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THE COMPTROLLER GENERAL

137 Report To The Congress

OF THE UNITED STATES

Marine Approaches To U.S. Ports: A Flexible And Obstruction-Free System Is Needed

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A controversy between energy and maritime interests over common use of the ocean caused by exploration for oil and gas resources of the Outer Continental Shelf needs prompt resolution.

The Congress should:

--Authorize the Coast Guard to designate obstruction-free shipping routes on the Outer Continental Shelf.

--Require the Coast Guard to relocate or adjust designated shipping routes when necessary for the exploration and development of oil and gas deposits.

--Authorize the Coast Guard to veto any obstruction to designated shipping routes until the shipping routes can be relocated or adjusted.

U.S. General Accounting Office

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To the President of the Senate and the
Speaker of the House of Representatives

This is our report on the need for a flexible and obstruction-free system of marine approaches to U.S. ports. The report highlights the controversy between energy and maritime interests over the use of the ocean surface and the efforts of the Coast Guard and Corps of Engineers to resolve it.

Our review was made pursuant to the Budget and Accounting Act of 1921 (31 U.S.C. 53) and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

We are sending copies of this report to the Director, Office of Management and Budget; Secretaries of Defense, the Interior, and Transportation; Chairman, Subcommittee on Coast Guard and Navigation, House Committee on Merchant Marine and Fisheries; interested congressional committees; various Members of Congress; and other interested parties.

Comptroller General
of the United States

JUN 9 1978

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COMPTROLLER GENERAL'S REPORT TO THE CONGRESS

MARINE APPROACHES TO U.S. PORTS: A FLEXIBLE AND OBSTRUCTION-FREE SYSTEM IS NEEDED

D I G E S T

Development of the oil and gas potentials of the Outer Continental Shelf has created a controversy between energy and maritime interests--the need for ensuring unencumbered exploitation of seabed resources and safety at sea.

Both agree there should be obstruction-free shipping routes to, from, and between U.S. ports and disagree as to when they should be established.

Energy interests want the routes established after a reasonable amount of exploration for and delineation of the location and extent of oil and gas resources. Maritime interests want the routes established before exploration. The Corps of Engineers and the Coast Guard also have different views as to when obstruction-free shipping routes should be established. The Corps believes that they should be established after oil and gas producers complete the initial exploratory drilling phase; the Coast Guard wants them established before exploratory drilling.

It is unlikely that the controversy will be resolved under the present jurisdictional structure. Because of the need to proceed expeditiously with exploration and development of offshore oil and gas deposits, while minimizing the potential danger to life and property resulting from increased offshore activity--including the recent introduction of liquified natural gas vessels--a solution must be adopted immediately.

The Inter-Governmental Maritime Consultative Organization specifically recommends assessing potential interference with marine traffic, establishing, as appropriate, obstruction-free shipping routes through offshore exploration areas at all stages of exploitation, and relocating or adjusting these routes to accommodate oil and gas exploration. (See app. I.)

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These recommendations are sound and equitable and should be carried out by the United States as soon as possible.

For this to be accomplished, however, the present jurisdictional problem between the Corps and the Coast Guard must be resolved.

Because the Coast Guard is responsible for the protection of life and property on the high seas, the Congress should:

--Authorize the Coast Guard to designate obstruction-free shipping routes on the Outer Continental Shelf along the lines of the Inter-Governmental Maritime Consultative Organization recommendations.

--Require the Coast Guard to relocate or adjust designated shipping routes when necessary for the exploration and development of oil and gas deposits.

--Authorize the Coast Guard to veto decisions made by the Corps which would obstruct designated shipping routes until the Coast Guard can relocate or adjust the shipping routes and provide adequate notification to all concerned parties.

In implementing the above recommendations, the Coast Guard should realize the time restrictions imposed on the energy interest by the lease agreements.

To expedite this report, GAO did not obtain formal agency comments. However, the report was discussed with officials of the Coast Guard and the Corps of Engineers, who agreed with its recommendations.

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ABBREVIATIONS

GAO	General Accounting Office
IMCO	Inter-Governmental Maritime Consultative Organization
OCS	Outer Continental Shelf

CHAPTER 1

INTRODUCTION

The Outer Continental Shelf (OCS) is a major area of potential oil and gas resources. One-third of all remaining domestic oil and gas is estimated to be on the OCS. Some OCS areas which are leased and being explored for oil and gas or are scheduled to be leased are located in the path of shipping routes traditionally followed by maritime interests.

