

**UNITED KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND
and
BRAZIL**

Exchange of Notes approving the General Report of the Special Commissioners appointed to demarcate the Boundary-Line between British Guiana and Brazil (with General Report). Rio de Janeiro, 15 March 1940

Came into force on 15 March 1940, by signature.

English and Portuguese official texts communicated by the Permanent United Kingdom Representative to the United Nations. The filing and recording took place on 23 June 1947.

**ROYAUME-UNI DE GRANDE-BRETAGNE ET
D'IRLANDE DU NORD
et
BRESIL**

Echange de notes pour approbation du rapport général des commissaires spéciaux désignés pour procéder à la démarcation de la frontière entre la Guyane britannique et le Brésil (suivi du rapport général). Rio-de-Janeiro, 15 mars 1940

Entré en vigueur le 15 mars 1940, par signature.

Textes officiels anglais et portugais communiqués par le représentant du Royaume-Uni auprès de l'Organisation des Nations Unies. Le classement et l'inscription au répertoire ont eu lieu le 23 juin 1947.

No. 29. EXCHANGE OF NOTES BETWEEN HIS MAJESTY'S GOVERNMENT IN THE UNITED KINGDOM AND THE GOVERNMENT OF BRAZIL APPROVING THE GENERAL REPORT OF THE SPECIAL COMMISSIONERS APPOINTED TO DEMARCATATE THE BOUNDARY-LINE BETWEEN BRITISH GUIANA AND BRAZIL (WITH GENERAL REPORT). RIO DE JANEIRO, 15 MARCH 1940

No. 1

Sir Geoffrey Knox to Dr. Oswaldo Aranha

British Embassy
Rio de Janeiro
15 March, 1940

Your Excellency,

In accordance with instructions from His Majesty's Principal Secretary of State for Foreign Affairs, I have the honour to inform Your Excellency that the Government of the United Kingdom of Great Britain and Northern Ireland have examined the General Report of the Special Commissioners appointed to demarcate the boundary-line between Brazil and British Guiana in accordance with the Treaty signed in London on 22nd April, 1926,¹ and the Protocol signed in London on 18th March, 1930.²

2. The Government of the United Kingdom approve the work of the Commissioners as set forth in their General Report, the original of which, with its appendices numbered 1 to 11 and the General Map referred to in Appendix No. 8, is annexed hereto, and they declare:—

- (1) That they accept the line laid down by the said Commissioners, in the manner shown in Appendices Nos. 5 to 9 and the annexed General Map, as constituting the boundary-line between British Guiana and Brazil in accordance with the above-mentioned Treaty of 22nd April, 1926, the Protocol of 18th March, 1930, and the notes exchanged in London on 27th October/1st November, 1932;³

¹ League of Nations, *Treaty Series*, Vol. XCII, page 311.

² League of Nations, *Treaty Series*, Vol. CI, page 401.

³ See Appendix 3 to General Report, page 86 and League of Nations, *Treaty Series*, Vol. CLXXVII, page 127.

- (2) That they reaffirm the agreement contained in the notes exchanged at Rio de Janeiro on 2nd October/3rd November, 1933 (the text of which is annexed hereto as Appendix 4 to the General Report) regarding a more accurate definition of the boundary in the event of future development of areas adjacent to the boundary.

3. If the Brazilian Government are prepared to make a corresponding declaration, I have the honour to propose that the present note and Your Excellency's reply in similar terms be regarded as constituting a formal agreement between the two Governments for the establishment of the boundary between British Guiana and Brazil.

I avail, &c.

(Signed) G. G. KNOX

No. 2

PORTUGUESE TEXT—TEXTE PORTUGAIS

*Dr. Oswaldo Aranha to
Sir Geoffrey Knox*

Ministerio das Relações Exteriores,
Rio de Janeiro
Em 15 de Março de 1940

Senhor Embaixador,

TENHO a honra de acusar o recebimento da nota de hoje datada, na qual Vossa Excelência me informa que, segundo instruções recebidas do Principal Secretário de Estados dos Negócios Estrangeiros de Sua Majestade Britânica, o Governo do Reino Unido da Grã-Bretanha e Irlanda do Norte examinou e aprovou o Relatório Geral dos Comissários especiais nomeados para demarcar a linha divisória entre o Brasil e a Guiana Britânica de conformidade com o Tratado assinado, em

No. 2

TRANSLATION¹ — TRADUCTION¹

Ministry for Foreign Affairs
Rio de Janeiro
15th March, 1940

Monsieur l'Ambassadeur,

I have the honour to acknowledge the receipt of the note of to-day's date, in which Your Excellency informs me that, according to instructions received from His Majesty's Principal Secretary of State for Foreign Affairs, the Government of the United Kingdom of Great Britain and Northern Ireland examined and approved the General Report of the Special Commissioners appointed to demarcate the boundary-line between Brazil and British Guiana in accordance with the

¹ Traduction du *Foreign Office* de Sa Majesté britannique.

¹ Translation by His Britannic Majesty's Foreign Office.

Londres, a 22 de Abril de 1926 e o Protocolo firmado, na mesma cidade, a 18 de Março de 1930.

2. Em resposta, cabe-me levar ao conhecimento de Vossa Excelência que o Governo brasileiro, por sua vez, dá a sua aprovação ao trabalho dos referidos Comissários na forma exposta no Relatório Geral, cujo original, acompanhado dos apêndices numerados de 1 a 11 e do Mapa Geral mencionado no apêndice 8, se acha aquí anexo, e declara:

- (1) Que aceita a linha traçada pelos ditos Comissários, de conformidade com o exposto nos apêndices de números 5 a 9 e no Mapa Geral anexo, como constituindo a linha divisória entre o Brasil e a Guiana Britânica, de acôrdo com o Tratado acima mencionado, de 22 de Abril de 1926, o Protocolo de 18 de Março de 1930 e as notas trocadas, em Londres, a 27 de Outubro e 1.º de Novembro de 1932;
- (2) Que confirma o acôrdo a que se referem as notas trocadas, no Rio de Janeiro, a 2 de Outubro e 3 de Novembro de 1933 (cujo texto figura como apêndice 4 ao Relatório Geral) relativo a uma definição mais precisa da linha de limites, no caso de desenvolvimento futuro das áreas a êstes adjacentes.

Treaty signed in London on 22nd April, 1926, and the Protocol signed in London on 18th March, 1930.

2. In reply, I have to inform Your Excellency that the Brazilian Government have also given their approval to the work of the Commissioners referred to above, as set forth in the General Report, the original of which, accompanied by Appendices number 1 to 11 and the General Map referred to in Appendix 8, is annexed hereto, and they declare:—

- (1) That they accept the line laid down by the said Commissioners, in the manner shown in Appendices Nos. 5 to 9 and the annexed General Map, as constituting the boundary-line between Brazil and British Guiana in accordance with the above-mentioned Treaty of 22nd April, 1926, the Protocol of 18th March, 1930, and the notes exchanged in London on 27th October/1st November, 1932;
- (2) That they reaffirm the agreement contained in the notes exchanged at Rio de Janeiro on 2nd October/3rd November, 1933 (the text of which is annexed hereto as Appendix 4 to the General Report), regarding a more accurate definition of the boundary in the event of future development of areas adjacent to the boundary.

3. Fica, pois, entendido que a presente nota e a de Vossa Excelência, a que tenho a honra de responder, sejam consideradas ajuste formal entre os dois Governos para a fixação dos limites entre o Brasil e a Guiana Britânica.

Aproveito, &c.

(a) Oswaldo ARANHA

3. Accordingly it is understood that the present note and that of Your Excellency, to which I have the honour to reply, shall be considered as a formal agreement between the two Governments for the establishment of the boundaries between Brazil and British Guiana.

I avail, &c.

(Signed) Oswaldo ARANHA

GENERAL REPORT OF THE COMMISSIONERS APPOINTED TO DEMARCATÉ THE BOUNDARY

The undersigned, Major Kenneth Macaulay Papworth, M.C., R.E., and Captain Braz Dias de Aguiar, Brazilian Navy, having been duly appointed by their respective Governments to make a reconnaissance of the various frontier lines, to draw up plans of each of the various sections, as well as a general map of the boundaries between the two territories, and set up marks where they appear to be necessary, in accordance with the Treaty and Convention signed in London between His Britannic Majesty and the President of the Brazilian Republic on 22nd April, 1926 (*vide* Appendix 1), have surveyed the boundary in accordance with the instructions laid down in the Agreement between His Majesty's Government in the United Kingdom and the Brazilian Government signed in London on 18th March, 1930 (*vide* Appendix 2). The Commissioners present herewith the following General Report.

2. In the maps which accompany this Report, in order to avoid the duplication of place names owing to different methods of orthography in English and Portuguese, the spelling of the country to which the place belongs has been adopted, but in the case of prominent features on or near the boundary the two versions have been given. The following spelling of two place names which occur in the Treaty has been adopted in order to agree with present local usage:—

<i>Treaty Name</i>	<i>Spelling Adopted</i>
Arapopo (Arabopo)	Arabopo
Corentyne	Courantyne

3. The Mixed Commission was constituted at the first meeting held at Fazenda da Conceição on 30th April, 1930. The names of the personnel serving with the Mixed Commission, and their periods of service, are given in Appendix 11. By October 1934 the boundary had been demarcated from Mount Roraima southwards as far as the head of Essequibo River. The British Commission was then attacked by beri-beri and had to be withdrawn. This entailed the closing down of all field work. In July 1935 a new British Commission was appointed, and work was recommenced. The first task of the Mixed Commission thus reconstituted was to locate the Trijunction Point of the territories of British Guiana, Brazil and Surinam, in collaboration with a Netherlands Commission. This was satisfactorily completed on 20th February, 1936. At the same time it was agreed by the Commissioners that, for the remainder of the field work, the two Commissions should start from different points, working towards one another, instead of both Commissions covering the same ground independently. This pro-

cedure saved a considerable amount of time, particularly as various portions of the boundary still to be completed were more accessible to one Commission than the other. Field Work was completed in May 1938, the final meeting of the Mixed Commission in the field being held on 17th May.

4. The International Frontier between British Guiana and Brazil, as demarcated by the Mixed Commission, follows the boundary lines laid down by the Treaty and Convention (*vide* Appendix 1) except in one area, for which the Commissioners make a special recommendation (*vide* Appendix 6). In this area a stream which rises near the line of ideal watershed runs onto a saddle, where it divides, part flowing to British Guiana and part to Brazil. The Commissioners recommend that the boundary in this area should follow the thalweg of the stream from near its source to the point of bifurcation, after which the boundary should revert to the line of ideal watershed.

5. Along the watershed boundary marks are accurately placed on the boundary line but, in view of the present state of development of the territories adjoining the land boundary, it was agreed that the use of spirit levels was unnecessary for the location of the line connecting the boundary marks. In consequence, the line has only been located with the precision attained by an inspection of the ground. In the section between Mount Roraima and the source of the Ireng River the watershed traverses a number of hills over which it was impossible to carry the survey; some additional marks were therefore placed in this area. Astronomical observations were made at every fifth or sixth mark, the intermediate marks being fixed by traverses adjusted between the astronomical stations.

6. The principles to be adopted by the Mixed Commission for the delimitation of the riverain areas were agreed upon by the respective Governments in 1932 (*vide* Appendix 3). The thalweg is indicated by two beacons, one on each bank of the river. Each pair of beacons is fixed by astronomical observations; the distance between pairs is approximately fifty kilometres. At the headwaters of the Tacutú and Ireng Rivers some difficulty was experienced in deciding which of the many branches of those rivers the boundary should follow. After extensive surveys in those areas a satisfactory settlement was reached, in which it was agreed that the boundary should follow the Ireng so long as that river retained that name, and should then follow along its most Eastern confluent. On the Tacutú the boundary was to follow the Tacutú up to the confluence of East Tacutú, and thence to follow the East Tacutú up to its source on Mount Wamuriaktawa.

7. The numbering of the marks and beacons is somewhat complicated for the following reasons. The Mixed Commission held its first meeting at a point in the middle of the boundary line, and it was consequently impossible to commence the traverse at one end and work straight along the boundary without too great a loss of time. Further, the boundary is partly watershed and partly river; finally, since 1935 the two sections have been working in separate areas with a view to speeding up the rate of progress. It has been impossible, therefore, to arrange that the marks should be numbered consecutively from beginning to end.

8. At the junction of the Ireng and Tacutú there are two Brazilian beacons, No. 1 and No. 2, and one British beacon BG 1. From this point Northwards along the Ireng there are five pairs of beacons, numbered BG 8/B 1, BG 9/B 2, BG 10/B 3, BG 11/B 4, and BG 12/B 5. Southwards along the Tacutú from its junction with the Ireng there are eight pairs of beacons numbered BG 2/B 1, BG 3/B 2, BG 4/B 3, BG 5/B 4, BG 7/B 5, BG 14/B 6, BG 15/B, 7 and BG 16/B 8; there is one mark in the thalweg near the source of the Tacutú, indicated by two beacons, numbered BG 17/B 9.

9. On the land boundary the numbering of the marks begins at the terminal point on Mount Roraima (named B/BG 0), and between that point and the mark at the source of the Ireng there are thirteen intermediate marks. These are numbered consecutively from B/BG 1 to B/BG 11, both inclusive, then B/BG 11A and B/BG 12. The mark at the source of the Ireng is numbered B/BG 13. The land boundary recommences on Mount Wamuriaktawa at a mark numbered B/BG 14, and Eastwards along the boundary the marks are numbered consecutively upwards to B/BG 53. The mark at the terminal point of the boundary, at the point of junction of the territories of British Guiana, Brazil and Surinam, is named B/BG 132. From that point Westwards the marks are numbered consecutively downwards to B/BG 85. Between B/BG 53 and B/BG 85 there is only one mark, numbered B/BG 54/84. It should be noted that numbers 55 to 83, both inclusive, have been omitted.

10. The positions of the boundary marks and beacons are defined by their Geographic Co-ordinates. A complete list is given in Appendix 7, together with their heights, distances between marks, the year of construction, and the Magnetic Variation where observed.

11. For details of the construction of the Marks and Beacons see Appendix 9.

12. Owing to the densely forested nature of almost the whole of the area through which the boundary runs, triangulation was impracticable. The boundary has been fixed by traverses based on astronomical control points. For locating the terminal point on Mount Roraima the Mixed Commission worked in collaboration with a Venezuelan Commission appointed for that purpose. An astronomical point was observed at Arabopo, where a short base was measured, and the whole of the plateau of Roraima was connected to this point by triangulation. In addition, a check base was measured on the summit. The Brazilian Commission also observed on the top of Mount Roraima, near the trijunction point, but, owing to local attraction and other causes, there was a considerable difference between the value of the co-ordinates obtained by them and those deduced by triangulation from the observation post at Arabopo. It was therefore agreed by the Commissioners to adopt as the co-ordinates of the trijunction point the mean values obtained from the triangulation carried out by the three Commissions. A technical report on the methods used by the Mixed Commission is given in Appendix 10.

13. Twenty-eight plans on a scale of 1/50,000¹ and a general map on a scale of 1/1,000,000 are attached to this Report (*vide* Appendix 8). In addition, special plans¹ to illustrate the terminal points of the boundary are attached.

14. The figure of the Earth used is that known as "Madrid 1924." The projection used for the Sectional Plans¹ on the scale of 1/50,000 is the Minimum Error Conformal Projection of Gauss, based on a central meridian of 59° 00' West of Greenwich and the Equator. The origin of co-ordinates is the point of intersection of the standard meridian and the Equator. The projection used for the General Map is that of the International Map (*Carte du Monde au Millième*), with the central meridian of 58° 30' West of Greenwich.

15. A general description of the Boundary is given in Appendix 5.

16. The two Commissioners recommend to their respective Governments that the two marks placed at the terminal points of the Boundary should continue to define the terminal points, irrespective of any future or more accurate calculation of their geographical positions.

17. The two Commissioners are agreed that, in the present state of development of the area through which the boundary runs, the periodical inspection and maintenance of the boundary lines, and of the boundary marks and beacons, would be a useless and unnecessary expense. They therefore make no recommendation to their respective Governments on this point.

¹ Not reproduced.

18. The question of the free navigation and fishing rights in those portions of the Rivers Mahú and Tacutú which constitute the boundary is covered in the Agreement reached between the two Governments, a copy of which is contained in Appendix 3.

19. The surveys carried out by the Mixed Commission have only been in the nature of reconnaissance surveys to locate the approximate position of the boundary. In the existing state of development of the areas through which the boundary runs, any more accurate survey would have been a waste of time and money. Should any area be developed at any time, an accurate survey with intervisible pillars would be necessary. The procedure for such a survey has been agreed upon by the two Governments in correspondence, a copy of which is given in Appendix 4.

20. The present Report has been drawn up by the Chief Commissioners in duplicate, in the English and Portuguese languages, for presentation to their respective Governments.

(Signed) K. M. PAPWORTH

(Signed) BRAZ DIAS DE AGUIAR

LIST OF APPENDICES

- 1.—Anglo-Brazilian Treaty and Convention for the Settlement of the Boundary between British Guiana and Brazil. London, 22nd April, 1926.
- 2.—Anglo-Brazilian Agreement for the Demarcation of the Boundary between British Guiana and Brazil. London, 18th March, 1930.
- 3.—Exchange of Notes of 27th October/2nd November, 1932, concerning the Delimitation of the Riverain Areas.
- 4.—Exchange of Notes of 2nd October, 1933, providing for a more accurate definition to the Boundary in the event of Future Development of Areas Adjacent to the Boundary.
- 5.—General description of the Boundary.
- 6.—Recommendation by the Boundary Commissioners for the definition of the Boundary in the Area between Marks B/BG 86 and B/BG 87 where the line of ideal watershed is interrupted.
- 7.—List of Boundary Marks and Beacons.
- 8.—List of Maps and Plans of the Boundary.
- 9.—Description of the Construction of Boundary Marks and Beacons.
- 10.—Technical Report on Methods and Instruments used in the Survey.
- 11.—Diary of Work.

APPENDIX 1

ANGLO-BRAZILIAN TREATY AND CONVENTION FOR THE SETTLEMENT OF THE BOUNDARY BETWEEN BRITISH GUIANA AND BRAZIL. LONDON, 22ND APRIL 1926¹

APPENDIX 2

ANGLO-BRAZILIAN AGREEMENT FOR THE DEMARCATION OF THE BOUNDARY BETWEEN BRITISH GUIANA AND BRAZIL. LONDON, 18TH MARCH 1930²

APPENDIX 3

EXCHANGE OF NOTES OF 27TH OCTOBER/2ND NOVEMBER, 1932³,
CONCERNING THE DELIMITATION OF THE RIVERAIN AREAS

No. 1

Sir John Simon to Senhor Raul Régis de Oliveira

Foreign Office, S.W.1

27th October, 1932

Your Excellency,

In order to give effect to the desire expressed by the Brazilian Government that His Majesty's Government in the United Kingdom and the Brazilian Government should reach an agreement as to the principles to be adopted by the Mixed Commission in the delimitation of the riverain areas of the Boundary between British Guiana and Brazil, I have the honour to make the following detailed proposals on the basis of the proposals already put forward by the Brazilian Government:—

- (i) Without prejudice to the provisions relating to the sovereignty of islands contained in paragraph (iii), the boundary line at any particular time shall be the thalweg of the river wherever the thalweg may be situated at that time. It is understood that the water, and not the river bed, is to be the boundary. The thalweg is understood to imply the line of minimum level along the bed of the river throughout its length. Where, owing to rapids or to any other cause, it is not possible to determine the position of the thalweg, the median line of the channel which offers the most favourable course for down-stream navigation shall be the boundary.

