities of this work group were under the leadership of the Saint Lawrence Seaway Development Corporation (SLSDC), and were generally concerned with winter navigation in the international section of the St. Lawrence River. The work group was initially allocated \$100,000 to conduct its investigations, however, the activities specifically concerned with the Sugar Island transportation problem, and related funding of \$50,000 were transferred to the Ice Management Work Group. (See p. 10.)

The work group's activities included investigations for modifying ice boom structures (see p. 8), which hydroelectric power entities install annually to control ice on the St. Lawrence River. SLSDC contracted for conceptual designs of structures or other means to allow navigation in the St. Lawrence River while maintaining a stabilized ice cover.

The fiscal year 1973 activities will finalize these designs.

ICE MANAGEMENT IN CHANNELS, LOCKS, AND HARBORS

This work group's activities were concerned with ice engineering and control techniques to enable winter navigation in channels, locks, and harbors. The work group, which is under the leadership of the Corps' Detroit District, was allocated \$30,000 to conduct its activities. An additional \$50,000 was available because program activities concerning Sugar Island transportation were transferred to this work group.

The work group concentrated on the St. Marys River area, specifically (1) the transportation problem encountered with operating the Sugar Island ferry and (2) the installation and testing of underwater bubbler systems at the Sugar Island ferry landing and the navigational channel at Lime Island. A bubbler system forces compressed air through a perforated pipe placed on the bottom of a channel causing warmer water from the channel bottom to rise and prevent or alleviate ice formulation.

The bubbler systems were successful in the Lime Island navigation channel.

The attempts to keep the Sugar Island ferry in operation were not successful because of ice jams resulting from the breakup of icefields above the ferry lane. (See p. 16.)

Fiscal year 1973 activities will include actions to provide a reasonably uninterrupted transportation service from Sugar Island to the mainland (see p. 18) and operation of the bubbler systems at the same locations as well as at other locations in the St. Marys River and the harbor at Duluth, Minnesota. There will also be a program on the feasibility of testing the use of waste heat discharges to eliminate or reduce ice cover over a navigational channel. This new activity will include the preparation of an environmental impact statement as required by the National Environmental Policy Act of 1969 (83 Stat 852).

ECONOMIC EVALUATION

The activities of this work group involved collecting and analyzing basic economic data relating to the extension

of the navigation season. The work group, under the leadership of the Corps' Detroit District, was allocated \$5,000 for its activities.

The Detroit District has asked that all work groups, except Environmental Evaluation, submit data on program activity costs and/or benefits which will be used for an economic assessment of program activities.

Detroit District officials told us they had sent questionnaires on operating costs, benefits, and effectiveness during the fiscal year 1972 extended season and future winter operations to about 80 U.S. users of the Great Lakes and St. Lawrence Seaway. We were told also that about 30 replies had been received as of September 1, 1972.

The work for fiscal year 1973 will essentially be a continuation of the activities for fiscal year 1972.

ENVIRONMENTAL EVALUATION

The planned activities for this work group included (1) preparing study plans to analyze the environmental effects of methods used to facilitate winter navigation, (2) developing data for the Great Lakes on wildlife habitats, recreational shore areas, water levels and riverflows, and other environmental factors, and (3) reviewing environmental assessments of program activities submitted by all work groups, except Economic Evaluation.

Our review showed that (1) the study plans were not prepared, (2) the geographic area covered by the environmental data was reduced, (3) the scope of environmental considerations did not include related program activities such as Coast Guard icebreaking activities, and (4) the planned approach for evaluating program activities before carrying out any activities was not implemented.

This work group is under the leadership of EPA, region V, Chicago, which is responsible for overall coordination of the work group activities. The work group was allocated \$40,000 to conduct its activities.

The chairman of the work group informed us that the study plans were deemed unnecessary since the program

activities were not considered to be of sufficient quantity and scope to warrant an environmental analysis.

The planned scope for developing data was reduced from the Great Lakes area to cover only the locations where the bubbler systems were installed. (See p. 10.)

Because work group activities were restricted to specific projects, planned activities did not embrace related program activities such as commercial ship voyages and ice-breaking activities by the Coast Guard. The chairman of the work group informed us that environmental considerations of related program activities would be the responsibility of agencies directly concerned with such activities. For example, it was expected that the Coast Guard would evaluate environmental effects of commercial ship voyages and related icebreaking activities during the extended season. We were informed by Coast Guard officials, however, that they had no plans for evaluating environmental effects of these activities under the program.

