

# International Boundary Study 

No. 15 - June 15, 1962
Chad - Sudan
Boundary
(Country Codes: CD-SU)

The Geographer<br>Office of the Geographer Bureau of Intelligence and Research

# INTERNATIONAL BOUNDARY STUDY 

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## CHAD - SUDAN BOUNDARY

## I. BACKGROUND

The present alignment of the Chad - Sudan boundary was determined by an exchange of notes between the United Kingdom and France on January 24, 1924. ${ }^{1}$ These notes agreed to the ratification of the protocol delimiting the boundary between the Anglo Egyptian Sudan and French Equatorial Africa. This boundary was inherited by the newly independent states of the Republic of the Sudan (formerly Anglo - Egyptian Sudan) and the Republic of Chad ${ }^{2}$ (the most northern part of former French Equatorial Africa), which obtained their independence on January 1, 1956, and on August 11, 1960, respectively.

Prior to the delimitation of the present boundary, the Anglo-French Convention of June 14, 1898, and the Anglo-French Declaration of March 21, 1899, which completed the convention of 1898, established spheres of influence in central Africa and the Sudan. ${ }^{3}$ The Declaration of 1899 determined the general alignment of that part of the former Anglo French frontier which comprises the present Chad - Sudan boundary. The declaration stated that "the French zone would be limited to the north-east and east by a line which shall start from the point of intersection of the Tropic of Cancer with the 16th degree of longitude east of Greenwich, shall run thence to the south-east until it meets the 24th degree of longitude east of Greenwich and then shall follow the 24th degree until it meets, to the north of the 15th parallel of latitude, the frontier of Darfur (part of Sudan as constituted in 1882) as it shall eventually be fixed." South of this location the frontier would be drawn, in principle, between the Kingdom of Wadai (French territory) and the Province of Darfur to the 11th parallel. ${ }^{4}$

The terms of the Declaration of 1899 did not accurately locate the point of intersection of the line drawn southeastward from the Tropic of Cancer and the meridian of $16^{\circ}$ East with the meridian of $24^{\circ}$ East. Thus the point of intersection was not clarified until the Anglo-

[^0]French Convention of $1919^{5}$ fixed the location at latitude $19^{\circ} 30^{\prime}$ North and longitude $24^{\circ}$ East, which is the location of the present tripoint with Libya. (For additional information refer to International Boundary Study No. 3, Chad - Libya Boundary and No. 10, Libya Sudan Boundary).

The Franco-Italian Agreement of January 7, 1935, would have placed the French Equatorial Africa-Libya-Sudan tripoint southward of the recognized boundary at that time. In accordance with the 1935 proposal the French Equatorial Africa - Libya boundary would have extended from the intersection of the Tropic of Cancer and the meridian of $16^{\circ}$ East and south-eastward to a new tripoint at latitude $18^{\circ} 45^{\prime}$ and longitude $24^{\circ}$ East. The agreement of 1935 was never ratified; therefore, the 1935 boundaries used on many maps lacked authenticity. The ratification of this agreement would have extended the Libyan tripoint southward for a distance of about 52 miles.

The Central African Republic tripoint is located one kilometer east of the Mare de Tizi at the point where a small westward-flowing stream crosses the former Anglo-Egyptian Sudan - French Equatorial Africa boundary. From this point the Central African Republic Chad administrative boundary follows the stream westward to the Mare de Tizi, passes through the Mare de Tizi, and then follows a second stream to the Bahr Aouk. ${ }^{6}$ The Mare de Tizi constitutes a major surface obstacle to north-south movement; therefore, both Chadien and Central African authorities by tacit accord adopted the Mare de Tizi as the administrative boundary between the two states. ${ }^{7}$ The area to the north of this lake is administered from Goz Beilda and that to the south of the lake from Birao.

Historically the Central African Republic (formerly Ubangi-Shari) tripoint and the Central African Republic - Chad boundary have not been located consistently on all maps. In accordance with a text published in the Journal Officiel du Congo, Français (Official Journal of the French Congo) on September 27, 1909, the eastern part of the Chad-Ubangi-Shari boundary was to follow the Bahr Aouk to the frontier of the Anglo- Egyptian Sudan. However, the boundary was not precise because several tributaries of the Bahr Aouk extend to the frontier. This was led to several different interpretations of the boundary. A boundary commonly shown on maps locates the tripoint at Nzili Pool and then follows the Bahr N'zili downstream to the Bahr Aouk; another boundary sometimes shown locates the tripoint on a small stream north of Am Dafok and then follows the Bahr Oulou downstream to the Bahr Aouk.