¹ Not reproduced. See League of Nations, *Treaty Series*, Vol. XCII, page 311.

² Not reproduced. See League of Nations, *Treaty Series*, Vol. CI, page 401.

³ League of Nations, *Treaty Series*, Vol. CLXXVII, page 127.

- (ii) Subject to the provisions of paragraph (iii) the sovereignty of islands shall be determined by their situation in relation to the thalweg at the time of demarcation, or to the median line in reaches where it forms the boundary. Islands shall belong to that State on whose side of the boundary they are situated.
- (iii) The position of the thalweg cannot be relied upon to remain constant owing to the natural action of the water, *e.g.*, the gradual deposit of alluvium silting up and perhaps even closing channels. The question of the change of sovereignty of islands on account of the movement of the thalweg through such causes shall be determined as follows:—
- (a) Where, owing to the gradual movement of the thalweg, an island, situated at the time of demarcation on one side of it, is found, at any subsequent time, to be situated on the opposite side of the thalweg and still remains an island, its sovereignty shall not change, despite the change in the position of the thalweg.
- (b) Where, owing to the gradual movement of the thalweg, or to the deposit of alluvium or to other gradual and natural causes, an island situated at the time of demarcation in the territory of one State becomes joined to the territory of the other State its sovereignty shall change.
- (c) Where, in virtue of the gradual and natural action of the river, two islands of different sovereignty unite and form one island, the sovereignty of the island resulting from that union shall be determined by its position with relation to the thalweg at that time.
- (d) An island shall be deemed to be joined to another island or to the mainland when the level of the bed separating the two shall have risen to a height greater than that of the water at other than flood periods in that part of the river.
- (e) Where, owing to the deposit of alluvium, or other gradual and natural causes, a new island is formed attaining a height greater than that of the water at other than flood periods in that part of the river, where previously no land existed, it shall belong to that State on whose side of the thalweg it may be situated, wherever the thalweg may be at the time of the appearance of the island.
- (f) Each State shall have the right both to protect its own banks and islands from the gradual and natural action of the river and also to effect works in its own territory to prevent any local deviation of the current of the main stream, or of any branch of the river, from its course at the time, provided in both cases that such works do not themselves cause any such deviation elsewhere.

- (iv) If the river should suffer complete dislocation of its course, on account of any sudden natural phenomenon, in such a way as to abandon its bed and to open up another, the boundary line shall continue to be the thalweg of the river. In such a case the State affected by the loss of territory shall have the right to force the river back into its abandoned bed within a space of four years from the date on which the change of course became known to it.
- (v) Nevertheless, in every case where change of sovereignty of land is involved, the property rights of the population shall be observed, and the State affected by the loss of territory shall have the right to a reasonable indemnity from the other State, the amount to be fixed by mutual agreement. In the event of the two States failing to agree upon the amount of the indemnity, the matter shall be submitted for arbitration by the Permanent Court of International Justice and both States shall abide by the decision of the Court.
- (vi) The river shall be open to free navigation and fishing to both States throughout that portion of its length which constitutes the boundary but no works shall be permitted other than those intended solely to retain the river in its present course and not involving any risk of altering that course except with the mutual consent of the Governments of both States and any work such as canalisation, irrigation, or the development of electrical power shall only be undertaken subject to the mutual consent of both riparian States.

2. If the Brazilian Government agree to the adoption of these principles by the Mixed Commission, I have the honour to suggest that the present note and Your Excellency's note in reply accepting the proposals be regarded as constituting an Agreement between the two Governments to this effect.

I have, &c.

(Signed) John SIMON

No. 2

Senhor Raul Régis de Oliveira to Sir John Simon

Senhor Secretario de Estado,

Brazilian Embassy, Londres,
1 de Novembro de 1932.

Tenho a honra de accusar recebida a Nota, de 27 de Outubro ultimo, pela qual Vossa Excellencia, com o fim de attender ao desejo manifestado pelo Governo brasileiro de que o Governo de Sua Majestade britannica no Reino Unido e o Governo brasileiro cheguem a um acôrdo sobre os principios a serem adoptados pela Comissão Mixta de delimitação das áreas ribeirinhas da fronteira entre o Brasil e a Guyana britannica, faz a seguinte proposta detalhada, baseada na proposta já anteriormente apresentada pelo Governo brasileiro, que tenho a honra de acceitar:—

TRANSLATION¹ — TRADUCTION¹

Sir,

Brazilian Embassy, London
1st November, 1932

I have the honour to acknowledge the receipt of the note of 27th October last in which Your Excellency, with the object of meeting the desire expressed by the Brazilian Government that His Majesty's Government in the United Kingdom and the Brazilian Government should reach an agreement on the principles to be adopted by the Mixed Commission for the delimitation of the riverain areas of the boundary between Brazil and British Guiana, makes the following detailed proposals, based on the proposals previously put forward by the Brazilian Government, which I have the honour to accept:—

[As in paragraphs (i) to (vi) in No. 1]

2. It is understood that the present note and Your Excellency's note of 27th October last shall constitute an agreement between the Brazilian Government and His Majesty's Government in the United Kingdom for the purposes mentioned above.

I have, &c.

Regis DE OLIVEIRA

APPENDIX 4

EXCHANGE OF NOTES OF 2ND OCTOBER 1933, PROVIDING FOR A MORE ACCURATE DEFINITION OF THE BOUNDARY IN THE EVENT OF FUTURE DEVELOPMENT OF AREAS ADJACENT TO THE BOUNDARY

No. 1

Mr. J. M. Troutbeck to Dr. Afranio de Mello Franco

Monsieur le Ministre,

British Embassy
Rio de Janeiro
2nd October, 1933

With reference to Sir William Seeds' Note No. 69 of 15th June last relative to the demarcation of the frontier between British Guiana and Brazil, I have the honour, under instructions from His Majesty's Principal Secretary of State for Foreign Affairs, to inform Your Excellency that in connexion with paragraph 7 of the minutes of the Meeting of the respective Commissioners held on 3rd February

¹ Translation by His Britannic Majesty's Foreign Office.

¹ Traduction du Foreign Office de Sa Majesté britannique.

last, His Majesty's Government in the United Kingdom are most anxious that any final agreement regarding the demarcation of this frontier should take into account the proposal put forward in the first instance by the Brazilian Commissioner that, in the event of either State deciding upon the development of any area adjacent to the boundary, that State should undertake the accurate demarcation of the boundary in that area, inviting the other State to send a representative with full power to approve such demarcation on behalf of his Government, and that, thereafter, the State undertaking the development of the area in question should be responsible for the marking and maintenance of the approved line.

2. His Majesty's Government in the United Kingdom also consider it desirable that, in connexion with the section of the boundary referred to in paragraph 7 of the minutes of the Meeting of the Commissioners mentioned above, the final agreement should make provision for the revision of the boundary in that area at the request of either party should it be found at any future date that it diverges from the true watershed.

3. I should be grateful if Your Excellency would be so good as to inform me whether the Brazilian Government concur in the suggestion of His Majesty's Government in the United Kingdom that the final Agreement should be drafted so as to make provision for the points set out above.

I avail, &c.

(Signed) J. M. TROUTBECK

No. 2

PORTUGUESE TEXT — TEXTE PORTUGAIS

TRANSLATION¹ — TRADUCTION¹

*Dr. Afranio de Mello Franco
to Sir William Seeds*

Ministério dos Negócios Estrangeiros
Rio de Janeiro
Em 3 de Novembro de 1933

Ministry for Foreign Affairs
Rio de Janeiro
3rd November, 1933

Senhor Embaixador,

Monsieur l'Ambassadeur,

Tenho a honra de acusar recebimento da nota de 2 de Outubro próximo findo, em que Vossa Excelência me comunica o desejo do Govôrno de Sua Majestade Britânica de constar da ata final da demarcação da fronteira do Brasil com

I have the honour to acknowledge the receipt of your note of 2nd October last, in which Your Excellency informs me of the desire of His Majesty's Government that the final act of the demarcation of the frontier between Brazil and British

¹ Translation by His Britannic Majesty's Foreign Office.

¹ Traduction du Foreign Office de Sa Majesté britannique.

a Guiana Britânica um compromisso dos dois Estados no sentido de que, decidindo-se um deles a fazer utilizar qualquer area adjacente à linha de limite, fique obrigado a proceder à sua custa a uma cuidadosa caracterização da fronteira nessa area, convidando o outro Estado a enviar um representante, munido de Plenos Poderes, para aprovar a referida caracterização em nome de seu Governo. Ao Estado que tomasse a iniciativa incumbiria a tarefa de conservação da mencionada linha.

2. Manifesta ainda Vossa Excelência no. § 2º de sua nota, com referência ao trecho da fronteira referido no § 7º da ata da Conferência dos Delegados-chefes, realizada em 3 de Fevereiro do corrente ano, ser desejavel que, da ata final antes referida, igualmente conste que uma das Partes pôde pedir à outra a revisão da demarcação nesse trecho, caso futuramente se verifique que se afasta do verdadeiro divisor de aguas a linha tal como foi fixada.

3. Apraz-me manifestar a Vossa Excelência a concordância do Governo brasileiro com essas duas sugestões e comunicar-lhe que o Comandante Braz Dias de Aguiar receberá instruções no sentido de constarem uma e outra da ata final da demarcação.

Aproveito, &c.

(a) A. DE MELLO FRANCO

Guiana should contain an agreement between the two States to the effect that should one of them decide to develop any area adjacent to the boundary line it should be obliged to proceed at its own expense to an accurate definition (*caracterização*) of the boundary in that area, inviting the other State to send a representative with full powers to approve such definition on behalf of his Government. The duty of maintaining the line in question would fall upon the State taking the initiative.

2. Your Excellency further states in paragraph 2 of your note, with reference to the section of the boundary referred to in section 7 of the minutes of the meeting of the Commissioners which took place on the 3rd February last, that it would be desirable that the above-mentioned final act should also make provision for one of the parties being able to request of the other the revision of the demarcation in that section should it be found in the future that the line as fixed diverges from the true watershed.

3. I have pleasure in informing Your Excellency of the agreement of the Brazilian Government with these two suggestions and in stating that Commander Braz Dias de Aguiar will receive instructions in the sense of their being both included in the final act of the demarcation.

I avail, &c.

(Signed) A. DE MELLO FRANCO

APPENDIX 5

GENERAL DESCRIPTION OF THE BOUNDARY

GENERAL

The boundary between British Guiana and Brazil is 1,605·800 kilometres in length, and can be divided into four sectors:—

- (a) A land boundary from Mark B/BG 0 on the summit of Mount Roraima, at the point of junction of the three territories of British Guiana, Brazil and Venezuela, to Mark B/BG 13 at the source of the Mahú or Ireng River. Length 92·187 kilometres, defined by thirteen intermediate marks.
- (b) A river boundary from Mark B/BG 13 along the thalweg of the Mahú to Beacons BG 1 and Brazilian Nos. 1 and 2 at the junction of the Mahú and Tacutú Rivers. Length 374·873 kilometres, defined by five intermediate pairs of beacons.
- (c) A river boundary from there along the thalweg of the Tacutú and East Tacutú Rivers to Mark B/BG 14 at the source of the latter river on Mount Wamuriaktawa. Length 323·313 kilometres, defined by nine pairs of intermediate beacons.
- (d) A land boundary thence to Mark B/BG 132 at the point of junction of the territories of British Guiana, Brazil and Surinam. Length 815·427 kilometres, defined by eighty-seven intermediate marks.

2. The boundary passes through densely forested country, except for a portion of the river boundary along the Ireng and Tacutú, where there is extensive open savannah country with cattle ranches and Indian habitations. Visibility in the forest is limited to about 20 metres. The trees have an average diameter of 30 to 80 centimetres and rise to a height of 30 to 50 metres. There are several varieties of giant trees with buttresses, which are occasionally met. They rise to a height of 70 metres or more, with a diameter of 3 to 4 metres.

3. Communications are non-existent except in the savannah country mentioned above, where a network of mud tracks some 50 metres wide connects the various villages and farms. In the forest area the rivers are the only means of communication, but they are obstructed by falls and rapids, and the transporting of supplies has been extremely costly. In the headwaters of the rivers, extensive work on cleaning the creeks for use by canoes has been necessary; once away from the rivers, tracks through the forest have had to be cleared for the surveying parties and porters.

4. The country through which the first section of the boundary passes is sparsely inhabited by Arecuna, Patamona and Igaricó Indians on both sides of the frontier. Along the Ireng as far as the Tumong (Timão) River there are settlements of Macusis on either side, and on the Tacutú of Wapisianas. Beyond the fringe of the savannahs there are no Indian inhabitants on the British side in the whole boundary area to the junction with Surinam, with the sole exception of a small Wai-wai village near the Essequibo head. At the heads of the Brazilian rivers, however, there are scattered villages of Wai-wai, Paricotto, Moyana, Pianocotto, Maopityan, Rangu-piki and Marachó Indians, with bush trails connecting them with the Wapisiana villages on the Rupununi savannahs.

MOUNT RORAIMA TO THE SOURCE OF THE MAHU OR IRENG RIVER

5. Mount Roraima is situated at the South-Western corner of a number of large rock massifs with flat tops and precipitous sides, rising vertically for 300 to 500 metres. On the plateau of Roraima, the general level of which is 2,750 metres above sea level, a number of streams rise which form the sources of the Caroni, a tributary of the Orinoco, the Cotingo or Kwating River, a tributary of the Rio Branco, and the Kako, which flows to the Mazaruni River. The ascent to the plateau can only be made from the South-West, from Arabopo village, situated some 8 kilometres away in the valley of the river at a height of about 1,300 metres. The mass of the mountain is formed of sandstone. At the North-Western end of the plateau, there is a large area of serrated cliffs and rocks where it was impossible to carry out any survey work. The streams which rise on the plateau have cut deeply into the rock surface, forming chasms many metres in depth. On reaching the edge of the plateau, these streams fall some 500 metres to the base of the cliffs forming the plateau. The Mixed Commission worked in collaboration with a Venezuelan Commission for the survey of Roraima and for the selection of the point of junction of the frontiers of the three countries.

MARK B/BG 0

6. Situated on the plateau of Roraima at the sources of streams which flow into the territories of the three countries.

From this mark the Brazil-Venezuela boundary follows the watershed between the Cotingo (Kwating) and the Arapopo (Arabopo) Rivers in an Easterly direction to Mark B/V 1, situated near the edge of the plateau. The British Guiana-Venezuela boundary runs in a straight line, approximately N.N.W., from Mark B/BG 0 to the source of the River Wenamú. The British Guiana-Brazil boundary follows the watershed between the headwaters of the Mazaruni and Cotingo Rivers from Mark B/BG 0 in a North-Easterly direction for $2\frac{1}{2}$ kilometres to Mark B/BG 1.

MARK B/BG 1

7. Situated on the plateau of Mount Roraima about 250 metres from the cliff edge, and on the watershed between the Mazaruni and Cotingo Rivers.

From B/BG 1 the boundary runs towards the East to the edge of the cliffs, from the bottom of which it continues running Eastwards for about a kilometre to Mark B/BG 2.

MARK B/BG 2

8. Situated on the watershed between the Paikwa (British) and Cotingo Rivers.

The boundary runs E.N.E., crossing Mount Wei-assipú, for about 4 kilometres to Mark B/BG 3. Mount Wei-assipú is another rock massif, the summit of which was found to be inaccessible. A traverse was carried round the base of the cliffs until the watershed was again picked up on the Eastern side. The ground, however, was extremely difficult to walk over, owing to the large masses of rock which have fallen down from the mountain face.

MARK B/BG 3

9. Situated on the watershed between the Mazaruni and Cotingo Rivers.

The boundary runs Eastwards for about 2 kilometres to Mark B/BG 4, crossing Mount Appokailang on the way, but owing to its precipitous sides the traverse was surveyed round its base until the watershed was again picked up on its Eastern face.

MARK B/BG 4

10. Situated on the watershed between the Mazaruni and Cotingo Rivers.

Immediately after leaving Mark B/BG 4 the boundary crosses Mount Yacontipú, which was found to be inaccessible from the West. It was impossible to carry the traverse round its base on account of the large masses of fallen rock debris. The mountain was, however, scaled from its Eastern face, and the survey was recommenced from a point on its summit, leaving a gap of about 1 kilometre unsurveyed. The boundary then runs slightly South of East for 5 kilometres to Mark B/BG 5.

MARK B/BG 5

11. Situated on the watershed between the Mazaruni and Cotingo Rivers.

From Mark B/BG 5 the boundary runs Eastwards for 2 kilometres to Mount Maringma, over which it passes, and then turns sharply to the South. After 1 kilometre it turns E.S.E., and 6 kilometres further on N.E., to Mark B/BG 6.

MARK B/BG 6

12. Situated 9 kilometres, measured in a straight line, East of Mark B/BG 5, near the source of the River Ataro (British), at which point a trail crosses the watershed. The boundary then runs slightly South of East for about 8 kilometres, afterwards turning South to Mark B/BG 7.

MARK B/BG 7

13. Situated on the watershed between the headwaters of the Ataro and Kopé Rivers, where a trail crosses the watershed.

The boundary continues running Southwards for a short distance, and then runs Eastwards for 3 kilometres, after which it turns North to Mark B/BG 8, near Mount Akurima.

MARK B/BG 8

14. Situated on the watershed between the Tiara and Panari Rivers, where an Indian trail crosses the watershed.

From Mark B/BG 8 the boundary runs in a general Easterly direction for about 11 kilometres to Mark B/BG 9.

MARK B/BG 9

15. Situated on the watershed between the headwaters of the Kukui and Panari Rivers.

Thence the boundary runs towards the North-East for 6 kilometres to Mark B/BG 10.

MARK B/BG 10

16. Situated on the Western side of Mount Aromatipú on the watershed between the Kukui and Panari Rivers.

The boundary continues to run in a North-Easterly direction for 8 kilometres through dense forest to Mark B/BG 11.

MARK B/BG 11

17. Situated on the watershed between the Kukui and Panari Rivers.

The boundary now turns slightly more to the East for 2 kilometres to Mark B/BG 11A.

MARK B/BG 11A

18. Situated on the Western side of Mount Kaburai, on the watershed between the Kukui and Ailan Rivers. It marks the most Northerly point of the boundary, and of Brazil.

The boundary now runs South-Eastwards along the watershed between the Haieka and Ailan Rivers for 8 kilometres to Mark B/BG 12.

MARK B/BG 12

19. Situated on the Eastern side of Mount Ulamirtipú, between the Haieka and Ailan Rivers.

The boundary runs to the North-East along the Ulamir Hills for 3 kilometres to Mark B/BG 13, which is the end of the land boundary.

MARK B/BG 13

20. Situated on the watershed between the tributaries of the Haieka River and the source of the Mahú or Ireng River.

This is the terminal point of the land boundary in this area.

SOURCE OF RIVER MAHU (IRENG) TO ITS JUNCTION WITH THE RIVER TACUTU

21. From Mark B/BG 13 the boundary follows the thalweg of the Ireng, which flows through well forested country slightly East of South for 14 kilometres, and then runs South-East for a further 16 kilometres to Beacon BG 12/B 5, at the confluence of the Sukabi (Socobí Creek). At this point the river is about 40 metres wide with a mean depth of 1½ metres.

BEACON BG 12/B 5

22. Beacon BG 12 is situated on the left bank of the Ireng, about 60 metres downstream from the mouth of Sukabi Creek. Beacon B 5 is on the right bank of the Ireng, opposite Beacon BG 12.