Further, it was initially intended to have the other work groups prepare preliminary environmental assessments of their activities before undertaking demonstration projects. Under this procedure it was intended that any proposed action having an appreciable adverse effect on the environment would first be referred to the Environmental Evaluation Work Group for its examination and comments. Program officials informed us that, because of the temporary and transitory nature of the demonstration projects, these preliminary assessments would not be required.

The proposed activities for fiscal year 1973 generally provide for a continuation and expansion of activities similar to those for fiscal year 1972. The work group will also consider the effects of breaking ice jams.

EXTENSION OF WINTER NAVIGATION AFTER 1974

We asked the Chairman, Winter Navigation Board, about the likelihood of extending winter navigation at the end of the 3-year demonstration program. The chairman informed us that some consideration had been given to this matter and indicated that the Corps might request congressional

authorization to extend the program. In the absence of such a request, he indicated that necessary funds for extended season operations might be included as a part of the Corps' annual budget request for normal operation and maintenance.

CHAPTER 3

PROBLEMS IN THE ST. MARYS RIVER AREA

ASSOCIATED WITH EXTENSION OF THE NAVIGATION SEASON

DURING FISCAL YEAR 1972

Extension of the navigation season during fiscal year 1972 appears to have resulted in several problems in the St. Marys River area (see map on p. 15).

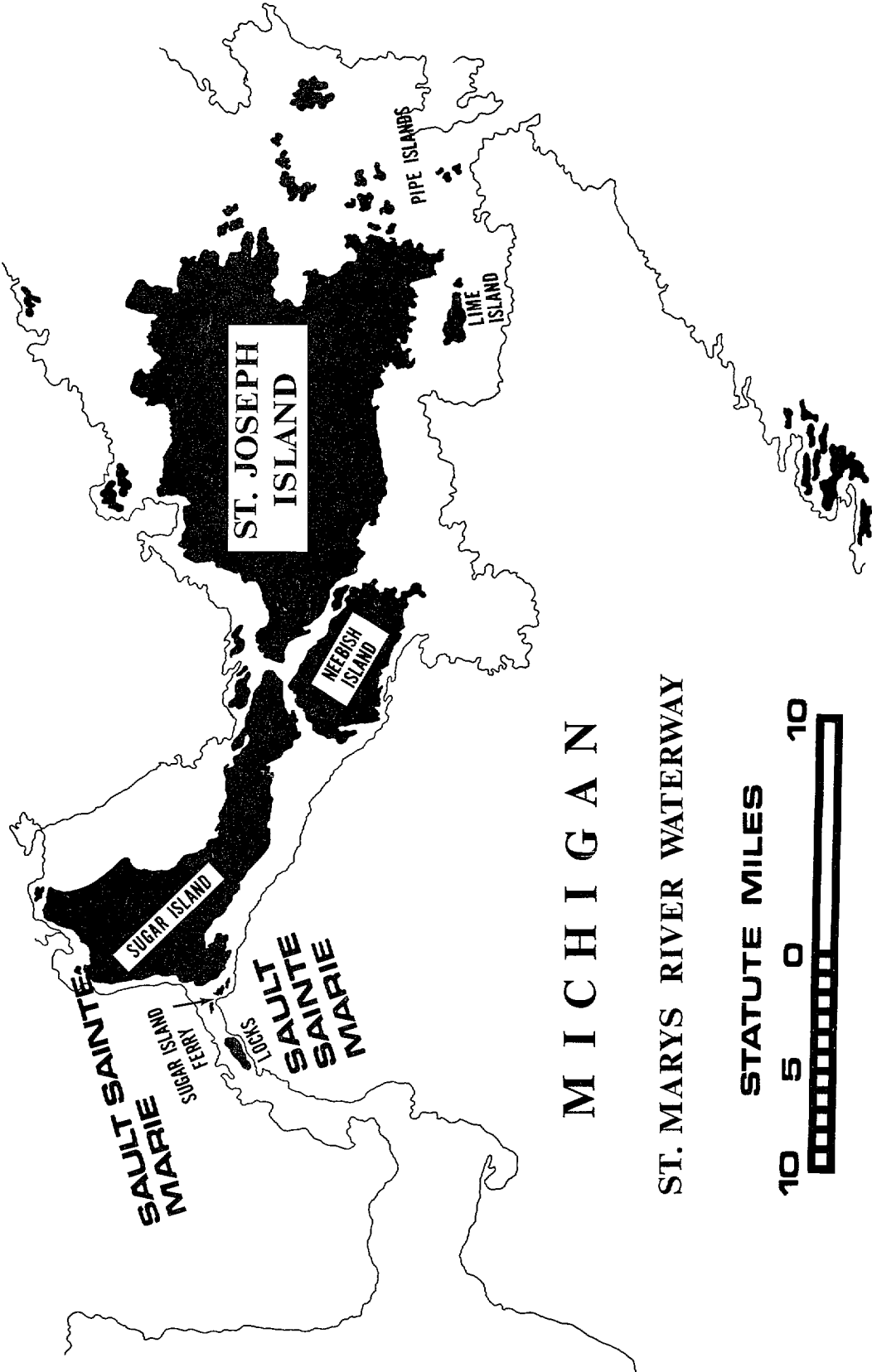
- Disruption of transportation between islands and the mainland.
- Reduction in power generation.
- Damage to shore structures.
- Shore erosion.

