

# **THE ESTABLISHMENT OF A RESTRICTED AREA FOR SEAPLANE OPERATION**

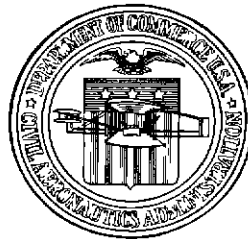
**By**

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**U S. DEPARTMENT OF COMMERCE  
CIVIL AERONAUTICS ADMINISTRATION  
WASHINGTON, D C**

**UNITED STATES DEPARTMENT OF COMMERCE**

JESSE H JONES, *Secretary*

**CIVIL AERONAUTICS ADMINISTRATION**

CHARLES I STANTON, *Administrator*

 INFORMATION  
AND STATISTICS

#### ACKNOWLEDGMENT

The author wishes to acknowledge the assistance and cooperation of the War Department, Office of the Chief of Engineers, United States Navy Department Bureau of Aeronautics, United States Coast Guard, and the Department of Commerce Steamboat Inspection Service in making possible the first restricted area for seaplane operation in the United States

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## THE ESTABLISHMENT OF A RESTRICTED AREA FOR SEAPLANE OPERATION

### SUMMARY

This report covers the historical background and consequent action taken in the establishment of a restricted area for seaplane operations in San Francisco Bay, necessary for the protection of seaplanes and surface watercraft maneuvering in navigable water. It was prepared to provide a means for a better understanding of the problem involved and to offer guidance in future cases where the establishment of restricted areas for seaplane operations becomes necessary.

As a result of the rapid development of overseas air commerce in recent years there has been a definite need for adequately protected seaplane operating areas in navigable waters of the United States. In 1930 it was necessary to give immediate consideration to this problem. Conferences held between representatives of the United States Army Corps of Engineers, Navy Department Bureau of Aeronautics, United States Coast Guard, Bureau of Lighthouses, Bureau of Marine Inspection and Navigation, and the Bureau of Air Commerce produced helpful recommendations relating to this problem, including suggestions regarding the revision of the International Rules of the Road, particularly as they affect seaplane operations.

Realizing the impossibility of an early adoption of revised International Rules of the Road, it was the consensus of the Federal agencies represented at these various conferences that, in order to provide immediate protection for seaplanes and watercraft operating on the water's surface, specially designated areas be provided for seaplane operations. A condensed record of a public hearing before the United States Corps of Engineers, copies of the resultant order from the Secretary of War and United States War Department regulations, as well as other pertinent data, are included in the appendixes.

The action taken by the Secretary of War in this matter establishes a precedent, since the designation of the specified area in General Anchorage No. 6 in San Francisco Bay as a seaplane operating area is the first of its kind in the United States.

### INTRODUCTION

The rapid expansion of international air commerce and the growing need for safe and adequate seaplane operating areas, especially for large seaplanes used in overseas or transoceanic service, caused the Department of Commerce to attempt a clarification of international regulations applicable to aircraft operations on the surface of navigable waters.

Impetus to such efforts was provided by certain amendments to the Revised International Regulations "for Preventing Collisions at Sea (Annex II, as amended, International Collision Convention for the Safety of Life at Sea) suggested by the British Government in a note (No. 66 of February 26, 1937) from the British Ambassador at Washington to the Secretary of State of the United States.

Under the International Rules of the Road, aircraft on the surface of navigable water appear to be classed within the definition of "steam vessels" or "vessels." As such, they are required to carry lights, make sound signals, and maneuver, in respect to both surface vessels and to each other, in a manner that is not in some instances possible for them because of the physical limitation of aircraft. In a pilot's language, this means that a heavily loaded flying boat in the process of taking off would be compelled to give "right of way" to certain other watercraft, such as sailing vessels, sailboats, etc.

That compliance with the regulations under such circumstances could not be expected was realized as early as 1926 when the Air Commerce Act of 1926 made mention of a desirable interpretation of United States and International rules as related to seaplanes. Further reference was made to the same problem in the Air Regulations promulgated by the Secretary of Commerce. However, no definite clarification of such provisions was called for at that time.

In 1936 the problem became most urgent, and necessary steps were initiated by the Department of Commerce to give full consideration to this question in the interest of air commerce and the protection of human life and property.

### ACTION BY FEDERAL AGENCIES

A study of the responsibilities of Federal agencies in the United States in relation to this problem was initiated. After a series of informal conferences among the representatives of these agencies, the International Regulations for the Prevention of Collisions at Sea were rewritten for discussion purposes and presented during a formal meeting of the following Federal agencies:

United States Navy Department  
 United States War Department - Corps of Engineers  
 United States Treasury - Coast Guard  
 United States Department of Commerce -  
     Bureau of Marine Inspection  
     Bureau of Air Commerce  
     Maritime Commission  
 United States State Department

The regulations as rewritten for discussion purposes gave an aircraft maneuvering on the water's surface a special status aside from its possible classification as "steam vessel" or "vessel". During the formal discussion of the various factors involved, the following technical argument was presented:

Because of the design characteristics of motors used in large seaplanes, they cannot be run at the idling speeds often required while waiting for surface watercraft to clear the operating areas. Approximately 15 minutes' time would be required to patrol and clear the area prior to the time a large seaplane taxis to its position for take-off. A speed of approximately 90 miles or more an hour must be obtained before large seaplanes leave the water. During the take-off run of as much as 2 miles or more, and while still on the water, a large seaplane cannot be maneuvered to avoid objects on the water. After it leaves the water its climb will be gradual and must continue in a straight line as it is still unable to maneuver to avoid obstacles. In this connection, it should also be realized that because of the noise from the motors and propellers the pilots cannot hear warning signals, and they cannot gauge the movements or location of surface craft at a distance of approximately 4 miles, especially in times of limited visibility. Once a take-off is started and well under way, especially when operating under a provisional gross load, disaster would be almost inevitable if surface craft required a seaplane to maneuver to avoid a collision.