From this point the river flows West of South through more level, but still well forested, country. After about 23 kilometres the village of Ipishau (Ipichau) is reached, and here open savannah country begins on the left bank. On the right bank the forest continues another 16 kilometres up to Matarauhy Creek, after which there is savannah on both banks of the river. About 51 kilometres from the Sukabi Tumong (Timão) Creek is reached, where Beacon BG 11/B 4 was built. In this stretch the river is about 50 metres wide and 2 metres deep, and is navigable between the rapids. There are many small tributaries, of which the chief are the Warga and Tumong.

BEACON BG 11/B 4

23. Beacon BG 11 is situated on the left bank of the Ireng, about 120 metres downstream from the mouth of the Tumong Creek. Beacon B 4 is immediately opposite, on the right bank of the Ireng.

From this point the river flows in a South-Westerly direction for about 30 kilometres; it then turns South for 8 kilometres and then runs slightly South of East for about 90 kilometres to Beacon 10/B 3, at the mouth of the Echilebar River. The river runs between ranges of hills and broken ground, making navigation in this part of the river very difficult and dangerous on account of the numerous rapids and falls.

BEACON BG 10/B 3

24. Beacon BG 10 is situated on the left bank of the Ireng about 314 metres below the mouth of the Echilebar River. The Brazilian Beacon B 3 is on the right bank of the river opposite.

The river flows South-West for some 20 kilometres, and then turns Southwards for about 25 kilometres to Kurewaki Island, where the thalweg passes on the West side of the island, which is therefore British. The river now flows South of East for another 12 kilometres to the mouth of Karabaikurú Creek; it then turns West of South for about 8 kilometres, and then South-East in a very winding course to Beacon BG 9/B 2.

BEACON BG 9/B 2

25. Beacon BG 9 is situated on the left bank of the Ireng, at the foot of the hill known as Tapirimeping. Beacon B 2 is on the opposite bank of the river.

From this point onwards the river has a very winding course. For about 10 kilometres it flows to the South-East, and then runs South-South-West for about 30 kilometres, when it turns South-West for some 20 kilometres to Beacon BG 8/B 1.

BEACON BG 8/B 1

26. Beacon BG 8 is situated on the left bank of the Ireng River about 500 metres below Sunnyside Ranch. Beacon B 1 is on the opposite bank. From this point the river flows in a general South-Westerly direction in a less winding course for about 45 kilometres to the junction of the Ireng and Tacutú Rivers, marked by Beacon BG 1 and Brazilian Beacons No. 1 and No. 2.

At this point the Mahú or Ireng is about 150 metres wide and 2 metres deep, and runs between steep banks. The Tacutú below the junction is about 200 metres wide and less than a metre in depth. Its banks are low and sandy. Above the confluence it is about 170 metres wide and somewhat shallower than the Ireng; in the dry season navigation throughout the river is impeded by frequent sandbanks and shallows.

BEACONS BG 1/IRENG MOUTH NOS. 1 AND 2

27. Beacon BG 1 is situated at the confluence of the Ireng or Mahú and the Tacutú, some 200 metres East of the river bank. Beacon No. 1 is on the right bank of the Ireng, and Beacon No. 2 on the left bank of the Tacutú.

CONFLUENCE OF THE IRENG AND TACUTU RIVERS TO MARK B/BG 14

28. The boundary now follows the thalweg of the Tacutú upstream to its source on Mount Wamuriaktawa. Its direction is South-East for 15 kilometres to the mouth of Manariwau Creek. The boundary then turns W.S.W. to the mouth of Arraia Creek, about 15 kilometres upstream, after which it turns East for 3 kilometres

and then South for 5 kilometres to Bon Success, where there is a ranch and British Government Station on the right bank of the Tacutú. For the whole of this stretch the river is very much obstructed by sandbanks.

BEACON BG 2/B 1

29. Beacon BG 2 is situated on the right bank of the Tacutú, 300 metres below the mouth of Tabatinga Creek, and 300 metres South of the Government Rest House. Beacon B 1 is on the opposite bank.

From here the boundary goes South for 3 kilometres and then West for another 3 kilometres, after which it runs in a general direction of South-South-West for 45 kilometres before reaching Beacon BG 3/B 2. For the last 16 kilometres before the beacon the river has a very winding course with a number of rapids. In this part a large tributary, the Sowari-Wau, joins the river from the East. The river is here about 120 metres wide with an average depth of 2 metres.

BEACON BG 3/B 2

30. Beacon BG 3 is situated on the right bank of the Tacutú about 500 metres below the mouth of Weked-Wau Creek. Beacon B 2 is on the opposite bank of the river about 900 metres West of it.

The boundary now runs South-West for 5 kilometres and then turns due South to Beacon BG 4/B 3, about 50 kilometres further upstream. This portion of the river is obstructed by a number of rapids and small falls. There are numerous creeks joining the river, of which the chief are the Skabunk (British) and Mutum (Brazilian).

BEACON BG 4/B 3

31. Beacon BG 4 is situated on the right bank of the Tacutú, about 40 metres below the mouth of Baiewau Creek. Beacon B 3 is immediately opposite, on the left bank.

The boundary runs East of South for some 45 kilometres and then runs South-East for another 30 kilometres to Beacon BG 5/B 4. Three kilometres upstream from Beacon BG 4 Urubú Creek joins the Tacutú from the West. Ruawau Creek joins the Tacutú from the East a further 14 kilometres upstream, and the Kowari-Wau from the East 16 kilometres farther on. The river is again obstructed by a number of falls and rapids.

BEACON BG 5/B 4

32. Beacon BG 5 is situated on the right bank of the Tacutú about 2,600 metres below the mouth of Miruwau Creek, and 1,500 metres South-West of Anawanab Hill. Beacon B 4 is on the opposite bank of the Tacutú.

The boundary runs Eastwards for about 3 kilometres past the mouth of Miruwau Creek, after which it runs almost due South for 35 kilometres to Beacon BG 7/B 5. There are a number of creeks joining the river in this section, and many falls and rapids. At this point the river is about 30 metres wide.

BEACON BG 7/B 5

33. Beacon BG 7 is situated on the right bank of the Tacutú, and is about 30 metres upstream from the mouth of the Soniwau Creek. Beacon B 5 is on the opposite bank of the Tacutú.

The boundary runs almost due South for about 15 kilometres, following the river upstream over rather a winding course to the junction of the Wamuriak River with the Tacutú, which is here only about 25 metres wide. The river is freely navigable by small craft as far as this point, except that care has to be taken in passing through the many rapids and falls. In the rainy season the river becomes dangerous because of the very rapid rise and fall of the water level. Up to this point the river valley lies in open savannah country, but upstream from here the forest begins again.

BEACON BG 14/B 6

34. Beacon BG 14 is situated on the right bank of the Tacutú, on a narrow spit of land between that river and the Wamuriak River. Beacon B 6 is on the opposite bank of the river.

From that point the boundary runs South-South-West to the junction of a creek known as Anderson's River, which rises on the Northern slopes of Mount Wamuriaktawa. At this point the Tacutú is 20 metres wide, with an average depth of 2 metres. The boundary continues towards the South-West for 2 kilometres and then turns South for about 15 kilometres. It then runs in an Easterly direction to the confluence of the South and East Tacutú Rivers. At this point the Tacutú is 15 metres broad and 1 metre deep.

BEACON BG 15/B 7

35. Beacon B 7 is situated on the left bank of the East Tacutú, 24 metres East of the mouth of the South Tacutú. Beacon BG 15 is on the right bank of the East Tacutú immediately opposite.

The boundary runs slightly North of East for $3\frac{1}{2}$ kilometres, and then slightly South of East for about 7 kilometres to the mouth of the Betim River, which flows from the South. The river here is 5 metres wide and 1 metre deep.

BEACON BG 16/B 8

36. Beacon B 8 is situated on the left bank of the East Tacutú, 13 metres East of the Betim River. Beacon BG 16 is on the right bank of the East Tacutú directly opposite.

The boundary follows the thalweg upstream towards the North for 2½ kilometres, and then turns North-East for 1 kilometre to Beacon BG 17/B 9.

BEACON BG 17/B 9

37. Beacons BG 17 and B 9 are situated on the right and left banks of the East Tacutú respectively, the line joining them indicating a block of concrete buried in the thalweg of the stream, which is here 3 metres wide and 0·40 metre deep.

The boundary follows the thalweg of the stream for 400 metres Northwards up to its source on a spur running Eastwards from Mount Wamuriaktawa, indicated by Mark B/BG 14.

MARK B/BG 14

38. Mark B/BG 14 is the southern terminal of the river boundary. It is situated on the watershed between the East Tacutú, Anderson's Creek (noted in paragraph 34 above) and the headwaters of the Kuyuwini, which flows to the Essequibo. It is about 400 metres East of the highest point of Mount Wamuriaktawa.

MOUNT WAMURIAKTAWA TO TRIJUNCTION POINT OF THE TERRITORIES OF BRITISH GUIANA, BRAZIL AND SURINAM

39. The land boundary starts again at Mount Wamuriaktawa. The general character of the watershed varies widely at different points; it is sharply defined at most of the saddles between hills, and on many of the higher ridges; on the tops of the smaller hills, however, there is much more level ground, on which it would have been impossible to locate the watershed exactly without the use of spirit levels. The whole of the area through which the boundary passes is covered with forest.

40. The boundary is defined by a series of marks, consisting of a buried concrete block with either one or two concrete reference pillars. These marks are spaced about 8 to 10 kilometres apart, and the position of every fifth or sixth mark was fixed by astronomical observations. In the short description which follows the boundary is divided into sections from one astronomical station to the next. Except where otherwise stated, there are four intermediate marks in each of these sections.

41. From B/BG 14 the general trend of the boundary is slightly West of South for about 20 kilometres, after which it turns Eastward to B/BG 19. The watershed runs along a low and ill-defined ridge throughout this section. To the North and East it is drained by the Kuyuwini River as far as B/BG 17, and then by tributaries of the Kassikaityu River. On the opposite side it is drained by the South Tacutú as far as B/BG 16, and thence by tributaries of the Anauá, which flows into the Rio Branco.

MARK B/BG 19

42. Situated on the Amazon-Essequibo watershed, in the vicinity of the headwaters of the Kassikaityu and Anauá Rivers.

From B/BG 19 the watershed continues to the East for 7 kilometres and then runs South-East to B/BG 24. In this section it crosses a series of undulating hills, gradually increasing in height. It is drained by the Kassikaityu River on the North side, and the Anauá on the South side.

MARK B/BG 24

43. Situated on the Amazon-Essequibo watershed in the vicinity of the headwaters of the Kassikaityu and Anauá Rivers.

In this section the country is much more hilly. The watershed continues in a general South-Easterly direction, passing over several steep-sided ridges of over 1,000 metres in height. On the North side the streams as far as 3 kilometres past B/BG 26 drain to the Kassikaityu; thence up to B/BG 28 to the Kamoá, and after that to the Sipu. On the South side the Anauá drains the watershed up to a point between B/BG 27 and B/BG 28, and after a tributary of the Mapuera.

MARK B/BG 29

44. Situated on the Amazon-Essequibo watershed in the vicinity of the headwaters of the Sipu and Mapuera Rivers.

From B/BG 29 the watershed runs East-South-East to B/BG 34 in very nearly a straight line, roughly parallel to the Sipu River, which continues to drain the watershed on the North side, the South side being drained by tributaries of the Mapuera. The country is still very hilly with steep-sided ridges.

MARK B/BG 34

45. Situated on the Amazon-Essequibo watershed in the vicinity of the headwaters of the Sipu and Mapuera.

From B/BG 34 the watershed runs Eastwards for about 17 kilometres; it then turns South as far as B/BG 37, and thence runs South-East to B/BG 39. The general level of the watershed descends to B/BG 37, shortly after which there is an area of low swamp; it then rises again to B/BG 39. As far as B/BG 37 the watershed drains on the North side of the Sipu and on the South to the Mapuera. After that the streams on the North side run to the Chodikar, and on the South to the Comuno, a branch of the Mapuera River.

MARK B/BG 39

46. Situated on the Amazon-Essequibo watershed in the vicinity of the headwaters of the Chodikar and Comuno Rivers. From B/BG 39 the watershed runs in

a general North-Easterly direction to B/BG 42, after which it turns Easterly. The general character of the country is still hilly, but after B/BG 42 much steeper slopes and higher ground are encountered. The watershed is drained on the North side by the Chodikar River, and on the South by the Comuno as far as B/BG 43, and then by the Tutumo, a tributary of the Mapuera.

MARK B/BG 44

47. Situated on the Amazon-Essequibo watershed in the vicinity of the headwaters of the Wapauu and Tutumo Rivers.

After observations were completed at the next astronomical station, it was found that that station was not on the same watershed. From B/BG 44 to B/BG 48 the survey followed the correct line, which was adjusted to agree with the astronomical station at B/BG 44 and the "false" station. Thence the traverse was adjusted between the corrected position for B/BG 48 and B/BG 54/84. There are nine intermediate marks in this section. From B/BG 44 the watershed continues East as far as Mark B/BG 48, and then turns North-North-East up to Mark B/BG 54/84. As far as B/BG 44 the watershed passes through difficult country with steep-sided hills; thence up to B/BG 51 the general character again changes, and the country becomes much lower and flatter, with areas of swamp, dense undergrowth and low palm forest. From B/BG 51 to B/BG 54/84 the country again rises slightly but it still remains comparatively flat. From B/BG 44 the watershed is drained by the Wapauu River as far as B/BG 52, and then by the Onoro River; on the South side it is drained by the Tutumo as far as B/BG 48, after which the basin of the Caphuwin or Alto Trombetas takes all the waters.

MARK B/BG 54/84

48. Situated on the Amazon-Essequibo watershed in the vicinity of the headwaters of the Onoro and Caphuwin Rivers.

On the North side of the watershed, at a point near B/BG 54/84, the change over from the Essequibo basin to that of the Courantyne takes place. As far as B/BG 98 the watershed is drained by the New River proper, and thence as far as B/BG 119 by the Oronoque, a tributary of the New River. From B/BG 119 to B/BG 123 it is drained by the Aramatau River, and thence to the Trijunction Point by the Kutari, which join to form the Courantyne River. The confluence of the New River with the Courantyne is at approximately Longitude 57° 30' West, and Latitude 03° 20' North.

49. On the South side the watershed is drained by tributaries of the Caphuwin as far as B/BG 110, and thence up to the Trijunction Point by the Wanamú (Anamú). These two rivers unite to form the Trombetas. As far as B/BG 92 the

general course of the River Caphuwin is parallel to the watershed, which is here only some 6 kilometres North of it. At this point the river is some 50 metres broad; from the watershed the ground drops down extremely sharply to the comparatively low valley.

50. From B/BG 54/84 the watershed runs towards the North in a winding course for 10 kilometres; it then runs North-East to B/BG 86, where it turns South for about 4 kilometres. It then runs in an Easterly direction to B/BG 89, and thence Southwards to B/BG 90. Shortly after leaving B/BG 54/84 the country rises to an average height of 600 metres. The hills have very well defined ridges and extremely steep gradients. The highest point (838 metres) is about half-way between B/BG 88 and B/BG 89. Between B/BG 86 and B/BG 87 there is an interruption in the line of ideal watershed. A stream which rises near the watershed flows on to a saddle where it divides, part flowing to British Guiana and part to Brazil. This is made the subject of a special recommendation embodied in Appendix 6.

There are five intermediate numbers in this section.

MARK B/BG 90

51. Situated on the Amazon-Courtayne watershed in the vicinity of the headwaters of a tributary of New River, and of streams running to the Caphuwin River.

From B/BG 90 the boundary runs Eastwards to B/BG 92, shortly after which it turns sharply Northwards to B/BG 95. Between B/BG 93 and B/BG 94 the character of the country changes completely. The general level of the ground falls off to about 300 metres, the saddles between hills being little over 240 metres high.

MARK B/BG 95

52. Situated on the Amazon-Courantyne watershed in the vicinity of the headwaters of tributaries of the New River and Caphuwin.

The watershed goes Eastwards to 1 kilometre past B/BG 96, running parallel to, and in between, tributaries of the New River and Caphuwin. It then turns North-East to B/BG 97, and then runs North of East to within a kilometre of B/BG 99, where it turns Northwards for 5 kilometres and then East to B/BG 100. The country is a mass of rounded hills with flat ill-defined summits little over 300 metres high. The saddles are low but well defined.

MARK B/BG 100

53. Situated on the Amazon-Courantyne watershed in the vicinity of the headwaters of the Oronoque and tributaries of the Caphuwin River.

From B/BG 100 the watershed runs Eastwards to B/BG 101, after which it makes a loop to the North and then runs South-East to B/BG 103; thence it runs Eastwards to B/BG 105. The country consists of an intricate maze of low, rounded hills with no main feature through which the watershed takes a very zig-zag course.

MARK B/BG 105

54. Situated on the Amazon-Courantyne watershed in the vicinity of the headwaters of the Oronoque and tributaries of the Caphuwin River.

From B/BG 105 the watershed runs North-East to B/BG 109 and then turns North to B/BG 110. It passes through the same general type of country as in the previous section until within 4 kilometres of B/BG 110, when the ground rises steeply to a large hill area, over 700 metres high.

MARK B/BG 110

55. Situated on the Amazon-Courantyne watershed in the vicinity of the headwaters of the Oronoque on the North and West sides, and tributaries of either the Caphuwin or Wanamú Rivers on the East.

From B/BG 110 the watershed continues Northwards for 2 kilometres and then runs North of East about 10 kilometres. It turns Northwards again for 9 kilometres and then Eastwards to B/BG 113. From here it makes a loop to the North to B/BG 114 and then runs South-East to B/BG 115. The watershed has a very winding course, passing over rather higher country than in the previous section, except between B/BG 111 and B/BG 112, where there is a small area of low, rounded hills.

MARK B/BG 115

56. Situated on the Amazon-Courantyne watershed in the vicinity of the headwaters of tributaries of the Oronoque and Wanamú Rivers.

From B/BG 115 the watershed runs in a zig-zag course North-Easterly over low, rounded hills to B/BG 119, where it turns Southwards to B/BG 120.

MARK B/BG 120

57. Situated on the Amazon-Courantyne watershed in the vicinity of the headwaters of tributaries of the Aramatau and Wanamú Rivers.

From B/BG 120 the watershed runs Eastwards for 4 kilometres and then turns to the South-East until just before B/BG 122. It then turns approximately Eastwards

to B/BG 125, after which point it makes a loop to the South and then runs North-East to B/BG 127. In general, the watershed traverses very low ground, scarcely rising above 300 metres. There are six intermediate marks in this section.

MARK B/BG 127

58. Situated on the Amazon-Courantyne watershed in the vicinity of the headwaters of the Aramatau River and of tributaries of the Wanamú.

From B/BG 127 the watershed runs in a general Easterly direction to the Tri-junction Point of the territories of British Guiana, Brazil and Surinam. It runs through very low country until B/BG 131, after which the ground rises and becomes more broken, with large outcrops of rock.

MARK B/BG 132

59. Situated on a large rock outcrop on the watershed between the headwaters of the Kutari and Wanamú Rivers. It marks the point of junction of the frontiers between the territories of British Guiana, Brazil and Surinam.

It is the terminal point of the British Guiana-Brazil boundary.

APPENDIX 6

RECOMMENDATION BY THE COMMISSIONERS FOR THE DEFINITION OF THE BOUNDARY IN THE AREA BETWEEN MARKS B/BG 86 AND B/BG 87 WHERE THE LINE OF IDEAL WATERSHED IS INTERRUPTED

1. When locating the line of ideal watershed between Marks B/BG 86 and B/BG 87, an interruption in the watershed was discovered.

