CHAPTER 2

Technical Background

21. THE FEDERAL-STATE BOUNDARY

While the *Submerged Lands Cases* settled the basic legal rights in the offshore submerged lands, the decisions and decrees were couched in terms too general to provide specific criteria for a precise determination of the federal-state boundary. This was particularly true of the California coast, where islands fringe the coast and embayments indent the shore. The Supreme Court recognized this when it said: "And there is no reason why, after determining in general who owns the three-mile belt here involved, the Court might not later, if necessary, have more detailed hearings in order to determine with greater definiteness particular segments of the boundary." [1] Jurisdiction was therefore reserved by the Court, in its decree of October 27, 1947, "to enter such further orders and to issue such writs as might from time to time be necessary." 332 U.S. at 804, 805.

The *Louisiana* and *Texas* cases were decided during the pendency of the *California* case before a Special Master (*see* 2111). Although the decisions and decrees in these cases were also couched in general terms, no request was made of the Court for further action because it was believed the principles established in the *California* case could be applied with appropriateness to the Louisiana and Texas coasts. However, in order to hold future litigation to a minimum in the seaward area off Louisiana (most of the producing wells were in this area rather than off the Texas coast), the United States established a tentative administrative line, which became known as the "Chapman Line," as the dividing line between federal and state jurisdiction. The circumstances surrounding its promulgation and other significances of the line are discussed in Chapter 7.

1. *United States* v. *California,* 332 U.S. 19, 26 (1947). The Court cited *Oklahoma* v. *Texas,* 258 U.S. 574, 582 (1922) in support of this. The coast of Louisiana also poses many problems due to its peculiar geography (*see* figs. 22 and 23). The Texas coast is relatively simple by comparison.

211. United States *v.* California

In January 1948, the Government filed a petition for the entry of a supplemental decree, seeking an adjudication of the precise boundary along three segments of the California coast where oil was being extracted. These comprised an area in Santa Barbara Channel, San Pedro Bay, and an area southeastward of San Pedro Bay.[2] California sought a determination of the entire 1,100 miles of coastline. The Court denied California's petition but expressed doubt as to what particular segments should then be determined.

2111. *A Special Master Is Named*

The matter of determining what segments of the federal-state boundary required immediate adjudication was ultimately referred by the Court to a Special Master with instructions to make recommendations as to the segments that "call for precise determination" and "to recommend . . . an appropriate procedure to be followed in determining the precise boundary of such segments." [3]

After many preliminary, informal conferences with the litigants looking toward a clarification and narrowing of the issues,[4] the Special Master recommended for present adjudication the following seven segments as being representative of physiographic conditions along the California coast (*see* fig. 1):[5]

2. Petition for the Entry of a Supplemental Decree, 2–3, United States v. California, Sup. Ct., No. 12, Original, Oct. Term, 1947. Stipulations had been made between the parties that San Francisco Bay, shoreward of the line from Bonita Pt., through Mile Rocks Lt., to the low-water line at San Francisco; San Pedro Bay, shoreward of a line beginning at a point on the low-water mark of the Pacific Ocean, 850 yards in an easterly direction from Pt. Fermin lighthouse, and running in a northeasterly direction through a point 300 feet due south of the southerly extension of the Navy mole and breakwater, to the line of ordinary low tide in the City of Long Beach; and San Diego Bay, shoreward of the line Pt. Loma to Zuniga Pt., would be considered as falling within the purview of "ports, harbors, bays, and other inland waters" and therefore excluded from operation of the Court's decision. The stipulations, however, left California free to urge a more seaward position for the limits of inland waters.

3. The several orders of the Court relative to the proceedings before the Special Master were: Order of June 21, 1948 (334 U.S. 855); Order of June 27, 1949 (337 U.S. 952); Order of June 4, 1951 (341 U.S. 946); Order of Dec. 3, 1951 (342 U.S. 891); Order of Nov. 10, 1952 (344 U.S. 872).

4. The Department of Justice was in frequent consultation with officials of the Coast and Geodetic Survey for assistance in formulating and clarifying the technical issues before the Special Master.

5. The Special Master filed two reports with the Supreme Court preliminary to making his final recommendations. The first (dated May 31, 1949) set forth the segments recommended for adjudication, the questions on which answers were required before a precise determination of the boundary could be undertaken, and a recommended procedure for arriving at these answers; the second (dated May 22, 1951) dealt with the issues, the positions of the parties, and the nature and form of the evidence proposed to be submitted.

1. Crescent City Bay
2. Monterey Bay
3. San Luis Obispo Bay
4. Point Conception to Point Hueneme
5. Santa Monica Bay
6. San Pedro Bay
7. Area east of San Pedro Bay

While these segments covered a relatively small portion of the California coast, they presented in reasonably significant variety the principal questions posed by the Court's decision, which could be applied to other areas.