In addition to take-off requirements, landing procedure for large seaplanes requires that the approach for a landing be started while several miles away, and it was therefore considered unsafe to require such craft to change the plan of landing procedure in order to avoid surface craft moving in the landing area. While completing orientation procedures, under instrument flying conditions, it would be dangerous for a large seaplane to alter the approach and landing procedure as it cannot be maneuvered with safety to avoid moving objects during the final approach for a landing. In connection with maneuvering on water, after landing and prior to take-off, it should be realized that a seaplane cannot go astern.

After an extensive discussion of the proposed Revision of the Regulations for Preventing Collisions at Sea, as amended, the consensus of the conference was as follows:

1. Before international regulations for preventing collisions between surface craft and aircraft on the water or water aircraft can be adopted, the status of such aircraft with respect to other aircraft and surface craft must be determined.
2. The Regulations for Preventing Collisions at Sea were originally made for surface craft only, based on traditions and years of experience in dealing with craft fundamentally similar but differing in methods of propulsion. They were divided into classes based largely upon their maneuverability.
3. Aircraft on the water or water aircraft possess few of the characteristics of surface craft, especially under different conditions of wind, sea, and speed. Therefore, they should not be placed under the general classification of "steam vessels" but under a classification separate from surface craft.
4. Inasmuch as seaplane operations on the surface of international waters are very limited, such operations being mostly of an emergency nature (forced landings at sea, etc.), it appeared that the International Rules and the Inland Water Rules governing operation of watercraft should be similar in language, so far as classification of water aircraft is concerned.
5. In view of the foregoing and the fact that an adoption of a revised version of the International Rules may require many years, it was resolved that in order to provide immediate protection for seaplanes and watercraft, special operating areas within the navigable waters of the United States should be set aside for the exclusive or controlled use of seaplanes and their attendant craft.

The majority of the agencies presented their comments in writing for presentation to the next International Conference on "The Elimination of Collisions on the High Seas," in reply to the British proposal dated February 26, 1937, for transmittal through proper channels.

The relative jurisdiction of each Federal agency applicable in this case was discussed. Following the conference a working agreement was established between the United States Army Corps of Engineers and the Bureau of Air Commerce of the Department of Commerce to coordinate the proposed development of inland water areas within the continental United States in such a manner as not to interfere with the interest of air commerce.

In view of an apparent division of jurisdiction over designated seaplane operating areas agreed upon during the conference, a definite policy was later proposed by the Civil Aeronautics Authority, successor to the Bureau of Air Commerce of the Department of Commerce, as follows:

- 1 The Secretary of War, having jurisdiction by law over all navigable waters, would be responsible for the designation of seaplane operating areas
- 2 The Civil Aeronautics Authority would prescribe necessary regulations for seaplane operations and the establishment, maintenance, and operation of aids to air navigation in such areas
- 3 The United States Coast Guard would be responsible for placing navigational aids for the protection of mariners and exercising police power for the control of surface water traffic in these areas
- 4 Water areas set aside for seaplane operations would be divided into two general classifications
  - (a) Water areas completely restricted to surface water traffic and established for the exclusive use of seaplanes and attendant craft and identified accordingly
  - (b) Water areas designated as seaplane operating areas and marked accordingly where surface water traffic is controlled only during seaplane operating periods or where water traffic is permitted only on proper dispatch

#### SIZE OF SEAPLANE OPERATING AREAS

The dimensions of such areas then became a problem of extreme importance. Very little information was available on this subject, and it therefore became necessary to inaugurate extensive studies and research to obtain data helpful in the solution of this problem. Through the cooperation of aircraft manufacturers, the National Advisory Committee for Aeronautics, and the United States Navy Department, and from contacts with the Pan American Airways System, it was possible to arrive at certain standards of required dimensions for the operation of different types of seaplanes. These studies were relative to the maneuvering characteristics of various types of water aircraft, the length of take-off runs on the water, and the rate of climb and altitude attained after take-off. It was necessary to also take into consideration the altitude and speed necessary for adequate control in the event of engine failure immediately after leaving the water. The results of the above studies and research were used as a basis in formulating the recommendations outlined herein.

In considering the problem of the adequate size of water area required for seaplane operating bases, it is convenient to divide the discussion as follows:

- 1 Major seaplane terminals
  - (a) For large seaplanes in current use or under construction
  - (b) For larger seaplanes as anticipated for future operations
- 2 Intermediate bases for so-called medium-sized aircraft and emergency landing bases
- 3 Small bases suitable for private-owner and smaller-type aircraft

1 (a) A major seaplane terminal (to adequately accommodate seaplanes of 40,000 to 100,000 lbs., gross weight, which are the major sizes now in use) should have a sheltered water area large enough to permit the layout of landing courses or operating lanes at least 2-1/2 miles in length. The actual take-off run on the water of the current major seaplanes may range from 3,000 to 7,000 feet, depending upon such variable conditions as load, temperature, wind, water, or sea conditions, etc. The additional length of water area provided constitutes a necessary factor of safety in that it enables the seaplane to gain sufficient altitude and speed while still over a usable landing area without the necessity of dangerous maneuvering at low altitudes at relatively slow speed. The main operating lane should be at least 600 feet wide with a water depth of 10 feet at mean low tide. Turning basins of the same depth and at least 2,000 feet in diameter should be provided at each end of the operating lane. This channel should be in alignment with the general direction of the prevailing wind in the given locality and should be supplemented by at least one auxiliary lane 2-1/2 miles in length with the same depth and diameter of turning basins. The auxiliary landing lane should be so aligned that the two lanes together, or supplemented by still other operating lanes, permit landings to be made directly into the wind at least 90 per cent of the time.