2. In this area the survey was proceeding from East to West from B/BG 90. At a point 5,597 metres along the watershed from B/BG 87 the source of a stream was found, which, after running Northwards for about 2 kilometres, flowed on to a saddle and there divided, part going to British Guiana and part to Brazil.

3. A sketch¹ plan of the stream at 1/10,000 scale and a plan¹ of the actual point of bifurcation at a scale of 1/1,000 are attached to this Appendix.

4. Although the present main branch flows to British Guiana, it appears as if the stream were changing its course so as to flow into Brazil, and that it is now in a stage of transition. The country through which this stream flows is dense and uninhabited forest, of little apparent value.

5. The Commissioners recommend that from the source of the main stream to the point of bifurcation the thalweg of the stream should be accepted as the boundary, and that from the point of bifurcation the boundary should revert to the line of ideal watershed.

6. In the event of this particular area being developed at any future date, the Commissioners recommend that particular attention should be paid to this stream and that, if the change in its course, noted in paragraph 4 above, has been completed, the Commission appointed under the Agreement, a copy of which is given in Appendix 4, should be empowered to draw a new boundary line.

7. With these recommendations in view, the Commissioners define the boundary in this area as follows:—

From Mark B/BG 87 the boundary shall follow the line of ideal watershed in a Westerly direction to Peg No. 547, situated at Latitude $01^{\circ} 33' 59 \cdot 7''$ North and Longitude $58^{\circ} 19' 00 \cdot 6''$ West of Greenwich; height above sea level 729 metres. Thence the boundary shall run towards the North-North-West for about 50 metres to the junction of two small rivulets. Thence the boundary shall follow the thalweg of the stream for about 2 kilometres to the point where it divides, part flowing to British Guiana and part to Brazil.

This point is 4 metres East of Peg No. 587, situated approximately at Latitude $01^{\circ} 34' 54 \cdot 2''$ North and Longitude $58^{\circ} 18' 50 \cdot 5''$ West of Greenwich; height above sea level 523 metres. Both sets of co-ordinates are deduced from the traverse adjusted between astronomical stations at Marks B/BG 90 and B/BG 54/84. Thence the boundary shall follow the line of ideal watershed in a Northerly direction.

¹ Not reproduced.

APPENDIX 7

LIST OF BOUNDARY MARKS AND BEACONS

GEOGRAPHICAL CO-ORDINATES OF THE BRITISH GUIANA-BRAZILIAN
BOUNDARY MARKS

1. FROM MONTE RORAIMA TO THE SOURCE OF THE RIVER MAHU OR IRENG

No. of Mark	Distance from Previous Mark Metres	Latitude North			Longitude West of Greenwich			Altitude Metres	Magnetic Variation West	Date
		°	'	"	°	'	"			
B-BG/0		05	12	08.30	60	44	09.20	2771.8	5 26	1931
B-BG/1	2482.49	05	13	12.75	60	43	21.70	2753.8	—	1931
B-BG/2	1125.00	05	13	05.25	60	42	45.16	1850.0	—	1931
B-BG/3	3614.31	05	13	56.18	60	40	55.01	2350.0	—	1932
B-BG/4	2500.00	05	13	37.98	60	39	34.25	2600.0	—	1932
B-BG/5	7694.05	05	13	00.7	60	36	08.94	1694.0	—	1932
B-BG/6	8766.00	05	12	29.80	60	31	07.09	1190.0	—	1932
B-BG/7	11124.94	05	11	24.0	60	26	58.6	1031.0	—	1932
B-BG/8	7080.64	05	12	21.9	60	25	03.3	988.8	—	1932
B-BG/9	15265.15	05	12	25.64	90	19	28.23	1293.0	—	1934
B-BG/10	6626.94	05	13	46.08	60	17	07.44	1290.0	5 37	1934
B-BG/11	9526.79	05	15	50.95	60	13	33.65	1370.0	—	1934
B-BG/11A	1947.83	05	16	19.60	60	12	43.29	1456.1	—	1934
B-BG/12	11113.45	05	14	00.35	60	09	20.97	1495.0	—	1934
B-BG/13	3319.99	05	14	55.37	60	08	04.67	1250.0	—	1934
Total	... 92187.58									

2. RIVER MAHU OR IRENG

B/5	34612.00	05	04	33.77	59	58	15.59	623	6 03	1932
BG/12	—	05	04	35.88	59	58	11.37	—	—	1932
B/4	51528.50	04	42	26.30	60	01	35.04	536	5 12	1932
BG/11	—	04	42	29.69	60	01	25.21	—	—	1932
B/5	128500.0	04	22	20.57	59	40	17.19	343	5 04	1932
BG/10	—	04	22	16.30	59	40	07.67	—	—	1932
B/2	81375.0	03	58	22.51	59	33	37.99	—	5 03	1931
BG/9	—	03	58	35.16	59	33	42.52	—	—	1931
B/1	33964.0	03	44	01.70	59	39	56.31	—	5 04	1931
BG/8	—	03	43	51.04	59	39	53.91	—	—	1931

3. CONFLUENCE OF THE RIVERS MAHU OR IRENG AND TACUTU

FOZ No. 1	44893.0	03	33	58.25	59	52	09.19	—	—	1930
FOZ No. 2	—	03	33	41.25	59	52	14.35	—	—	1930
BG/1	—	03	33	44.60	59	51	58.48	—	—	1930

River Mahú or Ireng 329979.5
 Confluence of the Rivers Mahú or Ireng and Tacutú 44893.0 374872.5

4. RIVER TACUTU

No. of Mark	Distance from Previous Mark Metres	Latitude North			Longitude West of Greenwich			Altitude Metres	Magnetic Variation West	Date
		°	'	"	°	'	"			
B/1	37639.50	03	23	02.42	59	48	45.12	—	—	1931
BG/2	—	03	22	58.50	59	48	35.43	—	—	1931
B/2	56042.50	03	06	30.08	59	55	59.69	—	—	1930
BG/3	—	03	06	32.98	59	55	30.91	—	—	1930
B/3	58966.50	02	40	02.13	59	58	28.61	—	—	1930
BG/4	—	02	40	05.28	59	58	19.68	—	—	1930
B/4	70635.00	02	17	29.55	59	45	48.77	—	—	1930
BG/5	—	02	17	31.84	59	45	46.48	—	—	1930
B/5	42061.00	02	02	29.06	59	43	52.35	—	—	1930
BG/7	—	02	02	28.68	59	43	50.48	—	—	1930
B/6	18867.50	01	57	23.90	59	44	23.08	157.0	—	1933
BG/14	—	01	57	23.17	50	44	21.22	—	—	1933
B/7	21987.27	01	50	53.89	59	44	04.41	195.0	—	1933
BG/15	—	01	50	55.17	50	44	04.40	—	—	1933
B/8	12841.97	01	50	44.53	59	40	08.05	218.0	—	1933
BG/16	—	01	50	45.93	59	40	07.47	—	—	1933
B/9-BG/17	3481.25	01	51	57.85	59	39	47.97	257.0	—	1933
B-BG/14	790.27									
	323312.8									
	River Mahú or Ireng ...				...	374872.5				
	River Tacutú ...				...	323312.8				
	Total ...				...	698185.3				

5. FROM MONTE WAMURIAKTAWA TO THE TRIJUNCTION

B-BG/14	—	01	52	10.76	59	39	46.23	360.0	4 58	1933
B-BG/15	7914.87	01	49	01.54	59	39	14.11	—	—	1934
B-BG/16	8759.06	01	46	58.82	59	41	06.79	—	—	1934
B-BG/17	6646.14	01	44	54.52	59	39	51.85	471.0	—	1934
B-BG/18	6259.50	01	43	41.02	59	37	45.62	434.0	—	1934
B-BG/19	8070.90	01	43	54.38	59	35	00.97	430.0	—	1934
B-BG/20	8420.30	01	43	06.35	59	32	11.48	422.0	—	1934
B-BG/21	9059.90	01	40	08.33	59	30	39.29	445.0	—	1934
B-BG/22	8070.29	01	38	25.27	59	29	18.08	390.0	—	1934
B-BG/23	7749.82	01	36	31.80	59	26	34.67	294.0	—	1934
B-BG/24	9236.78	01	33	07.08	59	24	43.74	332.0	—	1934
B-BG/25	8135.03	01	31	00.57	59	22	43.12	427.0	—	1934
B-BG/26	7561.22	01	31	00.73	59	21	11.68	542.0	—	1934
B-BG/27	8411.59	01	28	47.37	59	19	21.29	576.0	—	1934
B-BG/28	9327.10	01	27	04.62	59	17	08.21	622.0	—	1934
B-BG/29	8919.23	01	24	25.22	59	16	18.38	603.0	5 47	1934
B-BG/30	8204.33	01	22	35.80	59	13	14.35	782.0	—	1934
B-BG/31	8008.81	1	21	34.7	59	10	28.0	1009	—	1934
B-BG/32	8133.87	1	20	44.9	59	07	16.4	961	—	1934
B-BG/33	8204.21	1	19	48.0	59	04	11.4	812	—	1934
B-BG/34	8510.10	1	19	37.80	59	00	57.90	839	5 42	1934
B-BG/35	9493.46	1	18	45.7	58	57	55.7	753	—	1934
B-BG/36	10578.75	1	17	38.2	58	55	23.5	764	—	1934
B-BG/37	11491.55	1	14	18.8	58	54	41.7	284	—	1934
B-BG/38	11330.60	1	11	52.8	58	51	35.6	456	—	1934
B-BG/39	11486.80	1	10	55.69	58	48	29.96	506	6 07	1935
B-BG/40	9413.87	1	11	51.4	58	45	49.3	459	—	1937
B-BG/41	9190.53	1	13	11.2	58	43	25.5	399	—	1937
B-BG/42	9915.45	1	16	42.4	58	42	46.5	537	—	1937

5. FROM MONTE WAMURIAKTAWA TO THE TRIJUNCTION—*continued*

No. of Mark	Distance from Previous Mark Metres	Latitude North		Longitude West of Greenwich		Altitude Metres	Magnetic Variation West	Date
		°	'	°	'			
B-BG/43	8371.21	1	17 01.4	58	40 20.6	592	—	1937
B-BG/44	10501.59	1	16 27.49	58	36 20.37	587	6 04	1937
B-BG/45	10210.90	1	17 35.0	58	33 40.2	513	—	1937
B-BG/46	11060.50	1	15 35.3	58	31 29.8	566	—	1937
B-BG/47	9686.00	1	17 07.5	58	29 42.5	541	—	1937
B-BG/48	4422.20	1	18 23.59	58	28 38.15	794	6 17	1938
B-BG/49	6579.91	1	21 23.3	58	28 14.4	327	—	1938
B-BG/50	7892.26	1	23 05.1	58	28 49.4	421	—	1938
B-BG/51	8262.14	1	25 15.2	58	30 15.3	374	—	1938
B-BG/52	8100.85	1	28 02.3	58	29 44.1	627	—	1938
B-BG/53	8147.15	1	27 21.3	58	26 49.0	546	—	1938
B-BG/54-84	8466.75	1	28 13.22	58	23 28.56	430	6 26	1938
B-BG/85	17902.00	1	32 14.4	58	21 42.7	547	—	1938
B-BG/86	11133.80	1	35 50.7	58	19 19.5	495	—	1938
B-BG/87	10804.80	1	34 19.4	58	16 50.9	566	—	1938
B-BG/88	10034.40	1	33 20.0	58	13 27.4	601	—	1938
B-BG/89	9445.20	1	33 36.9	58	09 37.8	577	—	1938
B-BG/90	9149.60	1	30 20.35	58	08 16.53	699	6 51	1938
B-BG/91	10937.50	1	30 29.6	58	04 04.0	625	—	1938
B-BG/92	10810.50	1	30 13.4	58	00 22.9	464	—	1938
B-BG/93	9973.80	1	33 30.8	57	59 29.4	299	—	1938
B-BG/94	9279.00	1	36 54.9	57	59 01.5	302	—	1937
B-BG/95	10216.80	1	39 38.02	57	59 12.17	267	6 28	1937
B-BG/96	9212.5	1	38 36.2	57	56 00.3	286	—	1937
B-BG/97	9695.0	1	40 03.5	57	53 08.6	252	—	1937
B-BG/98	9033.0	1	40 56.7	57	50 56.9	259	—	1937
B-BG/99	10128.5	1	41 56.1	57	48 16.2	286	—	1937
B-BG/100	9607.3	1	43 17.91	57	45 41.40	304	6 35	1936
B-BG/101	9148.8	1	43 03.5	57	42 38.2	263	—	1936
B-BG/102	8909.8	1	42 16.7	57	40 58.0	269	—	1936
B-BG/103	8425.0	1	41 10.5	57	38 27.8	266	—	1936
B-BG/104	9510.0	1	41 55.7	57	35 26.6	282	—	1936
B-BG/105	9267.6	1	41 50.53	57	33 15.00	327	7 03	1936
B-BG/106	9182.6	1	43 23.9	57	31 29.7	329	—	1936
B-BG/107	8452.4	1	45 44.9	57	30 01.6	323	—	1936
B-BG/108	9056.4	1	47 46.6	57	29 01.4	306	—	1936
B-BG/109	8164.4	1	49 23.1	57	26 42.1	361	—	1937
B-BG/110	11093.0	1	53 33.64	57	26 04.55	611	7 16	1937
B-BG/111	8907.4	1	55 37.8	57	23 30.9	443	—	1937
B-BG/112	8370.6	1	57 09.9	57	22 03.6	440	—	1937
B-BG/113	9232.6	1	58 45.1	57	19 18.3	385	—	1937
B-BG/114	8624.0	1	58 58.8	57	16 09.1	323	—	1937
B-BG/115	9308.6	1	56 51.40	57	14 35.82	368	7 34	1937
B-BG/116	8925.0	1	58 17.0	57	12 38.1	335	—	1937
B-BG/117	8259.8	1	59 39.8	57	09 44.5	350	—	1937
B-BG/118	9471.0	2	01 05.7	57	07 06.5	347	—	1937
B-BG/119	9352.6	2	01 16.1	57	04 53.8	353	—	1937
B-BG/120	11324.4	1	57 33.09	57	03 54.35	332	7 27	1937
B-BG/121	11203.4	1	55 14.2	57	01 03.0	301	—	1937
B-BG/122	9750.6	1	64 42.5	56	58 07.2	308	—	1937
B-BG/123	9322.2	1	55 43.1	56	55 00.9	320	—	1937
B-BG/124	9658.7	1	53 35.9	56	52 06.9	315	—	1937
B-BG/125	8320.4	1	52 58.0	56	49 30.6	318	—	1937
B-BG/126	10576.84	1	51 53.4	56	47 10.8	335	—	1937
B-BG/127	10572.82	1	54 51.49	56	44 09.97	324	7 45	1937
B-BG/128	8012.31	1	54 46.4	56	41 20.9	304	—	1937
B-BG/129	14310.27	1	56 35.7	56	37 05.3	330	—	1937
B-BG/130	9288.29	1	54 28.9	56	34 21.3	306	—	1937

5. FROM MONTE WAMURIAKTAWA TO THE TRIJUNCTION—*continued*

No. of Mark	Distance from Previous Mark Metres	Latitude North			Longitude West of Greenwich			Altitude Metres	Magnetic Variation West	Date
		°	'	"	°	'	"			
B-BG/131	8406.01	1	55	44.6	56	31	10.6	361	8 02	1937
B-BG/132	7649.62	1	56	58.2	56	28	24.5	463	—	1936
Total	... 815426.68									

B-BG/0	to	B-BG/13	...	...	...	92187.58
B-BG/13	to	BG/1/Nos. 1 and 2	...	...	...	374872.5
BG/1/Nos. 1 and 2	to	B-BG/14	...	...	...	323312.8
B-BG/14	to	B-BG/132	...	...	...	815426.68
Total			...	...	...	1605799.56

APPENDIX 8

LIST OF MAPS AND PLANS OF THE BOUNDARY

I.—GENERAL MAP

on the scale of 1/1,000,000, with Plans inset showing:—

- (a) Trijunction Point with Venezuela. Scale 1/20,000.
- (b) Sources of River Mahú or Ireng. Scale 1/20,000.
- (c) Kurewaki Island. Scale 1/30,000.
- (d) Confluence of River Mahú or Ireng with River Tacutú. Scale 1/50,000.
- (e) Sources of the River Tacutú. Scale 1/20,000.
- (f) Interruption of the ideal watershed between Marks B/BG 86 and B/BG 87. Scale 1/20,000.
- (g) Trijunction Point with Surinam. Scale 1/20,000.

II.—SECTIONAL MAPS¹

on the scale of 1/50,000.

Mount Roraima to Ireng Sources

- No. 1.—Mark B/BG 0—Mount Roraima—to B/BG 6—Mount Wupaima.
- No. 2.—Mark B/BG 7—River Ataro—to B/BG 11A—Mount Kaburai.
- No. 3.—Mark B/BG 12—Mount Ulamir—to B/BG 13—Ireng Source, and thence to Beacon BG 12/B 5—Sukabi River.

River Mahú or Ireng

- No. 4.—Beacon BG 12/B 5—R. Sukabi—to BG 11/B 4—R. Konunki.
- No. 5.—Beacon BG 11/B 4—R. Ticeio—R. Ailan.
- No. 6.—Mataruca Village—R. Seriman—R. Camará.
- No. 7.—Beacon BG 10/B 3—Echilebar—R. Tapanang to R. Marapaikurú.
- No. 8.—Kurewaki Island—R. Masuaca—R. Rapo.
- No. 9.—Beacon BG 9/B 2—Boqueirão da Lua V. to R. Passarinho.
- No. 10.—Beacon BG 8/B 1 to Ireng Mouth—BG 1/Nos. 1 and 2—and thence up R. Tacutú—Novo Destino to R. Javari.

River Tacutú

- No. 11.—Beacon BG 2/B 1—Bon Success—S. Lourenço to Ant. Vicente.
- No. 12.—Beacon BG 3/B 2—R. Inajá—R. Mutum.
- No. 13.—Tucunaré Village—R. Skabunk—Mashipau Falls.
- No. 14.—Beacon BG 4/B 3—R. Baiewau—R. Ruawau.

¹ Not reproduced.

- No. 15.—Beacon BG 5/B 4—R. Shininiwau—R. Miliwau.
 No. 16.—Beacon BG 7/B 5—BG 14/B 6—R. Soetanawau—R. Soniwau.
 No. 17.—Beacon BG 14/B 6—Mark B/BG 14—Mt. Wamuriaktawa—and thence to B/BG 16—watershed Kuyuwini/Tacutú S.

Amazon—Essequibo Watershed

- No. 18.—Mark B/BG 17 to B/BG 23—watershed Kassikaityu/Anauá.
 No. 19.—Mark B/BG 24 to B/BG 32—watershed Kamoá, Sipu/Anauá, and Mapuera tributaries.
 No. 20.—Mark B/BG 33 to B/BG 40—watershed Sipu, Chodikar/Mapuera tributaries.
 No. 21.—Mark B/BG 41 to B/BG 50—watershed Chodikar, Wapau/Mapuera and Caphuwin.
 No. 22.—Mark B/BG 51 to B/BG 54/84, thence to B/BG 87—watershed Wapau, Onoro and New River/Caphuwin.

