

Part Two

**DELIMITING MARITIME
BOUNDARIES**

INTRODUCTORY

Despite the fact that maritime boundaries¹ have always been important to the United States in both its international and domestic affairs, the exact location of those boundaries is only now becoming known. A congressional committee investigating the issue in 1952 concluded that “[a]lthough our country is now 163 years old, no one can say exactly where our seaward boundaries are located. Along much of our coastline, it is impossible to say, even within a few miles, where our territory ends and the high seas begin.”

The problem was not one of articulating our claim; the United States has claimed a territorial sea since the first years of the Republic. Rather, it has been one of determining the baseline from which that claim is to be measured. The primary position of the United States has always been, and remains today, that maritime zones are measured from the shore. An alternative method, employing construction lines connecting promontories along the coast, and in some cases offshore islands, was employed by the British during the reign of the Stuarts in the mid-1600s. However, the United States specifically rejected such a system, retaining its “rule of the tide-mark.”²

The United States has, however, traditionally recognized that minor embayments along the coast may be claimed by the coastal sovereign. Thus, the baseline, or coast line, from which maritime zones are measured is composed of the shoreline itself and the seaward limits of inland water bodies claimed by the United States. Congress has adopted this definition for purposes of the Submerged Lands Act, 43 U.S.C. 1301(c), *United States v. Louisiana*, 364, U.S. 502, 503 (1960), *Louisiana Boundary Case*, 394 U.S. 11, 15 (1969); and the Supreme Court has concluded that the “coast line” in the Act and the “baseline” referred to in the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone, 15 U.S.T. 1606, are one and the same. *United States v. California*, 381 U.S. 139, 164-165 (1965).

1. The term “boundaries,” when used in this volume, refers to the extent of zones of national jurisdiction. Political geographers often employ the term “limits” for this purpose and use “boundaries” to describe lines that separate the jurisdiction of adjacent or opposite sovereigns.

2. The United States’ rejection of the headland theory is set out in a letter from Secretary of State Bayard to Secretary of the Treasury Manning, dated May 28, 1886, stating that: “We may therefore regard it as settled that so far as concerns the eastern coast of North America, the position of the Department has uniformly been that . . . the seaward boundary of this zone of territorial waters follows the coast of the mainland, extending where there are islands so as to place around such islands the same belt. This necessarily excludes the position that the seaward boundary is to be drawn from headland to headland, and makes it follow closely, at a distance of three miles, the boundary of the shore of the continent or of adjacent islands belonging to the continental sovereign.” 1 Moore, *International Law Digest* 718-721 (1906). That position was reaffirmed by the acting secretary of state in 1951. 1 Shalowitz, *supra*, 354-356.

With that conclusion, we are able to look to the Convention for answers to the many practical questions that arise in delimiting the coast line of the United States. *United States v. California*, 381 U.S. 139, 165 (1965). The remainder of this part is a review of the ways in which each of the coast line provisions of the Convention on the Territorial Sea has been interpreted by the Court, its special masters, and the executive branch in more exactly delimiting our maritime boundaries.

CHAPTER 5 THE NORMAL COASTLINE

To conclude that the “normal” coastline is the shoreline, or the line at which the land meets the water, is merely to frame the issue, not resolve it. Recurring tides guarantee that the “shore” will be a continually moving line. The first step, then, in locating the normal coastline is to define that stage of the tide that will be used as the benchmark.

THE LOW-WATER LINE

Whiteman suggests that as many as six tidal lines may be recognized, ranging from higher high to lower low water. 4 Whiteman, *Digest of International Law* 138 (1965). Hydrographers may even identify more tidal datums. Certain early writers supported the use of the high-water line for purposes of measuring the territorial sea. Such a line has much in its favor. It is, in American jurisprudence, the usual seaward boundary of the upland estate. What is more, it is a conservative choice, in keeping with this country’s traditional policy of minimizing encroachments on freedom of the seas. Nevertheless, it did not catch on.

Which Low-Water Line?

United States foreign policy has always employed the “ordinary low-water mark” for delimitation purposes. It is that line that was established as dividing state and federal interests in the pre-Submerged Lands Act tidelands cases. *United States v. California*, 332 U.S. 804 (1947); *United States v. Louisiana*, 339 U.S. 699 (1950); and *United States v. Texas*, 339 U.S. 707 (1950).

Likewise, the International Court of Justice concluded in 1951 that it is the low-water mark, not the high-water mark or a mean between them, which has been accepted in international practice for purposes of delimiting the territorial sea. *Fisheries Case*, I.C.J. Reports, [1951], p. 128.

The Submerged Lands Act and 1958 Convention are in accord, albeit through slightly different terminology. The Act refers to the “ordinary low-water” line. The Convention refers to the “low-water line along the coast as marked on large-scale charts.”

Thus, the issue is reduced to determining which of a number of alternative low-water lines is to be employed.

The Charted Line

The question was first considered by the Hague Convention on the law of the sea in 1930. However, by that time countries were already publishing official charts using a variety of low-water lines, and no consensus could be reached on a single datum. Although no treaty evolved, a draft article provided simply that the line of ordinary low water would be used, with the proviso that it could not appreciably depart from the line of mean low-water spring tides.³ Although the proviso was not retained in the 1958 Convention, commentators do not anticipate problems from its absence.

It is clear that the failure to choose a single low-water line in 1958 resulted from the same practical problem that had confronted the conferees in 1930; state practice was already established and there appeared to be no compelling reason to fashion a rule that would require modification of entire charting systems.

Thus, the selection of a particular low-water datum for charting purposes is within the discretion of the state involved.⁴ Yet that selection may have a significant effect on the seaward limit of a particular state's jurisdiction. For example, as Prescott points out, the use of extreme low-water datum not only has the immediate effect of pushing the territorial sea to its seaward limit, it also increases the likelihood that a seabed feature will extend above that datum, qualifying as a low-tide elevation and further extending jurisdictional zones. Prescott, *supra*, at 47.

Of course, the contrary may occur when using the line for bay delimitation purposes. The more extreme the low-water line chosen, the smaller the water area within each coastal indentation. In close cases, the difference may be sufficient to prevent the indentation from meeting the semicircle test. If that occurs, waters that might have qualified as inland using a more conservative low-water line will become territorial seas and high seas simply through the selection of a more extreme datum.⁵

The United States Supreme Court has long since resolved the tidal datum issue for purposes of American jurisprudence. In its decree in the

3. This line is obtained by measuring low waters when the maximum declination of the moon is 23 degrees 30 minutes.

4. McDougal and Burke, *The Public Order of the Oceans* at 327 (1962); Prescott, *The Maritime Political Boundaries of the World* at 46 (1985). The United States, for example, altered its charted datum along some coasts in recent years. Pursuant to the National Tidal Datum Convention of 1980, it now uses a single, uniform tidal datum system for all of its marine waters.

5. Prescott suggests that a state may elect to avoid such dilemmas by picking and choosing among potential datums as best suits its purposes along a particular coast, Prescott *supra* at 47, even to the extent of adopting a high-water line as the coastline if necessary to meet the semicircle test, *id.* at 60. Although it is not unusual to find more than one datum employed by a state, because of different tidal characteristics along different coasts, it is doubtful that a court would countenance a blatant abuse of the right to select. The Convention appears clear that it is a low-water line that will be used, and not a high-water line.

first *California* case, it ordered that the federal government has paramount rights in the submerged lands seaward of the "ordinary low-water mark." *United States v. California*, 332 U.S. 804, 805 (1947). It then appointed a special master to, among other things, give specificity to that term.

Unlike the east coast of the United States, California has two low tides a day, of unequal height. The federal government argued that in such circumstances "ordinary low water" should be computed by averaging all low tides. "Ordinary" was acknowledged not to be a term of art and the government contended that it should be equated to "mean," which would then encompass all low tides, not just all lower-low tides. 1 Shalowitz, *supra*, at 163.

California urged the contrary, pointing out that mean lower low water is the datum used for hydrographic surveys and navigation charts of the California coast, is required by the Corps of Engineers, and is used by the State Lands Commission. *United States v. California*, Report of the Special Master of October 14, 1952, at 41.

The special master could find no indication of what the Court intended in its use of the term and opted for the mean of all low tides for the 18.6-year tidal cycle. *Id.* at 39-40. The Court held otherwise. It concluded that "California's position represents the better view of the matter." *United States v. California*, 381 U.S. 175, 176 (1965). The Court ultimately ordered that, for purposes of the California coast, ordinary low water is the average of only the lower of the daily low tides over an 18.6-year period.

The Supreme Court's conclusion appears to have been greatly influenced by the fact that the official federal charting agency depicted the lower low-water line on its charts of the California coast and did not depict the mean of all low tides. The result would appear to be reasonable and conforms to the Court's general position that the same baseline would be used for international and domestic purposes.

The lesson to be derived is that the line chosen by our official charting agency to depict as a low-water line will be used as the "ordinary low-water" line for purposes of the Submerged Lands Act. *United States v. California*, 381 U.S. 175, 176 (1965). (Figure 25)

The Actual Line

That is not to say that the line depicted on a particular chart accurately portrays the baseline. The Convention's reference to "the low-water line along the coast as marked on large-scale charts" refers to the particular datum selected for that purpose, not to the line drawn on the chart. The latter may be incorrect through error in the original or may simply be outdated. Or, because of scale, the low-water line may not even appear on a particular chart. In all such cases, the baseline is the actual low-water line,

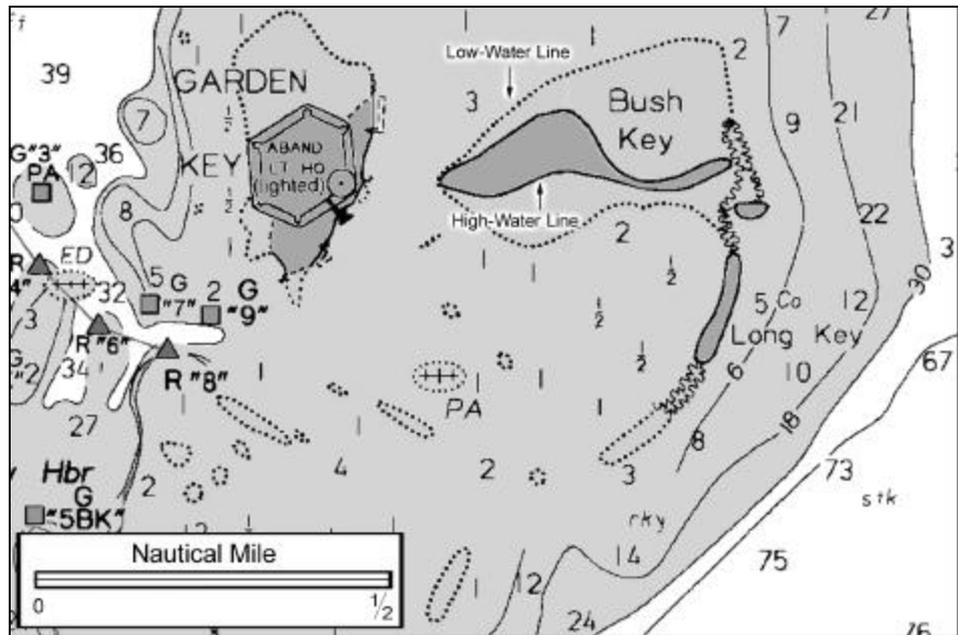


Figure 25. High- and low-water lines. The high-water line is depicted with a solid line and the low-water line is depicted with a dotted line. (Based on NOAA Chart 11438)

defined according to the principles that the charting agency purports to employ for that coast.⁶

Comments from members of the International Law Commission, during their preparation of the draft articles that led to the 1958 Convention, make their intent clear; a charted line that departs appreciably from the actual low-water line could be challenged in any legal tribunal.⁷

6. At least one eminent authority may have concluded the opposite, stating that “[i]t is important, too, to note that it is the charted low-water line that is relevant, and not necessarily the low-water line as it actually exists at the particular time an incident occurs.” Beazley, *Maritime Limits and Baselines: A Guide to Their Delineation*, The Hydrographic Society, Special Publication No. 2, 1978. However, the intent of the Convention’s drafters appears to support American practice discussed below, that is, that the legal coastline is the actual coastline, not a line drawn on a map, and the limits of maritime jurisdiction are measured from that actual coastline. However, Commander Beazley’s statement may be reconciled with American practice in that he apparently refers to the coastal state’s ability to assert jurisdiction over a vessel whose master, relying upon incorrect charts, unwittingly enters the territorial sea. Although the actual coastline has been employed by American courts rather than outdated or incorrect charts, the litigation has involved the establishment of offshore boundaries between the federal and state governments. It is not so clear that a mariner could be successfully prosecuted for inadvertently sailing into American waters in similar circumstances.

7. Typical summaries of the participants’ positions include the following:

“If the low-water mark on official charts departed appreciably from the line of mean low-water spring tides, those charts would not be accurate and their validity would be questioned by any legal tribunal.” Mr. Amado, *Yearbook of International Law Commission* 1952, Vol. I, p. 172.

“To accept a line indicated on official charts which, incidentally, frequently omitted to show the low-water mark properly, would be inconsistent with the judgement of the Court.” Mr. Hudson, *Id.* at 173.

“If a dispute arose as to whether a chart did or did not ‘appreciably’ depart from that criterion, it could be referred to an international tribunal.” Mr. Yepes, *id.* at 178.

“In order to guard against abuse they had added a proviso that the line indicated on the chart must not depart appreciably from the more scientific criterion.” *Id.* at 178.

The question has arisen in two of the tidelands cases. In *United States v. Louisiana* the state argued that the Convention’s drafters purposely adopted the charted rather than the actual coast line, knowing that charts would err on the side of safety. Therefore, it said, the federal government should not be permitted to disclaim the coast line as depicted on its own charts to prove erosion and a more landward Submerged Lands Act grant than would result from using the charted line as a baseline.

By the time that the state made this argument to the special master, the Supreme Court had already directed that the master determine, among many other things, the existence or nonexistence of certain islands in dispute off the Mississippi River delta. *Louisiana Boundary Case*, 394 U.S. 11, 40-41 n.48 (1969). From this the master concluded that “the Court must be saying as a general principle, as insisted by the United States, that at least in certain instances the Special Master may look beyond the charts of the area involved to the actual facts.” *United States v. Louisiana*, Report of the Special Master, at 25 (July 31, 1974). The master cited a federal concession that “extrinsic evidence is admissible to show significant deviations on such charts from the actual low-water line, in which case the actual low-water line prevails.” *Id.* at 43. He then went on to apply the best and most recent evidence to determine the location of extensive areas of the Louisiana coastline, sometimes to the advantage of the state and sometimes to the federal benefit.

California made a similar argument in the phase of its tidelands cases that considered the propriety of using piers as base points from which to measure the state’s Submerged Lands Act grant. By then the federal government had published nautical charts that included a line depicting the outer limit of the territorial sea. There was no doubt that in some instances that line had been constructed by swinging 3-mile arcs not only from the natural coast line, but from some of the piers at issue.⁸

California contended that “pursuant to Article 3, the United States is bound by these charts and may not now argue against using the piers for measuring the territorial sea.” *United States v. California*, Report of the Special Master, at 25 (August 20, 1979). The United States argued to the contrary and offered witnesses who explained how such errors might have occurred at various stages of the printing process. Dr. Robert Hodgson, then geographer of the Department of State, testified that the charts did not accurately represent the United States’ position with respect to the limits of the territorial sea and opined that where charts are incorrect, the actual coast line should be used. *Id.* at 16. The special master adopted that view, *id.* at 25, and noted that a disclaimer included on the charts governed just such circumstances. *Id.* at 25. He recommended against treating the charts as conclusive evidence of the location of the coast line.

8. At trial, the charts were also shown to include a number of unrelated errors in the depiction of the territorial sea line.

The Supreme Court adopted that recommendation, saying “[t]he fact that every National Ocean Survey chart of the California coast ‘officially recognized’ by the United States displays a black line connoting the coastal low-water mark following the configuration of the seaward edge of the 16 structures, as it does groins, breakwaters, and other structures that extend seaward, is likewise not dispositive. We agree with the master’s finding that the charts contain an aggregate of errors and in many places depict the territorial sea without regard to the coast line. And each chart, as the Master found, includes a disclaimer to that effect.” *United States v. California*, 447 U.S. 1, 6-7 (1980).

The proposition is, therefore, well settled in American law. It is the actual low-water line and not a charted line that is to be used as the baseline under the Convention.

In practice, the charted line is clearly the starting point in each effort to locate the low-water line. The party that expected that that line erred to its detriment has offered evidence to contradict the chart. Two immediate questions arise under the rules just stated. First, to what extent must the chart be in error to justify departing from its lines? Second, what kind of evidence will be required to justify such departures?

As set out, the rule might be read to require a chart error of some magnitude to justify putting the chart aside and relying on outside evidence to establish the location of the coast line. That has not been the practice. In fact, both the federal government and the states have offered evidence of relatively minor deviations that has been accepted by the special masters without objection, at least on this ground, from the opposition. The approach makes sense in that it results in final decrees that describe a coast line based upon the most recently available information.⁹

More difficult has been the question of the nature of evidence that should be required to disprove a charted coast line. Louisiana argued to the special master that a chart should not be changed with evidence of lesser reliability than that used to produce it in the first place. Specifically, the state contended that features along the Louisiana coast that had been located during a hydrographic survey should not be deleted as base points merely because they did not appear in a subsequent photogrammetric survey.¹⁰ The master did not accept that constraint on either party’s right to

9. This procedure is not, of course, an unfavorable reflection on either the charting process or the National Ocean Service, which produces those charts. Because there are practical limitations on how often a particular chart can be updated, and the coastline is constantly changing, it is understood by all that it would be pure coincidence for a given chart to be precisely accurate even by the time it is printed. Indeed, it is routine for the litigants to rely upon the National Ocean Service’s methods and experts in proving the actual low-water line locations.

10. Alaska made a similar argument with respect to the feature off Prudhoe Bay known as Dinkum Sands. In fact, the National Ocean Service typically makes such alterations when convinced by any subsequent evidence that a change has occurred since an original survey. To do otherwise would be to perpetuate known errors in a chart, which have resulted from erosion or accretion, simply because resources are not available for regular hydrographic surveys.

offer evidence of the actual location of the low-water line. It would now seem safe to conclude that there is a presumption that the low-water line is as charted but that a preponderance of evidence, of whatever type, may result in a modification of that line.

No Low-Water Line Charted

Some experts have been concerned that a low-water line may not be depicted on a nation’s official large-scale charts. Some countries, for example, simply do not publish such a line, while others may do so generally but do not on particular charts either because surveys are incomplete or the chart scale is inadequate.¹¹

For example, McDougal and Burke note that the United States itself commented that the draft article was ambiguous for this reason, McDougal and Burke, *The Public Order of the Oceans* 326 (1962); but the authors conclude, properly it would seem, that the provision should not be read to require the publication of a low-water line. *Id.* at 326. Clearly, the Convention did not contemplate that each state would produce a new set of charts upon which the low-water line is specifically delineated as a baseline. Beazley, *supra*, at 5.

The United States, for one, does not publish a low-water line for portions of its coast. Although the policy is to include such a line, it is occasionally missing either because its exact location is unknown, as is sometimes the case on extensive mud flats or in areas of mangrove swamp, or because at the chart’s scale the low-water line cannot be depicted separately from the high-water line.¹² (Figure 26)

Commentators have occasionally concerned themselves with the definition of “large-scale” because that term appears in Article 3 and was used by the International Court of Justice in the Anglo-Norwegian *Fisheries*

11. See: Griffin, *The Emerging Law of Ocean Space*, 1 *The International Lawyer* 548, 559; Churchill and Lowe, *The Law of the Sea* 26 (1983).

12. This will occur, for example, where the line representing the high-water line, because of scale, is actually wider than the distance between mean high water and mean low water. It is easy to understand the likelihood of this event when one realizes that at a map scale of 1:100,000 the high-water line as depicted will actually represent 80 feet on the ground. Griffin, Jones and McAlinden, *Establishing Tidal Datum Lines for Sea Boundaries* (1967). The matter was put at issue by a Cuban fisherman arrested by the United States for operating within the United States’ then 12-mile exclusive fisheries zone off the coast of Texas. The nearest point on the coast was sufficiently steep that the low-water line and high-water line could not be depicted separately and only the latter was shown. The defendant contended that he was denied due process because the Convention requires maritime jurisdiction to be measured from the low-water line and he was not put on notice of the location of that datum. His conviction was upheld by the United States Court of Appeals for the Fifth Circuit. *United States v. Sorina*, No. 74-325 (S.D. Tx. Sep. 9, 1974), *aff’d.* without opinion, 511 F.2d 1401 (1975).

The *Sorina* decision stands only for the proposition that there is no technical requirement for publication of the low-water line. *Sorina* should have been able to conclude that by being within 10.5 miles of the high-water line he was even closer to the low-water line. A defendant who had in fact been misled by properly using charts that turn out to be inaccurate would, presumably, have a much better case, but not necessarily based upon the language of Article 3. See: McDougal and Burke, *supra*, at 322 and 327.

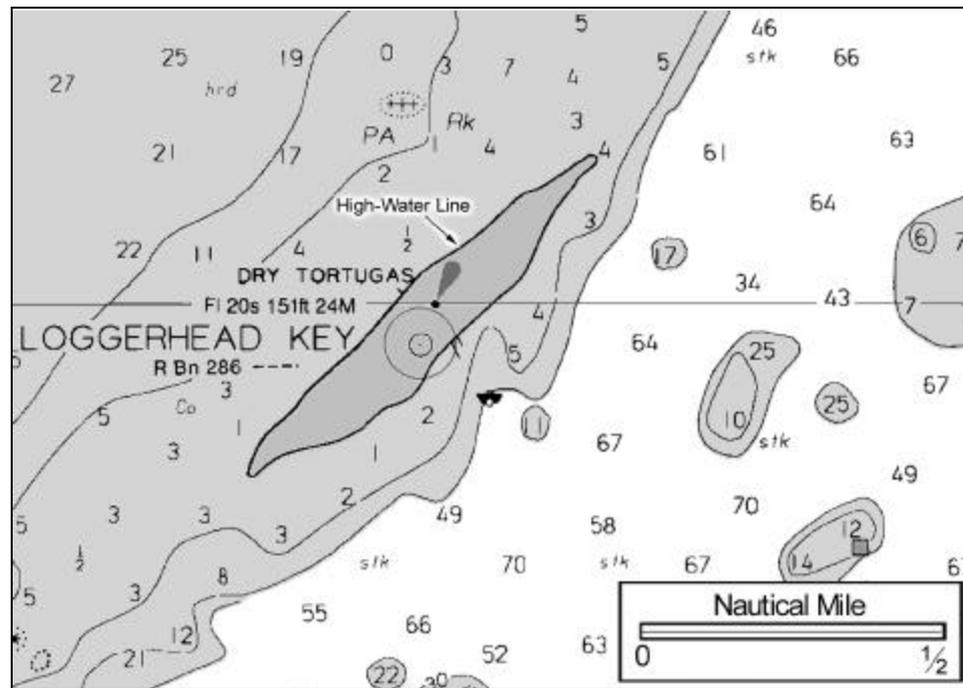


Figure 26. High-water line only. Here the high- and low-water lines are too close to one another to be depicted separately at the chart scale. (Based on NOAA Chart 11438)

Case. One suggests that the Court and the drafters of the Convention intended planning charts of 1:1 million or 1:2 million, rather than navigation charts.¹³ Another suggests that large-scale refers to 1:80,000 or larger.¹⁴ A third opines that the Convention must refer to the largest scale available of the particular coastline.¹⁵

American practice has led to no litigation over this term. The federal government publishes its territorial sea limits on the largest scale series of charts that covers the entire coast. On the Atlantic and Gulf coasts, this is 1:80,000. A smaller scale must be used on the west coast and for Alaska in order to get complete coverage. However, where questions arise, it is the policy of the Baseline Committee to consult the largest scale chart available.

13. 2 O'Connell, *The International Law of the Sea* 646 (1982). Charts at these scales would rarely show both high- and low-water lines.

14. Griffin, *supra*, at 559. This is, in fact, the scale of charts of the east coast of the United States upon which the United States publishes its territorial sea limits and has been described by Special Master Armstrong as within the meaning of the Convention. *United States v. Louisiana*, Report of the Special Master, *supra*, at 24. See: Minutes of the Baseline Committee of July 27, 1970.

15. Beazley, *supra*, at 6.

What is more, as previously discussed, where true contentions arise, outside evidence will be introduced to prove the location of a coast line regardless of the scale of the relevant chart. Because Article 3 has been interpreted to refer to the type of low-water line employed by the particular state, rather than the depiction of that line in a particular place, the definition of "large-scale" becomes meaningless. The low-water line to be used on a given coast is the same regardless of scale.¹⁶

The Ambulatory Low-Water Line

A final element of the normal low-water line must be mentioned, that being its ambulatory nature. The coast line, or baseline, is the mean low-water line. As that line moves landward and seaward with accretion and erosion, so does the baseline. As the baseline ambulates, so does each of the maritime zones measured from it.¹⁷

From the foregoing, we can conclude that the "normal" baseline referred to in Article 3 of the Convention is that low-water datum that has been selected by the state for purposes of charting a particular coast. It is not the line as marked on a chart but the actual line defined through methods employed by the charting agency. Although the chart may provide a presumption of that line's location, extrinsic evidence will be permitted to prove its actual location and no particularly oppressive burden of proof seems to be required. Although some language may suggest that charts may be challenged only if they contain significant deviations from the actual low-water line, that has not been the practice. The Convention's reference to "large-scale" charts has not created litigation issues and should not unless a charting agency is found to use different low-water datums for larger scale charts than it does for smaller. Finally, the "normal" coastline is ambulatory.

Man-Made Coast Line

The foregoing applies whether changes occur as a result of natural processes, through the intervention of man-made structures, or entirely by artificial means. As Special Master Arraj noted in *United States v. California*, "[t]he statute [Submerged Lands Act] does not define the term 'coast' and

16. For a more detailed discussion of the importance of chart selection in boundary delimitation see Smith, *A Geographical Primer to Maritime Boundary Making*, 12 *Ocean Development and International Law Journal* 1 (1982). See also: 2 O'Connell, *supra*, at 636.

17. This rule has traditionally applied to the states' Submerged Lands Act grants as well as the territorial sea, contiguous zones and exclusive economic zone. However, an amendment to the Submerged Lands Act provides that when an offshore boundary has been established by final Supreme Court decree, it will remain fixed in that location regardless of changes in the coast line. 43 U.S.C. 1301(b).

there is no indication in the Act as to whether the term was intended to encompass only the natural shore or the natural shore as modified by manmade structures protruding into the open sea.” *United States v. California*, Report of the Special Master of August 20, 1979, at 22.

The question arose early in the *California* litigation. The state took the position that areas of landfill in what used to be sea and areas of natural accretion that had been prompted by a nearby jetty or groin should be used as base points from which to measure its submerged lands rights. (Figure 27) The federal government contended that title should not be affected by changes brought about by artificial causes. 1 Shalowitz, *supra*, at 103. The United States argued that it would be inequitable to permit California to extend its submerged lands jurisdiction, at the expense of the federal government, simply by constructing more and more coastal works or filling along the shore.

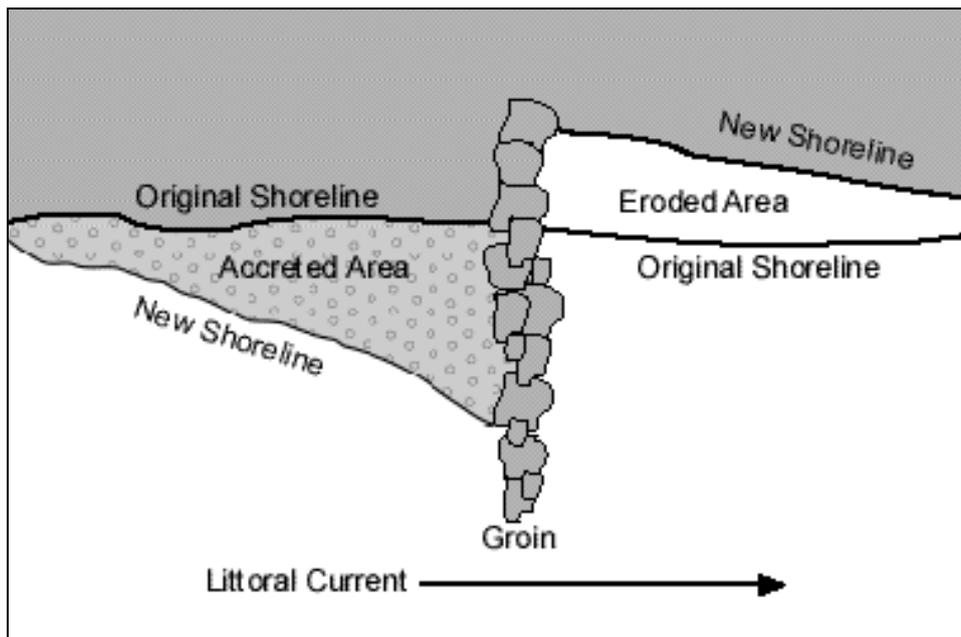


Figure 27. Effects of groin or jetty. Accretion and erosion caused by a groin or jetty result in changes in the legal coast line.

The special master sided with the state, recommending that the artificial accretion be employed, and the Court adopted that position. *United States v. California*, Report of the Special Master of October 14, 1952, at 44-46. *United States v. California*, 381 U.S. 139, 176- 177 (1965). In fact, this conclusion is consistent with the United States’ international position that

permits the use of such accretions as base points for measuring the territorial sea. Although the Court had already ruled that future wholesale changes in international legal principles for determining baselines would not be adopted to upset the Submerged Lands Act grants then being delimited, *id.* at 166-167, it concluded that the “relatively slight and sporadic changes which can be brought about artificially” did not present the same concerns. *Id.* at 177.

Nor was the master or the Court particularly concerned over the federal allegation that states could use this device to push their submerged lands jurisdiction ever seaward. He pointed out that the United States, through its power over navigable waters, could prevent these feared consequences. All such construction in the navigable waters must be approved by the federal government. And, the master suggested, “it seems clear that in the future that aspect [the submerged lands consequences] of the matter can be, and probably will be, taken into account.” *United States v. California*, Report of the Special Master, *supra*, at 45-46. Both the master and the Court suggested that that consequence would be the proper subject of negotiation between the parties in the consideration of future applications for coastal modification. *Id.* at 46; *United States v. California*, 381 U.S. at 176.

Both clearly anticipated that the federal government might condition approval of such applications on the states’ waiver of Submerged Lands Act consequences. The master said, “I think it would give an opportunity for the appropriate negotiations and agreement between the State and the United States at the time the artificial change is approved.” Report, *supra*, at 46. The Court noted that, “the effect of future changes could thus be the subject of agreement between the parties.” 381 U.S. at 176. A subsequent special master agreed, saying, “the United States retains the ability to control any construction over navigable waters to condition such construction on an agreement not to alter the Submerged Lands Act boundary.” *United States v. California*, Report of the Special Master of August 20, 1979, at 26. (Figure 28)

This is the course that has been taken. The U.S. Army Corps of Engineers (Corps) regulations now require that the agency determine whether a proposed project will have submerged lands consequences, and, if so, consult the Departments of the Interior and Justice prior to the issuance of a permit. 33 C.F.R. 320.4(f). That is routinely done, and a number of permits have been issued only after the state involved has agreed to waive any extension of its Submerged Lands Act rights that otherwise accrue.

The legal effect of this process has been twice tested in litigation between the United States and Alaska. The subject of *United States v. Alaska*, Number 118 Original, was a substantial jetty constructed to serve as a



Figure 28. Jetty at the mouth of the San Diego River, California. Such structures, when connected to the upland, form part of the coast line. (Photo by Donna M. Reed)

harbor for the community of Nome. The regulatory process was followed. The necessary Corps permit was sought and, after Alaska agreed that its Submerged Lands Act rights would not be extended by the jetty, the permit was issued. However (and despite the history just outlined), the state “reserved” its right to challenge the federal government’s authority to so condition the issuance of permits. Soon thereafter, the United States conducted an outer continental shelf lease sale in the vicinity. Relying on the state’s waiver, the Department of the Interior included in the sale submerged lands that were more than 3 nautical miles from the natural shoreline but within 3 miles of the jetty. Alaska brought an Original action in the Supreme Court contesting the United States’ authority to extract a waiver and claiming title to all submerged lands within 3 miles of the jetty.

The issue was strictly legal and the parties asked that it be considered by the Court without the appointment of a special master. The Court agreed.

Acknowledging that the Corps could properly consider “the public interest” in evaluating a permit application, Alaska nevertheless argued that the federal government’s proprietary interest in submerged lands did not

fall within that rubric. The United States pointed to the Court’s recognition of just such authority as part of its rationale in accepting artificial structures as part of the coast line in the first place.

The Supreme Court accepted the federal position. “Whether an artificial addition to the coastline will increase the State’s control over submerged lands to the detriment of the United States’ legitimate interests” was determined to be an appropriate question of “public interest.” *United States v. Alaska*, 503 U.S. 569, 585 (1992). The states cannot have it both ways. To enjoy the direct benefits of an artificial extension of their coast lines, they may be required to waive any collateral benefits in the nature of extended title to submerged lands.

The federal government tested the applicability of the Corps’ regulation in a slightly different context. An extension to the ARCO Pier, near Prudhoe Bay, Alaska, was constructed in the fall of 1976. It became necessary when unexpected early arctic ice held vessels offshore, preventing them from offloading supplies and equipment needed through the upcoming winter. A permit was sought for the construction but, in the emergency, the Interior and Justice Departments were not notified and no waiver of submerged lands consequences was sought or acquired.

As one of 15 issues in *United States v. Alaska*, Number 84 Original, the United States claimed that because Corps regulations had not been followed in evaluating the permit, the construction was illegal and could not deprive the federal government of title to submerged lands within 3 miles of the extension but more than 3 miles from the original jetty or natural coast line.¹⁸

Special Master Mann recommended a finding for the state. He pointed out that the Trans-Alaska Pipeline Authorization Act compelled the issuance of federal permits “necessary for or related to” the operation of the pipeline system and authorized the waiver of “procedural requirements” 43 U.S.C. 1652(b)-(c). Report at 326. In addition, he noted that agency action is entitled to a presumption of legality.¹⁹ Finally, he pointed to the Supreme Court’s treatment of a spoil bank along the Louisiana coast. That feature had been constructed without Corps approval at all, yet was determined to be a proper part of the coast line. *United States v. Louisiana*, 394 U.S. 11, 41 n.48 (1969).

The United States did not take exception to the recommendation and the disputed portion of ARCO Pier will be used for measuring Alaska’s Submerged Lands Act grant.

18. The original section had been constructed with a permit issued following the proper processes.

19. Citing *Citizens to Preserve Overton Park, Inc., v. Volpe*, 401 U.S. 402, 415 (1971).

Harborworks

When the Supreme Court decreed, in *United States v. California*, 382 U.S. 448 (1966), that the coast line encompassed subsequent natural or artificial changes, it specifically included “outermost permanent harbor works that form an integral part of the harbor system . . .” *Id.* at 449. That concept is not derived directly from the Submerged Lands Act, but from Article 8 of the Convention, which had been adopted by the Court for purposes of implementing the Act.

Article 8 provides that, “[f]or the purpose of delimiting the territorial sea, the outermost permanent harbour works which form an integral part of the harbour system shall be regarded as forming part of the coast.” It is apparent from the language that the drafters intended that certain artificial structures along the coast would be treated as part of the baseline, but just which features are to be included is not always clear.

Shalowitz defined harborworks as, “[s]tructures erected along the seacoast at inlets or rivers for protective purposes, or for enclosing sea areas adjacent to the coast to provide anchorage and shelter.” 1 Shalowitz, *supra*, at 292. The Supreme Court has quoted that definition with favor in *United States v. Louisiana*. 394 U.S. 11, 37 n.42 (1969).

Clearly, breakwaters that form artificial harbors are included, such as those at the port of San Pedro (Los Angeles’s harbor). Similar structures at the mouths of rivers, such as the Sabine between Texas and Louisiana, are equally obvious. But less apparent are jetties of similar construction built out from the coast to discourage the erosion of beaches. Although such structures would not appear to fall within the Shalowitz definition, they were accepted as the base points by the Supreme Court and the Baseline Committee. It would thus appear that beach erosion jetties, which are sufficiently substantial to meet the Convention’s requirement of permanence, will be treated as part of the coast line, although they will seldom have a significant effect on the outer limit of the territorial sea.

Commentators suggest that to be an “integral part of the harbor system,” a structure must be physically attached to the mainland coast.²⁰ All American examples meet that requirement, with the proviso that there need not be a continuous low-water line from the mainland coast to the portion of the structure being used as a base point. The Zuniga jetty at San Diego provides an example. The jetty leaves the mainland above water, then dips below mean low water for a stretch before reappearing and continuing to its seawardmost point opposite Point Loma, a parallel natural formation. The federal government has, at least since 1971, treated the seawardmost point

20. McDougal and Burke, *supra*, at 422. See also: Bowett, *The Legal Regime of Islands in International Law* (1979) at 138, whose particular concern with islands leads him to remind us that to conclude otherwise is to chance running afoul of the well accepted principle that artificial islands may not be used as base points.

on the Zuniga jetty as the “outermost permanent harbour work” and part of the coast of California. Coastline Committee Minutes of December 21, 1976.²¹ In 1977 the state and federal government proposed, by joint motion, a decree that listed agreed-upon base points, among them “[t]he Zuniga jetty at San Diego (including the southern seaward end of this entire structure).” *United States v. California*, 432 U.S. 40, 42 (1977).²² A similar agreement has been reached with Florida. *United States v. Florida*, Number 52 Original, Joint Prehearing Statement of September 1971 at 68-69.

Although stretches of the Zuniga jetty may fall below mean low water simply because it has not been maintained to its intended elevation, similar jetties, such as those at the mouth of the Sabine River, have intentional gaps to permit the passage of small boats. That fact has not prevented their acceptance as harborworks to their entire length.²³ The Supreme Court’s special master in *Texas v. Louisiana* concluded that “[u]nder Article 8 the ‘outermost permanent harbour works’ in this case are the jetties at the entrance of the Sabine River into the Gulf of Mexico.” *Texas v. Louisiana*, Report of Special Master Van Pelt of October Term 1974, at 29.

It is clear, however, that only that portion of the harborwork that has a low-water line may be treated as part of the coast. Louisiana sought a more expansive interpretation in its tidelands dispute with the United States. The Corps of Engineers maintains dredged channels in the nearshore shallow waters of the Gulf of Mexico to permit oceangoing vessels to enter Louisiana’s ports. These channels are marked on navigation charts but are literally holes in the seabed rather than structures either on or above it. (Figure 29) The state contended that such channels “form an integral part of the harbour system,” are maintained at substantial public expense, and should, therefore, be considered harborworks.

Louisiana reasoned that Article 3 dictates use of the low-water line “except as otherwise provided” and that Article 8 provides otherwise in the case of harborworks. The United States took the position that Article 8 envisioned only raised structures. The Court accepted that latter interpretation, explaining that Article 8 does not provide an alternative “method” of determining the baseline, as the inland water articles do, but

21. Although Percy suggested that the Zuniga jetty did not affect the limit of the territorial sea, that conclusion seems to have been based on the assumption that 3-mile arcs constructed from it would have been shoreward of similar arcs drawn from other coastal features, not because its use would be inappropriate. 4 Whiteman, *Digest of International Law* at 263 (1965).

22. The parties disagreed on whether this feature was also appropriate for use as a headland delimiting the inland waters of San Diego Bay, a question put to Special Master Arraj and, upon his recommendation, resolved in favor of the state in litigation that also involved the issue whether California’s piers should be treated as part of the coast line.

23. In the case of intentional gaps, the result might be explained because the jetty itself is typically continuous, whether above or below water, or because the gaps represent a *de minimus* break in the structure as a whole. In either case, the result appears to represent a common sense interpretation of Article 8.

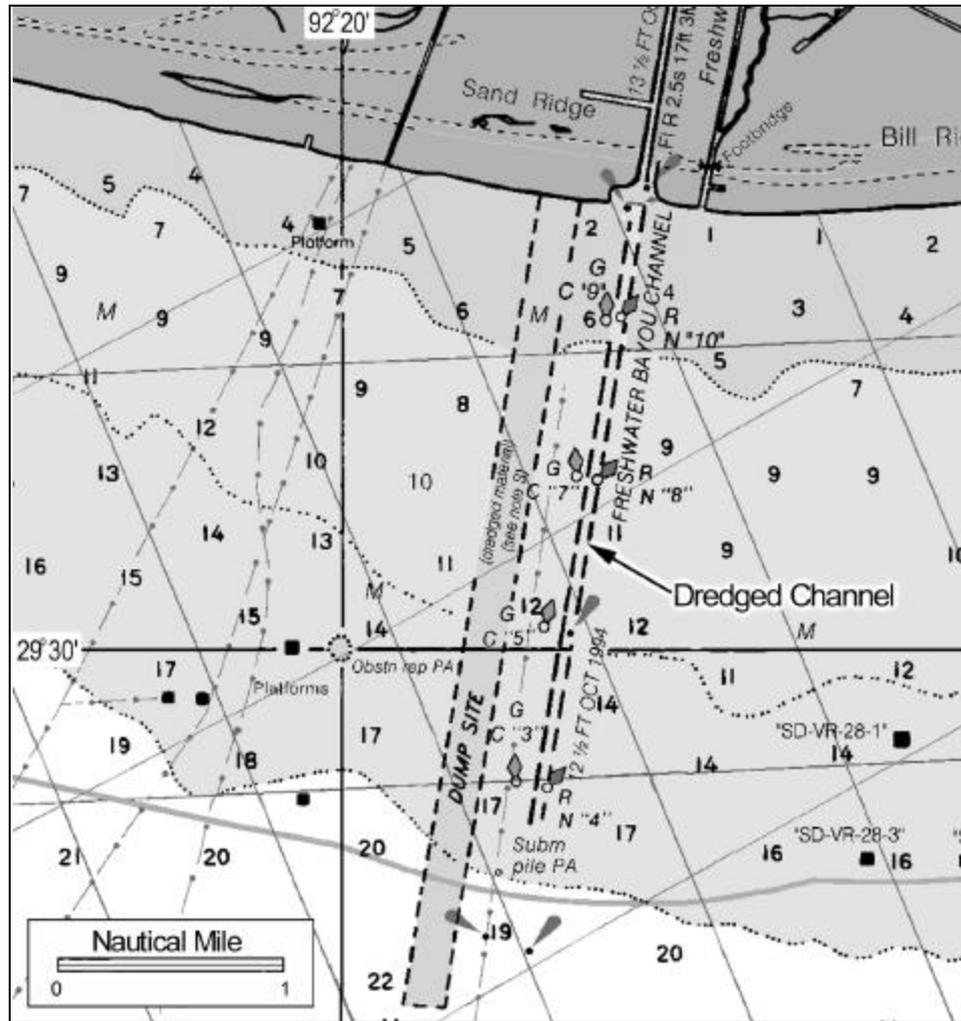


Figure 29. Louisiana coast. This dredged channel off the Louisiana coast is not a harborwork for coast line purposes. (Based on NOAA Chart 11349)

merely identifies specific structures, the low-water line on which is to be considered part of the coast. *United States v. Louisiana, supra*, 394 U.S. at 38. According to the Court, “[a]s part of the coast, the breadth of the territorial sea is measured from the harbor works’ low-water lines, attributes not possessed by dredged channels.” *Id.*²⁴ The Court reiterated its

24. The logical extension of Louisiana’s argument would have required that dredged channels, as part of the coast line, also qualify as headlands to juridical bays, a conclusion that not even the state was willing to assert, but that did not go unnoticed by the Court. *Id.* at 38 n.44.

understanding that the term “harborworks” was meant to include structures and installations that are part of the land and in some sense provide shelter. *Id.* at 36-37.

Other features have also been rejected as potential harborworks. The federal government has taken the position that as a general rule it will not use groins as base points for delimiting the territorial sea but will consider evidence that a particular groin is in fact permanent. Coastline Committee Minutes of December 21, 1976. (Although the accretion that accumulates because of the groins is always used. *Id.*) California has presented such evidence, and eight groins along its shores are now treated as part of the coast. Coastline Committee Minutes of December 17, 1976, and February 25, 1977. Beazley is of the opinion that “structures such as cooling water intakes or sewage outfalls” may not be considered, even though they may lie above mean low water. The United States has not used such structures, or similar pipeline protective works, as part of the coast line. Coastline Committee Minutes of December 1, 1976.

Piers Contrasted

The most intense litigation under Article 8 has concerned the potential use of piers as part of the baseline. California, with few natural harbors but numerous coastal piers that are said to substitute, contended that such piers are in fact harborworks and base points. (Figure 30) The Supreme Court’s eventual conclusion was that they do not qualify, but the contention was too significant to dismiss with that conclusion alone.

As usual, the analysis of both parties began with the meaning of the 1958 Convention. California offered the testimony of the distinguished jurist Philip C. Jessup, one-time member of the International Court of Justice. Judge Jessup testified that, but for piers of many miles length, the Convention’s drafters intended to include all permanent structures erected on the coast and jutting out to sea as base points for territorial sea delimitation. For the United States, Mr. Elihu Lauterpacht, Queen’s Counsel, offered contrary evidence. Following extensive inquiry, which included comparisons of the French and English texts of the “legislative history” and explanatory notes to the Convention, the special master concluded that “[w]hen all is said and done it seems clear that the drafters of the Geneva Convention and the commentators simply did not think of or consider the question of artificial piers erected on the open coast and not directly connected with any conventional harbor.” *United States v. California*, Report of the Special Master of August 20, 1979, at 28.

The parties did not, of course, base their cases entirely upon the hope of proving original intent. Each side also offered substantial evidence that



Figure 30. Ocean Beach Pier, San Diego, California. Piers on pilings are not part of the coast line for purposes of delimiting maritime zones. (Photo by Donna M. Reed)

piers did, or did not, fit the description contained in Article 8. Their physical construction, use, and effect on the natural coastline were all emphasized.

All 15 piers at issue in the litigation have similar characteristics. All are built on pilings, stand some distance above the water, have a continuous flow of water beneath them, and are relatively permanent structures. All are permanently attached to the mainland. None is closely associated with a natural harbor, or haven for vessels. Because both parties had previously recognized certain artificial structures as appropriate base points, typically jetties and groins, the object here was to prove the similarities and differences between such structures and the piers at issue.

The federal government emphasized the absence of a continuous low-water line that could be used as a baseline. The California piers, as noted, are constructed on pilings. An expert for the United States, Dr. Weggel, estimated that 90 to 98 percent of the space beneath such a pier is water.²⁵ In its 1969 decision in *United States v. Louisiana*, the Supreme Court had refused to accept dredged channels as harborworks for that very reason.²⁶

25. Transcript of Denver hearings at 402-403.

26. 394 U.S. at 36-40.

California countered with the contention that neither the artificial structures already accepted by the Court nor the natural sand beach itself has a completely continuous low-water line.²⁷

The United States believed that using the pilings as base points created an unprecedented anomaly. Pilings would have to be considered either individual artificial islands, a conclusion that would seem to prohibit their use under Article 10, or artificial limits to an inland water body, the area beneath the pier. Each seemed, at the time, an equally unlikely conclusion. Nevertheless, the special master recommended that “the discontinuous nature of the low water line does not affect whether or not the structure is to be considered a part of the coast.” Report at 24. In so doing he reasoned that “[i]f the structure is part of the coast, then the perimeter of the structure, as delineated by a series of lines drawn tangent to, and connecting, the outer edges of the pilings, constitutes the coast line.” *Id.*

Although we are not now faced with the issue, because the master ultimately ruled for the federal government on other grounds and his conclusions were adopted by the Court, there appears to be something wrong with the suggestion that the waters beneath the California piers might be inland waters although no more landlocked or protected than the immediately adjacent open sea.

Alternatively, the United States argued that unlike jetties and groins, the California piers provided no coast protective function. They neither create an artificial harbor that would provide shelter during weather at sea, such as the harborworks at San Pedro, nor do they protect the beach from erosion, as do the groins and jetties considered by the Court along the Louisiana and California coasts.

There was little or no disagreement on this point. The coastal experts concurred that not only did the piers have little or no effect on the natural shoreline, they were specifically designed to avoid such effects. And the master so found, Report at 21, as did the Supreme Court.²⁸

Finally, the United States contended that the piers might not meet the permanency requirement of Article 8. In fact, one of the piers originally claimed by the state, at El Segundo, was destroyed during the litigation. Nevertheless, the special master, who had visited most of the piers with counsel for the parties, concluded that they were indeed permanent for purposes of the litigation.²⁹

27. William Herron, a coastal engineer, testified that even sand beaches are approximately 20 percent voids. Transcript of Denver hearing at 361.

28. *United States v. California*, 447 U.S. 1, 4 (1980). Judge Jessup testified that the piers might be said to have a coast protective function in that they provided a radar target and might, thereby, prevent vessels from running into the shore. Transcript of New York hearings at 33. The state never seriously pursued that theory.

29. Report at 27. The piers are probably as permanent as the jetties and groins previously accepted as Article 8 harborworks.

California took a different approach to the proof. It emphasized that along the California coast, largely barren of natural embayments, the piers at issue serve as artificial harbors and thereby qualify as harborworks and base points. As might be expected, the evidence on this point differed from pier to pier. Some had been constructed by oil companies for use by vessels supplying offshore rigs. At least one had a davit for launching private pleasure craft. But the majority had been constructed, and continue to be used primarily, as recreation piers for fishing and promenading. They were acknowledged by the state's witness not to provide shelter for vessels.³⁰ Nor are they listed as harbors in the Coast Pilot.³¹ From this the master concluded that the volume of shipping handled by the piers did not justify assimilating them to harborworks. Report at 29.

In sum, the master concluded that the history of the Convention provided no guidance on the pier issue and rejected both parties' theories on whether piers qualify under the language of Article 8. Nevertheless, he recommended that they not be treated as base points. This conclusion was reached by what the master characterized as a "practical" approach to the issue. Report at 26. He cited as his guide the notation of McDougal and Burke that "[t]he principle policy issue in determining whether any effect for delimitation purposes ought to be attributed to other formations and structures is whether they create in the coastal state any particular interest in the surrounding waters that would otherwise not exist, requiring that the total area of the territorial sea be increased."³² The master then concluded that California's piers create no such interest and recommended against their use as base points. Report at 29.

California took exception to that recommendation before the Supreme Court. However, the Court agreed that the piers are neither coast protective works nor harborworks and adopted the position of the master.³³

30. Denver Transcript at 341.

31. *Id.* at 407. (Federal witness)

32. McDougal and Burke, *The Public Order of the Oceans* (1962) 387-388, cited in the Report of the Special Master, at 26.

33. *United States v. California*, 447 U.S. 1, 4-6 (1980). See also, final decree at 449 U.S. 408 (1981). The federal government has traditionally declined to use piers as base points. See Minutes of the Coastline Committee of August 30, 1970; October 26, 1976; December 17, 1976; and December 21, 1976. The Committee specifically considered the possible use of the California piers in response to a petition from the state and declined to alter its previously established practice. Minutes of December 17 and 21, 1976. In 1959 the geographer of the Department of State wrote that "[t]he outermost of certain permanent installations associated with port facilities are construed as parts of baselines, and the territorial sea is measured from them. Piers and breakwaters are the most common examples." Percy, *Measurement of the U.S. Territorial Sea*, Department of State Bulletin, June 29, 1959. That statement encouraged California until, during a deposition taken for purposes of the litigation, Dr. Percy explained that the passage did not refer to open-pile piers such as those along the California coast.

Commander Beazley has taken the position that certain English piers, specifically designed for the berthing of ships, ought to be treated as base points. Beazley, *Maritime Limits and Baselines: A Guide to Their Delineation* (The Hydrographic Society, Spec. Pub. No. 2, 2d ed. rev. 1978) at 23. It is not clear whether the piers to which Beazley refers can be distinguished from those along the California coast. It is clear that the Supreme Court has rejected their use as base points in the United States.

Existing Supreme Court decisions probably do not exhaust the possible types of structures that might be argued to constitute part of the baseline. Bridges, for example, may raise questions. In the article just mentioned, Percy concluded that "[b]ridges along the periphery of a coast, such as those connecting the keys on U.S. Highway No. 1 between Miami and Key West, are not covered by a law-of-the-sea convention . . ."³⁴ Since that article was written, however, the Court has twice considered the status of bridges.

The first such occasion arose in *United States v. Florida*, Number 52 Original, and involved the very series of bridges cited by Percy. The special master in that action had recommended that Florida Bay, bounded on the north by the Everglades and on the south by the Florida Keys, is a juridical bay. (Figure 31) In fact, neither party had taken that position in the proceedings before the master and it could only be reached upon the assumption that the Keys constitute, at least for these purposes, part of the mainland of Florida.³⁵ The Florida Keys are clearly so widely separated, including one gap of 7 miles, that unless the bridges are also considered extensions of the mainland, the line of Keys would not qualify as the headland of a bay.

The United States took exception to the recommendation and the Court, noting that the issue had not been presented before the master, returned it for further proceedings. At that stage the State of Florida accepted the federal position and a final decree was ultimately entered that did not include Florida Bay as inland water. Implicit in that determination is the assumption that the bridges connecting the upper Florida Keys are not part of the coastline. If they were, Florida Bay would, without question, qualify as a juridical bay.³⁶

The question of bridges also arose in the *California* piers case. One of the structures at issue there was not technically a pier but a bridge connecting an artificial island to the mainland. The island itself was built to accommodate offshore oil drilling. It is, in fact, the platform from which a large number of producing wells have been directionally drilled. (Figure 32) Although the island, known as Rincon, is a substantial structure many acres in size, the state acknowledged that it could not be treated as part of the baseline because it is man-made. Nevertheless, the state argued that the bridge to the island should be considered a harborwork on the same basis

34. Percy, *supra*, at 4-5.

35. The Supreme Court itself had previously ruled that a bay is an indentation into the mainland and may not be formed by a string of islands unless those islands are so aligned that they may be construed to constitute an extension of the mainland. *United States v. Louisiana*, 394 U.S. 11, 60-66 (1969).

36. It must be emphasized that the issue was never argued before the master or the Court. It reached the Court on a stipulated settlement by the parties after Florida determined to accept the federal position. Nevertheless, the final decree entered by the Court can be said to be consistent only with the understanding that these bridges, at least, are not part of the coast line of the United States.

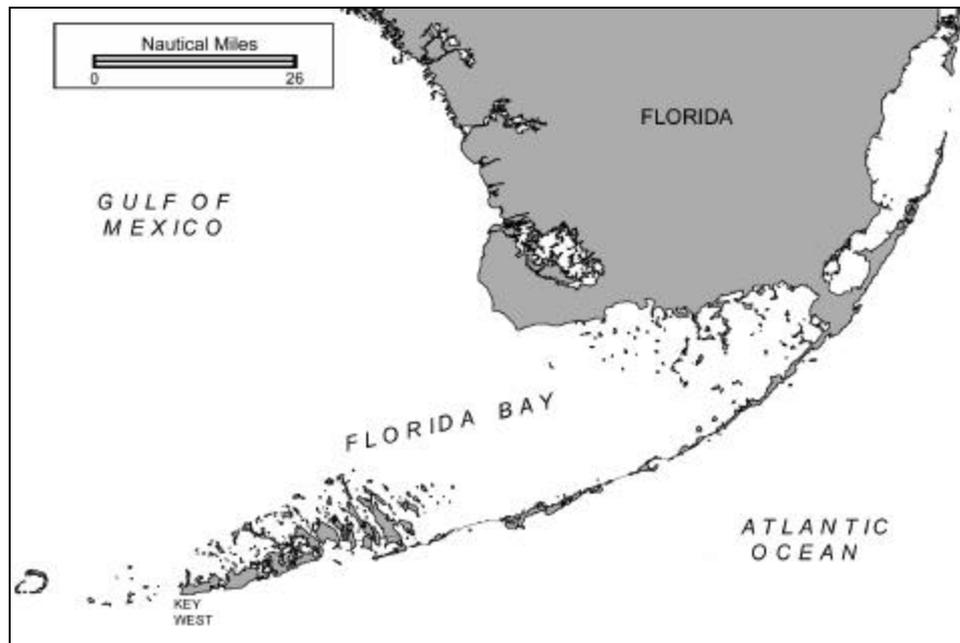


Figure 31. Florida Bay, Florida. The “bay” is formed by the mainland and islands connected by bridges.

as the coastal piers in contention. Both the master and the Court rejected the state’s arguments. Neither Rincon Island nor the pier connecting it to the mainland is to be considered a harborwork.³⁷

The Florida and California bridges are much like the piers now rejected by the Court as base points. However, more substantial structures might present a more difficult case. For example, it would appear that certain causeways more closely resemble the jetties that have been accepted as part of the coast line. We might expect that they will be proposed for consideration either as base points themselves or as part of the mainland for purposes of creating headlands to bays.

Spoil Banks

The treatment of artificial spoil banks became a difficult issue in *United States v. Louisiana*, where a number of “fingers” of land had been created by dredges digging channels for offshore oil equipment to follow through the shallow waters of the Mississippi River delta and the adjacent Gulf. (Figure 33) The United States pointed out that the banks were not useful, had not

37. *United States v. California*, 447 U.S. at 7-8.



Figure 32. Rincon Island off the coast of California. Neither the island nor the bridge to the mainland (left foreground) is part of the legal coast line. (Photo by C. Wishman)

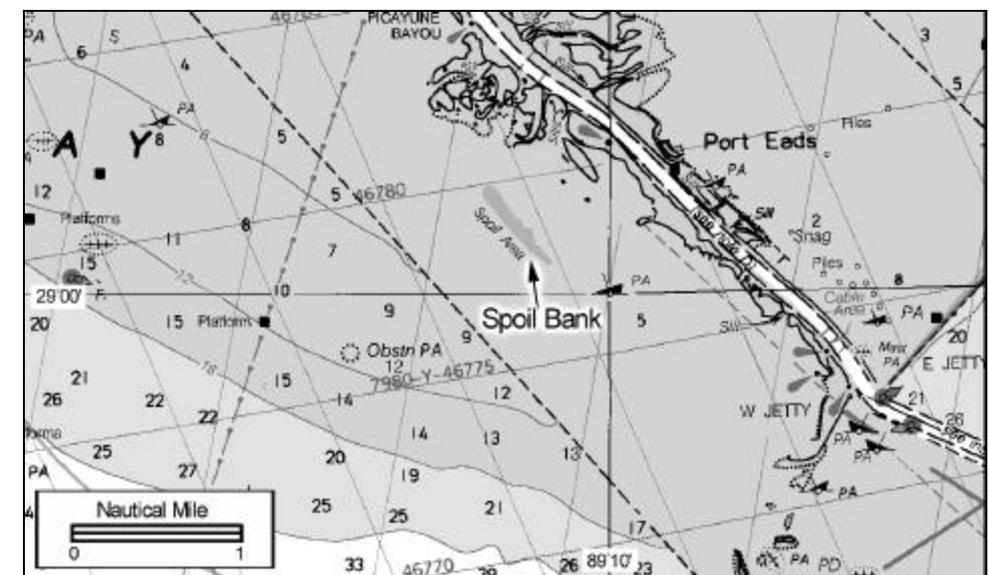


Figure 33. East Bay, Louisiana. Spoil banks are not part of the coast line. (Based on NOAA Chart 11361)

been authorized, and were likely to be short-lived. It contended, therefore, that the features should not be treated as part of the coast line. With respect to spoil attached to the mainland, the Court was not persuaded, noting that, “[i]t suffices to say that the Convention contains no such criteria.” *United States v. Louisiana*, 394 U.S. 11, 41 (1969).

Islands

The coast line of an island is determined in exactly the same way as that of the mainland. Each island is generally understood to generate its own territorial sea and other maritime zones.³⁸ (Figure 34) There is, however, some controversy as to what features qualify as islands. Article 10 of the Convention on the Territorial Sea and the Contiguous Zone provides that “[a]n island is a naturally formed area of land, surrounded by water, which is above water at high tide.”³⁹ The definition contains three elements that have been the subject of litigation. Those will be discussed in turn. But first we note the particular significance of islands to the maritime boundary question.