1 (b) In considering future anticipated developments in large flying boats, it would be advisable to provide for unobstructed sheltered water areas of such extent as to permit the layout of operating channels approximately 5 miles in length. The channel depth should be increased to an estimated minimum of 15 feet with lane widths and turning basins enlarged to a lesser proportion. In fact, the above operating channel width may be expected to remain somewhat constant, with the lane (or channel) depth being the variable factor as flying boat sizes increase. The ultimate required diameter of turning basins should not exceed 3,000 feet.

Seadromes with clear approaches, and having dimensions as described above, should be entirely adequate for the different sizes of flying boats as outlined in paragraphs 1 (a) and 1 (b).

2 The intermediate seaplane base may be expected to accommodate seaplanes or amphibians of gross weights from approximately 10,000 to 40,000 lbs. For such aircraft the water area should provide the possibility of laying out landing lanes approximately 350 feet wide, not less than 1-1/2 miles in length, with clear approaches, and having a minimum depth of 6 feet. One main landing course should be provided in the direction of the prevailing wind, and sufficient auxiliary landing courses should be provided so that landings can be made into the wind at least 80 per cent of the time.

3 Small seaplane bases suitable for the operation of light privately-owned planes can be established on numerous lakes and rivers scattered rather generally throughout the country. Since private owners do not operate their planes on schedules which require flights under unfavorable wind, weather, and water conditions, it is difficult to establish minimum standards for light seaplane operations. In many cases, seaplanes can be operated from small water areas with reasonable safety if flights are not attempted under conditions when the wind is not aligned with the long dimension of the landing area, as, for example, where a narrow river is being used. Consideration should be given to the probable number and types of seaplanes which may be expected to use the seaplane base when it is established and the water areas then developed which will best be adequate for such use.

A landing area having a minimum of 3,500 feet effective length in all directions, with clear approaches, and a depth of at least 4-1/2 feet, is large enough for most light seaplanes. Similarly, a river having a minimum width of 500 feet and a straight unobstructed course of 3,500 to 4,000 feet may be used under favorable wind conditions.

NOTE Any of the aforementioned classes of seaplane bases may be located at elevations above sea level on lakes or rivers. It is, therefore, essential that the effect of both altitude above sea level and expected minimum temperatures be taken into consideration in determining the dimensions of the landing area. It should be understood that these standards are tentative and subject to change as seaplane operating experience increases.

#### PROCEDURE FOLLOWED IN ESTABLISHING SEAPLANE OPERATING AREA

In line with arrangements initiated through earlier conferences between the War Department, United States Corps of Engineers, and the Department of Commerce to expedite possible action on proposed seaplane operating areas, the procedure outlined was followed:

Section 7 of the Rivers and Harbors Act of August 8, 1917, provided that it should be the duty of the Secretary of War to prescribe such regulations for the use, administration, and navigation of the navigable waters of the United States, if in his judgment the proper public necessity may require such action for the protection of life and property. "The navigation and operation of seaplanes within such regulated areas appeared to be a matter within the jurisdiction of air commerce under the provisions of the Air Commerce Act of 1926" (quoting from a letter dated January 7, 1938, from the Secretary of War to the Secretary of Commerce). Under the working agreement previously established between the War Department and the Department of Commerce, all District and Division Engineers of the United States Corps of Engineers, War Department, were instructed to give appropriate consideration to application for the establishment of restricted areas of navigable water in the principal parts of the United States for use by seaplanes and their attendant craft. All such applications would be submitted to the Bureau of Air Commerce (now the Civil Aeronautics Administration) for its views before action was taken in such instances where it was likely that the interest of air commerce might be involved.

Aside from a few applications of minor importance or temporary nature, the first of such applications of a major significance was submitted to the District Office of the Corps of Engineers, San Francisco, by Pan American Airways on March 23, 1939, requesting that three lanes within an area designated as Anchorage No. 6, San Francisco Bay, be set aside for the purpose of air navigation. In conformity with War Department instructions, the application of Pan American Airways was informally brought to the attention of all locally interested parties and then referred to the Administrator in the Civil Aeronautics Authority for his views. Before the requested recommendations were submitted to the Office of the Chief of Engineers, War Department, an inspection was made by the Chief of the Air Carrier Inspection Section and a Regional Engineer of the Airport Section of the Civil Aeronautics Authority to determine the suitability of the proposed area for transoceanic seaplane operations. The results of this inspection were fully discussed with the representatives of the United States Corps of Engineers, the Navy Department Bureau of Aeronautics, and the United States Coast Guard in Washington, to establish a coordination of all interests involved. Consequently, recommendations were made by representatives of the Civil Aeronautics Authority that a triangular area covering all of the terrain proposed for modification in Anchorage No. 6 as submitted by Pan American Airways, as well as an additional area, be restricted, not only to anchorage but also to surface water traffic, in order that adequate protection might be provided for scheduled seaplane night operations and service tests to be conducted with special seadrome lighting equipment developed by the Civil Aeronautics Authority. The War Department engineers suggested that in view of the Navy's interest in Yerba Buena, clearance from the Navy Department be obtained through the Civil Aeronautics Authority, which was accomplished. The recommendations made by the Administrator of the Civil Aeronautics Authority were forwarded by the Chief of Engineers to the office of the District Engineer in San Francisco for his views and further action. In view of the urgency of this matter, and also to provide an immediate proving ground for service tests to be conducted on seadrome contact light equipment, the District Engineer's Office in San Francisco agreed to cooperate in this matter as much as possible.

