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rown Agents

WIRELESS STATIONS  
JUBALAND AND N.F. DISTRICT

1914

0th November

Trs for consideration report by Messrs Preece  
Carpow and Snell.

previous Paper.

34839

messrs Preece etc. are sending drawings  
to the C.A. Wait a fortnight  
at once.

G. J. R.

12/21/14

See now C.A.  
45656

at once  
G. J. R.

25/25/14

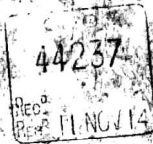
Copied to Capt 25th Nov 1914

subsequent Paper.

45656

E.  
201/19 b.

ALL COMMUNICATIONS  
TO BE ADDRESSED TO THE  
CROWN AGENTS FOR THE COLONIES,  
THE ABOVE REFERENCE AND THE  
DATE OF THIS LETTER BEING QUOTED.  
TELEGRAMS: CROWN LONDON.  
TELEPHONE: 1740 (VICTORIA BUILDINGS).



WHITEHALL GARDENS.  
LONDON, S. W.

10th November, 1914

Sir,

In pursuance of the request made in your letter  
No. 34839 of 1st October, 1914 I have now the honour to  
enclose for the consideration of the Secretary of State  
a copy of the report submitted by Messrs. Freese Gardner  
and Snell on the subject of the proposed wireless  
telegraph stations in Jubaland and the Northern Frontier  
District of the East Africa Protectorate.

6. 11. 14.

I have the honour to be,

Sir,

Your obedient Servant,

*Y. G. G. G.*

for Crown Agents.

The Under Secretary of State,

&c &c &c

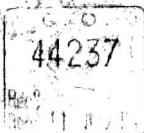
Colonial Office.

TELEPHONE BY VICTORIA ROAD (2 LINES).  
TELEGRAMS, CREEP HOLE, VIC. LONDON E.C.

COPY

8, QUEEN ANNE'S GATE,  
WESTMINSTER, S.W.

PREECE, BROWN & SNELL,  
CONSULTING ENGINEERS.



5th. November, 1914.

The Crown Agents for the Colonies,  
Whitehall Gardens,  
S. W.

Gentlemen,

L./201/195.  
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With further reference to your letter of October 5th. we have the honour to submit herewith a full report dealing with this question of Wireless Stations in Jubaland on the frontiers of East Africa.

When Colonel Hoskins called here to discuss the question he came to the conclusion that five stations would be desirable situated at the following places:-

1. Kismayu at the mouth of the River Juba.
2. Ser<sup>n</sup> on the Juba about 180 miles north of Kismayu.
3. <sup>n</sup> on the Abyssinian frontier approximately 220 miles west of Ser<sup>n</sup>.
4. Wagheir 120 miles south of Moyale, 180 miles S.W. of Ser<sup>n</sup>, 250 miles S.W. of Kismayu.
5. Bunguru some 200 miles W. of Kismayu and 160 miles S. of Wagheir.

It would therefore appear that each station should have a range of at least 200 miles. Kismayu is 320 W. of Mombasa, and Bunguru is some 200 miles N.E. of Nairobi and under 300 miles from Mombasa.

It

It is extremely difficult to determine the exact range of 1-1/2 or 3 k.w. stations over-country such as this. As a rule, a 1-1/2 k.w. will be sufficient to maintain communication over 300 miles by day and 400 miles by night, and a 3 k.w. will cover 400 miles by day and 600 by night. Therefore plants of 1-1/2 k.w. capacity should suit all the stations except Kisumu which should have a 3 k.w. plant in order to reach Mombasa.

If it is essential to maintain day communication between all the stations, we would recommend 3 k.w. plants in all cases.

The difference in cost between a 1-1/2 and a 3 k.w. is £500 a station.

But we suggest that 1-1/2 K.W. plant with 900 metre waves would be sufficient for the interior stations, making only the Kisumu Station a 3 K.W. plant using 600, 900, and 1200 metre waves in order that it might always be in touch with the Mombasa Station and also be useful for shipping.

We estimate that the total cost f.o.b. of these Stations would be:-

4.	1-1/2 K.W. Plants & Aerials @ £967.....	£3,868
8.	Masts @ £265.....	2,120
4.	3-1/2 h.p. Oil Engines complete @ £50.....	200
1.	3 K.W. Station.....	1,351
2.	Masts @ £300.....	600
	5-1/2 h.p. engine.....	64
		£8,203
		-----

We are unable to estimate the cost of freight and transport, but, provided the rates are similar, the cost of the 5 K.W. station would be about the same as the station supplied to the Cold Coast Colony under S.201/6, Requisition 2208. The freight of the 1-1/2 K.W. would be but slightly less.

We will forward drawings showing approximate space occupied by the plant in the course of a few days.

As regards maintenance: each station will certainly in the first instance require one European Engineer-Operator in charge and probably one additional man to act as a Relief Officer. Besides this it would be desirable to have at least three Indian Operators at each station and say two relief men. After a year's working it might be found satisfactory to have one or two European Engineers in inspection, only frequently leaving Indians in charge of each station. But the experience in Aden and Berbera makes it extremely doubtful whether Europeans could be abolished altogether. We estimate that the salaries to be paid would not be less than £300 to £350 per annum for European Engineer-Operators and £100 to £150 per annum for the Indian Operators. If each station had one European, one Senior Indian, and two Junior Indian Operators, the salaries per station would approximate to £650 per annum. The cost of fuel and stores would amount to some £150, and the cost of maintenance about £100 per annum, making a total per station of £900 per annum. Kismayu 3 K.W. station would cost probably £1,000. Thus the total annual expenditure for the five stations would be approximately £4,500.

As the new Assistant Telegraph Engineer

The Crown Agents, S.L.L. Ltd. Page 4.  
for the Colonies.

Mr. Ridley in the Colony is a wireless expert, he might have charge of the erection of these stations, without going to the expense of sending out a special man from the Marconi Company. If, on the other hand, he could not be spared, there is a man from the Company now in Mombasa erecting that station who might be retained for erecting these new plants. With six stations to maintain it might be well for the Colony to have a special Wireless Engineer besides Mr. Ridley who is a general Telegraph Engineer, in which case Mr. Rice might be ready to accept the appointment. The pay should be at least £350 rising to £400 per annum, and the greater proportion of this salary should be charged to these new stations.

We are, Gentlemen,

Your obedient Servants,

**PREECE, CARDEW & SNELL.**