



International Boundary Study

No. 144 – April 4, 1974

**Angola – Democratic Rep. of the Congo (*Zaire*)
Boundary**

(Country Codes: AO-CG)

**The Geographer
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Bureau of Intelligence and Research**

INTERNATIONAL BOUNDARY STUDY

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**ANGOLA – DEMOCRATIC REPUBLIC OF THE CONGO (KINSHASA)
[FORMERLY ZAIRE] BOUNDARY**

TABLE OF CONTENTS

	<u>Page</u>
I. Boundary Brief	2
II. Historical Background.....	2
III. Boundary Treaties	2
IV. Alignment.....	8
Documentation	17

ANGOLA – DEMOCRATIC REPUBLIC OF THE CONGO (KINSHASA) [FORMERLY ZAIRE] BOUNDARY

I. BOUNDARY BRIEF

Demarcated throughout by rivers or pillars, the Angola - Zaire boundary consists of two discontinuous parts with a combined length of approximately 1,560 miles. The longer part, inland from the Atlantic Ocean for about 1,420 miles to the Zambia tripoint, follows major rivers such as the Congo, Kwango, and Kasai; numerous straight-line segments; and various drainage divides. The remainder of the boundary for 140 miles forms the eastern and southern limits of Cabinda which is an exclave of Angola located adjacent to the Atlantic and between Zaire and the People's Republic of the Congo.

II. HISTORICAL BACKGROUND

Angola. Following Portuguese exploration of the coast of present-day Angola during the 15th century, the King of Portugal granted a charter in 1575 for a crown colony which included the territory between the Congo river and the Rio Cuanza. The colony was expanded gradually both southward and eastward, and eventually Portuguese administration also was extended north of the Congo river to include the district of Cabinda. In 1951 the colony of Angola was designated an overseas province regarded legally by the Portuguese Government as an integral part of Portugal.

Zaire. The Berlin Conference of 1884 - 5 recognized King Leopold of the Belgians as the sovereign head of state for the International Association of the Congo. On July 1, 1885, the entity was renamed the Congo Free State. A treaty for the cession of the Congo Free State from King Leopold II to Belgium was signed on November 28, 1907, and after approval of the treaty by a Belgian Law of October 18, 1908, the state was administered as the colony of Belgian Congo.

The Belgian Congo became independent as the Republic of the Congo on June 30, 1960, and the name of the state was changed to the Democratic Republic of the Congo on August 1, 1964. In turn the Democratic Republic of the Congo changed its name to the Republic of Zaire on October 21, 1971.

III. BOUNDARY TREATIES

On February 14, 1885, a Portuguese - International Association of the Congo Convention delimited an initial boundary between their territories:

(1) in the Cabinda sector and (2) inland from the mouth of the Congo river and ultimately to the Kwango (Rio Cuango). In effect the Convention afforded recognition by the International Association of the Congo of Portuguese claims to Cabinda, and Portugal

guaranteed the International Association of the Congo a narrow corridor of land to the coast. The 1885 Convention delimited the boundary as follows:

To the north of the River Congo (Zaire) the right frontier joining the mouth of the river which empties itself into the Atlantic Ocean, to the south of the Bay of Kabinda, near Ponta Vermelha, at Cabo - Lombo;

The parallel of this latter point prolonged till it intersects the meridian of the junction of the Culacalla [Zenze] with the Luculla [Lukula];

The meridian thus fixed until it meets the River Luculla;

The course of the Luculla to its junction with the Chiloango (Luango Luce) [Louango];

The course of the Congo (Zaire) from its mouth to its junction with the little River Uango - Uango;

The meridian which passes by the mouth of the little River Uango - Uango between the Dutch and Portuguese factories, so as to leave the latter in Portuguese territory, till this meridian touches the parallel of Nokki [Noqui];

The parallel of Nokki till the point where it intersects the River Kuango (Cuango) [Kwango];

From this point, in a southerly direction, the course of the Kuango (Cuango).

A convention between Portugal and the Congo Free State signed at Brussels on May 25, 1891, partially redelimited the Cabinda sector, afforded additional detail on the boundary as presently demarcated in the Congo river sector, and established the Noqui - Kwango sector as "the parallel passing by the foundation of the house of the Nokki Residency." The 1891 convention delimited the Cabinda sector as follows:

A straight line joining a point taken on the beach, 300 metres to the north of the principal house of the Dutch Factory of Lunga, at the mouth of the Rivulet Lunga in the lagoon of the same name.

The course of the Rivulet Lunga, as far as Mallongo Pool, the villages of Congo, N'Conde, Jema, & c., remaining to the Independent State of the Congo, and those of Cabo, Lombo, M'Venho, Jabe, Ganzo, Taly, Spita Gagandjime, N'Goio, M'To, Fortaleza, Sokki, & c., to Portugal.

The courses of the Rivers Venzo and Lulofe, as far as the source of the latter on the slope of Mount Nime - Tchiama;

The parallel of this source, as far as its intersection by the meridian of the confluence of the Luculla and the river called by some N'Zenze, and by others Culla - Calla;

The meridian thus determined until it meets the River Luculla;

The course of the Luculla, as far as its confluence with the Chiloango (Luango - Luce).