Dr. Robert Hodgson, the late geographer of the United States Department of State, estimated that there are “more than one-half million pieces of distinctly subcontinental land territory defined generally as islands, with a combined area worldwide exceeding 3,823,000 square miles.”⁴⁰ Although many of these are within the territorial sea of a continent or other islands, many are not and generate maritime zones far larger than the area of the islands themselves. For example, an island of the smallest possible size would possess a territorial sea of 28.3 square miles

38. We say “generally” because there may be two exceptions to this proposition. First, islands may occur within inland waters. The fact that such islands do not have their own territorial seas is apparently the reason for the wording of Article 10 (2) of the 1958 Convention, rather than the simple statement that all islands have their own territorial seas, as proposed by the International Law Commission. McDougal and Burke, *supra*, at 397.

Second, although it is still true that all islands lying outside inland waters may generate territorial seas, Article 121 (3) of the 1982 Law of the Sea Convention provides that more seaward maritime zones are not created by mere “rocks.”

The existence of territorial seas surrounding islands has not always been taken for granted. When the American vessel, *The Anna*, was seized by a British privateer more than 3 miles from the mainland coast but within 2 miles of an uninhabited island off the Mississippi River delta, the British admiralty court recognized a territorial sea around the island, not wholly in its own right but because it formed a “portico to the mainland.” *The Anna*, 5 Rob. 373 (1805). Eventually, however, all islands were understood to generate maritime zones. 1 O’Connell, *supra*, at 185. The United States has followed this practice consistently, most often in distinguishing this method of treating islands individually from alternative archipelagic proposals. For histories of American practice with respect to islands, and citations to official government statements and judicial decisions, see *United States v. California*, Report of the Special Master of October 19, 1952, at 10-12; 4 Whiteman, *supra*, at 293; 1 Shalowitz, *supra*, at 161, 206, and 228; and Symmons, *supra*, at 2 and 84-88. British practice is in accord where islands lie outside the straight baseline system established by the Territorial Waters Order in Council of 1964. 1 O’Connell, *supra*, at 187-188; Symmons, *supra*, at 89. See also, Bowett, *supra*, at 16.

39. The Supreme Court has also adopted this definition. *United States v. California*, 382 U.S. 448, 449 (1965).

40. Hodgson, *Islands: Normal and Special Circumstances*, in *Law of the Sea: The Emerging Regime of the Oceans* 137 (John K. Gamble and Giulio Pontecorvo eds. 1974).

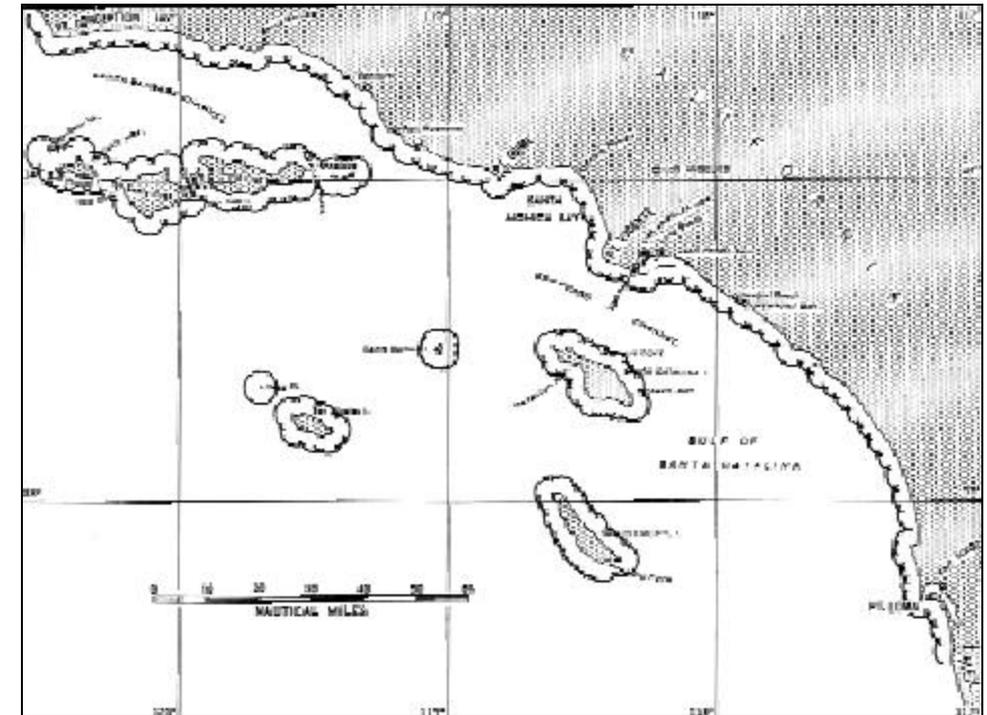


Figure 34. California mainland and islands with 3-mile maritime boundaries. The boundaries are constructed by an envelope of arcs from the coastlines. (After I Shalowitz, Figure 13)

even with a minimum 3-mile claim.⁴¹ (Figure 35) According to Dr. Hodgson, a single minor island may command an exclusive economic zone of 125,000 square miles of adjacent ocean and seabed.⁴² What, then, qualifies as an island?

Naturally Formed

To begin, an island must be “naturally formed.” It is universally understood that artificial islands do not qualify as base points from which the standard maritime zones are delimited.⁴³ It is less clear just what qualifies as a natural island.

41. Department of State Publication, *Sovereignty of the Seas* 8 (1969).

42. Hodgson, *Islands . . . supra*, at 68.

43. This is not to say that a state may not assert sovereignty over artificial islands or installations or even create limited safety zones around them. See: Law of the Sea Convention, Article 60; Papadakis, *The International Legal Regime of Artificial Islands* (1977); and Bowett, *supra*, at 5. McDougal and Burke point out that there are substantial policy reasons for treating the waters among houses constructed on piles on the ocean floor as inland (which would, presumably, result in the recognition of adjacent territorial seas) but even they do not suggest that the Convention permits that result. McDougal and Burke, *supra*, at 390.

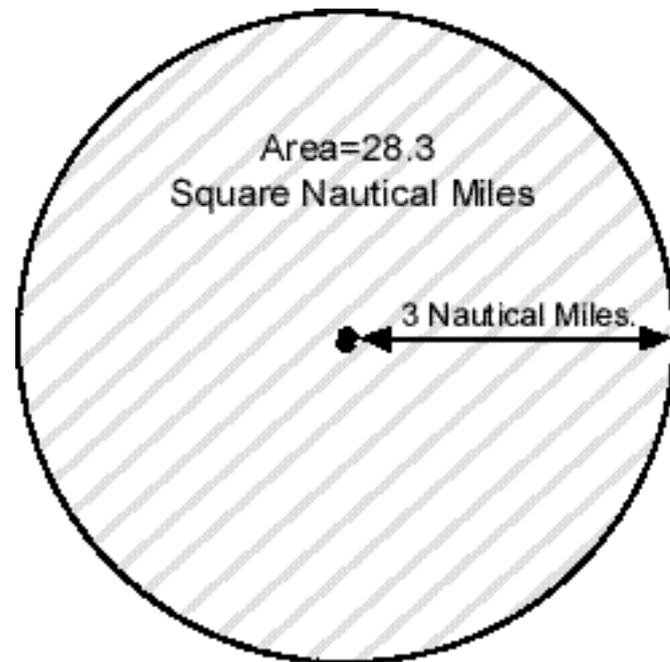


Figure 35. Insignificant islet with a 28-square-mile maritime zone.

O'Connell notes that the term "naturally formed" is ambiguous and may refer either to the materials used in construction or to human intervention. O'Connell, *supra*, at 196. However, Symmons states that the usual view is that there must have been no human intervention whatsoever for a feature to attain insular status. Symmons, *supra*, at 36. That understanding would seem to be consistent with the legislative history of the provision.⁴⁴

The term "naturally formed" was not part of the originally proposed definition of an island. Early drafts of the article would have included among "islands" those features composed of natural materials even though placed on the seabed by man. *Id.* at 31-32.⁴⁵ The American delegation expressed concern that governments might seek to extend maritime jurisdiction, and, thereby encroach on the high seas, by creating offshore islands with landfill. To preclude that possibility, the "naturally formed" requirement was added.⁴⁶ From this, we can conclude that the provision

44. Commander Beazley seems to agree that a structure of man-made materials does not qualify as an island but is less clear as to whether "reclaimed land" is precluded. Beazley, *supra*, at 24.

45. This was consistent with the Harvard Research Group's draft proposal. McDougal and Burke, *supra*, at 391.

46. *Id.* at 4 and 36.

must be interpreted to deny insular status to any feature that owes its existence to the direct intervention of man.⁴⁷

United States practice has been consistent with this concept. In an early decision, a federal court determined that the territorial sea did not extend from a beacon built on a permanently submerged reef.⁴⁸ More recently, the Supreme Court noted that Rincon Island, a substantial artificial island constructed as a base for offshore petroleum drilling, does not qualify as an island because it is man-made.⁴⁹ The Coastline Committee has also declined to make use of a lighthouse on a submerged feature as a base point for delimiting the territorial sea of the United States.⁵⁰ The Supreme Court has established that spoil banks created by dredging channels through coastal waters are not part of the baseline, if severed from the mainland, because they are not naturally formed.⁵¹

The difficulty of distinguishing spoil banks from natural islands, especially some years after their creation, presents a factual problem. Dr. Hodgson suggested that the provision "naturally formed" might be interpreted as distinct from "naturally created."⁵² Under that interpretation, an aging spoil bank whose present "form" is more properly attributable to natural processes over the years might become an appropriate base point.

Although a possible interpretation, this suggestion is not consistent with the history of Article 10 or Supreme Court precedent. The better approach would seem to be in equating "formed" with "created" and

47. The qualification that intervention be "direct" is not intended to exclude features that rise from the seabed as a result of natural processes but through the influence of a nearby man-made feature. For example, man-made jetties commonly cause the subsequent accumulation of accretion through what might be considered natural processes. If an artificial structure encouraged the growth of an insular feature, not attached to the structure itself, it is not clear that Article 10 would preclude the use of that insular feature as a base point from which to measure the territorial sea. Churchill and Lowe ask a similar question but do not suggest that the Conventions provide an answer. *The Law of the Sea* 37 (1983).

48. *United States v. Henning*, 7 F. 2d 488 (S.D. Ala. 1925).

49. *United States v. California*, 447 U.S. 1, 5 (1980). The matter came up in the phase of this case in which California sought to have coastal piers included as base points for measuring the territorial sea. One of the "piers" of interest to California is actually a bridge connecting Rincon Island to the mainland. Although the state argued that the bridge should be used as a base point, it recognized that under no circumstance could the man-made island be used; and the latter question was not an issue in the case. See: *United States v. California*, Report of the Special Master, August 20, 1979, at 29.

50. Minutes of August 10, 1970. The Committee has, however, used the seaward tip of the Zuniga jetty, at San Diego Bay, as a base point. That structure may appear to be an artificial island but is in fact merely the seawardmost extension of a continuous harborwork that is connected to the mainland. Where it appears above water it qualifies as part of the coast line. The Supreme Court has also ruled that this structure forms the eastern headland of San Diego Bay. *United States v. California*, 449 U.S. 408 (1981).

51. *United States v. Louisiana*, 394 U.S. 11, 41 n.48 (1969). In this instance the Court was specifically referring to banks that extend only above mean low water, but the "naturally formed" requirement applies equally to Articles 10 and 11 and there is no room to argue that a spoil bank that extends above high water should be accorded different treatment once severed from the mainland.

52. Hodgson, *Islands . . . , supra*, at 13.

establishing the juridical status of such features at the time of their creation.⁵³

Areas of Land

The second requirement of island status is that the formation consist of “land.” That is, it must be composed not only of natural materials, as already discussed, but those materials must be in the nature of *terra firma*.⁵⁴

The question arose in *United States v. Alaska*, Number 84 Original, when evidence indicated that a natural formation off the north slope of Alaska, which the state argued is an island, was found by the federal government to be composed of alternating layers of gravel, clear ice, and ice mixed with gravel. The formation, known as Dinkum Sands, varies in elevation but may occasionally appear above mean high water, and therefore arguably qualifies as an island, only through the introduction of this “excess” ice. The federal government argued that the formation’s elevation could not be calculated, for island qualifying purposes, without discounting elevation attributable to that ice.

Professor Symmons, testifying for the United States, explained that “land . . . is something which is formed of truly terrestrial components such as sand, rock, coral, and truly organic compounds of that nature.”⁵⁵ From this he concluded that “the mention of ‘land’ in Article 10 of the 1958 Convention implies that an island for the purposes of that article must be composed of wholly terrestrial or organic substances.”⁵⁶

Other commentators are in agreement. Dr. Hodgson maintained that islands must be made of dirt, rock, organic matter, or a combination thereof.⁵⁷ Likewise, Lumb has concluded that “[t]he areas must be a naturally formed area of land (rock, sand etc.).”⁵⁸

53. The Coastline Committee determined early in its existence that spoil banks would not be used as base points but recognized that occasionally it is difficult to determine from charts whether a feature is natural or man-made. It decided not to use features marked as spoil or that are obviously spoil because of location or description. However, if one cannot reasonably assume that a feature is spoil, it has been treated as natural. Minutes of August 3, 1970. Presumably, if a particular feature becomes the subject of litigation, its status will be a question of fact, whatever its treatment by the Committee.

54. Symmons, *supra*, at 21.

55. *United States v. Alaska*, Number 84 Original, transcript of proceedings before the Special Master, at 1118.

56. *Id.* at 1099.

57. Hodgson, *Islands: Special and Normal Circumstances*, Gambell & Pontecorvo (eds.) *Law of the Sea: Emerging Regime* 148 (1974).

58. Lumb, *The Law of the Sea and Australian Off-Shore Areas* 2d. ed. 1978, at 14. See also: Papadakis, *The International Legal Regime of Artificial Islands* 93 (1977); and Johnson, *Artificial Islands*, 4 *International Law Quarterly* 203 at 213-214 (1951).

Ice has been consistently distinguished from land in a slightly different, but closely related, law of the sea context. It seems to be agreed that ice floes, or ice islands, are not treated as islands and do not, therefore, generate maritime zones.

According to Pharand, the 1958 Conventions “make it quite clear that an island must be land before it can be legally considered an island.”⁵⁹ Teutenberg suggests agreement when he asks, “Can one equate ‘*terra firma*’ with ‘*glacies firma*’? . . . the overriding conclusion seems to be that sea ice, pack ice, ice keels etc., which are constantly changing in appearance and position in the Arctic basin, do not have the permanence and stability required by international law in order to be the object of sovereign possession — in the same way as sovereignty over land. It would be illogical to claim national, permanent sovereignty over areas which can ‘melt’ when the weather gets warmer.”⁶⁰

In the Alaska litigation the parties conducted a joint scientific survey to collect evidence on the matter. The survey was composed of two inquiries. The first was to establish the surface level of the feature with respect to a theoretical horizontal plane. The second was to establish the mean high-water datum with respect to that same plane. Both inquiries were conducted and combined to determine whether the surface lay above mean high water. That process, and its product, will be discussed below. In sum, it was learned that the surface did not generally extend above mean high water and the feature did not meet the definition of an island.

Nevertheless, both parties challenged various conclusions of the survey. Alaska contended that errors in calculating the high-water datum resulted in an improperly high determination, prejudicing the state’s position. In response the United States contended that layers of ice and ice mixed with gravel existed below the measured surface, and elevation attributable to the ice should be deducted before calculating the feature’s height. (Figure 36) Dr. Erk Reimnitz, testifying for the United States, explained that Dinkum Sands, as measured, is not composed entirely of “land” but includes up to 50 percent ice that melts during the summer. *United States v. Alaska*, Report of Special Master Mann of March 1996, at 270. The “ice collapse” causes the feature to “slump” in elevation. *United States v. Alaska*, 521 U.S. 1, 23 (1997).

59. Pharand, *The Legal Status of Ice Shelves and Ice Islands*, 10 *C. de D.* 461 (1969) at 174.

60. Teutenberg, *The Evolution of the Law of the Sea: A Study of Resources and Strategy with Special Regard to the Polar Regions* 42 (1984). On this same subject see Gidel, *Le Droit International Public de la Mer*, BK IV, Pt. 3 at 530 (1934). O’Connell points out that with the advent of submarines that are capable of transiting beneath pack ice in the Arctic one may ask whether the argument for treating ice as water, rather than land, has not been further strengthened. 1 O’Connell, *The International Law of the Sea* 198 (1982),



Figure 36. Ice/gravel mix in subsurface of Dinkum Sands, Alaska. The U.S. contended that ice should be discounted in calculating the feature's elevation. (Photo by Dr. Erk Reimnitz)

As it turned out, the “composition” question did not affect the outcome of the Dinkum Sands issue and, therefore, the master and Court did not have to make detailed determinations regarding the extent to which ice contributed to the feature's elevation.⁶¹ However, the master provided insights that may prove helpful if the issue arises in a future case. He concluded that difficulties in measuring seasonally melting ice would make the federal proposal impractical, and recommended that the Convention be

61. The special master rejected Alaska's proposed modifications to the mean high-water calculation from the joint survey and found that Dinkum Sands is frequently below mean high water and is, therefore, not an island as a matter of law, even treating its ice content as land. Report at 310. The Supreme Court agreed. *United States v. Alaska*, *supra*, at 32.

read to assimilate all submerged ice to land. Report at 275. At the same time he emphasized that measurements made early in the year, and more likely to be affected by ice in the structure, “cannot be relied upon as representative of the whole year,” Report at 275, and that late season measurements must be included to obtain a “fair picture” of Dinkum Sands' height.

Although the Supreme Court noted the ice content of Dinkum Sands, and the process of “ice collapse” as part of the explanation for the feature's regular change in elevation, the Court did not have occasion to comment on the United States' theory that it should be discounted in determining elevation or the master's recommendation on that matter. Whether the Supreme Court would treat ice as land, for purposes of defining an island, will have to await another case.

Above the Water at High Tide

This final element of insular status actually raises two distinct issues. The first, and more obvious, is the requirement that the formation exist above the specified tidal datum, high tide. The second, and possibly less apparent, is the need for some degree of permanence in elevation.

The present language of Article 10 is the product of evolution. The relevant portion of the 1930 draft provided that an island must be “permanently above high water mark.”⁶² The 1956 International Law Commission draft qualified that provision slightly to read “which in normal circumstances is permanently above high-water mark.”⁶³ This amendment was thought necessary so as not to disqualify features that stood above high water except during extraordinary events, such as hurricane-driven seas. Yet, during the negotiations that led directly to the 1958 Convention, the United States suggested that the provisions “in normal circumstances” and “permanently” were conflicting and should be deleted.⁶⁴ They were.

There is no international consensus on the definition of “high tide,” as that term is used in Article 10. It could refer to the highest astronomical tide, mean high-water spring tides, mean high-water neap tides, mean sea level, mean higher high water, or probably a number of others.⁶⁵ The British have argued that mean high-water spring tides should be used. The French

62. United Nations Document A/C.6/L.378 at 47.

63. *Id.* at 44.

64. Symmons, *supra*, at 43.

65. 1 O'Connell, *The International Law of the Sea* 173 (1982).

have said that for insular status a feature should remain above all stages of the tide, including the highest annual tide mark, the equinoctial tide.

The controversy, of course, is more theoretical than practical, as with the problem of defining the low-water line. It arises primarily because there is no internationally agreed-upon charting practice. The obvious solution is simply to adopt the high-water datum employed by each sovereign in its official charting capacity. That line has been accepted by all parties to the tidelands litigation in the United States. The National Ocean Service uses the mean of all high waters over a specific 19-year period (National Tidal Datum Epoch) to construct the "high-water line" for the United States. That line is reflected on its charts, and a feature that is entirely surrounded by water, and which is shown to have a high-water line, is treated as an island.⁶⁶

More difficult is the question of permanence. The matter arose in *United States v. Alaska* when the elusive "Dinkum Sands" was determined to have existed above high water for some period in the past, and possibly on occasion in recent years, but is thought to spend most of its life below high tide.⁶⁷ (Figure 37)

As noted above, an early draft of Article 10 included permanence above mean high water as a requirement of insular status. That term, along with "in normal circumstances," was dropped at the suggestion of the delegate from the United States. According to Professor Symmons, testifying for the United States before the special master in the Alaska case, this change was merely a "drafting, tidying up process,"⁶⁸ which did not produce a substantive change in the Convention's definition or in customary international law.⁶⁹

Dr. Symmons's interpretation is consistent with that of two influential members of the International Law Commission, which had produced the

66. An interesting question may arise as to when in the daily tidal cycle one determines whether a feature is an island or part of the mainland. Article 10 might be read to suggest that insular status is determined at the time of mean high water. If, at that time, a naturally formed area of land extends above the sea and is surrounded by water, it is an island. Consider, however, an extensive sandbar, which lies below water at high tide but connects a permanently dry feature to the mainland at low water. If the status of the feature is determined at low water, it is a peninsula. If at high water, it is an island. Its ultimate characterization could affect title to substantial areas. Notwithstanding the possible contrary interpretation of Article 10, Symmons opines that the feature described is not an island but part of the mainland. Symmons, *supra*, at 41. That would seem to be the proper conclusion. It may be supported by the provision of Article 10 that an island must be "surrounded by water." This provision might be read to indicate that an island must be surrounded by water at all stages of the tide, precluding the treatment of the seaward portion of this peninsula as an island. That interpretation would be consistent with the permanency of elevation requirement discussed below.

67. Because Dinkum Sands lies more than 3 miles from the mainland coast, or the coast of any true island, it could serve as a base point from which to measure Alaska's Submerged Lands Act grant, only if it were an island. Extending above mean low water, and thereby qualifying as a low-tide elevation, would not have been sufficient. See Article 11 and discussion below.

68. *United States v. Alaska*, Transcript of proceedings before the Special Master at 1111.

69. *Id.* at 1135. See also: Symmons, *supra*, at 23, 25, and 37.



Figure 37. Alaska expert, Claud Hoffman, claiming Alaskan "sovereignty" over Dinkum Sands. (Photo by Richard Davis)

draft articles for consideration.⁷⁰ It is also consistent with the understanding of the British delegate to the Conference, and later judge on the International Court of Justice, Mr. Fitzmaurice, who commented on islands immediately after the Conference, saying "in the absence of any special agreement to the contrary, any natural formation (even a rock) permanently (even if just visible at all states of the tide) generates a territorial sea."⁷¹ More recently, O'Connell has discussed the long trend

70. Symmons, *supra*, at 42.

71. Fitzmaurice, *Some Results of the Geneva Conference on the Law of the Sea*, 8 I.C.L.Q. 73, 85 (1959). Other commentators have emphasized the need for permanence. See: Fulton, *The Sovereignty of the Sea* 640 (1911); and Boggs, *Delimitation of Seaward Areas Under National Jurisdiction*, 45 Am.J.Int'l L. 256, 263 (1951).

toward the requirement of permanence, beginning with the decision in *Soult v. Africaine*, 22 Fed. Cases 13179 (D.S.C. 1804), with no hint that that trend had been suddenly reversed with the 1958 Convention.⁷²

Vertical or Horizontal Migration

The Convention's history was the basis for part of the federal legal argument in *United States v. Alaska*. The areas of Dinkum Sands that rise above high-water datum, if any, are acknowledged to meander horizontally along the extensive subsurface shoal and also vary in vertical elevation, either because of ice collapse, as discussed above, or through traditional erosion, or both.

The parties put on extensive evidence to document Dinkum Sands' existence above or below water over many years. Some was tide controlled and some was not. It is fair to say that neither side could prove that Dinkum Sands has consistently existed either above or below mean high water. Thus, the question became – does Article 10 include features that regularly slump below mean high-water datum? The United States argued that to qualify as an island a feature had to permanently remain above mean high water.

Special Master Mann adopted something just short of the federal position. He concluded, as a matter of law, that Article 10 requires “general,” “normal,” or “usual” elevation above mean high water. He found, as a matter of fact, that “Dinkum Sands is frequently below mean high water and therefore does not meet the standard for an island.” Report at 309.

Alaska took exception to that recommendation and put the issue before the Supreme Court. The Court recognized the master's interpretation as being more lenient than that proposed by the federal government (“generally,” “normally,” or “usually” as opposed to “permanently” above mean high water). *United States v. Alaska, supra*, at 24. It went on to note that the history of Article 10 supports a standard at least as stringent as that adopted by the master. *Id.* at 25. The Court noted that the drafter's concern that island status not be denied merely due to submergence during abnormal events is taken care of by the use of “mean” high water. *Id.* at 27. It pointed out that Alaska was not seeking insular status for a feature that is occasionally inundated by abnormal water levels, as feared by the drafters, but for a feature that “exhibits a pattern of slumping below mean high water because of *seasonal* changes in elevation.” *Id.* [emphasis in original].

72. 1 O'Connell, *supra*, at 170.

The Court concluded that “to qualify as an island, a feature must be above high water except in abnormal circumstances. Alaska identifies no basis for according insular status to a feature which is frequently below mean high water.” *Id.* at 27. The history of Article 10 “does not support the broader conclusion that a feature with a *seasonal* loss in elevation, bringing it below mean high water, qualifies as an island.” *Id.* at 31 [emphasis in original].

It has been asked whether a feature such as Dinkum Sands should be given island status when it rises above mean high water and treated as a low-tide elevation, or seabed, as it subsides. That result might be thought to follow from the general propositions that coast lines are ambulatory with accretion and erosion. Such a result in the *Alaska* case would have meant babysitting the feature around the clock (and the calendar) and allocating mineral royalties from a vast area of seabed accordingly.

Although the parties to the *Alaska* case acknowledged the possibility of that result, they both understood its difficulties and neither adopted it as a primary position, or even briefed it, before the special master. In his Report Dean Mann emphasized the practical difficulties associated with “divided ownership” and its inconsistency with the Court's goal of achieving stability in offshore boundaries. Report at 306. His conclusion that a feature must be “generally,” “normally,” or “usually” above mean high water resolved the issue for him. Dinkum Sands would be an island if it met those criteria, would not if it didn't, but its legal status would not vary absent “a sustained change in its characteristics.” *Id.* at 307.

Alaska took greater interest in the theory when it got back to the Supreme Court, arguing that Dinkum Sands should indeed be treated as an island whenever any part of it peeked above mean high-water datum. The Court was not convinced. It distinguished the concept of an ambulatory low-water line from that of an island that would come and go in its entirety, finding no support in the Convention for the latter. It too identified significant practical problems with such an approach and adopted its master's position. *United States v. Alaska, supra*, at 32. A feature that regularly comes and goes in its entirety will not be treated as an island.

Thus, although the coast line of an island may be ambulatory on a horizontal plane, the feature must have some degree of vertical permanence such that it is not regularly appearing and disappearing above and below the level of mean high water.

In sum, an island must be naturally formed. That is, it must be composed of natural substance that has been naturally placed; it may not be man-made. Second, it must be composed not only of natural substance but

of "land." Finally, it must extend above the level of high tide, most logically that datum charted by the sovereign concerned, and must have some significant permanence of elevation above that datum.⁷³

Reefs

Coral reefs, often submerged at all stages of the tide, present a separate problem. The 1958 Convention on the Territorial Sea and the Contiguous Zone makes no mention of such features. From that we can only conclude that they may not be used as base points for measuring the territorial sea.⁷⁴ (Figure 38) Sometime thereafter, however, additional consideration was given to the matter,⁷⁵ and Article 6 of the Law of the Sea Convention of 1982 provides that "[i]n the case of islands situated on atolls or of islands having fringing reefs, the baseline for measuring the breadth of the territorial sea is the seaward low-water line of the reef, as shown by the appropriate symbol on charts officially recognized by the coastal State."

73. At times in the history of the law of the sea, it has been suggested that an island must be of some minimum size and must be capable of habitation, or some other particular use. See: Fachille, *Traite de Droit International Public*, pt. II 202 (8th ed., 1925); Gidel, *Le Droit International Public de la Mer* 684 and 717 (1934) [quoted at 4 Whiteman 285]; Bowett, *supra*, at 7-9; and Symmons, *supra*, at 41. The habitability criterion has not been required by American courts. *Middleton v. United States*, 32 F.2d 239, 240 (5th Cir. 1929). Nor has it played a part in American diplomatic practice. In 1975 the unarmed cargo vessel *Mayaguez*, under contract to the U.S. Navy, was seized by the Khmer Rouge within the claimed territorial sea of the uninhabited rocks of Pulo Wai, in the Gulf of Siam. Although the United States protested the incident as a violation of the right of innocent passage, it did not assert that because they were uninhabited the rocks generated no territorial sea. It is clear that Article 10 contains neither requirement. See: Symmons, *supra*, at 37 and 41; Bowett, *supra*, at 9; and McDougal and Burke, *supra*, at 397. However, Article 121 of the recent Law of the Sea Convention appears to breathe fresh life into the habitation requirement by providing that mere rocks, incapable of sustaining habitation or economic life of their own, while generating territorial seas, do not generate exclusive economic zones or continental shelves, two of the maritime zones traditionally associated with islands.

Although the new provision is clearly intended to minimize the effect of minor features on maritime jurisdiction, its application seems certain to be controversial. As Professor Prescott points out, one must initially discern how "rocks" are to be distinguished from "islands," and then must determine what minimum requirements for sustaining habitation or economic life might include. Prescott, *supra*, at 72. Prescott opines that a rock large enough to accommodate a shelter would qualify under the initial criterion, and that the regular collection of guano would satisfy the second. *Id.* at 73. He is less sure whether the feature should have to be capable of providing all necessities of life, *id.*, a requirement that would seem to preclude the use of numerous islets around the world that are presently given full island status. Likewise, Prescott questions whether the use of a rock to support a navigation aid or collect weather data could be said to fulfill the economic requirement. *Id.* If so, it would seem that no feature would be disqualified, again indicating that such a test is more liberal than the drafters intended.

Interestingly, Professor Prescott suggests that to be considered a "rock" for these purposes, a feature should consist of "solid parts of continental crust" but that sand islands should generate maritime zones even though incapable of sustaining habitation or economic life. *Id.* His reasoning is not entirely clear. It would seem that if a substantial and permanent "rock" is to be denied full island status for its inability to sustain habitation or economic life, a sand cay that suffers from the same shortcomings and, additionally, is likely to be here today and gone tomorrow, should be attributed even less legal standing.

74. Although the International Law Commission's committee of experts had recommended that "[a]s regards coral reefs, the edge of the reef . . . should be accepted as the low-water line for measuring the territorial sea," that provision was not included in the Convention. See Bowett, *supra*, at 14.

75. Hodgson and Alexander, for example, recommended that the territorial sea should be measured from the outer limit of a reef, even though it may lie below mean low water. Hodgson and Alexander, *supra*, at 52-54.

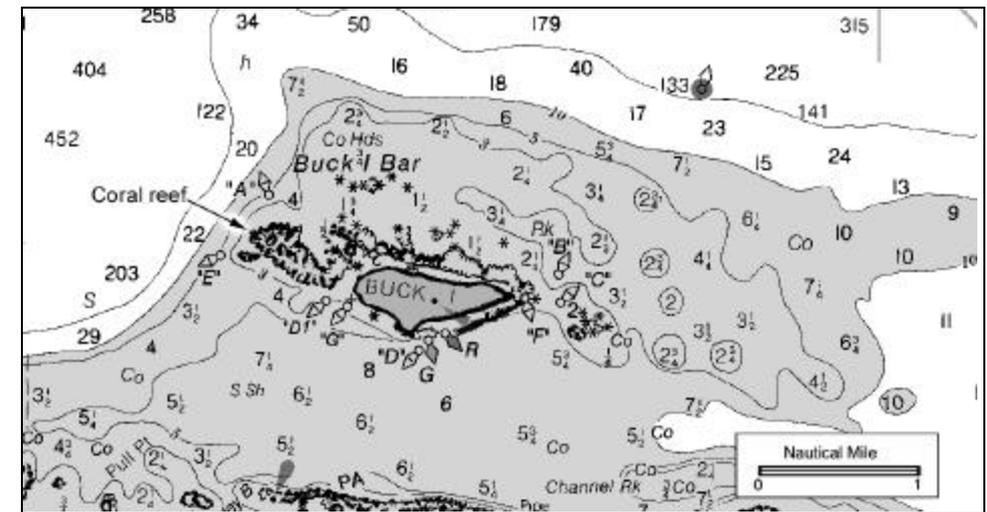


Figure 38. Coral reefs off Buck Island, U.S. Virgin Islands. These reefs emerge at some stages of the tide; others are permanently submerged. (Based on NOAA Chart 25641)

Article 6 has focused new attention on the possible uses of reefs in maritime boundary delimitation. But its consequence is not entirely clear. To begin our consideration, we note that Article 6 applies only to delimiting the territorial seas of "islands" which lie on atolls or have fringing reefs. Presumably reefs lying off a mainland coast will affect maritime jurisdiction only under separate articles, if at all. The provision makes clear that any portion of a reef which extends above mean low water will serve as a base point for territorial sea measurement. Query whether, in these limited circumstances, Article 6 thereby trumps the traditional requirement that to serve as a base point a low-tide elevation must lie within the breadth of the territorial sea from the mainland or an island.⁷⁶ If so, a low-tide elevation that is more than the breadth of the territorial sea from an island may function as a base point if it is part of a reef.

Neither is Article 6 clear about whether submerged portions of a reef may be used as base points.⁷⁷ It provides that the baseline is the "low-water line" of the reef, but goes on to describe that line as that "shown by the appropriate symbol on charts officially recognized by the coastal State." Charting symbols for reefs may not indicate whether the feature dries at any stage of the tide.

76. Convention on the Territorial Sea and the Contiguous Zone, Article 11; Convention on the Law of the Sea, Article 13.

77. As suggested by two American experts. See note 75, *supra*.

United States practice may even have deviated over time. When our territorial sea was first depicted, in 1971, submerged portions of the Florida reef were not employed as base points. Nor were they included in the Supreme Court's description of the Florida coast.⁷⁸ However, when similar boundaries were constructed in the United States Virgin Islands, after negotiation of the Law of the Sea Convention, it would appear that reefs were used as base points.⁷⁹

Even more troubling, if the 1982 Convention is read to permit submerged portions of reefs to serve as base points, is the possibility that they may be said to enclose inland waters. If a feature is part of the coast line for base point purposes, it is presumably part of the coast line for all purposes. Thus, under this interpretation, Article 6 might allow a submerged portion of a reef to serve as the headland of a bay. Yet that proposition is disturbing. In fact, it was that very extension of logic that the Supreme Court used to indicate how irrational it would have been to adopt Louisiana's contention that submerged features should be considered harborworks.⁸⁰

It would appear that there has been insufficient opportunity to evaluate the potential implications of Article 6, but possible interpretations could produce anomalous results.

Low-Tide Elevations

Article 11 of the Convention defines "low-tide elevations" and provides that they will generate territorial seas only when within the territorial sea of a true island or the mainland. (Figure 39)

The provision is a compromise stemming from disagreement as to how the term "island" was to be defined at the time of the 1930 Hague Codification Conference. Although it was understood that islands

78. *United States v. Florida*, 425 U.S. 791 (1976).

79. Coastline Committee Minutes of November 17, 1982, and November 18, 1983. In 1978 the Committee noted that submerged reefs should not be used as base points of the Micronesia Trust Territory. Minutes of March 31, 1978. In subsequent negotiations, green tint indicating the Samoan Reef was used as the "best estimate" of the low-water line. Similarly, the upper limit of visible coral was treated as low water along the New Zealand coast. Minutes of February 27, 1980. It would appear from the context that these charted lines were adopted for negotiating purposes, being the best evidence available, and that the parties were not necessarily endorsing the use of submerged features for unilateral claims. For other Committee consideration of reefs, see Minutes of January 13, 1976; December 15, 1977; and March 31, 1978.

80. *United States v. Louisiana*, 394 U.S. 11, 36-40 (1969). The Coastline Committee also refused to employ a reef extending from Point St. George (near the California/Oregon border) as a headland of Pelican Bay, reasoning that the "headland" would be 99.9 percent water. Minutes of December 17, 1976. Although this example may be distinguishable in that it probably does not fall within Article 6's requirement that a reef fringe an island, apparently in contrast to fringing the mainland, it points out the conceptual difficulty of "enclosing" inland waters with submerged features. The waters would not be landlocked in any traditional sense.

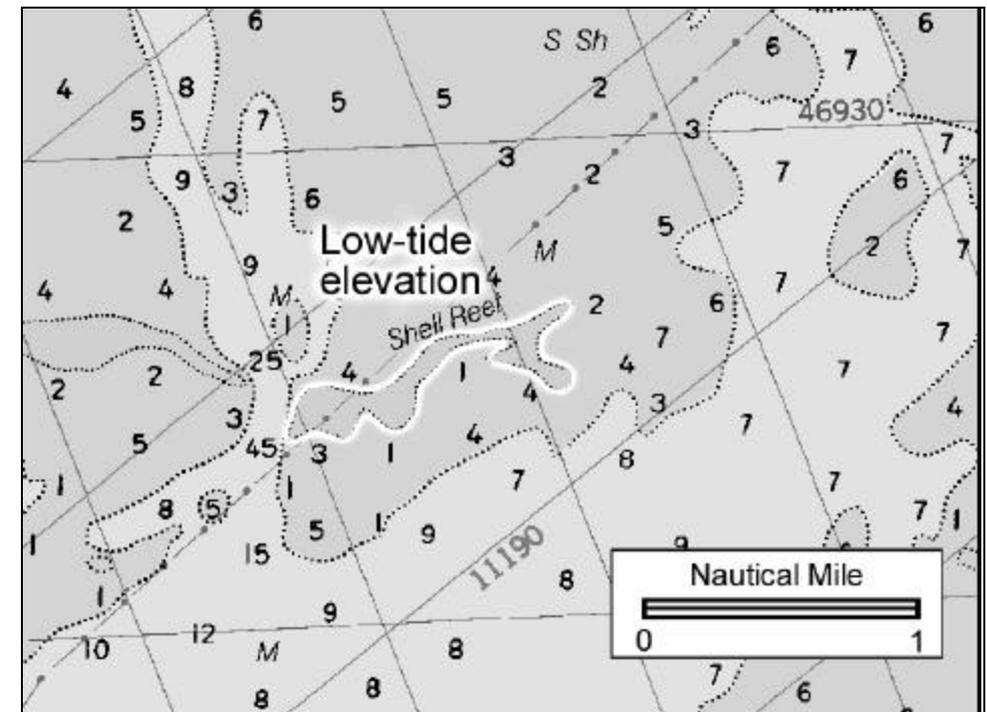


Figure 39. Low-tide elevation. Shell reefs are typical low-tide elevations off the coast of Louisiana. (Based on NOAA Chart 11351).

generated territorial seas, there was no understanding on what constituted an island. Some states insisted upon elevation above high water (as ultimately required by Article 10), while others suggested that no emergence was necessary at all, so long as it was not practical to navigate above the feature.⁸¹ The International Law Commission's (ILC) draft text, and the ultimate Convention, represented a compromise solution.⁸²

Article 11 defines a low-tide elevation exactly as Article 10 defines an island, except for the requirement that the low-tide elevation need only emerge at low tide. We will not, therefore, repeat the discussions of the terms "naturally formed," "area of land," and "surrounded by water," all of which apply equally here. Instead, we deal with the distinctions between islands and low-tide elevations.

81. Bowett, *supra*, at 7.

82. 4 Whiteman, *supra*, at 306; Bowett, *supra*, at 10. See, however, McDougal and Burke, *supra*, at 394, who suggest that security considerations may have been used to justify the use of low-tide elevations.

The Low-Water Line

As with the term “high water,” the Convention’s use of “low water” does not refer to a single, internationally recognized datum. The issue arose in *Post Office v. Estuary Radio Ltd.*, in which the *situs* at issue was said to lie within 3 miles of a low-tide elevation and, therefore, within the territorial sea. It happened that the Convention and the Territorial Waters Order in Council⁸³ defined the term differently. Diplock L.J., writing for the Court of Appeal, noted that “[u]pon these definitions interesting and difficult questions arise as to whether a ‘low-tide elevation’ must be above water at all low tides, at mean low-water spring tides, at Admiralty datum, at the lowest tides experienced from time to time (and if so, how often?) in the course of a year, or at lowest astronomical tides. Some day some court, municipal or international, may have to decide this.” [1968] 2 Q.B. 740 at 761.

At one time the same question might have arisen in American practice. However, since the Supreme Court determined in *United States v. California* that the term “low-water line” as used in Article 3 means the particular datum employed in the construction of our official nautical charts, the matter must now be considered resolved.⁸⁴ Any naturally formed area of land that is surrounded by water and above water at the charted low-water datum is a low-tide elevation. It would appear that Commander Beazley arrived at this same conclusion following the decision in the *Post Office* case.⁸⁵

Contrasted with Islands

Low-tide elevations do not, however, rise to the status of islands for the purpose of establishing zones of maritime jurisdiction. Under the 1958 Convention, every island generates the full spectrum of maritime zones, including a territorial sea, contiguous zone, and continental shelf. The same is true under the Law of the Sea Convention, although the exclusive economic zone is added and certain “rocks” are deprived of a continental shelf and economic zone. In contrast, Article 11 specifically provides that only those low-tide elevations that lie within the territorial sea of the mainland or a true island will generate a territorial sea (and, presumably, a contiguous zone and continental shelf). In effect, the most that a low-tide elevation can do is create an additional “bulge” in an already existing territorial sea. (Figure 40) It will never, by definition, have a territorial sea

83. S.I. 1965, Vol. 3, 6452A.

84. *United States v. California*, 381 U.S. 139, 175-176 (1965).

85. Beazley, *supra*, at 24.

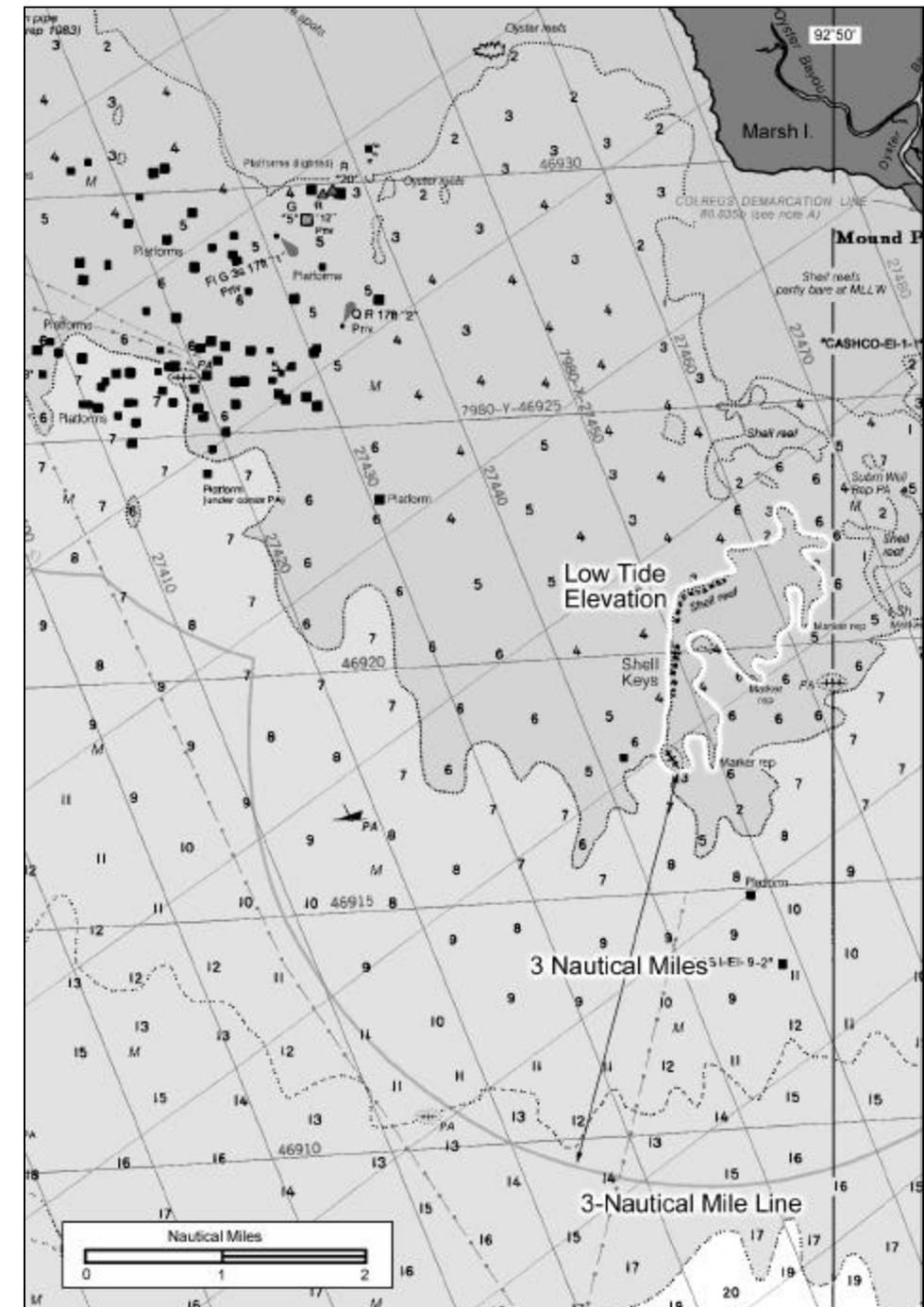


Figure 40. Coastal Louisiana. A low-tide elevation within the maritime boundary of Marsh Island, Louisiana, extends the boundary. (Based on NOAA Chart 11349)

that does not overlap that of a nearby island or the mainland. Nor may a state's total territorial sea be increased by leapfrogging seaward from one low-tide elevation to another.⁸⁶

At least one controversy does arise concerning which low-tide elevations are to be treated as base points, and that comes in interpreting the requirement that they be within the breadth of the territorial sea of the mainland or an island. The question is whether it is enough to be within the territorial sea of the closing line of an inland water body, or, if to be considered a base point, a low-tide elevation must actually be within the territorial sea of the low-water line of the mainland or an island.

Bowett is of the opinion that it is not enough to lie within the territorial sea where that zone is measured from an inland water closing line. He appears to reach that conclusion by analogy to the International Law Commission's explanation of why it would not permit Article 4 straight baselines to be drawn to low-tide elevations.⁸⁷

Although the reasoning may be convincing, it comes too late for American practice. The Supreme Court was faced with the identical issue in *United States v. Louisiana*. A low-tide elevation lay more than 3 miles from any land but within 3 miles of the closing line of a juridical bay. (Figure 41) The federal government interpreted Article 11 to preclude the use of the feature as a base point. Louisiana contended that because it fell within the existing territorial sea, it generated a territorial sea of its own. The Court agreed with the state. It concluded that the drafters intended to give significance to all low-tide elevations that fall within the territorial sea of the mainland or an island. Thus, at least for this purpose, inland waters are to be treated as "mainland."⁸⁸

American practice has conformed to the Court's determination in the subsequent instances in which the question has arisen. For example, a low-tide elevation in southeastern Alaska, known as Hanus Reef, has been used as a base point. The feature lies more than 3 miles from land but within 3 miles of the bay closing line across Lynn Canal. Its use as a base point serves to eliminate or reduce the size of several potential high-seas enclaves in the area.⁸⁹

86. Bowett, *supra*, at 12. However, as territorial seas are extended from 3 to 12 miles, low-tide elevations take on new significance. Such a formation lying 11 miles offshore has no boundary significance with a 3-mile territorial sea claim. But, if it lies within a 12-mile territorial sea, it generates a significant "bulge" of additional jurisdiction. See: Churchill and Lowe, *supra*, at 35.

A good example can be found off the coast of Louisiana where, just south of Marsh Island, a series of low-tide elevations extends more than 3 miles offshore. The elevations within 3 miles of Marsh Island generate territorial seas of their own, while others farther seaward have no such effect. *United States v. Louisiana*, 452 U.S. 726 (1981); Coastline Committee Minutes of April 25, 1972.

87. Bowett, *supra*, at 13.

88. *United States v. Louisiana*, 394 U.S. 11, 45, and 47 (1969).

89. Coastline Committee Minutes of September 20, 1971.

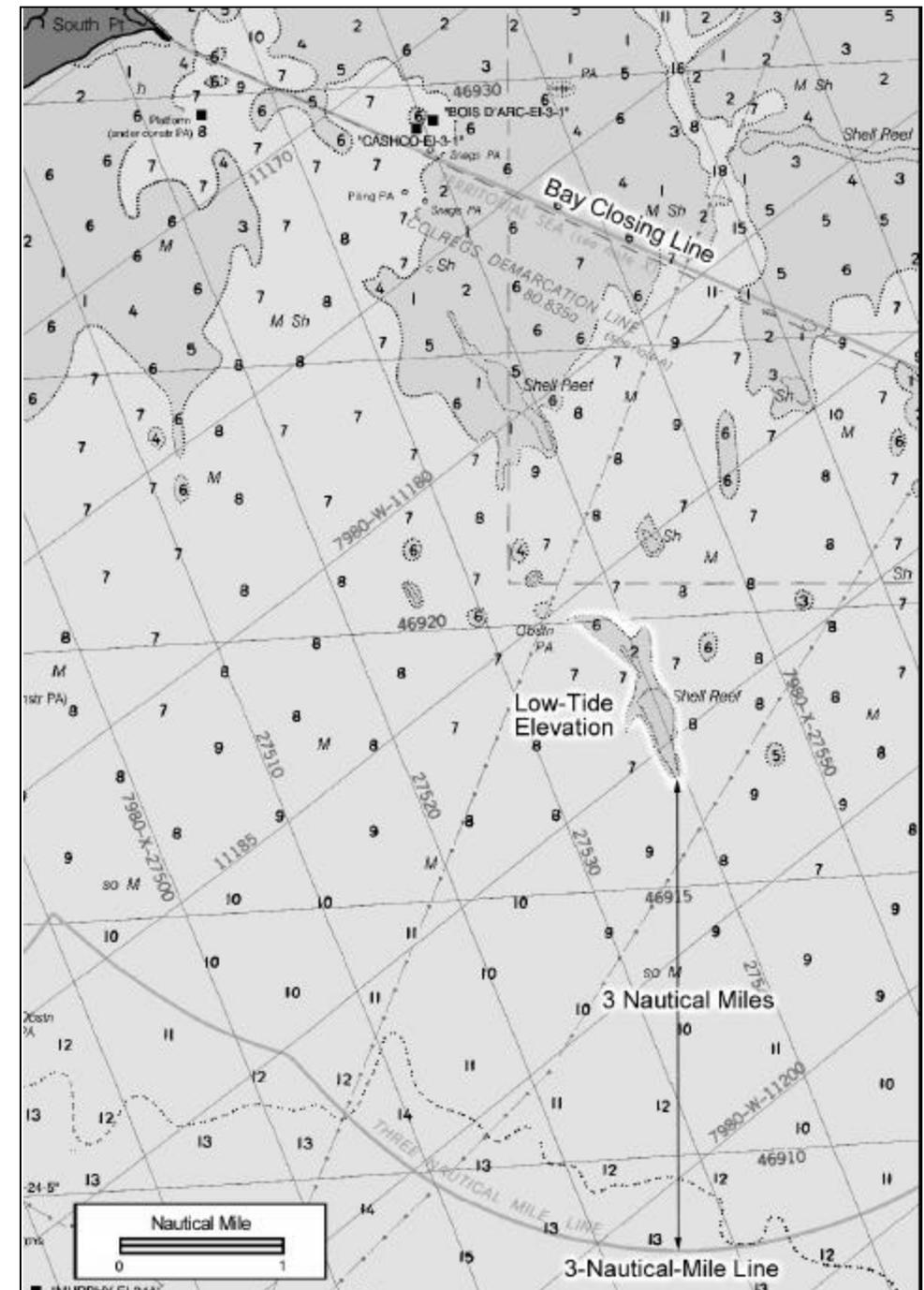


Figure 41. Atchafalaya Bay, Louisiana. A low-tide elevation within the maritime boundary measured from a juridical bay closing line extends the boundary. (Based on NOAA Chart 11351)

Practical Problems

The most difficult issue with respect to low-tide elevations has been determining whether a given feature extends above the low-water datum. The farther offshore the feature is located, the more technically difficult the problem. The federal government has faced this issue off the coasts of both California and Alaska. Carpenteria Rock, off the coast of California, has been the subject of extensive survey by both federal and state experts with no consensus as to its status. It would appear that the surface of the rock lies within as little as 2 inches above or below mean low water. The parties cannot agree which. Consequently, the area around the rock has been withheld from oil and gas leasing.

The problem typically arises when a geographic feature is charted with a symbol that does not purport to indicate its elevation with respect to the tidal datum. Most features are shown with both high- and low-water lines (for islands) or low-water lines (for low-tide elevations) and are, further, tinted to symbolize their status. Some, however, are represented merely by asterisks, symbols used to indicate that the surface of the feature lies at an elevation within a given range of feet either above or below the datum. This is, of course, proper charting practice in that it puts the mariner on notice of a potential hazard to navigation and avoids the need to conduct thorough, and extremely expensive, individual surveys. It does not, however, provide sufficient information for boundary determinations.

As a group, features denoted with asterisks are characterized as “rocks awash.” The International Law Commission’s committee of experts made clear that rocks awash are not to be taken into consideration in boundary delimitation.⁹⁰ Thus, the Coastline Committee, in establishing guidelines for its work in delimiting the coastline of the United States, determined that it would not use asterisks as base points absent additional information to indicate that they actually qualify under the Convention, either as islands or low-tide elevations.⁹¹

The federal government and State of Alaska have undertaken a joint project to survey a large number of features marked with asterisks and have, in many cases, reached agreement as to whether or not they qualify as base points. The information collected has then been presented to the Coastline Committee, which has modified the official charts delimiting our maritime boundaries accordingly.⁹² The Committee has also gone so far as to

90. 4 Whiteman, *supra*, at 182.

91. See Coastline Committee Minutes of: June 1, 1970; August 3, 1970; September 20, 1971; April 25, 1972; and August 2, 1972. In some cases the asterisk will be accompanied by a number that indicates that it dries to that elevation. Such additional symbolization has been taken as sufficient evidence to justify use as a base point. Coastline Committee Minutes of September 27, 1979, and December 16, 1981.

92. Minutes of November 1 and November 26, 1985.

research historic records to determine whether a lighthouse was originally constructed on a low-tide elevation and should, therefore, be treated as a base point.⁹³

Unanswered Questions

Finally, the 1982 Law of the Sea Convention apparently leaves unanswered an interesting question as to the effect of low-tide elevations; that is, whether they generate only limited maritime zones. As noted above, Article 121(3) of the Convention provides, with respect to islands: “[r]ocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf.” Churchill and Lowe point out that there is no indication that low-tide elevations are similarly limited, even though the latter will be a less visible “manifestation of land.”⁹⁴

However, as a purely logical matter, it seems that had the drafters considered the matter, they would have included a like restriction on all low-tide elevations, permitting their use for territorial water and contiguous zone purposes but not for exclusive economic zones or continental shelves. It would seem to go without saying that a low-tide elevation is not suited to human habitation nor capable of supporting an economic base.⁹⁵ The issue has not yet been litigated. As Professor Prescott suggests, it is probably safe to predict that most states will make the maximum claim possible in the face of this anomaly.⁹⁶

In sum, a low-tide elevation must be naturally formed, made of land, surrounded by water, and extend above the charted low-water datum but not above the high. Such features will generate maritime zones if they lie within the territorial sea of the mainland or an island, whether measured from the low-water line or inland water closing lines. Otherwise they will not.

93. Minutes of August 10, 1970.

94. Churchill and Lowe, *supra*, at 36.

95. Although imaginative advocates will quickly suggest means by which people might live, and make a living, on a low-tide elevation, it seems clear that the situations would necessarily be so extreme that if applied equally to rocks there would be no meaning left to Article 121(3).

96. Prescott, *supra*, at 62.

CHAPTER 6

INTERNAL WATERS

Waters landward of the baseline from which the territorial sea is measured constitute the internal waters of a state.⁹⁷ Thus, the territorial sea's baseline is composed of two parts, the low-water line along the open coast, or "normal" baseline, and a series of imaginary lines separating inland water bodies from the open sea.

It may be important to know the exact location of the line between internal waters and the territorial sea. Internationally, foreign vessels may enter internal waters only with permission of the coastal state. Though vessels may transit the territorial sea in innocent passage, other limitations apply. For example, foreign submarines must surface to enter the territorial sea; and foreign aircraft may fly over only with permission. Domestically, the waters landward of the baseline have traditionally belonged to the states⁹⁸ while those seaward, 3 miles from the baseline,⁹⁹ were only granted to the states in 1953.¹⁰⁰ Some statutory prohibitions apply only in the territorial sea and not inland waters. For all of these reasons, it is important to be able to determine the seaward limit of inland waters.

Inland waters include bays, rivers, harbors, waters enclosed by Article 4 straight baselines, and the area between mean high and mean low water along the open coast.¹⁰¹ Although the 1958 Convention on the Territorial Sea and the Contiguous Zone and subsequent Law of the Sea Convention provide some guidance on how to delimit internal waters, their rules are necessarily general. This section reviews, among other authorities, the numerous U.S. Supreme Court decisions, including those of its special masters, that have put meat on the bones of these rules through their application to a large number of actual coastal situations.

97. Convention on the Territorial Sea, Article 5. In American practice the internal waters are often referred to as "inland" waters. The terms are synonymous.

98. See *Pollard v. Hagan*, 44 U.S. (3 How.) 212 (1845).

99. Or up to 3 leagues off the Gulf coasts of Florida and Texas.

100. 43 U.S.C. 1301 *et seq.*

101. The United States has produced official charts depicting the limits of its territorial sea and contiguous zone. To date no other country is known to have done so with the exception of those that employ Article 4 straight baselines for their entire coasts. Even the United States has not attempted to depict the vast majority of closing lines across the mouths of inland water bodies. Early in its delimitation exercise, the Coastline Committee determined that to avoid additional clutter on nautical charts only those closing lines that affect the outer limit of the territorial sea would be depicted. Minutes of August 3, 1970.

BAYS

The most difficult problems of inland water delimitation arise at the mouths of juridical bays. Article 7 of the 1958 Convention sets out the criteria for constructing bay closing lines.

Bays of a Single State

Article 7 begins with a disclaimer. Paragraph 1 provides that the article relates only to bays the coasts of which belong to a single state. That is to say, Article 7 does not authorize the closure of an indentation into the mainland, that otherwise meets all of its criteria, if the shores of that indentation are controlled by more than one state. According to one authority, there are more than 40 such bays in the world.¹⁰² Most, if not all, such bays will lie on the border between two sovereigns, such as Passamaquoddy Bay, between Maine and New Brunswick.

The Convention does not establish that such bays are not inland waters; it merely leaves the question unresolved.¹⁰³ Sohn and Gustafson indicate that there is no clear rule in such circumstances, and discuss three alternative views.¹⁰⁴ First, each state bordering on the bay is understood to have a belt of territorial waters along the shore, and the center of the bay is left as high seas (or, presumably, zones of lesser maritime jurisdiction). Second, each state will have an exclusive territorial sea along the shore, as above, but the remainder of the bay will be subject to the joint jurisdiction of the coastal sovereigns.¹⁰⁵ Finally, the bay may be divided among the bordering states through principles usually applicable to such divisions between states with adjacent or opposite coasts.

Lauterpacht has no hesitation in proclaiming that the first alternative represents the majority view and provides a thorough discussion in support.¹⁰⁶ Likewise, Churchill and Lowe characterize the second as an

102. Churchill and Lowe, *supra*, at 33.

103. Historic waters are treated in the same way. See Article 7(6).

104. Sohn and Gustafson, *The Law of the Sea* at 45-46 (1984).

105. This example comes from the decree of the Central American Court of Justice in *El Salvador v. Nicaragua*, holding the Gulf of Fonseca to be under the joint sovereignty of those two nations and Honduras, all of which border on the Gulf. See: 11 A.J.I.L. 674 (1917). The International Court of Justice has since confirmed that the Gulf is historic water but has left the three parties to resolve their boundaries within it. *El Salvador/Honduras, Nicaragua Intervening* [1992] I.C.J. 351. It is doubtful that that decision is binding on any but the parties involved or that its reasoning, based largely on local history and geography, can be easily extended to other boundary waters.