Amazon—Courantyne Watershed

- No. 23.—Mark B/BG 88 to B/BG 96—watershed New River/Caphuwin.
 No. 24.—Mark B/BG 97 to B/BG 104—watershed Oronoque/Caphuwin.
 No. 25.—Mark B/BG 105 to B/BG 110—watershed Oronoque/Caphuwin.
 No. 26.—Mark B/BG 111 to B/BG 118—watershed Oronoque, Aramatau/Wanamú.
 No. 27.—Mark B/BG 119 to B/BG 126—watershed Aramatau/Wanamú.
 No. 28.—Mark B/BG 127 to B/BG 132—Trijunction Point with Surinam—watershed Aramatau, Kutari/Wanamú.

III.—SPECIAL PLANS¹

- (a) Trijunction Point with Venezuela. Scale 1/10,000.
 (b) Trijunction Point with Surinam. Scale 1/10,000.

IV.—SCHEDULE PLAN OF THE SECTIONAL MAPS

APPENDIX 9

DESCRIPTION OF CONSTRUCTION OF BOUNDARY MARKS AND BEACONS

1. On the land boundary it was possible to erect marks accurately on the Boundary line and here they are designated "Marks." On the riverain boundary,

¹ Not reproduced.

where it follows the thalweg, the line is indicated by a pair of marks, one on each bank of the river. These are designated "Beacons."

2. All Marks and Beacons have been built of concrete. In general they consist of a block of concrete with a centre mark of a copper bolt or piece of rod, the block being buried a few inches below ground level. In addition one or two reference pillars, also of concrete, were erected within a few metres of the buried block. The positions given for Marks and Beacons all refer to the centre mark on the buried block where it exists.

3. On the land Boundary from B/BG 2 to B/BG 12 and from B/BG 15 to B/BG 39 the Mark consists of a buried block, accurately sited on the line of ideal watershed, and two reference pillars, one on each side of the boundary line. From B/BG 40 to B/BG 131 only one reference pillar, which was also sited on the boundary, was constructed. Marks B/BG 0, B/BG 1, B/BG 13, B/BG 14 and B/BG 132 consist of a concrete pillar only, with no buried mark.

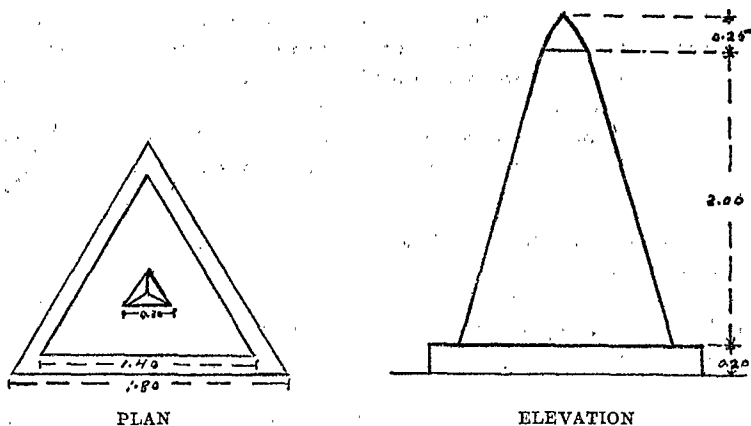
4. The Agreement between the two Governments (*vide* Appendix 2, Article 9) lays down that "on every mark shall be stated the exact longitude and latitude in which they have been placed." It soon became apparent that a great deal of time would be wasted if the construction of pillars were to be held up until their positions were accurately known. The Commissioners therefore agreed that the marks and beacons should be numbered only, and that they should not be inscribed with their geographical co-ordinates.

5. Sketches¹ and details of all marks and beacons are attached to this Appendix.

¹ The incomplete reproduction of figures illustrating these sketches is due to illegible numerals in the certified true copy transmitted to the Secretariat.

MARK B/BG 0 AT THE JUNCTION OF BRITISH GUIANA, BRAZIL AND VENEZUELA
ON MOUNT RORAIMA

Dimensions in Metres. Scale = 1 : 50

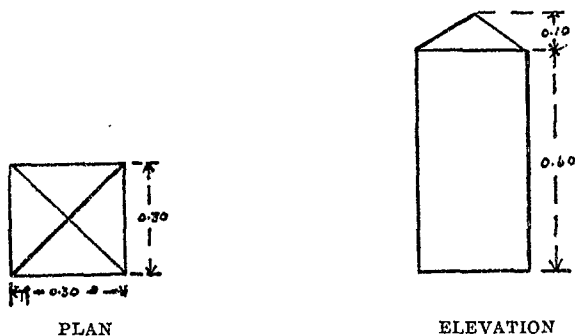


The pillar, on the side facing British Guiana, has a brass plate inscribed "BRITISH GUIANA" in relief, and on the side facing Brazil, the Arms of the Republic of Brazil, and below it "BRASIL—C.D.F.S.N.—1931" outlined with quartz crystals. On the side facing Venezuela, it has the Arms of the Republic of Venezuela and "VENEZUELA" outlined in quartz crystals.

O pilar tem, do lado voltado para o Brasil, um Escudo com as Armas de República Brasileira, e por baixo os dizeres: "BRASIL—C.D.F.S.N.—1931," feitos com crystaes de quartzo. Do lado voltado para a Guiana Britânica, tem uma placa de metal com a inscrição "BRITISH GUIANA" em relêvo. Do lado que defronta a Venezuela, tem o Escudo com as Armas da República Venezuelana e a inscrição "VENEZUELA," feita com crystaes de quartzo.

MARK B/BG 1 ON MOUNT RORAIMA

Dimensions in Metres. Scale = 1 : 20



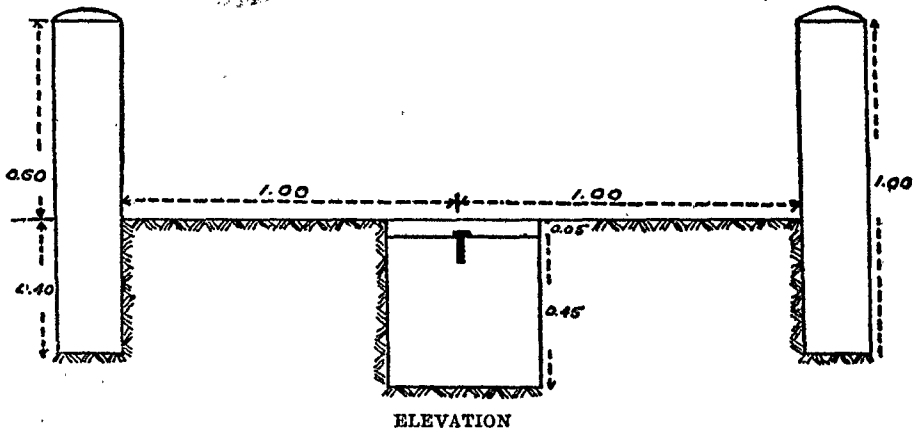
The pillar is inscribed "BG" on the side facing British Guiana; on the side facing Brazil it has the Arms of the Republic of Brazil and the letter "B" inscribed below it. It is also engraved with the number 1.

The buried cube is engraved "BG" on the side facing British Guiana, and "B" on the side facing Brazil. A copper bolt is embedded in the centre, engraved "BG" over the number of the mark. The pillar in British Guiana is also engraved "BG" over the number of the mark, and that in Brazil has the Arms of the Republic of Brazil and the number of the mark engraved.

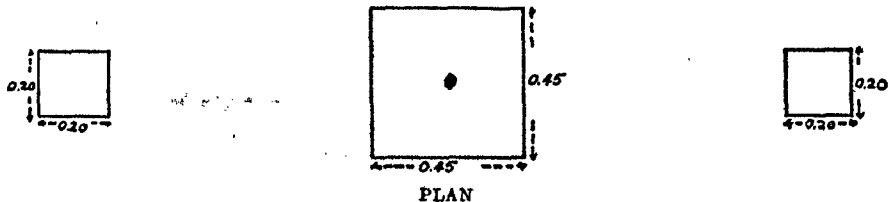
O cubo enterrado tem gravado "B" no lado que defronta o Brasil e "BG" no lado que defronta a Guiana Britânica. O prego de cobre embutido no centro tem gravado "BG" em cima do numero do marco. O pilar no Brasil tem as Armas da República Brasileira e o numero do marco gravado; o pilar na Guiana Britânica tem gravado "BG" em cima do numero do marco.

MARKS B/BG 6, 7 AND 8

Dimensions in Metres. Scale = 1 : 20



Dimensions in Metres. Scale = 1 : 20



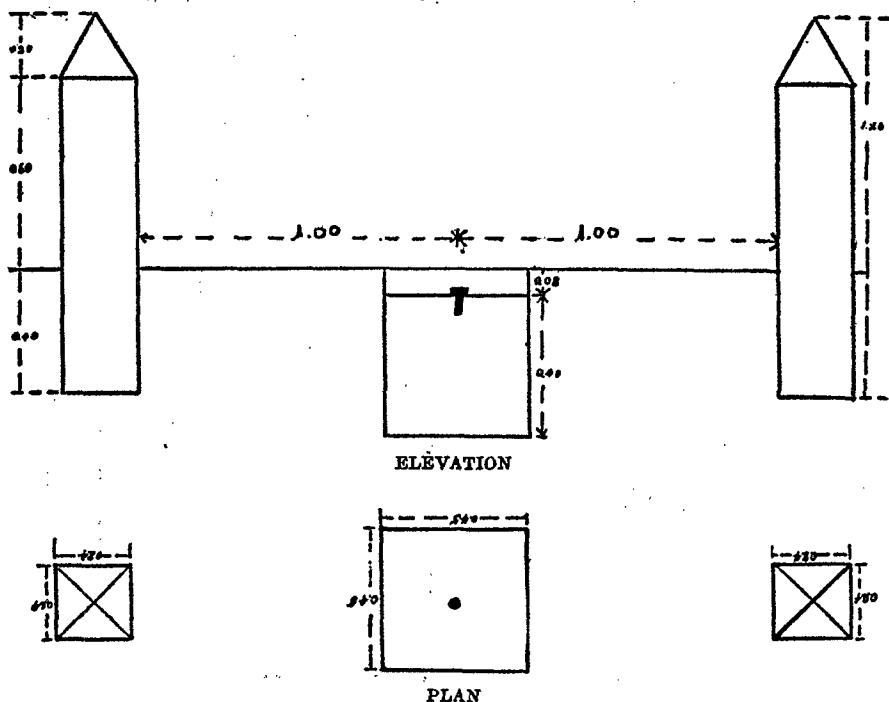
The buried cube is engraved with the letters "BG" on the side facing British Guiana, and "B" on the side facing Brazil. A copper bolt is embedded in the centre. The pillar in British Guiana is engraved with the letters "BG" and the number of the mark; the pillar in Brazil has the Coat of Arms of the Republic of Brazil embedded and the number of the mark engraved.

O cubo enterrado tem gravada a letra "B" no lado que defronta o Brasil, e "BG" no que defronta a Guiana Britânica. Tem embutido no centro um prego de

cobre. O pilar no Brasil tem embutido o Escudo com as Armas da República do Brasil e gravado o numero do marco; o pilar na Guiana Britânica tem gravadas as letras "BG" com o numero do marco.

MARKS B/BG 9, 10, 11, 11A, 12

Dimensions in Metres. Scale = 1 : 20



The buried cube is engraved with the number of the mark. A copper bolt is embedded in the centre.

The pillar in British Guiana has the Imperial Crown embedded on it, and the letters "BG" and the number of the pillar engraved below; the pillar in Brazil has a plaque embedded with the Coat of Arms of the Republic of Brazil, and the number of the mark engraved below.

At mark 11A the pillar in Brazil has a large flat slab with inscription marking the northernmost point of Brazil.

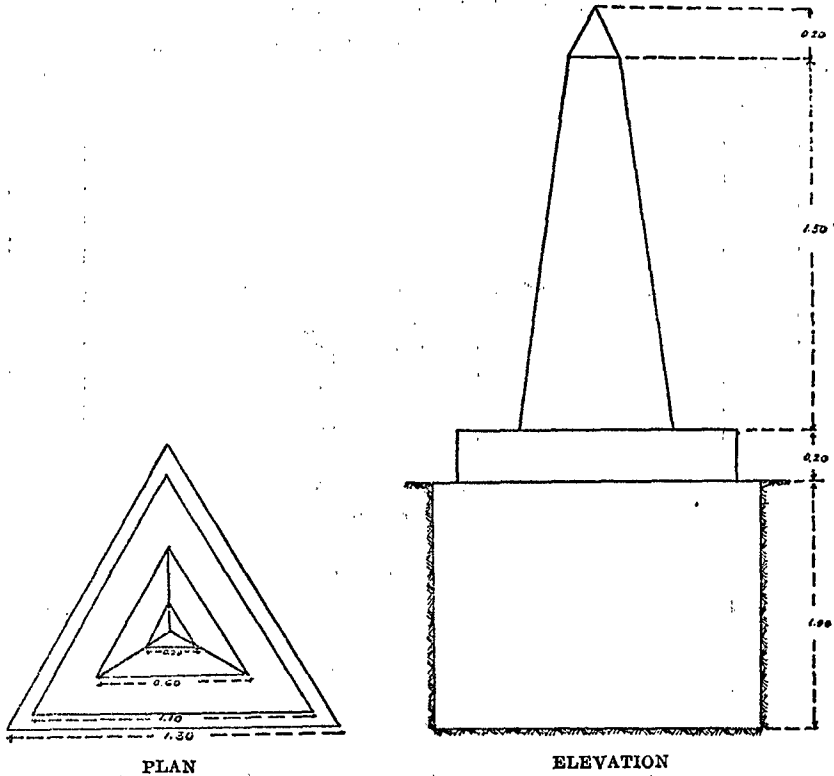
O cubo enterrado tem gravado o numero do marco, e, embutido no centro, um prego de cobre.

O pilar no Brasil tem embutido o Escudo com as Armas da República do Brasil e, gravado por baixo, o numero do marco; o pilar na Guiana Britânica tem embutida a Corôa Imperial e, gravadas por baixo, as letras "BG" com o numero do marco.

No marco 11A o pilar no Brasil tem uma lage ao lado com dizeres indicando o ponto mais setentrional do Brasil.

MARK B/BG 13

Dimensions in Metres. Scale = 1 : 20

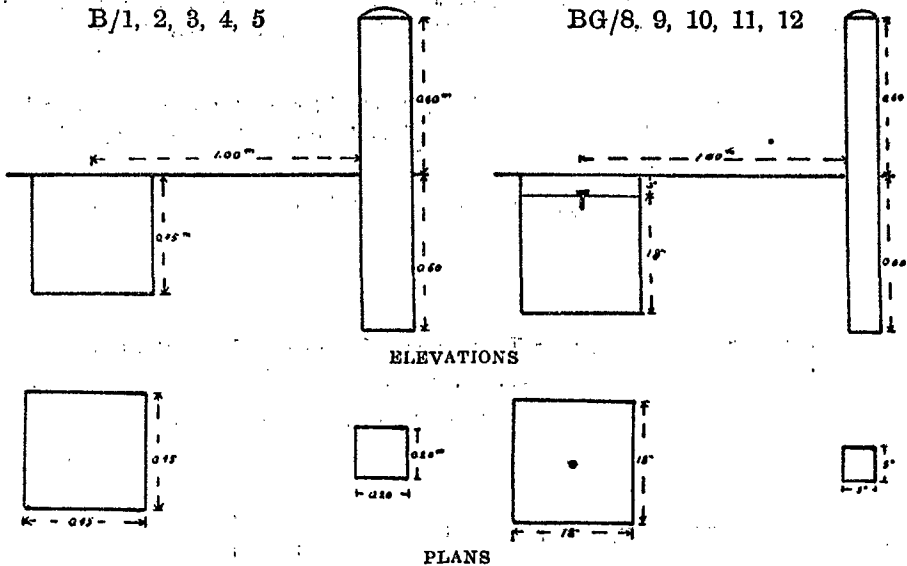


The pillar has the Imperial Crown embedded on the side facing British Guiana in a north-easterly direction, and "1934" engraved below; on the north-westerly side is engraved "BG" over the number 13. On the side facing Brazil in a southerly direction is embedded a plaque with the Arms of the Republic of Brazil, and "B" engraved over the number 13 and the year 1934.

O pilar tem embutido, na face voltada para o Brasil, o Escudo com as Armas da República Brasileira e, gravado, "B" em cima do numero 13 e o ano 1934. Na face voltada para a Guiana Britânica, na direção N.E., tem embutido o emblema da Corôa Imperial e, gravado, "1934." Na voltada para a direção N.W., tem gravada a inscrição "BG" por cima do numero 13.

BEACONS ON THE IRENG OR MAHU RIVER. BG 8/B 1, BG 9/B 2, BG 10/B 3,
BG 11/B 4, BG 12/B 5

Scale = 1 : 20



The buried cubes at beacons BG/8, 9, 10, 11 and 12 are engraved with the letters "BG" over the number of the beacon. A copper bolt engraved in the same way is embedded in the centre. The pillars are likewise engraved with the letters "BG" over the number of the beacon.

The buried cubes at beacons B/1, 2, 3, 4 and 5 are engraved with the letter "B" over the number of the beacon.

At B/1 the pillar is engraved with the letter "B" over the number 1 on the side facing the buried cube.

At B/2 the pillar is engraved with the letter "B" over the number 2, the date 21.3.1931 and the letters "C.B.D.F.S.N.," and has the Coat of Arms of the Republic of Brazil in relief on the top. A copper bolt is embedded in the centre of the buried cube.

At B/3, 4 and 5 the pillar is engraved with the letter "B" over the number of the beacon and has the Coat of Arms of the Republic of Brazil in relief on the side facing the river.

Os cubos enterrados nos marcos de referência B/1, 2, 3, 4 e 5 tem gravada a letra "B" em cima do numero do marco.

No B/1 o pilar tem gravada a letra "B" sobre o numero 1, na face que defronta o cubo enterrado.

No B/2 o pilar tem gravada a letra "B" sobre o numero 2, a data 21.3.1931 e as letras "C.B.D.F.S.N.," e leva o Escudo com as Armas da República Brasileira,

em alto relêvo, por cima. Tem embutido no centro do cubo enterrado um prego de cobre.

Em B/3, 4 e 5 o pilar tem gravada a letra "B" sobre o numero do marco, e leva o Escudo das Armas da República Brasileira, em alto relêvo, na face voltada para o rio.

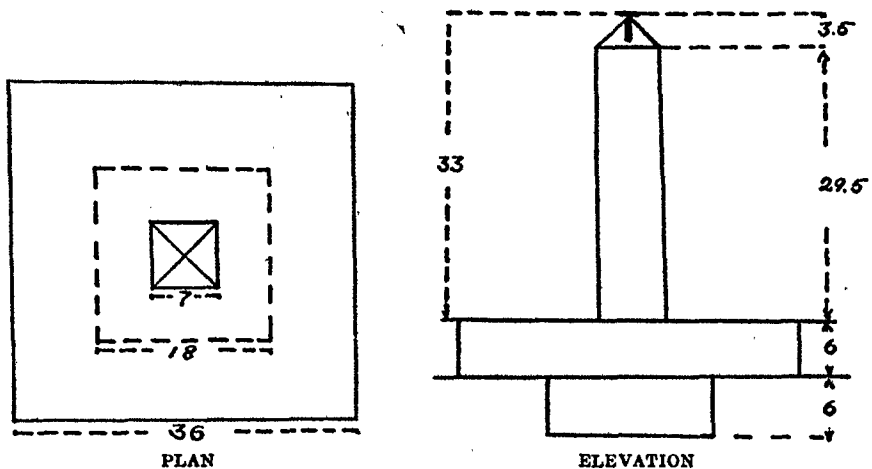
Os cubos enterrados nos marcos BG/8, 9, 10, 11 e 12 tem gravadas as letras "BG" sobre o numero do marco. Tem embutido no centro um prego de cobre gravado do mesmo modo.