Shippers, fishermen, and other users of the ocean surface are becoming increasingly concerned about how they will transit safely through areas where exploration and development activities are being conducted. Without adequate control, the risk of a collision would be increased because of the large number of exploratory rigs and production platforms and the increased marine activity to support these rigs and platforms.

SCOPE OF REVIEW

We reviewed the Coast Guard's and the Corps of Engineer's authority and responsibility for ocean traffic management on the OCS beyond the territorial sea. We examined various laws, regulations, and procedures implementing legislation. We sent a questionnaire to 260 individuals and companies involved in the energy and maritime industries to obtain their views on the need for obstruction-free shipping routes along the Atlantic coast of the United States. We interviewed a representative number of officials of the companies to obtain a broader understanding of the problem.

CHAPTER 2

ACTION NEEDED TO ESTABLISH OBSTRUCTION-FREE SHIPPING ROUTES ON THE OCS IN A TIMELY MANNER

Development of OCS oil and gas resources has created a controversy between energy and maritime interests. While both agree that there should be obstruction-free shipping routes to, from, and between U.S. ports, they disagree as to when such routes should be established. The Corps of Engineers and Coast Guard--the principal Federal agencies concerned--have also been unable to resolve this controversy for the same reason. Because energy and maritime interests are essential to the economic well-being of the Nation, a timely solution accommodating the valid needs of both must be adopted.

CONTROVERSY BETWEEN ENERGY AND MARITIME INTERESTS AS TO WHEN SHIPPING ROUTES SHOULD BE ESTABLISHED

Energy interests developing OCS resources would like total access to the areas they lease. They believe, in most cases, that restrictions should not be imposed on lease areas until after a reasonable amount of exploration for and delineation of the location and extent of oil and gas resources.

Maritime interests would like obstruction-free shipping routes through lease areas to facilitate safe transit before the exploratory phase. They contend that if there is exploration in traditional shipping routes, the likelihood of collisions increases, particularly in bad weather.

Ship-routing methods

A ship-routing method is a designated route which vessels may use for safe access to, from, and between ports. Currently, the United States provides different ship-routing methods, including traffic separation schemes and shipping safety fairways. While we were unable to determine how effective these methods were in reducing collisions, Coast Guard and Corps officials felt that these methods were highly effective.

Traffic separation schemes

The objectives of traffic separation schemes are to (1) improve safety by separating opposing streams of ship traffic and (2) organize ship traffic through hazardous areas. To date, nine traffic separation schemes have been established and adopted as recommended traffic routes along the Atlantic and Pacific coasts at the entrances to major U.S. ports.

These schemes were established by the Department of Transportation, specifically the Coast Guard, and the Inter-Governmental Maritime Consultative Organization (IMCO), a United Nation's agency concerned with international maritime affairs. While the Coast Guard does not have statutory authority to establish traffic separation schemes, it suggests topics of international collaboration in maritime affairs, through the Secretary of State, to IMCO.

Although IMCO can not restrict exploratory drilling or the erection of oil production platforms within established traffic separation schemes, it recognizes the need for ensuring unencumbered exploitation of seabed resources and for safety at sea (resolutions A.378(X) and A.379(X)). In essence, the resolutions recommend assessing potential interference with marine traffic, establishing, as appropriate, obstruction-free shipping routes through offshore exploration areas at all stages of exploitation, and relocating or adjusting these routes to accommodate oil and gas exploration. Copies of the resolutions are included as appendix I.

Shipping safety fairways

Shipping safety fairways are obstacle-free routes to, from, and between U.S. ports which vessels may use. To date, several fairway systems have been established by the Department of the Army, specifically the Corps of Engineers. The Corps does this by denying permits for platforms in shipping approaches.

Views of energy and maritime interests on when routes should be established

Although energy and maritime interests favor the establishment of obstruction-free shipping routes, they differ on when such routes should be established. Eighty-five percent (11 of 13) of the energy interests responding to our questionnaire believe that obstruction-free shipping routes should be established after the initial exploratory drilling phase; 80 percent (82 of 102) of the maritime interests hold the opposite view. This is the main controversy between the two interests.

Energy interests

Energy interests believe that establishing these routes before exploratory drilling could substantially reduce the OCS area where they look for oil and gas deposits. Consequently, potentially large reserves of oil and gas may not be developed, depriving the Nation of badly needed energy. The problem is that no one knows whether oil and gas deposits

are located under traditionally used shipping routes until exploration begins.

Maritime interests

Ships entering, leaving, or going between U.S. ports generally follow certain routes. Maritime interests believe the erection of structures in the OCS would create hazards. They contend that obstruction-free routes should be established before OCS lease sales so that all concerned will be aware of their existence and the restrictions imposed on the erection of structures.