A second treaty was signed by Portugal and the Congo Free State on May 25, 1891, this time in Lisbon. Article I delimited their respective spheres of sovereignty and influence in the so-called Lunda region from the Kwango to the intersection of the Congo - Zambezi drainage divide and the 24th meridian. It stated that the exact alignment of the boundary between the Kwango and Kasai (Rio Cassai) was to be completed at a later date, "taking into account the configuration of the land and the limits of the Native States." Article II provided for by the appointment of a boundary commission. Article I delimited the boundary as follows:

1. By the thalweg of the course of the Cuango, from the 6th degree of south latitude to the 8th degree;

By the 8th parallel to its intersection by the River Kuilu [Kwilu, Rio Cuilo];

By the course of the Kuilu in a northerly direction, so far as the 7th degree of south latitude;

By the 7th parallel as far as the River Cassai.

3. By the thalweg of the Cassai from the point where this river meets the line of demarcation, mentioned in the preceding paragraph, to the mouth of that one of its affluents which originates in Lake Dilolo, and by the course of this affluent as far as its source.

The region to the west of the Cassai shall belong to Portugal; the region to the east to the Independent State of the Congo.

4. By the watershed dividing the waters of the Zaire and those of the Zambezi, as far as its intersection by the 24th meridian east of Greenwich.

A declaration was issued on March 24, 1894, by Portugal and the Congo Free State approving a report of the boundary commissioners of June 26, 1893, for the Lunda region. The declaration affords the present alignment of the Kwango - Kasi sector and is the basis for the subsequent demarcation of the boundary by pillars.

Following the thalweg of the Kwango (Cuango) from the 8th parallel as far as its confluence with the Tungila (Utunguila) [Rio Ulunguila] 8°7'40" south latitude approx.; the thalweg of the Tungila (Utunguila) as far as its intersection with the Canal [Channel] through which pass the waters of the Lola; the thalweg of the same canal as far as its junction with the Komba [Combe], 8' west of the Wamba (Uhamba) [Uamba], and 8°5'4" south latitude approx.; for want of a natural boundary, the frontier as far as the thalweg of the Wamba (Uhamba) shall be marked out by the line due east, passing through the aforesaid point of junction (Komba and Lola).

The thalweg of the Wamba (Uhamba) from the parallel of the point of junction between the Komba (Comba) and the Lola, as far as its confluence with the Uovo (Nuovo) [Uamba]; the thalweg of the Uovo (Nuovo) as far as its junction with the N'Kombo (Combo); the thalweg of the N'Kombo and of the Kamanguna (Camanguna) (or the river by which the waters of the river Lue flow into the N'Kombo), as far as the 8th degree of south latitude. From this point the boundary shall be the 8th parallel, as far as the thalweg of the Lucaia [Lukaye], then the thalweg of this river (Lukai) [Rio Lucaia, Lukaye] as far as 7°55' south latitude; the parallel from this point (7°55' south latitude) as far as the Kwengo (Cuengo); from this point the thalweg of the Kwengo (Cuengo), as far as the 8th degree from thence a parallel as far as the river Luita [Rio Luila]; the thalweg of the Luita as far as its junction with the Kivilu (Cuilu). From thence (7°34' south latitude approx.) the parallel as far as the thalweg of the Kama Bomba (Camabomba) or Kangulungu (Congulungu) [Cungulungo]; the thalweg of the Kangulungu as far as the junction of its waters with the Loangue [Luangue], and the thalweg of the Loangue as far as 7° south latitude. From the intersection of the thalweg of the Loangue and of the 7th degree, following this parallel as far as its intersection with the thalweg of the Lovua; the thalweg of the Lovua as far as 6°55' south latitude. From this point (6°55' south latitude) the boundary shall be marked out by the parallel as far as its intersection with the thalweg of the Chikapa (Chicapa); the thalweg of this river (Chicapa) as far as 7°17' south latitude; from this point (7°17' south latitude) the parallel as far as the thalweg of the Kassai (Cassai).

The Cabinda sector was demarcated in accordance with a proces-verbal signed by a joint commission at Cabinda on July 17, 1900. Including the Rio Chiloango segment of the boundary, the Cabinda sector was approved by a protocol signed at Brussels on July 5, 1913, which affords the present alignment. A second Cabinda proces-verbal verified the demarcation on March 14, 1925.

The Noqui - Kwango sector was demarcated by proces-verbaux signed by boundary commissioners at Kilumbu on October 15, 1901, at Pinda on November 28, 1901, and at Loai on October 15, 1902. This sector also was approved by the protocol signed at Brussels on July 5, 1913. A proces-verbal of February 3, 1925, verified the demarcation. The 1913 protocol gives the present alignment of the sector except for a segment a short distance east of Noqui where a small area was ceded by Portugal to Belgium in an exchange of territories on July 22, 1927.