106. 1 Lauterpacht, *Oppenheim's International Law* 508 (8th ed. 1955).

exception, as surely it must be.¹⁰⁷ However, as a practical matter, it would appear that the third alternative is most applicable, with the caveat that what is being divided is not an area of inland water sovereignty but lesser maritime jurisdiction. With contiguous zones of up to 12 miles recognized in the 1958 Convention and up to 24 miles in the 1982 Convention, and exclusive economic zone rights extending to 200 miles, it is clear that any boundary bay with an entrance of less than 24 miles will be sufficiently small that all of its waters will fall within one of these categories, and the coastal states will be permitted to divide the bay among themselves at least for these more limited purposes.¹⁰⁸

That is not to say that the international community may not still consider it important to assert other high-seas rights within the bay, such as the right of passage, but the extension of maritime zones in recent years would appear to protect most coastal state economic interests in boundary bays without asserting inland water claims.

In short, Article 7 does not apply to boundary bays. The accepted rule is that such bays are not inland waters.¹⁰⁹ However, contiguous and exclusive economic zones would appear to protect most coastal state interests in such bays.

What Is a Bay?

Article 7(2) of the 1958 Convention defines a bay through a number of rather subjective terms and a separate, precise objective criterion. First, it describes a bay as a “well-marked indentation whose penetration is in such proportion to the width of its mouth as to contain landlocked waters and constitute more than a mere curvature of the coast.” Then it provides that “[a]n indentation shall not, however, be regarded as a bay unless its area is as large as, or larger than, that of the semi-circle whose diameter is a line drawn across the mouth of that indentation.” (Figure 42) But how are these criteria to be applied?

Some have suggested that the more subjective, and first mentioned, criteria are subsumed in the semicircle test, and that any indentation that conforms to that test is, by definition, landlocked.¹¹⁰ It is clear that the

107. Churchill and Lowe, *supra*, at 33.

108. Nothing in either treaty prevents coastal states from asserting these recognized rights in boundary bays.

109. Boundary rivers are treated differently. See discussion *infra*.

110. For example, Sohn and Gustafson assert that the “well-marked indentation” requirement is met when the semicircle test is met. Sohn and Gustafson, *supra*, at 41. This may merely represent a shorthand statement of the authors, or be based upon some early judicial language that might be so interpreted. In *United States v. California*, the Supreme Court emphasized the semicircle test in its evaluation of Monterey Bay. 381 U.S. 139, 164, 169-170 (1965). See, also: *Island Airways, Inc. v. C.A.B.*, 352 F.2d 735, 738 (1965). But the history of the Convention and subsequent Supreme Court decisions make clear that more is required.



Figure 42. Delaware Bay. This landlocked body clearly meets international criteria for juridical bay status.

Convention’s drafters did not intend that result, nor has the Supreme Court accepted it.

Prior to the 1958 Convention there was certainly no internationally agreed-upon set of rules for the enclosure of bays. The ILC committee of experts sought to provide an objective approach to the subject and recommended the semicircle test. That test, and the maximum 10-mile limit for closing lines, provided specific criteria. However, the International Court of Justice had recently rejected the 10-mile rule and, in that environment, the ILC considered such complete dependence on objective criteria to be too great a departure from customary international law.¹¹¹

111. 1 O’Connell, *supra*, at 389.

Thus, the more traditional term “so as to contain landlocked waters” was adopted from the judgment of Judge McNair.¹¹² Commentators have interpreted this requirement to involve two separate inquiries.¹¹³ So has the Supreme Court.

In *United States v. Louisiana*, the parties disagreed over the juridical status of a number of coastal indentations. The state took the position that any area that met the semicircle test *ipso facto* qualified as a bay under the Convention. The federal government insisted that the objective semicircle test is a minimum requirement to be applied only after a water body has been determined to be landlocked under the primary criteria.¹¹⁴ Although at that stage of the case the Court did not rule on the status of individual indentations, it did adopt the federal position that the subjective criteria of Article 7 must be met before the semicircle test will be applied.¹¹⁵

What Waters Are Landlocked?

O’Connell points out that the International Law Commission’s preoccupation with arithmetic limits distracted it from looking carefully at the term “landlocked,” with its obvious ambiguity.¹¹⁶ Since 1958, lawyers and geographers have wrestled with the problem, seeking to provide objective criteria by which the term can be applied and to determine whether specific indentations are actually landlocked. A number of factors have been considered and some ruled upon by the Court or its masters.

THE TWO-DIMENSIONAL CRITERION. At first blush it may appear reasonable to contend that waters that are enclosed by high bluffs or underwater sills are more “landlocked” than those whose headlands barely rise above the tidal datum or whose bottom is merely a continuation of the bed of the open sea. For example, in *United States v. Maine (New York/Rhode Island)*, the states argued that an underwater “sill” running between Montauk Point, Long Island, and Block Island “caused the waters of Block Island Sound to have a ‘different character’ than the waters outside Block

112. *Fisheries Case*, [1951] I.C.J. Rep. 116, 163.

113. O’Connell indicates that the definition “contains three main elements: bays must (a) be ‘landlocked;’ (b) satisfy the semi-circle test of penetration; and (c) satisfy the twenty-four mile rule.” *Supra*, at 390. Gross has said that “[u]nder this test, . . . true bays must constitute more than mere curvatures in the coast, contain landlocked waters, and contain an area as large or larger than that of a semi-circle . . .” Gross, *The Maritime Boundaries of the States*, 64 Mich. L. Rev. 639, 651 (1966).

114. *United States v. Louisiana*, 394 U.S. 11, 48, and 54 (1969).

115. *Id.* at 54. Prescott agrees with this interpretation but does not believe that any country would refuse to close an indentation that meets the semicircle test except, as in the case of the United States, where the national sovereign stands to gain thereby in disputes with its constituent political subdivisions. Prescott, *supra*, at 53. That position suggests, contrary to the history of Article 7 and the Supreme Court’s decisions concerning it, that the more subjective criteria are superfluous. It is too late in the day to pursue that route.

116. O’Connell, *supra*, at 388.

Island Sound.”¹¹⁷ (Figure 43) From this, they suggested that Block Island Sound should be considered landlocked.¹¹⁸ Neither the special master nor the Supreme Court accepted this logic.

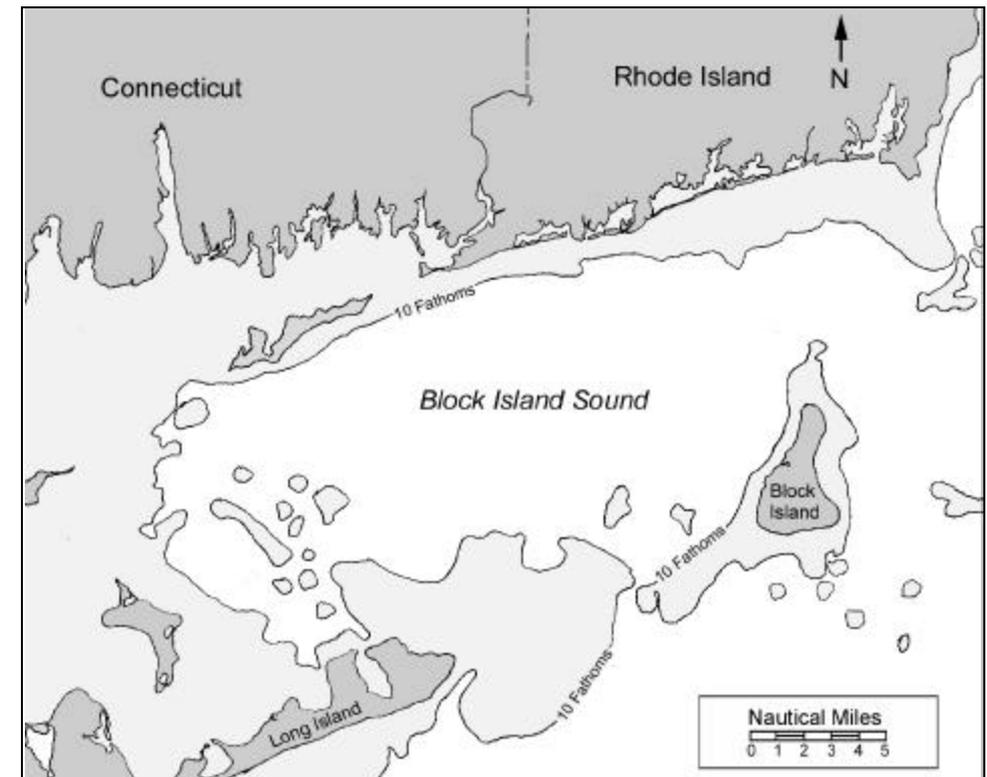


Figure 43. Block Island Sound. The shallow sill between Long Island and Block Island was said to help “enclose” the waters of Block Island Sound. (Based on NOAA Chart 12300)

A similar argument had been made in the English courts when, in the famous pirate radio station case, a determination had to be made as to the limit of landlocked waters in the Thames estuary.¹¹⁹ Defendants there argued that factors such as geology, tide streams, and the position of lights and shoals should be considered, while the Crown espoused a two-dimensional approach, concentrating on a search for headlands above the tidal datum that enclosed landlocked waters.¹²⁰

117. Report of the Special Master of October Term 1983, at 55-56 n.42.

118. *Id.* at 55.

119. *Post Office v. Estuary Radio Ltd.* [1968] 2 Q.B. 740.

120. O’Connell, *supra*, at 398.

Finally, the state of Florida has taken the position that the limits of the Gulf of Mexico should be determined by defining the subsurface basin that is identified with that water body, rather than the land features that provide its character as a gulf and distinguish it from the Atlantic Ocean. The question arose because Congress, through the Submerged Lands Act, granted states bordering on the Gulf of Mexico an opportunity to acquire a 9-mile belt of seabed in the Gulf, rather than the standard 3, by proving historic boundaries in that water body. Florida proved its right to the more expansive grant¹²¹ but had next to establish the boundary between the Gulf and Atlantic, because the extraordinary grant did not apply in the latter. Florida defined the entrance to the Gulf as that point on the seabed at which a marble, if dropped, would roll toward the Gulf rather than the Atlantic. The federal government, in contrast, looked to surface features that enclose the area commonly understood to constitute the Gulf. The state's formula provided a boundary running east from the Florida mainland to the Bahamas. The government's line ran due north from Cuba to the Dry Tortugas. The former included the Straits of Florida in the Gulf; the latter made the straits part of the Atlantic. The master and the Court adopted the federal position, relying on the two-dimensional analysis for determining the limits of the Gulf of Mexico and limiting Florida to a 3-mile boundary along the south coast of the Keys.¹²²

According to Hodgson, this two-dimensional approach was intended by the committee of experts and final drafters of Article 7.¹²³ So, although it may once have seemed logical to consider subsurface features for purposes of determining whether a water body is landlocked, that argument is now closed. The approach is two-dimensional. Only features that extend above the low-water datum may be considered, and each of those is equally capable of "locking" adjacent waters, regardless of elevation.¹²⁴

121. 363 U.S. 121 (1960).

122. *United States v. Florida*, 420 U.S. 531 (1975).

123. Hodgson, *Toward a More Objective Analysis*, *supra*, at 3. The geographer goes on to explain that the depth of water within an indentation is irrelevant to bay status. A bay may be navigable or not so long as the specified two-dimensional criteria are met. It seems equally well accepted that nomenclature has no legal significance. Florida Bay, Florida, and East Bay, Louisiana, are examples that have been the subject of litigation. On the other hand, the water body formed by the western side of the Mississippi River delta and the mainland of Louisiana was determined to qualify as an overlarge bay by Special Master Armstrong in *United States v. Louisiana*. The United States did not take exception to his recommendation and an appropriate 24-mile fallback line was included in the Court's baseline decree. 422 U.S. 13 (1975). The indentation was denominated "Ascension Bay" by the state but that name does not typically appear on charts of the area. See also: Beazley, *supra*, at 12 and 2 Shalowitz, *Shore and Sea Boundaries* 367 (1964).

124. The entrance to San Diego Bay provides a graphic example. The western headland to the Bay is the formidable Point Loma, a massive peninsula jutting into the Pacific and rising probably 100 feet above sea level. The eastern headland is a man-made jetty that rises above the tidal datum only in places. Nevertheless, each is given equal status as a headland of San Diego Bay. *United States v. California*, 449 U.S. 408 (1981).

THE HEADLAND REQUIREMENT. Typical bays are characterized by a pair of headlands which, in some sense, pinch in toward each other to enclose the waters between. Such headlands have traditionally caused inland waters to be described as *inter fauces terrae*, within the jaws of the land.¹²⁵ The term had its genesis in early English attempts to determine the limits of admiralty jurisdiction but continues as the essence of inland water status.¹²⁶

The need for identifiable headlands was the focus of a significant issue in *United States v. Louisiana*. East Bay, at the southern tip of the Mississippi River delta, is a triangular feature formed primarily by two of the river's passes into the Gulf. (Figure 44) The seawardmost potential headlands are the southern tips of the jetties that form those passes. However, the waters enclosed by a line between those headlands do not meet the semicircle test, disqualifying the whole of those waters from juridical bay status. Nevertheless, it was agreed that lines could be drawn within the triangle, enclosing waters that do meet the semicircle test. Louisiana contended that such waters automatically qualified as a juridical bay. The United States took the position that to achieve bay status the lesser indentation had to qualify separately. This, according to the federal government, required identifiable headlands enclosing landlocked waters. The Court agreed, and left its special master the problem of determining, in the first instance, whether such headlands existed within East Bay.¹²⁷

It is difficult to predict in advance what feature will qualify as a headland. Headlands to Monterey Bay, recognized by the Court in *United States v. California*, are substantial and readily identifiable.¹²⁸ In contrast, the headlands selected for East Bay were little more than bumps on an otherwise straight coastline. What is clear is that headlands are required if an indentation is to be landlocked.¹²⁹

SIZE AND SHAPE. It has sometimes been said that the semicircle is the classic form of a bay,¹³⁰ yet a perfect semicircle would, by definition, just

125. O'Connell, *supra*, at 385.

126. *Alabama and Mississippi Boundary Cases*, Report of the Special Master of April 9, 1984, at 18.

127. *United States v. Louisiana*, 394 U.S. 11, 54 (1969). The master ultimately determined that there were sufficient headlands along each of the passes to enclose a lesser landlocked bay that meets all of the criteria of Article 7. Report of July 31, 1974, at 32-35. The United States took exception to that recommendation but it was adopted by the Court, 420 U.S. 529 (1975), and the internal closing line was incorporated in the eventual coast line decree. 422 U.S. 13 (1975).

128. 381 U.S. 139 (1965). See map at Appendix B to dissenting opinion.

129. The means of selecting headlands, and entrance points on them that anchor inland water closing lines, is discussed at length below.

130. *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 45.

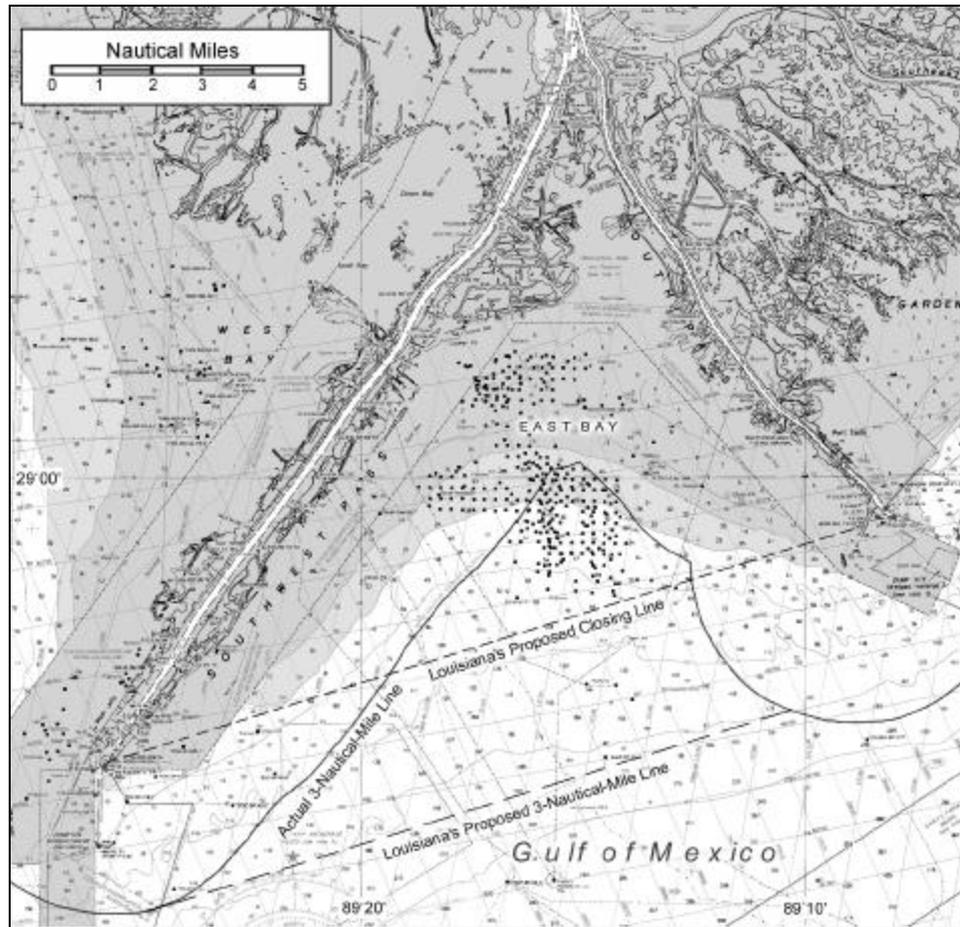


Figure 44. East Bay, Louisiana, at the southern tip of the Mississippi River delta. The limit of East Bay's landlocked waters, as contended by Louisiana, is illustrated. (Note the proliferation of oil production platforms, depicted on the chart as small black squares.) (Based on NOAA Chart 11361)

barely meet even the minimum test for juridical bay status. The United States has argued that something in the nature of pinching headlands is necessary to create landlocked waters.¹³¹

For example, the federal government took the position in *United States v. Louisiana* that a “V”-shaped indentation, East Bay, is not landlocked. The question did not have to be met directly because the entire “V”-shaped feature did not meet the semicircle test, and was thereby disqualified, while the lesser, interior indentations that were found to qualify had minor

131. For a discussion of the effort to locate headlands in the *Post Office* case, see O'Connell, *supra*, at 397-398.

headlands that created landlocked waters. So the question remains whether a perfectly “V”-shaped indentation does enclose landlocked waters. O'Connell has raised the question without answering it.¹³² The United States has closed a number of similar bays on its official charts depicting the limits of the territorial sea.¹³³

Article 7 itself suggests that a comparison of the length of the closing line to the depth of penetration within the indentation will assist in determining whether waters are landlocked.¹³⁴ Numerous commentators have attempted to reduce this requirement to a more objective test. Strohl has suggested that the line of deepest penetration should equal or exceed the length of a bay closing line.¹³⁵ Beazley indicates that the closing line shall be twice the depth of the indentation.¹³⁶ That formula would seem to be justified under the semicircle rule.

Special Master Armstrong has referred to this relationship on two occasions. With respect to East Bay, he noted that it “would seem to meet this test upon the basis of relationship between the width of its mouth to its depth upon a number of different closing lines”¹³⁷ Applying the test to Mississippi Sound he calculated that “[t]he relation of maximum penetration to width of mouth is therefore .4167:1, which in my opinion is enough to constitute more than a mere curvature of the coast”¹³⁸ The Court was not called upon to comment on either determination.

The issue arose again in *United States v. Alaska* when the state and federal governments disagreed as to whether the southeastern portion of Harrison Bay is landlocked.¹³⁹ The state's expert, Dr. Prescott, constructed a proposed closing line, and various penetration lines from it, to various points along the mainland coast to emphasize the depth of penetration as compared to the length of the closing line. The parties agreed on the length of Dr.

132. O'Connell, *supra*, at 394.

133. These include: Ursus Cove, Portage Bay, Abraham Bay, and Puget Bay. *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 27-28.

134. Article 7(2).

135. Strohl, *The International Law of Bays* 56-57 (1963).

136. Beazley, *supra*, at 13. Presumably Commander Beazley meant that an indentation will qualify if its mouth is no more than twice its depth, not that it need be that length.

137. *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 27.

138. *Alabama and Mississippi Boundary Cases*, Report of the Special Master of April 9, 1984, at 20.

139. Harrison Bay is located on the north slope of Alaska. It is divided into two distinct parts, the northwestern of which is recognized as an Article 7 bay by both parties. However, the federal government contended that the southeastern portion represents a mere curvature in the general direction of the coastline in the area. For that reason, it did not accept a closing line across the most seaward headlands of that embayment. The United States did, however, recognize two lesser bays within it.

Prescott's proposed closing line, but the means of measuring depth of penetration from it does not follow automatically. Four potential methods were suggested.

First, one could begin from the midpoint of the closing line and construct a perpendicular to the mainland coast. On a perfect semicircle this line would be exactly half the length of the closing line. Second, a perpendicular could be drawn from any point on the closing line to the deepest point in the indentation that could be reached with a straight line. Dr. Prescott tested that method in Harrison Bay and calculated ratios of 53 and 65 percent.¹⁴⁰ Third, a straight (but not perpendicular) line could be drawn from the closing line to the point of deepest penetration into the indentation.¹⁴¹ Here Dr. Prescott calculated a penetration ratio of 120 percent. Finally, and Dr. Prescott's preferred method, is the shortest non-straight line, from the closing line to the point of deepest penetration. In the case of southern Harrison Bay, that produced a ratio of more than 70 percent.

The United States urged a more subjective analysis, suggesting that the inquiry should go to the feature's entire configuration. In particular, the government pointed out, Dr. Prescott's lines went to an arm of the feature whose inland water status was not in dispute, rather than the shallower adjacent feature at issue.¹⁴² Dr. Robert Smith, the federal expert, contended that when viewed as a whole, the closing line proposed by Alaska encloses waters that are not landlocked and the whole of south Harrison Bay should not be considered inland.

The special master carefully considered all of the information offered about southern Harrison Bay. He compared the calculations to similar information from other indentations that are acknowledged by the United States and the courts to constitute juridical bays. In the end he concluded that south Harrison Bay meets the requirements of Article 7 and is inland water. Report at 226. The United States did not take exception to his recommendation.

The requirements as to depth of penetration remain difficult to articulate. Clearly the first sentence of Article 7(2) remains viable. Meeting the semicircle test alone does not assure juridical bay status. "Landlockedness" requires something more. *United States v. Louisiana*, 394

140. The master noted that these ratios exceeded those available for northern Harrison Bay, a water body that the United States conceded to be inland. Report at 205.

141. This method had been suggested by Robert Hodgson, the late State Department geographer, as the most logical for determining penetration. Report at 206, citing Hodgson and Alexander, *Towards an Objective Analysis of Special Circumstances*, *supra*, at 8.

142. As a general proposition the United States objected that penetration should not be constructed into subsidiary water bodies acknowledged to be inland. The master, however, noted that the United States had included those subsidiary features for purposes of applying the semicircle test to the entire feature at issue and concluded that "surely all of the [Article 7] tests should be applied to the same area." Report at 203. His reasoning seems appropriate.

U.S. 11, 54 (1969). Not surprisingly, the answer will often be in the eye of the beholder. The four methods of calculating depth of penetration described above will undoubtedly be useful, but they will often appear to justify closing lines that are clearly inappropriate.

The size of a water body may also help determine whether it is landlocked. According to Hodgson and Alexander, "[t]he scale of the body must also be considered. Basically, the character of the bay must lead to its being perceived as part of the land rather than of the sea. Or, conversely, the bay, in a practical sense, must be usefully sheltered and isolated from the sea. Isolation or detachment from the sea must be considered the key factor."¹⁴³ As Dr. Hodgson testified in *United States v. Louisiana*, the smaller an indentation, the less that is required to establish that it is landlocked.¹⁴⁴ That is to say, a bay with the maximum 24-mile closing line may be required to have more pronounced headlands, deeper penetration, and a greater water area than a smaller indentation.

LANDLOCKED FROM THE VIEW OF THE MARINER. A number of commentators have approached the "landlocked" issue from the viewpoint of the mariner and sought to identify tests to establish at what point, from his perspective, inland waters had been reached. These authorities were thoroughly reviewed in the New York/Rhode Island phase of *United States v. Maine*, in which those states contended that Block Island Sound is landlocked and considered inland waters.

The federal government agreed that if Long Island were considered part of the mainland, the waters of Long Island Sound are landlocked to a line from Montauk Point due north to Watch Hill Point.¹⁴⁵ The states contended that those inland waters extended farther to enclose Block Island Sound with lines from Montauk Point to Block Island and Block Island to Point Judith, Rhode Island. The parties could not agree on whether those additional waters of Block Island Sound were landlocked.¹⁴⁶

The United States relied upon the writings of Bowett, Beazley, and Prescott, all of whom endorse the proposition that to be landlocked, a seaman must be surrounded by land in all but one direction.¹⁴⁷ The states took a slightly different approach, offering the testimony of Jeremy White

143. Hodgson and Alexander, *supra*, at 6; quoted at *United States v. Maine, et al. (Rhode Island and New York Boundary Case)*, 469 U.S. 504, 525 (1985).

144. *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 18.

145. The United States did not concede that Long Island is part of the mainland, but the states convinced the special master and the Court that it should be considered so for these purposes.

146. The parties did agree that the semicircle test is met.

147. Bowett, testimony in *Rhode Island and New York Boundary Case*, transcript of November 11, 1981, at 65, quoted at Report of the Special Master of October Term 1983, at 53 n.40; Beazley, *supra*, at 13; Prescott, *supra*, at 51-53. Prescott suggests, in addition, that landlocked waters are those that are difficult to enter or leave under adverse weather conditions. *Id.* at 51-53. See also, Strohl, *supra*, quoted at *Rhode Island and New York Boundary Case* Special Master's Report. *Id.*

who opined that a ship has reached inland waters when there is land in all directions but seaward.¹⁴⁸ This formulation would apparently recognize inland waters that are open to the sea on two sides rather than only one.¹⁴⁹

Although both tests would appear to be highly objective, it is surprisingly difficult to reach consensus on how they might be applied. Clearly, any true bay will pass the White test. When the closing line is crossed, there is land on 180 degrees of the horizon. Unfortunately, the same is true when a mariner enters a bight, or mere curvature of the coast. The drafters did not intend to include such features among Article 7 bays.¹⁵⁰ That alone indicates that the test does not conform to the requirements of the Convention.

On the other hand, it is not much easier to determine when a mariner has protection from three sides. If his vessel lies just inside the closing line of a relatively large, but admitted, juridical bay, he would seem to be protected only from two sides. At least it is not apparent that he is more landlocked than he might be in an indentation meeting only the White test.

Despite the attempts to bring objectivity to the inquiry, the matter remains subjective. In reviewing the Block Island Sound question, the Supreme Court has adopted the federal position, saying “[w]e agree with the general proposition that the term ‘landlocked’ implies both that there shall be land in all but one direction and also that it should be close enough at all points to provide [a seaman] with shelter from all but that one direction.”¹⁵¹ Applying those criteria, Block Island Sound was determined not to be landlocked or inland waters. In concluding that “the States’ proposed closing line is defective because it includes open sea in the indentation in violation of the mandates of the Convention,”¹⁵² the Court was stating a conclusion more than a test. With the infinite number of geographic possibilities, that may be the best solution.¹⁵³

148. *Rhode Island and New York Boundary Case*, Report of the Special Master, *supra*, at 53.

149. As explained by the special master, Mr. White’s test “is based on the observation that if a ship is on the closing line of a bay . . . the angle between the ship and the two headlands, using the ship as the vertex of the angle, is 180 degrees. If the ship proceeds into the bay the angle formed on the seaward side is less than 180 degrees. White, thus, concludes that any point in a bay is landlocked when the sea area, or area of sea horizon, is less than 180 degrees.” *Id.* at 56.

150. It might be argued that the semicircle test will eliminate mere curvatures but that puts the test backward. One cannot conceive of any concavity in the coastline that does not meet the White test. Thus, by using it, the semicircle test would become the only means of determining “landlockedness,” a result that the Supreme Court has already foreclosed. What is more, in situations akin to Block Island Sound, interior bays, with admittedly landlocked waters, might provide the necessary area to permit the larger body to meet the semicircle test, even though it clearly includes waters that are not landlocked.

151. *Rhode Island and New York Boundary Case*, 469 U.S. 504, 525 (1985), quoting Beazley, *supra*, at 13.

152. *Id.* at 526.

153. The Court also noted that “[a]s the Special Master and the members of the Baseline Committee concluded, the waters in the outer reaches of Block Island in any practical sense are not usefully sheltered and isolated from the sea so as to constitute a bay or bay-like formation.” 469 U.S. at 526. Again, this language indicates a subjective approach that probably cannot be avoided in applying the first criterion of Article 7.

Examples of waters that have been determined not to be landlocked may be more instructive than efforts to craft a dispositive test. We have just reviewed the Block Island Sound situation, in which both the special master and the Court determined that lines connecting Block Island Sound with Long Island and Point Judith enclose waters that are not landlocked.¹⁵⁴ Special Master Armstrong was twice faced with similar determinations. The Mississippi River delta has numerous bays along its seaward side, many of which are formed by the arms of the various passes to the Gulf. In many instances these mainland headlands are, in a sense, extended by tiny islets known as mudlumps. The United States proposed that the acknowledged bays be closed with lines between headlands on the mainland passes. Louisiana argued for more seaward closing lines, anchored on mudlumps rather than the mainland. The special master concluded that the state’s proposed lines “would not include solely landlocked waters in a coastal indentation, but a substantial area of open water beyond the coastal line.”¹⁵⁵ On that basis he rejected the state’s proposal and his recommendations were adopted by the Court.¹⁵⁶

The issue arose again at the mouth of Atchafalaya Bay, to the west of the Mississippi delta. Both parties agreed that the Bay qualified under Article 7, but they could not agree on the location of the headlands that enclose landlocked waters. The federal government nominated South Point on Marsh Island. The state contended that Mound Point should be used. The master adopted the former terminus, finding that “the relation of Mound Point to the coast is such that a line drawn to it would include waters that cannot be viewed as ‘landlocked.’”¹⁵⁷

The Coastline Committee has also faced the issue and, at least twice, concluded that water bodies were not “well-marked” indentations. It determined that the indentation between Cape Spencer and Cape Fanshaw, Alaska, is merely a bight, or change in the direction of the coastline, and not a true bay.¹⁵⁸ Likewise, it decided that southeastern Harrison Bay, Alaska, is not, in its entirety, more than a curvature in an otherwise straight coast.¹⁵⁹

It will seem that such determinations have been highly subjective and probably will remain so. Commentators and the Court have tried to

154. 469 U.S. 504, 525; Report of the Special Master of October Term 1983, at 59 n.45.

155. *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 38. The master went on to note that the islands do not qualify for consideration as extensions of the mainland, a subject that is covered separately herein.

156. *United States v. Louisiana*, 420 U.S. 529 (1975).

157. *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 53. Again, the recommendation was accepted by the Court. 420 U.S. 529 (1975).

158. Minutes of September 20, 1971.

159. Minutes of April 14, 1982. That decision was, of course, challenged by Alaska. Special Master Mann recommended the state’s position and the United States did not take exception.

provide objective criteria to determine when waters are landlocked but the issue does not appear to lend itself to objective resolution. Future controversies will undoubtedly be resolved as have those in the past. Masters and the Court will review specific indentations, with the subjective criteria in mind, and determine on a case-by-case basis which bodies are indeed landlocked.

INDENTATION INTO THE MAINLAND. A final consideration with respect to the subjective criteria is that the well-marked indentation must be “into the mainland.” Bays may not be formed by islands extending out from the mainland even though the waters thus enclosed are, in a certain sense, landlocked. An offshore area formed by enclosing waters between the mainland and islands is a projection from the mainland, not an indentation into it. (Figure 45)

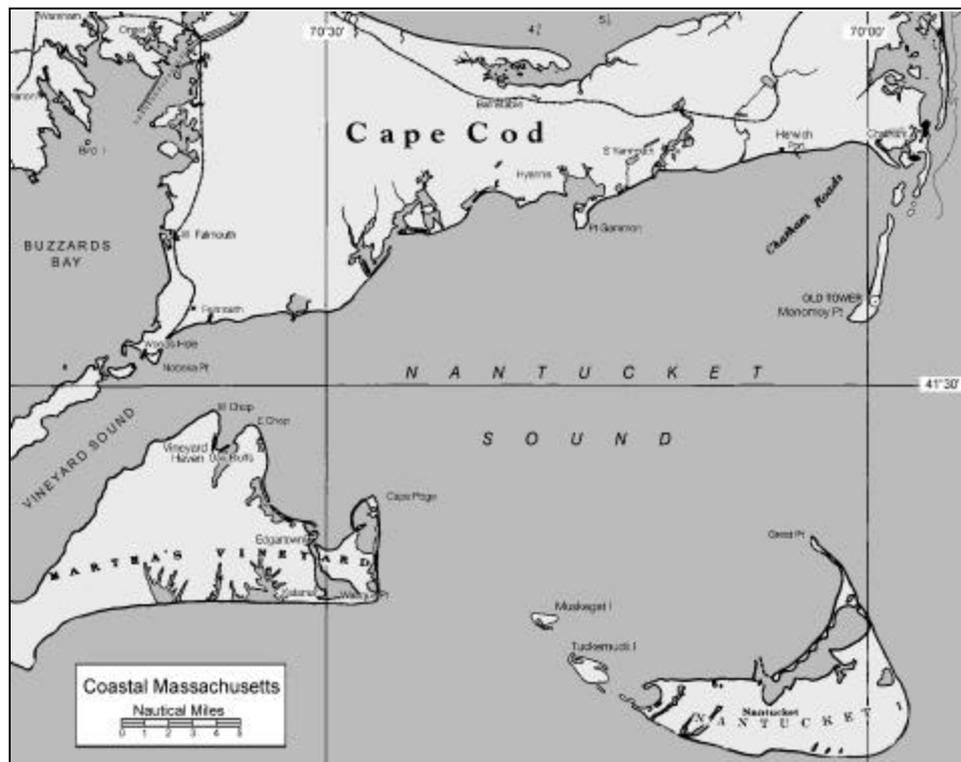


Figure 45. Nantucket Sound, off the coast of Cape Cod, Massachusetts. This water body is formed by islands that are not considered part of the mainland for boundary purposes. (Based on NOAA Chart 13200)

This is one of the subjects that was open to question in international law prior to 1958 but specifically resolved by the Convention. Three distinct situations arise, depending on the relationship of islands to the mainland and their distance offshore. First, as with the California Channel Islands, distances may be so great that the “enclosed” water body contains straits of high seas so that a vessel may enter, transit the water body, and exit without passing within 3 miles of the mainland or an island. This would appear to present the least compelling case for inland water status. Second, barrier islands may lie within 6 miles of each other but, on occasion, more than 6 miles of the mainland, creating enclaves of high seas that may only be reached by transiting the territorial sea. Mississippi Sound and the southeastern and northern coasts of Alaska are examples. Finally, the islands may be within 6 miles of the mainland so that all enclosed waters are at least territorial but, if islands are joined by closing lines, minor areas of jurisdiction are picked up to the seaward by measuring from those lines rather than the low-water lines on the islands alone. Caillou Bay, Louisiana, fits this description.

Prior to 1958, areas enclosed by the mainland and offshore islands were sometimes referred to as “fictitious bays.” A number of proposals had been discussed that would permit the closure of such water bodies but, according to the Supreme Court, attempts to apply bay-like criteria to such areas “have not got beyond the stage of proposals.”¹⁶⁰ Nevertheless, the United States attempted to employ just such criteria when faced with constructing a coast line for Louisiana before the Supreme Court announced that the 1958 Convention would be used for that purpose.

In 1950 the Supreme Court said, in effect, that the same rules apply to Louisiana as had been applied to California in 1947. That is, the federal government and not the state held paramount rights to submerged lands beneath the territorial sea.¹⁶¹ That decision made it necessary to delimit inland waters along the complicated Louisiana coast. A coast line known as

160. *United States v. Louisiana*, 394 U.S. 11, at 70 n.93 (1969). According to the Court, “[t]he expression seems to have originated in a proposal by the Committee of Experts, made to the Fifth Session of the International Law Commission, suggesting a ten-mile rule for bays, a general ten-mile limit for straight baselines, providing that baselines should not be drawn to islands more than five miles from shore, and limiting baselines to five miles in groups of islands or between such groups and the mainland, except that in such a group one opening could be ten miles. The latter situation was called a ‘fictitious bay.’” *United States v. California*, 381 U.S. 139, 170 n.38 (1965). California claimed that the Strait of Juan de Fuca is a fictitious bay, a precedent, it thought, for claiming the Santa Barbara Channel, but the Court concluded that the Strait had not been claimed by the United States. *Id.* at 171.

For a discussion of various proposals, beginning with the 1930 Hague Conference, including policy considerations affecting the propriety of enclosing such areas as territorial sea or inland waters, see McDougal and Burke, *The Public Order of the Oceans* 373-377 and 386 (1962).

161. *United States v. Louisiana*, 339 U.S. 699 (1950).

the Chapman Line (after the then secretary of the interior) was developed. That line enclosed a number of water bodies formed by the mainland and barrier islands such that no entrance exceeded 10 nautical miles, the distance accepted by the United States at the time as the maximum for bay closing lines. Most notable were Chandeleur Sound, on the east side of the Mississippi River delta, and Caillou Bay, some distance west.¹⁶² (Figure 46)

The 1958 Convention, and its adoption by the Supreme Court for Submerged Lands Act purposes, erased any doubt about the existence of “fictitious bays.” The Convention provides two means for dealing with islands and water areas adjacent to them. First, each island has its own territorial sea, measured as it would be from the mainland. This is the self-executing provision of Article 10. Article 4, in contrast, provides that straight baselines may be constructed to join fringing islands and that the waters thus enclosed will be inland. That Article is not self-executing and such lines must be specifically adopted by the coastal nation.

The Supreme Court recognized that “[t]he drafters of the Convention and their predecessors were aware that international law permitted such island fringes in some circumstances to enclose inland waters”¹⁶³ and concluded that “it is apparent from the face and the history of the Convention that such insular formations were intended to be governed solely by the provision in Article 4 for straight baselines.”¹⁶⁴ “The deliberate decision was that such island formations are not to be treated differently from any other islands unless the coastal nation decides to draw straight baselines.”¹⁶⁵ Of course the Court held that only the national government could adopt the straight baseline method for the United States and that it had not done so.¹⁶⁶

162. For a thorough discussion of the Chapman Line’s derivation, see 1 Shalowitz *supra*, at 108-112.

163. *United States v. Louisiana*, 394 U.S. 11, 68 (1969).

164. *Id.* at 67-68. The Court noted that Strohl suggests that “a fringe of islands can make up one side of a bay” but, at the same time acknowledged that under the Convention, only the straight baseline provisions would authorize such a line. *Id.* at 71. Percy, one-time geographer of the Department of State, is cited as the only authority who suggested that islands might form the side of an Article 7 bay. *Id.* at 72. Percy was referring to Florida Bay, formed on the south by the Florida Keys. Since that reference, the Florida coast line has been resolved by litigation and Florida Bay was stipulated not to be an Article 7 indentation. *United States v. Florida*, 425 U.S. 791 (1976).

165. *Id.* at 71.

166. “In the same vein, we held that the choice whether to employ the concept of a ‘fictitious bay’ was that of the Federal Government alone. 381 U.S., at 172. That holding was, of course, consistent with the conclusion that the drawing of straight baselines is left to the Federal Government, for a ‘fictitious bay’ is merely the configuration which results from drawing straight baselines from the mainland to a string of islands along the coast. See 381 U.S., at 170 n.38.” *United States v. Louisiana*, 394 U.S. 11, at 72 n.95 (1969). The Court had previously ruled in *California* that “as with the drawing of straight baselines, we hold that if the United States does not choose to employ the concept of a ‘fictitious bay’ in order to extend our international boundaries around the islands framing Santa Barbara Channel, it cannot be forced to do so by California.” *United States v. California*, 381 U.S. 139, 172 (1965).

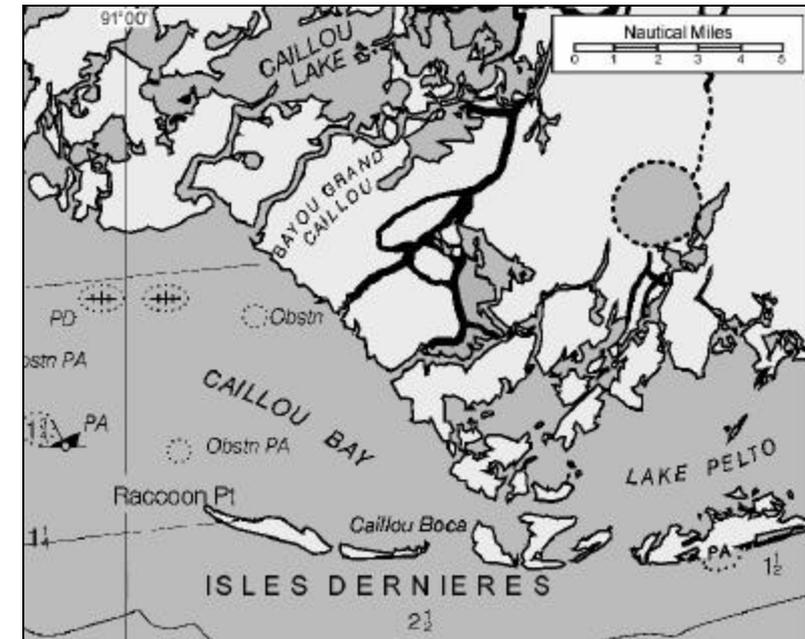


Figure 46. Caillou Bay, Louisiana. This bay might have been treated as inland water under pre-Convention rules sometimes employed by the United States. (Based on NOAA Chart 11340)

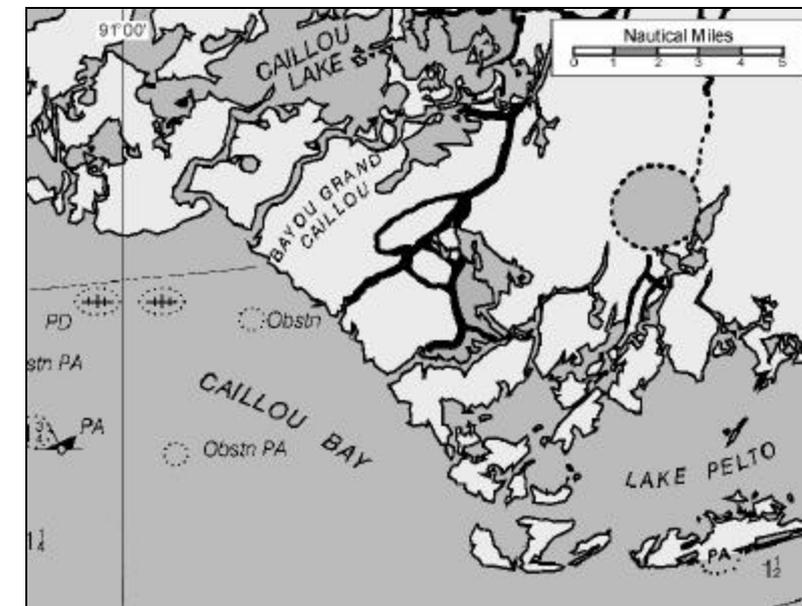


Figure 47. Mainland coast of Caillou Bay, Louisiana. With the islands erased, there are no landlocked waters. (Based on NOAA Chart 11340)

With the Supreme Court's adoption of the Convention for Submerged Lands Act purposes, the federal government abandoned the Chapman Line and employed the Convention's principles in its litigation with Louisiana. Areas such as Caillou Bay became territorial seas under the Convention's principles and, although the state claimed that they continued as inland waters under a number of theories, the master and Court eventually ruled otherwise.¹⁶⁷

It is now clear that "[a]rticle 7 does not encompass bays formed in part by islands which cannot realistically be considered part of the mainland."¹⁶⁸ Thus, where there is a question as to whether an indentation into the mainland exists in the vicinity of offshore islands, the United States first inspects a chart of the area with the islands erased. Any indentation into the mainland is then tested for bay status without regard to the islands.¹⁶⁹ (Figure 47) (Compare with Figure 46) If a bay exists, the islands are restored to determine whether they form multiple mouths to the bay and thereby affect the closing line. But the bay may not be created by the islands.

THE SEMICIRCLE TEST. The presumably more objective criterion for juridical bay status is the semicircle test. Article 7(2) of the Convention provides that to qualify as a bay, an indentation must have an area at least as large as a semicircle whose diameter is the mouth of the indentation. (Figure 48)

As discussed above, the Supreme Court and its special masters have interpreted Article 7 to impose this test as an absolute minimum limit, once an indentation has been determined to be landlocked through the more subjective criteria.¹⁷⁰ A water body may meet the semicircle test yet fail to

167. Caillou Bay provides the best example of an area that might be said to have been claimed by the United States under principles employed prior to the Convention yet no longer claimed after adoption of that treaty. To that extent, it stands for the proposition that states are not entitled to pre-Convention closing lines that may have been more seaward than those permitted under the provisions of the Convention now employed by the United States. Some states have contended that this constitutes an impermissible contraction of state territory. In fact, it is not established that the principles adopted for construction of the Chapman Line were ever the official international position of the United States. It is clear, however, that in most cases application of Convention principles, such as the 24-mile bay closing lines instead of the traditional 10, has worked to the decided benefit of the states.

The solicitor general determined that the United States would not withdraw its concession of Chandeleur Sound and entered a stipulation that recognizes Louisiana's Submerged Lands Act rights in that body. The stipulation represents no more than federal largess and does not purport to be based upon the application of Convention principles.

168. *United States v. Louisiana* 394 U.S. 11, 67 (1969). As the Court has noted, "[A]rticle 7 defines bays as indentations in the 'coast,' a term which is used in contrast with 'islands' throughout the Convention." *Id.* at 67.

169. See Report of the Special Master in *United States v. Maine, et al. (Rhode Island/New York)* of October Term 1983, at 24 n.17.

170. See for example, Report of the Special Master in *United States v. Maine, et al. (Rhode Island/New York)* of October Term 1983, at 51-52, n.40, quoting Hodgson and Alexander, *supra*. Hodgson has indicated that "while the juridical bay must meet the semi-circle test, a perfect semi-circle (which would not exist in nature) would not in itself meet the criterion of being landlocked." Hodgson, *Toward a More Objective Analysis, supra*, at 20.

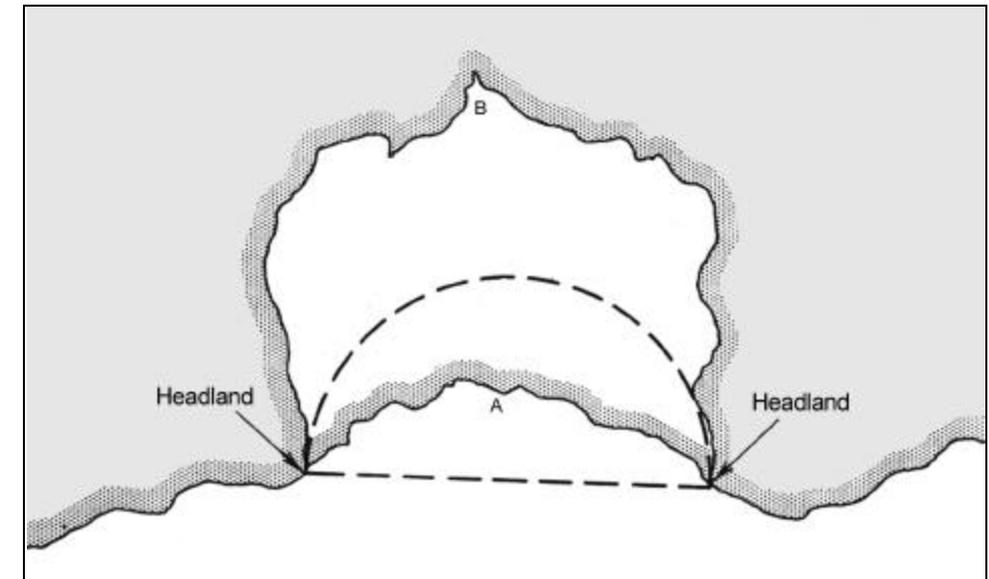


Figure 48. The semicircle test. Applying the semicircle test, indentation "B" qualifies as a bay, but indentation "A" does not. (After I Shalowitz, Figure 4)

qualify on other bases,¹⁷¹ or may appear to be a bay yet not achieve that status for failure to enclose the area of a semicircle.¹⁷²

Only one substantial issue has arisen in litigation concerning the application of the semicircle test to actual geographic situations. That is, what subsidiary water bodies are to be included within the area measured? It is not uncommon to have lesser water bodies adjacent to, or emptying into, the indentation being considered for juridical bay status. Article 7 does not make clear whether, in such cases, the area of those separate bodies is to be included for purposes of the semicircle measurement.

History. The original formulation of the semicircle test avoided this issue. It directed that a belt of water be drawn along the shore of the indentation with a width equal to one-fourth of the mouth and that the area outside that belt but within the mouth be compared to a semicircle with a diameter of one-half the length of the mouth. If the area of the interior exceeded that of the hypothetical semicircle, the indentation qualified.¹⁷³ In

171. For example, the Supreme Court rejected Louisiana's argument that any portion of East Bay that met the semicircle test should be considered inland waters even though the entirety of that water body is not. *United States v. Louisiana*, 394 U.S. 11, 53-54 (1969).

172. It has been said, for example, that "Santa Monica Bay on the California coast looks like a bay but does not qualify in the semi-circle test." United States Department of State, *Sovereignty of the Sea* 13 (1969).

173. See *United States v. California*, 381 U.S. 139, 144 (1965). The proposal is often referred to as the "Boggs Formula," after the then geographer of the Department of State, but was apparently developed by Admiral Patton of the Coast Survey at the request of the State Department.

most instances, subsidiary water bodies would be subsumed within the interior belt and not measured for semicircle test purposes. It was then offered by the United States as an appropriate method of determining inland water status at the 1930 Hague Conference on the Law of the Sea. Shalowitz, *Legal-Technical Aspects of the Submerged Lands Cases* 29 (1954). It is also sometimes known as “the reduced area method.”

Of course, no treaty resulted from the 1930 Conference and the test, as originally proposed, was thought to be too complicated for practical use unless applied in advance and published on coastal charts.¹⁷⁴

In 1953 Shalowitz revisited the adjacent water body issue. After discussing the earlier United States proposal, he concluded that an easier approach might be to determine the mouths of interior water bodies in the first instance. Any that qualified as inland waters would be excluded from the area measurement to determine whether the principal water body met the semicircle test. Others would be included.¹⁷⁵ Such an approach is not inconsistent with the language of Article 7 as it now stands. That language was first proposed by the committee of experts in 1953.¹⁷⁶ Before it had been interpreted by the Supreme Court, Shalowitz recognized that problems of interpretation would doubtless arise, making it necessary to establish “a set of secondary rules within the framework of the primary rule.”¹⁷⁷ O’Connell seems to agree, noting that the method has been simplified without attention to the question of whether it can be easily applied by the mariner.¹⁷⁸

174. O’Connell, *supra*, at 392. In fact, the proposal had consequences that required refinement. For example, Shalowitz opined that fractions other than one-fourth might sometimes have to be used “in order not to generalize the shape of the bay too much.” 1 Shalowitz, *supra*, at 38. Whether and when other fractions would be used introduces a subjective judgment that reduces the appeal of the test. Yet the fact that San Diego Bay does not qualify as inland water using the one quarter of the headland-to-headland distance indicates that a significant shortcoming exists.

The formula never became a rule of international law, or even the official policy of the United States. Report of the Special Master in *United States v. California* of October 14, 1952, at 25. Yet the federal government urged that it be employed in the *California* case as an appropriate means of determining inland water status and the master made that recommendation. *Id.* at 25 and 26. That issue became moot when the Court later adopted the 1958 Convention for Submerged Lands Act purposes. As a subsequent master has noted, “[a]ny bay which meets the requirements of the semicircle test under Article 7 of the Geneva Convention obviously meets those of the Boggs formula.” *Alabama and Mississippi Boundary Cases*, Report of the Special Master of April 9, 1984, at 40.

According to Shalowitz, the method was used by the United States Tariff Commission in its 1930 exercise to delimit the territorial sea of the United States for the purpose of compiling fisheries statistics, by the Department of Commerce for purposes of measuring the areas of coastal states for the 1940 census, and the Department of the Interior in its construction of the Chapman Line along the Louisiana coast. 1 Shalowitz, *supra*, at 40-41.

For a graphic example of how the test is applied, see 1 Shalowitz, *supra*, at 37.

175. Shalowitz, *The Concept of a Bay as Inland Waters* Surveying and Mapping, Vol. XIII, No. 4 (1953) 432 at 438. Dr. Hodgson has taken a similar position, contending that one must distinguish among water bodies and in measuring one should not include the water area of another, distinct indentation or subsidiary feature. Hodgson, *Toward a More Objective Analysis . . .*, *supra*, at 6. Dr. Hodgson so testified in *United States v. Louisiana*, where his proposals for area measurement were adopted by the master and the closing lines that resulted were eventually incorporated in a Court decree. *United States v. Louisiana*, 422 U.S. 13 (1975).

176. Report annexed to U.N. Doc. A/CN.4.61/Add. 1 (1953). See also, 4 Whiteman, *supra*, at 222.

177. 1 Shalowitz, *supra*, at 41.

178. 1 O’Connell, *supra*, at 392.

The *Louisiana* case provided an opportunity to consider the question in the context of an intricate coastline. Two controversies arose immediately. One involved the treatment of rivers that flow into an indentation and whether any part of the area of the river should be included in the area measurement being made to determine whether the indentation qualified as a bay. The second involved subsidiary bays, and whether their areas could be included for purposes of testing a more seaward indentation.

In each instance, it was in the state’s interest to maximize water area so as to assure that the semicircle test would be met in the greatest number of cases, resulting in more bay closing lines and increased state jurisdiction. Louisiana suggested a number of alternative theories for including subsidiary water bodies within the area to be measured for semicircle purposes. First, the state proposed that the low-water line be followed wherever it goes. Second, it recommended that all salt waters be included. Third, it suggested that all tributaries that lead to the main stream of the Mississippi River be followed until the river is reached, including all land areas encompassed by such a line. Fourth, the same water bodies would be included, but only those land areas lying within the mouths of the tributary waters and the bay being measured. Finally, it proposed closing off water bodies where they entered the bay.¹⁷⁹

The United States emphasized that only the water body being tested should be measured, ignoring tributaries and lands within them. This position appears to have been the same as Louisiana’s final alternative.

Rivers. East Bay, at the southern tip of the Mississippi River delta, contains an extremely productive oil and gas field. Although the two major distributaries of the Mississippi in the area form the sides of East Bay, a number of minor passes from the Mississippi empty into it. If the area of East Bay is measured by following its shores, and crossing these river mouths such that they are not included in the area measurement, the bay does not meet the semicircle test. Louisiana made each of the arguments just mentioned to justify inclusion of some of the river water within the bay. (Figure 49)

It contended that its first position conforms to the literal wording of Article 7, which refers to the “low-water mark along the shore of the indentation.”¹⁸⁰ Yet, in practice, this proposal is unworkable. In the simple case of a single river emptying into an indentation, one might begin at the headland of the indentation, proceed along the low water to the river

179. *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 30-31.

180. Louisiana also argued that this interpretation is supported by Article 13 of the Convention, which provides that “[i]f a river flows directly into the sea, the baseline shall be a straight line across the mouth of the river between points on the low-tide of its banks.” As noted by the special master, “[o]n the principle of *expressio unius est exclusio alterius*, Louisiana argues that if a river does not flow directly into the sea but instead into a bay, a straight line should not be drawn across its mouth but instead the low-water mark around the shore of the bay should be followed up into tributary waters.” Report of the Special Master of July 31, 1974, at 30.

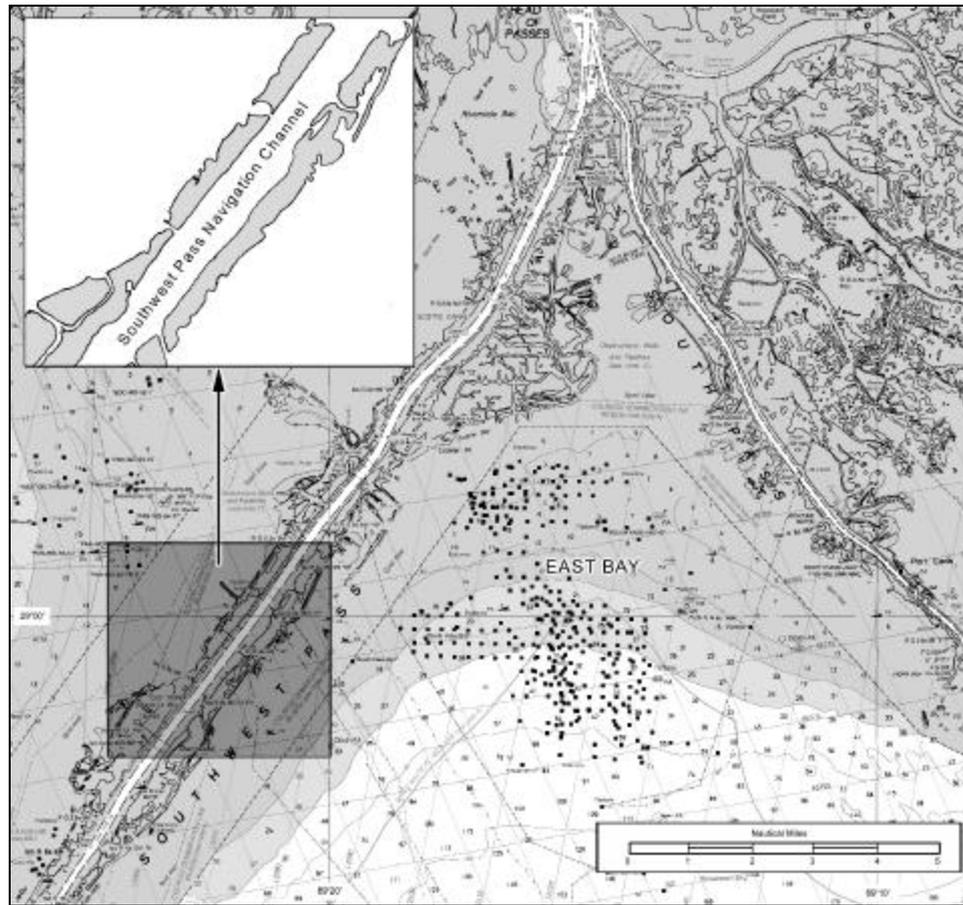


Figure 49. East Bay, Louisiana. Small channels connect the Southwest Pass of the Mississippi River with the bay. (Based on NOAA Chart 11361)

mouth, follow the low-water line into the river and upstream to its headwaters, continue down the opposite bank back to the indentation and seaward to its mouth. The Mississippi delta is even more difficult to deal with. By following a channel from East Bay, one shortly arrives at a primary trunk of the Mississippi. By continuing along the low-water line, one proceeds either downstream, eventually returning to the Gulf of Mexico or the indentation being measured, or upstream, where another distributary channel is eventually reached. If the low-water line is followed, one simply returns to the Gulf or the indentation sought to be measured. In either case, it is actually the land forming the indentation that is being measured, not the water area. In neither case does the procedure make any sense.

Louisiana's purpose, of course, was to include substantial portions of the Mississippi River itself, but the proposal could not have that effect

without crossing a channel at some point. And if that is going to be done, no particular crossing is more logical than that where the channel empties into the indentation being defined.

The United States stood by its primary contention that the semicircle test is to be applied to a particular indentation and that clearly separate water bodies should not be included.

The state's second proposal is related. It would have all river waters to the limits of tidal effect included within the area of the indentation into which the river empties. The suggestion does not have the same problem of practical application as the "follow the low-water line" approach and has enjoyed approval among experts on the subject.