It became evident that the language used in the original application of Pan American Airways referred to a "modification" of Anchorage No. 6 instead of "Restriction" as used in the recommendation by the Administrator of the Civil Aeronautics Authority.

It was anticipated that a proposal for complete restriction of water surface traffic within the area mentioned would meet with considerable opposition from shipping, railroad, and private interests. It was therefore suggested by the United States District Engineer at San Francisco, California, that a public hearing be held for full consideration of the matter. Assuming that negotiations for a completely restricted area could be successfully completed and thereby establish a precedent in the interest of air commerce, it was decided to follow accepted procedure in such matters in place of taking advantage of a possible questionable interpretation of Section 7 of the Rivers and Harbors Act of 1917. In view of the urgency involved, it was possible to call such a public hearing within a 10-day period instead of the customary 30-day limit used in connection with notices of public hearings. A letter from the Administrator of the Civil Aeronautics Authority to the United States District Engineer, San Francisco, served as an official presentation by the Civil Aeronautics Authority for the purpose of such public hearing, and a Washington representative of the Airport Section, Technical Development Division, was available to make such supplemental statements and answer such technical questions as might be found necessary. The Port Commission of Oakland, major shipping interests, and other interested agencies had been contacted prior to this arrangement to ascertain whether or not serious objections to the recommendations of the Administrator might be anticipated.

Preliminary arrangements were completed by December 4, 1939, and the public hearing was called for December 14, 1939, in Room 401 Custom House, San Francisco, California. A notice of public hearing was sent out by the District Engineer's Office to approximately 250 interested parties, erroneously naming the Administrator of the Civil Aeronautics Authority as the applicant for the reservation and restriction of the proposed seaplane operating area in Anchorage No. 6. During the interim between December 4 and December 14, considerable objection to such a proposal seemed to concentrate, and it became necessary to again contact representatives of the shipping interests, railroad officials, and others, to explain the interest of the Civil Aeronautics Authority in this proposal and to establish a certain amount of good will necessary to assure successful outcome of the Public Hearing.

The hearing was conducted in the customary and accepted manner and resulted in satisfactory agreement of all concerned. A condensed report of the hearing is included as part of the appendix of this report.

#### CONCLUSION

The preliminary studies and conferences pertaining to the relation and protection of seaplanes and surface traffic on the water have required a considerable number of years. The precedent established by the action of the Secretary of War in the case of General Anchorage No. 6, San Francisco Bay, can be considered as a definite step forward in the interest of aviation, and it is recommended that states, municipalities, and their political subdivisions use the procedure outlined in applying for restricted areas for seaplane operations.



