

started since Dept. would not allow
\$1200 for balance alone and
contingencies. I have
understand for balance, some
and expense. I am afraid of
being asked to pay the Bond

I don't know how far the
action will go next year and some
probability of increase for bond
and I can't handle either
mode of the draft balances,
and seemed to me to indicate
rather that bond will be on the
part of the Dept.

50
75

Geological Survey Dept. handed out about
\$1200. for balances alone, and
a substantial Indian fund to
be applied for balance, some
and others. I suppose of
survey, especially in the South.

I don't know how far the
estimate for next year will cover
a possible of more than for last
year and I can't remember either
modifies the draft submitted,
and seemed to me to indicate
rather the amount was less than the
figure of the year.

50
75

all for a proper survey, while in others the work has been ~~done~~ ^{inadequate} and requires to be done again if it is to be of real value.

No uniform system has been devised
No system of survey has been devised

~~to be done as uniform as possible in these~~

Territories

and I desire to formulate one which will ensure that all the surveyors are trained

in ~~the same~~ ^{the same} methods, that uniform scales of survey are ~~used~~ ^{used}, that the ~~system~~ ^{method} of survey

(whether by triangulation, traverse, &c.,) is adopted which is most suitable to the particular ~~area~~ ^{area}

piece of country to be surveyed, and that the work is carried on, with regularity, year by

year. It is only in this way that the Government

can hope to obtain, within a reasonable time, the proper surveys of the British territories

in tropical Africa which are of such great importance and to save the needless expenditure

and ~~irregular~~ ^{and unsystematic} of money on inaccurate work.

I have accordingly appointed a small Advisory Committee, which will be called the

Colonial Survey Committee, for the purpose

No uniform system has been devised
No system of survey has been devised

all for a proper survey, while in others the work has been ~~done~~ ^{inadequate} and requires to be done again if it is to be of real value.

~~There is not a uniform system of survey in these Territories~~ and I desire to formulate one which

will ensure that all the surveyors are trained ^{The same} in ~~the same~~ ^{the same} methods, that uniform scales of survey are ~~used~~ ^{used}, that the ~~system~~ ^{mode} of survey (whether by triangulation, traverse, &c.,) is

adapted which is most suitable to the particular ^{area} ~~piece of country~~ to be surveyed, and that the

work is carried on, with regularity, year by year. It is only in this way that the Government can hope to obtain, within a reasonable time, the proper surveys of the British territories in tropical Africa which are of such great importance and to save the needless expenditure ^{and unsystematic} of money on inaccurate work.

I have accordingly appointed a small Advisory Committee, which will be called the Colonial Survey Committee, for the purpose

of assisting me in attaining the object which I have in view. This Committee, consisting of the Director General of the Ordnance Survey of this country, the Head of the Topographic Section of the General Staff of the Army, and a representative of this Office, have made certain preliminary recommendations which I have approved and which are embodied in the following paragraphs.

5. All Government maps in the British Colonies and Protectorates in tropical Africa will, in future, be produced on one or more of the following scales:-

	62,500
	125,000
Topographical Maps.	250,000
	500,000
	1,000,000
	2,500
Cadastral Plans.	5,000
	10,000

A scale of 250,000 is regarded as sufficient as a general rule, for military purposes, and a survey on this scale should cover the whole of the Colony or Protectorate. A metric scale *(in kilometres)* in addition to ~~the existing~~ *(in miles)* scale, will be inserted in ~~the map~~ *the topographical map*

A report should be furnished, as far as possible, on the existing state of the ~~survey in the Colony or Protectorate~~ under your administration; and I request that you will indicate ~~in the enclosed map~~ *(and volume and album)* the ~~central and topographical surveys~~ *central and topographical surveys* respectively required. You should state which of the scales mentioned in the foregoing paragraph is recommended for each area and also the order in which it is desired that the different areas should be dealt with. No area should be indicated of which a map will not be required or can be with reasonable probability be produced by the local survey staff, within the next 3 or 4 years. I consider it a matter of

of Colony or Protectorate.
 duplicate - 1 copy to
 obtained by local authorities.

4

great importance, that work should be taken up systematically by blocks according to a definite programme, and sustained efforts are likely to prove of little value, and in this connexion, I ~~desire to~~ ^{desire} impress upon you the undesirability of removing survey officials from their proper work and employing them on other duties.

You should furnish me at the beginning of each year with a report on the progress of the surveys in the Colony or Protectorate under your administration.