These problems were caused generally by ice jams and/or ice movement. The Corps plans to study and evaluate these problems further, including modifications to the Sugar Island ferry and observations and surveys of ice movement.

TRANSPORTATION BETWEEN MAINLAND AND SUGAR ISLAND

The Corps reported that the major transportation problem involved the 250 residents of Sugar Island--the largest inhabited island in the St. Marys River. The welfare of these residents is almost totally dependent on ferry service because places of employment, schools, stores, fuel supplies, and fire, police, and medical services are on the mainland.

C A N A D A



M I C H I G A N

ST. MARYS RIVER WATERWAY

STATUTE MILES



A private firm operates the ferry under a license issued by Chippewa County. During winter operations, it normally makes a minimum of 20 daily round trips, transporting about 60 automobiles a day.

The ferry was able to operate on a scheduled year-round basis with only nominal interruptions due to ice conditions, because the velocity of the river current at the ferry lane normally kept the lane open. Because the navigation season was extended, the ice cover which forms in the area between the ferry lane and the Soo Locks was broken up by passing vessels and was carried into the lane by wind and river current. (See photograph on p. 17.) Because of this ice buildup, the ferry was unable to operate on a scheduled basis between January 19 and February 1, 1972. During this period, it missed 254 out of a scheduled 296 round trips, as shown in the following table.

<u>Date</u>	<u>Day</u>	<u>Scheduled round trips</u>	<u>Round trips made</u>	<u>Round trips missed</u>
Jan. 19	Tuesday	20	8	12
Jan. 20	Wednesday	20	14	6
Jan. 21	Thursday	20	0	20
Jan. 22	Friday	24	0	24
Jan. 23	Saturday	22	0	22
Jan. 24	Sunday	22	8	14
Jan. 25	Monday	20	4	16
Jan. 26	Tuesday	20	2	18
Jan. 27	Wednesday	20	1	19
Jan. 28	Thursday	20	3	17
Jan. 29	Friday	24	0	24
Jan. 30	Saturday	22	0	22
Jan. 31	Sunday	22	0	22
Feb. 1	Monday	<u>20</u>	<u>2</u>	<u>18</u>
Total		<u>296</u>	<u>42</u>	<u>254</u>



AERIAL VIEW SHOWING ICE CONDITIONS AT SUGAR ISLAND CROSSING
FERRY IS AT MAINLAND DOCK, RIGHT CENTER

JANUARY 28, 1972

Source Corps of Engineers

In an attempt to solve the transportation problem at Sugar Island, the Corps awarded the ferry company a \$70,000 contract to modify the ferry. Corps officials told us that this modification will include strengthening and extending the ferry's hull and installing engines with increased horsepower to break through the ice cover. The modified ferry was scheduled for operation before the end of 1972.

REDUCED HYDROELECTRIC POWER OUTPUT

The Edison Sault Electric Company, Sault Ste. Marie, on May 24, 1972, reported at a public hearing before the Winter Navigation Board that the extended navigation season had an adverse effect on hydroelectric power generation. Partial ice jams restricted normal riverflow from mid-January to mid-April 1972 and resulted in severe power losses on at least five occasions.