Os pilares tambem tem gravadas as letras "BG" sobre o numero do marco.

BEACONS AT JUNCTION OF TACUTU AND IRENG OR MAHU RIVERS

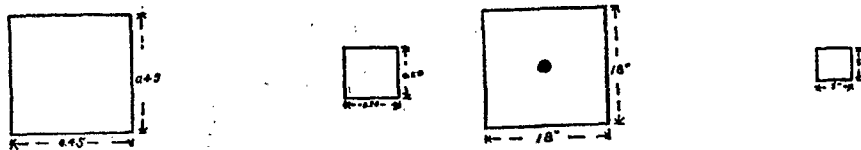
BEACON BG 1

Dimensions in Inches. Scale = 1 : 20



The concrete pillar is engraved "BG 1" on top, and the copper bolt is also engraved "BG 1."

O pilar de concreto tem gravado "BG 1" em cima. O centro está definido por um prego de cobre gravado tambem "BG 1."



PLANS

The buried cubes at beacons BG/2, 3, 4, 5 and 7 are engraved with the letters "BG" over the number of the beacon. A copper bolt engraved in the same way is embedded in the centre.

The pillars are likewise engraved with the letters "BG" over the number of the beacon.

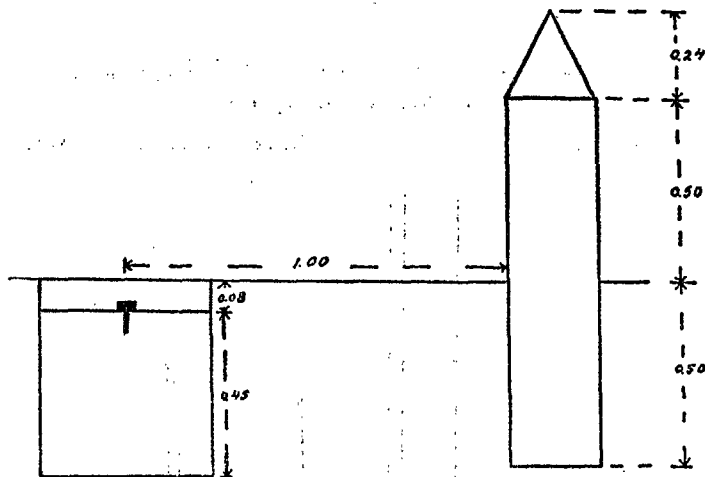
The buried cubes at beacons B/1, 2, 3, 4 and 5 are engraved with the letter "B" over the number of the beacon. The pillars are also engraved in the same way.

Os cubos enterrados nos marcos de referência B/1, 2, 3, 4 e 5 teem gravada a letra "B" em cima do numero do marco. Os pilares gravaram-se do mesmo modo.

Os cubos enterrados nos marcos de referência BG/2, 3, 4, 5 e 7 teem gravadas as letras "BG" em cima do numero do marco. Embutido no centro teem um prego de cobre gravado do mesmo modo. Os pilares tambem teem gravadas as letra "BG" em cima do numero do marco.

BEACONS BG 14/B 6, BG 15/B 7, BG 16/B 8 ON THE TACUTU RIVER.

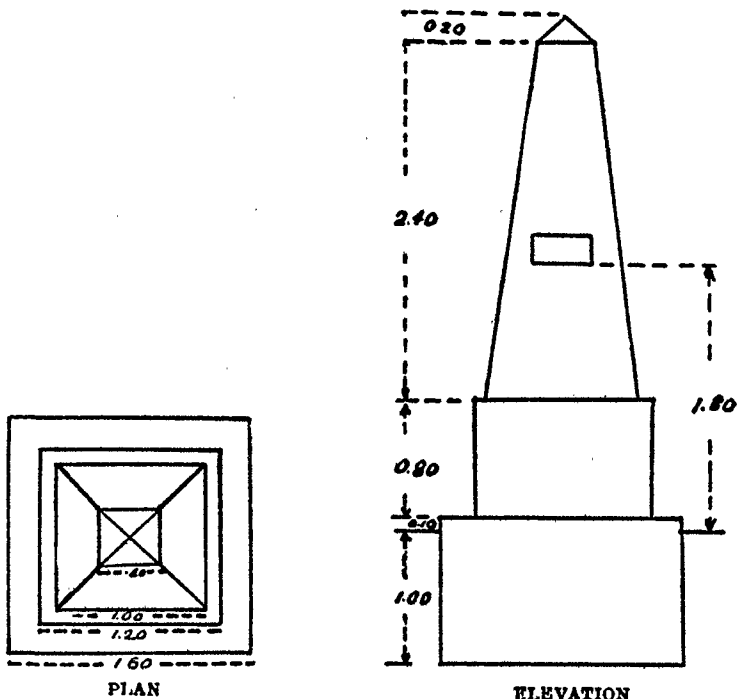
Dimensions in Metres. Scale = 1 : 20



ELEVATION

BRAZILIAN BEACONS No. 1 AND No. 2

Dimensions in Metres. Scale = 1 : 50



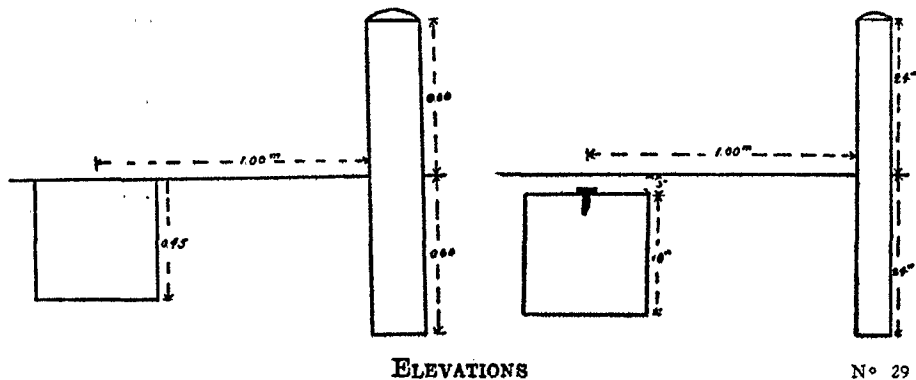
A bronze plate is let into the side of the pillar facing the river, with the inscription "BRASIL" at a height of 1.80 m. from the ground.

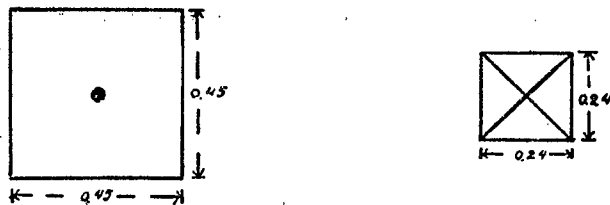
O pilar tem uma placa de bronze na face voltada para o rio, com a inscrição "BRASIL," na altura de 1.80 m. do solo.

BEACONS ON THE TACUTU RIVER. BG 2/B 1, BG 3/B 2, BG 4/B 3, BG 5/B 4, BG 7/B 5

BRAZILIAN BEACONS. B/1, 2, 3, 4, 5

BRITISH BEACONS. BG/2, 3, 4, 5, 7





PLAN

The buried cube is engraved with the number of the beacon and has a copper bolt embedded in the centre.

The pillar is engraved with the number of the beacon on the side facing the buried cube.

Pillars in British Guiana have a plaque embedded with the Imperial Crown, and engraved below the letters "BG," the year 1933 and the number of the beacon.

Pillars on the Brazilian side have a plaque embedded with the Coat of Arms of the Republic of Brazil, and engraved below the letter "B" and the number of the beacon.

O cubo enterrado tem gravado o numero do marco e, embutido no centro, um prego de cobre.

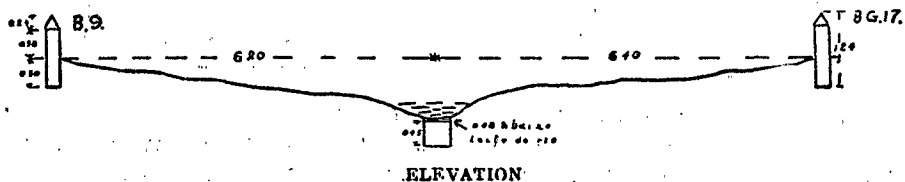
O pilar tem gravado o numero do marco na face voltada para o cubo enterrado.

Os pilares do lado Brasileiro tem embutido um Escudo com as Armas da República Brasileira e, gravados por baixo, a letra "B" e o numero do marco.

Os pilares na Guiana Britânica tem embutida a Corôa Imperial e, gravados por baixo, o ano 1933, as letras "BG" e o numero do marco.

BEACONS BG 17/B 9 ON THE TACUTU RIVER

Dimensions in Metres. Scale=1:100



PLAN

The buried cube is placed in the centre of the thalweg, and has "BG 17-B 9" engraved on it. There is a cross engraved in the centre.

The pillar in British Guiana has a plaque with the Imperial Crown embedded, and engraved below the letters "BG," the number 17 and the year 1933 on the side facing the buried cube.

The pillar on the side of Brazil has embedded on the side facing the buried cube the Coat of Arms of the Republic of Brazil, and engraved below the letter "B" and the number 9.

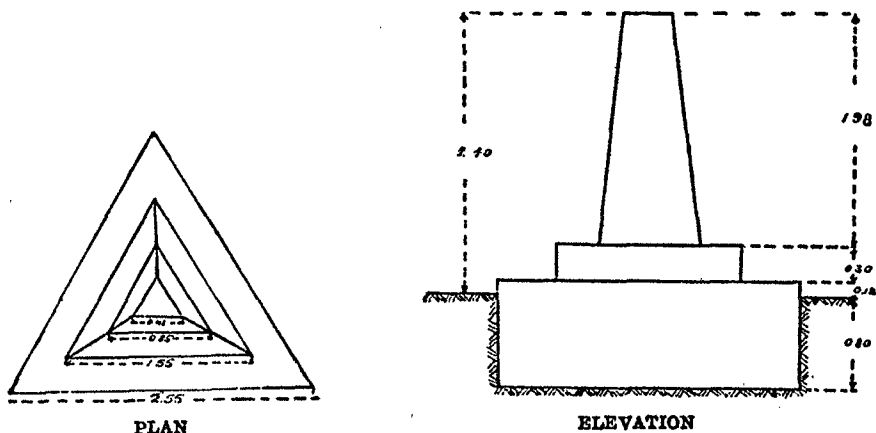
O cubo enterrado é situado no centro do talvêgue, tendo por cima, gravado, "BG 17-B 9" e, no centro, uma cruz.

O pilar do lado do Brasil tem embutido, na face voltada para o cubo enterrado, o Escudo com as Armas da República Brasileira e, gravados por baixo, a letra "B" e o numero 9.

O pilar na Guiana Britânica tem embutida, na face que defronta o cubo enterrado, a Corôa Imperial e, gravados por baixo, o ano 1933, as letras "BG" e o numero 17.

MARK B/BG 14

Dimensions in Metres. Scale = 1 : 50

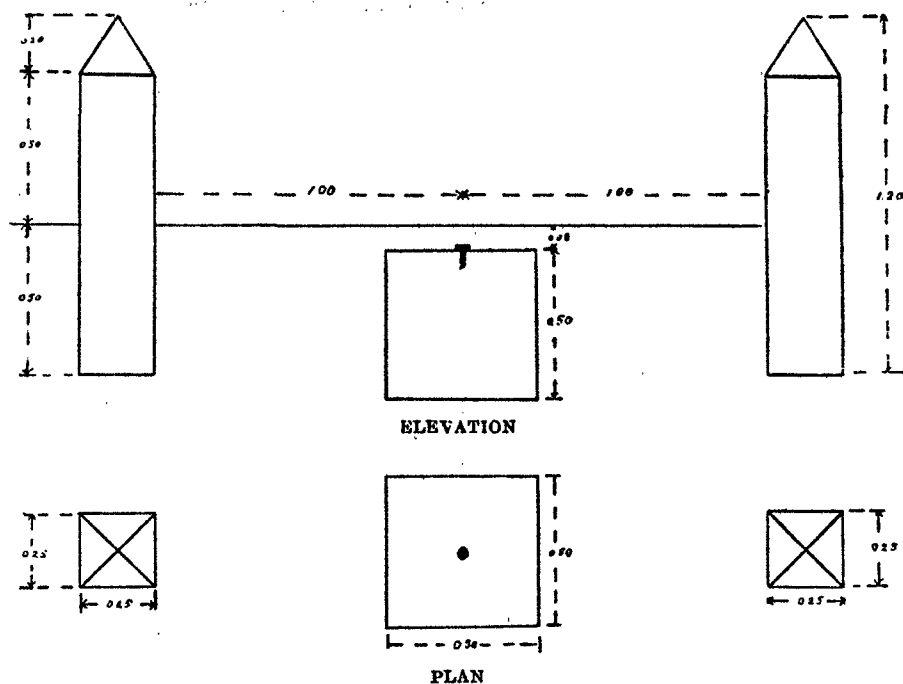


On the side of the pyramid which faces N. 72° E., is embedded a brass plate with the words "BRITISH GUIANA." The side facing N. 48° W. has a plaque with the Imperial Crown, the letters "BG" and "1933." The side facing S. 12° W. has a plaque embedded with the Coat of Arms of the Republic of Brazil, and the date 1933 engraved below. The vertical sides of the plinth are engraved on the northerly faces with "BG 14," and on the southerly face with "B 14."

No lado da pyramide que fica no rumo 12° S.W. acha-se embutido o Escudo das Armas da República Brasileira e, em baixo, o ano 1933. No lado que fica no rumo 72° N.E., acha-se embutida uma chapa de metal com os dizeres "BRITISH GUIANA." No lado que fica no rumo 48° N.W. acha-se embutido o emblema da Corôa Imperial Britânica, as letras "BG" e o ano 1933. Os lados verticaes da base tem gravados no lado voltado para o Sul "B 14," e nos dois lados voltados para o Norte "BG 14."

MARKS B/BG 15, 16, 17

Dimensions in Metres. Scale = 1 : 20



The buried cube is engraved with the number of the mark and the year 1933, and has in the centre a copper bolt also engraved with the number of the mark.

The pillar in British Guiana has embedded on the side facing the buried cube the Imperial Crown and the letters "GR," and engraved below the year 1933, the letters "BG" and the number of the mark.

The pillar in Brazil has embedded on the side facing the buried cube the Coat of Arms of the Republic of Brazil, and engraved below the letter "B" and the number of the mark.

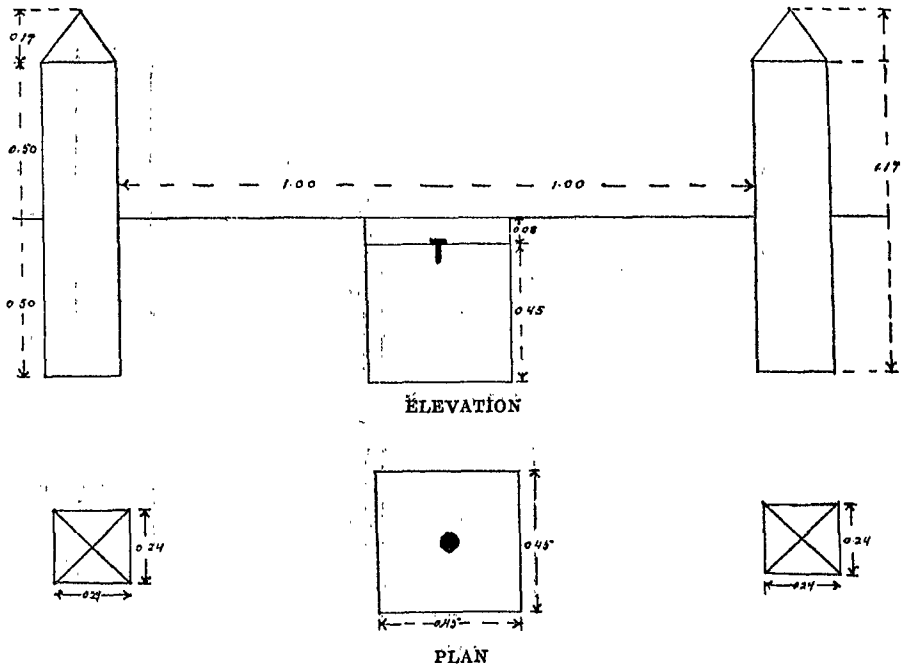
O cubo enterrado tem gravados o numero do marco e 1933, o ano da construção, e, no centro, um prego de cobre tambem gravado com o numero do marco.

O pilar do lado do Brasil tem embutido, na face voltada para o cubo enterrado, o Escudo com as Armas da República do Brasil e, gravados, por baixo, a letra "B" e o numero do marco.

O pilar na Guiana Britânica tem embutidas, na face que defronta o cubo enterrado, a Corôa Imperial e as letras "GR" e, gravadas por baixo, as letras "BG" com o numero do marco.

MARKS 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 34

Dimensions in Metres. Scale = 1 : 20



The buried cube is engraved with the number of the mark, the letters "BG" and "B," facing British Guiana and Brazil respectively, and, with the exception of B/BG 18 and 19, with the year of construction. There is a copper bolt in the center also engraved with the number of the mark.

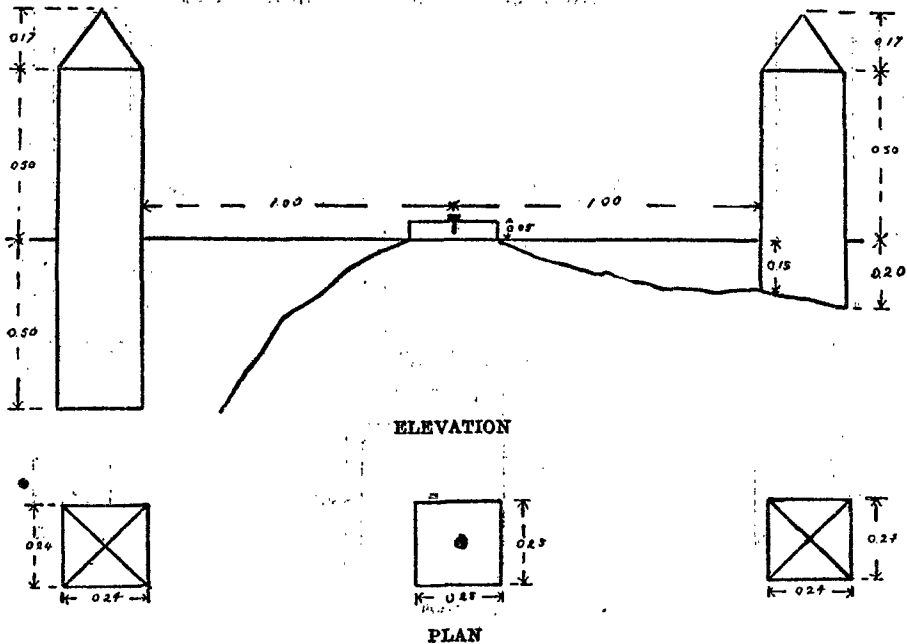
The pillar on the side of British Guiana has the Imperial Crown and the letters "GR" embedded on the side facing the buried cube, and below the letters "BG," the number of the mark and the year of construction engraved. The pillar on the Brazilian side has the Coat of Arms of the Republic of Brazil embedded on the side facing the buried mark and, below it, the letter "B" and the number of the mark engraved.