2. One important feature of a plan for the proper survey of the Colonies and Protectorates must be the re-organisation of the local Survey Departments for the purpose of placing them on a satisfactory footing, and with this object in view, I desire to obtain a list of all survey officials with particulars as to their qualifications &c., I accordingly request that you will have one of the enclosed forms filled

in the case of each of the Survey officials employed ^{by your administration} in the Colony or Protectorate and that you will return the completed forms to me at your early convenience. When I am in possession of these forms I shall be in a position to decide, with the assistance of the Advisory Committee, what further instruction in survey work, if any, each official requires.

- 12 2000 - S. Lane
- 30 - G. Cant
- 12 - Lopez
- 12 - S. Nijera
- 12 - N. Nijera
- 30 - Ujanda
- 4 - S. Afr. Pat
- 2 - B. CA.

9. ^(I hope, yes) At the generous co-operation of the authorities of the Ordinance Survey I have been able to make satisfactory arrangements for the instruction of a party of officials, but it must be understood that the facilities which the Ordinance Survey are prepared to grant are strictly limited to the cases of members of the local Survey Departments and cannot be extended to other officials, for whom ^{different} ~~arrangements~~ ^{have} ~~must~~ be made.

10. The ~~instructions~~ ~~instructions~~

~~instructions~~ in which the Ordnance Survey has prepared to use instructions to survey officials are those which are mentioned in the forms enclosed in this despatch. The length of the ~~instructions~~ the nature of the instruction will depend, in each case, upon the qualifications which the particular survey official already possesses. ~~As~~ As a rule, the summer will be the most convenient time for giving instruction and arrangements will, as far as practicable, be made accordingly. It will not, ~~be possible~~, be possible for the Ordnance Survey to instruct more than 6 officials at

11. So far, I have dealt only with the ~~re-organization~~ re-organization of ~~the~~ existing departments, but, in some cases, the Departments will have to be practically to be created, while, in others, it will probably be found necessary to enlarge them. It will also be advised to consider

10. The ~~various~~ ^{various} branches ~~of the~~ ^{of the} Ordnance Survey

~~in~~ in which the Ordnance Survey are prepared to give instruction to survey officials are those which are mentioned in the forms enclosed in this despatch. The length of the course and the nature of the instruction will depend, in each case, upon the qualifications which the particular survey official already possesses. ~~As~~ ^{As} a rule, the summer will be the most convenient time for giving instruction and arrangements will, as far as practicable, be made accordingly. It will not, ~~as~~ ^{as} far as possible for the Ordnance Survey to instruct more than 6 officials at any one time.

11. So far, I have dealt only with the re-organisation of ~~the~~ existing departments, but, in some cases, the Departments will have practically to be created, while, in others, it will probably be found necessary to enlarge them. It will also be advisable to consider

the

the question of assimilating the rates of pay
 &c. in the different Colonies and Protectorates
 with a view to forming, as I hope, a General
 Survey Staff for the whole of British Tropical
 Africa. I shall address you further upon these
 matters, when I have received replies from
 the various Colonies and Protectorates con-
 cerned to the present despatch, but I shall
 hope that ~~it will be~~
~~be glad to receive~~ those replies ~~with~~
 observations which are likely to be of
 assistance to me in dealing with the ~~above~~
~~matters referred to in this paragraph.~~ There
 is one point to which I desire to call special
 attention. If the survey of the Colonies and
 Protectorates is to be carried out with
 reasonable rapidity, a considerable number
 of subordinates will be required with a lower
 rate of pay than is usually given to European
 subordinates in the tropics. In India the
 native

Essentially

native surveyors employed by Government cost but little and do excellent work; but as there is ample ^{employment} for them in their own country it is probable that, as a rule, only the less satisfactory surveyors would be allowed to take service in Africa. It is therefore not possible to draw on this source of supply to any great extent. In India, for one European surveyor there are at least four ~~as many~~ native surveyors; and economy no less than efficiency requires that a similar system should, if possible, be introduced into Africa. I consider, therefore, that in any scheme for the survey of the tropical African Colonies and Protectorates, the training of natives in survey work should take a prominent place, and that one of the first duties of the Head of a Survey Department should be to establish if possible, a training school for this purpose. I

that

that you will furnish me with a report on this matter, stating whether any experiments in the direction indicated has been made ~~by your Government~~ ~~the Colonies~~ ~~in the past~~ ~~position~~, and, if so, with what success.