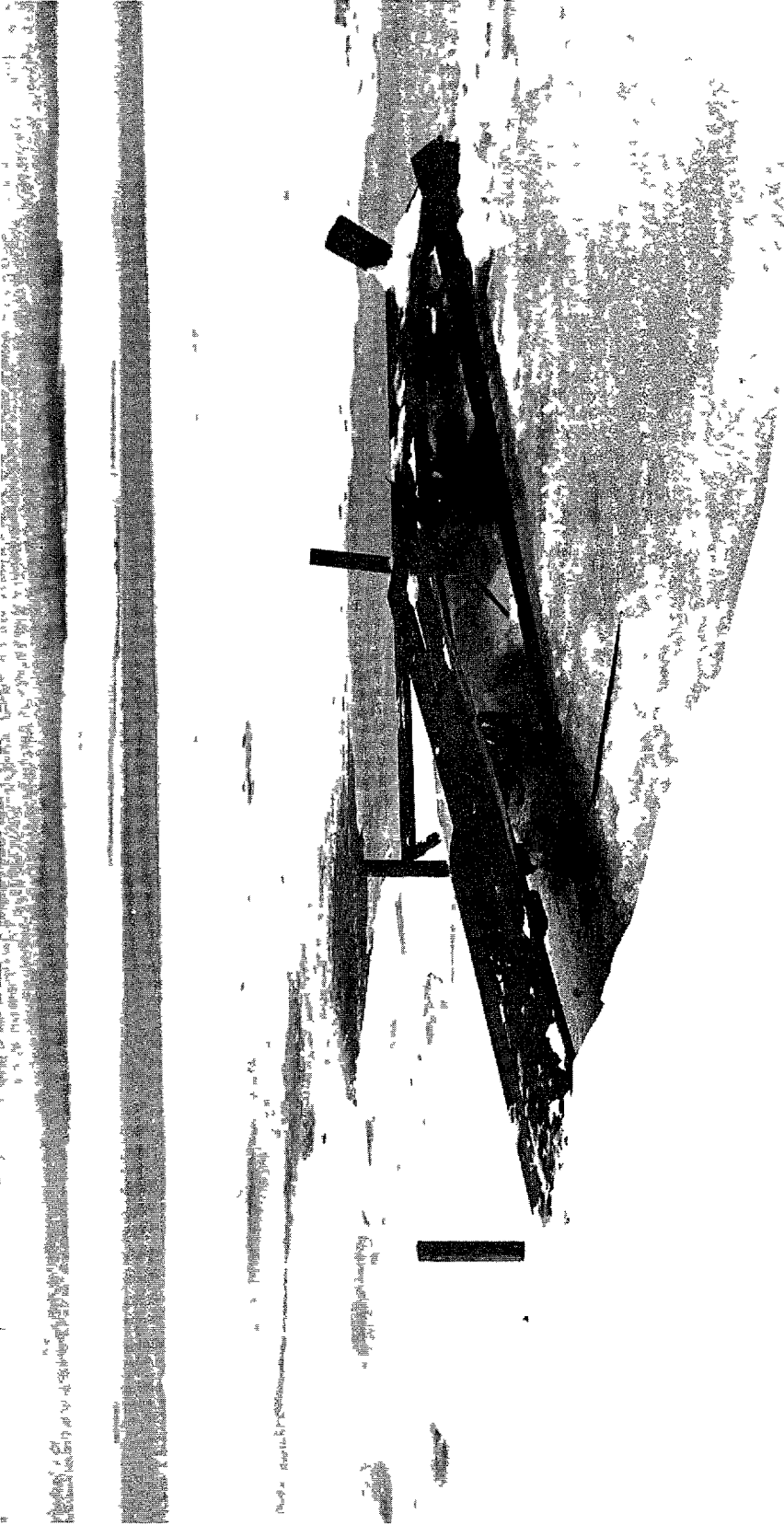
Although no program activities were directed to this specific problem, the Corps did monitor the riverflow and water levels during fiscal year 1972 and plans to do the same during fiscal year 1973.

DAMAGE TO SHORE STRUCTURES

On February 17, 1972, a Corps official stated at an advisory meeting on the extended season that damage to shore structures--such as boat docks, piers, and boathouses--could be avoided if the ice along the shore remained intact. The passage of ships, however, could break up the ice along the shoreline and cause damaging ice movement.