In the meantime it was discovered that the boundary as delimited in the treaty signed at Lisbon on May 25, 1891, could not follow a tributary of the Kasai to Lago Dilolo because the lake actually was drained southeastward by a tributary of the Zambezi. Portugal then claimed that the Luao tributary of the Kasai should form the boundary, while Belgian officials held for the Luacano, a more westerly tributary of the Kasai. The matter was settled by an exchange of notes between Belgium and Portugal on April 30, 1910, and June 2, 1910, respectively. The Portuguese accepted the text of the Belgian note, and it was decided that the boundary would follow the Kasai to its confluence with an eastern tributary (Cassamba), the Cassamba to its source near the village of Cha-Columbo (Shakalumbo), a straight line to the nearest point on the drainage divide between the Congo and Zambezi, and this drainage divide to the 24th meridian east.

An arrangement was signed at Lisbon on January 14, 1914, relative to the procedures to be followed in the demarcation of the boundary between the Northern Rhodesia (Zambia) tripoint and the source of the Cassamba. In accordance with a protocol signed on September 19, 1915, the boundary was demarcated westward from pillar 1 at the Zambia tripoint to No. 34 of the source of the Cassamba at 11°12'30.46"S. and 21°29'25.44"E. The 1915 protocol determines the present alignment of the Luao - Zambia tripoint sector only to pillar 25 because a relatively large area west of the Luao river was ceded by Belgium to Portugal in the exchange of territories on July 22, 1927. A proces-verbal issued at Tshitatu on October 4, 1922, indicated that the Belgian Section of a boundary commission had plotted the line from pillar 34 to latitude 7°17' S. on the Kasai and that the Portuguese Section had completed similar survey work as far north as 7°49' S.

Delimited by the declaration of March 24, 1894, the Kwango - Kasai sector was delimited in 1923 by three proces-verbaux by the same commission that signed the proces-verbal of March 1, at Kwilu; and a proces-verbal of June 20, from a camp near the confluence of the Kwango and Utunguila, enumerated the work of the boundary commission relative to the surveying, mapping, and erection of pillars along the sector. A second Kwango - Utunguila proces-verbal, issued on June 30, contains the present delimitation of the Kwango - Kasai sector and tables containing a list of the 34 boundary pillars erected with their coordinates, altitudes, and descriptive locations.

In the proces-verbal of June 20, 1923, the commissioners were able to correct the location of certain rivers used in the delimitation of the boundary in the 1894 declaration, as follows:

The Kangulungu is a tributary of the Kongolo [Rio Congolo], which flows into the Loange south of the parallel of 7°S;

The parallel of the confluence of the Luita and the Kwilu [Rio Cuilo] crosses the thalweg of the Kamabemba;

The waters of the Kamanguna flow into the Kombo;

The Kombo does not empty into the Uovo [Rio Uamba] but has a very different course from that attributed to it: at the place where the map indicated that it flowed southwest to join the Uovo, it turns north to empty into the Tenduala [Tunduala], a tributary of the Wamba;

There are two small streams, the Kapakasa, a tributary of the Uovo, and the Kamapatsi, a tributary of the Kombo, whose sources are very close together and located at the exact spot where the descriptive protocol indicated that the boundary followed the thalweg of the Kombo to its junction with the Uovo.

Belgium and Portugal exchanged territories by a convention signed at Sao Paulo de Loanda on July 22, 1927. East of Noqui the smaller of the territories was ceded by Portugal to Belgium in order to facilitate the construction of a railroad between Matadi and Leopoldville which would follow the most suitable terrain and remain within the Belgian Congo. In exchange the larger territory of the so-called Dilolo Hook, previously claimed by the Portuguese, was transferred by Belgium to Portugal. The Dilolo territory also was utilized for a railroad line as the Benguela Railway crossed it to connect with the Chemin de Fer du Bas - Congo au Katanga at the Luao river.

The convention of May 25, 1891, signed at Brussels by representatives of Portugal and the Congo Free State, stated that the boundary in the Congo river followed "the middle line of the channel of navigation," and certain islands were specifically designated as belonging to one or the other of the two states. Different interpretations of the boundary gave rise to various controversies on the original intent of the treaty. Some considered the boundary to be the navigable channel which existed on May 25, 1891, irrespective of any subsequent changes in the channel. Others believed that the boundary was meant to be a changing line which could be moved as the main channel shifted its course.

A Belgo - Portuguese commission was given the task of studying the problem and proposing a solution, which led to the signing of an ad referendum agreement at Lisbon on March 13, 1935. Submitted to the two governments for approval, the agreement stated that "the boundary would be henceforth fixed and established by a broken line made up of three successive straight lines connecting the four points determined by the treaty."

In execution of the Lisbon agreement, and before the two governments could establish themselves along the boundary, a second mixed commission was formed to demarcate the new line on the ground. The detailed work of the commission demarcating the proposed boundary was included in a protocol signed at Ponta da Lenha on August 20, 1935. The Lisbon agreement of March 13, 1935, was never approved by the governments concerned; likewise, the Ponta da Lenha protocol of August 20, 1935, was never ratified. Therefore, the boundary between Angola and Zaire in the Congo river sector continues to be in accordance with the terms of Article 3 of the convention signed at Brussels on May 25, 1891.