12. With regard to the preparation of maps, the usual procedure will be as follows. The map executed by the local Survey Department will be sent to the Colonial Office, from the Colonial Office to the Director of Military Operations, and from the Director of Military Operations to the Director General of the Ordnance Survey. If no compiling is required, the Director of Military Operations will send the map ~~to~~ to the Director General of the Ordnance Survey. If compiling is required, this will be done in the department of the Director of Military Operations and the map then sent to the Ordnance Survey.

13. The Director General of the Ordnance Survey has kindly undertaken the reproduction of topographical maps, triangulation diagrams and charts, but he will not, as a rule, undertake to reproduce cadastral plans.

14. The Director General has also kindly undertaken the custody of survey instruments in this country, and will probably be able to arrange for the custody of records. I consider that the British Colonies and Protectorates in tropical Africa are greatly indebted to him for his assistance which he is rendering in these and the various other matters referred to in this despatch.

I have, etc.,

Edward M. ...
...

29 73

No. 5 Africa
29579 B.C.A.
to Africa

386

1910



DRAFT

S. A. Slope Kelly

30 Aug 08

MINUTE

- Mr. Read. 25 Aug.
- Mr. Harris 25 July
- Mr. [unclear]
- Mr. [unclear]
- Mr. [unclear]
- Mr. [unclear]
- Mr. [unclear]
- The [unclear] of Marlborough
- Mr. [unclear]

Dear Sir, I am directed by Mr Secy Lyttelton to request to you the necessary steps to be taken what has been referred to the B.C.A. Council of the B.C.A. Post Office the subject of the Survey of the Protectorate & Mr Lyttelton understands that the present Survey Dept of the Post Office is really a Public Works Dept. although the duties

copy to be sent to the [unclear]

copy to [unclear] with
 copy to [unclear] 1920
 1920 17

29579

If we or two of the staff
include the surveying of
Crown Lands, &c. it

and a certain amount
of general survey work
is done from time to time
as occasion serves

appears to him that
it is desirable to
have a ~~staff~~ ^{as some possible}
before instituting a
dept. whose whole time
would be devoted to
the preparation
a scientific survey of
the Plateau

3 As the position of
the Plateau is
admitted as being
of the formation of
dept. with a small
staff, Mr. Lytton is
inclined to think that
it could be sufficient
to provide for a
member of the dept. who
might be a junior officer
of the R.E. with a
salary of £600 or £900

two Assistant
Surveyors

who could probably be 387
obtained from amongst
Australia or New Zealand of
about 10 years of age,
and whose two
in three instances
if Mr. Lytton would
be glad to receive your
views on the matter
also to have been
written in the hope of a
new dept. being formed
any matter could be
afforded the cost
of the present Survey
dept. He understands
for instance, that the
Indian Survey attached
to that dept. are not
not the relied upon
for accurate survey work,
it is not right therefore
to be advisable to dispense
with the same.

... that he may be
in a position to approach
the Treasury on the
subject with a view to
the inclusion of the necessary
provision in the Estimate.

Yours faithfully
P. J. ...

... that the
Indian Survey attached
to that dept. are not
not the relied upon
for accurate survey work,
it is not right therefore
to be advisable to dispense
with the same.

Yours faithfully
P. J. ...

CO 24p.
29573 25p.
4 Africa

377



(21) September 1877

DRAFT.

Herle Probyn Esq. Col. Secy.

I am directed by the
Secy to Herle to transmit
to you the accompanying
copy of a despatch which
has been addressed to
the C. A. G. of Sierra
Leone on the subject
of the survey of the
Bology and Protection
of the
2. The Secy to Herle understands
that the report from a
Native
Surveyor of the Crown
lands working under
the Director of Public
Works, there is at
present no Survey
Dept. in Sierra Leone.

MINUTE

- Mr. B. 5/18
- Mr. O'Brien 5/7
- Mr. Andrews 5/8
- Mr. O'Brien
- Mr. Lucas
- Mr. Graham
- Mr. W. Cunningham
- In the case of Marlborough
- Mr. Tullerton
- for common

See separate copy
(for the Secretary)

2020
No 29638

CO 2973
exp. Dec 4 office

DRAFT



(21) September 1903

Charles Probyn Esq. C.M.G. Sir

I am directed by Mr. Key by letter to transmit to you the accompanying copy of a despatch which has been addressed to the O.A.G. of Sierra Leone on the subject of the survey of the Colony and Protectorate 2. Mr. Key by letter understands that, apart from a native Surveyor of the Crown lands working under the Director of Public Works, there is at present no Survey Dept. in Sierra Leone.