The Corps' monitoring of 11 selected docks on the St. Marys River during the fiscal year 1972 extended season showed that damage to docks could be attributed, in part, to the extended navigation season. Five docks had sustained some form of damage attributed to (1) changes in water levels resulting from vessel passages, (2) an ice jam which began in mid-January as a result of the extended season, and (3) normal water fluctuations. (See photograph on p. 20.)

One dock, according to its owner, was destroyed during the passage of a commercial ship (See photograph on p. 19.) The Corps noted that this dock was a rather flimsy wooden structure on wood posts which would probably have been



DOCK DESTROYED BY ICE DURING PASSAGE OF
A VESSEL ON JANUARY 15, 1972

Source Corps of Engineers



PHOTOGRAPH SHOWING POSSIBLE EFFECT OF LATE NAVIGATION ON
SMALL DOCKS - ICE MAY BE LIFTING OUTER END OF DOCK

JANUARY 10, 1972

Source Corps of Engineers

damaged during the winter months even without the extended season.

The Corps was planning further study and evaluation of the effects of the extended season on shore structures. (See p. 7.)

SHORE EROSION

Because of heavy ice and snow cover during the winter season, the Corps could not determine whether any shore erosion was caused by the extended season. The Corps plans further observations and surveys on shore erosion in the St. Marys River area during the fiscal year 1973 season. (See p. 7.)

CHAPTER 4

LACK OF ENVIRONMENTAL IMPACT STATEMENT

FOR THE DEMONSTRATION PROGRAM

Section 102 of the National Environmental Policy Act of 1969 requires that all Federal agencies include a detailed environmental impact statement in every recommendation or report concerning legislation and other major Federal actions significantly affecting the quality of the human environment. Before preparing detailed statements, Federal agencies are required to consult with and obtain the comments of any other Federal agency which has jurisdiction, by law or special expertise, with respect to any environmental impact involved.

The act established the Council on Environmental Quality. Executive Order No. 11514, dated March 5, 1970, requires the Council to provide policy advice and guidance on Federal activities affecting the environment, to assist in coordinating these activities, and to oversee the implementation of the act by Federal agencies.

The Council requires that each Federal agency (1) prepare formal procedures to be followed in the preparation of environmental impact statements, (2) consult with the Council in developing procedures to achieve consistency in dealing with similar activities, and (3) insure effective coordination among agencies in their review of proposed activities.

At the time of our review, neither the Corps nor EPA had prepared an environmental impact statement for the demonstration program.

CORPS PROCEDURES FOR DETERMINING ENVIRONMENTAL IMPACT UNDER THE PROGRAM

The Chairman of the Winter Navigation Board told us that he and the Board had concluded that an environmental impact statement was not required before the program began because program activities were temporary and transitory.

The following procedures were established by the Corps for determining the environmental impact of program activities conducted.

- 1 Each work group, except for Economic Evaluation, will prepare annually and submit to the Environmental Evaluation Work Group an environmental assessment of project activities conducted under the program
2. The Environmental Evaluation Work Group will prepare an annual report, based on the work group assessments, for submission to the working committee
- 3 A preliminary draft of the impact statement will be prepared for submission to the Board for approval. The draft impact statement will be prepared at the end of each program year and updated in the succeeding years. The final impact statement, approved by the Board, is to be prepared at the end of the program and submitted in final form when the Corps reports to the Congress

COMMENTS OF COUNCIL ON
ENVIRONMENTAL QUALITY

We discussed with a Council official about the need to prepare an impact statement. The official told us that, in his opinion, the program was operational and, in accordance with the act, an impact statement should have been prepared before the program began.

In December 1972, another Council official told us that he had attended a meeting of the Winter Navigation Board on December 5, 1972. He said that the questions of when an impact statement would be prepared and who would prepare it had not been resolved. He said also that the Council would meet with the Corps and EPA to resolve these questions.

CHAPTER 5

ECONOMIC ASPECTS OF

EXTENDING THE NAVIGATION SEASON

The Corps' feasibility study report on extending the navigation season, which was issued by the Detroit District in December 1969, contained preliminary estimates of costs and benefits but noted that the economic feasibility of extending the season could not be determined on the basis of the study's limited investigations.

The River and Harbor Act of 1970 authorized the Corps to conduct a survey study to determine the feasibility of extending the navigation season and to make recommendations to the Congress on the Government's involvement. The study is to be based on information gathered from the demonstration program and will consider, among other things, the cost of extending the navigation season, the related benefits, and the economic justification. The survey study is not scheduled to be completed until June 30, 1976, and only preliminary work was performed during fiscal year 1972.