IV. ALIGNMENT

The alignment of the Angola - Zaire boundary is discussed in accordance with the following seven sectors: (1) Cabinda, (2) Congo river, (3) Noqui - Kwango, (4) Kwango, (5) Kwango - Kasai, (6) Kasai - Luao, and (7) Congo - Zambezi drainage divide.

Cabinda Sector – From the tripoint¹ with the People's Republic of the Congo to the Atlantic Ocean, the Cabinda Sector is demarcated by the protocol of July 5, 1913, as follows:

After following the thalweg of the Shiloango (Loango - Luce) [from the tripoint], the boundary is formed by:

I. The thalweg of the Lukula (Lucula) from the point where it flows into the Shiloango (Loango - Luce) to its junction with the river called by some the Zenze and by others the Culla - Calla.

II. The meridian [12°32'12" E.] of the latter junction to the point where it intersects the parallel [5°44'19.6" S.] of the headwaters of the Lulofe River, which are located on the west side of the Nime - Tchiama Plateau.

This meridian-boundary, from the confluence of the Zenze or Culla - Calla and the Lukula (Lucula), continues parallel to the Lukula (Lucula) at an average distance of about 2 kilometers to the west of the latter river until it reaches the latitude of the confluence of the Lemba River and the Lukula (Lucula); it then crosses the plain which divides the basins of the Lukula (Lucula) and the Fubo, intersects the N'Henha River, a tributary of the Fubo, passes over the summit of Kaikakongo (Caio Ca Congo), passes through a region of low hills, from which the tributaries of the Fubo flow westward and the tributaries of the Lukinga - Lemba, eastward; intersects the Fubo near its junction with the Sanzi (at about 10 kilometers northwest of the source of the Fubo), follows the east side of the group of lagoons or ponds formed by the Buze - Pango, Malongo, Bango - Bango, and Lumanha to the edge of the Seka (Secca) Plateau, passing just south of the Lumanha the narrow section of the plateau which divides the basins of the Shiloango (Fubo), the ocean (Lulongo), and the Congo or Zaire (Luibi); intersects Chimkulo (Chimculo) Stream near its source, which it leaves to the east; intersects Chikote (Chicote) Stream; enters a wooded and broken massif, interspersed with lagoons; leaves Talavangi (Talavange) summit (the highest of the region) just to the west, and ends at the parallel of the headwaters of the Lulofe, near the Ceya (Ceia) Plateau, having continued, after

¹ A Franco - Portuguese convention of May 12, 1886, established a boundary between the French Congo and Cabinda, which was supplemented by an arrangement of January 23, 1901. In effect the arrangement determined the location of the tripoint with the Congo Free State on the Rio Chiloango (usually considered to be the thalweg) opposite a ridge of heights that form the Angola (Cabinda) - Congo boundary and bound the upthrust known as the "Forest of Maiombe." Boundary pillar J of the Angola - Congo series is located on a hill about one-half mile southwest of the tripoint.

crossing the Chikote (Chicote), parallel to the Luibi (Luibe), and at an average distance of about three kilometers from this latter river.

III. The parallel of the headwaters of the Lulofe from its intersection with the meridian of the confluence of the Zenze or Culla - Calle and the Lukula (Lucula) to the headwaters of the said Lulofe River on the slope of the Nime - Tschiamo Plateau.

From east to west, this parallel, starting from the Ceya (Ceia) Plateau, crosses the Luibi (Luibe), the plain of Lemeono, a small, wooded valley between this plain and that of Malombe, the plain of Malombe; it then encounters the Telamanga, a tributary of the Chienzo (tributary of the Luibi), intersects the southern extremity of the Sengo Lagoon at the exit of Taca Stream, a tributary of the Chienzo, crosses the plain of Sengo Chi Molo between the lagoons of Sengo to the north and Olo to the south, leaves not far to the south the source of the eastern Kumbi (Cumbi), passes through the valley of the Kanga (Canga) (tributary of the Kumbi) near its source, cuts perpendicularly across the course of the western Kumbi (Cumbi), crosses the plain of Selili and the Nime Tchiama Plateau, and extends to the point where it touches the first branch encountered of the headwaters of the Lulofe.

IV. Starting from the point where the parallel, passing by the intersection marker, touches the first branch encountered of the headwaters of the headwaters of the Lulofe (Latitude: 5°44'19.6" S.), and continuing toward the ocean, the boundary follows the thalweg of the Lulofe, and then that of the Venzo, into which the Lulofe flows, across the Libunzi Marsh to the point where the Venzo flows into Bude Pond (Mallongo Pond), the median line of Bude Pond (Mallongo Pond) extended to a point marked C on map No. IF attached to this protocol. From there the boundary continues in a straight line toward the ocean beach, which it reaches at point D on the same map.

The present course of the Venzo and the last section of the boundary ending at the ocean have been marked by:

1. The boundary-mark of the Venzo on the south bank of the river, west of the junction with the Fubo and north of Pumpi Marsh;
2. The boundary-mark of Mallongo near the confluence of the Venzo and Bude Pond, on the south bank of the Venzo;
3. Boundary-mark C situated approximately 1,000 meters northeast of point D on the ocean beach;
4. Boundary mark D situated on the ocean beach 2,750 meters north of Lunga Lagoon counting from point E on the aforementioned map IF.