[^1]
## II. ANALYSIS OF BOUNDARY

The Chad - Sudan boundary has a total length of approximately 845 miles and is delimited throughout. Between the Libyan tripoint and southward to Wadi Howar (about latitude $15^{\circ} 43^{\prime}$ North), the boundary consists of the meridian of $24^{\circ}$ East for about 261 miles. In general the remainder of the boundary is demarcated by numerous small streams and delimited by boundary segments connecting high points.

The boundary was surveyed by an Anglo - French Boundary Commission between 1921 and 1923. Triangulation was utilized to establish much of the boundary and initial points of triangulation chains were fixed latitudinally by astronomical observations and longitudinally by wireless time signals. ${ }^{8}$ North of Wadi Howar the surveying along the meridian of $24^{\circ}$ East consisted primarily of determining the latitude and longitude of certain points. However, the boundary line was not demarcated by boundary markers, although the Libyan tripoint is indicated by a heap of stones. In some cases triangulation beacons located on the boundary by coincidence serve as markers.

The boundary traverses approximately $8^{\circ} 34^{\prime}$ of latitude and therefore passes through a considerable transition of physical and cultural features. From north to south the climate ranges between desert and tropical savanna, with attendant vegetation and soil types. Likewise, the population increases southward from the non-agricultural north, through areas of nomadic herding, to sedentary agricultural and livestock raising areas in the south.

## III. DELIMITATION OF BOUNDARY

The following text is taken from the protocol (see footnote 1) delimiting the boundary between the Anglo-Egyptian Sudan and French Equatorial Africa. Those parts of the protocol applicable to the present Chad-Sudan boundary are quoted starting with Section II, paragraph (e) through Section VIII. The maps in Appendixes A and B indicate points of reference in the delimitation, which procedes from south to north.

## Section II.

"(e.) From this point ${ }^{9}$ the frontier line runs in a north-westerly direction at a distance of 1 kilometre to the east of, and parallel to, the road which passes from UM Dafog (AM Dofog) to Lake Tisi (Tizi) by Rahad Dihn (Dihin), Rahad Sahabaia (Sahabeia), Rahad Sumua (Soumou), Rahad Kujufu (Koudioufou) and Rahad Boarig (Boarit) to a point 1 kilometre east of the eastern extremity of Lake Tisi (Tizi).

[^2](f.) From this point it runs in a straight line to the Beacon on Jebel Keili.
(g.) Thence it runs in a straight line to the pool of Nzili.
(h.) The tribes or individuals belonging to the Sudan shall have the right to water at the Rahads along the above-mentioned road and at Tisi (Tizi).