MINUTE

- Mr. Bostwick 5/9
 - Mr. Oliver 5/9
 - Mr. Antrobus 19/8
 - Mr. Oar
 - Mr. Gant
 - Mr. Graham
 - Mr. M. Mansfield
 - Mr. Duke of Marlborough
 - Mr. Lightfoot
- for comment

copy separate on copy (for reference)

2020
x no 29073

and it appears to
him that it is
desirable to constitute
a Department of

properly qualified
and your whole
time would be
devoted to a

try and local
of the Colony and
the Protector.

It has been suggested
that

the formation of the
Colony and about
present of the formation

of a Survey Dept,
with a staff of

by Mr. [Name]

the staff should consist of
that should be
appointed to provide

to a head of the

£800

£10

£50

£100

£200

Provision would also be
made for the expense of
travelling and transport

Dept, who might be
found or officer of the

Royal Engineers with
a salary of £600 or

£700 a year, two
assistants who could

probably be obtained
from Australia or

New Zealand for
salaries of about

£300 a year and two
or three subordinates

to be kept to receive your
orders on this matter,

and also to learn
whether in the event of

a new Dept. being formed,
any reduction could be

effected in the cost of
the present Survey
Sub-Dept, possibly by
the way of amalgamation

and it appears to
 have that it is now
 desirable to have
 as ~~soon as possible~~
 a Department of
 properly qualified
 surveyors whose
 whole time would be
 devoted to a
 trigonometrical survey
 of the Colony and
 Protector's

It has been suggested to have
 a Department that
 the ~~formation~~ of the
 Colony only ~~is~~ but
~~purpose~~ of the formation
 of a Survey Dept.,
 with ~~an~~ ^{with} ~~an~~ ^{an} ~~staff~~ ^{staff}
 Mr Lytton is
~~of the opinion that~~
 the Staff should consist of
 that ~~it~~ ^{it} ~~should~~ ^{should} ~~be~~ ^{be}
 sufficient to provide
 for a head of the

£800

£100

£100

£100

Person would also be
 liable for the expense of
 food and transport

Dept. who might be
 junior officer of the
 Royal Engineers with
 a salary of £600 or
 £700 a year. The
 assistants who could
 probably be obtained
 from Australia or
 New Zealand for
 salaries of about
 £200 a year and ~~two~~
 or three subordinates
 The Lytton would
 be obliged to receive your
 views on this matter,
 and also to learn
 whether in the event of
 such a new Dept. being formed
 any reduction could be
 effected in the cost of
 the present Survey
 Sub-Dept, possibly by
 the way of amalgamation

with the new staff. The necessary provision would have to be made in the Estimate, and Mr. [unclear] would require to be satisfied that the finances of the Colony admit of this being done before deciding to sanction the creation of such a Dept. as has been suggested.

Mr. [unclear] would require to be satisfied that the finances of the Colony admit of this being done before deciding to sanction the creation of such a Dept. as has been suggested.

R. [unclear]

C. O.
29573
1918

Colonial Survey Committee

Meeting of the 12th August 1918
at the [unclear] Office

The following members of the Committee were present:—

- Col. R. C. Holland, R.E., Director General Ordnance Survey
- Major C. F. Close, C.M.G., R.E., Topographical Section, General Staff, War Office
- Mr. H. J. Reid, Colonial Office, and
- Capt. W. S. [unclear] [unclear], R.E., Topographical Section, and
- Colonial Office, Secretaries.

1. Title of Committee

It was agreed to accept the title of 'Colonial Survey Committee' as proposed by Major Close, as it would admit of the extension of the scope of the Committee to include possessions other than those in Tropical Africa, although the latter also would be dealt with at first.

2. Qualifications required in Survey Officials

The following list of qualifications

with the new staff. The necessary provisions would have to be made in the Estimate, and the

Department would require to be satisfied that the finances of the Colony admit of this being done before deciding to sanction the creation of such a Dept as has been suggested

A. C. Anderson

Colonial Survey Committee

Meeting of the 14th August 1920
Minutes of the meeting

The meeting of the Committee was held at the Survey Office on the 14th August 1920.