O cubo enterrado tem gravado o numero do marco com as letras "B" e "BG" do lado do Brasil e da Guiana Britânica respectivamente e, com excepção dos marcos B/BG 18 e 19, com o ano da construção. No centro, tem um prego de cobre tambem gravado com o numero do marco.

O pilar do lado do Brasil tem embutido, na face voltada para o cubo enterrado, o Escudo das Armas da República Brasileira, e, em baixo, a letra "B" e o numero do marco gravados. O do lado da Guiana Britânica tem embutidas, na face que defronta o cubo enterrado, a Corôa Imperial e as letras "GR" e gravados em baixo as letras, "BG," o numero do marco e o ano da construção.

MARKS B/BG 22

Dimensions in Metres. Scale = 1 : 20



The buried cube is engraved with the letters "BG" and "B" facing British Guiana and Brazil respectively, the number 22 and the year 1933. There is a copper bolt in the centre also engraved with the number 22.

The pillar on the side of British Guiana has the Imperial Crown and the letters "GR" embedded on the side facing the buried cube, and below the letters "BG," the number 22 and the year 1933 engraved on it.

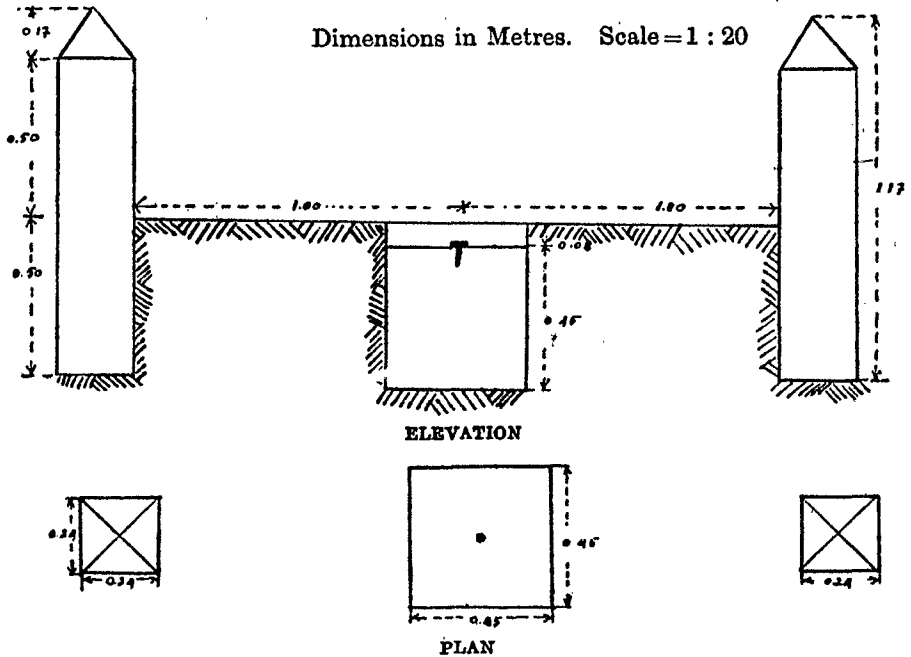
The pillar on the Brazilian side has the Coat of Arms of the Republic of Brazil embedded on the side facing the buried cube and, engraved below it, the letter "B" and the number 22.

O cubo enterrado tem gravadas as letras "B" e "BG" do lado do Brasil e da Guiana Britânica, respectivamente, o numero 22 e o ano 1933. Embutido no centro tem um prego de cobre, tambem gravado com o numero 22.

O pilar do lado do Brasil tem embutido, na face voltada para o cubo enterrado, o Escudo das Armas da República Brasileira e, por baixo, a letra "B" e o numero 22, digito, e gravados por baixo a letra "B" e o numero 22.

O do lado da Guiana Britânica tem embutidas, na face que defronta o cubo enterrado, a Corôa Imperial e as letras "GR" e, gravados por baixo, as letras "BG," o numero 22 e o ano 1933.

MARKS B/BG 30, 31, 32, 33, 35, 36, 37, 38, 39



The buried cube is engraved with the letters "BG" and "B," the number of the mark and the year of construction. A copper bolt is embedded in the centre with the number of the mark also engraved on it.

The pillar in British Guiana has on the side facing the buried cube the letters "GR," the Imperial Crown, the letters "BG" and the year modelled in relief, and the number of the mark engraved.

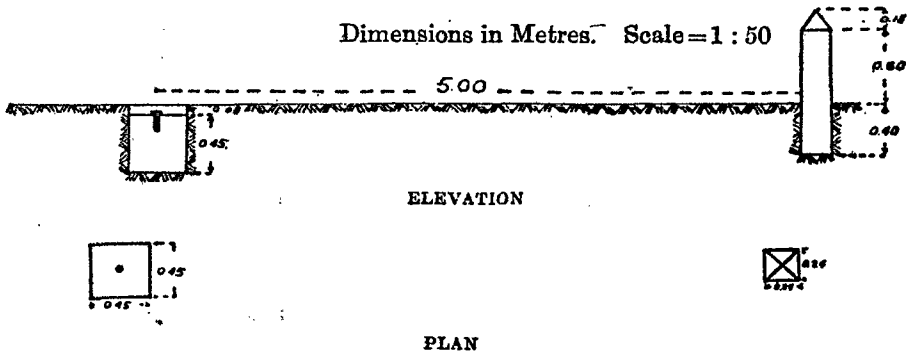
The pillar in Brazil has on the side facing the buried cube the Coat of Arms of the Republic of Brazil, the letter "B" and the year modelled in relief, and the number of the mark engraved.

O cubo enterrado tem gravadas as letras "B" e "BG," o numero do marco e o ano da construção. No centro tem embutido um prego de cobre gravado tambem com o numero do marco.

O pilar do lado brasileiro tem modelados, em alto relevo, na face que defronta o cubo enterrado, o Escudo das Armas da República Brasileira, a letra "B," o ano, e, gravado, o numero do marco.

O pilar do lado da Guiana Britânica tem modeladas em alto relevo, na face que defronta o cubo, as letras "GR," a Corôa Imperial, as letras "BG," o ano, e, gravado, o numero do marco.

MARKS B/BG 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52 AND 53;
ALSO MARKS B/BG 125, 126, 127, 128, 129, 130 AND 131



The buried cube is engraved with the letters "BG" and "B," the number of the mark and the year of construction. The centre mark is engraved in the concrete.

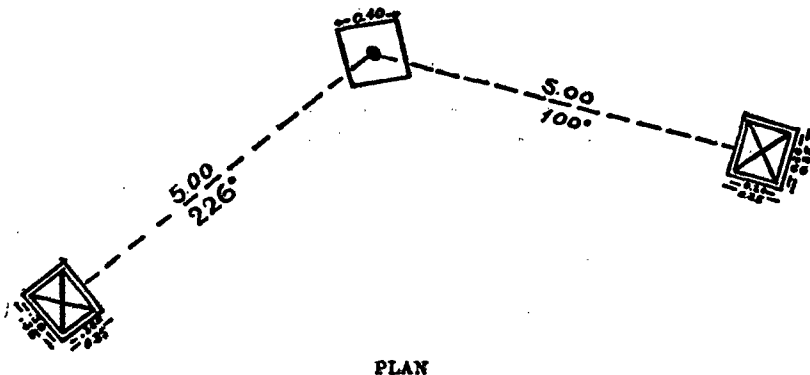
The pillar has engraved on the side facing British Guiana the letters "BG," on the side facing Brazil the letter "B," and on the side facing the buried cube the number of the mark and the year of construction.

O cubo enterrado tem gravadas as letras "B" e "BG," o numero do marco e o ano da construção. O centro está gravado no concreto.

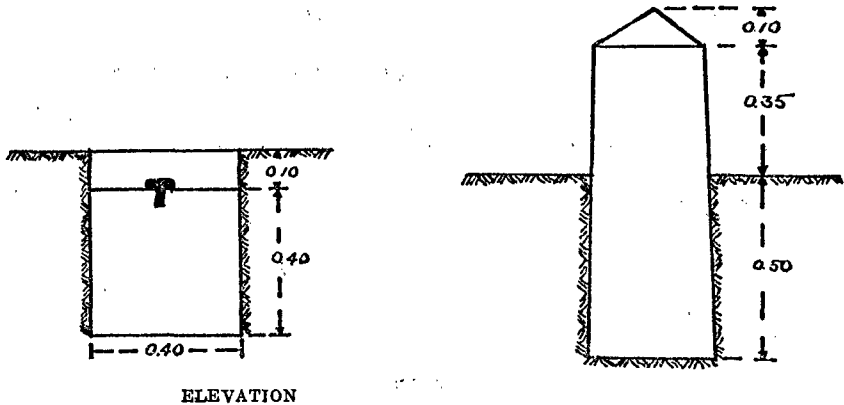
O pilar tem gravadas na face voltada para o Brasil a letra "B," na que defronta a Guiana Britânica as letras "BG," e, na do lado do cubo enterrado, o numero do marco e o ano da construção.

MARK B/BG 54/84

Dimensions in Metres. Scale=1:100



Dimensions in Metres. Scale = 1 : 20



ELEVATION

The buried cube is engraved "BRITISH GUIANA" and "BRASIL" on the sides facing the respective countries, the numbers 54 and 84 and the year 1938. A copper bolt is embedded in the centre.

The pillar on the true bearing of 226° from the buried cube is engraved "1938" on the side facing the cube and 54 on the opposite side. The pillar on a true bearing of 100° from the buried cube is engraved 1938 on the side facing the cube and 84 on the opposite side.

The sides of the pillars facing towards British Guiana are engraved "BRITISH GUIANA," and the sides facing towards Brazil with the word "BRASIL."

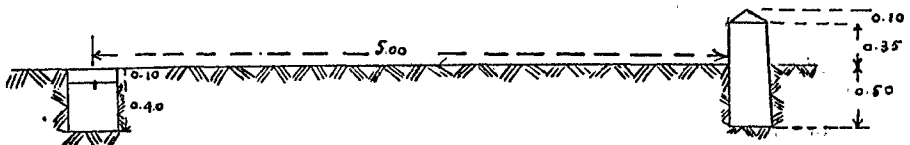
O cubo enterrado tem gravados, nos lados que defrontam os respectivos paízes, "BRASIL" e "BRITISH GUIANA," e, embutido no centro, um pino de cobre.

O pilar no azimute verdadeiro de 226° do cubo enterrado tem gravado 1938 na face voltada para o cubo e na face oposta o numero 54. O pilar no azimute verdadeiro de 10° do cubo enterrado tem gravado 1938 na face voltada para o cubo e na face oposta o numero 84.

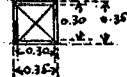
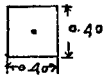
Os pilares tem gravadas nas faces voltadas para o Brasil, a palavra "BRASIL," e nas faces voltadas para a Guiana Britânica as palavras "BRITISH GUIANA."

MARKS B/BG 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100,
101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115,
116, 117, 118, 119, 120, 121, 122, 123, 124

Dimensions in Metres. Scale = 1 : 50



ELEVATION



PLAN

The buried cube is engraved with the words "BRITISH GUIANA" and "BRASIL," the number of the mark and the year of construction. There is a copper bolt or rod in the centre.

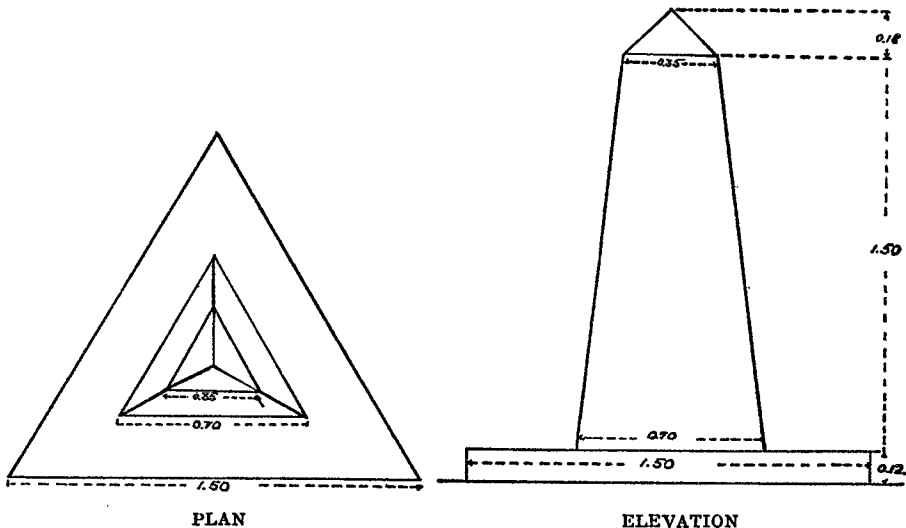
The pillar has the number of the mark engraved on the side facing the buried cube, and on the opposite side the year of construction. The side facing British Guiana has "BRITISH GUIANA" engraved on it, and on the opposite side "BRASIL."

O cubo enterrado tem gravadas as palavras "BRASIL" e "BRITISH GUIANA," o numero do marco e o ano da construção. No centro tem um prego ou pino de cobre.

O pilar tem gravados, na face que defronta o cubo enterrado, o numero do marco, e, na face oposta, o ano da construção. O lado voltado para o Brasil tem gravado "BRASIL," e, no oposto, "BRITISH GUIANA."

MARK AT JUNCTION BETWEEN BRITISH GUIANA, BRAZIL AND SURINAM

Dimensions in Metres. Scale=1 : 20



Side of pyramid facing British Guiana is engraved "BRITISH GUIANA."
Side of pyramid facing Brazil is engraved "BRASIL."

Side of pyramid facing Surinam is engraved "SURINAME."

Below each name is engraved "1936."

No lado da pyramide que defronta o Brasil está gravado "BRASIL."

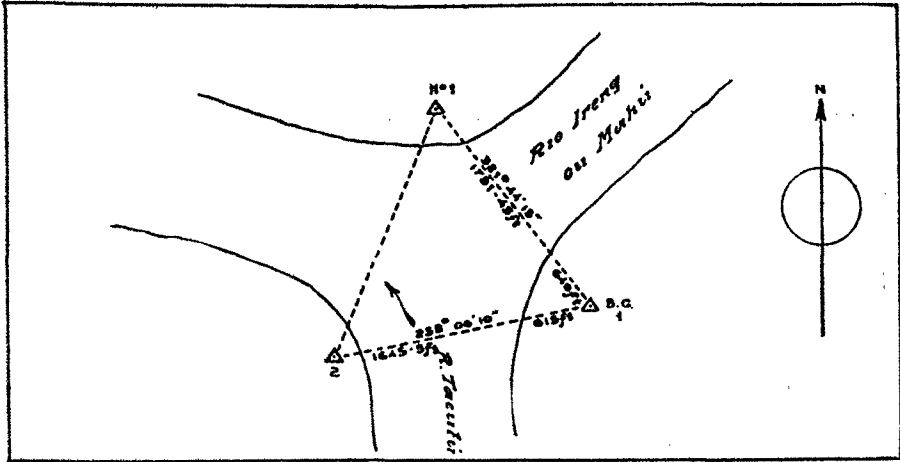
No lado da pyramide que defronta a Guiana Britanica está gravado "BRITISH GUIANA."

No lado da pyramide que defronta a Suriname está gravado "SURINAME."

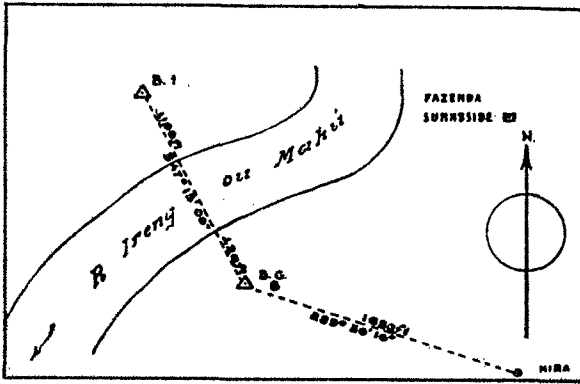
Abaixo de cada palavra está gravada o ano "1936."

SITE PLANS

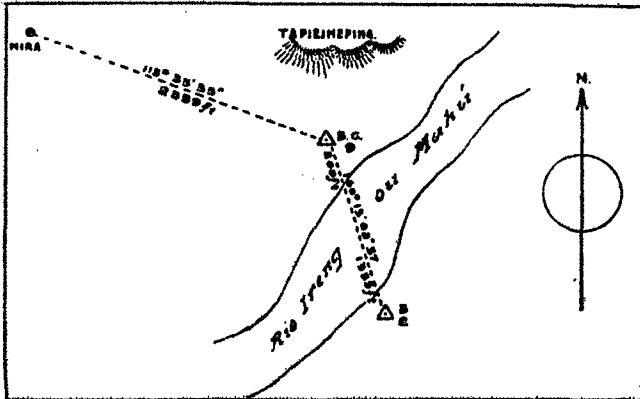
BEACONS BG 1, No. 1, 2



BEACONS BG 8, B 1

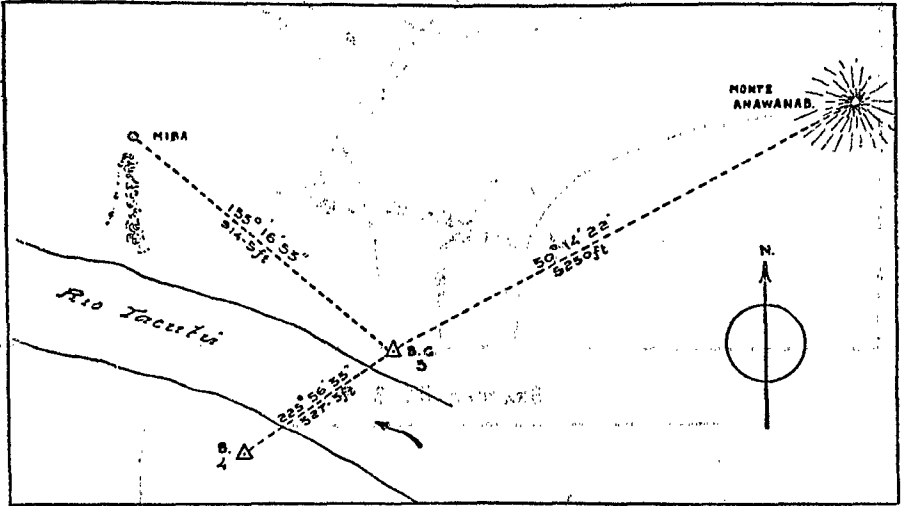


BEACONS BG 9, B 2

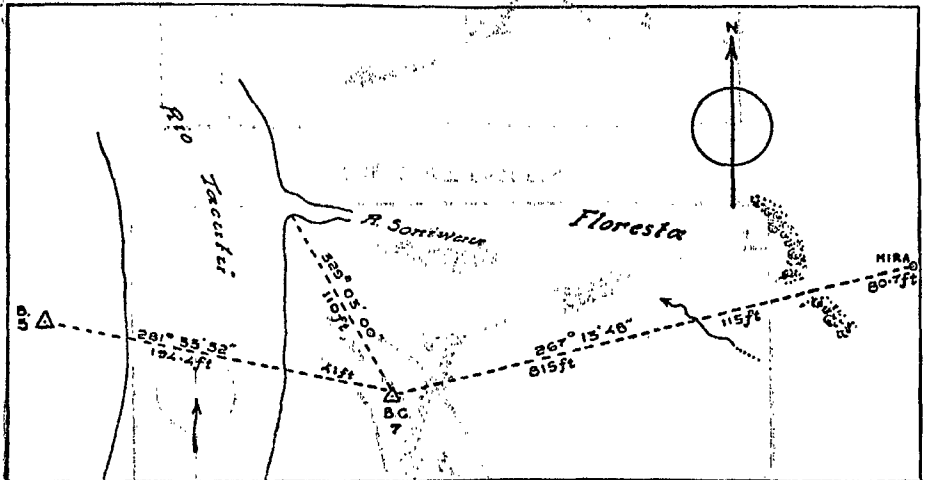


SITE PLANS

BEACONS BG 5, B 4



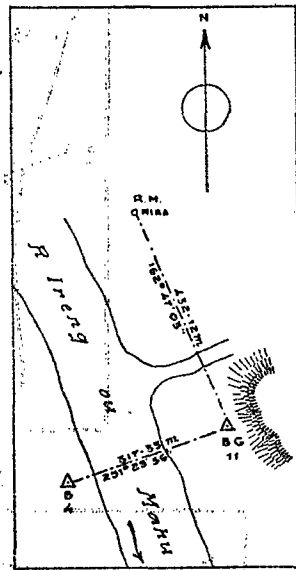
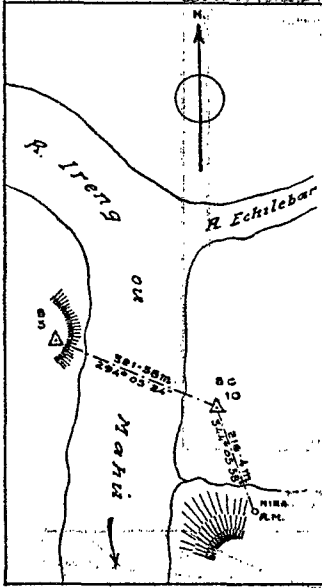
BEACONS BG 7, B 5