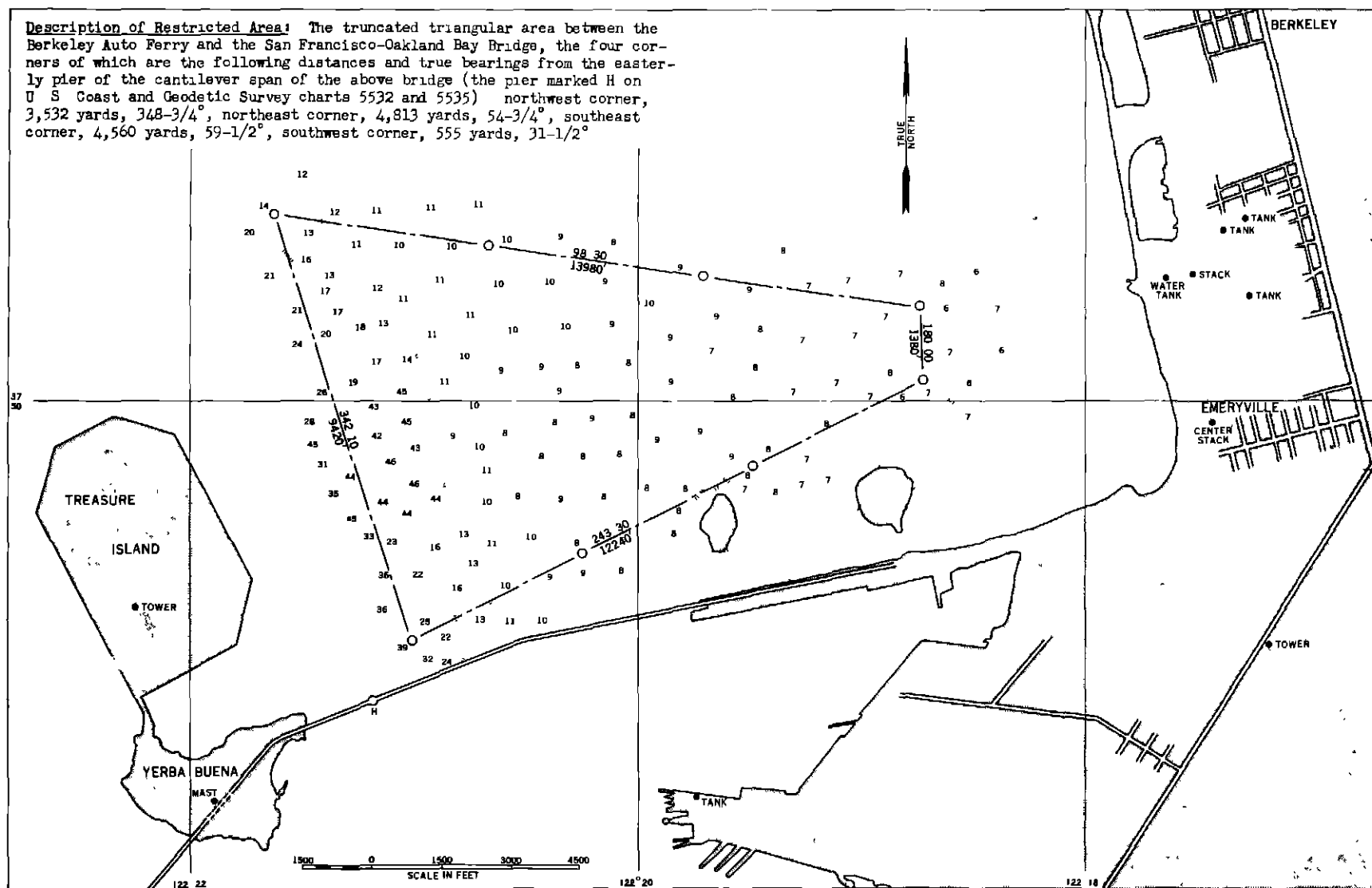


FIGURE 1. Map Showing Restricted Area in Anchorage No.6 - San Francisco Bay



FIGURE 2. Photograph Showing Seaplane Operating Area Treasure Island  
With San Francisco in the Background.

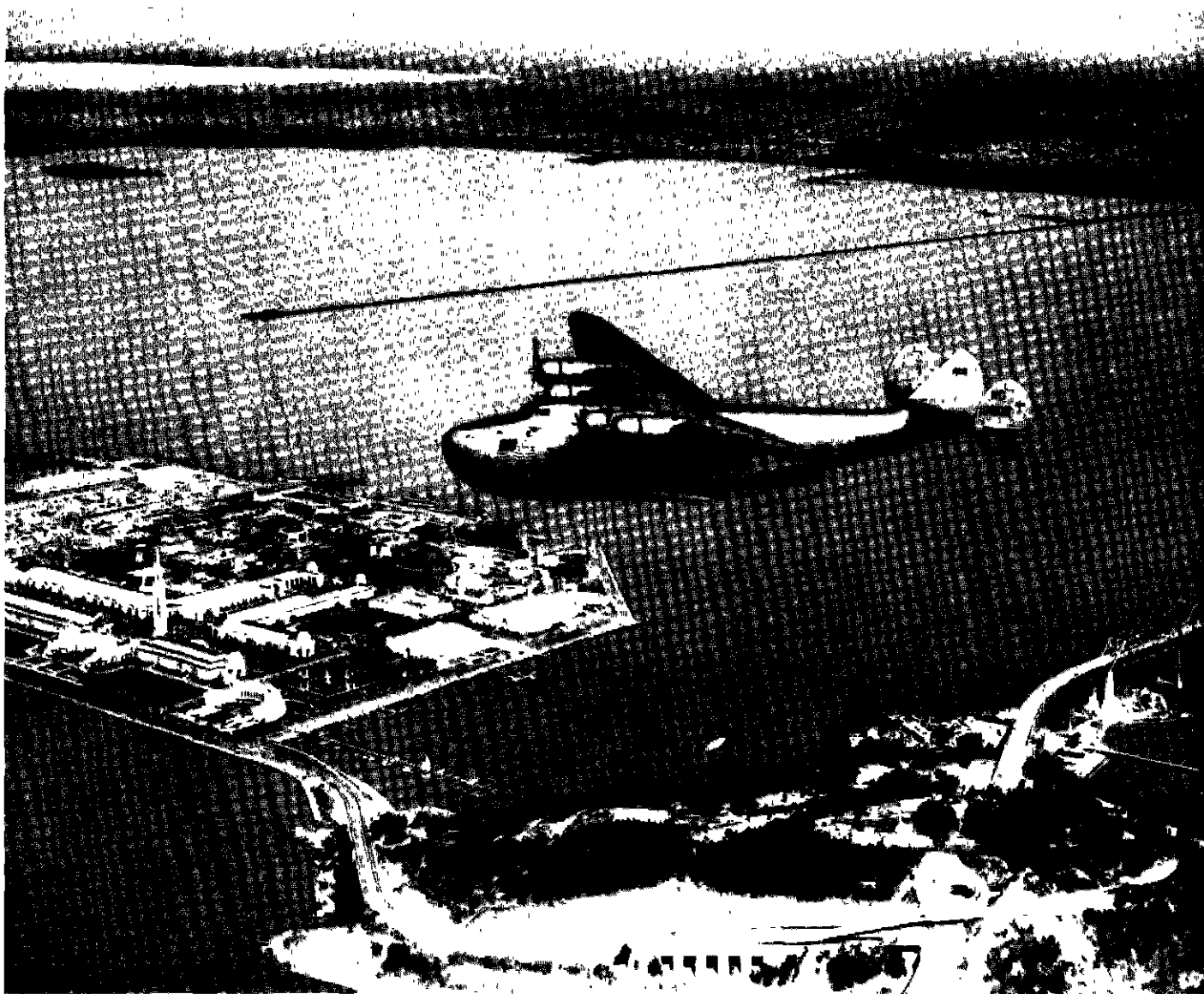


FIGURE 3. Clipper Prior to Landing With Pan American Base in Foreground.