## Section III.

(a.) The frontier, on leaving the pool of Nzili, runs in a straight line north-eastwards to a small jebel situated 6 kilometres to the east of the triangulation beacon on Jebel Laja (Ladja).
(b.) From there it takes a northerly direction and passes in a straight line to the summit of Jebel Eberei, which is 9 kilometres north-east from the triangulation beacon on Jebel Laja (Ladja).
(c.) From this point it runs in a straight line in a north-westerly direction to the conspicuous rocks situated on the road from Muterr (Mouterr) to Gilambeir (Guileimber), about 3 kilometres away from the latter village.
(d.) Running thence in a straight line, the frontier takes a northerly course, crosses Wadi Seirgilong (Serguilong), and runs to the summit of Jebel Kullua (Koulloua), leaving the village of Sarafaia on the French side.
(e.) From this summit it runs in a westerly direction in a straight line to the top of Hargar Tugula (Tougoula).
(f.) From Hagar Tugula (Tougoula) it runs in a straight line towards the south-west to the junction of the Wadi Marafang (Marafaing) or Mundangya (Moundangya) with the Wadi Lujugo (Loudjouga).
(g). From this point it runs in a straight line in a northerly direction and cuts the road from Mundangya (Moundangya) to Lujugo (Loudjouga) half way between those villages.
(h.) Running thence in a north-westerly direction in a straight line it cuts the road from Mundangya (Moundangya) to Timassi half way between those villages.
(i.) Thence it runs in a north-westerly direction in a straight line to the point where the Wadi Mundangya (Moundangya) cuts the road from Komoru (Koumorro) to Timassi.
(j.) After this the frontier takes a west-north-westerly direction and runs in a straight line to a "Murraia" tree situated on the Wadi Kajul (Kadjoul) at about 1 kilometre south of the village of Siarrei.
(k.) Thence it runs in a north-westerly direction in a straight line to the summit of Hagar Dakandei, which is about 7 kilometres distant from this "murraia" tree. It then takes a north-north-westerly direction, and runs in a straight line to the summit of Hagar Mirsi.
(I.) From Hagar Mirsi the frontier runs northwards in a straight line to a clearing on the track from the village of Babel or Muda West (Mouda Ouest) to the village of Fofogiat (Fogfogui), which clearing is about 3 kilometres from the village of Babel.
(m.) From this point it runs in a north-north-easterly direction in a straight line to the Boundary Tree (Latitude $11^{\circ} 47{ }^{\prime}$ North, Longitude $22^{\circ} 34^{\prime}$ East) which is situated on the road from the village of Kortanjo to the village of Momona, at an approximate distance of 6 kilometres from Kortanjo.
(n.) Thence it runs in a straight line in a north-north-easterly direction to the summit of Hagar Hagara.
(o.) Thence the frontier runs in a straight line in a north-north-easterly direction to the "hameida" tree called Koatuya (Koatouya), Latitude $12^{\circ} 03^{\prime}$ North and Longitude $22^{\circ} 38^{\prime}$ East, which is on the road from the village of Mogororo (Mougoro) to Darfur (Darfour).
(p.) Thence it runs in a straight line in a north-easterly direction to the point where a line drawn from the summit of Hagar Zira to this "hameida" tree would out the Wadi Saleh.
(q.) The frontier then runs along the bed of the Wadi Saleh in a westerly direction until it reaches the Wadi Azum (Azoum).
(r.) It then follows the bed of the Wadi Azum (Azoum) to its junction with the Wadi Kaja (Kadja). This junction is situated to the east of and near to the triangulation beacon, whose coordinates are Latitude $12^{\circ} 02^{\prime} 17$ " North and Longitude $22^{\circ} 28^{\prime} 18$ "East.

## Section IV.

(a.) From this junction the frontier follows the median line of the Wadi Kaja to its junction with the Wadi Bir Kunjan (Bir Koundjane) or Atamarga.
(b.) It then follows the bed of that wadi in a north-easterly direction to a point exactly 2$1 / 2$ kilometres due south of the southern summit of the most eastern Jebel Gunguri (Goundjouri) which is shown on the map height 817.
(c.) Thence it runs in a straight line due northwards to this point marked 817.
(d.) Thence it follows the crest of the eastern Jebel Gunguri (Goundjouri) to the
northern summit, which is shown on the map height 839.
(e.) Thence it runs in a north-easterly direction in a straight line to the summit of Jebel Njunun (Djounoun).
(f.) Thence it runs in a west-north-westerly direction in a straight line to the summit of Jebel Albas.
(g.) Thence, still in a west-north-westerly direction, it runs in a straight line to the eastern peak of Jebel Tarei, which is shown as height 853 on the map.
(h.) Thence it runs in a north-westerly direction in a straight line to a point exactly 5 kilometres due north of the triangulation beacon on Jebel Arara or Anyatei.
(i.) From this point it runs straight to that beacon.
(j.) Thence it runs in a straight line in a south-westerly direction to a point situated halfway between the Masalit village of Bardei and the Dagu village of Am Dagl (Am Daguel).
(k.) From this point it runs in a west-south-westerly direction in a straight line to a point exactly 2-1/2 kilometres north of the triangulation beacon on Jebel Hungar (Hangara).
(I.) The frontier continues along this same straight line until it cuts the Wadi Kaja at about 2 kilometres north of the village of Andara, which is on French territory.
(m.) From this intersection it follows the median line of the bed of the Wadi Kaja (Kadja) up to its junction with the Wadi Asunga (Azounga).
(n.) Thence it follows the median line of the Wadi Asunga (Azounga) to the point at which the track running north and south through the village of Kudri (Koudri) cuts that wadi. This point of intersection is situated 3-1/2 kilometres north-north-west of the triangulation beacon on Jebel Kudri (Koudri).
(o.) It is understood that all existing watering, fishing or other rights of either side in the beds of the wadis Asunga (Azounga) and Kaja (Kadja) wherever the boundary follows their beds are preserved.