CORPS OF ENGINEERS AND COAST GUARD HAVE BEEN UNABLE TO RESOLVE THE CONTROVERSY IN A TIMELY MANNER

According to the Corps, it is not in the public interest to establish obstruction-free shipping routes until oil and gas producers have completed the initial exploratory drilling phase. The Coast Guard, on the other hand, advocates establishing such routes before exploratory drilling. Although the Corps and Coast Guard are attempting to reconcile their views, there is no guarantee that they will do so in a timely manner. Present jurisdictional overlap between the two agencies is the problem.

Corps of Engineers

The Corps has the authority to prevent obstructions to navigation and thus establish obstruction-free shipping routes by denying construction permits to oil and gas producers. Section 10 of the River and Harbors Act of 1890, as recodified, (33 U.S.C. 403), provides that Corps' permits are required for the construction of any installation in or over any navigable water of the United States. Section 4(f) of the Outer Continental Shelf Lands Act of 1953 (43 U.S.C. 1333(f)), provides the Corps with similar authority for artificial islands and fixed structures located on the OCS.

Coast Guard

The Coast Guard (under 14 U.S.C. 2) is responsible for protecting life and property on the high seas which is not otherwise delegated but, unlike the Corps, it does not have the authority to establish obstruction-free shipping routes.

Efforts by the agencies to resolve their views

In the past, the Corps and the Coast Guard have cooperated in developing shipping safety fairways in the Gulf

of Mexico. They have also worked together in developing guidelines for exploratory drilling operations in the Gulf of Santa Catalina, off the California coast. At the present time they are attempting to resolve their differences on when to establish obstruction-free shipping routes off the Atlantic coast.

However, it took 3 years to formulate proposed guidelines for exploratory drilling operations in the Gulf of Santa Catalina and still the guidelines have not been finalized. Negotiations as to when obstruction-free shipping routes should be established off the Atlantic coast have been going on since 1974 and it is not known when an agreement will be reached.

The reason for the delay is that the authority and responsibility of the agencies overlap. The Coast Guard has responsibility for navigational safety but does not have the authority to establish obstruction-free shipping routes. This authority rests with the Corps. The current policy of the Corps is to delay establishing such routes until the initial exploratory drilling phase has been completed and the locations of oil and gas deposits are determined. The Coast Guard maintains that this could take as long as 5 years and obstruction-free shipping routes should be established immediately to avoid collisions at sea.

CONCLUSIONS AND RECOMMENDATIONS

It is unlikely that the controversy between energy and maritime interests--both essential to the economic well-being of the Nation--will be resolved under the present jurisdictional structure. Because of the need to proceed expeditiously with exploration and development of offshore oil and gas deposits while minimizing the potential danger to life and property resulting from increased offshore activity--including the recent introduction of liquified natural gas vessels--a solution that accommodates the valid needs of both the energy and maritime interests must be adopted immediately.

We believe that the recommendations made by IMCO (see app. I) are sound and equitable and should be implemented by the United States as soon as possible. For this to be accomplished, however, the present jurisdictional problem between the Corps and the Coast Guard must be resolved.

Because the Coast Guard is responsible for the protection of life and property on the high seas, we recommend that the Congress:

--Authorize the Coast Guard to designate obstruction-free shipping routes on the OCS along the lines of IMCO recommendations.

--Require the Coast Guard to relocate or adjust designated shipping routes when necessary for the exploration and development of oil and gas deposits.

--Authorize the Coast Guard to veto decisions made by the Corps which would obstruct designated shipping routes until the Coast Guard can relocate or adjust the shipping routes and provide adequate notification to all concerned parties.

In implementing the above recommendations, the Coast Guard should realize the time restrictions imposed on the energy interests by the lease agreements.

To expedite this report, we did not obtain formal agency comments. However, the report was discussed with officials of the Coast Guard and Corps of Engineers, who agreed with our recommendations.

