



International Boundary Study

No. 156 – July 2, 1976

Costa Rica – Panama Boundary

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**The Geographer
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INTERNATIONAL BOUNDARY STUDY

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COSTA RICA – PANAMA BOUNDARY

I. BOUNDARY BRIEF

The Costa Rica–Panama boundary extends between the Caribbean Sea and the Pacific Ocean and is approximately 225 miles long. It follows rivers, drainage divides, and straight-line segments. The boundary is demarcated throughout by pillars or rivers.

II. HISTORICAL BACKGROUND

Controversies involving this boundary arose from the first quarter of the 19th century and continued until 1941, when the present line was determined. The disagreements in the early part of the period reflected the claims of states to which the Republic of Costa Rica and the Republic of Panama became the successors relative to the boundary. Numerous attempts were made to settle the boundary alignment, which was complicated by lack of adequate knowledge of the geography of the area.

By the terms of a convention of November 4, 1896, the boundary dispute, then between Costa Rica and Colombia, was submitted to the President of France for arbitration. The award of President Loubet on September 11, 1900, was accepted by Colombia, but Costa Rica protested against the sector of the boundary between the cordilleras and the Caribbean Sea.

The unresolved boundary problem was referred to Chief Justice White of the United States, as arbitrator, under a convention of March 17, 1910, between Costa Rica and Panama. The award given on September 12, 1914, proved unacceptable to Panama.

The present Costa Rica–Panama boundary was delimited in a treaty signed at San Jose on May 1, 1941, as follows:

Starting from the present mouth of the Sixaola River in the Caribbean Sea, the boundary line follows that river's thalweg upstream to its confluence with the Yorkin River; thence upstream along the Yorkin's thalweg to the parallel of latitude of 09°30' North; thence on a SW bearing of 76°37' to the meridian of longitude of 82°56'10" West. The line then follows this meridian in a southerly direction until it reaches the cordillera separating the waters of the Atlantic Ocean from those of the Pacific; thence along this cordillera to Cerro Pando, which is the point of union of the cordillera with the secondary range constituting the watershed between the tributaries of Golfo Dulce and those of Bahia de Charco Azul; thence along this secondary range, and terminating at Punta Burica on the Pacific Ocean.

The 1941 treaty provided for the naming of mixed boundary commissions by Costa Rica and Panama and for the designation by the President of Chile of an adviser to the Commissions. Following the demarcation of the boundary with pillars or markers,

signatures were affixed to the acta final and the general map on September 15, 1944. The signing and exchange of notes approving the boundary demarcation was performed on September 18, 1944, at the place where the Inter-American Highway crosses the Costa Rica–Panama boundary.

III. ALIGNMENT

The *General Act*¹ of the Panama–Costa Rica Boundary Commission contains the demarcation of the boundary, divided into seven sectors, and is followed by a summary of the base markers or monuments as follows:

First Sector. From the mouth of the Sixaola River to Brakicha (Point H)

The mouth of the Sixaola River marks the extreme northerly point of the boundary line; Brakicha is the point where the Yorkin River, a tributary of the Sixaola, intersects the parallel of 9°30' North.

Between these two points the boundary line is defined by the position of the thalweg of the Sixaola and Yorkin Rivers at the time the work of demarcation was carried out. Owing to the practical impossibility of erecting markers on this line, it is indicated by the markers constructed on both banks of the two rivers.

The geographical coordinates of the different points of the boundary in this sector were determined by means of a triangulation covering the whole sector and based on astronomical observations of latitude, longitude, and azimuth taken at the Sixaola River mouth station (A 1 C) using a base line 746 m long (markers 1 P to 3 P), measured at that station in Panamanian territory. For control, astronomical observations were also made at Guabito (station A 1 P) and at Brainak (marker 117 P), and the bases of Cobos (markers 5 C to 7 C), Sixaola Bridge (markers 27 C to 29 C), Nievécita (markers 49 P to 51 P), Uatsi (markers 67 C to 69 C), Yorkin River mouth (markers 79 C to 81 C), and Sorokicha (markers 111 C to 113 C) were measured.