In *Post Office v. Estuary Radio Ltd.*, the parties addressed the identical issue. The British government was interested in maximizing the area to be measured so as to qualify the Thames estuary as a bay and establish jurisdiction over the radio station/defendant. To do so, the government argued that the area of the Thames up to Richmond Lock should be measured along with subsidiary rivers to the distance that they were affected by the rise and fall of the tide. The defendant contended, as did the United States in the Louisiana case, that closing lines should be drawn across the mouths of rivers and their waters excluded for purposes of applying the semicircle test to the Thames estuary.¹⁸¹

However, the issue was dispositive only if Orfordness and North Foreland were treated as the natural entrance points to the embayment. In fact, the English Court of Appeal selected the Naze and Foreness as the natural entrance points, making it unnecessary to decide the area measurement issue.¹⁸² Nevertheless, O'Connor J. spoke to the issue, rejecting the suggestion that tributary waters should not be included. Subsequent British commentators also acknowledged that the matter is open to that interpretation.¹⁸³

Like Louisiana's primary proposal, however, the "limits of the tides" test makes little sense when applied to the Mississippi River. Tidal effect is felt upriver to Baton Rouge, a distance of 84 miles. As the special master pointed out, if the state's theory were accepted, "the entire lower portion of the State of Louisiana would have to be treated as one gigantic over-large bay, which could only be done as a practical matter if the United States had

181. 1 O'Connell, *supra*, at 398-399.

182. *Id.* at 398-399.

183. Beazley, *supra*, at 15, suggests that one should look for the point at which the water is no longer sea water, which will normally be the limit of tidal effect. 1 O'Connell, *supra*, at 398 indicates that Article 7(3) is open to that same interpretation and bases his position on one of the arguments relied upon by Louisiana. Prescott agrees, indicating that tidal rivers should be included as part of a bay to the limit of tidal influence. Prescott, *supra*, at 60.

adopted a system of straight baselines, which as previously demonstrated it has not done.”¹⁸⁴ Furthermore, the master noted that the Supreme Court had already concluded that the whole of East Bay did not meet the semicircle test, clearly indicating that it envisioned no such expansive application of the test.¹⁸⁵

The master rejected each of Louisiana’s first four alternatives and recommended a method of area measurement for East Bay that excluded adjacent river channels. His recommendations were adopted by the Court,¹⁸⁶ and a coast line employing his principles was incorporated in a Supreme Court decree.¹⁸⁷

Subsidiary Bays. A more difficult problem is determining whether or not to include within the area measurement adjacent water bodies that are more in the nature of coves or bays. Louisiana’s approach was easily applied. As before, the state contended that the low-water line should merely be followed wherever it led, thereby including all adjacent water bodies.¹⁸⁸

The federal government again took the position that the Convention referred to “that indentation” and, therefore, required that measurement be limited to what might reasonably be considered part of the single, outer indentation.¹⁸⁹ The United States conceded that certain tributary water bodies might be included but denied that any rule of law existed that justified the inclusion of any that might be reached by following the low-water line wherever it might lead.¹⁹⁰

The distinction was to be based upon the nature of the connection between the two water bodies. If the connection were a narrow channel, the federal government took the position that the tributary water body should not be included as part of the area of the indentation under consideration. On the other hand, if the relationship were more in the nature of a bay opening into a larger bay, the areas would be combined.

184. *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 29.

185. Report of July 31, 1974, at 29.

186. *United States v. Louisiana*, 420 U.S. 529 (1975).

187. *United States v. Louisiana*, 422 U.S. 13 (1975).

188. 394 U.S. at 50. 1 O’Connell, *supra*, at 399-400.

189. 1 O’Connell, *supra*, at 400.

190. As the Supreme Court noted, “[t]he United States does not reject the notion that some indentations which would qualify independently as bays may nonetheless be considered as part of larger indentations for purposes of the semicircle test; but it denies the existence of any rule that all tributary waters are so includible.” 394 U.S. at 51.

In fact, the geographer of the State Department had written that “the water of bays within bays may be included as water surface of the outer bay in determining the dimensions of a coastal indentation.” *Sovereignty of the Sea*, *supra*, at 13. Likewise, Shalowitz had said that “in the application of the semicircular rule to an indentation containing pockets, coves or tributary waterways, the area of whole indentations (including pockets, coves, etc.) is compared with the area of a semicircle.” 1 Shalowitz, *supra*, at 220 n.28. Both authorities were cited by the Court. 394 U.S. at 51 n.66.

The Court’s treatment of an area denominated “outer-Vermilion Bay” by the state makes clear that it accepted the federal approach. The United States argued that the truly inland areas, “inner-” Vermilion Bay and the adjacent Cote Blanche complex, had their own distinct and isolated configurations, and should not be considered together with “outer-” Vermilion Bay. Nevertheless, by following the low-water line they would clearly have been included. The Court emphasized that the water bodies were connected only by narrow channels and that Vermilion Bay could not be included to assist outer-Vermilion Bay in meeting the semicircle test.¹⁹¹

On the other hand, if the waterway connecting the two bodies is relatively large except for the existence of islands within it, those islands will not prevent their treatment as a single indentation. The Supreme Court faced that issue in its consideration of Ascension Bay, on the west side of the Mississippi River delta. The state contended that it is an overlarge bay and meets the semicircle test by including the water areas of the Caminada-Barataria Bay complex to the north. The United States argued that the latter bodies are distinct, being separated from Ascension Bay by a series of barrier islands. (Figure 50) The Court adopted the state’s position. It reasoned that Article 7 seeks to keep islands from defeating the semicircle test and the barrier islands, therefore, should be ignored when applying that test to Ascension Bay. Once that was done, the opening to Caminada-Barataria is so broad as to make that subsidiary bay includable under even the federal position, and Ascension Bay meets the test.¹⁹²

Hodgson later endorsed what may be an even more conservative approach than that taken by the federal government in the Louisiana case.¹⁹³ O’Connell has also discussed the subject. He cautions that when without the inclusion of tributary bays an indentation into the coast would be a mere curvature, the application of Article 7(2) would be difficult. He implies that, although each case will have to be determined on its own geography, the Convention requires that all waters within the closing line must be landlocked and care should be taken before including tributary bays to aid the qualification of an area that would, in their absence, be no more than a curvature of the coast.

191. 394 U.S. at 51. 1 O’Connell, *supra*, at 400.

192. *United States v. Louisiana*, 394 U.S. at 52-53. The Court applied the same reasoning to West Bay. *Id.* at 53. O’Connell seems to interpret this decision as support for the proposition that the low-water line is to be followed into subsidiary bays when making semicircle test measurements. 1 O’Connell, *supra*, at 400. In fact, the Court deals with that issue separately, concluding that that determination depends upon the nature of the opening in the absence of islands.

193. In Hodgson, *Toward a More Objective Analysis*, *supra*, at 6, he suggests that “[t]o determine the unique character of a bay, it is necessary to isolate all water surfaces which do not conform to the general definition of a bay and are geographically isolated from it or which do not conform with those of other categories of features, i.e., rivers, canals, estuaries, etc. These hydrologic or hydrographic types are then geographically detached from the specific bay under examination. Rivers, lagoons, subsidiary bays, channels and the like should be separated . . .”

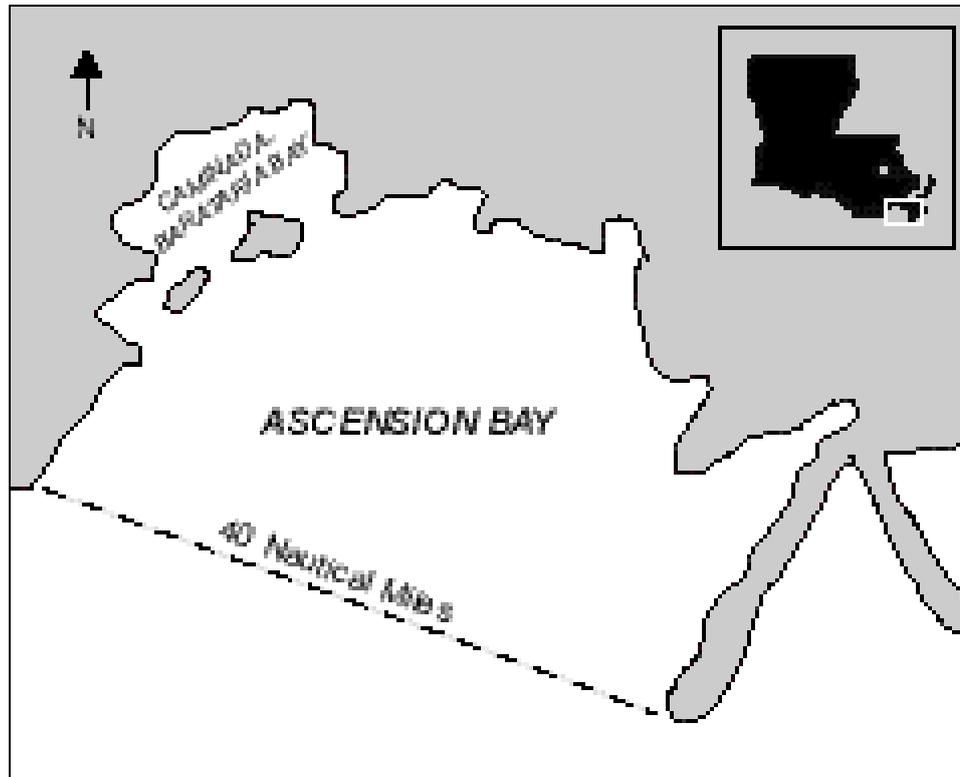


Figure 50. Ascension Bay, Louisiana, with adjoining Caminada and Barataria Bays.

The entrance to San Francisco Bay provides a graphic example of the issue. If the Golden Gate and all waters to the east are ignored, there is a more seaward indentation into the coast with identifiable headlands. That indentation alone will not meet the semicircle test. But, by including the clearly inland waters of San Francisco Bay, the test is met. (Figure 51) Apparently even California recognized that such inclusion would be inappropriate when it agreed to a Supreme Court decree limiting inland waters in the area to those landward of the Golden Gate.¹⁹⁴

The Supreme Court of Nova Scotia considered the issue in *Re Dominion Coal Company and County of Cape Breton*, where it concluded that an area known as Spanish Bay, seaward of Sydney Harbor and the estuary entrance to Bras D'Or Lakes, was a mere curvature of the coast unless the inner water bodies were included. It determined that they should not be and did not enclose the whole of Spanish Bay.¹⁹⁵

194. *United States v. California*, 432 U.S. 40, 41 (1977).

195. 40 D.L.R.2d 593 (1963). See also, 1 O'Connell, *supra*, at 402.

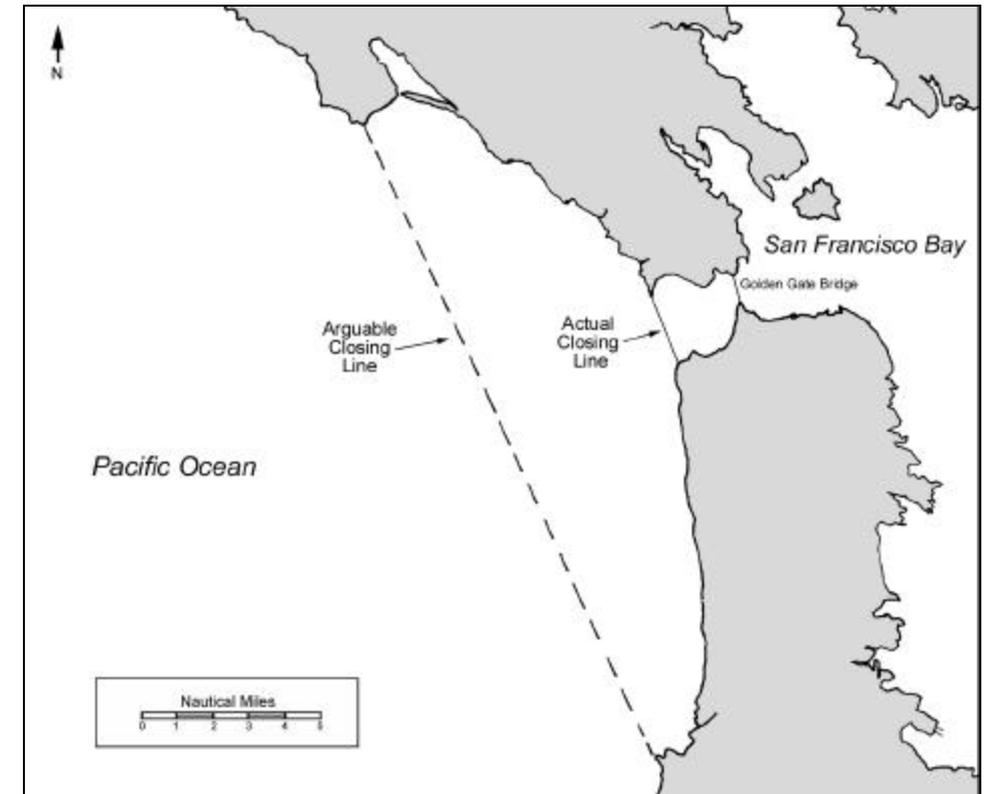


Figure 51. Entrance to San Francisco Bay, California. The area seaward of the Golden Gate would arguably be inland water if San Francisco Bay could be used to meet the semicircle test.

Islands within the Indentation. Article 7(3) provides, in part, that “[i]slands within an indentation shall be included [for semicircle test purposes] as if they were part of the water area of the indentation.” This provision has its genesis in the original formulation of the semicircle test, which employed a band within the indentation the width of one-fourth the length of the closing line. The originators of that scheme thought it too complicated to deal with islands separately, so suggested that they be ignored. Under the semicircle test as it has evolved in Article 7, islands would not create the same complication. Nevertheless, the drafters determined that the area taken up by islands within an indentation should be treated as if it were water for purposes of the semicircle test. As Beazley points out, there is a certain logic to this approach because the existence of islands “increases the internal character of the waters.”¹⁹⁶ Although not

196. Beazley, *supra*, at 21.

mentioned in the Convention, we must assume that low-tide elevations are to be treated as islands for this purpose.¹⁹⁷

There is, however, one instance in which an island should be considered as land area. Technically, under the Convention, an island is any “naturally formed area of land, surrounded by water, which is above water at high tide.”¹⁹⁸ Yet the Supreme Court has concluded that, in certain limited circumstances, islands may be treated as part of the mainland.¹⁹⁹ This may occur when an island is separated from the mainland by a narrow channel. Although the situation arose in the context of the canal-riddled marshlands of the Mississippi delta, even Long Island, New York, has since been ruled part of the mainland, and therefore not an island, by the Court.²⁰⁰ To be consistent, islands within an indentation should be subjected to the same scrutiny. If they are legally part of the mainland, under the criteria adopted by the Court, then they should not be treated as islands for purposes of the semicircle test. That is, they should not be included as part of the “water” area of the indentation.

The Court has not, to date, had occasion to consider this application of its “island part of mainland” doctrine. The issue arose before the special master in *United States v. Louisiana* but on a matter that was ultimately decided on other grounds. The state contended that a closing line should be drawn across Bucket Bend Bay, on the east side of the Mississippi delta, with termini on offshore mudlumps. The United States argued that the mudlumps are inappropriate headlands since they are not realistically part of the mainland and, in addition, that the area enclosed by such a line did not meet the semicircle test. In fact, the area measurement was extremely close and the federal contention rested upon the exclusion of the area of an “island” within the indentation which runs parallel to the mainland and is separated from it by the narrowest of channels. (Figure 52) Louisiana took the position that the “island part of mainland” doctrine is properly related only to headland selection and that all islands within the indentation, no matter how closely associated with the land are to be treated as water. As it turned out, the special master accepted the federal argument that the mudlumps were inappropriate headlands and the interior island question became moot. However, there is no reason to believe that the Court would treat an island as mainland for headland purposes and as water in applying the semicircle test.

197. *Id.* at 18.

198. Article 10(1).

199. *United States v. Louisiana*, 394 U.S. 11, 62-63 (1969).

200. *United States v. Maine, et al. (Rhode Island/New York)*, 469 U.S. 504, 512-520 (1985).

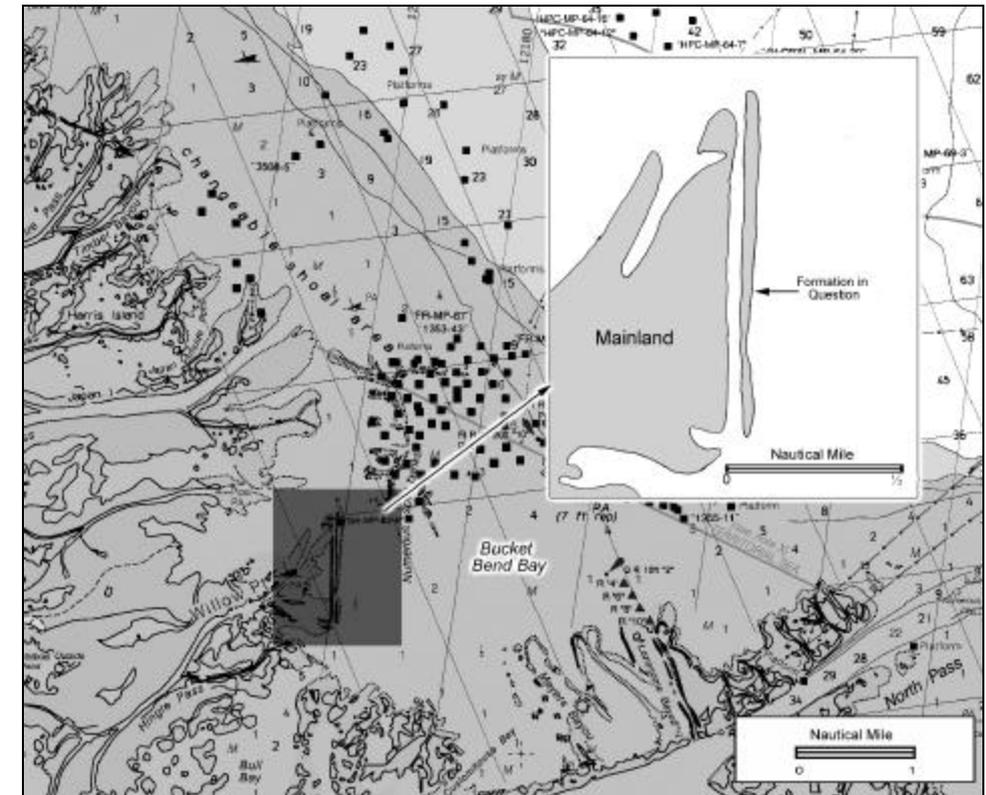


Figure 52. Bucket Bend Bay, Louisiana. Whether or not the formation in the inset is legally assimilated to the mainland may affect the outcome of the semicircle test as applied to Bucket Bend Bay. (Based on NOAA Chart 11352)

Clearly the Court has rejected Louisiana’s argument that the island assimilation principle is only applicable to the matter of headland selection. As discussed above, it did not agree with the state’s contention that outer-Vermilion Bay is part of a larger indentation because it is attached to Vermilion Bay only by a narrow passageway. (Figure 53) Yet that passage is between Marsh Island and the mainland and the Court decided at the same time that islands separating water bodies would not be allowed to defeat the semicircle test.²⁰¹ Thus, the Court must have been treating Marsh Island as part of the mainland in its rejection of the outer-Vermilion Bay claim or it would have ignored the island as it did those at the entrance to Caminada-Barataria and West Bays. When applying the terms of the Convention, a land area must be island or mainland for all purposes.

201. *United States v. Louisiana, supra*, 394 U.S. at 52-53.

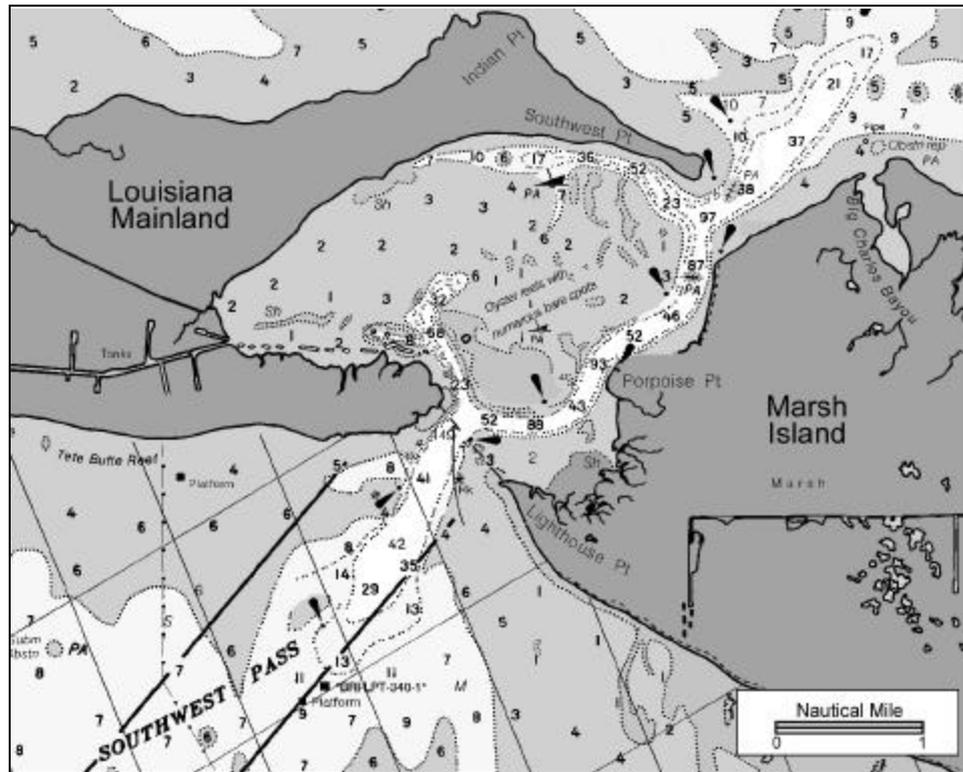


Figure 53. Marsh Island, Louisiana. The channel between the island and the mainland prevents Marsh Island from being assimilated to mainland Louisiana. (Based on NOAA Chart 11349)

Artificial Islands and Low-Tide Elevations within the Indentation. Artificial islands within an indentation create an entirely unconsidered situation. Article 7 specifically provides that the area of “islands” shall be treated as water for purposes of the semicircle test. Just as specifically, Article 10 requires that islands be “naturally formed.” Query whether a spoil bank within the indentation is counted as water area or as land. One can argue that by specifically including islands as water area, and ignoring other features, the drafters must be assumed to have intended no other exceptions. Yet, as Beazley points out, it seems improper to treat low-tide elevations differently for this purpose. Like low-tide elevations, artificial islands certainly do not detract from the landlocked nature of the indentation. Article 7(2) speaks in terms of measuring the “indentation,” not the “water area.” Thus, the better argument seems to be that low-tide elevations and artificial islands within the indentation are not to be subtracted from the area measurement save in the rare instances in which

they should be treated as part of the mainland because of their adjacency and under the same criteria as would be applied to natural formations.²⁰²

Islands in the Mouth of the Indentation. Although a bay must be an indentation into the mainland, and may not be formed by islands along an otherwise straight coast, islands in the mouth of an indentation may enable that water body to meet the semicircle test when otherwise it would not. This can occur in either of two geographic circumstances.

First, the islands may reduce the length of the closing line, thus reducing the size of the semicircle whose area must be matched by the indentation. The Caminada-Barataria, Louisiana, complex is an example. (Figure 54) Article 7(3) provides that “[w]here, because of the presence of islands, an

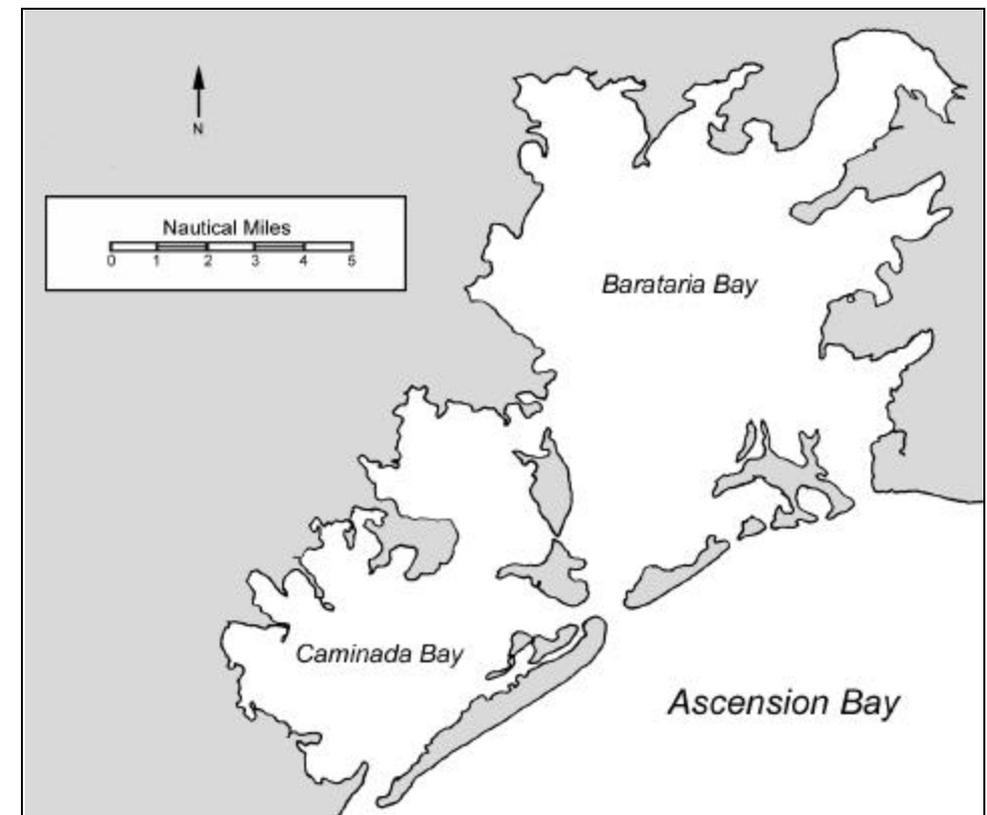


Figure 54. Caminada-Barataria Bay, Louisiana, with multiple mouths formed by islands

²⁰² Of course, artificial and natural features are not treated identically for purposes of coast line determination. Once severed from the mainland, an artificial structure becomes a man-made island and loses its status as part of the coast line. 394 U.S. at 41 n.48. However, nothing in the Convention seems to compel the conclusion that artificial islands should be treated as mainland rather than islands when making semicircle calculations.

indentation has more than one mouth, the semi-circle shall be drawn on a line as long as the sum total of the lengths of the lines across the different mouths."²⁰³

This provision is intended to enhance the likelihood that a particular indentation will qualify for bay status when its waters are landlocked not only by the mainland but by islands between the mainland headlands. In the absence of such islands the hypothetical would have a diameter equal to the distance between the mainland headlands. But with islands creating multiple mouths, that distance is typically reduced, thereby reducing the depth that the indentation must penetrate into the mainland in order to meet the semicircle test.

Second, the islands may lie seaward of a direct line between mainland headlands, thereby enclosing more water area than would lie within the mainland to mainland closing line.²⁰⁴ (Figure 55) That additional water area, in a close case, might be enough to enable the indentation to meet the semicircle test.²⁰⁵

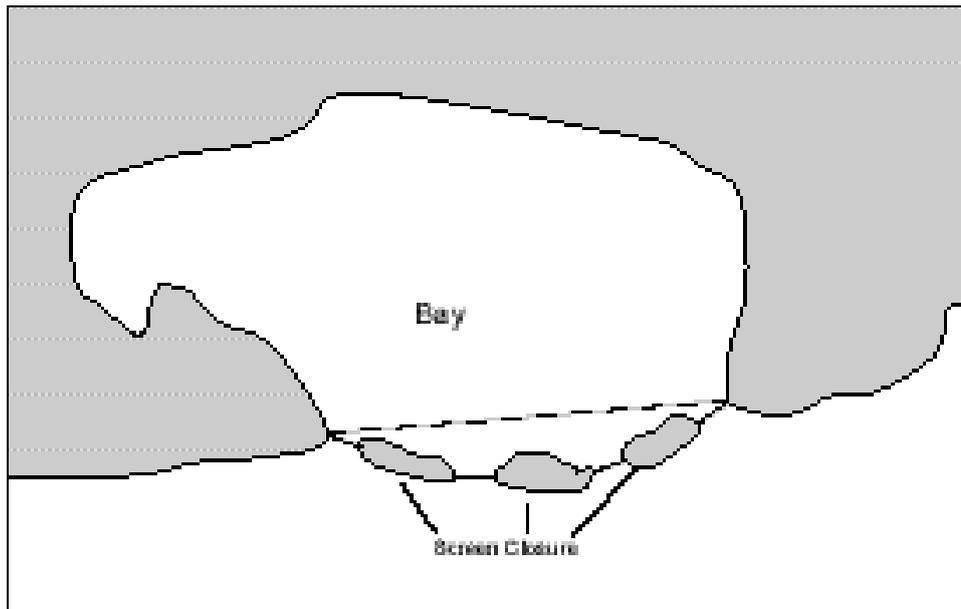


Figure 55. Multiple mouths to a juridical bay. The multiple mouths formed by these screening islands are seaward of a direct line between mainland headlands.

²⁰³. Determining whether particular islands actually create multiple mouths to an indentation is a separate, and sometimes hotly contested, issue.

²⁰⁴. Again, just which seaward islands create multiple mouths is discussed below.

²⁰⁵. Scammon Bay, Alaska, appears to be an example. See Coastline Committee Minutes of September 14, 1970.

The existence of islands may have a third effect that is unrelated to the semicircle test. Article 7(4) provides that a juridical bay's closing line may not exceed 24 miles in length. Where islands create multiple mouths their combined length may fall within that limitation even though the mainland headlands are more than 24 miles apart. (Figure 56) In such cases the closing lines will run from the mainland, from island to island, and across to the opposite mainland, so long as the segments do not total more than 24 miles.

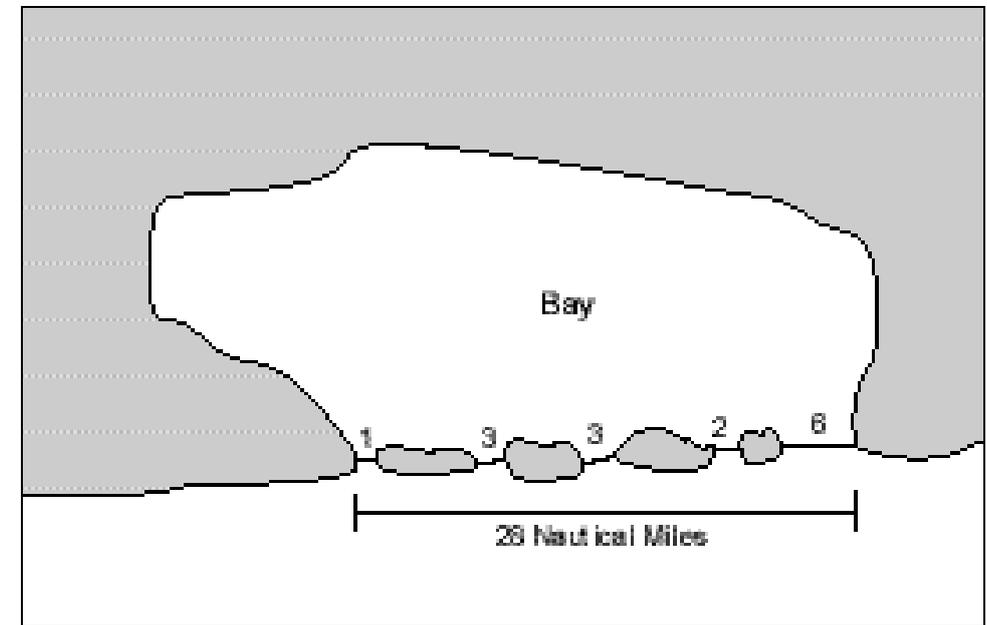


Figure 56. Multiple mouths to a juridical bay. The multiple mouths formed by these screening islands total less than 24 miles although the mainland headlands are more than 24 miles apart.

What once may have been in doubt but now is clear is that the semicircle drawn from the midpoint of the mouth of the indentation may intersect land so long as additional water pockets are available to offset the area of land that falls within that semicircle. Early graphic examples of how the test is applied tended to show a semicircle that never crossed land. See, for example, 1 Shalowitz, *supra*, at 37 figure 4. Other geographers have used examples in which the semicircle crosses the interior coastline on occasion. See, for example, Percy, *supra*, at 7 figure b; Beazley, *supra*, at 13 figure 2b; and Hodgson, *Special Circumstances, supra*, at 5 figure 1. O'Connell correctly points out that nothing in Article 7 requires that the circumference of the semicircle always lie in the water. 1 O'Connell, *supra*, at 396.

This then is how the semicircle test has been applied by the Supreme Court and its masters. It is a minimum test, to be applied after an indentation has qualified under the more subjective criteria of Article 7(2). Its purpose is to measure a given indentation and not every subsidiary feature that might be reached by following the low-water line or moving inland to the limit of tidal effect. Whether an adjacent bay or cove is included in the area measurement will depend on the nature of the passage connecting the water bodies.²⁰⁶ However, islands will be ignored for that determination as they are for measuring water area. Finally, islands that create multiple mouths to the indentation may reduce the interior area required to meet the test.

The federal government has attempted to employ these principles in applying the semicircle test to innumerable indentations along the coast of the United States.²⁰⁷ Although it is an objective test, its application involves a number of subjective determinations and technical calculations.²⁰⁸

Headlands and Natural Entrance Points

Article 7(3) of the 1958 Convention describes a bay as the area lying within a line joining “natural entrance points.” But no additional guidance is provided to assist in the identification of such points. Actually locating the termini of a bay closing line is often the most difficult problem associated with applying the principles of Article 7.

Professor Prescott notes that the process of determining a proper closing line involves three separate issues. “First, it is necessary to select the natural entrance points to the bay, which are specifically mentioned in Article 10 [of the 1982 Treaty]. Second, it is necessary to choose a particular point on those entrance points that will act as termini for the baseline. Third, decisions must be made about how to deal with islands in the mouth of the bay.”²⁰⁹ We deal with the first and second of those issues here. The third is the subject of a separate discussion below.

Although the literature and judicial decisions do not always distinguish between “headlands” and “natural entrance points,” it would seem that the delimitation of bay closing lines is aided by such a distinction. Thus, we

206. Sohn and Gustafson, *supra*, at 44.

207. See Coastline Committee Minutes of July 27, 1970; August 3, 1970; August 31, 1970; September 14, 1970; October 5, 1972; December 17, 1976; October 10, 1979; July 21, 1980; March 17, 1982; April 14, 1982; and February 25, 1985.

208. Unfortunately the mariner may have difficulty determining whether a particular indentation is inland water. As O’Connell points out, seamen do not typically possess a planimeter, the basic instrument for applying the test. 1 O’Connell, *supra*, at 408.

209. Prescott, *supra*, at 53. Article 10 of the 1982 Law of the Sea Treaty is comparable to Article 7 of the 1958 Convention on the Territorial Sea and the Contiguous Zone.

will adopt that approach and use the term “headland” to refer to the promontory that serves to create the indentation at issue, or gives its waters their landlocked character. The term “natural entrance point” will be used to refer to the precise point on each headland at which the bay closing line meets the low-water line.

Shalowitz’s definition of “headland” appears to provide the starting point for most subsequent analysts who have considered the issue. He concluded that a headland is generally “the apex of a salient of the coast; the point of maximum extension of a portion of the land into the water; or a point on the shore at which there is an appreciable change in the direction of the general trend of the coast.”²¹⁰ The author cautioned, however, that his definition “not be interpreted to apply to small protuberances or projections in an otherwise straight coastline . . . these protuberances must bear a definite relationship to the curvature or waterway whose status is to be determined.”²¹¹ Shalowitz saw this as logical because the waters of a bay are described as “inland,” a term which connotes “within the land.”²¹²

The headland question arose in *United States v. Louisiana*. After the Supreme Court determined that the whole of East Bay is not inland water because the area landward of a line connecting the seawardmost extensions of its logical headlands failed to meet the minimum requirements of the semicircle test, Louisiana sought recognition of lesser bays within East Bay. It happens that East Bay is in the shape of an equilateral triangle, with relatively straight coasts. However, each of these coasts is occasionally interrupted with a minor protrusion, or bump. The state took the position that each such protrusion was the potential headland of an interior bay and claimed inland water status for all waters landward of the seawardmost pair of bumps that met the semicircle test. The federal government insisted that headlands must be sufficiently pronounced so as to enclose landlocked waters and that the seawardmost of the state’s alternatives were so insubstantial as to fail to meet that requirement. The Supreme Court’s special master accepted the federal reasoning and recommended that interior closing lines be drawn to headlands that he believed to contribute to the landlocked nature of waters within.²¹³ Thus, the headlands must

210. 1 Shalowitz, *supra*, at 63-64.

211. *Id.* at footnote 77.

212. *Id.* at 63 n.75; citing *United States v. California*, 332 U.S. 19, 30, 34 (1947).

213. The Supreme Court had already emphasized that Louisiana was not free to construct any line within East Bay that happened to meet the semicircle test. In so doing it distinguished fallback lines permitted within overlarge bays, as recognized by Article 7(5), on the basis that the latter lines are specifically authorized because the existence of a larger bay has been verified while in the former instance the interior bay must stand on its own and meet each requirement for juridical bay status. *United States v. Louisiana*, 394 U.S. at 53-54.

At this point a caveat is in order. As Shalowitz points out, in common usage the term “headland” implies a feature of substantial elevation. However, in the law of the sea context that characteristic is not required. The analysis here is two dimensional. 1 Shalowitz, *supra*, at 63.

serve to separate the landlocked waters of an indentation from those of the open sea beyond.

A number of experts have attempted to describe the “natural entrance points” to an inland water body. Strohl defines them as “the points at which the coastline can most reasonably be said to turn inward to form an indentation or bay.”²¹⁴ Hodgson and Alexander refer to “the point where the two dimensional character of a bay . . . is replaced by that of the ‘sea’ or ‘ocean.’”²¹⁵

Although the concept is relatively easy to describe, it is much more difficult to apply.²¹⁶ Prescott notes that “there is no irrefutable argument in favor of one rather than another line, and it can be assumed that a state would be entitled to select any set of entrance points which still satisfied the other conditions of this test.”²¹⁷ The Convention gives little assistance. As one of the Supreme Court’s special masters has opined, “[t]he matter seems to be largely subjective and to rest with the adjudicating authority.”²¹⁸

To aid in the determination, three objective tests have been developed. These are described as (1) the 45-degree test; (2) the bisector of the two tangents test; and (3) the shortest distance test.²¹⁹ Coastal geography will dictate which test is appropriate for a given indentation, but the object is always to produce a line that “separates the landlocked waters from those waters which are not landlocked.”²²⁰ The Supreme Court has recognized that these objective tests “are helpful in large part because they assist in defining what is finally a more subjective concept”²²¹

We turn now to a consideration of the various tests used to locate natural entrance points.

214. Strohl, *The International Law of Bays* 68 (1963).

215. Hodgson and Alexander, *Towards an Objective Analysis of Special Circumstances*, Law of the Sea Institute Occasional Paper No. 13 (1972) at 10.

216. A good example is the infamous Thames estuary case. Commentators have suggested that although the Court of Appeal accepted the government’s position as to the mouth of the estuary, neither party proposed headlands that clearly provided its natural entrance points. Churchill and Lowe, *The Law of the Sea* 32 (1983).

217. Prescott, *supra*, at 53-54. However, it seems clear that in practice, at least in the United States, bay closing lines are always drawn so as to enclose the largest area possible under the terms of Article 7.

218. *United States v. Louisiana (Alabama and Mississippi Boundary Cases)*, Report of the Special Master of April 9, 1984, at 19.

219. *United States v. Maine, et al. (Rhode Island/New York)*, Report of the Special Master of October Term 1983, at 50 n.39.

220. *Id.* at 51 quoting testimony of Dr. Robert Hodgson.

221. *Rhode Island and New York Boundary Case*, 469 U.S. 504, 522 n.14 (1985).

The 45-Degree Test

The 45-degree test has, at least in American practice, become the preferred method of locating the headlands and entrance points that separate landlocked waters from the open sea. The test was developed by Drs. Hodgson and Alexander and is founded on the premise that when the general direction of the shoreline is at an angle of more than 45 degrees to a potential bay closing line, that coast faces landlocked waters. A shoreline with a lesser angle with respect to the closing line faces the open sea, indicating that the closing line being tested encloses waters that are not landlocked.²²²

The test has the advantage of objectivity in an otherwise most subjective inquiry. Beazley has described it as the most satisfactory of the various attempts to develop criteria for determining the location of natural entrance points.²²³

To apply the test, one first selects the seawardmost pair of potential opposing headlands for the indentation under consideration and draws a line between them. Lines are then drawn from each of these headlands to the next landward headland on its side of the indentation. If the resulting angles between the closing line and the two lines drawn to the inland headlands are more than 45 degrees, the first headlands chosen are the natural entrance points to the bay. If either angle is less than 45 degrees, a more landward headland is chosen, a new closing line is drawn, and the procedure is repeated until both mainland headlands pass the test.²²⁴ (Figure 57)

The 45-degree test has been consistently used by the Coastline Committee to delimit inland waters along the coasts of the United States that affect the outer limit of the territorial sea.²²⁵ In some cases these lines have been challenged by states seeking more seaward closing lines. And, although the Supreme Court and its special masters have not always referred

222. As the authors explain, the natural entrance points “are the points where the direction of the shore changes from one facing on the bay, or other subsidiary features, to one facing on the sea. The primary test for determination is based on mathematics/trigonometry; the line of 45 degrees represents the dividing line or the mid-line between two lines of opposite direction.” Hodgson and Alexander, *supra*, at 10.

223. Beazley, *supra*, at 16.

224. The test was discussed, with approval, by the Supreme Court in the *Rhode Island and New York Boundary Case*, 469 U.S. 504, at 522 (1985); and by its special master in his Report of October Term 1983, at 50 n.39.

225. Some of the more difficult closing lines that have been located through its application include: one on Martha’s Vineyard, Massachusetts (Minutes of January 16, 1974); the northwestern portion of Harrison Bay, Alaska (Minutes of October 5, 1972); Konganevik Point, Alaska (Minutes of July 27, 1970); Roller Bay, Alaska (Minutes of July 17, 1970); Icy Bay, Alaska (Minutes of August 31, 1970); and Yakutat Bay, Alaska (Minutes of May 14, 1974).

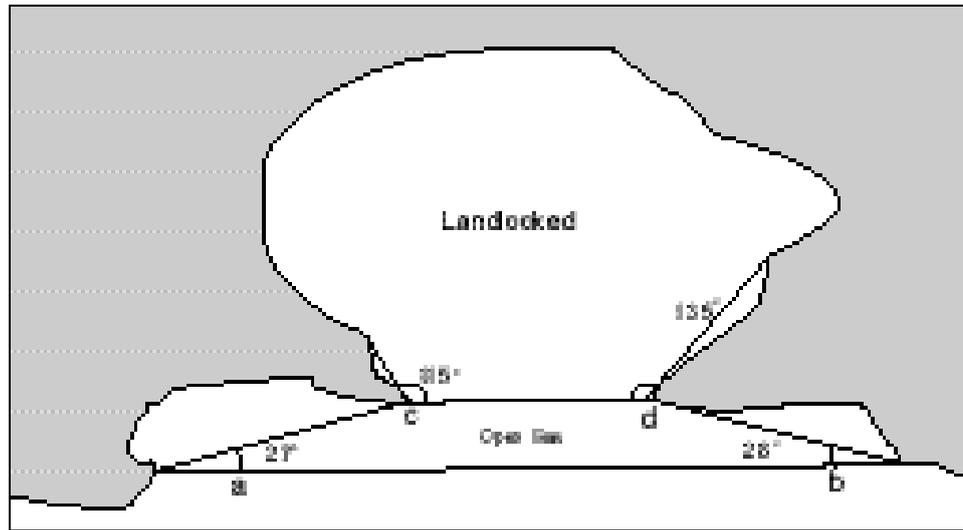


Figure 57. 45-degree test. The coastline seaward of the line "cd" faces open sea; the coastline landward of the line "cd" faces inland water.

to the test in their conclusions, the author is aware of no instance in which a more seaward line has been adopted because landlocked waters were found to have been excluded by a line developed with the 45-degree test.²²⁶

The test has also been used to locate the headlands and entrance points on screening islands that form multiple mouths to a bay²²⁷ and the mouths of rivers.²²⁸

226. Louisiana argued strenuously that the 45-degree test should not have been employed to close numerous bays in the Mississippi River delta because it was merely a proposal, not a rule of law, and postdated the *California* decision (*United States v. California*, 381 U.S. 139 (1965)), at which time, according to Louisiana, the rules must be considered to have been frozen.

The federal position in the delta was taken from the Coastline Committee's charts, which had been produced with the use of this test (Minutes of December 2, 1970). And, although without referring to the 45-degree test in his Report, the special master recommended closing lines in each case that conformed to the 45-degree rule. (Report of July 31, 1974.)

Again without reference to the test, the master rejected a closing line offered by Louisiana for Atchafalaya Bay "because the relation of Mound Point to the coast is such that a line drawn to it would include waters that cannot be viewed as 'landlocked.'" *Id.* at 53. That conclusion is easily supported by application of the 45-degree test.

More recent masters have acknowledged the use of the test (*United States v. Maine, et al. (Rhode Island/New York)*), Report of the Special Master, at 59, as has the Supreme Court, *Rhode Island and New York Boundary Case*, 469 U.S. 504, 522 (1985).

The federal government has also checked to assure that closing lines meet the 45-degree test before stipulating, in litigation, that they constitute bays. (Minutes of October 10, 1979.)

227. See, for example, Coastline Committee Minutes of April 30, 1981, regarding Timbalier Bay, Louisiana; and February 17, 1982, as to Buzzards Bay, Massachusetts. See also, Minutes of March 23, 1982.

228. For example, the test was used by Mexico and the United States to establish the mouth of the Rio Grande River during negotiations that led to a treaty establishing their joint maritime boundary 12 nautical miles into the Gulf of Mexico. Treaty to Resolve Pending Boundary Differences and Maintain the Rio Grande and Colorado Rivers as the International Boundary Between the United States of America and the United Mexican States, 23 U.S.T. 373, T.I.A.S. 7313 (1970).

The United States unsuccessfully urged that the test should also be used to delimit the entrance to ports. In *United States v. California*, the federal government took the position that the limits of inland waters in ports should be determined through the application of the same principles used to close bays, including the 45-degree test. The Court's special master disagreed, recommending instead that function should prevail over geography for such determinations.²²⁹ The means of delimiting ports is discussed separately below.

Although the 45-degree test's objectivity and acceptability dictate its use in a vast majority of geographic situations, even its proponents warned that the rare situation may arise in which it should be suspended to avoid unreasonable results.²³⁰ Hodgson and Alexander give the example of a spit extending into a bay that may cause the obvious headlands to fail the test despite the fact that the intervening shore faces bayward. In such cases, which they describe as isolated, the authors urge that the rule not be applied.²³¹ To date, the courts have approved lines constructed through the application of the 45-degree test, and have not been prone to find exceptional circumstances justifying its suspension.

The Bisector of the Angle Test

The Supreme Court has recognized an alternative method of locating the terminus of a bay closing line where there are no obvious headlands to which the 45-degree test can be applied. The bisector of the angle test is employed when the shores facing on the open sea and interior water body are joined by a smooth curve, or arc, rather than a pronounced headland. In such cases, the experts have long recommended that the entrance point be located by determining the general trends of the low-water lines on the open coast and inland water body, and bisecting the angle that they form.

This is done by constructing tangents to the general direction of each coast; drawing a line from the point of intersection of those tangents that bisects the angle formed by their intersection; and extending that line to the low-water mark on shore. That juncture becomes the natural entrance point of the inland water body. (Figure 58)

The method has been recommended by Shalowitz, Hodgson, Alexander, Beazley, and Prescott²³² and adopted by the Supreme Court²³³

229. *United States v. California*, Report of the Special Master of August 20, 1979, at 9.

230. Coastline Committee Minutes of July 17, 1970.

231. Hodgson and Alexander, *supra*, at 12.

232. 1 Shalowitz, *supra*, at 63-64; Hodgson and Alexander, *supra*, at 10 and 12; Beazley, *supra*, at 17; and Prescott, *supra*, at 56.

233. *United States v. California*, 382 U.S. 448, 451 (1966).

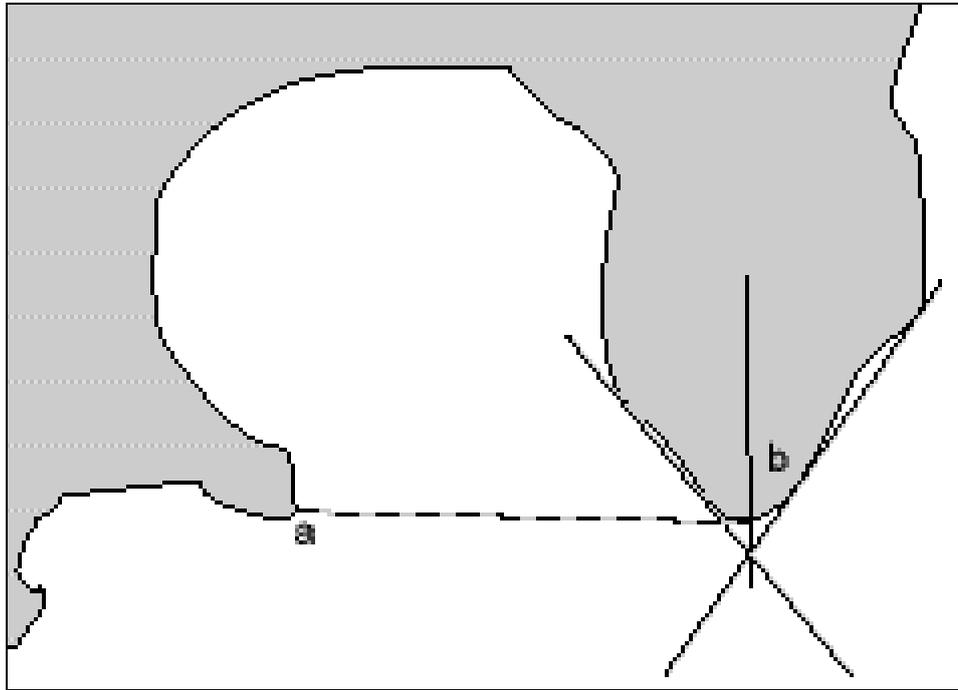


Figure 58. Bisector of the angle test. Here the bisector of the angle test is applied to establish one entrance point to a juridical bay.

and its special masters.²³⁴ However, the masters have been careful to point out that this test is only to be applied when there are no pronounced headlands in the vicinity. Louisiana sought to maximize its claim to inland waters in East Bay by employing a version of the bisector test to establish a headland on Cow Horn Island. Special Master Armstrong concluded that the technique was “entirely inappropriate in the physical situation, as there are pronounced headlands in the vicinity.”²³⁵

The bisector of the angle test is an alternative. It will provide an entrance point where no pronounced headland is available, but is not to be employed otherwise.

The Shortest Distance Test

A third alternative means of determining headlands is required when an indentation is formed by a distinct headland on one side but has neither a

234. *United States v. California*, Report of the Special Master of October Term 1950, at 7 and *United States v. Maine, et al. (Rhode Island/New York)*, Report of the Special Master of October Term 1983, at 50-51, citing Hodgson and Alexander and Beazley).

235. *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 32.

similar headland nor a change in the direction of the coastline on the opposite shore. Strohl identified this situation in his classic work on bays and concluded that “the most logical method for drawing a closing line in such a situation would be to locate its origin on the side having the well-marked entrance point and to locate its terminus at the closest point of land on the opposite side.”²³⁶ (Figure 59)

The Coastline Committee has used this method to close Port Clarence, Alaska, from Point Spencer “to the closest point on the opposite shore in accordance with Strohl’s theory.”²³⁷ And it was recognized by Judge Hoffman as one of the three objective methods of determining headlands in *United States v. Maine, et al. (Rhode Island/New York)*.²³⁸

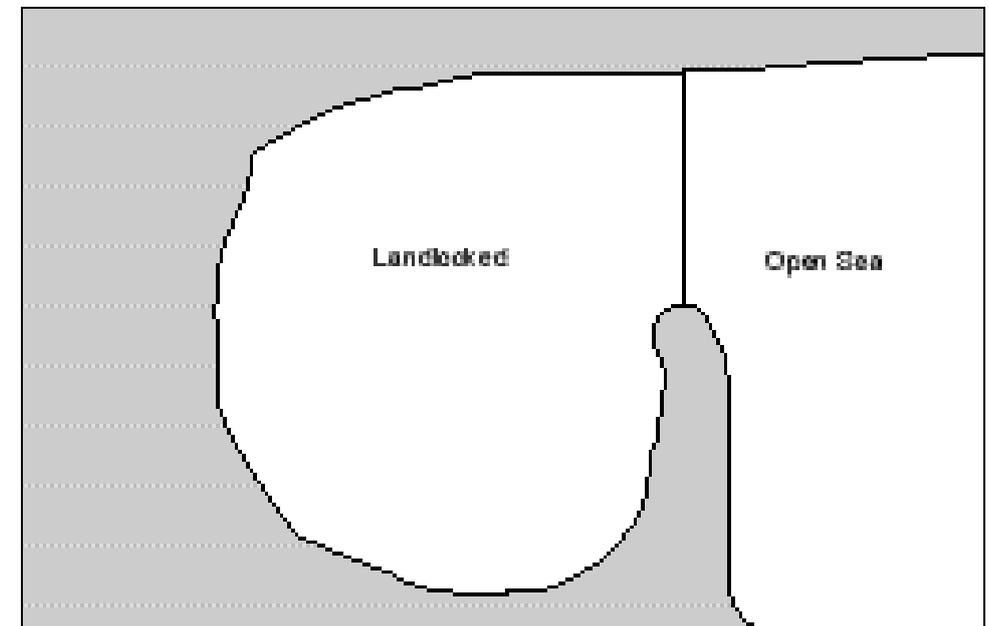


Figure 59. Shortest distance test. The shortest distance test is applied to determine where internal waters are enclosed by one distinct headland and a straight coast opposite.

The Coastline Committee also applied the shortest distance test to delimit the inland waters of San Pedro Bay, the artificial harbor that services Los Angeles. Assuming that harbors would be closed according to principles used for closing bays, the Committee first attempted to employ

236. Strohl, *The International Law of Bays* 68 (1963).

237. Minutes of September 14, 1970. See also, Minutes of December 17 and December 21, 1976.

238. Report of the Special Master of October Term 1983, at 51, n.39, citing to Strohl and the Coastline Committee’s use of the method.

the 45-degree test. The breakwater made an obvious southern entrance to the harbor but the opposite coast was generally straight, having no promontory that might be adopted as a headland. The Committee concluded that the 45-degree test was therefore inapplicable and adopted the shortest distance test to close the harbor.²³⁹ California objected to the resulting line, arguing that areas seaward of it function as part of the port of San Pedro. The special master recommended acceptance of the state's position, not because the shortest distance test might not be appropriate for bays (although he did note that it had not been sanctioned by the Court, Report at 8) but because he concluded that the limits of a harbor should be determined by the use of the water area and not solely by geography. The United States did not take exception to that recommendation and the master's proposed closing line was implemented in the Court's final decree.²⁴⁰

The shortest distance test seems an appropriate, and obvious, method of closing bays formed by a distinct headland on one side and a straight coastline opposite. Sections of the mainland coast within such a line face the opposite headland, and logically look across inland waters, while the coast beyond the line faces open sea. These fundamental considerations used to justify the 45-degree test seem equally applicable here even in the absence of features that might be used as headlands on one coast.

Other Suggested Methods

O'Connell suggests three possible methods of dealing with a featureless coastline on one side of a bay. The first he describes as "a line drawn from the headland to the immediately opposite shore."²⁴¹ He also suggests a 24-mile line and the line of the general direction of the coast. *Id.* Each presents difficulties.

A line constructed from the obvious headland to the immediate opposite shore might be the shortest line possible, but O'Connell's comments make clear that he does not consider his proposal to be limited to the shortest line. He notes, for example, that the suggestion does not dictate the location of the terminus on the featureless shore and indicates only that the line might be drawn at right angles to the general direction of the bay.

The arbitrary use of a 24-mile line seems so obviously inappropriate as to have been unworthy of inclusion. Although 24 miles was chosen as the maximum length of a bay closing line, there is no suggestion in the

239. Minutes of December 17 and December 21, 1976.

240. *United States v. California*, Report of the Special Master of August 20, 1979, at 9 and 449 U.S. 408 (1981).

241. 1 O'Connell, *supra*, at 406.

Convention that it might be employed to determine the headlands of a bay. O'Connell notes himself that "the twenty-four mile rule is subordinate to the definition of bay and is not in itself a qualification for an indentation to be a bay." *Id.* Clearly, arbitrarily drawn 24-mile lines could enclose open seas as well as inland waters.²⁴²

A closing line following the general direction of the coast is subject to identical objection. Each method almost guarantees that waters will be enclosed that are not landlocked. Although the length of the line would presumably be limited by the minimum requirements of the semicircle test, to make that the only limitation would be to elevate that test to the sole factor for determining "landlockedness" rather than a minimum requirement as intended and recognized by the Supreme Court.

The first of O'Connell's proposals may be appropriate in limited circumstances. The second and third would appear to violate the seminal requirement that an indentation be landlocked.

Beazley suggests that a line can be drawn from the accepted headland to a point on the featureless coast opposite such that the angle between that line and the landward portion of the coast is more than 45 degrees.²⁴³ The proposal is novel, and is not known to have been employed anywhere, but can certainly be defended with the same logic used to support the 45-degree test and will, in most if not all cases, result in a more seaward closing line than will the shortest distance test.

Prescott proposes an alternative that seems especially well suited to situations in which a "V"-shaped bay is formed by a single promontory and a long, straight coast opposite. He opines that "[o]ne reasonable approach to this problem would be to measure the distance between the natural entrance point and the position on the coast where the headland merges with the smooth coast. The arbitrary terminus could be fixed an equal distance along the smooth coast"²⁴⁴ Although we are unaware of an instance in which this method has been employed, it seems entirely appropriate and would appear to produce a line that encloses landlocked waters while excluding open seas.

As may be apparent, the possibilities for producing formulae for headland determination seem to be limited only by the number of potential geographic configurations available for consideration. And that, of course, is practically infinite. Nevertheless, the 45-degree test will provide a

242. The use of 24-mile lines to limit inland waters within overlarge bays is not comparable. Although it is not required that such lines be anchored on interior headlands, that is because the entire indentation has already been identified as landlocked to its most seaward headlands.

243. Beazley, *supra*, at 17.

244. Prescott, *supra*, at 54 and 56.

solution in a majority of cases. Most others will be resolved by the bisector of the angle or the shortest distance test. The small percentage that seem inappropriate for any of these methods will be dealt with on a case-by-case basis with the help of geographers who understand the objective of distinguishing landlocked waters from open seas.

Headland Determination in Double-Headed Bays

Adjacent bays along a deeply indented coast may present a geographic situation in which none of the previously described methods for determining entrance points seems satisfactory. Geographers have denominated this feature the “double-headed bay.” It is typically characterized by a single promontory that separates adjacent indentations. When such a promontory does not extend as far seaward as the non-shared headlands, applications of the already discussed tests would dictate its use as the shared headland of two separate bays. Yet commentators have felt that in some such cases that result excludes more seaward waters that are landlocked. In that instance, a line is drawn between the two extreme headlands, closing both indentations as a single bay without reference to the central, common headland.²⁴⁵

Southern Harrison Bay, Alaska, provides a good example and so far as we know is the only double-headed bay whose status has been considered by the courts. It has obvious headlands on the east and west but is divided by a bulge in the middle that might be considered a separate headland for two smaller adjacent bays, or ignored, resulting in the formation of a single larger bay. The United States urged the former approach in *United States v. Alaska*, Number 84 Original, contending that the interior bulge prevents waters seaward of it from being “landlocked.” Alaska argued the contrary. The parties agreed that the waters enclosed by the state’s proposed closing line meet the semicircle test.²⁴⁶ (Figure 60)

The state then went on to test “landlockedness” through the traditional methods for evaluating individual bays. Its witness, Dr. Prescott, calculated “depth of penetration” by three separate methods, each time measuring into the deepest of the adjacent admitted bays. The United States objected, contending that using the smaller subsidiary bays in that fashion shed no light on the real question, whether the waters seaward of the central bulge were landlocked.