At the time of our review, the Corps had identified a number of major elements which would contribute to the cost of extending the shipping season. These included

- Ice surveillance and information dissemination.
- Ice prevention and control.
- Modifications in ship design and construction.
- Navigational aids.
- Lock and harbor modifications
- Channel improvements.
- Safety and insurance.
- Shore protection.
- Environmental effects.

The Corps also identified a number of ways in which the extended season would yield significant economic benefits. These include

- Transportation of more cargo by way of the Great Lakes and St. Lawrence Seaway system

- More efficient use of ships on an annual basis.
- Reduction in storage costs associated with stockpiling large inventories during winter months.
- More efficient loading and unloading operations at terminal and production facilities.
- Expansion of income and employment for the whole region served by the Great Lakes ports.

A further step will concern the apportionment of cost estimates between the various public and private interests.

USERS OF THE GREAT LAKES
DURING THE EXTENDED SEASON

We obtained the following data from the Corps on commercial vessel passages through the Soo Locks during fiscal year 1972.

<u>Period</u>	<u>Shipper</u>	<u>Number of passages</u>
Jan. 1 to 16	United States Steel	33
	Yankcanuck Steamships (Canadian)	6
	Canada Steamship Lines	2
	Cleveland Tankers, Inc.	1
Jan 17 to Feb. 1	United States Steel	25

On September 27, 1972, Government and shippers' representatives met to review planning for late-season navigation during the coming winter. The following shippers indicated plans for late-season navigation during fiscal year 1973

<u>Shipper</u>	<u>Last date of navigation</u>
American Oil Company	First week in January
Boland & Cornelius, Inc.	End of December
Bethlehem Steel Corporation	Through December
Canada Steamship Lines Limited	December 20
Cleveland-Cliffs Iron Company	January
Cleveland Tankers, Inc.	Through March (lower Lake Michigan)
Ford Motor Company	December 15
Hanna Mining Company	First week in January
Huron Cement Company	January 15
Inland Steel Company	First week in January
Oglebay Norton Company	December 20
N. M. Paterson & Sons Limited	December 20
Picklands Mather & Company	January 10
United States Steel Corporation	February
Upper Lakes Shipping Limited	December 20

PHILIP E RUPPE
 11TH DISTRICT MICHIGAN
 124 CANNON OFFICE BUILDING
 WASHINGTON D C 20515
 CODE 202 225-4735

COMMITTEES:
 MERCHANT MARINE AND FISHERIES
 INTERIOR AND INSULAR AFFAIRS

Congress of the United States
House of Representatives
 Washington, D C. 20515

March 1, 1972

Mr Elmer Staats
 Comptroller General
 General Accounting Office
 Washington, D C 20548

Dear Mr Comptroller General

In 1970, the Congress authorized a Demonstration Program to determine the feasibility of extending the navigation season on the Great Lakes. In P L 91-611 \$6.5 million was set aside to finance the demonstration effort, a multi-agency program under the leadership of the Corps of Engineers.

Because I have serious reservations about the environmental impact of the extended shipping season, as well as the effects on the residents along the St. Mary's River and its inhabited islands, I feel a full audit of the Demonstration Program is warranted.

I am especially concerned about the total cost of the program and its relative benefits, both to the shipping companies who are the primary beneficiaries, and the public at large, including those directly affected. Therefore, I believe such a GAO report which I am here requesting should include the following data:

- 1) Total cost of development of the extended shipping season, including such indirect factors as the cost of maintaining Coast Guard icebreakers on permanent assignment to the area.
- 2) Projected annual maintenance and operating costs, both direct and indirect, to be borne by the public.
- 3) A determination of the benefits to be derived by the shipping industry from full year-round operation of the program.
- 4) A determination of those benefits which will be passed along to the general public as a result of the savings to the primary beneficiaries, i.e., the shipping companies.

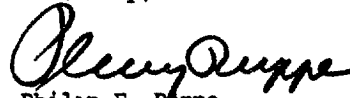
APPENDIX I

Mr Elmer Staats
March 2, 1972
Page 2

- 5) A calculation of the cost-benefit ratio, using the public benefits determined in item 4.