## Section V.

(a.) From the point last mentioned the frontier runs in a north-easterly direction in a straight line to the beacon on Jebel Firni.
(b.) Thence it runs in a straight line to the summit of Jebel Selika.
(c.) It then follows the watershed between the Wadi Kuruma (Kourouma) and the Wadi Eiteta on the top of the plateau, making an abrupt turn to the east, and reaches the conspicuous tree, which is shown on the map height 1176.
(d.) From this tree the frontier runs in a straight line in a north-easterly direction to the point shown on the map height 1122, and from there, still in a straight line, it runs in an easterly direction to the beacon on Jebel Agilei (Arguile).
(e.) From this beacon it goes in a straight line in a north-easterly direction to the conspicuous tree shown on the map height 1125.
(f.) From this tree it turns towards the east and passes over the col situated between Jebel Kurkuba (Kourkouba) and Jebel Rufeida (Roufaida); it follows for an approximate distance of 2 kilometres the small wadi which has its source in this col and which flows towards the east.
(g.) After leaving this wadi the frontier continues to run in an easterly direction to a point half-way between the Masalit village of Hegliga and the Tama village of Niegerri (Niegerrei), which are about 1 kilometre apart.
(h.) From this point it runs in a north-easterly direction in a straight line to the summit of Jebel Abu Ligam (Abouligam).
(i.) Thence it runs in an easterly direction in a straight line to a point 3 kilometres west of Jebel Kishkish, and from that point in a north-easterly direction in a straight line to a rock shown height 1091 on the map.
(j.) From this rock the frontier runs in a straight line in a north-westerly direction to a point 1 kilometre to the east of the triangulation beacon situated on the plateau at the south end of Jebel Om.
(k.) From there it runs up on to the plateau and follows the centre line thereof from south to north until it reaches the main summit. It then follows the centre line of the northern part of the plateau up to a point situated about 1 kilometre east of the wells of Goz Bedin (Bedine).
(l.) From this point the frontier takes a westerly direction and runs in a straight line to a point 200 metres north of these wells. Continuing thence in a straight line, it reaches Rahad Mugaddad (Mougaddad), which is situated at the junction of the Wadi Atrun (Atroun) with the Wadi Sineit.
(m.) Thence it runs in a straight line to a point on the Wadi Bueisa (Bouessa) or Gumara (Goumara) situated one and a half kilometres to the east of the wells of Bueisa (Bouessa).
(n.) From this point the frontier follows the bed of the wadi itself in a westerly direction until it reaches the Bueisa (Bouessa) wells, which are common to the tribes living on either bank.

## Section VI.

(a.) From Bueisa (Bouessa) wells, the frontier runs in a straight line in a north-westerly direction to the triangulation beacon on Hagar Dirru (Dirro), Latitude 14¹7'33" North and Longitude $22^{\circ} 25^{\prime} 30$ " East.
(b.) Thence it runs in a straight line to the triangulation beacon on the south-western end of Jebel Murra (Mourra), Latitude $14^{\circ} 18^{\prime} 38^{\prime \prime}$ North and Longitude $22^{\circ} 25^{\prime} 36^{\prime \prime}$ East.
(c.) Thence it follows the crest of Jebel Murra (Mourra) to another beacon marked height 1129 on the map.
(d.) From this beacon it runs in a straight line in a northerly direction to a point one kilometre west of the village of Nganga.
(e.) Continuing in a straight line thence it runs in a north-north-westerly direction to Goz Memeriko, which it reaches at a point three and a half kilometres north-east of the triangulation beacon of Kulbus (Koulbous).
(f.) Thence the frontier takes a northerly direction and runs in a straight line to Goz Gemal Harro (Djemal Harro) which it crosses at a point two kilometres to the west of the summit of Hagar Turat (Tourat).
(g.) From that point it runs approximately northwards in a straight line to Rahad Ardeib (Ardeb) or Keita. Thence it runs in a straight line to Hagar Kibish (kibich) and from there, also in a straight line, to Rahad Nabakai.
(h.) From this rahad it runs in a straight line to Rahad Gibir (Guiber).
(i.) Thence it follows the bed of the Wadi Baringala (Beringala) for a distance of two kilometres in a westerly direction.
(j.) The frontier then leaves the wadi and runs in a north-north-easterly direction in a straight line to Rahad Digui.
(k.) Thence it runs in a straight line in an easterly direction to Rahad Shurak (Chourak).
(I.) It then runs in a straight line in a north-easterly direction to the spur marked as height 979 on the map.
(m.) Thence it runs in an east-north-easterly direction in a straight line to a point
midway between Jebel Sendi and Jebel Wustani (Oustani).
(n.) From this point it goes approximately eastwards in a straight line to the tree which was used as a beacon for triangulation and which is shown height 984 on the map.
(o.) Thence the frontier runs in a roughly east-north-easterly direction in a straight line to Hagar Jukujuku (Dioukou-Dioukou), leaving the wells of Duwei (Douai) to the north and those of Fogi (Fogue) and Girgira (Guirguera) to the south.
(p.) From Hagar Jukujuku (Dioukou-Dioukou) it takes an approximately northern direction and runs in a straight line to the wells of Gebelud (Diabelout) which are common to the tribes living on either bank.
(q.) Thence the frontier runs in a straight line in a north-north-westerly direction to a point on the Wadi Oruba (Orouba) one kilometre away from the junction of that wadi with Lake Undur (Oumdour).
(r.) Thence it follows the bed of the wadi until it reaches Lake Undur (Oumdour). The waters of the lake are common to the tribes living on either bank.