245. Hodgson, *Toward a More Objective Analysis*, *supra*, at 12.

246. The state argued that this was enough, that any body meeting that test is *ipso facto* an Article 7 bay. The United States and special master disagreed with that interpretation, Report at 199, as the Supreme Court had twice before. *United States v. Louisiana*, 394 U.S. 11 (1969) and *United States v. Maine (Rhode Island and New York Boundary Case)*, 469 U.S. 504 (1985).

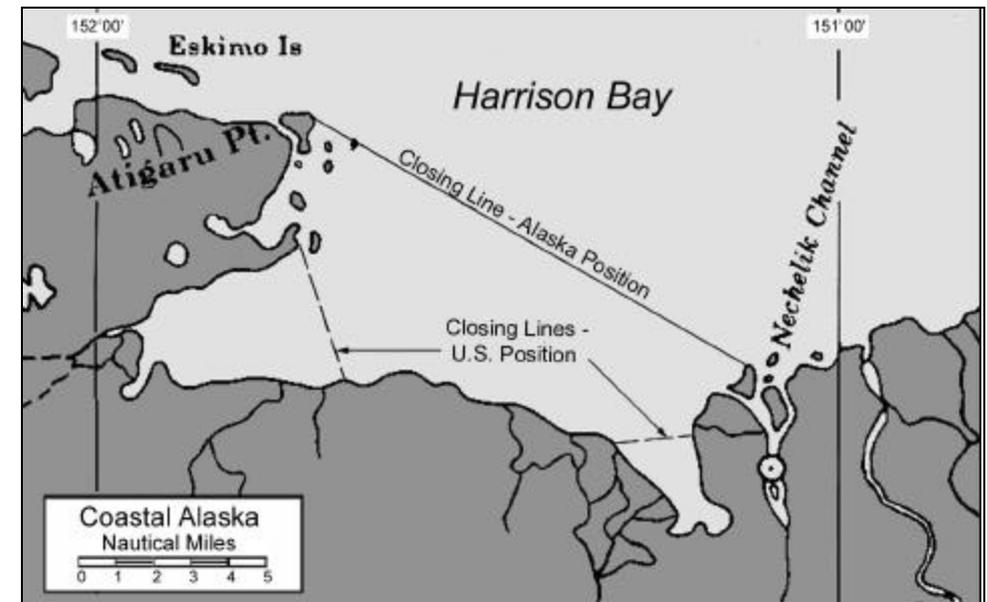


Figure 60. Southern Harrison Bay, Alaska. The state and federal contentions are shown for this double-headed bay ruled to be a single indentation by the Supreme Court’s special master. (Based on NOAA Chart 16004)

Nevertheless, relying on Dr. Prescott’s analysis and comparisons with other bays, the special master concluded that the entirety of south Harrison Bay is landlocked. Report at 226. The United States did not take exception.²⁴⁷

Clearly this procedure represents a most subjective deviation from the primary methods discussed above. As such, it may invite those interested in expanding the limits of inland waters to seek its application in inappropriate circumstances. Nevertheless, it is thought that the limited number of situations in which it may be even arguably applicable minimizes the likelihood of such mischief.²⁴⁸

Artificial Headlands

Article 7(3) of the 1958 Convention refers to the “natural entrance points” of a juridical bay. This use of the word “natural” has caused at least

247. The federal Coastline Committee has since amended the official charts of the United States to reflect the master’s recommendation. Minutes of December 17, 1997.

248. The Coastline Committee closed Pamlico Sound, on the Atlantic coast, as a double-headed bay. Minutes of December 7, 1970. Other areas, including Shelikof/Gilmer Bays and Tenakee Inlet/Freshwater Bay (all in Alaska) have been considered as potential double-headed bays and rejected. Minutes of September 20, 1971.

two commentators to ask, albeit rhetorically, whether international law requires that the headlands to bays be naturally formed, as islands and low-tide elevations must be, if they are to have boundary consequences.

Beazley reports that “[t]here is reason to believe that the insertion of this adjective was intended to exclude the use of ‘artificial’ entrance points.”²⁴⁹ He then goes on to suggest that the court’s analysis in the *Estuary Radio* case has precluded that interpretation, at least in the United Kingdom. *Id.* According to Hodgson, “[t]he concept of ‘natural’ entrance points does not necessarily require that the points be, in effect, created by natural forces or processes. Rather, the points are those at which the nature of a bay is first encountered.”²⁵⁰ He went on to explain that “under certain conditions, manmade points, e.g., jetties, breakwaters, etc., could be utilized.”²⁵¹

Experts testifying before the special master in *United States v. Maine, et al. (Rhode Island/New York)* accepted man-made harborworks as potential termini of bay closing lines.²⁵² However, the particular harborwork under consideration there, as a potential entrance point to the alleged inland waters of Block Island Sound, was rejected by the master, not because it was artificial, but because a line drawn to it would have enclosed waters that do not constitute an “indentation into the coast.”²⁵³ In so doing, the master found it unnecessary to decide whether artificial harborworks might ever be used as headlands to a bay.

Nevertheless, the question would seem to have been conclusively resolved by the Supreme Court in *United States v. Louisiana*, Number 9 Original, and by implication in *United States v. California*, Number 5 Original. Bays formed by the various artificial extensions of Mississippi River passes at the southern tip of the delta are productive areas of petroleum production and presented hotly contested issues in the litigation. For its part, Louisiana argued that these artificial extensions could not qualify as “natural” entrance points and were, in fact, part of the river and not the bays. The state pointed out that these jetties had not been employed in constructing the Chapman Line, a preliminary description of the Louisiana coast prepared for use in the litigation prior to the Supreme

249. Beazley, *supra*, at 16.

250. Hodgson, *Objective Analysis, supra*, at 20.

251. *Id.*

252. Jean Gottman specifically opined that Article 8 of the Convention allows closing lines to be drawn to harborworks, transcript of January 12, 1982, at 55, 69-70, and Robert Smith agreed that such use was not inconsistent with the Convention, transcript of November 10, 1981, at 130. See Report of the Special Master, at 58 n.45.

253. In so doing, the master specifically concurred with the Baseline Committee, which had rejected a Block Island Sound closing line for the same reasons. Report of the Special Master, at 59.

Court’s adoption of the 1958 Convention’s principles for Submerged Lands Act purposes.²⁵⁴

Dr. Hodgson, testifying for the United States, stated that the artificial passes of the delta were indeed headlands of indentations into the coast.

However, it would appear that by the time of the special master proceedings, the issue had already been resolved, at least by implication, by the Supreme Court. In its 1969 opinion in the case, the Court considered the juridical status of the entirety of East Bay. In so doing it recognized the tips of the artificial jetties as the “seawardmost headlands” of the feature,²⁵⁵ but went on to conclude that East Bay did not qualify as a bay because of its failure to meet the semicircle test. The special master interpreted this analysis, properly it would seem, to suggest that in all respects other than the semicircle test, East Bay would qualify under the Convention’s criteria.²⁵⁶ That conclusion is consistent only with a determination that the artificial harborworks being discussed would qualify as headlands to the juridical bay.

San Diego Bay presents a similar circumstance. Although the western headland to that indentation is the massive natural promontory known as Point Loma, its eastern entrance is an artificial, and insubstantial, jetty extending seaward from the mainland. (Figure 61) The Supreme Court has decreed that “[t]he inland waters of San Diego Bay are those enclosed by a straight line from the seaward end of Point Loma . . . to the point at which the line of mean lower low water intersects with the southern end of the entire Zuniga jetty.”²⁵⁷

That decree followed special master proceedings before Judge Arraj in which the United States had argued that because the jetty did not extend above water for its entire length, it should not be considered a headland beyond the portion that did. The master recommended that the entire jetty be treated as a headland. The United States did not take exception to that recommendation, and the decree quoted above was entered as part of a description of the California coast line.²⁵⁸ Sohn and Gustafson cite other

254. In fact, the Chapman Line was drawn using pre-Convention principles and its closing lines were not ultimately used for any portion of the Louisiana coast except where they did conform to the later-adopted principles or were the subject of a stipulation between the parties, as in the case of Chandeleur Sound.

255. *United States v. Louisiana*, 394 U.S. 11, 53-54 (1969).

256. Report of July 31, 1974, at 29.

257. *United States v. California*, 449 U.S. 408 (1981).

258. Although it might be argued that San Diego Bay is in fact a port, and not subject to the closure rules of Article 7, the parties did not litigate the question on that theory. Clearly its entrance was being treated as a bay closing line, as referred to by the master (Report of August 20, 1979, at 14) and the Court (*United States v. California*, 447 U.S. 1, 3 (1980)), not merely as the entrance to a harbor, as was the case at San Pedro.

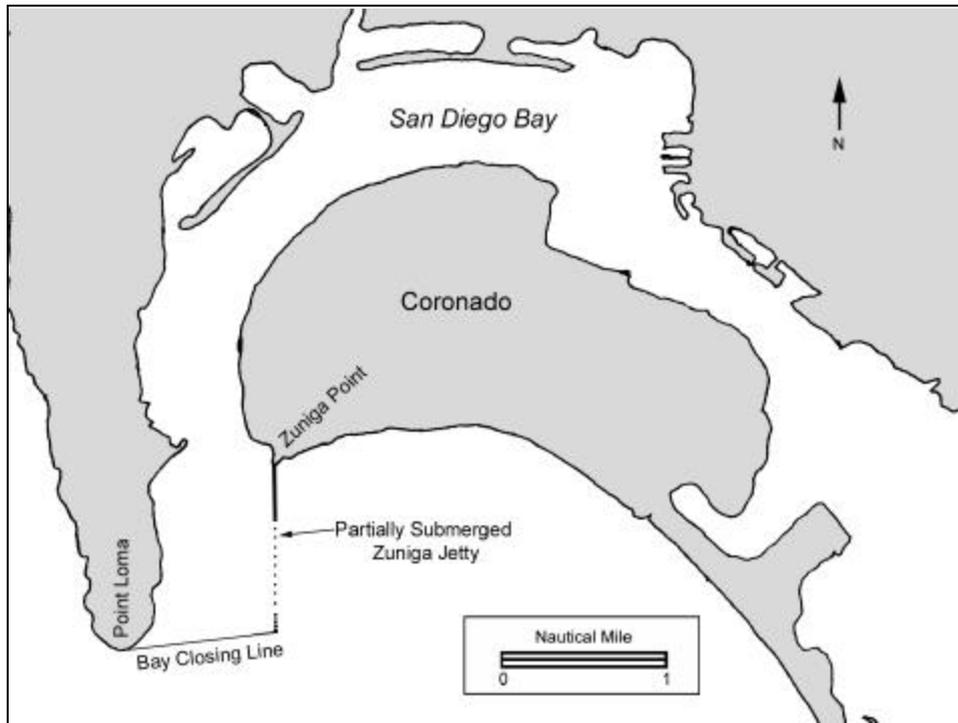


Figure 61. San Diego Bay, California, with closing line from Point Loma to Zuniga jetty.

California examples, arrived at by agreement but effectuated through Court decree, in which jetties serve as headlands to bays.²⁵⁹

The Coastline Committee has employed artificial harborworks as headlands to bays. One example is in the area of Fisher Island, Florida, where a breakwater was determined to be a headland of Biscayne Bay.²⁶⁰

The matter would appear to be resolved. The reference to “natural entrance points” in Article 7 has not been read to mean “formed by nature” as has the term “naturally formed” in Articles 10 and 11. Rather, it is understood to refer to the feature that “naturally” forms the indentation, or gives the waters within their landlocked character. A number of bays in the United States have been recognized by the government and the Supreme Court to have artificial headlands.

259. Sohn and Gustafson, *The Law of the Sea*, supra, at 45. Citing *United States v. California*, 432 U.S. 40 (1977) in which the closing lines of Humboldt Bay, Port Hueneme, the Santa Ana River, and Agua Hedionda Lagoon are described as running from “the seaward ends of the jetties located at their mouths.”

260. Minutes of December 2, 1970. See Minutes of August 3, 1970, and November 18, 1970, for additional examples.

Islands as Headlands

Bays are indentations into the mainland. As such, one would expect that the headlands of a bay will be promontories of the mainland coast. As the Supreme Court has said, “the general understanding has been — and under the Convention certainly remains — that bays are indentations in the mainland, and that islands off the shore are not headlands but at the most create multiple mouths to the bay.”²⁶¹ Nevertheless, situations exist in which it has been considered unreasonable to exclude a land form from consideration as a headland simply because it is technically an island under the definitions of the Convention.

The General Proposition

Article 10 of the Convention on the Territorial Sea and the Contiguous Zone defines an island as “a naturally formed area of land, surrounded by water, which is above water at high tide.” It is not uncommon to find a portion of the coastline that is composed of land forms that are surrounded by water at high tide, and are therefore technically islands and not available for consideration as headlands under a strict interpretation of the Convention. Yet such islands may be so related to each other and to the true mainland that they are thought of as part of the mainland rather than as offshore features. The distinction may be critical in determining whether a juridical bay exists in the vicinity. If islands, the features may not serve as headlands to a bay. If mainland, they may. The area of inland water may be greatly expanded in the former situation.

A number of publicists have considered the issue. Samuel W. Boggs recognized that “some islands must be treated as if they were part of the mainland. The size of the island, however, cannot in itself serve as a criterion, as it must be considered in relationship to its shape, orientation and distance from the mainland.”²⁶² In one instance, Boggs suggested that an island should be considered part of the mainland if the water area separating it from the true mainland were less than the area of the island itself.²⁶³ Etzel Percy, Boggs’ successor as geographer at the Department of State, acknowledged the problem after the Convention was negotiated,

261. *United States v. Louisiana*, supra, 394 U.S. at 62.

262. Boggs, *Delimitation of Seaward Areas Under National Jurisdiction*, 45 Am. J. Int’l L. 240, 258 (1951).

263. *Id.* This method has been considered most appropriate where an island of some size parallels the mainland coast. As Percy points out, the principle has not been generally adopted but has probably been made less important through the implementation of straight baseline systems under Article 4 of the Convention. Percy, *Geographical Aspects of the Law of the Sea*, 49 Annals of the Association of American Geographers 1 (1959).

writing that “[i]slands close to the shore may create some unique problems. They may be near, separated from the mainland by so little water that for all practical purposes the coast of the island is identified as that of the mainland.”²⁶⁴ He gave as examples: Bubiyan in the Persian Gulf off the shore of Kuwait; and Tierra del Fuego, off the tip of South America.

Aaron Shalowitz, while involved in efforts to establish a federal position for coast line delimitation for *United States v. Louisiana*, opined that “[t]he coast line should not depart from the mainland to embrace offshore islands, except where such islands either form a portico to the mainland and are so situated that the waters between them and the mainland are sufficiently enclosed to constitute inland waters,²⁶⁵ or they form an integral part of the land form.”²⁶⁶

Yet another State Department geographer revisited the issue in 1973. Robert Hodgson wrote that “[t]o be used as headlands . . . [islands] also should form a natural extension of the two dimensional coastline formation as viewed on a nautical chart.”²⁶⁷ Hodgson later described such islands as those which, regardless of size, are so situated as to be linked geographically to the land.”²⁶⁸

O’Connell has put it slightly differently, saying that “[w]hen there is an island or drying rock which forms the obvious turning point of bay and coast, it is logical that it should be used as the point of departure [i.e., a headland or entrance point], and not as an island within the mouth, provided it is sufficiently closely linked with the mainland so as not to have a ‘mouth’ to the bay intermediate between it and the mainland.”²⁶⁹

Each of these experts recognized that in limited circumstances islands might be so closely related to the mainland as to justify their treatment as part of it, thereby creating potential legal significance not generally available to islands such as their use as headlands to a bay.²⁷⁰ It is not, therefore,

264. Percy 1959, *supra*, at 9.

265. The situation is now covered by Article 4 on straight baselines.

266. Memorandum of April 18, 1961, excerpted in 1 Shalowitz, *supra*, at 161. This suggestion was later quoted by the Supreme Court in its consideration of the issue. *United States v. Louisiana*, *supra*, 394 U.S. at 66.

267. Hodgson, *Islands: Normal and Special Circumstances* 40 (1973).

268. *Id.* at 53.

269. 1 O’Connell, *supra*, at 413. O’Connell’s concluding proviso suggests that one factor in determining the island or mainland status of a feature will be the nature of the water area separating it from the true mainland: Is it large enough to be considered a separate “mouth” to the indentation? The mere existence of a waterway does not, however, preclude mainland status. The Supreme Court has said much the same thing in noting “[t]hat the area of a bay is delimited by the ‘low-water mark around the shore’ does not necessarily mean that the low-water mark must be continuous.” *United States v. Louisiana*, *supra*, 394 U.S. at 61.

270. It bears repeating that this discussion cannot be used to justify an argument that true islands may, in conjunction with the mainland, create inland waters. That approach may be appropriate under Article 4 of the Convention, but not Article 7. *United States v. Louisiana*, *supra*, at 67. For a contrary approach, see Prescott, *supra*, at 57 and 59.

surprising that the Supreme Court took a similar approach when presented with the issue.

The question first arose in *United States v. Louisiana* because of the nature of the Mississippi River delta. Since the delta is composed of marshland, crisscrossed by waterways, what uplands exist are surrounded by water at high-water datum and, under the Convention, are technically islands. (Figure 62) As such, under generally applicable principles, an indentation formed by two or more of these islands is not technically a bay because it is not an indentation into the mainland.

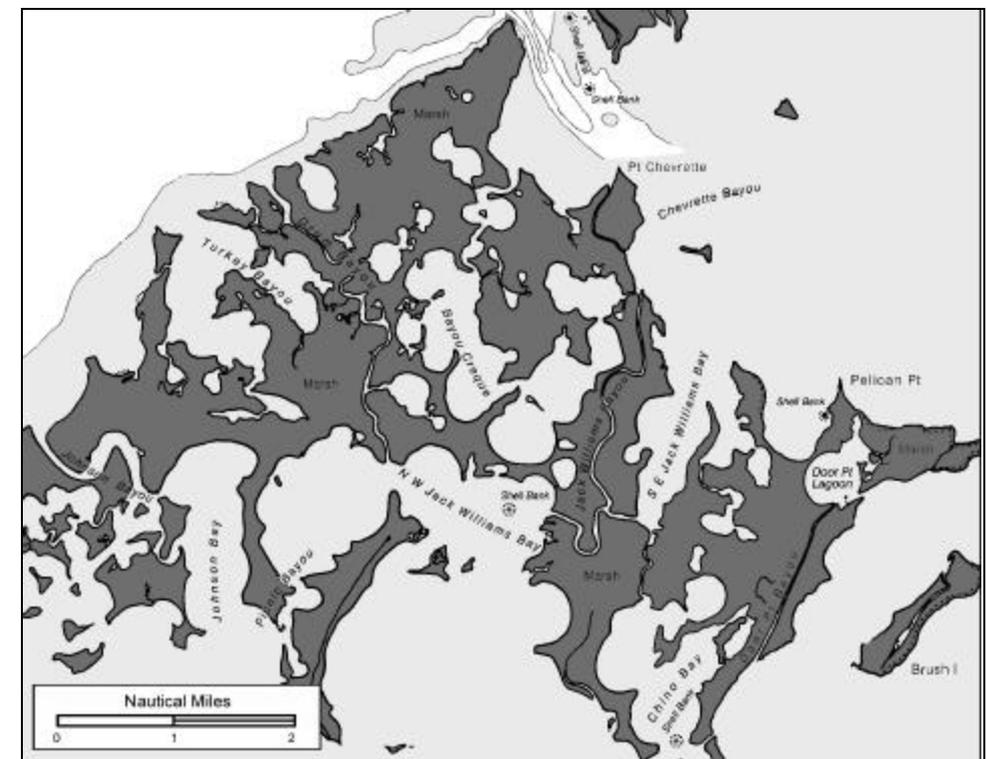


Figure 62. Saint Bernard Peninsula, Louisiana, near the western end of Mississippi Sound. This is typical of the Mississippi River delta, treated as mainland although technically an island archipelago. (Based on NOAA Chart 11371)

Neither party took the extreme position that none of these islands should be considered part of the mainland, but there was great disagreement on which formations should be treated as such. As the Supreme Court noted in a later decision, “[t]he Convention addresses the problems created by islands located at the mouth of a bay . . . but does not

address the analytically different problem whether islands may be treated as part of the mainland to form an indentation.”²⁷¹

The Court acknowledged that “[i]n most instances and on most coasts it is no doubt true that islands would play that restricted role in the delimitation of bays [i.e., forming multiple mouths]. But much of the Louisiana coast does not fit the usual mold. It is marshy, insubstantial, riddled with canals and other waterways, and in places consists of numerous small clumps of land which are entirely surrounded by water and therefore technically islands.”²⁷² With respect to the typical marshland of the St. Bernard peninsula, the Court concluded that although the portions of sea marsh were surrounded by water, they were not “true” islands. *Id.* at 63.

The Court then reviewed many of the authorities discussed above, determined that although “the area of a bay is delimited by the ‘low-water mark around the shore’ that does not necessarily mean “that the low-water mark must be continuous.” *Id.* at 61. Citing Percy, the Court concluded that “islands may be so closely assimilated to the mainland as to be part of it and in such cases an island may form the headland of a bay.”²⁷³

This the Court characterized as a “common-sense” approach to application of the Convention’s principles, *id.* at 64, and concluded that it could be applied whether one were dealing with a single island or a group of islands adjacent to the coast.²⁷⁴

The greater problem, of course, is determining which insular formations should be treated as part of the mainland. On this the Court attempted to give some objective guidance. Relying, to some extent, on the publicists discussed above, the Court concluded that “the question whether a particular island is to be treated as part of the mainland would depend on such factors as its size, its distance from the mainland, the depth and utility of the intervening waters, the shape of the island, and its relationship to the configuration or curvature of the coast.”²⁷⁵

At the same time, the Court was careful to explain that “the general understanding has been – and under the Convention certainly remains –

271. *United States v. Maine, et al. (Rhode Island and New York Boundary Case)*, 469 U.S. 504, 517 (1985).

272. *United States v. Louisiana, supra*, 394 U.S. at 62-63.

273. *Id.* at 65 n.85; citing Percy, *Geographical Aspects of the Law of the Sea, supra*, at 9. Clearly the “low-water line” of a bay will not be continuous in numerous instances unrelated to the islands problem. Many bays have rivers running into them and that interruption in the low-water line cannot be said to detract from the body’s status as a bay. The Court was dealing here with an entirely different problem, that being the disruption of the low-water line by a waterway that returned to the Gulf of Mexico, thereby creating an island of what would normally be considered mainland.

274. *Id.* at 64. See also, *United States v. Maine, et al.*, 469 U.S. 504, 517 (1985).

275. *United States v. Louisiana, supra*, 394 U.S. at 66. To this list the Court appended the note “[t]his enumeration is intended to be illustrative rather than exhaustive.” *Id.* at n.86. See also, *id.* at 65.

that bays are indentations in the *mainland*, and that islands off the shore are not headlands but at the most create multiple mouths to the bay.”²⁷⁶ The Court also cautioned that “[o]ur discussion of these authorities should not be taken as suggesting that, under the Convention on the Territorial Sea and the Contiguous Zone, every Mississippi River delta mudlump or other insular formation is part of the coast.”²⁷⁷ At the same time, the Court added another factor to be considered in evaluating the status of a particular formation, saying “[w]e do believe, however, that the origin of the islands and their resultant connection with the shore is one consideration relevant to the determination of whether they are so closely tied to the mainland as realistically to be considered part of it.” *Id.*

The Court’s Factors

Neither political geographers nor the Court and its masters have written much to explain how the just listed factors should be applied to determine whether a particular feature is an island or mainland for headland selection purposes. Nevertheless, it is useful to review what is available before turning to examples of their application.

SIZE. The first factor listed by the Court is the “size” of the feature being considered for mainland status. Unfortunately there is no context to indicate whether it is a larger feature that is more likely to qualify or a smaller one. The Court seems to have adopted that criterion from Boggs, a Department of State geographer. *United States v. Louisiana*, 394 U.S. 11, at 65 n.85 (1969). Two of Boggs’ successors suggest that a smaller feature is more properly considered part of the mainland, writing that “under normal conditions, the islands used as headlands will be relatively small so as not to dwarf the true proportion of the original bay feature and, hence, change its entire character.” Hodgson and Alexander, *Islands: Normal and Special Circumstances, supra*, at 40. However logical Hodgson’s reasoning at the time, subsequent adjudications suggest that size has played little, if any, role in the determination. Small mudlumps along the Mississippi River passes have been rejected for mainland status. Some larger features have been treated as part of the Louisiana mainland, while others have not. As to “dwarfing the true proportion of the original bay,” the Court’s determination that Long Island is part of the mainland turns the concept on its head. Long Island is not only enormous, it forms an indentation that would not even exist in its absence. Size alone does not seem to have proven a useful criterion.

276. *Id.* at 62. See also: *United States v. Maine, et al.*, 469 U.S. 504, 519 (1985) where the proposition is reaffirmed by the Court.

277. 394 U.S. at 65 n.84.

DISTANCE FROM THE MAINLAND. Ten years before the Supreme Court considered the issue in *United States v. Louisiana*, then State Department Geographer Etzel Percy opined that islands might be considered part of the mainland when they are “separated from the mainland by so little water that for all practical purposes the coast of the island is identified as part of the mainland.” Percy, *supra*, at 9. His predecessor, Samuel Boggs, had proposed a formula that would base the determination on the relative sizes of the island and intervening waters. He recommended that lines be drawn tangent to the ends of the island axis that relates to the mainland coastal direction. Parallel lines should then be constructed from the ends of the island to the mainland enclosing the minimum area of water. The water and land areas would then be measured and if the island were larger, it would be treated as mainland. Hodgson and Alexander, *supra*, at 53. Hodgson and Alexander agreed that the island’s area should exceed the water area, without proposing a formula for making that determination. *Id.* at 40. As Percy noted in 1959, no principle had been adopted for making such determinations. Percy, *supra*, at 9. That is still true.

Although numerous “islands” have now been adjudicated as part of the mainland or not, we are unaware of any case in which a court or master has relied upon a calculation of land to water ratio to support the conclusion.

DEPTH AND UTILITY OF INTERVENING WATER. It seems apparent that when the Court enunciated this principle in 1969 it focused on the water that separates the feature in question from the true mainland, suggesting that if that water area were a useful navigation channel it would prevent the island’s treatment as mainland. The United States urged that view in arguing that Long Island, New York, is, true to its name, an island and not part of the mainland. *United States v. Maine, et al. (Rhode Island/New York)*, Report of the Special Master, at 40. (Figure 63) The government pointed out that the waters separating Long Island from the mainland supported substantial commercial navigation and had done so from earliest times. *Id.* The special master nevertheless determined the island to be part of the mainland and the Court concurred, rejecting the federal exception to the master’s recommendation on the point. In so doing the Court stated that its conclusion “is buttressed by the fact that . . . the enclosed water is used as one would expect a bay to be used.” That is, ships enter Long Island Sound on their way to port. Those merely traversing that portion of the coast remain seaward of the island. *United States v. Maine, et al. (Rhode Island/New York)*, 469 U.S. 504, 519 (1985). In so reasoning, the Court seems to twice deviate from its original approach.

To begin, we recall that the purpose of this inquiry is to determine whether a water body that separates two areas of upland is so insignificant that it should be treated as a land bridge itself and the actual uplands

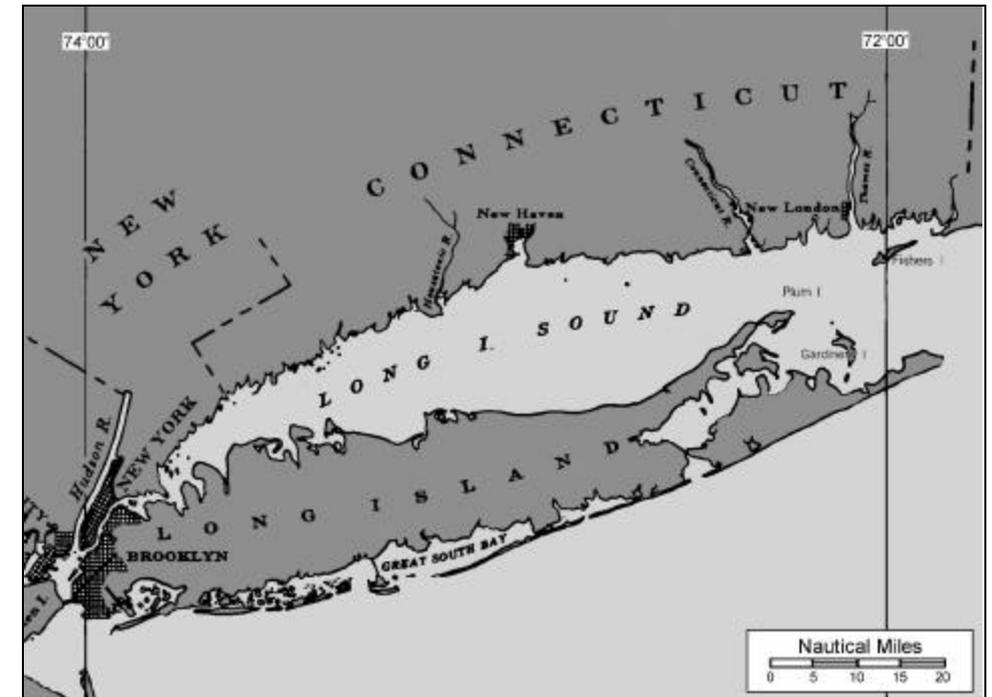


Figure 63. Long Island Sound. (Based on NOAA Chart 13003)

considered to be one. Nevertheless, the master and the Court used navigability to “buttress” their conclusion that a water body should be treated as land. Their reasoning suggests that if Long Island were surrounded by shallow or narrow waters, not well suited to use by vessel traffic, the island would be less closely attached to the mainland. This seems to be the opposite of their intent in 1969. Second, two separate water bodies are involved in any such analysis. First is the channel that divides the mainland and island in question. Second is the embayment that is created if the island is accepted as a headland. In the *New York* case the issue was whether Long Island Sound is a juridical bay. It is a bay only if Long Island is somewhere “attached” to the mainland to form the southern headland. In considering whether a bay exists, the Court focuses, in part, on the Sound itself (concluding that it is used like a bay) rather than the juncture at which the island might be said to be connected to the actual mainland.

SHAPE AND ORIENTATION. Dr. Hodgson, the State Department geographer, took the position that to justify treating an island as mainland, its shape and orientation to the actual mainland should be such that the intervening waterway takes the form of a channel rather than a bay. He

proposed a formula for determining the extent to which a water area would be “channel-like,” which involves measuring the distance from island to true mainland at both ends of the water area, computing the average width by dividing their total length in half, measuring the distance between those two lines (that is, the length of the intervening waterway), and calculating the ratio between the length and width. If the water area were three times as long as its average width, he suggested, it was sufficiently “channel-like” to justify treatment of the island as part of the mainland. Hodgson, *Toward a More Objective Analysis*, *supra*, at 17-20.

The Supreme Court applied this criterion in its analysis of Long Island’s relationship with the mainland. Focusing on the narrow separation between Long Island and the mainland, the Court described the waterway as “narrow and shallow,” with a rapid current which, at least prior to man’s intervention, made passage from Long Island Sound, around the western end of the island, extremely hazardous. *United States v. Maine (Rhode Island and New York Boundary Case)*, *supra*, at 518. Although Hodgson’s formula was not mentioned, the Court’s emphasis on “riverine” character is consistent with his recommendation.

From there, however, the Court returned its focus to the resulting bay, Long Island Sound, rather than the channel to be treated as mainland. It compared the shape and orientation of the island’s north shore with the opposite mainland coast and concluded that “the large pocket of water in Long Island Sound is almost completely enclosed by surrounding land.” *Id.* at 519. As discussed above, this seems irrelevant to the sole question before the Court, whether Long Island is to be considered part of the mainland. That question is answered by an analysis of the water at the western end of the island. If it is determined that western Long Island is, for legal purposes, attached to the mainland, then the island becomes eligible as a headland to a juridical bay known as Long Island Sound. Only then does one ask whether the waters of that indentation are “landlocked.” Since the parties agreed that a juridical bay exists if Long Island is part of the mainland, we must assume that the Court included its discussion of the orientation between the 118-mile parallel coasts within the Sound as somehow relevant to the issue before the Court, but its relevance is not apparent.

ORIGIN OF THE LAND FORMS. Although the Court did not mention “origin” in its primary list of factors to be considered for mainland status, it clearly intended its inclusion. It said, with respect to the Louisiana coast, that “the origin of the islands and their resultant connection with the shore is one consideration relevant to the determination of whether they are so closely tied to the mainland as realistically to be considered part of it.” *United States v. Louisiana*, *supra*, at 65 n.84.

Dozens of land forms were at issue in the subsequent Louisiana litigation before Special Master Armstrong. In almost every case the state

was contending that the features were part of the mainland and the United States argued that they were not. In most cases mainland status would have created a bay where none would otherwise have existed (as was also the case with Long Island) or would have extended seaward the waters of an already acknowledged bay. The parties offered voluminous geologic evidence of origin. In the end the master typically concluded that the islands did not qualify as mainland, with little explanation. For example, with respect to mudlumps claimed by Louisiana to extend the bounds of Bucket Bend Bay, Mr. Armstrong said “[a]pplying the test outlined by the Court . . . neither the size, distance from the mainland, depth and utility of the intervening waters, shape of the low-water elevations, or their relationship to the configuration or curvature of the coast indicate that they should be assimilated to and treated as part of the mainland.” Report at 37.²⁷⁸ The master did acknowledge that the mudlumps’ fluvial origin might bolster mainland status if the Court’s other criteria were met. He found that they were not. In no instance in the Louisiana case did origin contribute to the determination that an island should be treated as part of the mainland. All of the master’s recommendations on the issue were adopted by the Court. *United States v. Louisiana*, 420 U.S. 529 (1975).

Island origin was also considered in two subsequent Supreme Court actions. In the *Rhode Island and New York Boundary Case* the Court noted that “Long Island and the adjacent shore also share a common geological history, formed by deposits of sediment and rocks brought from the mainland by ice sheets that retreated approximately 25,000 years ago.” 469 U.S. at 519. This statement by the Court makes clear that the “origin” element applies to any island being considered for mainland status, not just those in the Mississippi River delta for which the exception was originally adopted.

Special Master Maris, in *United States v. Florida*, Number 52 Original, determined that the eastern end of Florida Bay, a water body formed by the mainland Everglades on the north and the upper Keys on the south, comprised a juridical bay because the upper Keys “constitute realistically an extension of the mainland” under the criteria set out in the *Louisiana* case. Report of December 1973, at 39. Judge Maris went on to explain that the lower Keys might also be considered a further extension of the mainland, producing an even more seaward mouth of Florida Bay, “being basically

278 . The master explained that “Louisiana has introduced a substantial amount of evidence as to the nature and origin of mudlumps, showing that they result from hydraulic forces generated by river action. From this the conclusion is urged that they are fluvial in nature, and therefore should be assimilated to the mainland, wherever located and whatever their size. This, however, does not necessarily follow. Unless the mudlumps, like other islands or low tide elevations, meet the five specific tests of size, distance from the mainland, depth and utility of the intervening waters, shape and relationship to the configuration or curvature of the coast, their nature and origin is immaterial, although a non-fluvial origin might be a negative factor if all of these tests were met.” *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 38-39.

part of the same partly submerged limestone reef as the upper Keys.” However, he concluded that the intervening Moser Channel, a navigable waterway of 10- to 15-foot depths, prevents such a conclusion. *Id.* at 47.

We note that Judge Maris proposed an arguable extension because of the lower Keys’ common origin with the upper Keys, not the actual mainland. His mainland determination for the upper Keys does not, apparently, rely upon any similarity of geologic origin with the actual mainland. That process would seem to expand on the Court’s original proposal. However, the Court never had occasion to deal with the question because the parties stipulated that there is no juridical bay in eastern Florida Bay and the issue became moot. Stipulation of December 11, 1975.²⁷⁹

The Court’s Five Criteria Provide a Minimum Test

After listing the five geographic criteria for island assimilation, the Supreme Court explained that the list “is intended to be illustrative rather than exhaustive.” 394 U.S. at 66 n.86. Special Master Armstrong, in applying the test, concluded that the foregoing “appears to be intended to leave open the question of whether islands or low-water elevations which meet the five suggested specific criteria may nevertheless fail to qualify as parts of the mainland rather than to suggest that islands or low-water elevations which fail to meet one or more of these specific tests may nevertheless be so assimilated.” Report of July 31, 1974, at 37. He followed that understanding in evaluating the status of specific features, reasoning that “unless the mudlumps, like other islands or low tide elevations, meet the five specific tests of size, distance from the mainland, depth and utility of the intervening waters, shape, and relationship to the configuration or curvature of the coast, their nature and origin is immaterial, although a non-fluvial origin might be a negative factor if all of these tests were met.” *Id.* at 38-39. He then concluded that “while the mudlumps here in question might meet the last three of these specific tests, they fail to meet the first two, and therefore cannot be considered as extensions of the mainland.” *Id.* at 39.

Other Considerations

Litigants have offered a number of other criteria that they believed are relevant to island assimilation. They include the following.

²⁷⁹ Political geographers would probably deny the significance of geologic origin for any coastline delimitation. They typically prefer criteria that can be applied by the mariner to a nautical chart so that he can determine, with the tools at hand, when he enters a nation’s jurisdiction. Dr. Hodgson has written, for example, that an “island must be viewed from the chart representation, and interpretation as to geological or historical association should not be considered relevant. The two-dimension representation is the evidence available to the mariner and he must rely on these data.” Hodgson, *Toward A More Objective Analysis*, *supra*, at 17. Although reasonable, this concern would seem to be met if the Court continues to treat all of the primary criteria as necessary to produce mainland status, as Mr. Armstrong and Judge Maris clearly did, and origin to be merely an additional basis for inclusion if the former criteria are met.

CONNECTION TO THE MAINLAND BY BRIDGES. In the *Alabama and Mississippi Boundary Cases*, testing the jurisdictional status of Mississippi Sound, the states contended that Dauphin Island should be assimilated to the mainland at least in part because it is connected to the mainland by a highway bridge. Special Master Armstrong concluded that “the mere fact that it is connected to the mainland by a bridge or other artificial structure does not standing alone make Dauphin Island a part of the mainland.” Report of April 9, 1984, at 13. Nevertheless, the master noted that when taken with other factors, the bridge connection might be indicative of mainland status. *Id.* He then purported to test Dauphin Island against the Court’s five specific criteria and added some geologic history for good measure. He concluded that Dauphin Island should be treated as mainland.

That analysis supported the master’s finding for the states that Mississippi Sound is a juridical bay. In addition, he recommended that the Sound be recognized as a historic bay, an alternative basis for the states’ claim. The United States took exception to both recommendations. The Court adopted the master’s historic water recommendation, making it unnecessary to deal with the assimilation issue. 470 U.S. 93 (1985). Thus, the case shed no judicial light on the significance of a bridge.

Long Island is, of course, connected to the mainland by a number of bridges. The special master referred to the potential relevance of bridges in the *Rhode Island and New York Boundary Case*. Report of October Term 1983, at 39 and 41. He does not, however, seem to have placed any substantial reliance on that connection.²⁸⁰

Finally, the Florida Keys must be considered. All of those primary islands from Key West eastward are connected to each other and the mainland through a series of bridges and causeways. It is there that a State Department geographer, G. Etzel Percy, had suggested, without explanation, that a juridical bay could be formed by the islands. *United States v. Louisiana*, 394 U.S. at 71-72 n.95 (1969). Nevertheless, not even Florida argued that the Keys should be considered part of the mainland. The master’s determination that the upper Keys should be assimilated to mainland was not based on any contention of the parties and, when the issue was returned by the Court to the master for further consideration, the parties stipulated that no such juridical bay existed in eastern Florida Bay.

It would now seem to be established that Percy’s suggestion, and the Florida example, provide no precedent for future contentions for island assimilation based upon the existence of a highway that connects a feature to the mainland.

²⁸⁰ In both instances the masters were referring to Dr. Percy’s suggestion that the Florida Keys might be considered part of the mainland because of the highway connecting them and the mainland. That opinion would seem to be now moot. The Florida coastline has since been litigated and a Supreme Court decree entered that precludes that interpretation.

PROXIMITY TO INLAND WATERS. It would seem that the essential element in assimilating an island to the true mainland is its proximity to that “mainland.” But some have suggested that because inland waters, such as bays, rivers, and ports, are legally treated as mainland, an island is a part of the mainland if it is adjacent to inland waters. The suggestion is intriguing.

It first arose in the *Louisiana Boundary Case*. At least twice Louisiana argued that islands lying near, or abutting, inland waters should be assimilated to the mainland and become available to serve as bay headlands. In the first instance, involving Garden Island and Redfish Bays, the parties agreed on the location of a potential bay closing line. However, it happened that mudlump islands lay slightly seaward of that line, although some distance from the nearest upland of the mainland. Louisiana contended that the conceded inland waters of the bay must be treated as mainland and the Supreme Court’s five criteria applied to the water areas between the mudlumps and conceded closing line.²⁸¹ As a consequence, the state urged, the mudlumps would be assimilated to the mainland and the minimum closing line could be moved seaward, using the new mudlumps as headlands. The process could continue indefinitely, leaping from mudlump to mudlump.

The United States contended that although the mainland and inland waters share certain jurisdictional characteristics, the Court was clearly referring to uplands when it used the term mainland in its assimilation discussion.

The special master accepted the federal position, saying that “it seems apparent that when in its opinion the Court used the term ‘mainland,’ it used it to refer to an existing body of land and not to inland waters. Otherwise, a small island lying many miles from the nearest solid land might by virtue of its proximity to a bay closing line be considered an extension of the mainland.” Report at 42. He explained that “while for some purposes inland waters may be considered a part of the mainland, they are nevertheless waters and not land, and therefore land bodies lying adjacent to them are not assimilable to them as such, but retain their characteristics as islands.” *Id.*

The master was consistent when Louisiana raised the same theory at Caillou Bay. There the Isles Dernieres fringe the mainland coast. On their eastern end these barrier islands screen the mouth of an acknowledged inland water body, Lake Pelto. From there they run west, beyond the limits

281. Or, as the special master explained the state position, “Louisiana insists, however, that once the closing line conceded by the United States is drawn, the waters within that closing line become inland waters and therefore constitute a part of the mainland, and that the relationship of the remaining islands to those inland waters therefore is in reality a relationship to the mainland which is sufficient to constitute them an extension thereof.” Report of July 31, 1974, at 41.

of Lake Pelto and again parallel the coast west of Caillou Boca. Louisiana denominates the body between the mainland and western Isles Dernieres “Caillou Bay.” In support of its contention that the western Isles Dernieres are assimilated to the mainland, and thereby eligible to form a bay, the state pointed out that the Isles Dernieres touched inland waters, which are equivalent to mainland and should, therefore, be treated as mainland themselves. The master disagreed and Caillou Bay was determined not to be inland waters. The Court adopted that recommendation.²⁸²

In the *Alabama and Mississippi Boundary Cases*, the same special master, Mr. Armstrong, was presented with what appears to be the identical issue but reached the opposite conclusion. Dauphin Island, in the mouth of Mobile Bay, created the controversy. The states argued that Mississippi Sound is inland water by virtue of being both an Article 7 juridical bay and historic inland water. Their juridical bay argument depended, in part, on a determination that Dauphin Island is assimilated to the mainland. The master concluded that it is, on the primary ground that it lies adjacent to inland water and that “under the Geneva Convention inland waters are to be subsumed under the general category of mainland. If this is correct, then Dauphin Island, as it adjoins the mainland, is clearly an extension thereof; in effect, a peninsula extending westwardly therefrom and separating the Gulf of Mexico from Mississippi Sound.” Report of April 9, 1984, at 14. (Figure 64) The master relied on language of the Court to explain his conclusion, stating that “it would appear as a general rule derived from Article 7 Section 3 of the Geneva Convention and the Court’s interpretation thereof in *United States v. Louisiana, supra*, (394 U.S. at p. 55) that where islands lie within the mouth of a bay they are to be considered as part of the mainland for all purposes.” Report at 16.

We do not believe that anything in the Convention, its history, or any court decision supports the master’s interpretation. Article 7(3) speaks to one issue, the means of measuring the area of an indentation to determine whether it is larger than a semicircle whose diameter is a line drawn across the indentation’s mouth.²⁸³ Where islands lie in the entrance to an indentation it has several mouths. In the language relied upon by the

282. The Isles Dernieres have the physical appearance of a series of parallel islands fringing the coast. However, to bolster its litigation position Louisiana contended that they should in fact be assimilated to each other and are generally understood, in Louisiana, to be a single island. The United States disagreed. In a Solomon-like solution the master ruled that whenever the state or its witnesses used the term it would be taken to denote the singular. When used by the federal side, it would be understood to be plural.

283. 7(3) reads, in its entirety, as follows: “[f]or the purpose of measurement, the area of an indentation is that lying between the low-water mark around the shore of the indentation and a line joining the low-water marks of its natural entrance points. Where, because of the presence of islands, an indentation has more than one mouth, the semi-circle shall be drawn on a line as long as the sum of the lengths of the lines across the different mouths. Islands within an indentation shall be included as if they were part of the water areas of the indentation.”

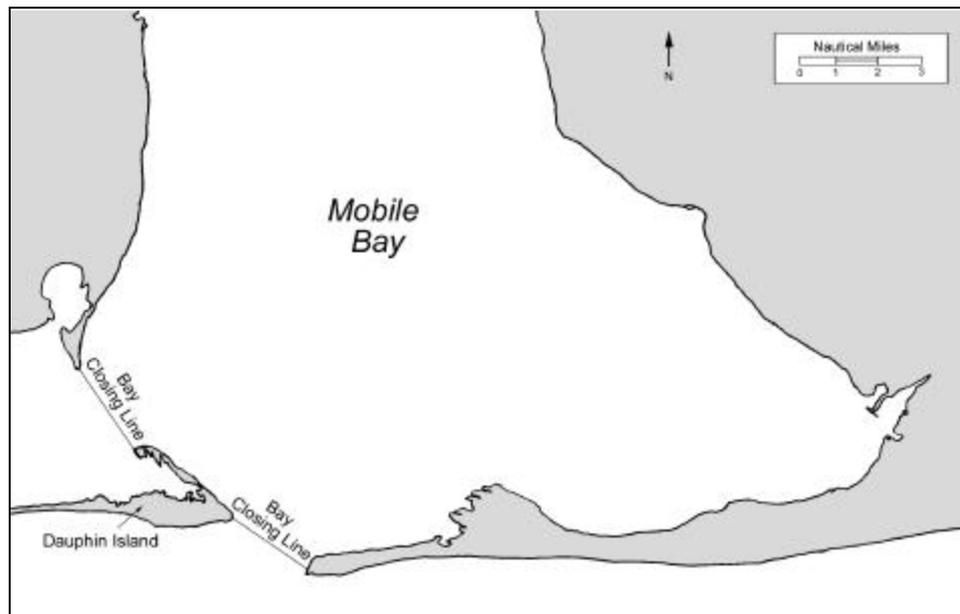


Figure 64. Mobile Bay, Alabama, with closing line through Dauphin Island.

master to justify assimilating such islands to the mainland, the Court was actually responding to Louisiana's contention that closing lines should be drawn to the "seawardmost points on the island" rather than to their natural entrance points, helping to form landlocked waters, as would be done with mainland headlands.

The Court rejected Louisiana's contention, concluding that entrance points should be selected on islands in the mouth of a bay as they are on the mainland. 394 U.S. at 56. The Court did not even hint that "where islands lie within the mouth of a bay they are to be considered as part of the mainland for *all* purposes." Report at 16. What the Court actually said was that in the case of multiple mouths "the lines across the various mouths are to be the baselines for all purposes." 394 U.S. at 55. The Court was referring, of course, to the seaward limit of inland "waters," not mainland low-water lines.

As a fallback from its unsuccessful argument that islands can never be used as headlands to bays, the federal government argued in the *Louisiana Boundary Case* that if islands are assimilated to the mainland the water gap between any island being treated as the mainland, and the true mainland, must be measured and included as part of the total closing line described in Article 7(3) for purposes of the 24-mile test (and, presumably, the semicircle rule). The Court rejected the federal position reasoning (quite logically it would seem) that "[t]hese arguments, however, misconstrue the

theory by which the headland is permitted to be located on the island – that the island is so closely aligned with the mainland as realistically to be considered an integral part of it. Thus viewed, there is no 'mouth' between the island and the mainland." 394 U.S. at 62 n.83. (Figure 65)

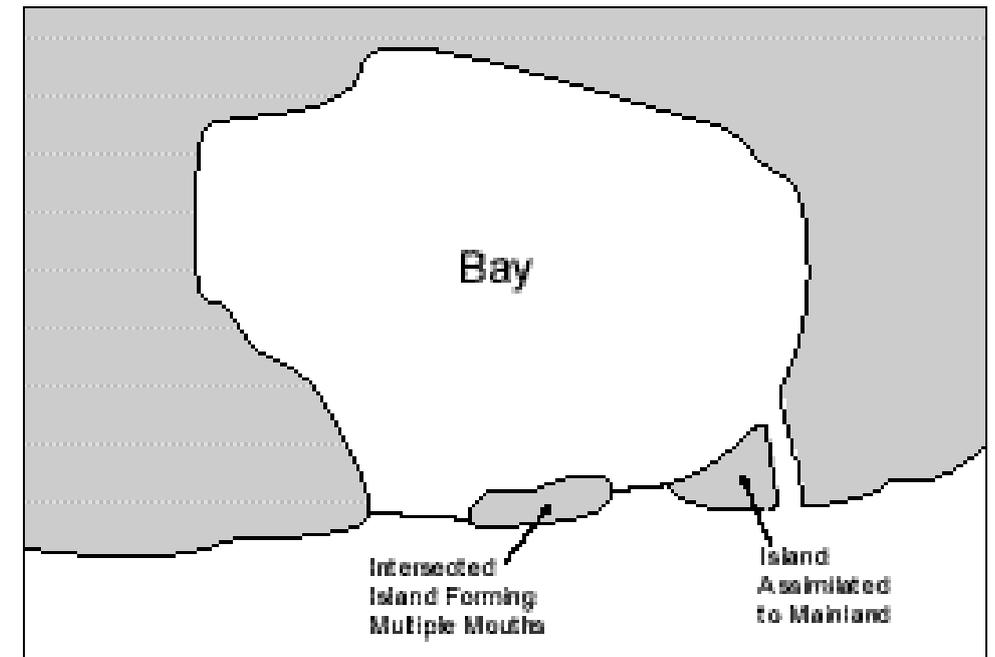


Figure 65. Multiple mouths to a juridical bay. Here the bay's eastern headland is on an island assimilated to the mainland and multiple mouths are formed by an additional island.

If all inland water is treated as mainland there would never be a "mouth" to any bay. By definition the "mouth" of a bay is the distance between the mainland headlands. If the inland water is treated as "mainland for all purposes" there is nothing to measure. Clearly the master in the *Alabama and Mississippi Boundary Cases* did not intend such an illogical extension of his reasoning but the conclusion appears to be inevitable.²⁸⁴

The United States took exception to the master's position but, finding the area to be a historic bay, the Court found it unnecessary to address the juridical bay issues. *United States v. Louisiana*, 470 U.S. at 93.

284. Another provision of Article 7(3) establishes that islands are not to be treated as mainland. It provides that for purposes of the semicircle test "[i]slands within an indentation shall be included as if they were part of the water area of the indentation." Article 7(3) clearly distinguishes between mainland and water area and, for its purpose, treats islands as water.

We believe that the better approach is to limit island assimilation to instances in which an island is in close proximity to the actual mainland, not inland waters.

Low-Tide Elevations as Headlands

The foregoing discussion has focused on the potential use of islands as headlands to bays. It should be noted that low-tide elevations will be treated as islands in similar circumstances.²⁸⁵ The Supreme Court has said that “[t]he question arises with respect to low tide elevations as well as islands. We think that in this context there can be no distinction between them. Article 7(4) provides that the bay-closing line shall be drawn ‘between the low-water marks of the natural entrances points.’ The line is to be drawn at low-tide, and, therefore, if a natural entrance point can be on an area of land surrounded by water, it can be on a low-tide elevation as well as an island.” 394 U.S. at 60 n.80. The matter is resolved.

Applications of the Court’s Criteria

It would seem that the Supreme Court understood that determinations of island assimilation to the mainland would be necessarily subjective. At the same time that it set out the five criteria discussed above, it noted that “[o]ur discussion of these authorities should not be taken as suggesting that, under the now controlling Convention on the Territorial Sea and the Contiguous Zone, every Mississippi River Delta mudlump or other insular formation is a part of the coast.” 394 U.S. at 65 n.84. For purposes of determining insular or mainland status in the future it is probably most helpful to look at specific examples that have either been agreed upon or adjudicated.

The issue was first dealt with by Special Master Armstrong as he considered the proper closing lines across Garden Island/Red Fish and Bucket Bend Bays, on the east side of the Mississippi River delta. Each indentation has natural headlands on what the parties agreed to be extensions of the mainland. However, more seaward of those headlands lie examples of the “mudlumps” to which the Court referred. These features tend to be small, compared to the nearest mainland and intervening waterways. (Figure 66) They appear to be separated from the mainland by waters of the Gulf of Mexico, rather than the crisscross of river-like channels that characterize the delta itself. Although created by river forces, they do

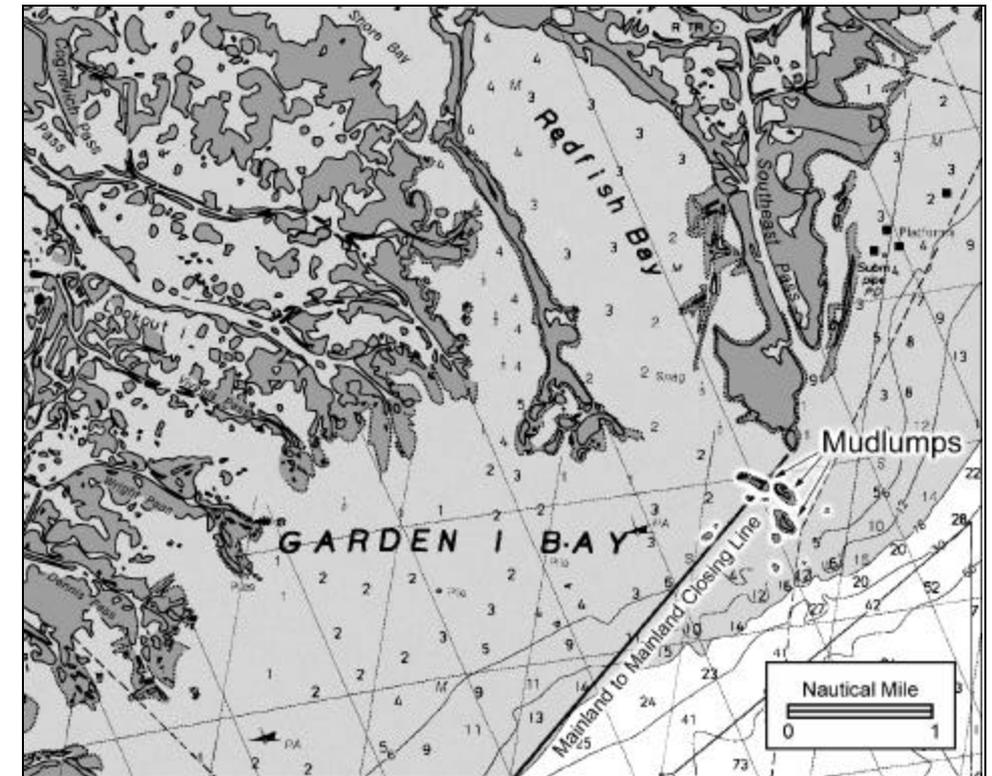


Figure 66. Garden Island Bay, Louisiana, near the southeastern corner of the Mississippi River delta. Note the mudlumps off the eastern headland. (Based on NOAA Chart 11361)

not appear through the same processes that create the mainland marsh. The master concluded that “[a]pplying the test outlined by the Court . . . neither the size, distance from the mainland, depth and utility of the intervening waters, shape of the low-water elevations, or their relationship to the configuration or curvature of the coast indicate that they should be assimilated to and treated as a part of the mainland.” Report at 37 [referring to Bucket Bend Bay]. And, with reference to Garden Island/Red Fish Bay, simply “the islands in question do not bear the requisite relationship to the mainland at Southeast Pass to constitute extensions thereof.” Report at 41. Although the explanation is terse, the example is useful if island assimilation issues arise in the future.

The next example arose in East Bay, at the southern extreme of the delta. The Court had already concluded that the whole of East Bay did not meet the semicircle requirement of Article 7 for inland water status. 394 U.S. at 53. However, the upper portion of East Bay does meet the semicircle test

²⁸⁵ The Convention defines a low-tide elevation as “a naturally formed area of land which is surrounded by and above water at low-tide.” Article 11(1).

and Louisiana was given the opportunity to prove that it qualified separately. To do so, the latter indentation had to meet all requirements of Article 7. The United States argued that no “well-marked headlands” appeared within the larger East Bay to enclose a reduced area of landlocked waters. Louisiana pointed to Cow Horn Island. Although denominated an “island,” Cow Horn closely paralleled the eastern headland of East Bay.²⁸⁶ (Figure 67) It was large in comparison to the adjacent mainland and the intervening waterway. And that waterway was narrow and defined by parallel banks rather than open water. It had, as Dr. Hodgson thought important for such determinations, a “riverine” character. As a consequence, the United States conceded that, during its existence, Cow Horn Island could be considered part of the adjacent mainland. Report at 32.²⁸⁷ The “island” was employed as a headland for the lesser bay within East Bay while it was in existence. Decree at 422 U.S. 13 (1975).

Caillou Bay was described by the special master as “one of the most difficult areas involved in this litigation.” Report at 49. It is a small water feature formed by the mainland on the north and the western end of a barrier island chain known as the Isles Dernieres on the south. (Figure 68) Louisiana claimed it as inland on at least three grounds. First it was claimed as historic waters. That claim was put before the master. He recommended against the state, Report at 22, and that recommendation was adopted by the Court. 420 U.S. 529 (1975). Next, Louisiana asserted that island fringes could form the perimeter of juridical bays. 394 U.S. at 67. The Court itself rejected that theory, stating that “Article 7 does not encompass bays formed in part by islands which cannot realistically be considered part of the mainland.” *Id.* And, finally, Louisiana contended that the Isles Dernieres should indeed be considered part of the mainland and eligible as a headland to a juridical bay – this despite the fact that in its discussion the Supreme Court had said that “Louisiana does not contend that any of the islands in question is so closely aligned with the mainland as to be deemed

286. It is important to note that nomenclature does not determine the status of any feature under the Convention. A bay, island, or other geographic feature will be tested against the Convention’s criteria as applied by the Supreme Court, regardless of what it has been commonly called.

287. The United States nevertheless argued that Cow Horn Island did not create any distinct headland for an internal bay within East Bay. Thus, Cow Horn Island provides an example of more than the island assimilation issue. It also stands for the proposition that juridical bay status can be lost as geographic changes cause an indentation to fail any of Article 7’s criteria. That, of course, is consistent with the general understanding. Both elements of the “coast line,” the low-water line and inland water closing lines, are ambulatory. Finally, a formation such as Cow Horn Island should affect measurement for purposes of the semicircle test. Article 7(2) requires that to qualify as a bay an indentation must contain water area at least equivalent to that of a semicircle whose diameter is the line across the mouth of the indentation. Article 7(3) goes on to provide that “[i]slands within an indentation shall be included as if they were part of the water area of the indentation.” That being so, such an “island” should first be tested against the assimilation criteria used for headlands. If it qualifies for assimilation neither it nor its intervening waterway should be included as water area. In such cases, a land form within the indentation may result in a failure to meet the semicircle test and prevent juridical bay status.