Because preparations are now under way for the continuation of the Demonstration Program during the 1972-73 shipping season, I feel it is important that the G A O audit be undertaken as soon as possible, so that corrective steps, if necessary, can be taken

Sincerely,

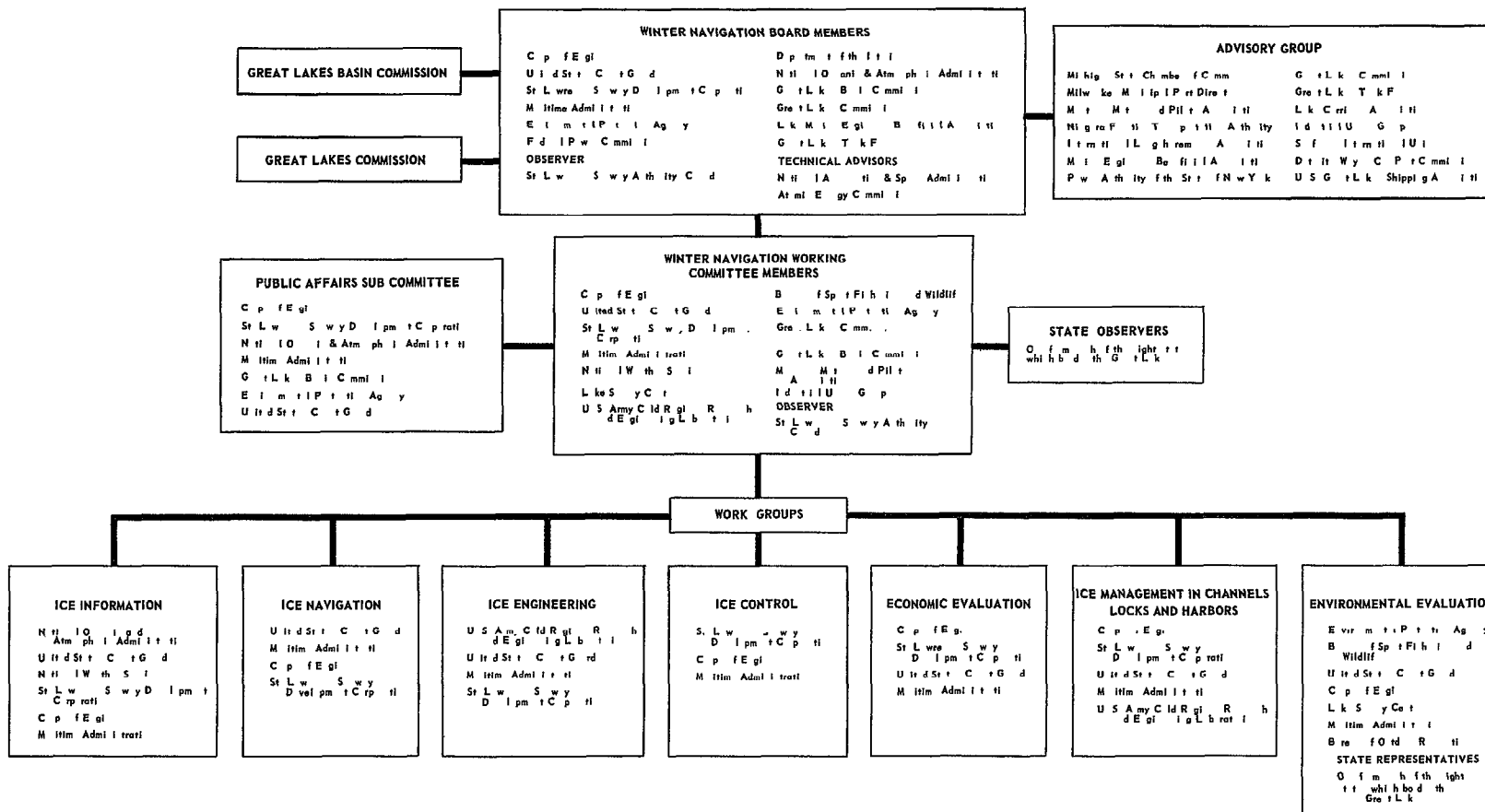


Philip E. Ruppe
Member of Congress

PER cfw

**ORGANIZATION CHART
FOR
GREAT LAKES AND ST. LAWRENCE SEAWAY
NAVIGATION SEASON EXTENSION
DEMONSTRATION PROGRAM**

APRIL 17 1972



CHAIRMAN
VICE CHAIRMAN

APPENDIX II