## Section VII.

(a.) From Lake Undur the frontier follows the Wadi Tini (Tine) until its junction with the Wadi Greigi (Greigui) or Bahai.
(b.) Thence it follows the bed of the latter wadi in a northeasterly direction until the junction of the most easterly branch of this wadi with the Wadi Howa at a point situated about 2,750 metres south-west of one of the geodetic beacons on Jebel Anagarra (Hangara) of which the coordinates are Latitude $15^{\circ} 44^{\prime} 04^{\prime \prime}$ North and Longitude 2307'55" East.
(c.) The wells at Tini (Tine) and Bahai are common to the tribes living on either bank.

## Section VIII.

(a.) From the junction of the most easterly branch of the Wadi Greigi (Greigui) or Bahai with the Wadi Howa the frontier follows the centre line of the valley of the Wadi Howa as far as its intersection by the 24th meridian or eastern longitude.
(b.) To mark the intersection of the Wadi Howa with the 24th meridian, which takes place about Latitude $15^{\circ} 43^{\prime}$ North, a line of trees has been cleared across the valley.
(c.) The meridian passes through Rahad Wahal and this rahad is common to the tribes living on either bank.
(d.) On the south bank, about 20 metres south of the sand bank of the valley, a "heglig" tree has had the letters 24 M branded upon it and the lower part of the trunk has been ring-barked. About 400 metres north of this tree a second "heglig" tree has been similarly ring-barked and the figures 24 cut upon it.
(e.) The valley of the Wadi Howa, which reaches a width of several kilometres, is clearly defined by trees and vegetation, and by an abrupt change from sandy soil on its banks to clay soil in the bed.
(f.) The valley will remain common to the tribes living on either bank and each tribe will retain such rights to dig wells, cultivate, and graze within the limits of the valley as they have hitherto enjoyed.
(g.) From the intersection of the wadi and the 24th meridian the frontier follows that meridian northwards up to the point where it meets the parallel of Latitude $19^{\circ} 30^{\prime}$ North.
(h.) The 24th meridian, which passes through desert country, has only been fixed on the ground at certain points.
(i.) North of the Wadi Howa it passes between the two beacons on Hagar Kimairi (Kinairi).
(j.) Further north it runs to the east of a large heap of stones which mark an astronomically fixed point at the foot of the Erdi Ma cliffs. The coordinates of this point are Latitude $18^{\circ} 38^{\prime} 59^{\prime \prime}$ North and Longitude $23^{\circ} 59^{\prime} 49^{\prime \prime}$ East.
(k.) At the intersection of parallel $19^{\circ} 30^{\prime}$ North and meridian $24^{\circ}$ East there is a small heap of stones to mark the end of the boundary.
(I.) The rights of control beyond the 24th meridian recognized by the Convention of the 8th September 1919, as belonging to the French Government include the right to take water from the wells of Sendia (Sendi) and from other watering places situated between that meridian and Longitude $24^{\circ} 30$ " East."

## IV. Conclusion

There are no known negotiations in progress or commissions active on the boundary at the present time. The East Africa map series ${ }^{10}$ of the U.S. Army Map Service and the Carte De L'Afrique Centrale (Map of Central Africa) series ${ }^{11}$ are both recommended for coverage of the boundary. The East Africa series is partially compiled from surveys made by the Anglo - French Sudan Boundary Commission; however, the Carte De L'Afrique Centrale series is more recent than the East Africa series and aerial photography was utilized in compilation of the topography.