- Present -
- Col. R. C. Hutton, R.E., Director General, Ordnance Survey.
 - Major C. F. Close, C.M.S., R.E., Topographical Section, General Staff, War Office.
 - Mr J. Rand, Colon. Office, and
 - Capt W. S. Holt, Major, R.E., Topographical Section, and Mr W. S. Holt, Colon. Office, Secretary.

1. Title of Committee

It was agreed to accept the title of Colonial Survey Committee as proposed by Major Close, as it would admit of the extension of the scope of the Committee to British Possessions other than those in Tropical Africa, although the latter alone would be dealt with at first.

2. Qualifications required in Survey Officials.

The following list of qualifications

Cadastral Survey

- (1) Ordnance Survey Cadastral system
- (2) Indian
- (3) Australian
- (4) Canadian

Trigonometrical and Astronomical Framework

- (5) Secondary, Tertiary and Topographical
Triangulation including base measurement
- (6) Rigorous long traverses
- (7) Latitude determinations
- (8) Azimuth determinations
Longitude by telegraph

Topographical Survey

- (8) Plane-Tabling
- (9) Minor Traverses (subtense and
chain or tape)
- (10) Companion Traverses
- (11) Heights by levelling
" " " " triangulation
" " " " clinometer
" " " " barometer
" " " " hypsometer
- (12) Contouring - especially approximate
contouring.

Office Work

- (13) Computations for above
- (14) Projections, as far as necessary
- (15) Conventional signs
- (16) Map reproduction, general knowledge
- (17) Computation of Areas

It was decided that a list form should be prepared and sent out to the Governor and Commissioners of the Colonies and ~~and~~ ^{for} Protection to be secured for the purpose of obtaining information as to the qualifications under the above heads of the ^{various} Sundry Offices to now serving. That ^{also} will show the date of first employment and of expiration of present appointment, of temporary details of service under Colonial Officers, and work actually performed, and will contain space for a report by the Head of the Sundry Department. The form will be sent, in as far as possible, a list of applicants for every appointment to under the Colonial Office.

3. Instruction of Sundry Officials

Col. Holland stated that the Ordnance Sundry Office be prepared to undertake the instruction of Sundry Officials in classes of not more than six, subject to the ^{approval} of the Board of Agriculture and the Treasury to the increase of the teaching staff which would be necessary and that to be considered that there would be difficulty in providing a list

It was decided that a list form should be prepared and sent out to the Governor and Commissioners of the Colonies, and ~~sent~~ ^{sent} Protectorate, ~~was~~ ^{was} secured for the purpose of obtaining information as to the qualifications under the above heads of the Survey Officers ~~to now serving~~ ^{now serving}. This ~~list~~ ^{form} will show the date of first employment and of expiration of present appointment, if temporary; details of service under Colonial Office; and work actually performed; and will contain space for a report by the Head of the Survey Department. The form will be used, as far as possible, in the case of applicants for survey appointments to under the Colonial Office.

3. Instruction of Survey Officials

Col. Bellard stated that the Ordinance survey could be prepared to undertake the instruction of Survey Officials in classes of not more than six, subject to the ^{approval} of the Board of Agriculture and the Treasury to the increase of the teaching staff which would be necessary and that to be considered that there would be no difficulty, in providing a ^{list}

Lecture room

It was pointed out that the date, location and nature of courses of instruction would depend on the number and qualifications of the officials available, and that the courses would, as a rule, be held in the summer, special arrangements for leave of absence might be necessary. Col. Holland considered that it would be possible to arrange for practical work to be done with the field sections of the Ordnance Survey, either with the officers or non-commissioned officers, further arrangements might be prepared.

It was agreed that instruction by the Ordnance Survey should not be restricted to officials other than those of Survey departments, as other facilities could be provided in such cases.

4. Recruitment of Officials

It was decided to secure, if possible, the services of some of the Surveyors from Queensland and New Zealand who have been employed on the Gold Coast, and Col. Holland stated that he would be prepared to recommend non-commissioned officers of the Ordnance Survey when required.

7. Question of obtaining an officer

Lecture room

It was pointed out that the date, duration and nature of courses of instruction would depend on the number and qualifications of the officials available, and that as the courses would, no doubt, be held in the summer, special arrangements for leave of absence might be necessary. Col. Holland considered that it would be possible to arrange for practical work to be done with the field sections of the Ordnance Survey, either with the officers or non-commissioned officers, parties as might be preferred.