Charts E, G, and I indicate, respectively, the geometric values of the triangulation in reference, the rectangular coordinates, the geographic coordinates, the elevations of the triangulation vertices—which for the most part are the boundary markers themselves—and the distances from the thalweg to these markers, erected on both sides of the Sixaola and Yorkin Rivers. These distances should be considered as following the direction of the respective sides of the triangulations from the points at which the corresponding line of sight intersects the line of the thalweg.

¹ *La Gaceta*, San Jose, Costa Rica, October 7, 1944, pp. 1,848–1,851. Documents, maps, and charts referenced in the discussion of the sectors constituted an integral part of the *General Act* but were not reproduced in *La Gaceta*.

Finally, the maps (monographs) referred to in letter D indicate the exact position of the base boundary markers, their structure and dimensions, and other data pertinent to their identification and reconstruction, should it prove necessary, on the same site at which they are currently located.

The boundary line between the mouth of the Sixaola River and Brakicha is extremely uneven. Defined first by the thalweg of the Sixaola, and afterwards by that of the Yorkin, it follows all the curves of both rivers. At its beginning it crosses the marshy zone between the Caribbean coast and Isla Grande at the foot of the Kaskicha highlands, which form the southern boundary of the lower valley of the Sixaola, and then continues across those highlands with numerous curves until it reaches Sibube, the probable site of what was once Santiago de Talamanca, founded by the Spaniards in 1605. From this point it follows the valley that narrows down to form the Piedra Granda gorge; here the bed of the Sixaola River becomes stabilized, boxed in by the slopes of the coastal highlands. From the confluence of the Sixaola with the Yorkin (Itchurry) River, the boundary line continues along the steep and narrow canyon formed by the Yorkin until it reaches the parallel of 9°30' North, at the point called Brakicha or Point H.

All along the above-described line the land rises very gently from sea level, reaching an elevation of 8.5 m at Isla Grande; the river is navigable for small boats up to this point. Further inland, the gradient of the terrain increases, to an elevation of 87 m at Brakicha, and the river's current produces steadily larger rapids, allowing passage by canoe only.

Second Sector. From Brakicha (Point H), to Namu Uoki (Point I)

Namu Uoki is the point where the meridian of 82°56'10" West intersects the line running from Brakicha with an azimuth of S. 73°37' West.[2]

The geographic coordinates of Namu Uoki were determined by means of a triangulation which, using a base line 2,600 m long running from Amubri along the plain of the lower course of the Uren and Suidi Rivers, was aligned with the Sixaola triangulation, to which it is joined at the confluence of the Sixaola and the Yorkin (marker 79 C A). This triangulation is also joined to the Yorkin River triangulation at Almendro, a point located in the southeast of the region under consideration and near Brainak (marker 117 P).

The previously mentioned charts (E and G) contain, in their final part, the geometric values relative to the technical operations for establishing the Brakicha–Namu Uoki line, and also the rectangular coordinates, geographic coordinates and elevations of

² The 1941 treaty states "thence on a SW bearing of 76°37' to the meridian of longitude of 82°56'10" West."

the final markers; the corresponding monographs indicate the exact position of those markers on the terrain.

The Brakicha–Namu Uoki line crosses a region covered with dense tropical vegetation, with an average elevation of 350 m above sea level, running in a direction almost at right angles with the upper reaches of the Scui and Bris Rivers, tributaries of the Yorkin, and the Katsi River, a tributary of the Uren. The terrain in this boundary sector is extremely uneven, rising from 87 m at Brakicha to 581 m at Namu Uoki, with widely varying intermediate elevations.

Third Sector. From Namu Uoki (Point I) to Point A

According to the Treaty, Point A is the point where the meridian of 82°56'10" West intersects "the cordillera separating the waters of the Atlantic from those of the Pacific."