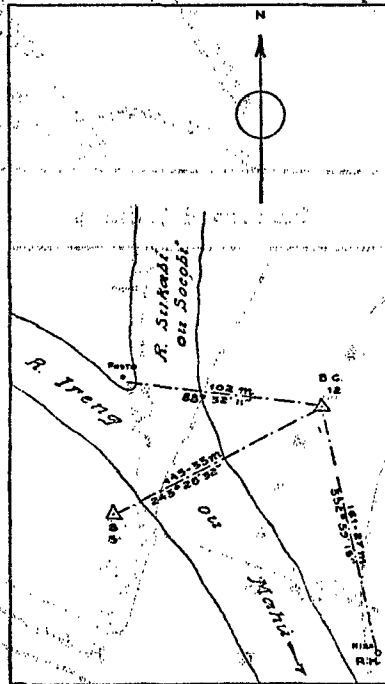
SITE PLANS

BEACONS BG 10, B 3

BEACONS BG 11, B 4

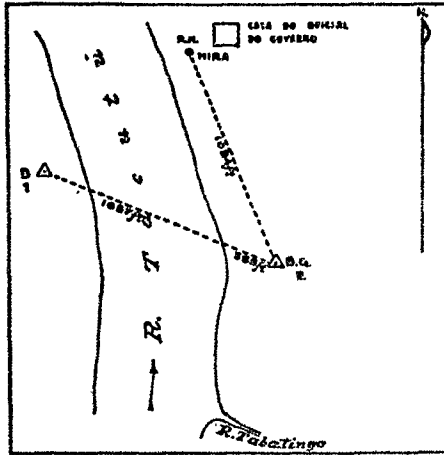


BEACONS BG 12, B 5

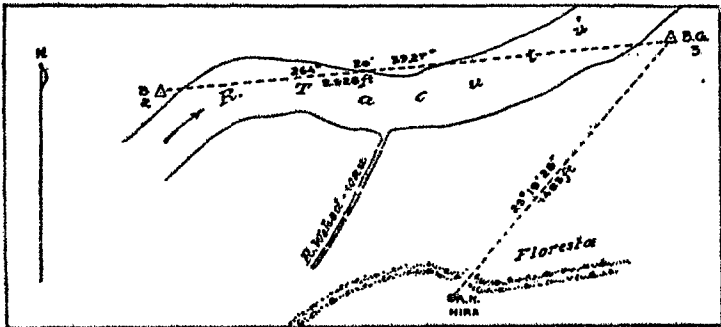


SITE PLANS

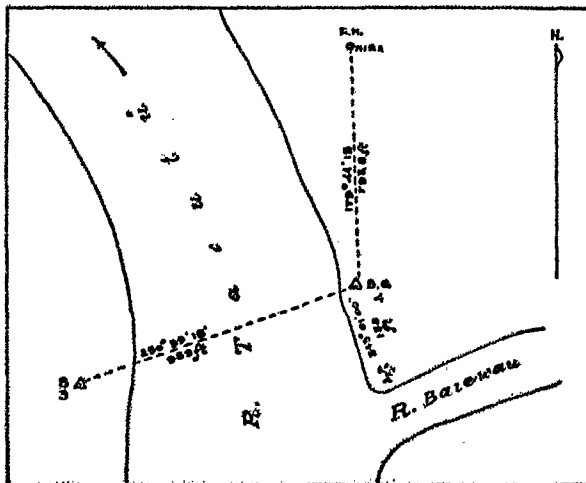
BEACONS B 1, BG 2



BEACONS B 2, BG 3

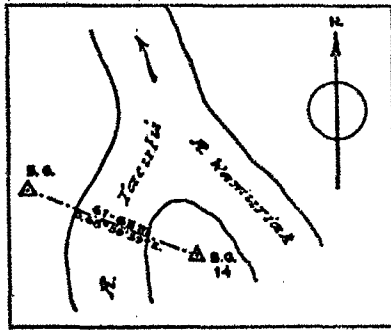


BEACONS B 3, BG 4

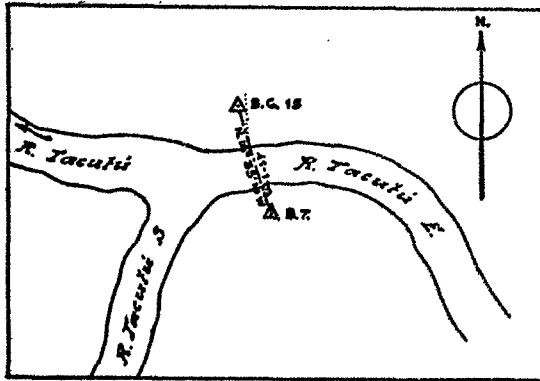


SITE PLANS

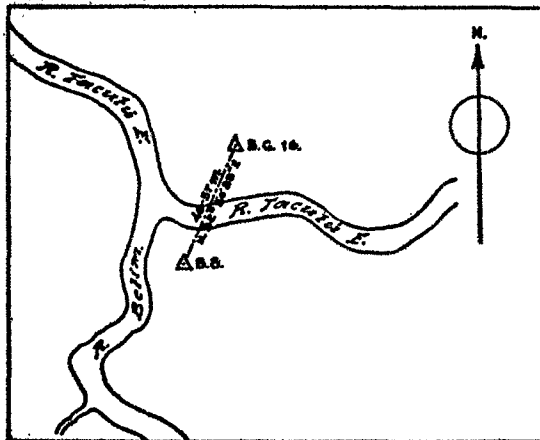
BEACONS BG 14, B 6



BEACONS BG 15, B 7



BEACONS BG 16, B 8



APPENDIX 10

TECHNICAL REPORT ON METHODS AND INSTRUMENTS USED IN THE SURVEY

Triangulation was only carried out for the survey of the summit of Mount Roraima. It was controlled by a base measured at Arabopo village, with an astronomical fixation for position and azimuth. The British Commission also measured a check base on the Roraima plateau; the agreement between the two bases was within one part in four thousand. The base at Arabopo was measured by the British Commission with a 200-ft. steel band in catenary, and that on Roraima with a 100-metre steel band along the ground. The Brazilian Commission measured the Arabopo base with a 50-metre steel band.

2. In addition, the Brazilian Commission made astronomical observations near the trijunction mark on Mount Roraima, but the values obtained by triangulation and by direct observation showed a difference of 10.6 seconds in latitude and 6.9 seconds in longitude. This discrepancy may be attributed mainly to local attraction. The Commissioners have adopted the mean values obtained from the triangulation by the three Commissions.

3. For the remainder of the survey of the boundary triangulation was impracticable, even in the savannah country, on account of the amount of cutting and clearing entailed. The boundary has therefore been surveyed by compass or instrumental traverses, adjusted between astronomical points.

4. For these points the Commissioners agreed that "the maximum permissible range between the different results from which the means shall be taken will be 10" for determination of latitude, 10" for the observations for azimuth and one second for those of time. Enough observations shall be taken to assure a probable error of $\pm 0.5''$ in latitude, $\pm 5''$ in azimuth, and ± 0.3 of a second in time. The means of the values obtained by the British and Brazilian observations shall be accepted, provided that the differences do not exceed 3" in latitude, 10" in azimuth, and 0.4 of a second of time in longitude."

5. The Commissioners further agreed that the marks erected on the land boundary should be accurately sited on the watershed, but that "it was not necessary in the present state of development of the territories adjoining the land boundary to locate the line connecting boundary marks with such precision as would require the use of spirit levels." It was agreed that only such precision was required as would be obtained by an inspection of the ground. In the event of development of any of these areas, it would be necessary to carry out a more accurate survey, the procedure for which is outlined in the Agreement (*vide* Appendix 4).

6. INSTRUMENTS USED FOR ASTRONOMICAL POINTS

(a) *By the British Commission*

7-inch Micrometer Theodolite.

Tavistock Theodolite.

Mean and Sidereal time Chronometers, controlled by Vernier Time Signals.

(b) *By the Brazilian Commission*

5-inch and 8-inch Micrometer Theodolites.

Mean and Sidered time Chronometers, controlled by modern American-type Time Signals.

7. METHODS USED FOR ASTRONOMICAL OBSERVATIONS

(a) *By the British Commission*

Latitudes: Circum-meridian Altitudes.

Azimuth: Hour Angles of Stars.

Time: Altitudes near the Prime Vertical.

In addition, some points were fixed by the Method of Equal Altitudes (Gauss method).

(b) *By the Brazilian Commission*

Latitudes: Circum-meridian Zenithal Distances of Stars. Sterneck method or modified Horrebow-Talcott.

Azimuth: Circum-elongation and Time.

Time: Equal Altitudes (Zinger method), and Altitudes of Stars East and West.

8. METHODS USED FOR THE BOUNDARY TRAVERSE

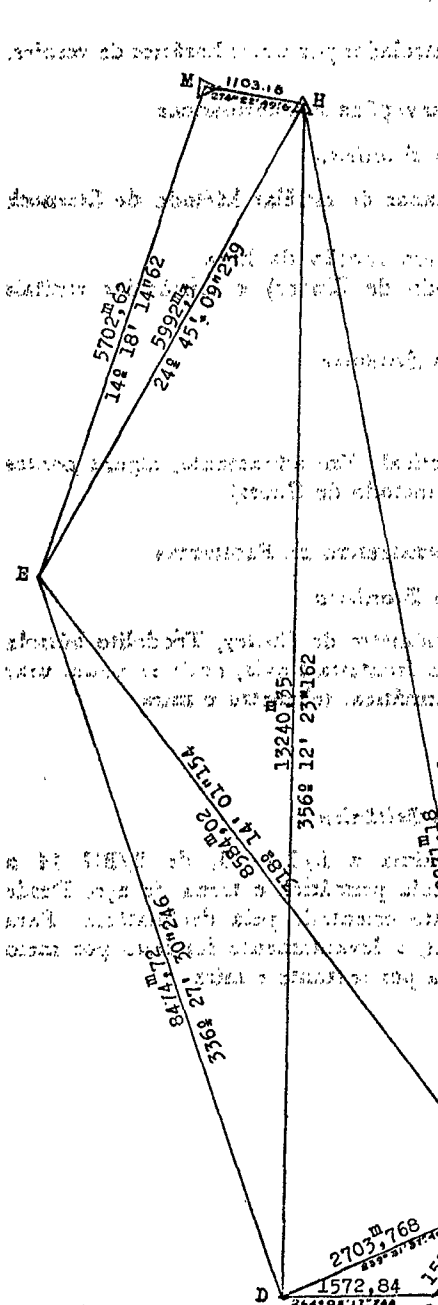
(a) *By the British Commission*

For the land boundary from Mount Roraima to B/BG 13, and from B/BG 14 to B/BG 39, the traverse was surveyed with prismatic compass and steel band. Since 1935 tachymetry has been used, the theodolite being oriented by trough compass. For the river boundary, where boats could be used, the survey was carried out with prismatic compass, the distance being measured by sextant and subtense bar.

(b) *By the Brazilian Commission*

The land boundary was surveyed with Gurley Tacheometer, Wild Compass Theodolite, prismatic compass and steel band; on the river boundary, where canoes could be used, the survey was carried out by prismatic compass, rangefinder and subtense bar.

DIAGRAM OF TRIANGULATION FOR OBTAINING CO-ORDINATES OF TRIJUNCTION POINT ON MOUNT RORAIMA FROM THE BRAZILIAN OBSERVATION STATION AT ARABOPO



A-B Beacons at end of base.

D Beacon at end of base extension.

E Beacon on Mount Roraima.

H Beacon on Mount Roraima at Mark B/V 1.

M Beacon on Mount Roraima at Trijunction Point between British Guiana-Brazil and Venezuela.

O Brazilian Observation Station.

DIAGRAMA DE REDE DE TRIANGULOS PARA TRANSPORTE DAS COORDENADAS DO OBSERVATORIO BRASILEIRO DE ARABOPO PARA O MARCO DE TRIJUNÇÃO DO MONTE RORAIMA.

A-B Sinaes nos extremos da base.

D Sinal no extremo da base ampliada.

E Sinal no monte Roraima.

H Sinal no monte Roraima no marco B/BV 1.

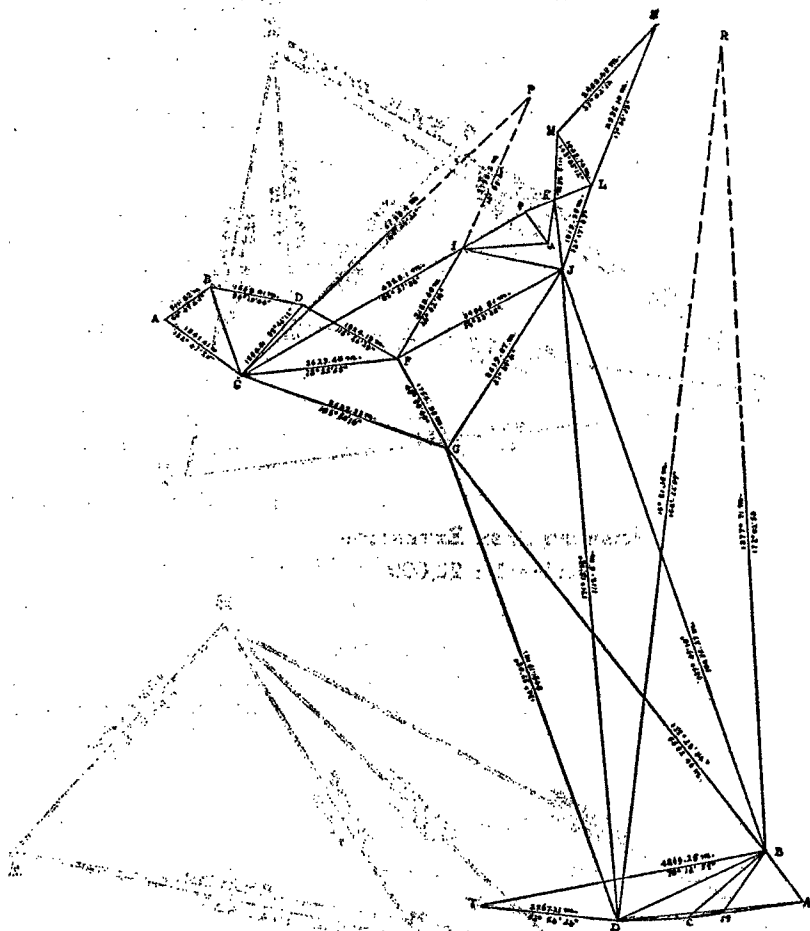
Marco de trijunção "Brasil-Guiana Britânica-Venezuela."

O Observatorio astronômico brasileiro.

M Sinal no monte Roraima e local do

DIAGRAM OF TRIANGULATION AT MOUNT RORAIMA AND ARABOPO

EXC. 02 : 100/100



M Beacon on Mount Roraima at Trijunction Point between British Guiana, Brazil and Venezuela.

N Beacon on Mount Roraima at Mark B/BG 1.

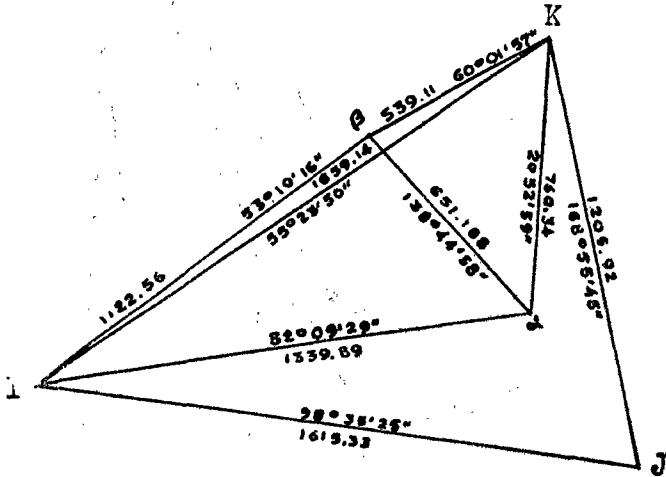
R Beacon at Mark B/BG 2

M Sinal no Monte Roraima e local do Marco de Trijunção Brasil, Guiana Britânica e Venezuela.

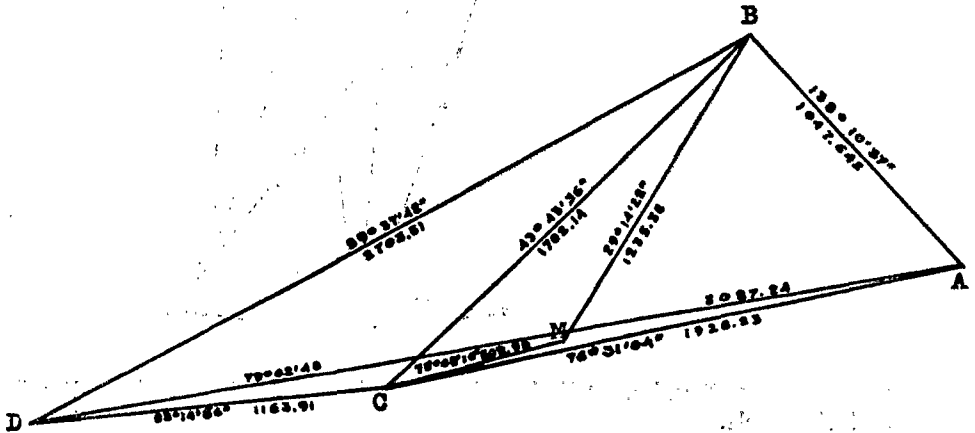
N Sinal no Monte Roraima no Marco B/BG 1.

R Sinal no Marco B/BG 2

RORAIMA CHECK BASE
Scale=1 : 20,000



ARABOPO BASE EXTENSION
Scale=1 : 20,000



APPENDIX 11

DIARY OF WORK

[Not reproduced]