APPENDIX A

WAR DEPARTMENT  
OFFICE OF THE CHIEF OF ENGINEERS  
WASHINGTON

R & H No 68, 1937  
E D 7195

December 29, 1937

## C I R C U L A R L E T T E R

Subject Provisions for Seaplane Bases in Principal Harbors

To District and Division Engineers

1 The rapid expansion of air commerce and the growing need for safe and adequate harbors and maneuvering areas for large seaplanes makes it incumbent upon the Department to give full consideration to the requirements of this branch of commerce. Section 7 of the River and Harbor Act of August 8, 1917, provides that it shall be the duty of the Secretary of War to prescribe such regulations for the use, administration, and navigation of the navigable waters of the United States as in his judgment the public necessity may require for the protection of life and property, or of operations of the United States in channel improvement covering all matters not specifically delegated by law to some other executive department. The Department considers that under the provisions of this law, when the public necessity requires that certain areas of the navigable waters of the United States be set aside and reserved for the use of seaplanes and their attendant craft, it may prescribe such reasonable regulations restricting or prohibiting the use of such areas by ordinary watercraft as will provide for the protection of life and property. The navigation and operation of the seaplanes themselves within such restricted areas, however, is a matter within the jurisdiction of the Department of Commerce under the provisions of the Air Commerce Act of 1926.

2 District and Division Engineers will accordingly give appropriate consideration to applications for the establishment of restricted areas of the navigable waters of the principal ports of the United States for use by seaplanes and their attendant craft. In connection with any application or question relating to anchorage areas or navigation regulations for the usual forms of water navigation, they will consider fully the possibility of conflict with the use of the waters by seaplanes. Before action is taken in any instance in which it is likely that the interests of air commerce are involved, District Engineers will obtain the views of the Director, Bureau of Air Commerce, Department of Commerce, Washington, D C, through this office.

3 When application is made for a permit for new work in any way affecting air commerce, District Engineers will insure that four copies of all public notices issued are forwarded promptly to the Director, Bureau of Air Commerce.

4. In any preliminary examination and survey or review report on proposed river and harbor improvements, full consideration must be given to the present or prospective development of suitable seaplane bases and seaplane navigation and anchorage areas. Four copies of public notices of all hearings held to consider improvements affecting air commerce should be forwarded promptly to the Director, Bureau of Air Commerce.

By direction of the Chief of Engineers

W A Snow,  
Lieut Col, Corps of Engineers,  
Chief, River and Harbor Section

APPENDIX BCIVIL AERONAUTICS AUTHORITY  
Washington

December 2, 1939

Major C R Hunter  
District Engineer  
U S Corps of Engineers  
Custom House  
San Francisco, California

My dear Major Hunter

This is with reference to the application made by the Pan American Airways to your department requesting a modification of the general anchorage area located in San Francisco Bay to the north of the outer harbor at Oakland and northeast of Yerba Buena Island

In confirmation of the verbal recommendations made by a representative of the Civil Aeronautics Authority during recent conferences in San Francisco with officials from your office, the following recommendations appear to us to be desirable in order to establish an area where the operation of seaplanes may be conducted with safety

- 1 In order to assure the maximum degree of safety to both surface-borne watercraft and seaplanes maneuvering in the course of their operations in San Francisco Harbor in the general vicinity bounded by the Berkeley shore line on the east, the Berkeley Ferry Pier on the north, Yerba Buena Island on the southwest, and the Oakland outer harbor on the south, it is recommended that an area be reserved exclusively for and restricted to the use of seaplanes and the surface watercraft attendant upon the seaplane operations within the area. The boundaries of this restricted area are as follows

Beginning at a point 1,000 feet due south of the end of the Berkeley Ferry Pier and proceeding thence 94° true approximately 8,125 feet, thence 100° true for approximately 5,850 feet, thence due south approximately 1,500 feet, then 243°-15' true approximately 12,325 feet, thence 328° true approximately 7,240 feet, then 17° true approximately 2,700 feet to point of beginning

- 2 When this restricted area is established, it is the intention of the Civil Aeronautics Authority to adequately mark the area for day and night operations of seaplanes in accordance with the standards adopted by the U S Coast Guard, the U S Corps of Engineers, and the Civil Aeronautics Authority. It is proposed to install special lighting equipment designed for the night operation of seaplanes in a manner to mark an operating channel in the southerly portion of the area. This lighting equipment will consist of lighted buoys placed at intervals of approximately 500 feet along the southerly boundary of the area bearing 243°-15' true, and similarly along a line parallel to and 1,200 feet to the north of this boundary. These lights will be placed for a total distance of approximately 7,500 feet along the length of the operating channel starting from the southwest end
- 3 It is recommended that the operation of all surface-borne watercraft, with the exception of the surface watercraft necessary for use in connection with seaplane operations, be prohibited in this restricted area. The term "seaplane operation" includes the maneuvering of seaplanes and seaplane equipment and attendant surface watercraft prior to, during and after takeoffs and landings, and the mooring of seaplane equipment

In view of the interest of the U S Navy Department in the establishment of seaplane operating areas, the Civil Aeronautics Authority has brought this particular problem pertaining to Anchorage No. 6, in San Francisco Bay, to the official attention of the Navy Department, and a copy of their views on this subject, signed by the Assistant Secretary of the Navy, will be separately submitted for your consideration

I wish to extend to the U S Corps of Engineers the full cooperation of the Civil Aeronautics Authority in promoting and assuring the greatest safety for surface-borne watercraft and seaplane operations

Sincerely yours,

Clinton M Hester  
Administrator

APPENDIX C

## Condensed Report of a Public Hearing

before the  
War Department  
United States Engineer's Office

On

An Application for the Reservation and Restriction  
of an Area in San Francisco Bay

San Francisco, California  
Thursday, December 14, 1939

## FOREWORD

This is a condensed report of a Public Hearing held in San Francisco, California on December 14, 1939, before the District Engineer of the United States Engineer's Office, dealing with the restriction of certain navigable water area in San Francisco Bay for seaplane operation purposes. Verbatim copies of the report are obtainable from the office of the District Engineer, War Department, United States Custom House, San Francisco, California.