The geographic coordinates of Point A have not been precisely determined. By joint agreement, both Governments decided not to require exact establishment of them if they could not be determined within the time period allowed, and instead to bring the boundary demarcation operations to a close, inasmuch as Point A is situated in a nearly inaccessible region of no known importance and far from all inhabited areas.

For this reason, no marker has been placed directly on the site of Point A, but it appears on the corresponding monograph in relation to a reference marker set up in the general area.

Thus, the position of Point A, described in the same manner as the rest of the boundary line, defined and recorded in the official documents, shall constitute for all national or international private or public legal purposes the boundary between Panama and Costa Rica.

It is hereby expressly recorded that the Namu Uoki marker was erected, allowing for the margin of error used in all the operations, on the meridian of 82°56'10", and defined, moreover, by direction markers whose exact positions are indicated on the corresponding maps on a scale of 1:20,000 and 1:100,000, and also on the monograph on the Namu Uoki base marker.

The north–south straight line which unites Namu Uoki (Point I) and Point A crosses the roughest terrain of the boundary zone between the two countries. The land elevation climbs from 581 m at Point I to 2,633 m at Point A, over a horizontal distance of approximately 44 km. Beyond Namu Uoki, the boundary line rises and descends alternately, crossing the narrow, deep valleys of the Uren tributaries especially the Sucu valley, and continues on to the watershed between the hydrographic basins of the Uren and Tararia Rivers; it then descends into the deep canyon of the Tararia, and climbs finally to the crest of the main cordillera.

Fourth Sector. From Point A to Cerro Pando

In conformity with the Boundary Treaty, the name of Cerro Pando was kept for the mountainous ridge uniting the Cordillera Continental with the ridge constituting the watershed between Golfo Dulce and Bahía Charco Azul; this ridge is located approximately 17 km southeast of the mountain that had been mistaken for it in existing maps up to the time of execution of this Boundary Treaty. By agreement of the Panama–Costa Rica Boundary Commission, the latter mountain, situated on the Point A–Cerro Pando segment of the boundary line, is given the name of Cerro Echandi.

The geographic coordinates of Cerro Echandi and Cerro Pando were determined by a triangulation executed on the Pacific slope; the data are recorded in the description of the following sector.

Between Point A and Cerro Pando, the boundary line, defined by the Cordillera Continental watershed, was determined by means of a traverse approximately 43 km long which, uniting the two points in reference, passes through Cerro Echandi, where it was closed.

Markers have been placed along the Point A–Cerro Pando segment of the boundary line at intervals varying approximately between 1 1/2 and 2 km at the ends of the segment, and between 3 and 4 1/2 km in the middle part; the line has an average elevation of more than 2,000 m. From Point A, 2,633 m above sea level, the line climbs with small interruptions to the crest of Cerro Echandi having an elevation of 3,167 m. It then descends into the depression formed by the cordillera between Cerro Echandi and Cerro Pando, whose elevation is 2,108 m, climbing again to the latter's crest, with an elevation of 2,441 m.

The vegetation in this sector corresponds to the tropic cold zones: oak forests up to 3,000 m, then myrtles and canuelas, and finally, small areas of barren plateau.

Fifth Sector. From Cerro Pando to Paso de Canoas

Between Cerro Echandi and Cerro Pando to the north, and Finca [Farm] No. 12 to the south, is the triangulation executed by the Pacific Joint Commission, which covers this sector and the following one and has a base line of 8,725 m, measured at Finca No. 12 (Finca No. 12 tank-Blanco tank) and at the geographic position of the origin point (Finca No. 12 tank) whose coordinates, like the azimuth of the base line, were calculated by transferring the values determined astronomically at the Finca No. 12 observation point, situated on a bearing of 31°32'30" Northeast of the marker of the same name and at a distance of 1,350.25 m from it. The boundary line passes through the base markers of Cerro Pando, La Unión, Canas Gordas, and Paso de Canoas, and has the form of an open letter C, with Canas Gordas at the westernmost

point of the curve. From this last point, the waters on the Costa Rican side flow into the Coto–Bruss River and, farther southward, into the Coto River; on the Panamanian side they flow into the Chiriqui Viejo River throughout the whole sector.