The basic question involved in all the submerged lands cases was where to draw the line that separates the inland waters from the marginal sea, for the Court said in the *California* case, that "the Federal Government rather than the state has paramount rights in and power over that belt [the marginal sea]" and that the belt embraces the submerged lands "lying seaward of the ordinary low-water mark . . . and outside of the inland waters." This was formalized in an order of the Court, dated December 3, 1951 (342 U.S. 891), in the following three questions on which the Special Master was directed to hold hearings and to take whatever testimony was necessary for the purpose of making recommendations to the Court:

Question 1. What is the status (inland waters or open sea) of particular channels and other water areas between the mainland and offshore islands, and, if inland waters, then by what criteria are the inland water limits of any such channel or other water areas to be determined?

Question 2. Are particular segments in fact bays or harbors constituting inland waters and from what landmarks are the lines marking the seaward limits of bays, harbors, rivers, and other inland waters to be drawn?

Question 3. By what criteria is the ordinary low water mark on the coast of California to be ascertained?

As applied to the California coast, these presented for solution three groups of problems: the inland waters problem, the offshore islands problem, and the tidal boundary problem. The questions propounded by the Court will be dealt with for convenience in these contexts (*see* Chapters 4, 5, and 6).

2112. *Preparatory Work by the Coast and Geodetic Survey*

Almost from the moment the decision in *United States* v. *California* was announced in June 1947, the Attorney General of the United States approached the Secretary of Commerce for assistance from the Coast and Geodetic Survey

in the matter of delimiting the federal-state boundary under the decision of the Court.[6]

Specific materials furnished and services rendered preparatory to the taking of testimony by the Special Master included the following:

(*a*) Eight large-scale Bureau charts of sections of the California coast on which the earliest shorelines were superimposed in color.[7]

(*b*) Drawings covering three segments of the California coast showing the lines contended for by the Government and which it urged for immediate adjudication (*see* note 2 *supra* and accompanying text).

(*c*) A series of maps and charts, covering the entire coast of California, on which the earliest shoreline was superimposed for use in developing a Government policy for dealing with piers, wharves, and similar structures, and of artificially filled lands which had been erected or created within the marginal sea.[8]

(*d*) Research into the cartographic history of San Pedro Bay, with particular emphasis on its historic limits, and into the origin and charting history of Point Lasuen.[9]

(*e*) A Memorandum on Mean Low Water (dated May 26, 1949) clarifying the distinction between the "plane of mean low water" and the "line of mean low water" together with a discussion of the technical problems involved in the determination of each.

(*f*) Assistance in the preparation of a memorandum requested by the Special Master on the position of the United States with respect to the boundary line between inland waters and the open sea for the seven areas under consideration.[10]

6. Letter of July 14, 1947, from Attorney General Clark to Secretary of Commerce Harriman and reply of July 21, 1947. The assistance requested covered the following subject matter: "(1) The preparation of maps reflecting the comparative positions of the shoreline along the California coast at the time of earliest survey and in 1947; (2) advice of a technical nature in connection with the preparation of an appropriate description of the line of demarcation in those areas as to which hearings appear to be unnecessary; (3) similar advice in respect to the matter of determining what line should be insisted upon by the Government in those areas in respect to which it is found that hearings are required; (4) appearance of representatives of your Bureau as expert witnesses for the Government in any such proceedings; and (5) assistance in the drafting of an appropriate description of a line of demarcation in connection with the preparation of a final decree to be entered by the Court." Letter of July 29, 1947, from Assistant Attorney General to Director, Coast and Geodetic Survey.

7. These comprised charts 5007 (Point Mugu to Ventura (Santa Barbara Channel)), 5107 (San Diego Bay), 5108 (Newport Bay), 5143 (Los Angeles Harbor), 5144 (portion of Santa Monica Bay), 5261 (Santa Barbara), 5403 (Monterey Bay), and 5832 (entrance to Humboldt Bay).

8. Copies of the latest planimetric or planetable surveys were used except where large-scale charts were available. This series comprised 96 topographic surveys (made between 1928 and 1935) and 20 of the then latest published charts (1947). The entire series was prepared in atlas form in two parts.

9. The resulting memorandum, dated Dec. 1, 1948, formed the basis for the Government's rebuttal testimony before the Special Master (*see* 4541).

10. The memorandum (dated Aug. 12, 1949) included a method of determining the termini of the boundary line at headlands, a method of determining when an indentation of the coast is a true bay,

(*g*) Copies of Coast Survey charts, covering the seven segments to be adjudicated (*see* text at note 5 *supra*), on which were drawn the federal-state boundary line as contended for by the Government together with the 3-mile marginal belt along the mainland coast and around the offshore islands using an envelope line (*see* Part 2, 1621(*c*)) and following the principles of delimitation advocated by the U. S. delegation at the 1930 Hague Conference for the Codification of International Law (*see* Part 3, 2218).[11]

(*h*) A computation of the ratio of land to water area included between the general mainland coast of Norway (covering the skjaergaard area) and the straight baselines approved in the *Anglo-Norwegian Fisheries* case (*see* 511 and 513). The measurements were made on copies of charts used in the proceedings of that case. A similar determination was made for the ratio of land to water area included between the mainland coast of California and the outer coasts of the offshore islands as exemplified by the lines marking the overall unit area contended for by California (*see* 53).