## PURPOSE

The Public Hearing was held in accordance with War Department regulations, to consider the application for the reservation of certain water areas in San Francisco Bay for the exclusive use of seaplanes and their attendant surface watercraft.

## PROCEDURE

The District Engineer of the United States Engineer's Office acted as Chairman of the meeting, which was attended by representatives of the following Federal agencies, municipalities, transportation and oil companies, including Pan American Airways, the original applicant:

United States Engineers	Berkeley Transportation Company
Civil Aeronautics Authority	A T & S F Railroad
United States Coast Guard	A T & S F Railroad and
City of Oakland, California	Berkeley Water Front Company
City of Emeryville, California	Pan American Airways
City of San Francisco, California	Paraffine Companies, Inc
City of Berkeley, California	Union Oil Company of California

The meeting was opened officially by the United States District Engineer at 10 a m , December 14, 1939, with the following explanatory statement:

"Although the notice of this hearing which was issued by this office December 5, stated that the purpose of the hearing was to consider an application by the Administrator, Civil Aeronautics Authority, for the reservation of an area on the eastern side of San Francisco Bay, between the Key System pier and the Southern Pacific Golden Gate Ferries Berkeley pier, for the exclusive use of seaplanes and surface craft attendant upon seaplane operations, the matter is really a development of an application made by Pan American Airways Company, March 23, that three lanes within that area be removed from Anchorage No 6 and set aside for the purposes of air navigation.

"In conformity with department regulations, the application of Pan American Airways was brought to the attention of all parties thought to be interested in the matter and then was referred to the Administrator, Civil Aeronautics Authority, for his views.

"It is understood that various conferences were had in Washington between representatives of the (Civil) Aeronautics Authority and of the War Department on this matter, and on December 2 the Administrator, Civil Aeronautics Authority, addressed to me, as District Engineer of the San Francisco District, his views and recommendations

"I will read the Administrator's letter " (See Appendix B ) \* \* \*

"I want to impress upon you that it is desired to have a frank and full expression of the views of all interested parties and as complete a statement as possible of all information bearing upon the various questions which will be considered

"The War Department will give full weight to all evidence and arguments presented at this hearing. All pertinent material which any parties wish considered should be brought out here. Later ex parte evidence and arguments are not desired by the reviewing authorities, unless it is clearly shown that the matter is new and material, and that there are good reasons why it could not have been presented here today. Such matter will be called to the attention of opposing interests, and they will be given an opportunity to reply if the decision is otherwise likely to differ from their wishes

"A stenographic report is being taken. I request that each person who comes forward give his name and connection to the reporter and that he speak distinctly so that the record may be clear "

The representative of the Administrator of the Civil Aeronautics Authority was then asked to explain briefly any plans which the Civil Aeronautics Authority had for the proposed restricted area and why, in the opinion of that agency, it should be restricted to the exclusive use of seaplanes and their attendant watercraft

#### Statement by Civil Aeronautics Authority Representative

"In order to further clarify the purpose of the proposal for consideration at this hearing, the following resume of official negotiations pertinent to the modification of Anchorage No. 6 in San Francisco Bay is brought to your attention

"The original application for a modification of Anchorage No. 6 was submitted to the U. S. Corps of Engineers by Pan American Airways which, in turn, was submitted to the Civil Aeronautics Authority for its views in compliance with a present working agreement established between the Civil Aeronautics Authority and the U. S. Corps of Engineers. Such working agreement became mandatory due to division of authority, the Corps of Engineers having jurisdiction by law over all navigable water, the Civil Aeronautics Authority being responsible by law for the safety of air commerce, which includes the operation of seaplanes

"The rapid expansion of air commerce and the growing need for safe and adequate harbors and maneuvering areas for large seaplanes, particularly those engaged in transoceanic operations, made it incumbent upon the Civil Aeronautics Authority to give full consideration to this problem. Conferences between Federal and other agencies concerned with air, water navigation, and national defense resulted in the consensus of opinion that, when public necessity requires such action, certain areas of the navigable waters of the U. S. be set aside and reserved for the use of seaplanes and their attendant craft, and that there be prescribed such reasonable regulations, restricting the use of such areas in order to provide protection of human life and property as well as to assure a maximum degree of safety to both surface watercraft and seaplanes

"The recommendations made by the Administrator in the Civil Aeronautics Authority in connection with a proposed restricted area in Anchorage No. 6, read to you by Major Hunter, are based on such consensus of opinion of Federal and other agencies, applicable to the problems involved and essential for the encouragement and fostering of air commerce and national defense

"To amplify such recommendations, it should be noted that such restricted area will be essential to assure the unhampered progress of transoceanic air commerce and other seaplane operations and to provide a proving ground for seaplane base lighting equipment and other seadrome accessories

\* \* \* \* \*

"Such provision will make possible the increase of day and night seaplane operations and will tend to expand our international air commerce as well as to promote the establishment of urgently needed seaplane operating areas, nationally and internationally

"Undoubtedly, there are certain questions in your mind as to the permanency of such proposed restriction, and it should be emphasized at this time that:

"In establishing the above-mentioned restricted area for the exclusive use of seaplanes and attendant surface craft, it is recognized by the Civil Aeronautics Authority that portions of the area may in the future interfere with proposed harbor and shore developments, as well as water traffic. It should, therefore, be understood that, upon proper notification and request to the U. S. Corps of Engineers, this restricted area may be modified to meet the normal requirements of such developments