The Portuguese natives of the villages along the boundary have the right to carry out fishing activities concurrently with the natives of the Belgian Congo along the coast of the latter colony between boundary-mark D and point E on the attached map IF, under the condition of compliance with the maritime fishing regulations of the Belgian Congo.

Congo River Sector – Approximately 75 miles long from the Atlantic Ocean to Noqui, the Congo river sector is determined by a convention between Portugal and the Congo Free State signed at Brussels on May 25, 1891.

In the River Congo (Zaire) and from its mouth to the parallel, passing 100 metres to the north of the principal house of the Domingos de Souza at Nokki (Noqui), the line separating the waters belonging respectively to the two States shall be the middle line of the channel of navigation generally followed by vessels drawing a large amount of water, which line actually leaves to the right, and comprises between it and the right bank of the river, notably and amongst others, the fluvial islands named Bulabemba (Ile de Bulabemba), Mateba, and Princes Iles; and leaves on its left and comprises between it and the left bank of the river, notably and amongst others, the fluvial islands known by the names of Bulicoco and Sacra Ambaca Isles, and from the intersection of this median line by the above-mentioned parallel, this same parallel as far as its intersection by the left bank of the river.

Noqui-Kwango Sector – Except for a short segment along the Mepozo and Duizi rivers as established by a Belgo - Portuguese convention signed at Sao Paulo de Loanda on July 22, 1927,² the Noqui - Kwango sector is demarcated eastward in accordance with the protocol signed at Brussels on July 5, 1913. Boundary pillar 1 is located north of Noqui, and No. 42 ending the series is immediately west of the Lubishi. The protocol of 1913 affords the demarcation of the sector to the junction of the Mepozo and Mia as follows:

I. At Noki, the boundary starts from the point situated 100 meters north of the principal building of the former trading station of Domingos de Souza and rejoins, by a line running northwest to southeast and marked by six boundary-marks or masonry pillars known as boundary-marks 1, 2, 3, 4, 5, and 6, the parallel which passes by the building, whose latitude, calculated by the commissioners of the two Governments, is estimated as 5°52'02.5".

II. From boundary-mark No. 6, the boundary consists of:

1. A straight line running from boundary-mark 6 to boundary-mark 7, erected on a chiselled stone situated approximately 200 meters north of the parallel.
2. A straight line running from boundary-mark 7 to boundary-mark 8, situated on a rocky crest 800 meters east of boundary-mark 7;

² Ratifications of the convention of July 22, 1927, were exchanged at Lisbon on March 2, 1928.

3. A straight line running S. 88° E. from boundary-mark 8 to boundary-mark 9, situated near the road from Nevumo to Loango, 1,300 meters east of boundary-mark 8. Boundary-mark 9 marks the beginning of Pako Stream valley;
4. Pako Stream from boundary-mark 9 to the confluence of the Pako and the Kumbi (Pako stream flows very noticeably in a west-to-east direction);
5. The Kumbi River from its junction with the Pako to its junction with the Pozo;
6. The Pozo River from its junction with the Kumbi downstream to its junction with the Mia.³

From the junction of the Mepozo and Mia to the intersection of the Duizi with the line between boundary pillar Nos. 11 and 12, the convention of July 22, 1927, demarcates the boundary.

Article 2. Portugal hereby cedes to Belgium full sovereignty over that part of the territory of Angola contained within the following limits:

From the point where the M'Pozo River [Mepozo, Pozo] ceases to form the Portuguese - Belgian boundary, near boundary-mark 10 (mouth of the Mia) to the mouth of the Duizi River, located approximately 2,300 meters upstream from that point;

The Duizi River, upstream from its junction with the M'Pozo to the present boundary; and

The present boundary between the Duizi and the M'Pozo, passing through boundary-marks 10 and 11.

The boundary then is again demarcated by the 1913 protocol as follows:

9. ... [From the point where the Duizi intersects the line between boundary pillar Nos. 11 and 12, this line southeastward] to boundary-mark 12, situated

³ Paragraphs 6, 7, 8, and 9 of the 1913 protocol read as follows: "6. The Pozo River from its junction with the Kumbi downstream to its junction with the Mia, which it follows upstream; 7. A straight line joining the Mia junction to boundary-mark 10, situated ENE. of the junction and approximately 600 meters from it; 8. A straight line running N. 62°E., joining boundary-mark 10 to boundary-mark 11, constructed of masonry on a hillock of white-quartz blocks called Mozonze (approximately 500 meters north of the parallel); 9. A straight line running S. 82°E., joining boundary-mark 11 to boundary-mark 12, situated approximately 5,200 meters east of boundary-mark 11 and about 400 meters south of the parallel on the north crest of the Bumba Mountains."

approximately 5,200 meters east of boundary-mark 11 and about 400 meters south of the parallel on the north crest of the Bumba Mountains;

10. A straight line running N. 88°E., joining boundary-mark 12 to boundary-mark 13, approximately 10,300 meters east of boundary-mark 12, near Yoyo Village and on the parallel. Marker 13 is a strong construction of masonry on the summit of a larger boulder called Zanzaginga;