2113. *Proceedings Before the Special Master*

Besides the briefs and documentary material submitted by both litigants, oral testimony was also heard by the Special Master.[12] The Government's direct presentation consisted of oral testimony relative to Pacific coast tides and tidal datums;[13] testimony on the application of a technical method urged by the Government for the determination of the status of coastal indentations, that is, whether inland waters or open sea;[14] and the introduction of Coast Survey charts on which the federal-state boundary line, as contended for by the Government, was delineated for the several coastal segments in question. In addition, two memorandums from the Department of State setting forth the criteria which govern the delimitation of the territorial waters of the United States were made part of the record.[15] A memorandum from the Coast and Geodetic

criteria for ascertaining "the ordinary low-water mark" along the Pacific coast and special problems arising therefrom, and principles applicable to the determination of the limits of inland waters in the area of the offshore islands.

11. While the seaward limit of the marginal belt was not in issue in this proceeding, it was delimited for the purpose of pointing up the relationship of this belt to the California coast, particularly in the area of the offshore islands.

12. Hearings were held during Feb., Mar., and Apr. of 1952, at Washington, D.C., and at Los Angeles, Calif. At the request of the Solicitor General of the United States (letter of Jan. 2, 1952, to Director, Coast and Geodetic Survey), the author served as consultant to the Department of Justice at all hearings before the Special Master and as an expert witness for the Government.

13. This testimony was given by H. A. Marmer, then Assistant Chief, Tides and Currents Division, Coast and Geodetic Survey.

14. This testimony was given by the author.

15. Letter of Nov. 13, 1951, from Acting Secretary of State to Attorney General and letter of Feb. 12, 1952, from Secretary of State to Attorney General. (*See* Appendix D.)

Survey, explaining the various uses of tidal datum planes, and a discussion of the term "ordinary low water," insofar as it pertained to the California coast, was also made part of the record.[16]

California introduced a number of expert witnesses, consisting of a former judge of the World Court to show the present status of international law in this field; a professor of geology to show that at some time in the geologic past, perhaps 25 million years ago, the channel islands off the southern California coast were connected to the mainland; an oceanographer to show the effect of wave refraction on the channel areas and on indentations; an engineer to describe the physical and geographic features of the coast, with particular reference to wind and wave conditions and to the sheltered character of the area; a state engineer to show the low-water datum used by the California Lands Commission; another state engineer to explain the cartographic history of San Pedro Bay, particularly with respect to the location of Pt. Lasuen and the southeastern headland of the bay; a professor of history to show the use and development of the various areas from early 16th century days, with a view to showing their protected nature; and about 40 other fact witnesses, consisting of county surveyors, longshoremen, fishermen, salvage officials, pleasure boat captains, harbor masters, pilots, law enforcement officers, fish and game officials, and others who testified with respect to the use aspects of the areas to substantiate their protected nature.

Rebuttal testimony for the Government was presented by a professor of international law on the interpretation of the *Anglo-Norwegian Fisheries* case (*see* 513) in its application to the California coast; by an engineer from the Beach Erosion Board on the significance of the wave-refraction studies introduced by California; by a geographer from the Coast and Geodetic Survey on the location of the seaward boundaries of the southern California counties in relation to the channel islands; [17] and by a cartographic engineer from the Coast and Geodetic Survey on the relative geographic differences between the Norwegian coast and the southern California coast, and on the cartographic history of San Pedro Bay.[18]

Besides the oral testimony, documentary evidence was presented, some of which was received in evidence and some of which was excluded as within the reach of judicial notice. Such documents were submitted in written form to

16. Letter of Feb. 8, 1952, from Director, Coast and Geodetic Survey, to Solicitor General. (*See* Appendix E.)

17. This testimony was given by A. Joseph Wraight who had been assigned to the Department of Justice for about 9 months on a reimbursable basis, during the later stages of the case, to investigate certain geographic and historic documents cited in the California briefs, and to assist the author in various researches.

18. This testimony was given by the author.

the Court, to accompany but not to be a part of the proceedings upon which the Master acted.[19]

The Special Master filed his report with the Supreme Court on October 14, 1952 (*see* note 19 *supra*) in which he set forth his recommendations on the three principal questions propounded by the Court as well as on certain questions ancillary thereto. These are dealt with in Chapters 4, 5, and 6.

19. Report of Special Master 2, United States v. California, Sup. Ct., No. 6, Original, Oct. Term, 1952.