APPENDIX I

Distr.
GENERAL

A X/Res.379
15 December 1977

Original: ENGLISH

ASSEMBLY - 10th session
Agenda item 8(b)

IMCO

RESOLUTION A.379(X)

adopted on 14 November 1977

ESTABLISHMENT OF SAFETY ZONES AND FAIRWAYS OR ROUTEING SYSTEMS IN OFF-SHORE EXPLORATION AREAS

THE ASSEMBLY,

NOTING Article 16(i) of the Convention on the Inter-Governmental Maritime Consultative Organization concerning the functions of the Assembly,

RECOGNIZING the need for ensuring unencumbered exploitation of sea-bed resources as well as safety at sea,

RECOGNIZING FURTHER that the congestion of navigable waters by off-shore platforms or other similar structures could result in ships colliding with such structures thereby causing loss of life, pollution of the marine environment and economic loss,

RECALLING Resolution A.340(IX) by which it adopted a Recommendation on Establishment of fairways through off-shore exploration areas,

NOTING that in accordance with Article 5 of the 1958 Convention on the Continental Shelf, Governments may establish safety zones, extending to a maximum distance of 500 m around continental shelf installations or other devices, which should be respected by ships of all nationalities,

BEING INFORMED of the frequent infringements of safety zones by ships,

HAVING CONSIDERED the Recommendation adopted by the Maritime Safety Committee at its thirty-sixth session,

APPENDIX I

A X/Res.379

RECOMMENDS that Governments:

(a) ensure that the exploitation of sea-bed resources does not seriously obstruct sea approaches and shipping routes;

(b) study the pattern of shipping traffic through off-shore resource exploration areas at an early stage so as to be able to assess potential interference with marine traffic passing close to or through such areas at all stages of exploitation;

(c) where proliferation of oil installations or changes of traffic pattern warrants it, consider as appropriate the designation of safety zones around off-shore platforms and other similar structures or the establishment and charting of fairways or routeing systems through exploration areas,

URGES Governments:

(a) to take all necessary steps to ensure that ships under their flags, unless specifically authorized, do not enter or pass through duly designated safety zones;

(b) to promulgate by all appropriate means details of designated safety zones and established fairways or routeing systems, taking into account Resolution A.341(IX) on the Dissemination of Information, Charting and Manning of Drilling Rigs, Production Platforms and Other Similar Structures,

REVOKES Resolution A.340(IX).

7. TEMPORARY ADJUSTMENTS TO TRAFFIC SEPARATION SCHEMES

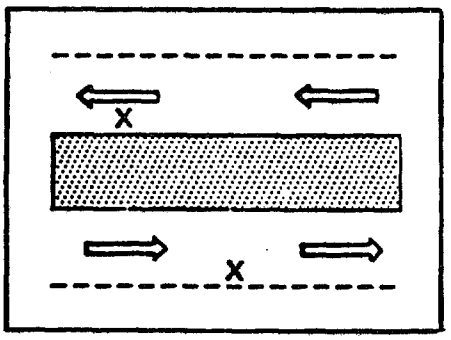
7.1 When the temporary positioning of an exploration rig is unavoidable, the design criteria and the provisions for planning should be taken into account before permitting the positioning of the rig or subsequently adjusting a traffic separation scheme.

7.2 The said adjustments should be made in accordance with the following:

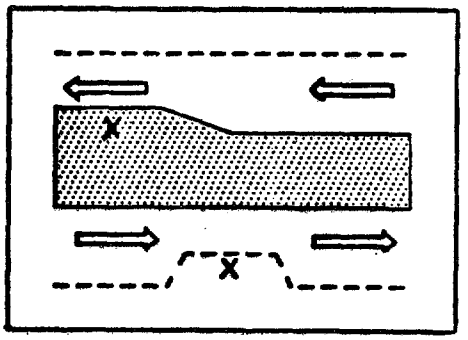
(a) When the drilling location is situated near the boundary of a lane or traffic separation zone, a relatively slight adjustment of the scheme could have such effect that the drilling rig and its associated safety zone is sufficiently clear of the traffic lane;

Example

original situation



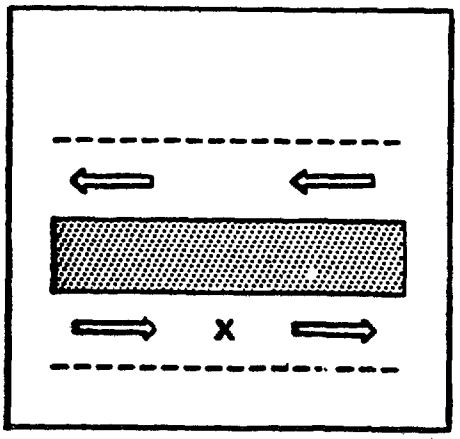
adapted situation



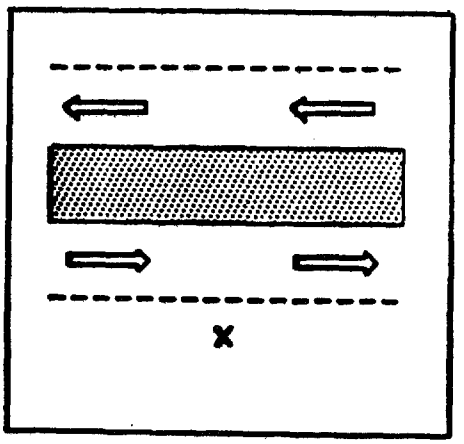
(b) if a small temporary adjustment of the traffic lane is not possible the whole or part of the scheme could be temporarily shifted in order to clear the drilling area from the lane so that traffic connected with the drilling operations will stay clear of the lane;