11. A straight line running east, joining boundary-mark 13 to boundary-mark 14 at a distance of approximately 6,900 meters to the east. Marker 14 is set on the summit of an odd cone called Safi;

12. A straight line running N. 86°E. from boundary-mark 14 to boundary-mark 15, situated on the crest of Vunda at a distance of approximately 6,100 meters from marker 14 and about 400 meters north of the parallel. A copper plate giving the number of the boundary-mark is set into the masonry;

13. A straight line running N. 79°E. from boundary-mark 15 to boundary-mark 16, situated on a low hill of (Zanza) Matenda at a distance of approximately 6,200 meters from boundary-mark 15 and about 1,600 meters north of the parallel;

14. A straight line running N. 87°E. from boundary-mark 16 to boundary-mark 17, situated on Lemba Crest at a distance of approximately 8,300 meters from marker 16 and about 2,000 meters north of the parallel;

15. A straight line running N. 59 1/2°E. from boundary-mark 17 to the Luvu (Luvo) River (the river is called Lufu at the point where it intersects the Matidi - Leopoldville railway).

This straight line is determined by boundary-mark 17 and boundary-mark 17 A situated on the right bank of the Luvu (Luvo) on Vonza Hill, at approximately 8,200 meters from boundary-mark 17.

The boundary from marker 17 to the Luvu (Luvo) measures 5,350 meters; its point of intersection with the Luvu (Luvo) is approximately 1,200 meters downstream from the junction of the Mahunze (southern tributary), and about 3,900 meters north of the parallel;

16. The thalweg of the Luvu (Luvo) River from the point specified in paragraph 15, downstream to its junction with the Lungezy (Lunguezy) River, which it follows upstream;

17. The thalweg of the Lungezy (Lunguezy) River from its junction with the Luvu (Luvo) River located approximately 2,300 meters north of the parallel, to the

confluence of the Luvemba and Lungezy (Lunguezy) Rivers approximately 900 meters north of the parallel;

18. The thalweg of the Luvemba River from its north into the Lungezy (Lunguezy) to its source;

19. A straight line running S.45°E. from the source of the Luvemba to boundary-mark 18; this line is approximately 100 meters long. Marker 18 is about 2,500 meters south of the parallel;

20. A straight line running from boundary-mark 18 to boundary-mark 19, situated on the low hill of Songa N'Tela at about 1,600 meters east of marker 18. Marker 19 bears a plate with the number 19.

Boundary-marks 18 and 19 are located on the small massif of Pinda from which flow streams running into the Luvemba and the Lunguezy (west and north sides), to the Loanza (Luanza) and the Kwilo (Cuilo) (north and east sides), and to the Luvu (Luvo) (south side);

21. A straight line running S. 85°E., joining boundary-mark 19 to boundary-mark 20, situated on the small hill called Mahulo (Maulo), at approximately 6,100 meters from marker 19 and 3,024 meters south of the parallel;

22. A straight line running east and joining boundary-mark 20 to boundary-mark 21, situated on Kandu (Cando) Ridge near the road from Kuluzu (Culuso) to Kinsende (Quinsendi), 3,065 meters south of the parallel and about 5,000 meters from marker 20.

23. A straight line running N. 78°E. joining boundary-mark 21 to boundary-mark 22, located on the high plain of Twankandu (Tuancando), about 4,900 meters from marker 21 and 1,955 meters south of the parallel;

24. A straight line running S. 78°E. joining boundary-mark 22 to boundary-mark 23, situated on Kianga (Quianga) Summit at approximately 1,000 meters from marker 22 and 3,939 meters south of the parallel;

25. A straight line running N. 78°E., joining boundary-mark 23 to boundary-mark 24, situated on the small hill of Kintoto (Quintoto) at approximately 4,500 meters from marker 23, 2,967 south of the parallel, and approximately 1,000 meters from the right bank of the Kwilo (Cuilo) River, a tributary of the Congo (Zaire);

26. A straight line running N. 74°E., joining boundary-mark 24 to boundary-mark 25, situated on the small hill of Mahono about 7,200 meters from marker 24, 990 meters south of the parallel, near the left bank of the Taba River, a tributary of the Loango;

27. A straight line running N. 87°E., joining boundary-mark 25 to boundary-mark 26, situated on the small hill of Tumpa approximately 16,000 meters from marker 25 and 342 meters south of the parallel. Near Tumpa Hill the Waka (Caua) flows southwestward, the Totozy, northwestward, and the Zwila (Zuila) flows east and north.

28. A straight line running N. 87°E., joining boundary-mark 26 to boundary-mark 27, located on Muhalo (Mualo) Ridge at approximately 11,000 meters from marker 26 and 276 meters north of the parallel.