[^3]This International Boundary Study is one of a series of specific boundary papers prepared in the Office of the Geographer, Department of State, in accordance with provisions of Bureau of the Budget Circular No. A-16, Exhibit D.

Government agencies may obtain additional information and copies of the study by calling the Office of the Geographer, Room 8744, State Department Building, Department of State, Washington 25, D.C. (Telephone: Code 182, Extension 4507).


[^0]:    ${ }^{1}$ "Notes exchanged between the United Kingdom and France agreeing to the Ratification of the Protocol defining the Boundary between French Equatorial Africa and the Anglo - Egyptian Soudan, together with the Protocol, London, January 21, 1924," U.K. Treaty Series No. 28 (1924), Command 2221.
    ${ }^{2}$ This boundary also included that part of the Anglo - Egyptian Sudan - French Equatorial Africa boundary which now comprises the Central African Republic - Sudan boundary.
    ${ }^{3}$ "Convention between the United Kingdom and France. Delimitation of their respective possessions to the West of the Niger, and of their Respective Possessions and Spheres of Influence to the East of That River (signed at Paris, June 14, 1898). Together with a Declaration Completing the same (signed at London, March 21, 1899)." U.K. Treaty Series No. 15 (1899), Command 9334. Both the Anglo - French Convention and Declaration were ratified in Paris on June 13, 1899.
    ${ }^{4}$ From this location to the then Congo Free State tripoint, in general the boundary (present Central African Republic Sudan boundary) was to follow the water divide between the Nile and Congo drainage areas.

[^1]:    5 "Convention between the United Kingdom and France Supplementary to the Declaration of March 21, 1899, and the Convention of June 14, 1898, Respecting Boundaries West and East of the Niger (signed at Paris, September 8, 1919)". U.K. Treaty Series No. 6 (1921), Command 1239.
    ${ }^{6}$ For the alinement of the administrative boundary, refer to Carte De L'Afrique Centrale (Map of Central Africa), sheet Birao - Am Dafok (NC - 34-XVII - XVIII, published at Brazzaville in June 1960). The Central African Republic tripoint is located at approximately latitude $10^{\circ} 577^{\prime}$ North and longitude $22^{\circ} 52.5^{\prime}$ East.

    7 "Note concernant le Tripoint Tchad - Republique Centre Africaine - Sudan" (Note concerning the Chad Central African Republic - Sudan Tripoint), prepared by the Institute Géographique National (National Geographic Institute), forwarded from Paris February 1, 1962.

[^2]:    ${ }^{8}$ Captain P.K. Boulnois, "Field-Longitudes by Wireless," The Geographical Journal, Vol. LXIII No. 4 (April 1924), pp. 318 - 340; and "On the Western Frontier of the Sudan," Vol. LXIII, No. 6 (June 1924), pp. 365 479.
    ${ }^{9}$ Reference is made to Section II, paragraph (d.), "Thence it runs in a northwesterly direction in a straight line to the chief watering place on the east side of the depression of Um Dafog (Am Dofog)."

[^3]:    ${ }^{10}$ United States Army Map Service, East Africa map series, scale 1:250,000, 2nd edition published 19511952, Y501 (Geography Section, General Staff - 8003), compiled 1928-1942 by the Survey Office, Khartoum. Map sheets indicating the boundary are listed in order from north to south: 43-D (Hagar Waqif) and 44-A, 43-H (Erdi Well) and 44-E, 43-L ('Ein Aga) and 44-I, 43-P (Bir Bao) and 44-M (Wadi Howar), 53-D (Karnoi) and 54-A (Musbat), 53-H (Undur), 53-G (Kulbus), 53-H (repeat), 53-G (repeat) 53-K (Geneina), 53-O (Mogororo), 53-P (Zalingei), 64-D (Kubbum) and 64-H (Umm Dafog).
    ${ }^{11}$ Carte De L'Afrique Centrale series, scale 1:200,000, compiled and published 1948-1962 by the Service Géographique (Geographical Service), Brazzaville. Map sheets containing the boundary are listed in order from north to south: NE - 34 XXIV, XVIII (Agoza), XII (not published), NE-34-VI (Baobilia), XXIV (Bir Djouad), XXIII (riba), XVII (Guereda), X and XI (Abou Goulem - Adre), IV (Goz Beida), V (Mohgororo), XXIII (Nzili), and XVII and XVIII (Birao-am-Dafok).