The geographic coordinates of the base points were determined as follows:

Cerro Pando by means of the aforementioned triangulation;

La Union and Canas Gordas, by averaging the results from this triangulation and from the direct astronomical observations; and

Paso de Canoas, by transferring the geographic coordinates of Finca No. 12 by means of a traverse with azimuth adjusted at both extremes.

Traverses were measured all along the boundary line in this sector, closed at the aforementioned base markers, and marked on the terrain by 3rd-class markers and reference markers, the former located at intervals measuring between 1 and 2 km.

Chart F gives the geometric values of the triangulation; chart H gives the rectangular coordinates, the geographic coordinates, and the elevations of the triangulation vertices and of the base markers located in this sector; chart J contains the geometric values of the traverses uniting all the boundary markers.

In this sector the boundary line descends rapidly toward Piedra Candela, and with the exception of a slightly inclined segment in the neighborhood of La Union, undulates until it reaches Paso de Canoas, where a 2nd-class marker was erected; beyond this point begins flat land. The following waters flow toward the Costa Rican side: Negro River, Sabalitos River, Quebrada Agua Buena, Corredor River, Abrojo River, Brujo River, Coloradito River, and Quebrada Bonita, the first three of which are tributaries of the Coto–Bruss River and the other tributaries of the Coto River. Flowing toward the Panamanian side are the Piedra Candela River, Sereno River, Quebrada Cano Seco, and Quebrada Negra, all tributaries of the Chiriqui Viejo River.

Between Pando and La Union is located the village of Piedra Candela; between La Union and Canas Gordas the hamlet of Sereno, and, between Canas Gordas and Paso de Canoas, the hamlets of Los Planes, Limoncito, and Ojo de Agua. Not far from the boundary are located the towns of Agua Buena, on the Costa Rican side, and Brenon, on the Panamanian side. The trigonometric vertex named Jose Campos is near this last point; from here the boundary line descends towards Fila de Cal, arriving finally at Paso de Canoas.

Sixth Sector. From Paso de Canoas to Finca No. 12 (Roble)

This sector is the only part of the boundary along which the line is defined by a traverse, whose geometric values are indicated on Chart J and whose reference

markers for the 3rd-class monuments are on Chart K. This traverse starts from the 2nd-class monument of Paso de Canoas and ends 95.04 m to the south, 05°43'20" West of the 2nd-class monument at Finca No. 12 (Roble).

From Paso de Canoas to the latitude of Progreso, approximately 2 1/2 km to the west of that town, the boundary line runs alongside the Chiriqui Viejo River over nearly flat mesetas, lightly sloping from north to south, whose changes of elevation are so local and abrupt as to have the nature of steps. Continuing southward, the line crosses Colorado Marsh, 14 m above sea level, and the low-lying land on either side of it, covering a distance of approximately 8 1/2 km before reaching the banana groves of Finca No. 4 (Sigua), belonging to the Chiriqui Land Co. The line crosses this finca, and also the fincas of Corozo (No. 2) and Roble (No. 12) belonging to the same company, covering a total distance of approximately 3 1/2 km. This segment of the boundary line crosses the X-Colorado and Colorado B-A drainage canals and the railroad branch lines called Bogamani and Blanco, and also the line joining the Blanco and Bongo lines. It then follows the western boundary of Finca No. 12 (Roble) to its southwest corner; the 2nd-class monument carrying the name of this finca is located 95.04 m from that corner.

Seventh Sector. From Finca No. 12 (Roble) to Punta Burica on the Pacific Ocean

From Finca No. 12 (Roble) base marker, the boundary line runs in a general southwesterly direction for approximately 18 km, then turns in a general southeastward direction until it reaches Guanabano, where a 2nd-class marker was erected at the head of the Guanabano River. From Guanabano to Punta Burica the line continues generally southeastward, but staying even closer to the meridian.