Muhalo (Mualo) Ridge divides the valley of the Tala (N'Tala) to the west of the eastward-lying valley of the Muezy (Muezi);

29. A straight line running S. 89°E., joining boundary-mark 27, above the floor of the valleys of the Muezy (Muezi), the Fulezy (Fulegi) and the Luidi, to boundary-mark 28, situated on Voka de Kilombo (Voca Quilombo) Summit, approximately 18,600 meters from marker 27 and 50 meters north of the parallel;

30. A straight line running N. 89°E., joining boundary-mark 28 to boundary-mark 29, located on the small hill of Yenga at about 3,100 meters from marker 29 and 103 meters north of the parallel;

31. A straight line running S. 88° joining boundary-mark 29 to boundary-mark 30, situated on the small hill of Londe at about 8,900 meters from marker 29 and 137 meters south of the parallel;

32. A straight line running N. 89° joining boundary-mark 30 to boundary-mark 31, located on the southern slope of Loango Ridge near the road from Kindompolo (Quidompolo) to Sole, at approximately 8,600 meters from marker 30 and 169 meters north of the parallel;

33. A straight line running S. 88°E., joining boundary-mark 31 to boundary-mark 32, situated on the north side of Loai Ridge near the source of the Bilundu (Bilundo) River, which flows into the Vuleji (Vulagi), at approximately 15,000 meters from marker 31 and 50 meters south of the parallel.

34. A straight line running N. 89°E., joining boundary-mark 32 to boundary-mark 33, located on Bilundu (Bilundo) Ridge between the Vuleji (Vulagi) and Malumba Rivers, about 4,700 meters from marker 32 and on the parallel;

35. A straight line running N. 89°E., joining boundary-mark 33 to boundary-mark 34, located on Tihoango (Tioango) Plateau at about 15,500 meters from marker 33 and 432 meters north of the parallel;

36. A straight line running N. 89°E., joining boundary-mark 34 to boundary-mark 35, located on the southern edge of Kabambele (Cabembele) Plateau, near the source of the Monga (Munga), at approximately 8,300 meters from marker 34 and 633 meters north of the parallel;

37. A straight line running S.83°E., joining boundary-mark 35 to boundary-mark 36, situated on the western edge of Kimbele (Quimbele) Plateau, near the source of the Luvemba, about 14,900 meters from marker 35 and 1,120 meters south of the parallel;

38. A straight line running N. 88°E., joining boundary-mark 36 to boundary-mark 37, situated on the eastern edge of Kimbele (Quimbele) Plateau at about 1,400 meters from marker 36 and 1,095 meters south of the parallel;

39. A straight line running N. 86°E., joining boundary-mark 37 to boundary-mark 38, situated on the hill of Tolula (Tolola) south of the Tsanga (Sanga) River, about 6,800 meters from marker 37 and 636 meters south of the parallel;

40. A straight line running N. 88°E., joining boundary-mark 38 to boundary-mark 39, situated on the small hill of Suzy (Suzi), a rocky pinnacle just to the south of another rocky hillock called Simba (Suzi and Simba both rise up out of the plain), about 23,500 meters from marker 38 and 134 meters north of the parallel.

This straight line connecting boundary-mark 38 to boundary-mark 39 passed by the southern edge of the wooded ridge of Makunduke;

41. A straight line running N. 86°E., joining boundary-mark 39 to boundary-mark 40, situated on Gabu (Gabo) Peak at about 8,100 meters from marker 39 and 772 meters north of the parallel;

42. A straight line running S. 89°E., joining boundary-mark 40 to boundary-mark 41, situated on the high hillock of Kilambo (Quilambo) south of the confluence of the Lubizy (Lubigi) and the Tchya (Tchea), approximately 20,000 meters from marker 40 and 587 meters north of the parallel;

43. A straight line running N. 88°E., joining boundary-mark 41 to the Lubizy (Lubigi) River, passing through the auxiliary boundary-mark 42. This latter marker is 1,050 meters from marker 41;

44. The thalweg of the Lubizy (Lubigi) River from the point where it intersects the straight line 41 - 42 to the point where it flows into the Kwilo (Cuilo);

45. The thalweg of the Kwilo (Cuilo) River from the confluence of the Lubizy (Lubigi) and the Kwilo (Cuilo) to the point where it intersects the thalweg of the Kwango

(Cuango), a tributary of the Congo (Zaire). The islands situated in this stretch of the Kwilo (Cuilo) River remain in the possession of Belgium.

Should the river change its course, the islands thus formed would belong to Belgium and islands again joined to the north or south bank would thereby belong to the nation having sovereignty over that bank.

Kwango Sector – The boundary in this sector follows the thalweg of the Kwango between its confluence with the Cuilo in the north and its confluence with the Utunguila in the south. The treaty between Portugal and the Congo Free State signed at Lisbon on May 23, 1891, stated that the boundary followed the thalweg of the Kwango from the 6th degree of south latitude to the 8th degree. The declaration of March 24, 1894, by Portugal and the Congo Free State stated that the boundary followed the thalweg of the Kwango to the river's confluence with the Utunguila. In the protocol of July 5, 1913, signed by Portugal and the Congo Free State, the northern point of the sector was established as the thalweg of the Cuilo to the river's confluence with that of the Kwango.