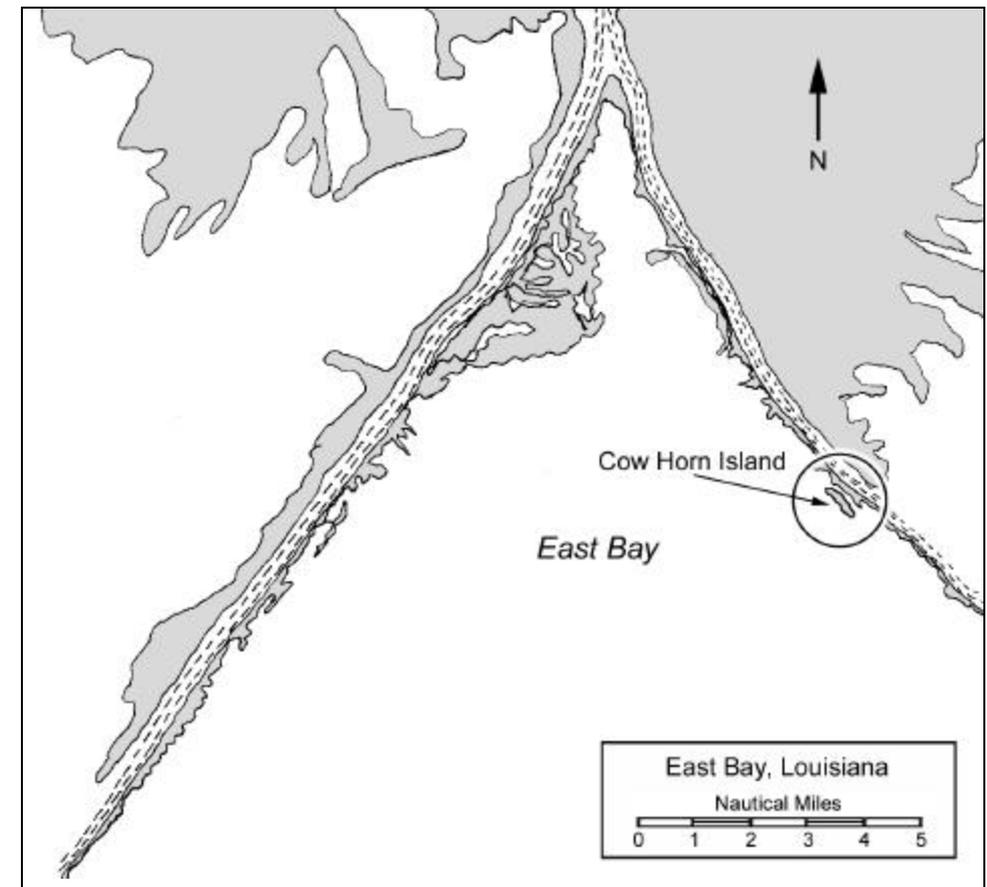


Figure 67. East Bay, Louisiana. Cow Horn Island was assimilated to the mainland and served as the eastern headland of a bay within East Bay until the island dropped below mean low water.

a part of it, and we agree that none of the islands would fit that description.” 394 U.S. at 67 n.88.

The western Isles Dernieres are in fact separated from the mainland by a waterway that is more like a channel than an open water body. If the islands were a single land feature, its relationship with the mainland would weigh strongly in favor of assimilation. However, that portion of the chain that would have to be treated as a headland is itself composed of a number of islands. The gaps among these are substantial, giving the impression that they comprise a number of formations rather than a single feature bisected by channels.

The state argued that the position attributed to it by the Court was a misunderstanding. Report at 50. Nevertheless, the master pointed out that

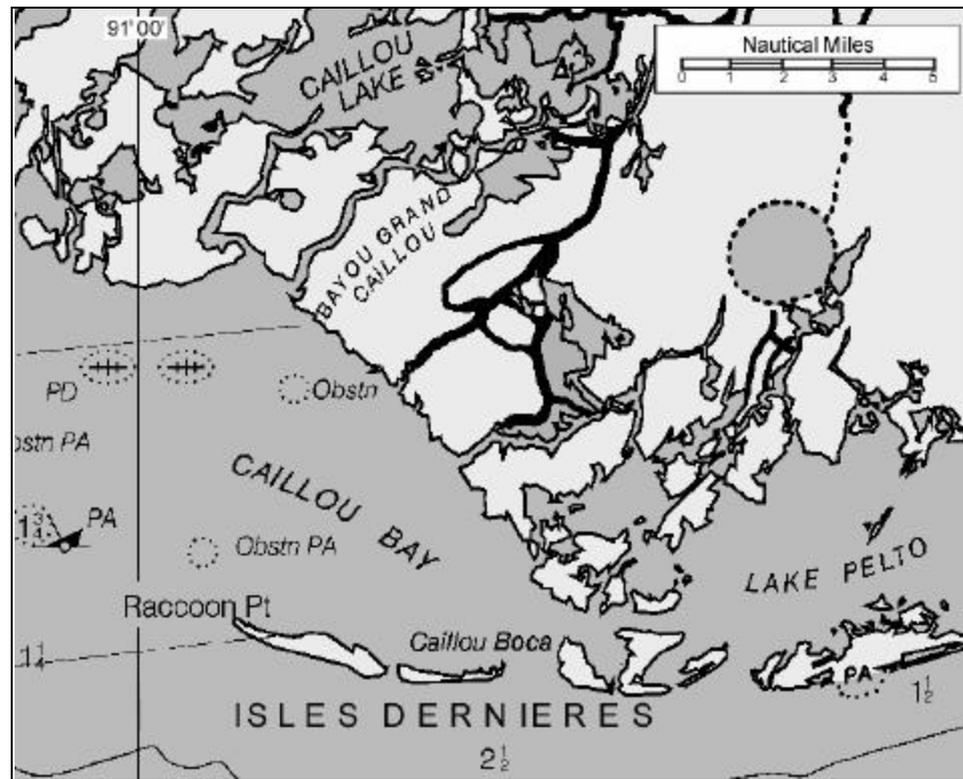


Figure 68. Caillou Bay, Louisiana. (Based on NOAA Chart 11340)

the Court “independently reached the [same] conclusion,” *id.*, and the Court’s language “appears to require a holding that there is no configuration in the area which meets the requirements of a bay” *Id.* at 51.

Interestingly, it appears that but for the Court’s language, the master would have recommended assimilation of the western Isles Dernieres to the mainland. In what consequently amounts to *dicta* in his Report (but might be useful for future conflicts) he said that “[in] the absence of such a holding [by the Court] the Special Master would upon the evidence before him be inclined to hold that based upon their size, proximity, configuration, orientation and nature these islands would constitute an extension of the mainland” making Caillou Bay a juridical bay.²⁸⁸ The state took exception to the master’s recommendation but the Court

288. To further confuse the matter, the master seemed to base his conclusion, at least in part, on Special Master Maris’s Report in *United States v. Florida*, Number 52 Original, reasoning that his opinion with respect to the western Isles Dernieres “would appear to be in accord with the view of the Special Master in the case of *United States v. Florida*, Number 52 Original, in regard to certain of the Florida Keys.” Report of July 31, 1974, at 51. Unfortunately the Master’s Report in Louisiana was written before the Supreme Court remanded the *Florida* case and the parties stipulated that the Florida Keys referred to did not form the headland of a juridical bay. The Court’s Florida decree reflects that stipulation. 425 U.S. 791 (1976).

overruled all exceptions. 420 U.S. 529 (1975). The western Isles Dernieres are not assimilated to the mainland.²⁸⁹

Louisiana made two more unsuccessful efforts at island assimilation. Low-tide elevations west of Point au Fer and on the Shell Keys should, it contended, be treated as part of the mainland and as entrance points of Atchafalaya Bay. The master disagreed, explaining that “in each case, the size and location of the elevations makes it impossible realistically to view them as extensions of the mainland.” Report at 52-53.

The Alabama and Mississippi Boundary Cases produced two assimilation questions. Isle au Pitre, at the western end of Mississippi Sound, was said to be a mainland headland to a juridical bay. The United States conceded, under the criteria set out by the Court in *United States v. Louisiana*, 394 U.S. at 66, that Isle au Pitre may be treated as mainland. Report at 11; 470 U.S. 96 (1985). The second example is more difficult to understand. There Dauphin Island, at the eastern end of Mississippi Sound, was at issue. Again the state contended that it should be assimilated to the mainland and, as mainland, formed the eastern headland of a juridical bay. Interestingly the master applied the traditional geographic tests and concluded that Dauphin Island’s proximity to the mainland upland was insufficient to justify assimilation, and that a causeway between them did not add enough weight to conclude otherwise. However, the master then adopted a legal theory not previously considered relevant to the assimilation issue. He noted that Dauphin Island is adjacent to the admittedly inland waters of Mobile Bay, and then opined that because inland waters are “equivalent to mainland” Dauphin Island is clearly in contact with the mainland and becomes mainland itself.²⁹⁰

The legal approach seems suspect. The Court has not treated inland water as mainland for Article 7 purposes.²⁹¹ The United States took exception to the master’s recommendation that Mississippi Sound is a juridical bay, in part on the basis of the Dauphin Island reasoning. However, the Court ruled for the states on the alternative historic waters ground and made no determination on the assimilation issue. 470 U.S. 93 (1985). Given the Convention and Court’s general treatment of inland waters we think it unlikely that it will adopt the legal position that any

289. The mainland just north of the Isles Dernieres is much like the Mississippi delta. It is composed of a patchwork of land formations separated by narrow channels.

290. The master did make reference to the size, shape, and configuration of Dauphin Island, Report at 16-17. However, his conclusions that the island was “immediately adjacent to the inland waters of Mobile Bay, which are part of the mainland,” *id.*, and, for that reason “there are no intervening waters,” *id.*, are clearly critical to his determination that Dauphin Island is assimilated to the mainland.

291. See discussion *supra* 283-286. Nor did this special master apply the same reasoning when adjudicating the Louisiana coast line. *Louisiana Boundary Case*, Report of July 31, 1974, at 38, 41 and 42.

island touching inland waters is automatically assimilated to the mainland, if and when that issue arises again.

In *United States v. Florida*, Number 52 Original, the special master made island assimilation determinations that neither party had urged.²⁹² The Florida question arose in what is widely known as Florida Bay, the vast water body formed by the Everglades on the north and the Florida Keys on the south. Florida did not claim the bay as juridical, under Article 7, but as historic inland waters. The master analyzed and rejected the historic bay claim but proceeded to consider its eastern portion under Article 7. Reviewing the Court's assimilation criteria in the *Louisiana Boundary Case*, he concluded that "this area is sufficiently enclosed by the mainland and the upper Florida Keys, which constitute realistically an extension of the mainland, to be regarded as a bay which constitutes inland waters of the State." *United States v. Florida*, Report of the Special Master of December 1973, at 39.²⁹³

On its exceptions to that recommendation, the United States argued that the navigable gaps between any two upper Keys were too great to admit assimilation to the mainland and that the issue had not been argued to the master. On the latter basis the Court remanded the issue and Florida conceded that the area described by the master is not a juridical bay.²⁹⁴ A final decree was entered accordingly. *United States v. Florida*, 425 U.S. 791 (1976).

The question of island assimilation might have arisen in the *Massachusetts Boundary Case*. There the status of Vineyard and Nantucket Sounds was at issue. The state might have argued, with respect to the former, that the Elizabeth Islands and Martha's Vineyard should be assimilated to the mainland, forming a juridical bay in Vineyard Sound. Or, it could have contended that Martha's Vineyard and Monomoy Island are assimilated to the mainland (and, possibly that Nantucket is assimilated to Monomoy) creating an Article 7 bay in Nantucket Sound. It did not. The parties agreed that Article 7 did not apply and the master agreed that the position "is in accord with the authoritative Supreme Court precedent interpreting Article 7 . . . [in which it has held that] Article 7 does not encompass bays formed in part by islands which cannot realistically be

292. As noted above, they influenced Special Master Armstrong's view of a similar issue in Caillou Bay, Louisiana, even though he felt ultimately compelled to rule otherwise because of earlier Supreme Court language in his case.

293. The master would have attributed juridical bay status to "the area between the mainland on the northwest and the upper Florida Keys on the southeast which lies east of a closing line running southwesterly from East Cape of Cape Sable to Knight Key in the Florida Keys, a distance of approximately 24 geographical miles." Report at 39.

294. Stipulation of September 1971 between Solicitor General Erwin N. Griswold and Attorney General Robert L. Shevin, attached to the Master's Report of December 1973.

considered part of the mainland." *United States v. Maine (Massachusetts)*, Report of the Special Master of October Term 1984, at 9.

In the *Rhode Island and New York Boundary Case* the Court had its first occasion to apply the criteria for island assimilation which it had set out in the *Louisiana Boundary Case* 16 years earlier.²⁹⁵ The ultimate issue there was whether Long Island Sound is a juridical bay, conforming to the requirements of Article 7 of the Convention on the Territorial Sea and the Contiguous Zone. Experts for both parties agreed that "in the absence of Long Island, the curvature of the coast is no more than a 'mere curvature' and is not an 'indentation'" as required by the Convention. *United States v. Maine (Rhode Island and New York Boundary Case)*, 469 U.S. 504, 514-515 (1985). (Figure 69) Consequently, for Long Island Sound to qualify as a juridical bay, Long Island itself would have to be treated as an extension of the mainland.

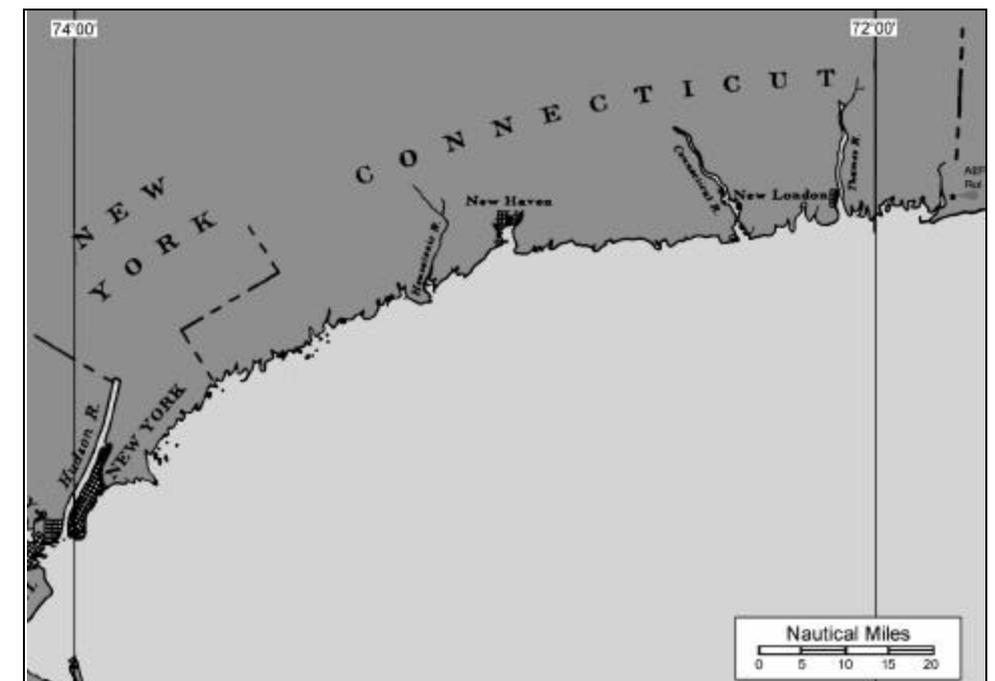


Figure 69. New York/Connecticut coastline. Without Long Island, the waters of Long Island Sound are not landlocked. (Based on NOAA Chart 13003)

295. Although the criteria were applied by its special masters in three prior cases, they were disposed of in circumstances that obviated the need for the Court's discussion of the assimilation issue. In *Louisiana*, the Court merely accepted the master's recommendations on bay closing lines without comment. 420 U.S. 529 (1975). In *United States v. Florida* it remanded the juridical bay question and the parties resolved the matter by stipulation. 425 U.S. 791 (1976). In the *Alabama and Mississippi Boundary Cases* the question of Dauphin Island's assimilation to the mainland was made moot when the Court adopted its master's conclusion that Mississippi Sound constitutes historic inland waters. Dauphin Island's status is irrelevant to that question. The Court did not comment on the separate juridical bay basis for the master's finding. 470 U.S. 93 (1986).

Special Master Hoffman heard extensive evidence about the relationship between the island and adjacent mainland. He pointed out that “Long Island is a large island situated along the coast and at its western end is separated from the mainland by only a narrow stretch of water.” Report October Term 1983 at 45-46. That narrow stretch is, of course, the East River. When the criteria from the *Louisiana Boundary Case* are applied, the East River assimilation seems justified.

The master noted that the island is “large.” That can hardly be debated. Probably more important, it is significantly larger than the East River, which separates it from the mainland.²⁹⁶ Second, the intervening waterway is long, narrow, and has parallel banks. It is more “riverine” than an open body of water, thereby meeting the most critical of the assimilation factors recommended by political geographers who have considered the question. (Figure 70) Long Island lies only one-half mile from the mainland, 469 U.S. at 518, a minuscule distance compared to its 118-mile length. The Court emphasized that in its original state, the intervening waterway was as shallow as 15 to 18 feet, and not conducive to navigation. *Id.* A common geologic history, linking the island to the mainland, was also discussed. Report at 44-45 and 469 U.S. at 519. These would seem to be more than sufficient justification for assimilating Long Island to the mainland and adopting it as the southern headland of a juridical bay known as Long Island Sound.²⁹⁷

The special master reached that conclusion, Report at 45-46, as did the Court. 469 U.S. at 519. The Court described its analysis as the “realistic approach” to the assimilation question, as intended by the Louisiana decision. *Id.* at 517.

The federal government’s “Coastline Committee,” the interagency group that applies the Convention’s rules to establish the United States’ limits of maritime jurisdiction, has often looked at the assimilation questions. Its decisions may also be useful in evaluating future situations. For example, it concluded that the Seahorse Islands, which screen the mouth of Peard Bay on the north slope of Alaska, should be assimilated to each other and a separate island between them and the mainland should be assimilated to the mainland.²⁹⁸ Kulgurak Island, a short distance east, was also

296. The “mainland” referred to is mostly Manhattan Island which, although named an island, is certainly part of the mainland being separated from the Bronx only by the Harlem River.

297. Nevertheless, both the master and the Court went on to rely on the bay-like nature of Long Island Sound itself as further justification for assimilation. As discussed above, that factor may go beyond what the Court intended in 1969 but, in this case, does not appear to produce an improper result. See Report at 45-47 and 469 U.S. at 519.

298. The Committee has dealt with adjacent islands just as it has an island and the mainland, assimilating them to each other where like circumstances would have justified assimilation to the mainland. Although the Court has not spoken to this particular situation, it would seem to be required given the rules for mainland assimilation.

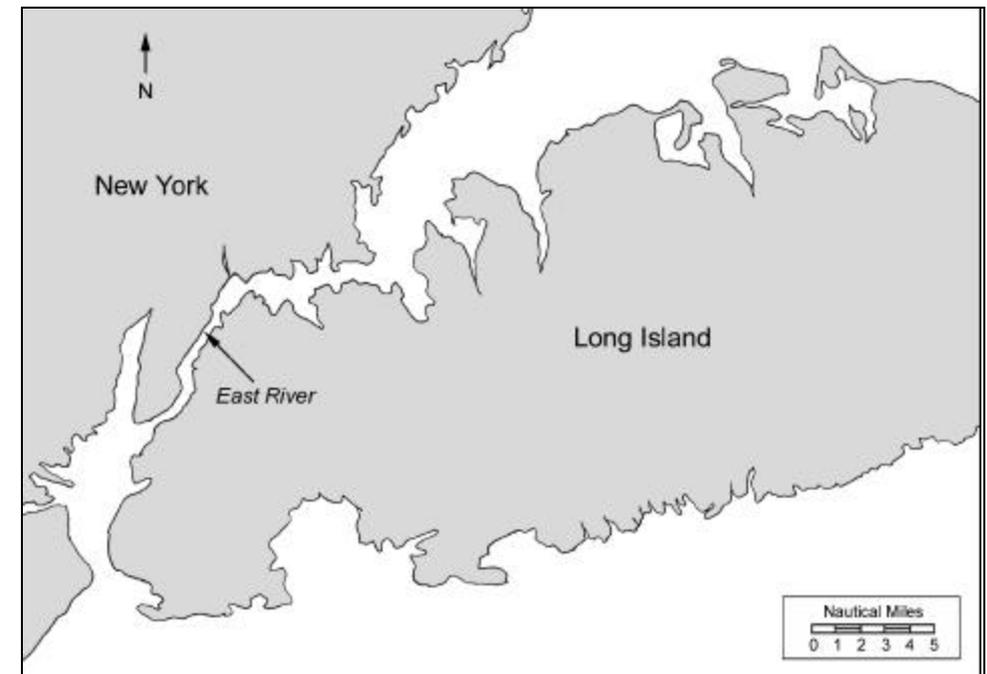


Figure 70. East River, New York. The river separates Long Island from the mainland to the northwest.

assimilated. Minutes of July 27, 1970. In considering the Texas coast, the Committee concluded that Matagorda Island is assimilated to the mainland, as are Padre and Mustang Islands. Minutes of August 17, 1970. A small island off North Cape, near Whale Bay, Alaska, was assimilated to the mainland because of its configuration, and the depth and breadth of the intervening channel. Minutes of September 14, 1970. A small island south of the eastern mainland-headland of Narragansett Bay was also assimilated. Minutes of November 9, 1970.

The Committee seriously considered the Long Island example before concluding that it should not be assimilated to the mainland. Minutes of January 4, 1971. Following the Supreme Court’s decision in the *Rhode Island and New York Boundary Case*, the Committee adopted the Court’s position and amended the official United States charts. Minutes of May 28, 1985. Kruzof Island was determined to be assimilated to the adjacent Partofshikof Island (near Sitka Sound, Alaska), but not with the mainland because the channel separating them from the mainland is too broad, deep, and important for navigation. Minutes of September 20, 1971. A spoil “island” off the coast of Florida, separated from the mainland by a passage of only 35 feet width, was assimilated to the mainland because of the substantial size of the feature and the “narrowness” of the intervening waterway.

Minutes of April 25, 1972.²⁹⁹ Finally, the Committee considered a proposal by the State of California that a reef and string of islands off its northern coast be assimilated to the mainland and treated as the southern headland of an indentation that it denominated “Pelican Bay.” The Committee rejected the proposal on the formations’ general relationship to the coast and the nature of intervening waters. Minutes of December 17, 1976.

Despite the foregoing “the general understanding has been – and under the Convention certainly remains – that bays are indentations in the mainland, and that islands off the shore are not headlands but at the most create multiple mouths to the bay.” 394 U.S. at 62.³⁰⁰ Nevertheless, situations occur in which it would be unreasonable to exclude a land formation from mainland status just because it is surrounded by water. The Supreme Court has said, quoting Shalowitz, that “with regard to determining which islands are part of a land form and which are not, no precise standard is possible. Each case must be individually considered within the framework of the principal rule.” 394 U.S. at 66 n.85. A “common sense approach” will be followed. 469 U.S. at 517.³⁰¹

Reviewing the examples already adjudicated, it would seem fair to conclude that the nature of the intervening waterway may be the most significant of the Court’s criteria. If it is long and narrow, rather than broad, assimilation is more likely to be justified. The same is true the larger the island in comparison to the breadth of the intervening waterway. The more navigable the intervening waters, the less justification for assimilation. Common geologic origin has been used to bolster assimilation, but does not appear to be a major factor.

In the case of Long Island, the nature of the water body created by assimilation was also considered by the master and the Court as evidence that assimilation is appropriate. We are concerned that focus on that area of water, rather than the stretch that is ultimately going to be ignored, may be inappropriate.

In sum, the decision will be subjective. The trier of fact will determine, as the Supreme Court has suggested, whether islands are “so integrally

299. This example also makes a separate point. Typically an artificial island is not part of the coast. Article 10 of the Convention provides that the territorial sea is measured from an island, but defines island as a “naturally formed” area of land. Man-made extensions of the natural coast are, however, treated as part of the coast. The question thus becomes, is a spoil bank that is surrounded by water to be treated as an artificial island even though its relationship to the mainland is such that, if naturally formed, it would be assimilated? The Committee clearly assumed that assimilation is appropriate. The Supreme Court dealt with the issue in the *Louisiana Boundary Case*, where it said that if a spoil bank were surrounded by water at low tide it would not be treated as part of the coast line, but if “an extension of the mainland” it would be. The Committee obviously interpreted the latter provision to include “constructive” extensions of the mainland under the criteria set out later in the same opinion. 394 U.S. at 41 n.48.

300. Reaffirmed, most recently, at *United States v. Maine (Rhode Island and New York Boundary Case)*, 469 U.S. 504, 519 (1985).

301. See also: 4 *Whiteman, supra*, at 169 and 1 *O’Connell, supra*, at 413.

related to the mainland that they are realistically parts of the ‘coast’ with the meaning of the Convention.” 469 U.S. at 517.

Islands in the Mouth of a Bay

Although a juridical bay must be an indentation into the mainland, with mainland headlands enclosing landlocked waters, islands in the mouth of a bay may help determine which waters are landlocked. The mouth of a traditional bay, in the absence of islands, is a line between its mainland headlands. Where islands are present, that line may be altered.

Article 7(3) of the Convention provides that “where, because of the presence of islands, an indentation has more than one mouth, the semi-circle shall be drawn on a line as long as the sum total of the lengths of the lines across the different mouths.”³⁰² As the Supreme Court has recognized, “the Commission’s intention was to indicate that the presence of islands at the mouth of an indentation tends to link it more closely to the mainland, and this consideration may justify some alteration in the ratio between the width and the penetration of the indentation.” *Louisiana Boundary Case*, 394 U.S. at 56, quoting *Commentary of the International Law Commission 2 Y.B. Int. L. Comm’n 296 (1956)*.

The General Proposition

Islands may create multiple mouths to a bay in three circumstances. First, an island or islands may be intersected by a direct line between the mainland headlands. Second, an island or group of islands may, although not intersected, so clearly affect the nature of the waters both landward and seaward, that the gaps between islands should be considered mouths to the indentation. Finally, an island may be so closely related to the mainland that it should be assimilated to it.³⁰³ It may then serve as the “mainland” headland.

INTERSECTED ISLANDS. Islands that lie directly in the mouth of a bay, that is, are intersected by the mainland-to-mainland closing line, provide the easiest example of multiple mouths. (Figure 71) The mouths are lines connecting the natural mainland headlands to headlands on the intersected islands and similar lines connecting adjacent islands. The headlands are selected just as mainland headlands would be. 394 U.S. at 56. Lines drawn to natural entrance points on the islands may exclude some waters that

302. Although the Article 7(3) reference is to application of the semicircle test, it is understood that the lines referred to are separate mouths for all purposes.

303. This circumstance is also discussed above with respect to headland selection.

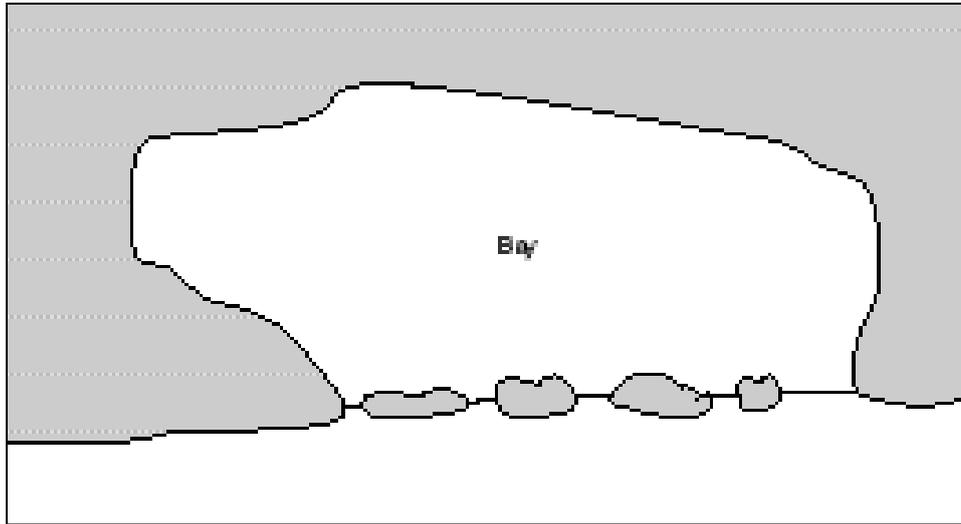


Figure 71. Multiple mouths to a juridical bay. Multiple mouths to this bay are formed by screening islands that are intersected by a straight line between mainland headlands.

would have been enclosed by a direct headland-to-headland closing line, or they may include more water area, but their selection is “not optional.” *Id.* at 57 n.77.³⁰⁴

SCREENING ISLANDS. As the Supreme Court has noted, “Article 7(3) contains no requirement that the islands be intersected by a mainland-to-mainland closing line; rather it speaks only of multiple mouths ‘because of the presence of islands.’” *Id.* at 59 n.79. “[w]here . . . a string of islands covers a large percentage of the distance between the mainland entrance points, the openings between the islands are distinct mouths outside of which the waters cannot sensibly be called ‘inland.’” *Id.* at 58.

The primary question was answered; islands need not be intersected to form multiple mouths. But two questions remained to be resolved on a case-by-case basis. Those are, what is “a large percentage of the distance between the mainland entrance points” and how far seaward or landward of the mainland-to-mainland closing line can the islands lie and still constitute separate “mouths” to the original indentation? Drs. Hodgson and Alexander concluded that “[i]f the islands serve to block more than one-half of the opening of a bay, they may be judged to ‘screen’ the mouth of the bay from the sea. Since the greater condition, i.e., more than half, of

304. Louisiana argued, unsuccessfully, that closing lines should be drawn to the “seaward most” points on intersected islands, rather than to natural entrance points on the islands. The Court pointed out that just as the presence of islands tends to link the landward waters more closely to the mainland, islands also tend to further separate more seaward waters from the indentation itself. *Id.* at 58.

the mouth is represented by islands, it should be considered to be the dominant geographic characteristic of the mouth and serve to enclose the water within the bay; these islands screen the bay from the sea.”³⁰⁵

The federal government has followed this position in its delimitation of the United States’ coast line. *Rhode Island and New York Boundary Case*, Report of the Special Master, *supra*, at 54. However, there have been few occasions for the Supreme Court or its masters to consider it. Most prominent was Rhode Island’s contention that Block Island forms two separate mouths to the combined Long Island and Block Island Sounds. Apparently ignoring the Supreme Court’s admonition that screening islands had to cover a “large percentage” of the opening, the state emphasized that mariners had to pass the island to enter the bays and would consider themselves landlocked when they had done so. Without reference to the 50 percent principle, the special master concluded that Block Island does not form part of the closing line for several subjective reasons. *Id.* at 60.³⁰⁶

Also unanswered is the question – 50 percent of what? Do the islands need to “screen” one-half of the distance between the mainland headlands or of the total closing using the islands? Logic would seem to suggest the latter. If the islands form multiple mouths, the mainland-to-mainland closing line becomes irrelevant. The “openings” of the bay are now the gaps between islands (and the most landward islands and the mainland). It would seem to be the total length of these lines, compared to the length of the intervening islands, that establishes the landlocked nature of the enclosed waters.³⁰⁷

It is established that multiple mouths may be created by islands that do not lie upon the mainland-to-mainland closing line. (Figure 72) Unanswered is the question of how far away may they be located and still be said to form multiple mouths to the indentation. Neither the experts nor the judicial decisions provide much help.

The answer may depend, in part, on whether the screening islands lie seaward or landward of the mainland closing line.³⁰⁸ In the case of a

305. Hodgson and Alexander, *Toward a More Objective Analysis of Special Circumstances: Bays, Rivers, Coastal and Oceanic Archipelagos and Atolls* 17 (1972); reiterated at Hodgson, *Islands, Normal and Special Circumstances* 40 (1973). See also: Bowett, *The Legal Regime of Islands In International Law* 31 (1979).

306. These include: the island’s location “well outside” the actual indentation; lines to the island would enclose waters that are not landlocked; and the island is “too far seaward of any mainland-to-mainland closing line” Report at 60.

307. We refer to the “length” of the islands only for convenience. It would seem that the proper “island measurement” for this purpose would be a straight line between its natural entrance points. Many islands would be slightly longer than such a line, but their portions extending beyond natural entrance points would do nothing to enclose landlocked waters and would seem inappropriate for this measurement.

308. All political geographers have assumed that screening islands may move bay closing lines seaward of what would constitute inland waters in their absence. The Supreme Court has said that the reverse is also true. *Louisiana Boundary Case*, 394 U.S. at 58 and *Rhode Island and New York Boundary Case*, 469 U.S. at 523.

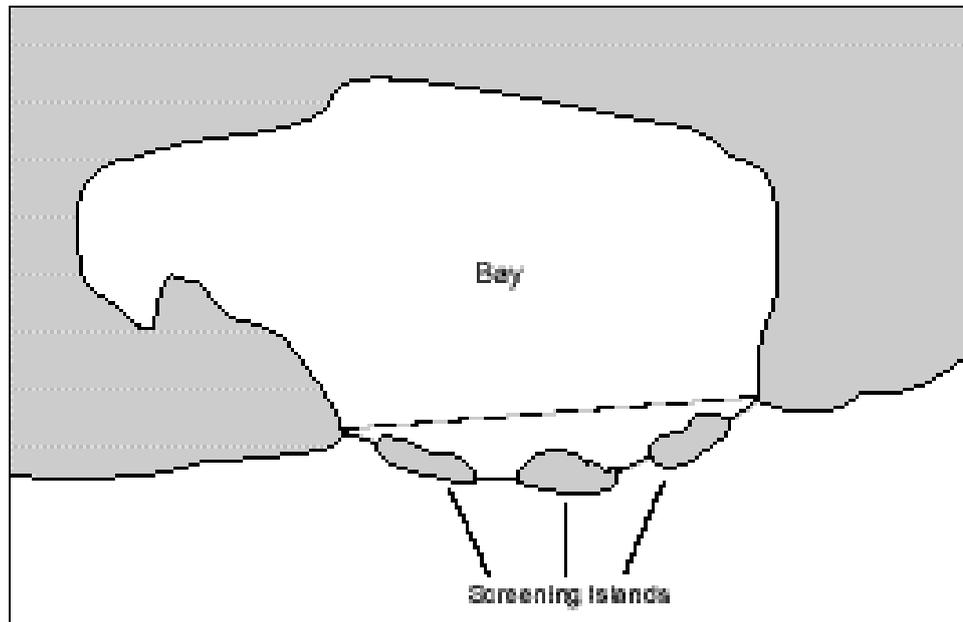


Figure 72. Multiple mouths to a juridical bay. Here multiple mouths are formed by screening islands that are seaward of a straight line between mainland headlands.

seaward screen, the logical approach would seem to be to calculate the land-to-water ratio as suggested above, i.e., measuring the water gaps and island stretches and comparing the two. If there is more land than water, and the water crossings do not total more than 24 nautical miles, the islands should be considered to create multiple mouths.³⁰⁹ The combined 50 percent and 24-mile rules assure that enclosed waters will be landlocked. Islands that are so far offshore as to seem inappropriate as candidates to form multiple mouths will fail these tests.³¹⁰

Screening islands that lie landward of the mainland headlands create a different problem. (Figure 73) If they are in the vicinity of the mainland-to-mainland closing line they clearly create multiple mouths (assuming that they screen more than 50 percent of the closing). However, it seems unreasonable here to insist that they form multiple mouths to the primary

309. The 24-mile maximum is a separate requirement of the Convention. Article 7(4) provides that "[i]f the distance between the low-water marks of the natural entrance points of a bay does not exceed twenty-four miles, a closing line may be drawn between these two low-water marks, and the waters enclosed thereby shall be considered as internal waters."

310. Prescott has suggested that "it is uncertain how far inside or outside a bay they can be located before this provision does not apply." *The Maritime Political Boundaries of the World*, 56 (1985). Shalowitz opined that "[t]he best solution would be to consider each case on its merits and apply a rule of reason." 1 Shalowitz, at 225. We believe that the combination of the 50 percent and 24-mile principles solves the problem.

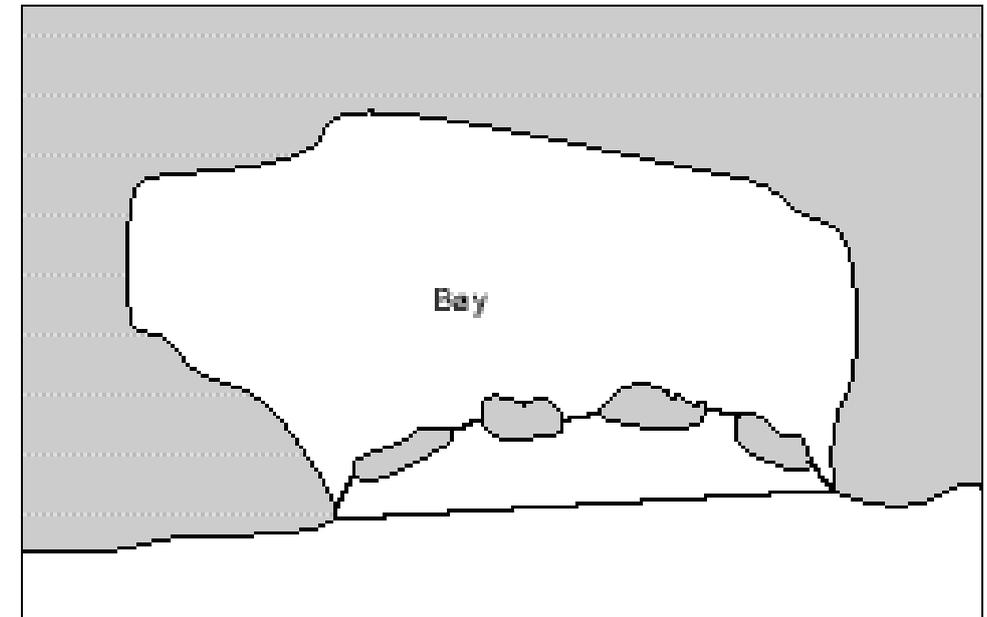


Figure 73. Multiple mouths to a juridical bay. Here multiple mouths are formed by screening islands that are landward of a direct line between mainland headlands.

indentation, no matter how far inland of the initial closing line, just because the 50 percent and 24-mile rules are met. That is so because in this instance the waters of the primary indentation, in the absence of islands, would be landlocked by the mainland headlands.

As the Supreme Court has said, islands that form multiple mouths add to the landlocked nature of the waters shoreward but, likewise, bolster the character of seaward areas as open sea. 394 U.S. at 58. Islands well within an indentation would not seem to separate all waters seaward of the mainland headlands from the open sea. At most they might be considered to form the mouths of subsidiary bays and, as such, have no effect on the coast line.

While there is no readily apparent geographic test for determining how far into the bay an island screen might be if it is not to be treated as forming multiple mouths, it seems reasonable to suggest that at some distance the islands should be ignored and a closing line drawn between the original mainland headlands. The *ad hoc*, "reasonable," approach, so often employed to resolve juridical bay questions, may be the only criterion.

ISLANDS ASSIMILATED TO THE MAINLAND. The third situation in which islands have been said to create multiple mouths to a bay is when they are so closely related to the mainland as to be reasonably treated as

part of it. Here the same principles come into play as are discussed above in the context of headland selection. Land formations completely surrounded by water, yet separated from the mainland by only narrow channels, may be treated as part of the mainland and are available as headlands. They might, of course, affect the location of the closing line. They do not technically, however, create multiple mouths because after they are determined to be assimilated to the mainland, the water area separating them from the mainland is not treated as a mouth, but as land.³¹¹ In sum, whether or not an island is assimilated to the mainland will be determined through application of the criteria set out by the Court in the *Louisiana Boundary Case*, 394 U.S. at 66. If assimilated, it will become a potential mainland headland. In that case a multiple mouth will not be created. If not assimilated, it will affect the closing line if intersected by the mainland-to-mainland closing line or if part of a substantial screen.

Screening Islands and the Mainland Termini

In the classic example, screening islands will produce a series of closing lines beginning from a mainland headland, extending to a headland on the nearest island, running from island to island, and eventually crossing from the last island in the chain to the opposite mainland headland. However, the selection of lines connecting the island chain to the mainland headlands is complicated if the screening islands continue beyond the natural entrance points on the mainland. Dr. Hodgson discussed this situation and concluded that “the bay closing-line would not be continued along the line of the islands unless they form a part of a straight baseline system. The bay-closure line should terminate at the natural headland of the bay.” Hodgson, *Islands: Normal and Special Circumstances*, *supra*, at 40. It turned out, however, that the principle is difficult to employ in some instances. For example, when considering the mouth of Buzzards Bay, Massachusetts, the federal Baseline Committee concluded that the Elizabeth Islands screen the bay, forming multiple mouths, but that when they are used it is no longer logical to use the original mainland headlands and new headlands were employed. (Figure 74) The Committee decided as a matter of policy that “screening islands may be used to establish new [mainland] headlands for a bay (i.e., it is not necessary for the closing line to return to the original headlands), provided that a juridical bay is determined to exist in the first instance without considering the presence of the screening

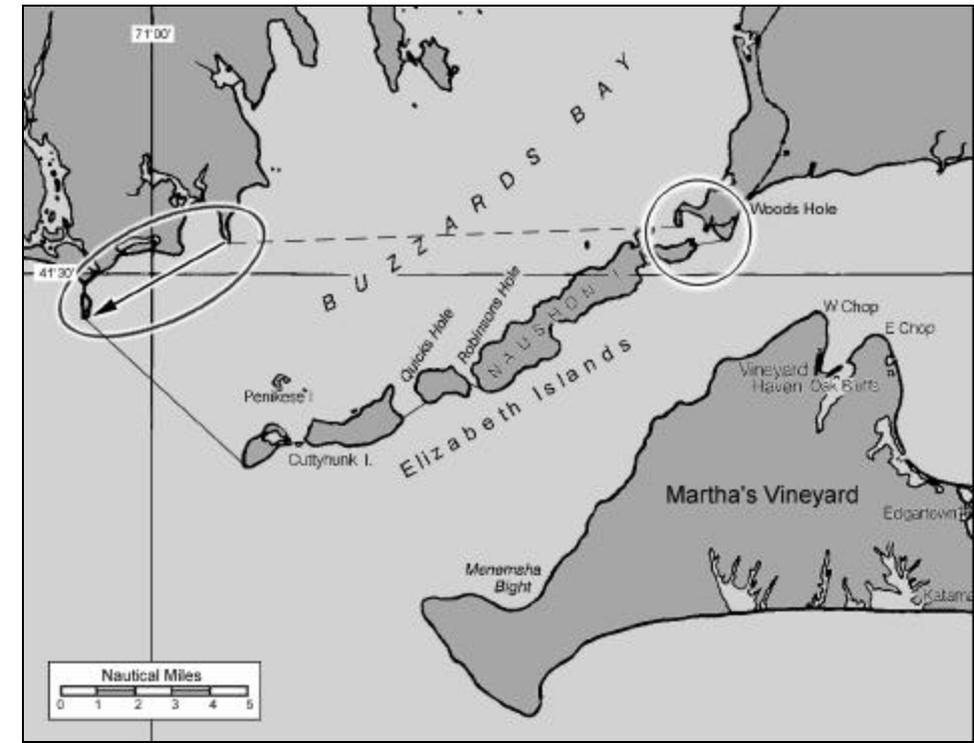


Figure 74. Buzzards Bay, Massachusetts. Screening islands forming multiple mouths to the bay alter both entrance points. (Based on NOAA Chart 13200)

islands and provided also the new headlands meet the 45-degree test.” Minutes of March 17, 1982. The actual application of these principles will undoubtedly depend on what appears to be reasonable under particular circumstances.

In the case of Buzzards Bay, Massachusetts, screening islands move both mainland headlands seaward. A substantial additional area of inland water is enclosed.

Non-Geographic Criteria

Rhode Island introduced a number of additional arguments in support of its contention that Block Island creates multiple mouths to the Long Island/Block Island Sound complex. These included the facts that: “coastal traffic routinely passes outside of Block Island; commercial vessels rarely go between Montauk Point and Block Island because of the hazardous underwater conditions there; Block Island provides shelter in rough weather; the salinity of the water in Block Island Sound is less than that of

311. The length of that gap, for example, is not included in the length of the closing line for purposes of the 24-mile rule or semicircle test. *United States v. Louisiana*, 394 U.S. at 62 n.83 (1969).

water of the open sea; the island has an effect upon the currents of Block Island Sound; and these factors together link Block Island to the indentation rather than to the open sea.” *Rhode Island and New York Boundary Case*, 469 U.S. at 510-511. After reviewing its interpretations of Article 7 from the *Louisiana Boundary Case*, the Court merely concluded that “[n]owhere has it been suggested that because ocean traffic headed into a bay happens to pass landward of an island in open sea in order to enter that bay, the island therefore marks an entrance point to the bay. Nor is such a theory a fair extrapolation of Articles 7(2) and (5) of the Convention.” 469 U.S. at 525.³¹² The Court declined to hold that Block Island formed multiple mouths to a bay.³¹³

In so doing the master and Court focused on the two-dimensional geography of the area. The federal government has always advocated that approach in juridical bay determinations.

Examples of Multiple-Mouth Bays

The *Louisiana Boundary Case* provided a number of claims that islands create multiple mouths to juridical bays. Most common were the state’s attempts to use mudlumps off the Mississippi River passes to extend admitted bay closing lines farther seaward. In a few cases the mudlumps were agreed to be so closely connected to the mainland as to be assimilated to it and provide mainland headlands. In some, the mudlumps were intersected by the mainland-to-mainland closing line and were agreed to create multiple mouths. In no case were mudlumps found to screen a large percentage of the opening and, therefore, produce multiple mouths where they were not intersected. See, for example, Report of July 31, 1974, at 38.³¹⁴

The Lake Pelto-Terrebonne Bay-Timbalier Bay complex, on the other hand, is clearly screened by a fringe of barrier islands. Again the parties

312. The Court had explained that “under any reasonable interpretation of the Convention, Block Island is too removed from what would otherwise be the closing line of the bay to affect that line. Block Island is nearly 12 miles from Montauk Point and 7 miles from the nearest land. At no point is it closer than 11 miles from the 14-mile mainland-to-mainland closing line between Montauk Point and Watch Hill Point.” 469 U.S. at 524.

313. Special Master Hoffman had recommended that result, finding that “Block Island is located well outside the indentation which begins at the Montauk Point to Watch Hill Point Line. Second, if the closing line included Block Island, there would be waters inside the closing line which are not landlocked. Third, the natural entrance or mouth of the indentation is along the Montauk Point to Watch Hill Point line and Block Island does not form the mouth to the bay or cause the bay to have multiple mouths. Last, Block Island is too far seaward of any mainland-to-mainland closing line to consider altering the closing line to include Block Island.” Report of October Term 1983, at 60.

314. Elsewhere the master explained that “[n]or are the additional mudlumps relied upon by Louisiana as causing the closing line to deviate to the seaward sufficient to constitute a screen across the mouth of the bay, as they certainly do not cover a large percentage of the bay’s opening, but only a very small portion of it at one terminus. Moreover, they are not located along the natural closing line of the bay, but extend in a seawardly direction from it.” Report at 42.

agreed that multiple mouths were created, contending only the location of proper entrance points on the islands. 394 U.S. at 56-61. The Court’s final decree describes a baseline composed of segments connecting those islands. 422 U.S. 13 (1975).

The *Rhode Island and New York Boundary Case* had one such issue, which involved Block Island. Rhode Island used a number of theories to justify a holding that it created multiple mouths to Block Island Sound but both the master and Court declined that invitation, finding primarily, that the island is too far removed from the mainland-to-mainland closing lines to qualify.³¹⁵

The Baseline Committee has dealt with multiple mouth bays in a number of locations around our coast. Some are created by intersected islands. These include: Demarcation Bay, Agnun Lagoon, and Peard Bay, Alaska, Minutes of July 27, 1970;³¹⁶ Prince William Sound, Alaska, Minutes of August 31, 1970; the Timbalier Bay-Terrebonne Bay complex in Louisiana (which also meets the screening island requirements), Minutes of September 14, 1970; Biscayne Bay, Florida, Minutes of December 2, 1970; and Buzzards Bay, Massachusetts, Minutes of February 3, 1981.

Others are created by islands that screen more than 50 percent of the opening. These include: Pagik Bay, Alaska, Minutes of July 17, 1970; Dease Inlet and Humphrey Bay, Alaska, Minutes of July 27, 1970; Mobile Bay, Alabama, Minutes of August 10, 1970; and Pamlico/Albemarle Sounds, North Carolina (treated as a double-headed bay), Minutes of December 7, 1970.

We can conclude from the foregoing that islands can create multiple mouths to a bay in three circumstances: where they are intersected by a line between mainland headlands, where they screen the entrance to the indentation such that the islands cover more of that distance than the water gaps, and where they are assimilated to the mainland. As a consequence, the inland waters of the bay are delimited by a series of lines rather than a single closing line between mainland headlands. The multiple mouths may be landward or seaward of the mainland-to-mainland line. The semicircle test will be performed using the total of the line segments as the diameter, rather than the mainland-to-mainland line. As a consequence less water area will be required to meet the test. The line segments may not total more than 24 nautical miles.

315. Although the status of Long Island was also at issue it was found to be an island assimilated to the mainland and providing a headland without which there would have been no juridical bay, not an island forming multiple mouths to an already existing bay. 469 U.S. at 520.

316. More recent charts may indicate that the island found to be intersected at that time has migrated seaward and may no longer be intersected or create multiple mouths.

Overlarge Bays

The foregoing principles enable us to determine whether or not a bay exists but provide no limitation as to maximum size. Articles 7(4) and (5) address that point. They state that “[i]f the distance between the low-water marks of the natural entrance points of a bay does not exceed twenty-four miles, a closing line may be drawn between these two low-water marks, and the waters enclosed thereby shall be considered as internal waters.” 7(4)³¹⁷ And, “[w]here the distance between the low-water marks of the natural entrance points of a bay exceeds twenty-four miles, a straight baseline of twenty-four miles shall be drawn within the bay in such a manner as to enclose the maximum area of water that is possible with a line of that length.” 7(5). In sum, even though an indentation meets all of the requirements previously described, not all of its waters are “inland” if the mouth is wider than 24 miles. There are numerous “overlarge” bays around the world and a few have been recognized in the United States (e.g., Ascension Bay, Louisiana; Cook Inlet, Alaska; Kotzebue Sound, Alaska; and Norton Bay, Alaska). Questions have arisen in determining how the limits of inland waters are to be identified in such circumstances.

First, it is clear that the primary indentation must qualify as a bay under all of Article 7’s criteria save only the provision for a maximum 24-mile closing line. Both parties in the *Louisiana Boundary Case* accepted that starting point when contesting the status of “Ascension Bay.”³¹⁸ The United States argued that Ascension Bay is not a bay because its headlands do not create landlocked waters.³¹⁹ Special Master Armstrong disagreed. Applying the traditional criteria of Article 7, he concluded that “certainly its waters are landlocked, or, as sometimes described, *Inter Fauces Terrae*, within well marked natural entrance points. This is supported by the ratio of its depth of penetration to the width of its mouth, for it is almost perfectly semicircular in shape, the classic form of a bay. In this respect, it bears a startling resemblance to Monterey Bay, which was held to be a true bay in the California case.” Report at 45.³²⁰ The master determined that Ascension

317. Although Article 7(4) refers to “these two” low-water marks, it is clear that if, because of islands, the indentation has more than one mouth, the various mouths will be measured and totaled to determine whether the 24-mile maximum has been exceeded.

318. Ascension Bay is the name given by Louisiana to the water area that lies north and west of the southwestern tip of the Mississippi River delta. See Figure 11. We use quotation marks because the name “Ascension Bay” does not appear on most charts or maps of the area. That fact does not, of course, weigh against its potential qualification as a bay. Numerous other areas are denominated “bays” which do not meet the criteria of Article (7) and are not, therefore, juridical bays despite their names. Only geographic factors are relevant to this determination.

319. The federal government took the position that the larger an indentation, the more “pinched” the headlands should be to create landlocked waters. Neither the master nor the Supreme Court adopted that interpretation.

320. Louisiana also offered a number of international examples, including Hawke Bay, Australia.

Bay is an overlarge bay. The United States did not take exception to his recommendation and the final decree in that case includes a 24-mile fallback line within Ascension Bay. 422 U.S. 13 (1975).³²¹ (Figure 75)

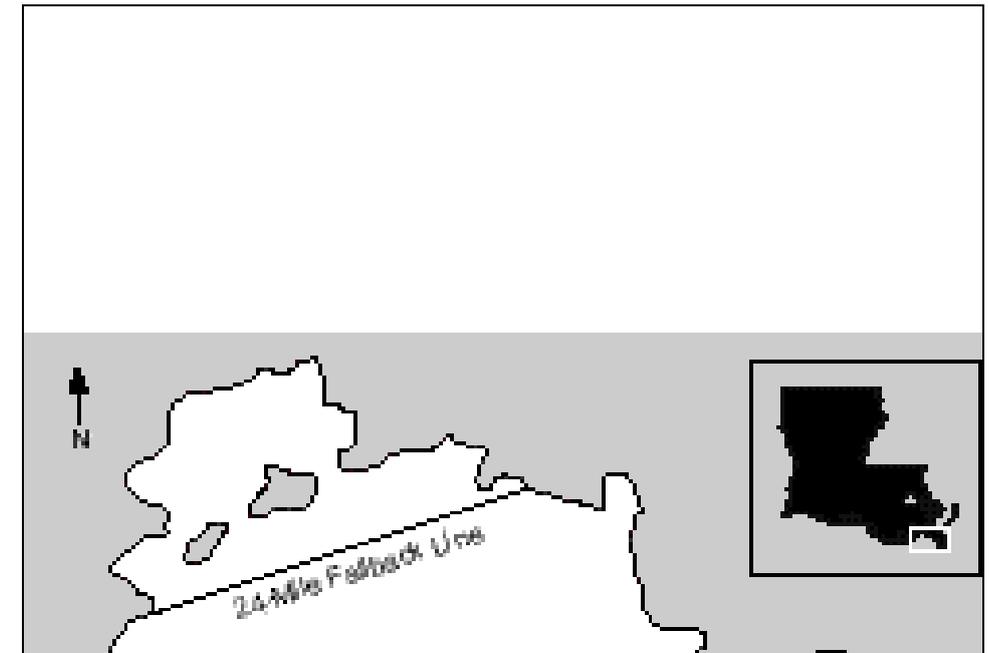


Figure 75. Ascension Bay, Louisiana. Note the dashed line across the bay's overlarge entrance and the solid, 24-mile fallback line.

The Semicircle Test

It is understood that an overlarge bay must meet the semicircle test, as well as the other criteria of Article 7. 1 O'Connell, *The International Law of the Sea*, 409 (1982). However, as with all bays there may be disagreement as to which subsidiary waterways may properly be included for purposes of the semicircle test. The Supreme Court faced this question in the *Louisiana Boundary Case* and the answer seems to depend on whether the two water bodies in question can reasonably be considered one. 394 U.S. at 48-53. The United States sought to exclude Caminada-Barataria Bay in calculating the area of Ascension Bay for semicircle purposes. The Court ruled for the state. It noted that Caminada-Barataria are separated from Ascension Bay only by a chain of islands, that islands are to be ignored for purposes of the semicircle test, and, therefore, these inner bays should be included in testing Ascension Bay's qualifications. *Id.* at 53.

321. The Baseline Committee approved the alteration of its charts to reflect this determination. Minutes of September 18, 1975.

Determining the Maximum Area of Water

Once an overlarge bay is identified it remains to determine where within that bay a 24-mile fallback line is to be drawn that encloses the maximum area of water as dictated by Article 7(5). Whether or not the water of subsidiary bays is calculated toward this maximum may have a significant effect on the location of that line. If their area is considered as part of the “maximum” water area being enclosed by the 24-mile line, other areas may be left as territorial or high seas that might have been enclosed by a different fallback line. Louisiana took the position that it could first draw closing lines across all interior water bodies that qualify separately as juridical bays, then construct a 24-mile fallback line that encloses a maximum of the water area not already determined to be inland. The United States argued that subsidiary water bodies whose area had been used to qualify the overlarge bay under the semicircle test should not be disregarded in measuring the parts of the bay to be enclosed by the 24-mile line. That is, the area used for semicircle purposes should be identified, a 24-mile line drawn that encloses the maximum portion of it, and other areas used for semicircle measurement should not be considered inland. 394 U.S. at 49 n.64.

The Court rejected the federal position. It held that any feature that separately meets Article 7’s criteria will not be denied inland water status just because it was treated as part of the overlarge bay for semicircle test purposes but happens not to fall within the area closed by the 24-mile fallback line. *Id.* It is less clear, but seems to follow, that the line of maximum enclosure can be determined without reference to waters already qualifying as inland.

Enclosing the maximum water area (apparently not including waters already inland) is the only criterion for locating the 24-mile fallback line. The area that it encloses need not meet any of the criteria for being landlocked. The line need not run between natural headlands. Prescott, *The Maritime Political Boundaries of the World* 60 (1985). Nor must the enclosed area meet the semicircle test.

Left unanswered is the question – must the termini of the 24-mile line fall on land or might it be drawn to the closing line of a subsidiary bay? It is easy enough to imagine the situation in which the maximum water area (not already encompassed by subsidiary bays) is enclosed by a line that terminates on a bay closing line. (Figure 76) It is unclear whether such a line is authorized by Article 7(5).

Examples of Overlarge Bays

Ascension Bay is not the only overlarge bay that has been the subject of litigation. Cook Inlet, Alaska, is unquestionably an overlarge bay. The state contended that it is also a historic bay, and therefore inland despite the

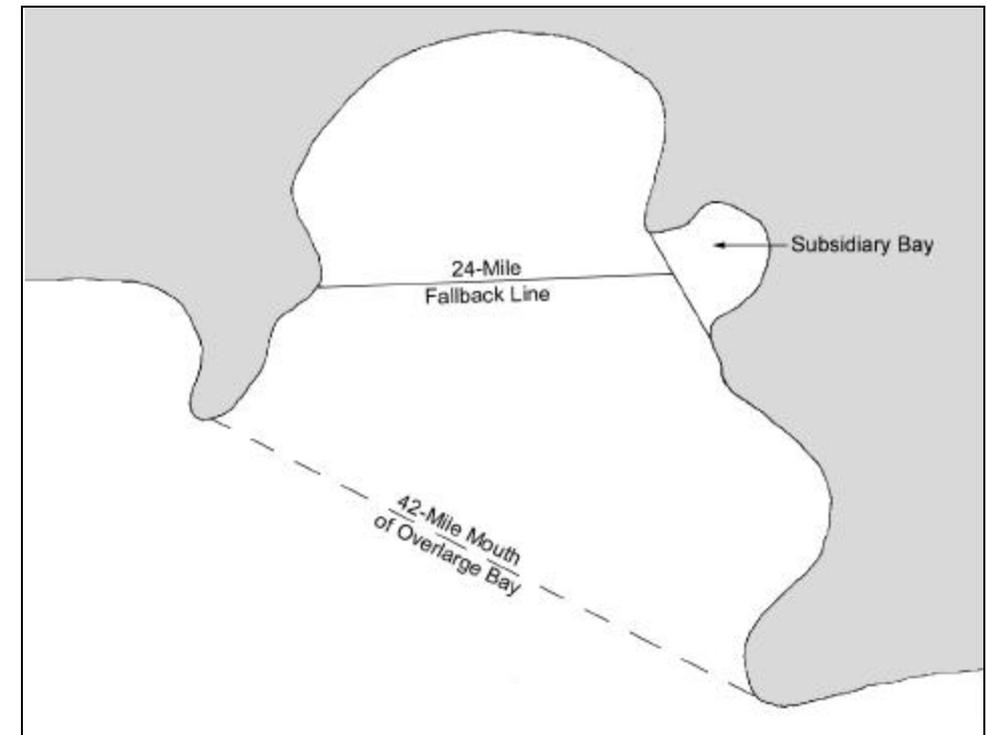


Figure 76. An overlarge bay with 24-mile fallback line terminating on the closing line of a subsidiary bay.

geographic limitations of Article 7.³²² Although Alaska was successful in the United States District Court, *United States v. Alaska*, 352 F.Supp. 815 (D.Ak. 1972), and the Ninth Circuit Court of Appeals, 497 F.2d 1155 (9th Cir. 1974), the Supreme Court rejected its claim. 422 U.S. 185 (1975). Thus, a 24-mile fallback line had to be constructed within Cook Inlet. The result is a pair of lines running from the mainland on either side of the Inlet to Kalgin Island, which lies within it. Together the lines total 24 miles and enclose the maximum water area at the head of Cook Inlet.³²³ (Figure 77)

The Baseline Committee has considered a number of other overlarge bays that have not been litigated. Kotzebue Sound, Alaska, was determined to be an overlarge bay and a 24-mile fallback line first was constructed from Espenberg Light to the low tide flats considered to be part of the mainland in front of Kotzebue Light. Minutes of September 14, 1970. When those flats dropped below mean low water the 24-mile line was moved to the

322. Article 7(6) provides that “[t]he foregoing provisions shall not apply to so-called ‘historic’ bays”

323. Although the Convention refers to “a straight baseline of twenty-four miles” the United States took the position that a combination of lines not exceeding that length could be used. See also, Beazley, *supra*, at 22-23.