It was agreed that instructions by the Ordnance Survey should not be sent to officials other than those of Survey Departments, as other facilities could be provided, in such cases.

4. Recruitment of Officials.

It was decided to secure, if possible, the services of some of the Surveyors from Queensland and New Zealand who have been employed on the Gold Coast, and Col. Holland stated that he would be prepared to send non-commissioned officers of the Ordnance Survey when required.

The question of obtaining an officer

of the Royal Engineers were ~~to be~~
 to be placed in charge of surveys
 in the British Central Africa Protec-
 tion was considered, and it was
 decided to ask Sir A. Stanger for
 his views ^{with regard to the} ~~on~~ the establishment of
 an official Survey Department in
 that Protectorate.

With regard to subordinate staff,
 it was pointed out that Indian did
 good work but that the best men
 could not be spared from their own
 Country. It was therefore decided to
 leave the matter to the discretion of
 the local authorities to the satisfaction
 of the local authorities.

3. Preparation of maps
 and plans.

It was decided that maps and
 plans should be prepared by the local
 Survey Department as a local
 organization under the Colonial Office,
 and that the procedure should be as
 follows —

- i. Maps executed by local Survey Department.
- ii. Sent to Colonial Office,
- iii. Colonial Office to Director of Military Operations, who would ~~be~~ ^{be} responsible for any compiling that might be required,
- iv. Director of Military Operations to Director General, Ordnance Survey.

of the Royal Engineers was ~~appointed~~
 to be placed in charge of surveys
 in the British Central Africa Protectorate
 - ~~to be~~ considered, and it was
 decided to ask Sir H. Sturges for
 his views on the establishment of
 an office in the Survey Department in
 that Protectorate.

With regard to subordinate staff,
 it was pointed out that Indian did
 good work but that the best men
 could not be spared from their own
 country. It was therefore decided to
 draw the attention of Government and
 to recommend the desirability
 of training the local surveyors.

3. Preparation of Plans
 and Plans

It was decided that maps and
 plans should be prepared by the local
 Survey Department as a local
 organization under the Colonial Office,
 and that the procedure should be as
 follows:—

- i. Paper executed by local Survey Department.
- ii. Sent to Colonial Office,
- iii. Colonial Office to Director of Military Operations, who would be responsible for any compiling that might be required,
- iv. Director of Military Operations to Director General, Ordnance Survey.

Col. Hallow considered that this \$95
 would probably be no difficulty in
 arranging for the custody of maps
 and plans (including computations)
 with the Ordnance Survey records, or
 in providing a store room for
 instruments which would be
 accessible to officials while
 undergoing instruction.

The following scales were
 approved for uniform use in all
 the Civil Colonies and Protectorates.

Approximate Pop.	Calculated Plans
62,000	2,500
125,000	5,000
250,000	10,000
500,000	
1,000,000	

~~It was decided~~ a scale of $\frac{1}{250,000}$ was regarded as
 sufficient, as a general rule, for
 military purposes. A survey on this
 scale should extend over the whole
 of the Colony or Protectorate.

It was agreed that maps and plans
 shall be scaled on the metric system.

Col. Hallowell considered that the \$35
 would probably be no difficulty in
 arranging for the custody of maps
 and plans (including computations)
 with the O. & A. Survey records, or
 in providing a store room for
 instruments which would be
 available to officials while
 undergoing instruction.

The following scales were
 approved for uniform use in all
 British Colonies and Protectorates.

Topographical Maps	Cadastral Plans
$\frac{1}{62,000}$	$\frac{1}{2,500}$
$\frac{1}{125,000}$	$\frac{1}{5,000}$
$\frac{1}{250,000}$	$\frac{1}{10,000}$
$\frac{1}{500,000}$	
$\frac{1}{1,000,000}$	

~~The~~ $\frac{1}{250,000}$ was regarded as
 sufficient, as a general rule, for
 military purposes. A survey on this
 scale should extend over the whole
 of the Colony or Protectorate.

It was agreed that maps and plans
 should be scaled on the metric system.

Col. Hallowell considered that ³⁹⁵ it would probably be as difficult to carry off for the custody of maps and plans (including computations) with the Ordnance Survey records, or in providing a store room for instruments which would be accessible to officials while undergoing instruction.

The following scales were approved for uniform use in all British Colonies and Protectorates.