Kwango-Kasai Sector – In accordance with the proces-verbal of June 30, 1923, the alignment of the Kwango - Kasai Sector eastward from the confluence of the Kwango with the Utunguila is as follows:

... the thalweg of the Utunguila to the mouth of the Lola; the thalweg of the Lola to its confluence with the thalweg of the Kombe at Lat. 8°05'46.6"; Lat. 8°05'46.6"S. to the thalweg of the Wamba; the thalweg of the Wamba to the mouth of the Kambundu (Uovo); the thalweg of the Kambundu to the mouth of the Kapakasa; the thalweg of the Kapakasa to its source (southern branch); the line joining the source of the Kapakasa to the source of the Kamapatsi; the thalweg of the Kamapatsi to its junction with the Kombo; the thalwegs of the Kombo and the Kamanguna to Lat. 8°S.; Lat. 8°S. to the thalweg of the Lukai; the thalweg of the Lukai to Lat. 7°55'S.; Lat. 7°55'S. to the thalweg of the Kwengo; the thalweg of the Kwengo to Lat. 8°S.; Lat. 8°S. to the thalweg of the Luita; the thalweg of the Luita to its junction with the thalweg of the Kwilu (7°34'24.3 S.);

Lat. 7°34'24.3"S. to the thalweg of the Kamabemba; the thalweg of the Kamabemba to the mouth of the Kangulunga; the thalweg of the Kangulunga to its junction with the Kongolo; the thalweg of the Kongolo to its junction with the Loange; the thalweg of the Loange to Lat. 7°S., along that parallel to its intersection with the thalweg of the Lovua; the thalweg of the Lovua to Lat. 6°55'S.; Lat. 6°55'S. to its intersection with the thalweg of the Tshikapa; the thalweg of the Tshikapa at Lat. 7°17'S.; Lat. 7°17'S. to the thalweg of the Kasai.⁴

⁴ Demarcation tables attached to the proces-verbal of June 30, 1923, list the pillars erected along the line from east to west with No. 1 [7°16'56.6" S., 21°47'15.9" E.] on the west bank of the Kasai about 600 meters north of the Nimbi Falls and No. 34 [8°05'46.6" S., 18°04'34.9" E.] at the crest of the Lola - Rio Uamba watershed on the road crossing the boundary.

Kasai-Luao Sector - The present alignment follows the thalweg of the Kasai from 7°17'S. upstream as far as its junction with the Luao in accordance with the treaty between the Congo Free State and Portugal signed at Lisbon on May 25, 1891. From the junction the boundary follows the Luao upstream to its source, and then by a straight line to the closest point on the Congo - Zambezi drainage divide near pillar 25 as specified in the Belgo - Portuguese convention of July 22, 1927. The referenced boundary pillar was No. 25 of a series erected between the Zambia tripoint and the Cassamba river as approved by the protocol signed on September 15, 1915.

Congo-Zambezi Drainage Divide Sector - This sector is demarcated westward along the Congo - Zambezi drainage divide from the Zambia (Northern Rhodesia) tripoint on the 24th meridian as marked by pillar 1 to No. 25 near the source of the Luao in accordance with the Belgo - Portuguese protocol of September 15, 1915. As confirmed by an exchange of notes on November 3, 1925, an Anglo - Portuguese protocol of March 5, 1915, demarcated the Angola - Northern Rhodesia boundary southward from the tripoint by a series of pillars with No. 1 located at astronomical latitude 10°53'18.3" south and approximate longitude 23°59'58.3" east. An unratified Anglo - Belgian protocol of September 19, 1934, indicated that the tripoint with Angola on the Congo (Zaire) - Northern Rhodesia boundary was marked by pillar 46 in a series numbered from east to west.

DOCUMENTATION

1. Convention between Portugal and the International Association of the Congo; respecting Boundaries, &c. Berlin, February 14, 1885. The Map of Africa by Treaty, 3 vols., 3rd Edition (London: Harrison and Sons, 1909). Vol. 2, pp. 591 - 2.
2. Convention between the Independent State of the Congo and Portugal, for the Settlement of certain difficulties with regard to their Frontiers in the Lower Congo. Brussels, May 25, 1891. Ibid., Vol. 2, pp. 594 - 6.
3. Treaty between Portugal and the Independent State of the Congo, respecting the Delimitation of their respective Spheres of Sovereignty and Influence in the Region of Lunda. Lisbon, May 14, 1891. Ibid., Vol. 2, pp. 592 - 3.
4. Declaration. Portugal and Congo. Approval of Report of Boundary Commissioners of June 26, 1893. Lunda Region. Brussels, March 24, 1894. Ibid., Vol. 2, pp. 596 - 8.
5. Convention between Belgium and Portugal regarding an Exchange of Territory in the Congo and Angola. Sao-Paulo de Loanda, July 22, 1927. British and Foreign State Papers, Vol. 127, Part II, (1927), pp. 126 - 7.
6. Jentgen, P., La Terre Belge du Congo; Etude sur l'Origine et la Formation de la Colonie du Congo Belge (Bruxelles: Imprimerie Bolyn, 1937).

7. Jentgen, P., Les Frontieres du Congo Belge (Memoires, Institut Royal Colonial Belge, 1952), Tome XXV.

8. Jentgen, P., "Notice de la Carte des Frontieres du Congo Belge," Atlas General du Congo (Bruxelles, 1953).

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