"May I repeat that it is not the intention of the Civil Aeronautics Authority to infringe upon public privileges and that the recommendations by the Authority are made in the public's interest and for the promotion of safety in air commerce and national defense "

Following the statements made by the United States Engineer and the Civil Aeronautics Authority's representative, written objections and comments were read and submitted in the form of resolutions by the

Cities of Emeryville, San Francisco, and Berkeley, the A T & S F Railroad Company, and the Island S Rosener Engineering Company, briefed as follows

The representative of the City of Berkeley, California, placed on exhibit a map showing the proposed harbor development of the East Bay Cities and its relation to the proposed seaplane restricted area. He expressed his city's willingness to cooperate fully with the Civil Aeronautics Authority and the applicant as long as the development did not interfere with this proposed harbor expansion program which might take many years to materialize. There would be, he continued, no objection by the City of Berkeley to the immediate restriction of this area if the C A A would definitely agree to remove or alter it if necessary for the future harbor development, even if such development were to begin within a year.

The representative of the Civil Aeronautics Authority then stated that the proposed restricted area was by no means permanent since, with the increase in size of future seaplanes, a new and larger area would be required for them in San Francisco Bay, and, although the C A A would like to be assured of having the area restricted for a year or more, they would begin operations without such definite assurances and would agree to alter or remove it if requested to do so for future harbor development. Since the amount of space involved in the objection presented by the City of Berkeley was navigable, it was agreed that, upon proper request to the United States Corps of Engineers by the City of Berkeley, the restricted area would be modified or removed if required for future harbor development.

The Port Manager and Chief Engineer of Oakland then exhibited a plan for Oakland's proposed harbor development which was in general agreement with that exhibited by the representative of the City of Berkeley. He assured those present at the meeting that Oakland had a definite concrete plan of harbor development. He also raised a question concerning the channel between Treasure Island and the pierhead line and was assured there would be no interference with this channel.

The representative of the City of Emeryville then mentioned to the meeting that the City had leased certain rights-of-way in the harbor to a private company which was using them for navigation purposes. He then asked and received assurances from the Civil Aeronautics Authority's representative that this right-of-way would not be included in the restricted area at any time.

The representative of the Berkeley Transportation Company then asked assurance that he would be allowed ample room to run his barges near the island with a couple hundred feet to spare in case the island settled. There being no objection, the representative of the C A A called upon the representative of Pan American Airways for his comments. This representative stated that water traffic had been taken care of and that he believed all objections had been met and nothing need be added.

An observer then raised the question of sewage disposal in the restricted area, he being under the impression that the operations would restrict the flow of the tide. He was assured by the representative of the United States Engineer Corps that the restricted area was not to be filled in but merely to be lighted.

The Port Manager and Chief Engineer of Oakland wished to go on record as objecting to any channels to be fixed through the North Harbor area, and was assured by the United States Engineer Corps representative that no dredging was to be done in the restricted area, only the placing of lights.

The Oakland representative then brought up the point that it might be necessary to move the southerly line a few hundred yards to allow vessels to go south. The C A A representative said this would not affect the proposed operations appreciably.

A representative of the Coast Guard then suggested that provision be made to allow Coast Guard enforcement craft to enter the restricted area if necessary to keep it clear of unauthorized ships at all times and to provide a penalty for all trespassers. Also, he asked that the Coast Guard be allowed to use the landing area for their aircraft when their own facilities were inadequate.

Since no further objections were raised and since all previous objections had been met, the meeting was adjourned.

#### APPENDIX D

202 91 San Francisco Bay, California, restricted area for seaplanes at Oakland, California

Pursuant to the provisions of Section 7 of the River and Harbor Act approved August 8, 1917 (40 Stat. 266, 33 U S C 1), a portion of General Anchorage No. 6, San Francisco Bay at Oakland, California, is hereby defined and established as a temporary restricted seaplane area, and the following regulations relating thereto are hereby adopted:



## The Area

(a) The truncated triangular area between the Berkeley Auto Ferry Pier and the San Francisco-Oakland Bay Bridge, the four corners of which are the following distances and true bearings from the easterly pier of the cantilever span of the above bridge (the pier marked H on U S Coast and Geodetic Survey charts 5532 and 5535), northwest corner, 3532 yards,  $348-3/4^{\circ}$ , northeast corner, 4813 yards,  $54-3/4^{\circ}$ , southeast corner, 4560 yards,  $59-1/2^{\circ}$ , southwest corner, 555 yards,  $31-1/2^{\circ}$

Note The area will be marked by the U S Coast Guard in accordance with standard practice for the designation of anchorage areas and such other buoys as may be selected by the U S Coast Guard and the Civil Aeronautics Authority for the guidance of seaplanes

## The Rules and Regulations

(b) No surface watercraft shall be operated or anchored in this area except those attendant upon seaplane operations

Approved, February 5, 1940

Harry H Woodring  
Secretary of War

APPENDIX E

## TITLE 33--NAVIGATION AND NAVIGABLE WATERS

## Chapter II--Corps of Engineers, War Department

## Part 202--Anchorage Regulations

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Note The area will be marked by the U S Coast Guard in accordance with standard practice for the designation of anchorage areas and such other buoys as may be selected by the U S Coast Guard and the Civil Aeronautics Authority for the guidance of seaplanes

## The Rules and Regulations

(b) No surface watercraft shall be operated or anchored in this area except those attendant upon seaplane operations (Sec 7, River and Harbor Act, August 8, 1917, 40 Stat 266, 33 U S C 1) Regs February 5, 1940 (E D 7175 San Francisco B ), 65/7

E S Adams  
Major General,  
The Adjutant General

(Seal)

(F R Doc 40-698, Filed, February 15, 1940, 11 13 a m )