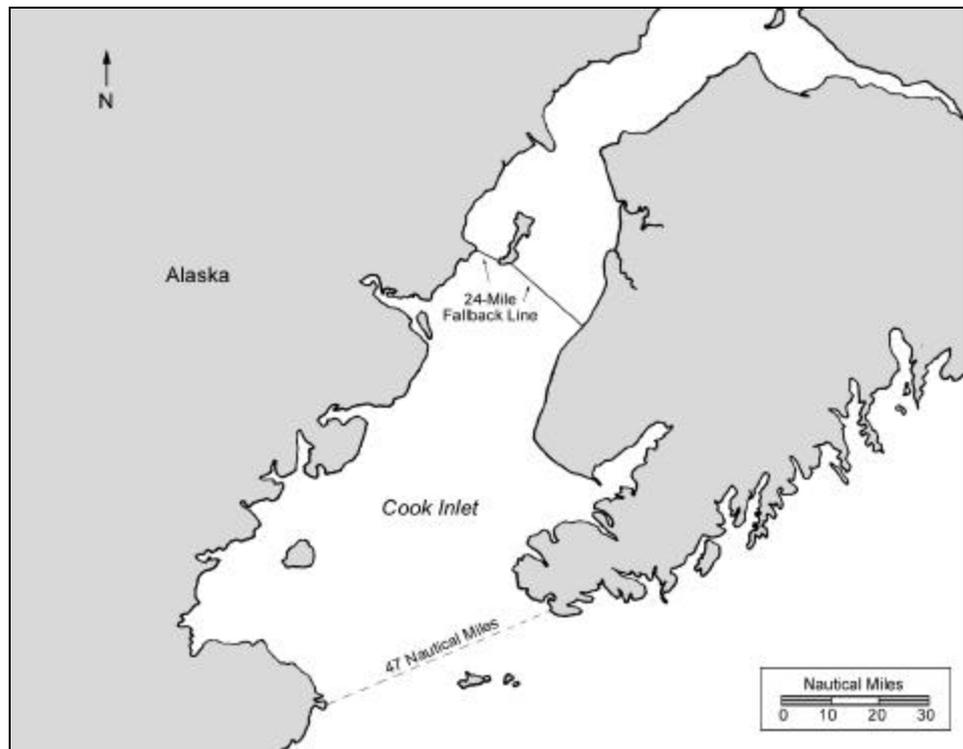


Figure 77. Cook Inlet, Alaska. Note the dashed line joining natural entrance points to this overlarge bay and the 24-mile fallback line at Kalgin Island.

southwest corner of the Sound. Norton Bay, Alaska, was considered an overlarge bay and a fallback line drawn within it. *Id.*

It seems established that any indentation that meets the criteria of Article 7(2) and the semicircle test is a “bay” for purposes of the Convention. Bays whose natural entrance points are more than 24 miles apart may not be closed at those entrance points but will be permitted a closing line of 24 miles, which encloses a maximum area of water. For purposes of determining whether the original feature meets the semicircle tests, the area of subsidiary bays may be included under certain circumstances. Nevertheless, subsidiary juridical bays that are not thereafter enclosed by the 24-mile fallback line retain their inland water status.

RIVERS

From time immemorial river waters have been understood to be inland waters. The Convention on the Territorial Sea and the Contiguous Zone provides that “[i]f a river flows directly into the sea, the baseline shall be a straight line across the mouth of the river between points on the low-tide

line of its banks.” Article 13.³²⁴ Controversies have arisen only in determining the location of that “mouth” and identifying the points on the banks that serve as termini of the closing line.³²⁵

Definitions

Resolving these controversies begins with the definition of “river.” There have been many. Commonly accepted elements include: fresh water, naturally flowing from a region of higher elevation to a region of lower elevation, which is contained between parallel or nearly parallel banks. Testimony of Dr. Robert Hodgson before the special master in *Texas v. Louisiana*, Number 36 Original, Transcript at 522-529.³²⁶ With these elements in mind we turn to the process of locating a particular river mouth.

The Convention’s Criteria

The Convention on the Territorial Sea and the Contiguous Zone provides help in locating a river’s mouth.

Directly into the Sea

The first consideration is that Article 13 applies only to rivers that flow “directly into the sea.” In the simplest case the parallel banks of the river form right angles with the shore of the open sea and a direct line between those angles defines the river “mouth.” If there is any question as to the precise entrance points on the banks, they can be determined through the various methods used to define the mouths to juridical bays. But seldom do rivers, particularly large ones, retain their riverine character all the way to the sea. More commonly, their banks begin to diverge as they approach the sea, often forming an estuary that has none of the appearance of a typical river.

Estuaries are not to be treated as part of the river for purposes of Article 13. That was made clear in early drafts of the Article, which included a second provision that read “[i]f the river flows into an estuary the coasts of

³²⁴ Article 9 of the 1982 Law of the Sea Convention is identical, save for its use of the term “low-water” rather than “low-tide” line.

³²⁵ Unlike bays, river mouths are rarely so wide that they have any significant effect on the seaward limit of the territorial sea. Nevertheless, we must be able to determine the limit of their inland waters for other reasons. For example, environmental statutes may impose different conditions for inland waters than for the territorial sea, making it important to determine whether an outfall pipe, for instance, discharges into a “river” or the territorial sea beyond.

³²⁶ For additional definitions and discussions of the evolution of the treatment of rivers in international law see: 4 Whiteman, *Digest of International Law* 336 *et seq.* (1965); 2 Shalowitz, 371 *et seq.* (and glossary) (1964); 1 Fauchille, Part 2, *Traite de Droit International Public* 401 (1925); and Report of the Special Master in *Georgia v. South Carolina*, Number 74 Original of October Term, 1985, at 110.

which belong to a single State, article 7 [bays] shall apply.”³²⁷ That language was deleted from the final draft, not because the representatives intended to alter that position, but because of difficulties in defining “estuary.” Churchill and Lowe, *supra*, at 34.³²⁸ The single requirement that Article 13 applies only to rivers flowing “directly into the sea” achieves the same result.

Subsequent expert comment and practice confirm that interpretation. G. Etzel Percy, then geographer of the Department of State, wrote in 1959 that “an article concerning estuaries was approved by Committee action at the Law of the Sea Conference, but failed to gain the necessary majority in the final Convention. Thus, estuaries must legally qualify as bays.” Percy, *supra*, at 8. The United Kingdom’s official comment on the proposed Article 13 had already made clear that country’s position that “‘mouth of a river’ means the river proper and not an estuary or bay into which it may flow.” Report of the International Law Commission, Seventh Session, 1955, A/2934, p. 44. Commander Beazley later opined that the English and French texts taken together make clear that “other provision is to be made for rivers that flow into a bay or form an estuary.” Beazley, *supra*, at 14, and “since a river mouth is an ‘indentation’ of the coast [it] can therefore conveniently be handled under the clearly artificial concept of a juridical bay.” *Id.* at 26.

O’Connell likewise recognizes that “Article 13 of the Geneva Convention covers only the case where a river maintains its stream shape, that is, flows directly into the sea,” O’Connell, *supra*, at 225, but he does not specifically identify the Article 7 rules for treating estuaries. Rather, he simply concludes that “other cases are left unresolved . . .,” *id.*, and that “a criterion may be necessary to establish the baseline of the territorial sea.” *Id.* at 221.

American practice has been to apply the bay principles to estuaries. The Supreme Court has decreed, for example, that a river estuary is treated in the same way as a bay. *United States v. California*, 382 U.S. 448, 451 (1965).³²⁹

327. Report of the International Law Commission covering the work of its eighth session, 23 April-4 July 1956, U.N. Gen. Ass. Off. Rec. 11th Sess., Supp. No. 9 (A/3159), p. 18; II Yearbook of the International Law Commission 1956, pp. 253, 271-272. Discussed at 4 Whiteman, *supra*, 339 *et seq.*

328. Interestingly, the French text of the Convention retained the expression *sans former estuaire*. O’Connell refers to its inclusion as an “accident,” which “suggested an interpretation which would re-establish the equation of bays and estuaries.” 1 O’Connell, *supra*, at 225.

329. The issue came up again in *United States v. Louisiana* where, on first blush, it might appear that the Mississippi River delta is an estuary. But, as the special master pointed out, it is not a true estuary because the major mouths of the Mississippi do not empty into it, but flow directly to the open Gulf of Mexico. *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 27 and 394 U.S. 11, 74 n.99. Nevertheless, the construction of a baseline along that delta is consistent with the federal interpretation of Article 13. When the provisions of Article 7 were applied to waters between the major distributaries of the Mississippi River, such as East Bay, a question arose as to the proper application of the semicircle test. In an effort to maximize water area, Louisiana urged that minor river channels emptying into the bays should be included. It was eventually determined that those areas of “riverine” character should not be included as part of the bay-like indentations into which they emptied. Just as a river does not include the more open waters of a bay into which it flows, that bay does not include waters of the river.

The position has also been taken internationally. In 1961 Uruguay and Argentina agreed upon a line that purported to be the mouth of their common boundary, the Rio de la Plata. The banks of the Rio de la Plata, like many great rivers, diverge as they approach the sea, creating an estuary of substantial width. Nevertheless, the parties cited Article 13 as authority for their closing line. The United States protested the action, stating that the Article “relates only to rivers which flow directly into the sea which is not the situation of the River Plate which flows into an estuary or bay.” Quoted and discussed at 4 Whiteman, *supra*, at 343.³³⁰ Thus it is well settled in American practice that a river’s “mouth” is located where its parallel banks diverge to the point that the water body can no longer be described as “riverine.” It is then either a bay, estuary, or the open sea. In the first two instances it will be nevertheless inland if the criteria of Article 7 are met.³³¹

The rule alone does not, of course, solve all of the practical problems. As delegates to the first Law of the Sea Conference recognized, it is not easy to determine where an estuary, bay, or the open sea begins. That question must be left to case-by-case determination with the guidance of political geographers.

We should note that a finding that the river has ended before it reaches the open sea may have significant consequences for the limits of offshore jurisdiction. Article 7 may not permit an inland water closing line in the circumstances, or its line may be shoreward of the entrance to the open sea. First, by its terms, Article 7 applies only to bays of a single state, not boundary bays. Article 7(1). Article 13 appears to have no such limitation. Thus, if for example the Rio de la Plata had parallel banks all the way to the sea it might be closed by a line with termini in Uruguay and Argentina.³³² Its estuary cannot be so closed, as noted in the United States’ diplomatic protest, because Article 7 does not apply to boundary bays. 4 Whiteman, *supra*, at 343. Next, even a non-boundary estuary would have to constitute a well-marked indentation into the coast and enclose enough water area to meet the semicircle test.³³³ Although commentators have often assumed that an estuary would qualify, the conclusion is hardly a given. Finally, Article 13 has no limit on the width of a river mouth. By contrast, if the

330. The United Kingdom and the Netherlands made similar protests. *Id.*

331. Such waters will also be inland if the area is enclosed by Article 4 straight baselines, is a port, or is historic inland water.

332. The United States took the contrary position in protesting the Rio de la Plata closing line, stating that “it is the view of the United States Government that the provisions of Article 13 relate only to rivers which flow directly into the sea from the territory of a single State and not to rivers whose coasts belong to two or more different States.” 4 Whiteman, *supra*, at 343.

333. Ironically, although a party seeking to maximize offshore jurisdiction will benefit from establishing that a river continues until it meets the open sea, if it in fact empties into a bay or estuary it may be to his advantage to urge the most inland possible reach of the bay to increase its potential for meeting the semicircle test.

mouth of an Article 7 bay is more than 24 miles across, inland waters are limited to a fallback line of 24 miles within the bay. Article 7(5).³³⁴

A Straight Line

Article 13's second requirement is that the baseline at a river mouth shall be a "straight line." That characteristic would seem to go without saying, since all inland water closing lines, or line segments, are straight lines.³³⁵ In rare circumstances a straight line between points on the banks of a river might intersect an island lying in the mouth. In that situation the rules for constructing multiple mouths might be applied, resulting in two line segments. Rarely, if ever, would maritime boundaries be significantly affected.

In unusual circumstances, parties have urged that a river mouth should be described as an area (such as a circle or rectangle) rather than a straight line. Report of the Special Master in *Georgia v. South Carolina*, October Term, 1975, at 110. Such a designation might include areas that have a particular relationship with the river, such as a bar or continued flow of fresh water, but would be difficult to apply for boundary delimitation purposes. In any case, the straight line requirement would seem to preclude their consideration.

The term "straight line" seems to have replaced the requirement, in early drafts of the Article, that closing lines across river mouths "follow the general direction of the coast." In 1930, the Hague Conference for the Progressive Codification of International Law considered maritime boundary questions and its subcommittee drafted a provision providing that "the waters of the river constitute inland water up to a line following the general direction of the coast drawn across the mouth" Report of the Second Commission (Territorial Sea), Appendix B, League of Nations Doc. C.230.M.117.1930.V., p. 14. The Department of State described this as the United States' position in 1951, 4 Whiteman, *supra*, at 337, and it was employed (without controversy) in *United States v. California*. Reports of the Special Master of May 22, 1951 at 6 and 8 and October 14, 1952 at 4. See also: 2 Shalowitz, *supra*, at 371.

That definition was a starting point for discussions that led to the 1958 Convention; however, it became clear that it is impractical to attempt to define the general direction of any coast. Any determination depends, to a

334. This point was also made in the United States' protest to Uruguay and Argentina, whose line exceeded 24 nautical miles.

335. The special master in *United States v. California* even justified his choice of a segment of the closing line across San Pedro harbor in part on the ground that it more nearly continued a "straight line" when considered with other segments of the closing. However, nothing in the Convention's history suggests that the various closing lines at multiple mouths of a water body need remain on a constant bearing. To the contrary, the Supreme Court has considered such lines and determined that their termini are located at "natural entrance points" on the land forms that create the multiple mouths. *United States v. Louisiana*, 394 U.S. 11 (1969). It gave no indication that separate segments must form a "straight line."

large extent, on arbitrary decisions as to the scale of chart to be used and the length of coastline on either side of the river mouth. As a consequence, the requirement was dropped. 4 Whiteman, *supra*, at 339-340.³³⁶

We can assume that if the question comes up again in U.S. litigation, the Convention's definition will be adopted and "general direction of the coast" will be given no weight in river mouth delimitation.

On the Low-Tide Line of its Banks

Finally, Article 13 provides that the river closing shall join two points "on the low-tide line of its banks." Two questions have arisen. The first is the definition of "banks" and the second, how specific end points are to be selected.

WHAT ARE BANKS? Surprisingly, two tidelands cases have dealt with the definition of river banks.

Artificial Structures. Artificial structures may actually extend the natural "mouth" of a river well into the larger body of water into which it flows. The matter was put before the Supreme Court in *Texas v. Louisiana*, Number 36 Original (in which the federal government intervened). It is not unusual to have parallel jetties extending out to sea from the original banks of a river. Without such jetties the flow of river water would dissipate and slow as it entered the sea, bay, or gulf and deposit its silt in the shallow nearshore waters, hindering navigation. Jetties permit the river flow to continue at a greater pace until it reaches deeper water, where the deposits have less effect. The Sabine River, which forms the boundary between Texas and Louisiana, has jetties at its mouth that extend some 3 miles into the Gulf of Mexico. (Figure 78)

Texas contended that the mouth of the Sabine River is a line drawn where its "natural" banks meet the Gulf. It would have ignored the jetties for purposes of locating the river mouth. Louisiana (supported by the United States) took the contrary position. It argued that the jetties extended the river mouth to their seawardmost location, reasoning that the parallel jetties merely continued the original riverine character and, in fact, carried the same river waters.³³⁷

336. It is interesting to note that although the "general direction" requirement was dropped from Article 13 in the 1958 Convention, it reappears in Article 4, which provides that straight baselines "must not depart to any appreciable extent from the general direction of the coast" Article 4(2).

337. In fact, this part of the controversy was really about the location of an offshore extension of the states' river boundary. Substantial petroleum resources were known to exist near the mouth of the Sabine. However, the states' river boundary had never been extended to the limits of their offshore boundaries. A number of theories may be employed for constructing lateral boundaries. However, most logical options would favor Texas if initiated at the natural coastline and Louisiana if begun at the seaward end of the jetties. Because Texas was granted a 3-league (9-nautical mile) Submerged Lands Act boundary, and Louisiana only 3 nautical miles, the remaining area of federal jurisdiction would be maximized with the Louisiana position, hence the federal intervention on that state's side. (Although, it should be noted, the United States developed its theories and evidence separate from Louisiana and did not adopt most of the state's theories.)

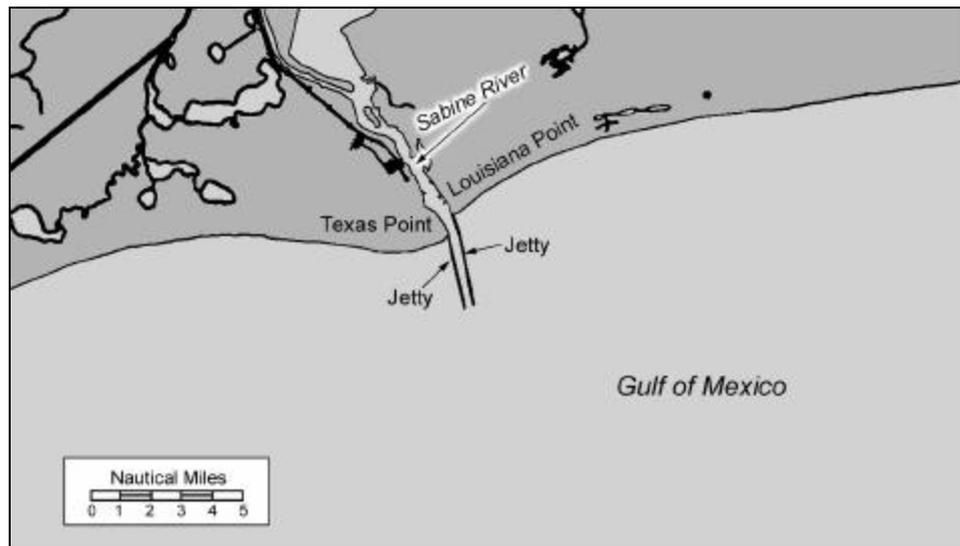


Figure 78. Sabine River. Jetties form the mouth of the Sabine River at the Texas/Louisiana border. (Based on NOAA Chart 11340)

Texas presented expert testimony focusing on the waters outside the jetties. Its witness concluded that the mouth of the river should be drawn at the natural shore, ignoring the jetties. He explained (with some degree of common sense) that “I have difficulty picturing river banks with water on both sides.” Transcript at 965. The Louisiana and federal witnesses focused on the area inside the jetties, noting that it met the traditional definition of a river and, indeed, the jetties had been constructed at great expense for the purpose of extending the river. The special master explained that “there is evidence and testimony from which it could be found that the jetties extend the river and that the mouth of the river is now actually at the gulfward terminus of the jetties The geographic middle of the river is therefore the middle of the jetties.” Report of October Term, 1974, at 15. He went on to conclude that “the baseline should include the jetties of Texas and Louisiana. Any construction of Article 13 which requires the baseline to include a closing line at the head [landward end] of the jetties, rather than at the terminus, is rejected.” *Id.* at 48. Exceptions were taken by the states, but the Supreme Court adopted its master’s recommendations. *Texas v. Louisiana*, 406 U.S. 465 (1976).

Rivers have also been closed at the seaward limit of jetties on the coasts of California and Florida, although by stipulation not litigation.

Submerged Features. Submerged features have also been proposed as river “banks” between which a closing line could be drawn. The location of the mouth of the Savannah River was at issue in *Georgia v. South Carolina*, Number 74 Original. The river’s southern headlands was agreed to extend to the limits of Tybee Island. However, there is no obvious mainland headland on the north. A number of options were proposed. The master concluded, and the Court later agreed, that the northern headland is a submerged shoal which runs parallel with Tybee Island. Report of October Term 1974, at 111.³³⁸

The Supreme Court agreed. After acknowledging that the situation is unusual because “the most seaward point of land on the southern side of the river, has no counterpart of high land on the northern side,” *Georgia v. South Carolina*, 497 U.S. 376, 399 (1990), the Court explained that “[t]he geographic feature taking the place of the customarily present opposing headlands is, instead, a shoal, long recognized as confining the river.” *Id.* And that “[g]iven this somewhat uncommon type of river mouth, the Special Master’s conclusion that the northern side of the Savannah’s mouth is the underwater shoal is not unreasonable.” *Id.* at 400.

But the Savannah River example probably provides no precedent for interpreting the Convention or Submerged Lands Act. The mouth of the Savannah River was being located for purposes of interpreting a boundary treaty, not the Convention on the Territorial Sea. The Convention’s reference to “points on the low-tide line of its banks” makes clear that, under its provisions, features without a low-water line will not qualify as riverbanks. Had the master and Court been applying Convention principles, a different result would probably have been reached.

LOCATING ENTRANCE POINTS. Finally comes the question of how exact termini of a closing line are to be identified. Once the area of the river mouth is located, usually by establishing where its banks are no longer roughly parallel, a precise line must be drawn. The end points of that line will be selected through the same processes as are employed for determining the entrance points to a juridical bay. The 45-degree test will probably be the starting point. See: Hodgson, *Toward A More Objective Analysis, supra*, at 12. See also: 1 Shalowitz, *supra*, at 63-65.

³³⁸ In like manner Louisiana had contended that dredged channels should qualify as harborworks and be treated as base points from which the territorial sea is measured. It was unsuccessful. *United States v. Louisiana*, 394 U.S. 11, 36-40 (1969).

Boundary Rivers and Length of Closing Lines

Some question may remain as to application of Article 13 to boundary rivers and the maximum length of a river closing line, if any. Unlike Article 7, Article 13 makes no distinction between rivers that flow to the sea through the territory of a single state and those that form the boundary between two states. Nevertheless, in its protest to Uruguay and Argentina the United States took the position that Article 13 does not apply to boundary rivers. Churchill and Lowe state that “in the absence of any qualification to the contrary, [Article 13] would appear to apply both to rivers with a single riparian State as well as to rivers with two riparian States” Churchill and Lowe, *supra*, at 33. They then acknowledge the apparent contrary position of the United States. *Id.*, citing 4 Whiteman, *supra*, at 343.

Unfortunately the American position is not explained. Nor is it clear what its consequence would be. The United States has boundary rivers with both Canada and Mexico. These rivers are certainly considered to be inland waters. Surely they have “mouths.” If the limits of inland waters at these mouths are not delimited with the principles of Article 13, we know of no other principles for their delimitation. Consequently, whether Article 13 applies to boundary rivers or not it seems that it would be adopted for their purposes, without foreseeable prejudice to the international community.

Neither does Article 13 place any limit on the length of a proper closing line. Although early positions suggest limits similar to those imposed on bay closing lines, 4 Whiteman, *supra*, 337, 340, and 341, commentators agree that the final provision contains no such constraint. Hodgson, *Toward A More Objective Analysis*, *supra*, at 3; Churchill and Lowe, *supra*, at 33; and Prescott, *The Maritime Political Boundaries of the World* 51 (1985). It would appear that a river closing line, which meets the other criteria of Article 13, can be any length.

In sum, rivers are inland waters. A river is a flowing water course that is contained by roughly parallel banks. The mouth of a river is located where it enters another body of water, that is, where its riverine character ends. Where that occurs at the open sea, the “mouth” may form part of the baseline from which the territorial sea is measured. It appears that river mouths are not limited by Article 7’s 24-mile maximum closing line for bays or its admonition that the water body may not lie on a national boundary. On the other hand, if a river flows first into a bay or estuary, the rules of Article 7 will determine whether that body is inland water and, if so, where its closing line is located.

HARBORS AND PORTS

Like bays and rivers, harbors and ports are included within the internal waters of the coastal state. As a consequence, lines across their entrances form part of the baseline from which more seaward maritime zones are measured. Article 8 contains the Convention’s relevant provision. It states that “for purposes of delimiting the territorial sea, the outermost permanent harbour works which form an integral part of the harbour system shall be regarded as forming part of the coast.” Although the Article itself makes no mention of inland waters, its legislative history is clear, waters enclosed by such “harbour works” are inland.³³⁹ The United States acknowledged the inland waters status of harbors in the *United States v. California*. As Shalowitz explained “[i]t was the Government’s position that the line separating the inland waters of a harbor from the marginal sea ‘must be drawn at the point which will include that portion of the water which is enclosed in a bay or inlet and used by vessels as a place to anchor or dock to load or unload passengers or freight.’”³⁴⁰ Commentators agree.³⁴¹

As with bays, it is one thing to agree that ports comprise inland waters. It is quite another to determine where, exactly, the limits of those inland waters extend. The question was put before a special master in the *California* case. It arose in the context of the Port of San Pedro.

In its natural state the water area of San Pedro is barely an indentation in the coastline, providing little protection from the open sea.³⁴² To provide the protection necessary for a major port, the Long Beach breakwater was constructed. The breakwater is a substantial structure, roughly paralleling the natural coastline and providing protection for the waters within. The breakwater itself had been accepted as a “harborwork” and the waters of the port as “inland” in *United States v. California*, 382 U.S. 448, 451 (1966) but

339. As was the case with so much of the 1958 Convention, Article 8 evolved from a similar provision considered by the 1930 Hague Conference for the Codification of International Law. The Committee Report on the 1930 language observed that “the waters of the port as far as a line drawn between the outermost works thus constitute the inland waters of the Coastal State.” Report of the Second Committee, Conference for the Codification of International Law, The Hague, 1930, League of Nations Doc. C.230.M.117.1930.V., p. 12. This understanding continued through the Article’s final adoption in 1958 in Geneva.

340. 1 Shalowitz, *supra*, at 61; quoting Brief for the United States before the Special Master at 101 (May 1952) *United States v. California*, Number 6 Original, October Term, 1951.

341. See, for example, Prescott, *The Maritime Political Boundaries of the World* 61 (1985).

342. This is typical of much of the California coast, a fact relied upon by California when it argued, unsuccessfully, that its numerous coastal piers should be treated as harborworks because they serve as the “ports” on its otherwise mostly straight coastline.

no decision had been made on the limit of its inland waters from the eastern terminus of the breakwater back to the mainland.³⁴³ And the parties could not agree. California opted for the Anaheim Bay East Jetty as its mainland headland. The United States selected the Alamitos Bay Jetty.³⁴⁴ (Figure 79) The question for the master was which of these jetties is the “outermost permanent harborwork” of the Port of San Pedro.³⁴⁵

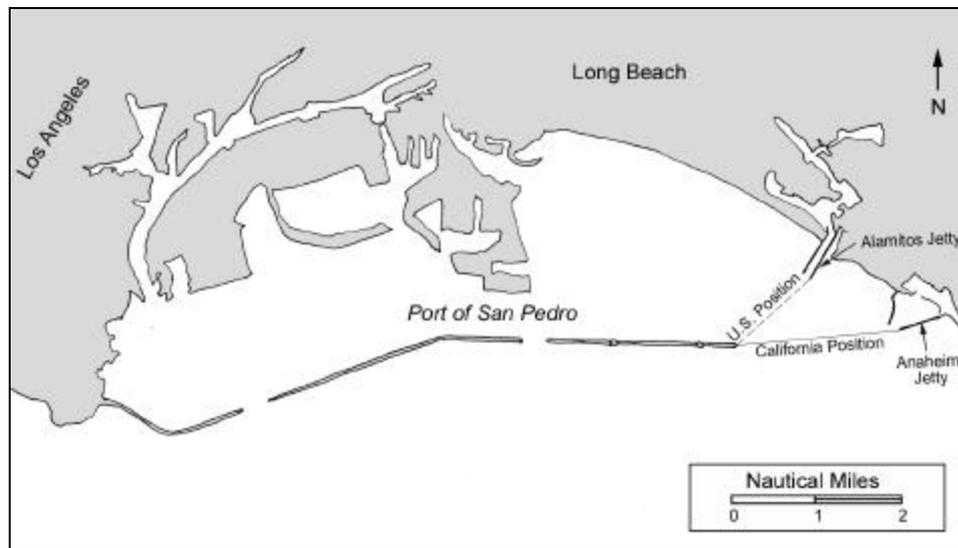


Figure 79. Port of San Pedro, California. The port is formed by artificial harborworks.

The United States emphasized geography in its position. Arguing that the port's mouth should be located through the methods employed for the construction of bay closing lines, the federal government began with the eastern end of the breakwater as one headland then turned to the mainland in search of a logical “opposite” headland there.³⁴⁶ It concluded that of the

343. “The inland waters of the Port of San Pedro are those enclosed by the breakwater and by straight lines across openings in the breakwater, but the limits of the port, east of the eastern end of the breakwater, are not determined by this decree.” *United States v. California*, 382 U.S. at 451.

344. Report of the Special Master in *United States v. California*, Number 5 Original, August 20, 1979, at 7.

345. The limits of similar inland water lines were agreed upon at Humboldt Bay, Port Hueneme, Santa Anna River and Agua Hedionda Lagoon. *United States v. California*, 432 U.S. 40 (1977).

346. Commander Beazley provided authority for that position, noting that “where an artificial sheltered harbour, such as Dover, has been built on the coast the question of determining the baselines across the entrance will seldom create difficulties, although in theory the bay rules could be applied.” Beazley, *supra* at 24.

tests discussed above for bay closing lines the shortest distance method was most applicable.³⁴⁷

California took a different approach. It denied any relevance of the bay closing rules, emphasizing function rather than geography in its quest. The state argued that all of the waters shoreward of its proposed line served as the Port of San Pedro. The special master adopted the state's theory. He looked to the use of those waters, concluded that they were all part of the “integrated” Port of San Pedro, and adopted California's proposed closing line. Report of the Special Master, *id.* at 8-13.³⁴⁸ The United States did not take exception to the master's recommendation, and that inland water line was incorporated in a subsequent Supreme Court decree.³⁴⁹

Although the minor differences between the federal and state positions result in little difference in either the limits of inland waters or more seaward maritime boundaries, the Court's adoption of the state's legal theory is significant. The mouths of other inland waters, specifically bays and rivers, are located through the application of (hopefully) objective legal principles to particular geographic areas. The idea being that any mariner who is aware of those principles, and has an accurate chart of the coastline, can determine when he leaves one zone of maritime jurisdiction and enters another. The limits of inland waters in ports, at least in American practice, are to be delimited by analyzing “function,” not geography, a chore for which the typical navigator will not possess the necessary information.³⁵⁰

That is not to say that the master and Court were wrong.³⁵¹ Ports have traditionally been defined as areas in which particular activities take place.³⁵² Article 7 gives specific objective guidance to establish the mouths of bays. Article 8 contains no similar criteria for ports. Determining the

347. The parties agreed that the usually preferable “bisector of the angle test” and “45-degree test” were not applicable here. Report of the Special Master, *id.* at 8 n.8.

348. The master determined that “San Pedro Bay is not one isolated harbor or bay which happens to contain facilities for loading and offloading ships. Rather, the Bay contains the entire Los Angeles area port system . . . (Report at 8) and “Anaheim Bay is itself part of the harbor system. In order to include the Bay with the inland waters the closing line must be drawn to the East Jetty (*id.* at 12-13). “Accordingly, I find that the entrance to the Port of San Pedro is the gap between the Long Beach Breakwater and the Anaheim Bay East Jetty, and that the East Jetty constitutes the outermost permanent harbor work with the meaning of paragraph 4 of the 1966 decree, 382 U.S. at 450-51.” *Id.*

349. *United States v. California*, 449 U.S. 408 (1981).

350. The difficulty is not limited to cases, such as San Pedro, in which harborworks form both entrance points to the port. The absence of such works necessitating the selection of termini on the natural mainland, would, presumably, create an even more difficult problem for the mariner if nautical charts gave no information about use of the area.

351. As noted, the federal government did not take exception to the master's recommendation.

352. See: Report of the Special Master in *United States v. California* of August 20, 1979, at 7 n.7; *United States v. Louisiana*, 394 U.S. 11, 36-37 (1969); and 4 Whiteman, *supra* at 258-263.

limits of inland waters in ports will always require an *ad hoc* consideration of non-geographic factors. That is probably as it should be.³⁵³

ROADSTEADS

Roadsteads are areas seaward of the coast or a harbor that are used for loading or anchoring ships. (Figure 80) Article 9 of the 1958 Convention provides that “roadsteads which are normally used for the loading, unloading and anchoring of ships, and which would otherwise be situated wholly or partly outside the outer limit of the territorial sea, are included in the territorial sea. The coastal state must clearly demarcate such roadsteads and indicate them on charts together with their boundaries, to which due publicity must be given.”³⁵⁴ The provision seems straightforward. Where an

353. The special master bolstered his determination with two unrelated considerations. First, he noted that his recommended line is more nearly a “straight” closing line, reasoning that “implicit in the Supreme Court decrees and Geneva Convention is the principle that closing lines across river mouths, ports, bays, and other bodies of inland waters shall be straight. See, e.g., paragraphs 4 and 5 of the 1966 decree, 382 U.S. at 450-51, Articles 7(4) [presumably intended to read 7(5)] and 13 of the Geneva Convention, and paragraph 1(a) of the 1977 decree, 432 U.S. 40.” Report, *supra*, at 9-10. And then finding that “a line drawn to the Anaheim Bay East Jetty will, however, most closely approximate the ideal straight closing line. If one stands back and views the Port in context of the coast’s natural curvature to each side of the bay, California’s proposed closing line more closely ‘fits’ these curvatures than does the closing line proposed by the United States. A boundary line which tracks a coast line will never, of course, be entirely straight or regular. The straight line requirement is intended, nevertheless, to eliminate such artificial boundaries as proposed by the United States.” *Id.* at 10.

We believe that, although harmless in this instance, any effort to apply such reasoning to future limits would be fraught with difficulty. Clearly the Convention and prior decrees of the Supreme Court do not support the conclusion.

The master seems to describe either, or both, of two potential principles. First, that inland water closing lines are supposed to “fit” the curvature of the coast being closed. This concept would appear to be akin to that idea that inland water lines should run parallel to the general direction of the coast, an idea that is applicable only to Article 4 straight baselines. Bay and river closing lines are drawn taking into consideration the landlocked nature of the indentation being enclosed, not adjoining coastlines. A survey of the many closing lines approved by the Court would disclose no relation between the bearings of closing lines and those of the adjacent coasts. Nor does the Court ever mention such a criterion in its many discussions of bay closing lines. Second, the master may have been saying that where a water body has multiple mouths the various closing lines should continue on a similar bearing. Again, neither the Convention nor the Court’s analysis has even suggested such a consideration. In fact, in the application of Article 7(3), concerning multiple mouthed bays, the Court has determined only that natural entrance points should be used as termini for each of the closing lines, with no concern for how the bearing of one segment might be related to others. Although Article 7(5) proscribes a “straight baseline” of 24 miles within an overlarge bay, the United States has not even taken that literally. Cook Inlet, Alaska, is such a bay. Its inland waters are delimited by two line segments joining Kalgin Island to the mainland. Those segments do not form a straight line.

Individual inland water closing lines are “straight” lines. That is, they are the shortest lines by which the selected termini can be connected. Where multiple mouths result in a segmented closing line those segments may or may not retain a constant bearing. In nature they almost certainly would not.

The master also looked at the Coast Guard’s “COLREGS” lines in the area that separate areas subject to domestic navigation regulations from those subject to international regulations. The Supreme Court had previously ruled that similar Coast Guard lines off the coast of Louisiana had no relevance to inland water determinations. *United States v. Louisiana*, 394 U.S. 11, 35 (1969). Nevertheless, and despite that fact that the COLREGS line at the eastern end of the Port of San Pedro does not coincide with the master’s closing line, he found that the Coast Guard line “shed some light” on the question before him. Report at 10.

The master’s ultimate conclusion with respect to the Port of San Pedro would seem sufficiently supported by his analysis of the *use* of the water area. For that reason, the federal government did not take exception to his recommendation. We do not believe that his additional bases add any weight to his determination.

354. The 1982 Law of the Sea Convention’s comparable provision, Article 12, has only the first sentence of Article 9, and ends there. The requirement for charting roadsteads is found in Article 16 of the 1982 Convention.

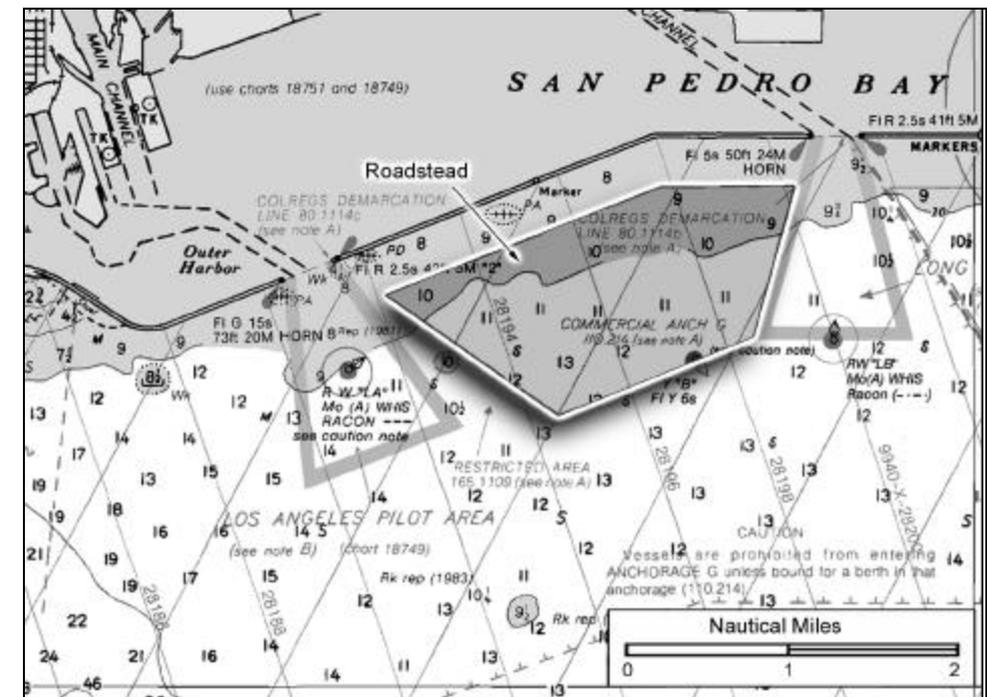


Figure 80. Port of San Pedro, California, and roadstead. The roadstead outside of the Port of San Pedro has no effect on inland waters or the baseline. (Based on NOAA Chart 18746)

anchorage area serves as an extension of a port or harbor, its waters shall be considered territorial sea but not inland. They do not, therefore, form part of the inland water baseline.³⁵⁵

Although we have been concerned here with the limits of inland waters, it is important to consider roadsteads because of their history. As O’Connell points out, the 1958 provision “involves a departure from the common law tradition, which linked harbors, roads, bays and creeks in the one legal category; and also, it seems, from customary international law which, at least in the early stages, did likewise.”¹ O’Connell, *The International Law of the Sea* 219 (1982). For example, the comparable provision considered at the 1930 Hague Conference treated roadsteads as inland waters that generated additional territorial seas. 4 Whiteman, *supra*, at 266. Pre-Convention litigation in *United States v. California* proceeded on the assumption that the inland waters of harbors could include anchorage areas, 1 Shalowitz, *supra*, at 62, but that, absent evidence to the contrary, its outer limit would be assumed to be “the line of the outermost harbor

355. See: McDougal and Burke, *The Public Order of the Oceans* 423-437 (1962).

works.” *Id.* The Supreme Court later made clear that anchorage areas seaward of harborworks are not inland waters. *United States v. California*, 381 U.S. 139, 175 (1965) (citing Article 9), and 382 U.S. 448, 451 (1965).

Roadsteads are territorial sea, not inland waters. Presumably their boundaries will, like ports, be determined by usage.

HISTORIC INLAND WATERS

Waters may also acquire inland water status by having been treated as inland through time even though they meet no specific geographic criteria. The final paragraph of Article 7 specifically provides that “the foregoing provisions shall not apply to so-called ‘historic’ bays.” Article 7(6).³⁵⁶ Although the Convention itself neither defines historic waters nor explains how that status is attained, a subsequent United Nations study reviewed both issues in some depth. The Supreme Court has relied heavily on that study in tidelands litigation. It has accepted the proposition that historic bays are water areas over which the “coastal nation has traditionally asserted and maintained dominion with the acquiescence of foreign nations.” *United States v. California*, 381 U.S. 139, 172 (1965).³⁵⁷ And, has recognized that “there appears to be general agreement that at least three factors are to be taken into consideration in determining whether a body of water is a historic bay: (1) the exercise of authority over the area by the claiming nation; (2) the continuity of this exercise of authority; and (3) the acquiescence of foreign nations.” *Alabama and Mississippi Boundary Cases*, 470 U.S. 93, 101-102 (1985).³⁵⁸ The Court has favorably quoted the *Juridical Regime*, saying, “the coastal nation must have effectively exercised sovereignty over the area continuously during a time sufficient to create a usage and have done so under the general toleration of the community of States.” *Id.* at 102.³⁵⁹ These then are the benchmarks against which the Supreme Court and its special masters have measured historic inland water claims when they have arisen in American practice.

The issue has come up frequently in the tidelands cases.³⁶⁰ Coastal states have often asserted that water areas have been treated as inland by the United States even though they do not meet Article 7’s criteria. In each

356. Article 10 (6) of the 1982 Law of the Sea Convention contains the identical provision.

357. In its analysis the Court was citing to, and quoting from, a United Nations study on the issue entitled *Juridical Regime of Historic Waters, Including Historic Bays, supra*.

358. Citing *United States v. Alaska*, 422 U.S. at 189; and *Louisiana Boundary Case*, 394 U.S. at 23-24 n.27.

359. Quoting from the *Juridical Regime, supra*, at 37-38.

360. California, Louisiana, Alaska, Florida, Massachusetts, Rhode Island, Mississippi, and Alabama all have made historic inland water claims. Massachusetts also made a closely related claim that it characterized as “ancient title.”

instance the federal government “disclaimed” title to such areas. The Court has given weight to the federal disclaimer, but permitted the states to pursue their contentions “as if made by the United States and opposed by other nations,” *United States v. Louisiana*, 394 U.S. at 23-24 and 74-75. At the same time it has imposed an unusual burden of proof on the states.

The Disclaimer

In every tidelands case since 1971 there have been at least two examples of federal disclaimers to state historic water claims. The first is the federal position in the litigation itself. Opposition to the state claim constitutes a disclaimer.³⁶¹ Second is the publication and distribution of official charts that depict the United States’ maritime claims. In 1970, the National Security Council’s Law of the Sea Task Force set up the “Committee on Delimitation of the United States Coastline.” With members from all federal agencies having an interest in our maritime boundaries, that group reviewed and approved charts of our maritime claims. Those charts were, thereafter, relied upon by all federal agencies as the official statement of the United States on the subject and were provided to foreign nations upon request. The charts constitute a disclaimer of the United States’ jurisdiction seaward of the boundaries depicted.

But the disclaimer is not decisive in all instances. As one special master has pointed out “the determination of national boundaries is ordinarily a political and not a judicial function; *Jones v. United States*, 137 U.S. 202 (1890); *Vermilya-Brown Co. v. Connell*, 335 U.S. 377 (1948). This does not, however, preclude the courts from inquiring into the actual position taken by the sovereign in regard to specific waters, as opposed to its declared position.” *United States v. Louisiana*, Report of the Special Master dated July 31, 1974, at 17.

In *United States v. California*, the state introduced evidence of sporadic exercises of federal jurisdiction over areas not claimed by the federal government in the litigation. The Court accepted and reviewed that evidence and then determined that it was so questionable that the federal disclaimer must be decisive. *United States v. California*, 381 U.S. at 175. In so doing the Court determined that in the face of a federal disclaimer a state would have to produce evidence of a historic claim that is “clear beyond doubt.”³⁶² Later masters found that the evidence presented to them did not

361. *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 16.

362. Specifically, the Court said that “we are reluctant to hold that such a disclaimer would be decisive in all circumstances, for a case might arise in which historic evidence was clear beyond doubt. But in the case before us, with its questionable evidence of continuous and exclusive assertions of dominion over the disputed waters, we think the disclaimer decisive.” *United States v. California*, 381 U.S. at 175. See also: *United States v. Louisiana*, 394 U.S. at 28-29.

meet that standard and accepted the federal disclaimer. *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 22; and *United States v. Florida*, Report of the Special Master of January 18, 1974, at 46. The findings of both were adopted by the Supreme Court. *United States v. Louisiana*, 420 U.S. 529 (1975); *United States v. Florida*, 420 U.S. 531 (1975).

However, a federal disclaimer will not be decisive if it comes only after historic title has ripened. In *United States v. California*, the Supreme Court said that “the national responsibility for conducting our international relations obviously must be accommodated with the legitimate interests of the states in the territory over which they are sovereign. Thus a contraction of a State’s recognized territory imposed by the Federal Government in the name of foreign policy would be highly questionable.” 381 U.S. at 168. In that instance the Court was discussing the United States’ decision not to adopt straight baselines. However, it used the same reasoning in reference to historic water claims on the Louisiana coast. There it said that “the Convention was, of course, designed with an eye to affairs between nations rather than domestic disputes. But, as suggested in *United States v. California*, it would be inequitable in adopting the principles of international law to the resolution of a domestic controversy, to permit the National Government to distort those principles, in the name of its power over foreign relations and external affairs, by denying any effect to past events.” 394 U.S. at 77.³⁶³

Interestingly, neither California nor Louisiana was able to establish a past practice that supported its claim. However, the issue again arose when Mississippi and Alabama claimed that Mississippi Sound qualified as historic inland waters. There the states introduced evidence of historic claims going back to the Louisiana Purchase, including statements from the federal government that the Sound was inland waters. The federal disclaimer, by contrast, did not come until publication of the Coastline Committee charts in 1971. The master concluded that historic title had ripened prior to that disclaimer and that, given the Court’s statement in the *California* and *Louisiana* decisions, could not be denied thereafter. Report of April 9, 1984 at 46-48. The Supreme Court agreed. *Alabama and Mississippi Boundary Cases*, 470 U.S. 93, 112 (1985). We turn now to a review of the elements that must be proven to establish historic title.

³⁶³ In a footnote to that statement the Court added that “it is one thing to say that the United States should not be required to take the novel, affirmative step of adding to its territory by drawing straight baselines. It would be quite another to allow the United States to prevent recognition of a historic title which may already have ripened because of “past” events but which is called into question for the first time in a domestic lawsuit. The latter, we believe, would approach an impermissible contraction of territory against which we cautioned in *United States v. California*. See n.97, *supra*.” 394 U.S. at 77.

The Elements of a Claim

As previously noted, the Supreme Court has adopted the United Nations’ three factors as the basis for historic waters claims. These include (1) the exercise of authority over the area by the state claiming historic title, (2) the continuity of this exercise, and (3) the acquiescence of foreign states.³⁶⁴ Each of these factors will be discussed.

The Exercise of Authority

The type of authority that must be asserted to acquire historic title has been variously described as “exclusive authority,” “sovereign ownership,” “jurisdiction,” “dominion,” and “sovereignty.” *Juridical Regime* at 38-39. But the critical question is whether the authority claimed is consistent with that historically asserted. As the United Nations and the Supreme Court have both noted, “historic title can be obtained over territorial as well as inland waters, depending on the kind of jurisdiction exercised over the area. ‘If the claimant State exercised sovereignty as over internal waters, the area claimed would be internal waters, and if the sovereignty exercised was sovereignty as over territorial sea, the area would be territorial sea.’”³⁶⁵ “The authority continuously exercised . . . must be commensurate to the claim . . . A claim of inland waters is not sustained by conduct that would be adequately explained by a claim only of territorial sea.” *Juridical Regime* at 40. See also, *United States v. Alaska*, 422 U.S. 184, 197 (1975).

American practice suggests that the exercise of authority, or “claim,” can be proven in two ways. There may be a clearly stated federal position that the waters at issue are part of its territory, or there may be a history of official actions that are consistent only with the existence of such a claim. Of the numerous tidelands cases in which historic inland water claims have been made, only one, the Mississippi Sound litigation, involved a clearly stated federal acknowledgment of inland water status.³⁶⁶ In all other instances the states have sought to prove historic inland water status through activities said to necessarily reflect such a claim.

³⁶⁴ *Juridical Regime*, at 13 and *United States v. Louisiana*, 394 U.S. 11, 23-24 (1969).

³⁶⁵ *United States v. Louisiana*, 394 U.S. at 24 n.28, quoting from *Juridical Regime, supra*, at 13.

³⁶⁶ The special master in the *Massachusetts Boundary Case* placed some reliance on Congress’s inclusion of the waters of Vineyard Sound in a Customs District as evidence of a federal claim. Report of the Special Master, October Term, 1984, at 63. However, because Customs jurisdiction has long extended seaward of inland waters, and inland waters were not mentioned in the statutes, the Customs District does not seem to be a clear federal acknowledgment of inland waters.

ARTICULATED CLAIMS. The *Alabama and Mississippi Boundary Cases* produced the clearest example of a public, federal claim. Mississippi Sound is formed on three sides by the mainland of Mississippi and Alabama and on the fourth by barrier islands that lie approximately 10 miles offshore. 470 U.S. at 97. (Figure 81) The Sound is shallow, “ranging in depth generally from 1 to 18 feet except for artificially maintained channels.” *Id.* at 102. And it is a cul-de-sac, leading only to American ports. *Id.* at 103. For these reasons, it was historically important to the nation that governed its shores and “of little significance to foreign nations.” *Id.* at 102. In accepting its master’s recommendation that Mississippi Sound is historic inland water, the Supreme Court reviewed the long history of American interest, including navigation improvements to “afford the advantages of internal navigation and intercourse throughout the United States and its Territories”³⁶⁷ *Id.* at 103, and the construction of fortifications on one of the barrier islands to defend the Sound, and commerce within it. *Id.* at 104.



Figure 81. Mississippi Sound off the coasts of Alabama and Mississippi. (Based on NOAA Chart 11006)

But most important to the proof of a claim were two judicial actions concerning Mississippi Sound. The first, involving Louisiana and Mississippi, continued the land boundary between those two states into Lake Borgne and the Sound. In that case, the Court described the Sound as “an enclosed arm of the sea, wholly within the United States” *Louisiana v. Mississippi*, 202 U.S. 1, 48 (1906), and constructed the boundary with the thalweg doctrine, a principle of boundary delimitation applicable only to inland waters.³⁶⁸ “The Court clearly treated Mississippi Sound as inland waters” *Id.* at 108.

367. Quoting from H.R. Doc. No. 427, 14th Cong., 2d Sess. (1817).

368. The thalweg is the middle of the “deepest or most navigable channel, as distinguished from the geographic center or a line midway between the banks.” *Alabama and Mississippi Boundary Cases*, 470 U.S. at 108.

Fifty-two years later the federal government was at odds with the Gulf Coast states over the extent of their rights under the recently enacted Submerged Lands Act. In 1958 the United States filed a brief with the Supreme Court that conceded that “we need not consider whether the language ‘including the islands’ etc., would of itself include the water area intervening between the islands and the mainland (although we believe it would not), because it happens that all the water so situated in Mississippi is in Mississippi Sound, which this Court has described as inland water. *Louisiana v. Mississippi*, 202 U.S. 1, 48.”³⁶⁹ The United States went on to concede that “the water between the islands and the Alabama mainland is inland water; consequently we do not question that the land under it belongs to the State.” *Id.* at 109, quoting, again, from the United States’ Brief.

In its *Alabama and Mississippi Boundary Cases* decision, the Court opined that “if foreign nations retained any doubt after *Louisiana v. Mississippi* that the official policy of the United States was to recognize Mississippi Sound as inland waters, that doubt must have been eliminated by the unequivocal declaration of the inland water status of Mississippi Sound by the United States in an earlier phase of this very litigation [just quoted].” *Id.* at 108-109.³⁷⁰ These federal concessions distinguish the Mississippi Sound litigation from most tidelands cases involving historic water issues. They were found to constitute the federal claim that is usually missing.³⁷¹

The *Massachusetts Boundary Case* is the only other tidelands case in which historic title has been proven. There Special Master Hoffman found that federal legislation that included Vineyard Sound in a Customs District constituted a claim to its waters.³⁷² (Figure 82)

369. *Alabama and Mississippi Boundary Cases*, at 109, quoting from Brief for United States in Support of Motion for Judgment on Amended Complaint in *United States v. Louisiana*, October Term 1958, Number 10 Original, at 254.

370. To that statement the Court appended a reference to yet another official concession, saying “the United States also acknowledged that Mississippi Sound constituted inland waters in a letter written by the secretary of the interior to the governor of Mississippi on October 17, 1951, confirming that the oil and gas leasing rights inside the barrier islands belonged to the State of Mississippi.” *Id.* at 109 n.11.

371. There is no doubt that the federal statements in 1951 and 1958 were not based on any federal historic claim to Mississippi Sound as inland water. Rather, they arose from the fact that prior to the adoption of the Convention’s definitions the United States had proposed principles for juridical bay delimitation that would have closed Mississippi Sound as inland water without a historic waters claim. Because those principles represented the United States’ position on boundary delimitation in 1953, the federal government argued in *United States v. California* that they should be employed as evidence of congressional intent in the Submerged Lands Act. It was not until 1965 that the Court rejected that contention and adopted the Convention’s definitions for Submerged Lands Act purposes. *United States v. California*, 381 U.S. 139 (1965). Four years later the Court made clear the United States would not be bound by positions taken before the *California* decision, and similar statements regarding the Louisiana coastline were not held against it. *Louisiana Boundary Case*, 394 U.S. 11, 73-74 n.97 (1969). Nevertheless, in the *Alabama and Mississippi Boundary Cases*, the Court made the critical distinction that “the significance of the United States’ concession in 1958 is not that it has binding effect in domestic law, but that it represents a public acknowledgment of the official view that Mississippi Sound constitutes inland waters of the Nation.” *Alabama and Mississippi Boundary Cases*, at 110.

372. *Massachusetts Boundary Case*, Report of the Special Master, October Term 1984, at 62, citing to Act of July 31, 1789, 1 Stat. 29, 31.

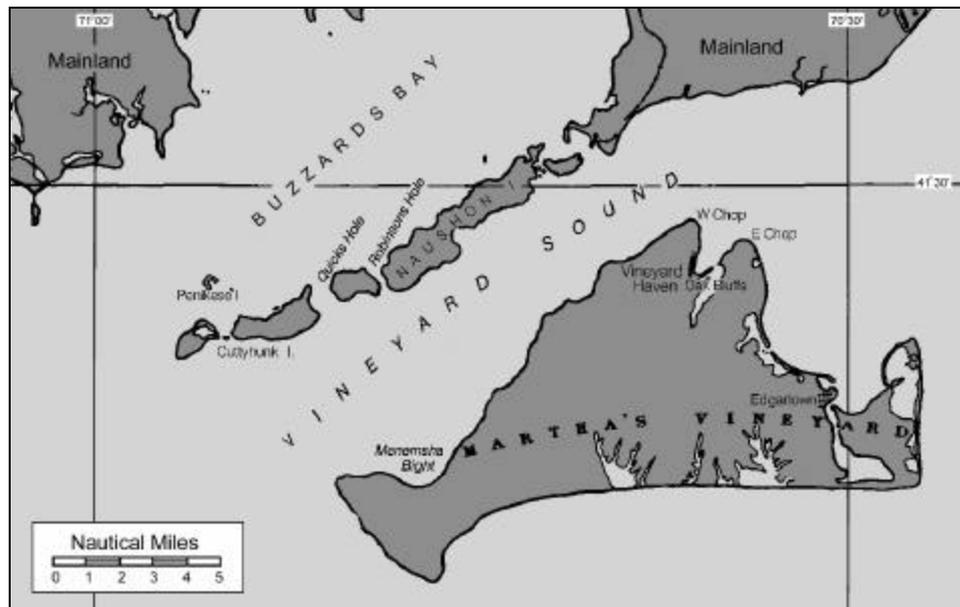


Figure 82. Vineyard Sound, Massachusetts, found to be historic inland waters. (Based on NOAA Chart 13200)

More important to his entire analysis, however, are two Massachusetts statutes and a United States Supreme Court opinion. In 1859 the Massachusetts legislature enacted a statute that closed “arms of the sea” of no more than 2 marine leagues (6 nautical miles) in width and claimed jurisdiction 1 marine league seaward of such lines. Massachusetts Acts of 1859, Ch. 289. Under this statute Vineyard Sound became inland waters. Master’s Report at 58. In 1881 the state enacted legislation that directed the Harbor and Land Commissioners to prepare reports and charts depicting the boundaries created by the 1859 statute. Massachusetts Acts of 1881, Ch. 196. Master’s Report at 59. Those charts were prepared and showed Vineyard Sound as inland waters.

The charts also enclosed Buzzards Bay and shortly thereafter a fisherman was convicted by the state for violating its regulations in that water body. The defendant challenged the state’s jurisdiction but the Supreme Court upheld the conviction, ruling that a state may assert jurisdiction over bays no more than 6 miles wide at their mouths. *Manchester v. Massachusetts*, 139 U.S. 240, 257 (1891). Interestingly, the charts that were produced pursuant to Massachusetts’ 1881 legislation were introduced as evidence in the case, including one that depicted the inland water lines for both Buzzards Bay and Vineyard Sound. Special Master’s Report at 59. Almost a century later,

the master found that the federal and state actions constitute a claim to historic title.³⁷³

Two recent tidelands decisions leave an interesting question as to the significance of long abandoned juridical bay principles to historic water issues.

Prior to 1958 there was no universally recognized set of principles for determining what waters are inland by operation of law. Nations toyed with various theories and made proposals in international fora. For its part, the United States considered at least two means of dealing with waters between the mainland and barrier islands in the first half of this century. One of those was to treat as inland “those areas between the mainland and off-lying islands that are so closely grouped that no entrance exceeded 10 geographical miles.” *Alabama and Mississippi Boundary Cases*, 470 U.S. 93, 106 (1985). In that case the Supreme Court, adopting the findings of its special master, determined that “this 10-mile rule represented the publicly stated policy of the United States at least since the time of the Alaska Boundary Arbitration in 1903,” *id.* at 106-107, until our ratification of the Convention in 1961. *Id.* at 106. The Court went on to emphasize that the United States had widely published its preference for the principle such that foreign nations were put on notice of its use here. *Id.* at 107.

The federal government objected that juridical principles are not sufficiently specific to support historic waters claims. The Court responded that as to Mississippi Sound the general principles “were coupled with specific assertions of the status of the Sound as inland waters.” *Id.*³⁷⁴ Nevertheless, the juridical position seemed to play an important role as the Court dealt with the question of foreign acquiescence and the Sound was ruled “inland.”

Alaska relied upon the Mississippi Sound decision in its claim that waters between the Arctic coast and barrier islands are also inland. Unlike Mississippi and Alabama, Alaska had no specific history of prior Supreme Court decisions upon which to base a historic waters claim. What it did instead was point to the Court’s language in the *California* tidelands case, warning against an impermissible contraction of state territory, and the Court’s finding in the Mississippi Sound case that the United States employed the 10-mile rule from 1903 until at least 1961. Alaska concluded

373. The federal government did not take exception to the master’s recommendations with respect to Vineyard Sound, in part because the conclusion had almost no effect on the extent of state jurisdiction. Because of that, the subsequent Supreme Court hearings did not include the Vineyard Sound issue. *United States v. Maine (Massachusetts Boundary Case)*, 475 U.S. 89 (1986).