Example

original situation



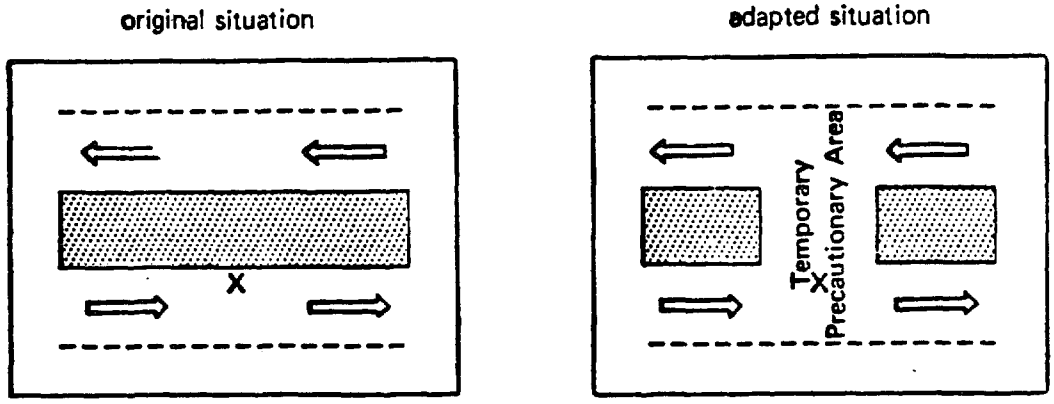
adapted situation



APPENDIX I

(c) temporary local interruption of the scheme or part of the scheme in the area of location of the drilling rig. Such an interruption could be made a precautionary area;

Example



(d) temporary suspension of the whole scheme.

7.3 In each case, exploration sites should be reviewed and such conditions specified as the Administration may deem necessary to ensure safety of navigation in the area.

7.4 Details of these temporary adjustments should be forwarded to the Organization and to appropriate hydrographic offices at least two months before the rig is positioned within an adopted traffic separation scheme so as to allow ample time for informing shipping.

8. THE USE OF ROUTEING SYSTEMS

8.1 Routeing systems are intended for use by day and by night in all weathers, in ice-free waters or under light ice conditions where no extraordinary manoeuvres or assistance by ice breaker(s) are required.

8.2 Routeing systems are recommended for use by all ships unless stated otherwise. Bearing in mind the need for adequate underkeel clearance, a decision to use a routeing system must take into account the charted depth, the possibility of changes in the sea-bed since the time of the last survey, and the effects of meteorological and tidal conditions on water depths.

8.3 A ship navigating in or near a traffic separation scheme adopted by the Organization shall in particular comply with Rule 10 of the International Regulations for Preventing Collisions at Sea, 1972 to minimize the development of risk of collision with another ship. The other rules of the 1972 Collision Regulations apply in all respects, and particularly the steering and sailing rules if risk of collision with another ship is deemed to exist.

8.4 At junction points where route traffic from various directions meet, a true separation of traffic is not really possible, as ships may need to cross routes or change to another route. Ships should therefore navigate with great caution in such areas and be aware that the mere fact that a ship is proceeding along a through-going route gives that ship no special privilege or right of way.

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ASSISTANT SECRETARY OF THE INTERIOR--LAND AND WATER RESOURCES:		
Guy R. Martin	Mar. 1977	Present
DIRECTOR, BUREAU OF LAND MANAGEMENT:		
Frank Gregg	Mar. 1978	Present
DEPARTMENT OF DEFENSE		
SECRETARY OF DEFENSE:		
Dr. Harold Brown	Jan. 1977	Present
DEPARTMENT OF THE ARMY		
SECRETARY OF THE ARMY:		
Clifford L. Alexander, Jr.	Feb. 1977	Present
CHIEF OF ENGINEERS:		
Lt. General John W. Morris	July 1976	Present
DEPARTMENT OF TRANSPORTATION		
SECRETARY OF TRANSPORTATION:		
Brock Adams	Jan. 1977	Present
THE COMMANDANT, U.S. COAST GUARD:		
Admiral Owen W. Siler	May 1974	Present

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