The geographic coordinates of the Finca No. 12, Guanabano, and Punta Burica markers were determined by astronomical observations, and, as in the preceding sectors, traverses were measured all along the boundary line, here defined by the watershed, closed at the base markers and marked on the terrain by 3rd-class markers placed at intervals of approximately 2 km.

Chart H indicates the rectangular coordinates, geographic coordinates, and elevations of the base markers, and chart J gives the geometric values relative to the traverse uniting all the boundary markers.

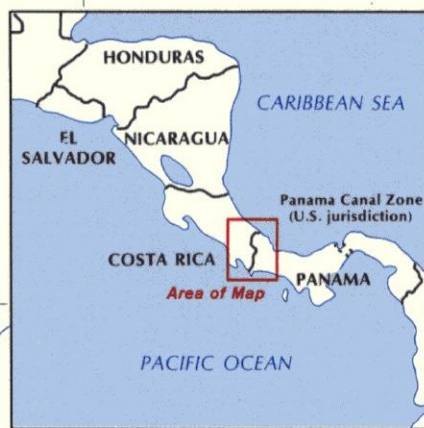
The boundary in this sector runs through hilly jungle, with constant changes of elevation. The highest elevations are reached to the west of the 83rd meridian in the Burica Hills, where the headwaters of the Blanco River lie, and from which the long neck of the Burica peninsula extends. Only along a segment beginning 9 1/2 km from Punta Burica and ending 5 km from it is the profile of the boundary flat. In its first part, where it runs southwestward, it nears the coast, and it remains close to it until it terminates at Punta Burica.

To summarize the foregoing, we, the members of the Panama–Costa Rica Boundary Commission, hereby attest that the boundary line described above and marked on the terrain by boundary markers or monuments whose specifications are given in the documents attached to this Act, passes through the base monuments whose number, class, and geographic coordinates are listed below:

No..	Name.	Class.	Latitude	Longitude.	Elevation
1 P.	Sixaola River Mouth.	1st.	9°34'12".	82°33'14.5".	2.16m
1 C.	Sixaola River Mouth.	1st.	9°34'22".	82°33'27".	2.75m
31-P-Puente.	Guabito.	1st.	9°30'06".	82°36'21.5".	7.80m
29-C-Puente.	Sixaola.	1st.	9°30'12".	82°36'24".	7.85m
71-P.	Yorkin River Mouth.	1st.	9°34'02.5".	82°52'31.5".	66.4m
79-C.A.	Yorkin River Mouth.	1st.	9°33'47".	82°52'38".	76.7m
Point H-P.	Brakicha.	1st.	9°30'00".	82°50'0".	87.2m
Point H-CP.	Brakicha.	1st.	9°30'00".	82°50'02".	87.2m
Point I .	Namu Uoki.	1st.	9°28'33".	82°56'10".	581m
Point A	No base monument. .			82°56'10"	
372.	Point A Reference.	3rd.	. .		2.607m
360.	Cerro Echandi.	3rd.	9°01'45".	82°49'25".	3.163m
342.	Cerro Pando.	2nd.	8°55'16.5".	82°42'56.5".	2.441m
304.	La Union.	1st.	8°50'22.5".	82°52'31.5".	1.020m
260.	Canas Gordas.	2nd.	8°44'43".	82°55'16.5".	1.175m
194.	Paso de Canoas.	2nd.	8°33'58.5".	82°49'33.5".	280m
80.	Finca No. 12 (Roble).	2nd.	8°24'28".	82°57'27".	52m
36.	Guanabano.	2nd.	8°14'59".	82°56'18".	180m
2	Punta Burica.	1st.	8°02'18".	82°54'12.5".	20m

This International Boundary Study is one of a series of specific boundary papers prepared by the Office of the Geographer, Bureau of Intelligence and Research, Department of State, in accordance with provisions of the Office of Management and Budget Circular No. A-16.

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Costa Rica-Panama Boundary

Source: Office of the Geographer,
Department of State

0 25 Miles
0 25 Kilometers

BOUNDARY BRIEF

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