374. Those “assertions” were (1) the Supreme Court’s determination that the Sound is inland water in *Louisiana v. Mississippi*, 202 U.S. 1 (1906); and (2) an early federal concession in *United States v. Louisiana*, Number 10 [later Number 9] Original.

that its own Stefansson Sound would have been considered inland waters at the time of Alaskan Statehood, in 1959, and could not thereafter be taken away by a change in federal delimitation policy. (Figure 83)

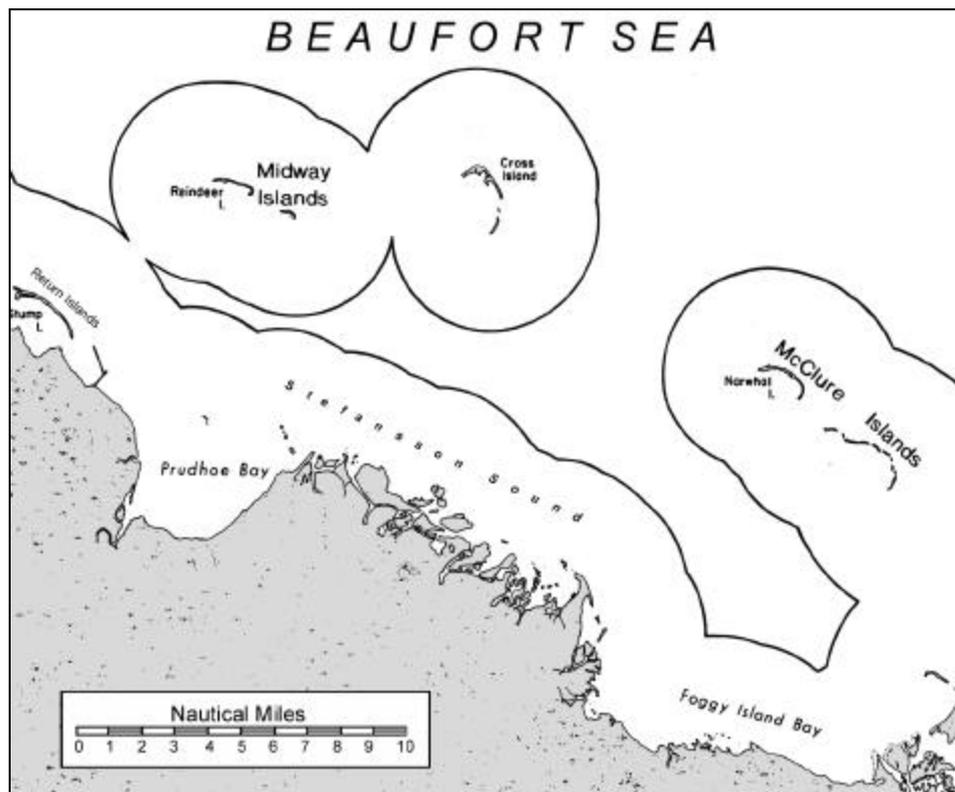


Figure 83. Stefansson Sound, Alaska. The sound is created by islands within 10 miles of each other and the mainland. (After Report of Special Master J. Keith Mann, Figure 3.2)

Much of Alaska's argument turned on the Supreme Court's finding in the Mississippi Sound case that federal delimitation policy had been consistent at least from 1903 to 1961. Alaska and the United States went to great lengths to, respectively, prove and disprove that proposition. Ultimately Special Master Mann concluded that at least from 1930 until 1949 the United States had not used the 10-mile rule.³⁷⁵ The Supreme Court agreed and denied Alaska's claim. Distinguishing the Mississippi Sound situation the Court said that "variation and imprecision in general

boundary delimitation principles become relevant where, as here, a State relies solely on such principles for its claim that certain waters were inland waters at statehood." *United States v. Alaska*, 521 U.S. 1, 15 (1997).

The role of past delimitation practice in historic water determinations may need additional consideration. In its most recent decision on the issue the Supreme Court said that "[u]nder the Convention, a nation's past boundary delimitation practice is relevant in a narrow context: specifically, when a nation claims that certain waters are 'historic' inland waters under Article 7(6) of the Convention." *Id.* at 11. However, it went on to note that "we have never sustained a State's claim to submerged lands based solely on an assertion that the United States had adhered to a certain general boundary delimitation practice at the time of statehood." *Id.* at 12. Taking the Mississippi Sound and *Alaska* cases together we may feel some confidence with the following. The admonition from the *California* and *Louisiana* cases remains; the government may not be allowed to abandon a juridical bay policy merely to gain advantage over a state in litigation. A consistent juridical policy by the United States that would have treated waters as inland will support a historic water claim, but only if supplemented by independent evidence of a claim to the water body at issue. The 10-mile rule was not such a policy.

ACTIVITIES CONSISTENT WITH A CLAIM. Efforts to prove a historic water claim in the absence of such specific statements have, to date, been unsuccessful. A number of states have introduced evidence of assertions of jurisdiction and alleged that they are consistent only with the conclusion that the waters involved were historically claimed by the United States. Typically these were assertions of jurisdiction over activities that a coastal state may control beyond its inland waters. As such, they were found not to be commensurate with the inland water claim being made as required by international law and the Supreme Court.

Fisheries Enforcement. Most common has been evidence of fisheries enforcement. In contending that Cook Inlet is historic inland waters, Alaska relied heavily on evidence of fisheries enforcement, both federal and state. The District Court relied upon that evidence in ruling for the state, but the Supreme Court noted that international law permits a coastal state to regulate fishing not only in its inland waters but in the territorial sea and beyond. *United States v. Alaska*, 422 U.S. 184, 199 (1975). The Court opined that "it is far from clear, however, that the District Court was correct in concluding that the fact of enforcement of fish and wildlife regulations was legally sufficient to demonstrate the type of authority that must be exercised to establish title to a historic bay," *id.* at 196, and concluded that "the enforcement of fish and wildlife regulations, as found and relied upon by the District Court, was patently insufficient in scope to establish historic

375. In fact, during that time the United States was proposing an entirely different principle in international circles, one that would have treated Mississippi Sound and similar waters as territorial rather than inland. *United States v. Alaska*, 521 U.S. 1, 17 (1997).

title to Cook Inlet as inland waters.” *Id.* at 197.³⁷⁶ Louisiana was, likewise, unsuccessful in establishing a historic claim based, among other things, on fisheries regulation. *United States v. Louisiana*, Report of the Special Master of July 31, 1974 at 20-21.³⁷⁷

Oyster Leases. Other assertions of wildlife management authority have been equally unsuccessful as evidence of a historic waters claim. Louisiana relied upon its oyster leases within 3 miles of the coast. In discounting the significance of that evidence the master reasoned that “traditionally international law has recognized the right of the coastal state to control fishing, including oystering, within its territorial sea. At all times pertinent to these proceedings, the United States has claimed a territorial sea of at least three miles from the low-water mark in the areas where these leases were granted, and therefore they were entirely consistent with that claim.” Report at 19.

Mineral Leases. Louisiana and Florida relied on offshore mineral leases to buttress their historic claims. Most such leases were entered after President Truman claimed exclusive rights to mineral resources on our continental shelf in 1945.³⁷⁸ As Special Master Armstrong pointed out in the *Louisiana* case, these leases “were issued after the United States claimed the resources of the entire continental shelf, and therefore could not put any nation on notice that an historic inland waters claim was being made.” Report of July 31, 1974, at 20.³⁷⁹ Special Master Maris followed the same reasoning, saying “nor do I think that they afford evidence of a use adverse to foreign nations in light of the accepted view in recent years that maritime nations have special rights in the bed of the continental shelf off their coasts.” *United States v. Florida*, Report of the Special Master of January 18, 1974, at 46.

Pollution Regulations. State offshore pollution regulations have also been insufficient. As one special master noted “in the absence of conflicting federal regulations, a state has power to control pollution in its territorial waters if it may affect its inland waters or its shore (see *Askew v. American Waterways Operators, Inc.*, 411 U.S. 325 [1973]). Any acts of the State of Louisiana in connection with pollution control in waters off its shoreline were entirely consistent with the character of those waters as territorial sea,

376. This is especially true if the enforcement has only been against American vessels, because “the United States can and does enforce fish and wildlife regulations against its own nationals, even on the high seas.” *United States v. Alaska*, 422 U.S. at 198.

377. The master’s recommendations were later adopted by the Court. *United States v. Louisiana*, 420 U.S. 529 (1975).

378. Proclamation No. 2667 (59 Stat. 884) September 28, 1945.

379. Other leases, made prior to the Truman Proclamation, were within the territorial sea. *Id.* at 19.

and therefore do not furnish a basis for establishing them as inland water.” *Louisiana Boundary Case*, Report of the Special Master of July 31, 1974, at 21.

Navigation Regulations. Finally, coastal states have twice asserted that navigation regulations are evidence of a historic claim. In the *Louisiana Boundary Case* the state pointed to the Coast Guard’s “Inland Water Line.” A little background may be helpful. Seagoing vessels are subject to two different sets of traffic rules, known as “Rules of the Road,” depending upon their location. “Inland Rules” are applicable in inland waters and many nearshore coastal areas. Farther offshore the “International Rules” apply. These areas of application are divided by a series of straight lines, shown on nautical charts, that together are known as “The Inland Water Line.” The line segments are located with an eye toward safety of navigation and ease of application for the mariner at sea. The Coast Guard makes no effort to conform the line to the actual limits of inland waters, as that term is used in the Convention and the Submerged Lands Act.

Nevertheless, Louisiana apparently could not resist the similarity of nomenclature and argued that all waters landward of the Coast Guard’s “Inland Water Line” had been historically claimed by the United States as inland. The Court dismissed the allegation without reference to its special master. It concluded that navigation regulations suffer from the same infirmity as does fisheries enforcement when offered as evidence of an inland water claim. According to the Court “it is universally agreed that the reasonable regulation of navigation is not alone a sufficient exercise of dominion to constitute a claim to historic inland waters. On the contrary, control of navigation has long been recognized as an incident of the coastal nation’s jurisdiction over the territorial sea.” 394 U.S. at 24.³⁸⁰ And, “because it is an accepted regulation of the territorial sea itself, enforcement of navigation rules by the coastal nation could not constitute a claim to inland waters . . .” *Id.* at 25.

It happens that the Coast Guard’s Inland Water Line suffers from a second defect when asserted in support of a historic inland water claim. It is accompanied by a specific disclaimer of jurisdictional consequence. The Court noted that “for at least the last 25 years, during which time Congress has twice re-enacted both the International Rules and Inland Rules, the responsible officials have consistently disclaimed any but navigational significance to the ‘Inland Water Line.’ When the line was for the first time completed off the entire Louisiana shore, the commandant of the Coast Guard declared: ‘the establishment of descriptive lines of demarcation is

380. Citing to Article 17 of the Convention on the Territorial Sea, which requires that “foreign ships exercising the right of innocent passage [in the territorial sea] shall comply with the laws and regulations enacted by the coastal State . . . and, in particular, with such laws and regulations relating to transport and navigation.” As the Court notes, Judge Jessup cites the United States’ Inland Rules as an example of such regulation. *Id.* n.29, quoting Jessup, *The Law of Territorial Waters and Maritime Jurisdiction* 122 n.37 (1927).

solely for the purposes connected with navigation and shipping . . . these lines are not for the purpose of defining Federal or State boundaries, nor do they define or describe Federal or State jurisdiction over navigable waters.” *United States v. Louisiana*, 394 U.S. at 27. The Court concluded that “no historic title can accrue when the coastal nation disclaims any territorial reach by such an exercise of jurisdiction.” *Id.*

Rhode Island and New York both argued that their pilotage statutes, requiring vessels to take on mariners with local expertise before transiting Block Island Sound, supported a historic inland water claim to that water body. Relying heavily on the Court’s *Louisiana* decision, and finding the pilotage requirement to be a reasonable regulation of navigation, the special master concluded that it did not support a historic inland water claim. *United States v. Maine, et al. (Rhode Island/New York)*, Report of the Special Master, October Term 1983, at 16-17.

Additional Considerations. The following are additional considerations that may be relevant to a historic claim. Although historic waters, if proven, are considered to be a claim of the United States, the historic events used to prove such a claim need not have involved federal officials. In *United States v. Louisiana* the Court made clear that assertions of jurisdiction by state officials could be used as evidence of a historic claim. 394 U.S. at 76-78.

Private actions, however, lend no weight to a claim. The State of Alaska introduced evidence of private “enforcement” activity in the Cook Inlet litigation, including a Russian fur trader’s effort to discourage foreign competition. The Supreme Court reasoned that “the incident of the fur trader’s firing on an English vessel near Port Graham might be some evidence of a claim of sovereignty over the waters involved, but the act appears to be that of a private citizen rather than of a government official.” *United States v. Alaska*, 422 U.S. 184, 191 (1975). And it later stated that “the acts of a private citizen cannot be considered representative of a government’s position in the absence of some official license or other government authority.” *Id.* at 203. To be evidence of a historic waters claim, assertions of jurisdiction must have been made by an authorized officer.

To constitute evidence of an extraordinary geographic claim, assertions of jurisdiction must be made against foreign nationals. The United States, and nations generally, have personal jurisdiction over their citizens wherever they may be found.³⁸¹ That is to say, an American operating on the high seas is not beyond the legitimate reach of American law. Consequently enforcement on the high seas, against Americans, does not put foreigners on notice that the particular geographic area might be claimed by the United States.

381. See: *Skiriotes v. Florida* 313 U.S. 69 (1940).

American courts have often repeated this requirement. In *Civil Aeronautics Board v. Island Airways, Inc.*, involving a historic waters allegation, the court declared that sovereignty must be exercised by deeds such as “keeping foreign ships or foreign fishermen away from the area, or taking action against them . . .” 235 F.Supp. 990, 1004-1005 (D.Ha. 1964), *aff’d* 352 F.2d 735 (9th Cir. 1965). The question also arose in the first *California* tidelands litigation, where the state introduced evidence of limited fisheries and criminal jurisdiction over Americans in waters being claimed as historic. The Supreme Court’s special master noted that “these instances of assertion of right by the State of California in the courts did not constitute an assertion of exclusive authority over these waters such as might be the occasion for objection by foreign governments or action by the United States in our international relations . . . there is nothing to indicate that the defendants were citizens of a foreign country. Under these circumstances, absence of objection from foreign countries cannot be regarded as acquiescence . . .” *United States v. California*, Report of the Special Master, October Term 1952, at 35. The master’s recommendations were adopted by the Court. *United States v. California*, 381 U.S. 139, 172-175 (1965).

The United States has relied upon this principle in its own opposition to foreign historic waters claims. In 1957 the Soviet Union issued a decree declaring Peter the Great Bay to be historic inland waters, basing its claim on its “Rules of Maritime Fisheries In The Territorial Waters of the Governor-Generalship of Priamurye,” published by the Russian government in 1901. The United States protested, warning against encroachments on the high seas, and stating that a claim of historic title could not be based on internal regulations of the Russian government, which were not communicated to the governments of other states. XXXVIII Bulletin, Department of State, No. 978, Mar. 24, 1958, p. 461, quoted and discussed at, 4 Whiteman, *supra*, at 250-257.

The United States had made a similar objection to Spanish maritime claims around Cuba nearly a century earlier. In an 1863 letter to the Spanish minister the secretary of state took the position that “[n]ations do not equally study each other’s statute books and are not chargeable with notice of national pretensions resting upon foreign legislation.” 1 Moore, *International Law Digest* 709-710 (1906).³⁸²

In sum, to constitute evidence of historic waters claims, assertions of jurisdiction must have been made against foreign citizens or vessels to be clear that they do not simply represent extraterritorial exercises of personal jurisdiction and to put foreign nations on notice of a territorial claim.

382. See also: *Juridical Regime* at paragraphs 89-90.

The Continuity of the Claim

To support a finding of historic waters a claim must have existed, and been consistently asserted, over a substantial period of time. The *Juridical Regime* lists a number of characterizations that have been suggested, including: “continuous usage of long standing” (Institute of International Law, 1928), “established usage” (Harvard Draft, 1930), and “continued and well-established usage” (American Institute of International Law, 1925). *Juridical Regime* at 44. American practice has done little to make the requirement more specific.

As for the necessary age of a claim, the Supreme Court said in the *Alabama and Mississippi Boundary Cases* that the “United States has effectively exercised sovereignty over Mississippi Sound as inland waters from the time of the Louisiana Purchase in 1803 until 1971” 470 U.S. at 102. Although the length of the claim was not specifically at issue in that case, the Court clearly considered 168 years to be sufficient. That would seem to go without saying.

Florida made a historic waters claim based on an 1868 constitutional boundary that the state said extended more than 3 miles offshore. Special Master Maris acknowledged that “if its construction of the boundary language is correct, which I have concluded it is not, this 1868 origin of its claim would certainly be remote enough in time to satisfy the second criterion for historic inland waters.” *United States v. Florida*, Report of the Special Master of January 18, 1974, at 42. Again, one hundred plus years would seem sufficient.

Finally, in Massachusetts’ successful adjudication of Vineyard Sound, the special master found claims going back to the first Congress of the United States and state actions more than 100 years ago. The usage element was not even contested.

We know of no court that has accepted a claim as adequate but concluded that it is too recent to establish historic rights. Closely related, however, are examples of alleged long standing claims that have been only sporadically enforced. California relied upon a criminal prosecution for activities in claimed historic waters. The Supreme Court described it as “the only assertion of criminal jurisdiction of which we have been made aware.” *United States v. California*, 381 U.S. 139, 174-175 (1965).³⁸³ The Court found no historic title.

Nine years later its special master looked back at that language in his review of similar evidence from the State of Louisiana. Referring to testimony of a single arrest along that coast he concluded that “it can hardly

383. Referring to *People v. Stralla*, 14 Cal.2d 617, 96 P.2d 941 (1939).

be said that this isolated incident meets the tests set forth earlier for establishing sovereignty sufficient to support a claim of historic waters. Certainly no continuity is indicated” *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 20- 21.

Continuity encompasses two elements. The claim must be long standing. No exact time can be stated but 100 years would seem sufficient.³⁸⁴ And the claim must have been consistently asserted over the period of its existence.

Foreign Responses to the Claim

The third requirement for historic water status concerns foreign response to the exercise of sovereignty by the coastal state. *Juridical Regime* at 55.³⁸⁵ International authority is split on whether the attitude of foreign states must be acquiescence or merely the absence of opposition.³⁸⁶ *Id.* at 13. Recognizing this split in authority, the Supreme Court has opted for the more stringent requirement of acquiescence. *United States v. California*, 381 U.S. 139, 172 (1965); *United States v. Louisiana*, 394 U.S. 11, 24 n.27 (1969). So has the Department of State in its dealings with foreign nations.³⁸⁷

However, acquiescence requires more than a mere failure to protest a claim. In order to establish acquiescence it must be shown that foreign countries knew of the claim or, because of its notoriety, their knowledge may be presumed. *Juridical Regime* at 54.³⁸⁸ The Supreme Court has followed this approach, saying in *United States v. Alaska* that “the failure of other countries to protest is meaningless unless it is shown that the governments of those countries knew or reasonably should have known of the authority being asserted.” 422 U.S. at 200.³⁸⁹ And, “in the absence of

384. *The Juridical Regime of Historic Waters, Including Historic Bays*, *supra*, at 45, states that “no precise length of time can be indicated as necessary to build the usage on which historic title must be based. It must remain a matter of judgement when sufficient time has elapsed for the usage to emerge.”

385. In support of its statement the United Nations cited the International Court of Justice’s reference to “the notoriety essential to provide the basis of historic title” in the *Anglo-Norwegian Fisheries Case*, [1951] I.C.J. Reports 116.

386. In fact, the United Nations’ Report indicated that “there is substantial agreement that inaction on the part of foreign States is sufficient to permit an historic title to a maritime area to arise by effective and continued exercise of sovereignty over it by the coastal State during a considerable time.” *Juridical Regime* at 49.

387. For example, when the United States protested the Soviet Union’s historic claim to Peter the Great Bay it reiterated that “a degree of acceptance on the part of the rest of the world is required to justify the claim.” 4 Whiteman at 256.

388. The Report concludes that “there seem to be strong reasons to hold that notoriety of the exercise of sovereignty, in other words, open and public exercise of sovereignty, is required rather than actual knowledge by the foreign States” *Juridical Regime* at 55.

389. See also: Report of the Special Master in the *Alabama and Mississippi Boundary Cases* of April 9, 1984, at 54 and subsequent Supreme Court decision in that action, 470 U.S. 93 (1985).

any awareness on the part of foreign governments of a claimed territorial sovereignty over lower Cook Inlet, the failure of those governments to protest is inadequate proof of the acquiescence essential to historic title.” *Id.* There was no evidence that foreign governments were aware of alleged assertions of jurisdiction in Cook Inlet nor were those assertions such that foreign governments should have been aware of them.³⁹⁰

In contrast, the special master and the Supreme Court agreed that foreign countries were specifically aware of the United States’ claim to historic waters in Mississippi Sound. The Court said, for example, that the 10-mile rule for closing waters between the mainland and off-lying islands “represented the publically stated policy of the United States at least since the time of the Alaska Boundary Arbitration in 1903. There is no doubt that foreign nations were aware that the United States had adopted this policy. Indeed, the United States’ policy was cited and discussed at length by both the United Kingdom and Norway in the celebrated *Fisheries Case (U.K. v. Nor.)*, 1951 I.C.J. 116.” 470 U.S. at 107. The Court went on to adopt its master’s recommendation that Mississippi Sound is historic inland water, finding that all three of the elements of historic title had been proven.³⁹¹

Special Master Hoffman, in the *Massachusetts Boundary Case*, found acquiescence in the presumed knowledge of foreign states followed by a failure to protest. Early in the litigation the parties stipulated that “by the outbreak of World War I, the major European powers, all of whose foreign ministries had legal departments charged with ‘monitoring and analyzing’ legal developments, had ‘*de facto*’ knowledge of *Manchester [v. Massachusetts]* and its contents.”³⁹² The master then accepted the state’s contention that

390. Likewise, Special Master Armstrong found that there was no “notice to or acquiescence on the part of the Mexican Government” with respect to Louisiana’s sole assertion of jurisdiction over a foreign vessel in East Bay being claimed as historic. *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 20. He recommended against the historic waters claim and the Supreme Court adopted that recommendation. *United States v. Louisiana*, 420 U.S. 529 (1975).

391. The Court’s later decision in *United States v. Alaska*, 521 U.S. 1 (1997), raises an interesting question about the logic of the Mississippi Sound conclusion. In *Alaska* the Court agreed with Special Master Mann that in fact the United States had not consistently employed a 10-mile rule that created inland waters landward of barrier islands for the entire period from 1903 until ratification of the Convention in 1961. In fact, both found the United States had espoused a distinctly different principle from at least 1930 until 1949. Under that proposal waters landward of barrier islands but more than 3 miles from any land would be “assimilated to the territorial sea.” In other words, areas such as Mississippi Sound would be territorial seas rather than inland water, a result of little comfort to coastal states in the tidelands cases. Of course the Court emphasized in the Mississippi Sound case that the United States’ claim was supported separately by its decision in *Louisiana v. Mississippi*, 202 U.S. 1 (1906), and early federal positions in *United States v. Louisiana*, Number 10 (later Number 9) Original. Nevertheless, the Court seems to rely on its misstated tenure of the 10-mile rule to satisfy the requirement of foreign knowledge of a claim. Its decision in *Louisiana v. Mississippi* and the federal concession in *United States v. Louisiana* would appear to be the kind of internal governmental statements that both the Court and the State Department contend do not put foreign governments on notice of a claim. If, contrary to the Mississippi Sound decision, the 10-mile rule did not represent a continuity for the period described, no other evidence in the case would seem to fill the requirement. It is, of course, too late in the day to change the outcome in Mississippi Sound. It is likely however that future historic claimants will not be able to rely on the 10-mile rule to the extent that Mississippi and Alabama did.

392. Report of October Term 1984, at 60.

this would include “the text of the 1881 Massachusetts statute, the fact that the Supreme Court had upheld the Massachusetts statute as valid under both national and international law, and the fact that Massachusetts maintained charts showing its claims in official repositories.” Report of October Term 1984, at 60.

In addition, the master concluded that both France and England, the major maritime powers of the day, could be presumed to know of federal claim to customs waters as early as 1789. Both, he explained, were involved in conflicts that made it important to know where American neutrality would extend. They would have been put on notice of such claims by Attorney General Randolph’s opinion on the Delaware Bay claim and would have researched congressional actions and come upon the customs claims. *Id.* at 63.

Foreign acquiescence is essential to a successful historic waters claim. It can be proven, under American precedents, only through an interested nation’s failure to protest when it knew, or reasonably should have known, of the claim.

A Fourth Element

The *Juridical Regime* discusses the view of some writers and governments that “geographic configuration, requirements of self-defense, or other vital interests of the coastal state may justify a claim of historic bay status without the necessity of establishing long usage.” *Juridical Regime* at 56-58. It goes on to conclude, however, that “it does not make sense for ‘historic title’ to be claimed in circumstances where the historic element is wholly absent.” *Alabama and Mississippi Boundary Cases*, 470 U.S. at 105, citing to *Juridical Regime* at 56-58.³⁹³ Nevertheless, the Supreme Court concluded that such factors may “fortify a claim to ‘historic bay’ status that is based on usage.” 470 U.S. at 106.³⁹⁴ The Court pointed out that Mississippi Sound is enclosed, extremely shallow, and leads only to American ports. It is of great importance to the United States and of little or no significance to foreign nations. And it has been defended by fortifications constructed by the United States. *Id.* at 102-106. To top it off, the Court noted that almost

393. Nor will these characteristics substitute for assertions of exclusive jurisdiction. In *United States v. California* Special Master William H. Davis reported that “much of the testimony submitted to the Special Master in these proceedings dealt with the geography, the history and the economic importance of the water area in dispute . . . if there had been any assertion of exclusive jurisdiction of these waters by or on behalf of the United States, then this testimony would in general be relevant to the question whether these areas present special characteristics such as would justify in international law an assertion of exclusive sovereignty. But if my factual conclusions are correct [that the required assertions are missing], then the testimony is irrelevant . . .” *United States v. California*, Report of the Special Master of October 14, 1952, at 39.

394. Here the Court cited to the *Juridical Regime*’s reference to Bourquin’s view that “the character of a bay depends on a combination of geographical, political, economic, historical and other circumstances.” *Juridical Regime* at 25 (translating and quoting Bourquin, *Les Baies Historiques*). 470 U.S. at 106 n.7.

identical justification had been used by the United States in claiming historic inland waters in Delaware Bay. There Attorney General Edmund Randolph asked rhetorically, “what nation can be injured in its rights by the Delaware being appropriated to the United States? And to what degree may not the United States be injured, on the contrary ground? It communicates with no foreign dominion; no foreign nation has ever before had a community of right in it, as if it were a main sea; under the former and present governments, the exclusive jurisdiction has been asserted.” 1 Op. Atty. Gen. 32, 37 (1793), quoted at 470 U.S. at 103 n.4.³⁹⁵

A word should be added about the “geographic” element. Article 7(6) of the Convention refers only to historic “bays.” The United Nations’ study is entitled *Juridical Regime of Historic Waters, Including Historic Bays*. It is uniformly understood that a water body need not qualify as a juridical bay if it has been historically claimed. But whether, and to what degree, it may deviate from the usual criteria for juridical inland water status is not clear. American practice gives no help in determining how “bay-like” a water body must be to be eligible for a historic claim. In each contested case the waters at issue were sufficiently enclosed and the United States did not challenge state claims on that ground. It should not, however, be assumed that a completely unprotected area of open sea could qualify for historic water status even if the three criteria discussed above were met. That circumstance has yet to be tested.³⁹⁶

The three international criteria for historic bay status, a claim, continuity, and acquiescence, have been adopted in the United States’ practice. The claim may be clearly stated or evidenced by assertions of jurisdiction. It must have been consistently made, or enforced, for a long enough time to constitute usage. And foreign nations must have acquiesced in the claim, with actual or presumed knowledge. The Supreme Court has dealt with historic water claims in a number of tidelands cases. It has recognized claims to Mississippi Sound and Vineyard Sound; it has denied them to Cook Inlet, Alaska, three bays in California, all of the Louisiana coast, much of the Florida coast, Block Island Sound, and Nantucket Sound.³⁹⁷

³⁹⁵ Massachusetts also put on extensive evidence about the early use and importance of Vineyard and Nantucket Sounds to its citizenry. Nevertheless, and despite his reliance on Attorney General Randolph’s Opinion for other purposes, the special master did not find that it supported the inland water claim. Report at 61.

³⁹⁶ In its *Alabama and Mississippi Boundary Cases* decision the Supreme Court explained that “in this opinion, the term ‘historic bay’ is used interchangeably with the term ‘historic inland waters.’ It is clear that a historic bay need not conform to the geographic tests for a juridical bay set forth in Article 7 of the Convention. See *Louisiana Boundary Case*, 394 U.S. 11, 75 n.100 (1969). In this case, as in that one, we need not decide how unlike a juridical bay a body of water can be and still qualify as a historic bay, for it is clear from the Special Master’s Report that, at a minimum, Mississippi Sound closely resembles a juridical bay.” 470 U.S. 93 at 101 n.2 (1985).

³⁹⁷ For comprehensive lists of internationally claimed historic waters see: *Historic Bays, Memorandum by the Secretariat of the United Nations*, A/CONF.13/1, at paragraphs 12-43; Bouchez, *supra*, at 27-101; and Jessup, *supra*, at 383-439.

STRAIGHT BASELINES

Article 4 of the Convention on the Territorial Sea and the Contiguous Zone provides a final means of coastline delimitation in certain geographic situations. It provides, in part, that “[i]n localities where the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity, the method of straight baselines joining appropriate points may be employed” Article 4(1).³⁹⁸ This geographic situation exists along numerous stretches of the coast of the United States. Employing Article 4 straight baselines in those circumstances would nearly always expand inland waters, encouraging the coastal states to contend that they should be, or have been, used in the United States.

The question first arose in *United States v. California*. The state had claimed inland water status for the Santa Barbara Channel on other theories and, after the Court announced that inland waters would be defined by the Convention’s criteria, it added Article 4 as one of its bases. As the Court summarized, “California argues that because the Convention permits a nation to use the straight-baseline method for determining its seaward boundaries if its ‘coast line is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity,’ California is therefore free to use such boundary lines across the openings of its bays and around its islands.” *United States v. California*, 381 U.S. 139, 167 (1965). The Court responded with two principles that have guided all subsequent straight baseline litigation.

First, it reiterated what would seem to be clear from the Convention. Article 4 is not self executing nor is its use mandatory. It is an alternative to the “normal” baseline of Article 3. Article 4(1)’s indication that the method “may be employed” means just that.³⁹⁹ Its use is optional.

Second, it clearly ruled, contrary to California’s approach, that the federal government holds that option, not the individual states. Although the Convention would “permit” the United States to draw straight baselines, “California may not use such base lines to extend our international boundaries beyond their traditional international limits against the expressed opposition of the United States.” 381 U.S. at 168. And it continued, “the choice under the Convention to use the straight-base-line method for determining inland waters claimed against other nations is one that rests with the Federal Government, and not with the individual States.” *Id.*

³⁹⁸ Article 4 goes on to indicate that such baselines: must follow the general direction of the coast and enclose only waters “sufficiently closely linked to the land domain to be subject to the regime of internal waters” 4(2); shall, generally, not be drawn to low-tide elevations 4(3); may take into consideration economic interests and usage 4(4); may not cut off another country’s territorial sea from the high seas 4(5); and must be clearly indicated on charts to which “due publicity” must be given 4(6).

³⁹⁹ See also: Churchill and Lowe, *The Law of the Sea* 28 (1983).

The Court reiterated that position four years later when it said “the decision whether to draw such baselines is within the sole discretion of the Federal Government, and the United States has not chosen to do so.” *Louisiana Boundary Case*, 394 U.S. 11, 67 (1969). And, “since the United States asserts that it has not drawn and does not want to draw straight baselines along the Louisiana coast, that disclaimer would, under the California decisions, be conclusive of the matter” *Id.* at 72.⁴⁰⁰

The Court went on in the *Louisiana Boundary Case* to hold that the judiciary could not elect to employ Article 4, saying “the selection of this optional method of establishing boundaries would be left to the branches of Government responsible for the formulation and implementation of foreign policy. It would be inappropriate for this Court to review or overturn the considered decision of the United States, albeit partially motivated by domestic concern, not to extend its borders to the furthest extent consonant with international law.” *Louisiana Boundary Case* at 72- 73.

Even so, in its *California* decision the Court left the door ajar for future straight baseline claims when it said “the national responsibility for conducting our international relations obviously must be accommodated with the legitimate interests of the States in the territory over which they are sovereign. Thus, a contraction of a State’s recognized territory imposed by the Federal Government in the name of foreign policy would be highly questionable.” 381 U.S. at 168. With that in mind, the Court later permitted Louisiana to attempt to prove that the federal government had effectively employed the straight baseline system sanctioned by Article 4 and might not be able to abandon that position “solely to gain advantage” in a lawsuit, citing its statement in the *California* case. *Louisiana Boundary Case* at 74 n.97. A number of states have accepted the invitation. None has proven a straight baseline claim.

The coastal states have taken two routes in their efforts to prove that the United States has actually used straight baseline systems. Some have pointed to specific lines in the sea, adopted by a variety of federal agencies for their own purposes, and characterized them as “straight baselines.” Others have asserted that juridical systems proposed by the United States through history amount to straight baselines and may not now be withdrawn. Neither approach has been successful.

Federal Agency Lines

A number of federal agencies have statutory obligations that have prompted them to draw lines in the sea. Typically these lines have been constructed with the particular needs of the agency in mind. They have not

400. At the same time the Court made clear that the federal government had similar control over decisions to employ the concept of “fictitious bays.” That term was used to describe a pre-straight baseline theory by which waters landward of offshore islands might be considered inland. *United States v. California*, 381 U.S. at 172; *Louisiana Boundary Case*, 394 U.S. at 72.

employed consistent delimitation principles. Nor has any been proffered by the United States as a reflection of its official baseline position. Nevertheless, states have asserted that they constitute straight baseline systems.⁴⁰¹ The examples are discussed individually.

The Coast Guard Line

Louisiana did a thorough job of ferreting out various maritime boundary systems adopted by federal executive departments. Its first example was the Coast Guard’s “Inland Water Line.” In 1895 Congress provided for the adoption of maritime “Rules of the Road” to govern navigation on the “harbors, rivers and inland waters of the United States.” Act of February 19, 1895, 28 Stat. 672.⁴⁰² Louisiana argued first that waters landward of these lines are historic inland waters. The Supreme Court ruled otherwise, finding that “the reasonable regulation of navigation is not alone a sufficient exercise of dominion to constitute a claim to historic inland waters.” *Louisiana Boundary Case*, 394 U.S. 11, 24 (1969). It also pointed out that the Coast Guard had specifically disclaimed any boundary significance to the lines, *id.* at 27, and found “no indication that in enacting the navigation rules and authorizing the designation of an Inland Water Line Congress believed it was also determining the Nation’s territorial boundaries.” *Id.* at 30.

Nevertheless, when the Court appointed Mr. Walter Armstrong to consider questions left unanswered by the opinion, including straight baselines, Louisiana took the opportunity to claim that the Coast Guard Line was a system of straight baselines. The special master noted that the Court found no evidence that the line had been intended or treated as a boundary and stated that “this would appear to conclude the matter insofar as the Special Master is concerned.” *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 8. Despite this conclusion, the master reviewed Louisiana’s arguments and reported that “lest there be any doubt it is now specifically held that the Inland Water Line does not constitute a system of straight baselines within the meaning of Article 4 of the Geneva Convention and therefore does not delineate the outer boundaries of inland waters of the United States or the State of Louisiana.” *Id.* at 9. The Court later adopted all of Special Master Armstrong’s recommendations. *United States v. Louisiana*, 420 U.S. 529 (1975). There is now no doubt that the Coast Guard’s Inland Water Lines do not support a historic waters or straight baselines claim.

401. The Department of State recognized some time ago that “agencies of the Federal Government have made their own determinations for administrative purposes,” but no general determination of inland waters, binding government wide, had been adopted. 1 Hackworth, *Digest of International Law* 644-645 (1940).

402. Those rules are now codified at 33 U.S.C. 152-232.

Census Line

In 1937 the United States Bureau of the Census attempted to “measure” the United States for purposes of the 1940 census. In so doing it adopted general principles for determining what waters should be included. Within a category denominated “State Waters,” it included waters landward of straight lines connecting islands within 1 mile of the coast.⁴⁰³

Louisiana contended that these lines constitute a system of Article 4 straight baselines. The special master rejected the contention, saying that “this determination was made, however, many years before the adoption of the Geneva Convention, for purposes totally unconnected with it; and the results were certainly never clearly indicated on charts which were given due publicity to the nations of the world. It therefore follows that whatever their validity may have been for internal purposes, the census line established in 1937 did not constitute a system of straight baselines” Report at 11.⁴⁰⁴

Chapman Line

In 1950 the Supreme Court ruled that the United States had paramount rights to submerged lands seaward of Louisiana’s coast line. *United States v. Louisiana*, 339 U.S. 699 (1950).⁴⁰⁵ Soon thereafter the federal government proposed a line to implement that decision. That so-called Chapman Line, after then Secretary of the Interior Oscar Chapman, was based upon principles of coast line delimitation espoused by the United States prior to its adoption of the 1958 Convention and included waters landward of some barrier island chains.⁴⁰⁶ (Figure 84) In 1956 it was adopted in an “interim agreement” that the parties entered as a basis for allocating revenues from disputed areas pending resolution of the litigation. But Louisiana acknowledged in the agreement that “no inference or conclusion of fact or law from the said use of the so-called Chapman Line’ or any other boundary of said zones is to be drawn to the benefit or prejudice of any party hereto.” Quoted in *Louisiana Boundary Case*, 394 U.S. at 73-74. A second stipulation was signed in 1971 that provided, *inter alia*, that

403. This principle is a variation of a delimitation method first proposed by the United States at the 1930 Hague Conference on the Codification of International Law. The lines are found in Proudfoot, *Measurement of the Geographic Area* U.S. Bureau of the Census (1946). For a more complete discussion of the Census Lines, see 2 Shalowitz, *Shore and Sea Boundaries* 473-475 (1964).

404. Article 4(6) provides that “the coastal State [nation] must clearly indicate straight baselines on charts, to which due publicity must be given.”

405. This was, of course, merely to say that the Court’s opinion in *United States v. California*, 332 U.S. 19 (1947), applied to other states as well.

406. Of course the United States continued to argue that pre-Convention principles should be used to implement a pre-Convention statute (the Submerged Lands Act) until the Supreme Court ruled otherwise in *United States v. California*, 381 U.S. 139 (1965). For an example of the Chapman Line along portions of the Louisiana coast see 1 Shalowitz at 110 and 111.

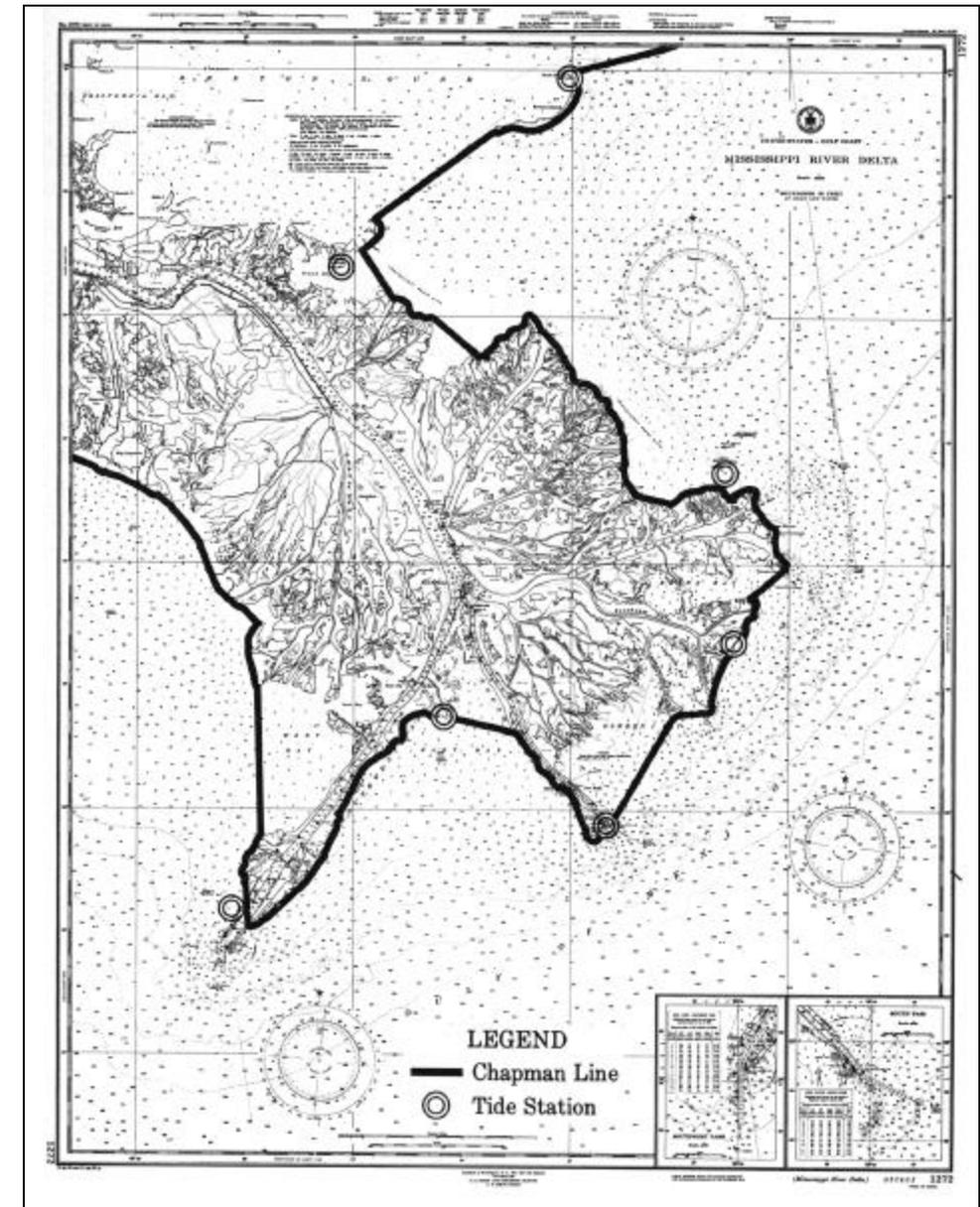


Figure 84. Portion of the Chapman Line on the Mississippi River delta. The line was constructed using pre-Convention principles. (From 1 Shalowitz, *Figure 23*)

“Louisiana recognizes, however, the United States position that these are not wholly inland waters, and agrees that Louisiana does not and will not base its arguments regarding the inland status of these or any other waters in this or any future litigation between it and the United States, upon this stipulation, upon action of the United States in fixing the Chapman Line in this area, or upon prior concessions regarding this area made by the United

States for the purpose of this case and the predecessor case, *United States v. Louisiana*, 339 U.S. 699.”⁴⁰⁷

From these agreements the special master found that “the Chapman Line was not drawn in accordance with the principles and methods embodied in Article 4 of the Geneva Convention so as to give it force in international law.” Report at 9. “In view of the foregoing, . . . the Chapman Line does not meet the requirements of Article 4 of the Geneva Convention for a system of straight baselines, and it is now so held.” *Id.* at 10.

Bird Sanctuaries

President Theodore Roosevelt had a penchant for issuing Executive Orders that established federal reservations of various sorts. Often the orders included rough maps with hand-drawn circles depicting the areas to be included. Two such orders established the Tern Island and Shell Keys bird sanctuaries off the Louisiana coast. Each contained a map with a circular line enclosing the islands and surrounding waters. *United States v. Louisiana*, Report of the Special Master of July 31, 1974, at 11. Louisiana insisted that the lines constituted straight baselines.

Special Master Armstrong found otherwise. He concluded that “even a cursory glance at these orders and the diagrams attached to them, will, however, serve to dissipate this impression. In neither case is there a system of straight lines drawn from point to point, but merely a roughly drawn circular line enclosing an area in which there is both land and water, a line having reference to no particular points of land whatsoever. The purpose is obviously not to establish a boundary between inland and territorial water but to establish a limit with which bird life will be protected” *Id.* at 11-12. “These two executive orders did not establish a system of straight baselines within the meaning of Article 4 of the Geneva Convention.” *Id.*

Louisiana v. Mississippi Decision

In 1906 the Supreme Court resolved a dispute over the river boundary between those two states and its extension into Mississippi Sound. The Court attached to its decision three maps with lines intended to depict Louisiana’s offshore jurisdiction. *Louisiana v. Mississippi*, 202 U.S. 1 (1906).

407. Stipulation of January 21, 1971, between Solicitor General Erwin N. Griswold for the United States and Attorney General Jack P. F. Gremillion for the State of Louisiana, reproduced as Appendix A-2 to the Special Master’s Report of July 31, 1974. The areas referred to are Chandeleur and Breton Sounds on the east side of the Mississippi River delta, which had been treated as inland under pre-Convention principles and lay shoreward of the Chapman Line. The Stipulation memorialized Solicitor General Griswold’s decision to maintain the federal litigation position for that area, so as not to interfere with activities begun in reliance upon it, despite the Supreme Court’s subsequent determination that the Convention’s principles would be applied and the United States would not be bound by prior concessions.

(Figure 85) Louisiana argued in its tidelands case that these maps constitute a system of straight baselines.⁴⁰⁸

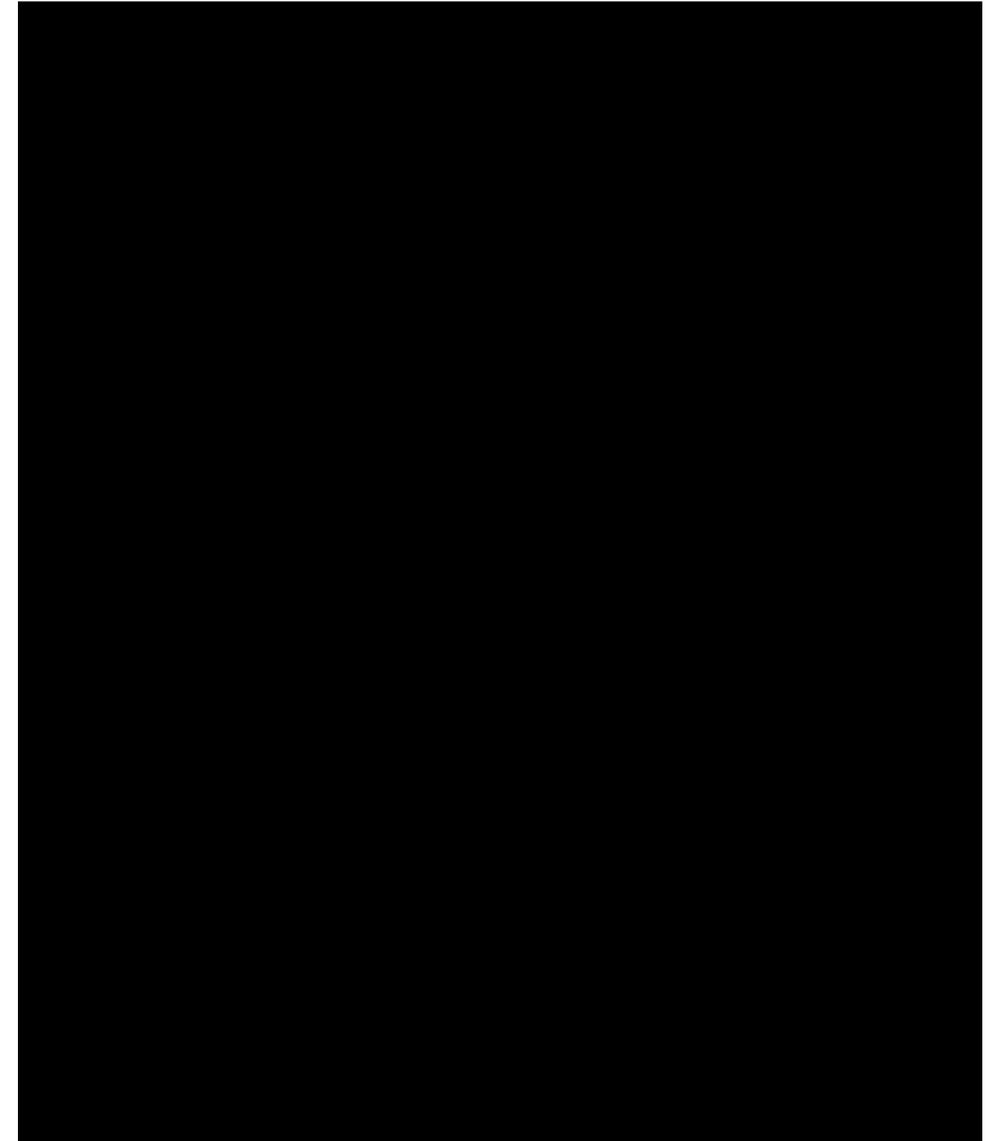


Figure 85. Map included in Supreme Court decision in *Louisiana v. Mississippi*, 202 U.S. 1, 10 (1906). (Arrows along coast added)

408. As discussed above, the Supreme Court did rely on its reasoning in that decision as evidence that Mississippi Sound is inland waters. In the *Alabama and Mississippi Boundary Cases* it looked back at the 1906 decision, noted that it had employed inland water principles in reaching its conclusion there, and determined that the decision, therefore, was evidence of an inland water claim. 470 U.S. 93, 107-109 (1985). It did not suggest that the maps attached to the earlier decision had any legal significance.

The special master disagreed, finding, as he had with the bird sanctuaries, that the lines were not constructed to establish maritime boundaries, were not a straight line at all but an attempt to parallel the coastline, and had not been drawn by the executive or legislative branches but by the judiciary.⁴⁰⁹ Interestingly, the same special master later was appointed to handle the Mississippi Sound litigation. Those states made a straight baselines claim, which he also rejected, but neither state based its arguments on the 1906 Supreme Court maps.⁴¹⁰

Other Executive Branch Lines

At least one other set of agency lines has been argued to have boundary significance. Prior to Alaskan statehood, the federal government drew a series of straight lines along the coast of Alaska which, like the Coast Guard's Inland Water Lines, separated regulatory regimes, this time for fishing. Alaska pointed to the lines not as Article 4 straight baselines but as evidence of a historic waters claim in the Cook Inlet case. The Supreme Court concluded that they were not intended as territorial boundaries, saying "the very method of drawing straight baselines conflicted with this country's traditional policy of measuring its territorial waters by the sinuosity of the coast, 381 U.S., at 167-169." *United States v. Alaska*, 422 U.S. 184, 199 (1975). Although the statement was made in a historic waters decision, it makes clear that the fisheries lines would not have supported a straight baselines claim.

No federal lines have been found to constitute Article 4 straight baselines. The states' various contentions did, however, play a significant role in developing a more systematic process for publicizing the federal boundary position. In 1970 the secretary of state established a Committee on the Delimitation of the United States Coastline. Known as the "Coastline Committee" or "Baseline Committee," the group is made up of representatives of federal agencies responsible for developing international policy and/or enforcing federal statutes off our coasts.⁴¹¹ In less than a year the Committee had produced a set of charts depicting the territorial sea along the entire coast of the United States. The Committee has continued

409. The master did not expand on the latter element but it is a clear reference to the Court's prior statements that boundary delimitation is to be left to the branches of government responsible for the conduct of foreign affairs, not the judiciary. See, for example, *Louisiana Boundary Case*, 394 U.S. at 72-73.

410. *Alabama and Mississippi Boundary Cases*, Report of the Special Master of April 9, 1984, at 5-7. The states succeeded in their historic waters claims, making it unnecessary for the Supreme Court to consider the straight baseline arguments. *Alabama and Mississippi Boundary Cases*, 470 U.S. 93 (1985).

411. The Committee is an arm of the National Security Council's Law of the Sea Task Force. Its original membership included the Departments of State, Justice, Interior, Commerce, and Transportation, but other departments and agencies are encouraged to participate and often do so.

its work over the ensuing 28 years, updating those charts as required. The original charts were distributed to United States attorneys and federal maritime enforcement agencies as well as to foreign governments. More recently, the Committee's boundaries have been included on the National Ocean Service's large-scale charts of our coast and are easily available through that agency and commercial sources.

The United States' Pre-Convention Juridical Practice

The Supreme Court suggested in 1965 that if the United States had employed a straight baseline system prior to its ratification of the 1958 Convention a subsequent "contraction of a State's recognized territory . . . would be highly questionable." *United States v. California*, 381 U.S. 139, 168 (1965). It reiterated that position in 1969 saying "if that had been the consistent official international stance of the Government, it arguably could not abandon that stance solely to gain advantage in a lawsuit to the detriment of Louisiana." *Louisiana Boundary Case*, 394 U.S. 11, 74 n.97 (1969).

It happens that the federal government had, over time, considered a number of methods for dealing with waters landward of barrier islands. One such scheme would have treated as inland all waters landward of barrier islands that are no more than 10 nautical miles apart. An area off the north slope of Alaska is screened by such islands, forming Stefansson Sound. Alaska was encouraged by the Court's statements in *California* and *Louisiana* and accumulated a mass of evidence in support of its theory that the United States had employed this 10-mile rule at least from 1903 through Alaskan Statehood and could not now alter it to the state's detriment.

The state's preparation was exhaustive, and in the middle of the case it received additional support. Special Master Armstrong concluded, in the Mississippi Sound case, that the United States had indeed employed the 10-mile rule for the period urged by Alaska in its special master proceedings. *Alabama and Mississippi Boundary Cases*, Report of the Special Master of April 9, 1984, at 53-54. Based in part upon that conclusion he recommended that Mississippi Sound be recognized as historic inland waters. That recommendation was adopted by the Court. *Alabama and Mississippi Boundary Cases*, 470 U.S. 93 (1985).⁴¹²

But the historic evidence is not so clear as suggested in the Mississippi Sound Report. The United States pointed out in the Alaska litigation that

412. Interestingly the special master specifically ruled that the 10-mile policy did not prove Mississippi and Alabama's straight baseline claims. Report at 5-7. Thus, Mr. Armstrong provided a factual finding in support of Alaska's position but refused to take the ultimate step necessary to Alaska's case, a conclusion that the 10-mile rule amounted to a straight baseline system.

prior to 1958 the federal government had experimented with a number of juridical principles for dealing with waters landward of barrier islands. An example was its proposal to the 1930 Hague Codification Conference that would have assimilated such waters to the territorial sea.⁴¹³

Alaska's expert witnesses, J. R. Victor Prescott and Jonathan Charney, testified that the Alaskan north slope is well suited to the use of straight baselines, numerous foreign nations have employed Article 4 in similar circumstances, and but for particular law of the sea interests the United States might also have done so by now.⁴¹⁴ But neither could say that the United States had actually implemented Article 4.

Ultimately, Special Master Mann concluded that the 10-mile rule had not existed as United States policy for the periods mentioned by the master and Court in the Mississippi Sound case. *United States v. Alaska*, Report of the Special Master of March 1996, at 127 and 150. The Court later agreed. *United States v. Alaska*, 521 U.S. 1, 21-22 (1997).⁴¹⁵

We have focused on Louisiana's and Alaska's straight baseline claims because those states presented the most comprehensive evidence and arguments, based on actual agency line drawing schemes and prior federal juridical practice respectively. However, five other states have made straight baseline claims in tidelands cases.

First, California contended that straight baselines should be used to enclose the Santa Barbara Channel. The Court said that although permitted by international law, the United States had not elected that course and neither the judiciary nor the state could compel it. *United States v. California*, 381 U.S. 139, 168 (1965). Florida argued that a system of straight baselines should be used in the Florida Keys and Dry Tortugas Islands. Special Master

413. See: 4 Whiteman, *supra*, at 148 and *United States v. Alaska*, 521 U.S. 1, 17 (1997).

414. Dr. Prescott taught geography at the University of Melbourne, Australia, and is a widely published authority on international boundaries, including maritime boundaries. Mr. Charney is a professor of law at Vanderbilt University. He represented the Department of Justice at the birth of the Baseline Committee and was government counsel during trial of the *Louisiana Boundary* and Cook Inlet cases.

415. In addition to the inconsistency in federal theories through history, there is substantial evidence that whatever was espoused, it was not considered by the United States or the international community as a straight baseline system. Article 4 is acknowledged to have evolved from the Norwegian example, approved by the International Court of Justice in the Anglo-Norwegian *Fisheries Case*, [1951] I.C.J. Rep. 116. The majority of the Court in the *Fisheries Case* contrasted the United States' "arcs of circles" method of delimiting the territorial sea with the straight baselines under consideration. *Id.* at 129. Following the I.C.J. decision the attorney general asked the secretary of state whether the United States would be changing its policy to conform to the straight baseline system approved by the Court. Secretary Acheson responded that the International Court decision made straight baselines optional, not required, and the United States would not be adopting them. Letter of February 12, 1952, reproduced at 1 Shalowitz, *supra*, at 357; see also, 4 Whiteman, *supra*, at 178.

The United States has also been diligent in protesting foreign straight baselines that it believes do not conform to the requirements of Article 4 of the 1958 Convention (Article 7 of the 1982 Law of the Sea Convention). By 1995 at least 60 countries had drawn straight baselines and some 10 more had legislatively authorized straight baselines that had not yet been drawn. Roach and Smith, *United States Responses to Excessive Maritime Claims* 75, 2nd ed., 1996. The United States has either protested or asserted its right of innocent passage in 34 of those cases. *Id.* The United States has not only declined to draw straight baselines itself, it has maintained its traditional policy of maximizing high seas freedoms by actively contesting excessive foreign claims.

Maris reviewed the state's contentions and concluded that "the evidence in this case conclusively establishes that the United States has not adopted the straight baseline method . . . [for] the coastline of the State of Florida."⁴¹⁶ *United States v. Florida*, Report of the Special Master, October Term 1973, at 49. Mississippi and Alabama claimed straight baselines for Mississippi Sound on exactly the same theory urged by Alaska for the north slope; the United States had historically closed sounds with mouths of less than 10 nautical miles. *Alabama and Mississippi Boundary Cases*, Report of the Special Master of April 9, 1984, at 5. Special Master Armstrong referred to his prior experience with the straight baseline issue along the Louisiana coast and ruled consistently that there had been no contraction of state territory and Article 4 was not applicable. *Id.* at 7.⁴¹⁷

Finally, and although the state did not strongly pursue a straight baseline claim, Special Master Hoffman touched on the issue in the *Massachusetts Boundary Case*. He noted that although parts of the United States' coastline are suited to Article 4, the federal government alone held the option to employ straight baselines and had elected not to do so. *Massachusetts Boundary Case*, Report of the Special Master, October Term, 1984, at 6.

The question would seem to be resolved. Despite extremely thorough work by counsel for the states, both the Court and its special masters have consistently held that the United States has not adopted Article 4 straight baselines. It seems unlikely that the issue will arise again.

International law provides the boundary delimitation principles discussed above, but the United States Supreme Court and its special masters have put meat on the bones of those principles. The law that they have developed will continue to be critical to the delimitation of maritime boundaries both here and abroad.

416. Judge Maris later recommended that the waters within three island groups — the lower Florida Keys, the Marquesas Keys, and the Dry Tortugas Islands — are inland waters enclosed by "straight lines drawn between those islands . . ." Report at 52-53. That result had not been urged by either party and the United States took exception, arguing to the Court that the master's proposal could only be explained as a straight baseline system that he had already rejected. The Court returned the question to the master for further consideration and the parties stipulated that no such inland waters existed. *United States v. Florida*, 420 U.S. 531 (1975); Stipulation of December 11, 1975, signed by Solicitor General Robert H. Bork for the United States and Attorney General Robert L. Shevin for the State of Florida (Appendix A to Supplemental Report of the Special Master of December 30, 1975).

417. Interestingly, the master accepted the same alleged pre-Convention practice (the 10-mile rule) as evidence of a historic waters claim. The Court adopted that recommendation, leaving no reason for it to comment on the straight baselines arguments. *Alabama and Mississippi Boundary Cases*, 470 U.S. 93 (1985).