Topographical Maps.	Cadastral Plans.
$\frac{1}{62,500}$	$\frac{1}{2,500}$
$\frac{1}{125,000}$	$\frac{1}{5,000}$
$\frac{1}{250,000}$	$\frac{1}{10,000}$
$\frac{1}{500,000}$	
$\frac{1}{1,000,000}$	

~~It was decided~~
 A scale of $\frac{1}{250,000}$ was regarded as sufficient, and general info. for military purposes. A survey on this scale should extend over the whole of the Colony or Protectorate.

It was agreed that maps and plans should be scaled on the metric system.

as well as in English measures 306

With regard to the reproduction of maps it was agreed that the Ordnance Survey should only undertake topographical maps, triangulation or diagrams and charts and should not elsewhere except in special cases reproduce cadastral plans.

6. Order of Surveying

It was decided that each Colony or Protectorate should be taken upon its own merits and that the opinion of the Gov^t and Commissioners should be obtained as to

- i. Areas for cadastral surveying,
- ii. Areas for topographical surveying, with the scale recommended for each area,
- iii. Existing state of surveys,
- iv. Requirements for various purposes,
- v. Requirements for general administration purposes,
- vi. Requirements for military purposes, and
- vii. The Order in which surveys should be executed.

Index maps will be sent out for the purpose, and the Colonial Office will inform Gov^t and Commissioners that no area should be indicated ^{on them}

With regard to the reproduction of maps, it was agreed that the Ordnance Survey should only undertake topographical maps, triangulation on diagrams and charts, and should not elsewhere except in special cases reproduce industrial plans.

6. Order and of Survey Survey.

It was decided that each Colony or Protectorate should be taken up in turn and that the opinion of the Joint Commissioners should be obtained as to

- i. Areas for cadastral survey,
- ii. Areas for topographical survey, with the scale recommended for each area,
- iii. Existing state of surveys,
- iv. Requirements for various purposes,
- v. Requirements for general administrative purposes,
- vi. Requirements for military purposes, and
- vii. The Order in which surveys should be executed.

Index maps will be sent out for this purpose, and the Colonial Office will inform Governors and Commissioners that no area should be indicated ^{on them} as

as well as in English measures. 306

With regard to the reproduction of maps, it was agreed that the Ordnance Survey should only undertake topographical maps, being plans or diagrams and charts and should not, except in special cases, reproduce industrial plans.

6. Order and of Survey Survey.

It was decided that each Colony or Protectorate should be taken up in turn, and that the opinion of the Local Commissioners should be obtained as to

- i. Areas for cadastral survey,
- ii. Areas for topographical survey, with the scale recommended for cadastral areas,
- iii. Existing state of surveys,
- iv. Requirements for various purposes,
- v. Requirements for general administrative purposes,
- vi. Requirements for military purposes, and
- vii. The Order in which surveys should be executed.

Index maps will be sent out for this purpose, and the Colonial Office will inform Governors and Commissioners that no area should be indicated

which a map will not be required
or cannot be expected to be completed
by the Survey staff within the next
three or four years.

397

The Colonial Office will also draw
attention to the importance of
enforcing the rule that work should
be taken up systematically by
blocks, according to a definite
programme, pointing out that
a certain effort is made, and
and to the undeniability of with-
drawing officials from survey
work for other duties. Governors and
Commissioners will be requested
and invited to furnish a report
at the beginning of each year on
the progress of surveys.

With regard to the orders which
the various Colonies and Protectorates
should be dealt with, Major Close
stated that the surveys in Uganda
were being carried on satisfactorily
under Mr. Allen, and that, as regards
Northern Nigeria, the surveys should be
deferred until the completion of the

which a map will not be required
or cannot be expected to be executed
by the Survey staff within the next
three or four years.

397

The Colonial Office will also draw
attention to the importance of
enforcing the rule that work should
be taken up systematically by
blocks according to a definite
programme, pointing out that
a certain officer or need, or rather,
and to the undeniability of with-
drawing officials from survey
work for other duties. Governors and
Commissioners will be requested
and invited to furnish a report
at the beginning of each year on
the progress of surveys.

With regard to the orders which
the various Colonies and Protectorates
should be dealt with, Major Close
stated that the surveys in Uganda
were being carried on satisfactorily
under Mr. Allen, and that, as regards
Northern Nigeria, the surveys should be
deferred until the completion of the

work of the War Office Party in
determining a number of fixed ³⁹⁸
points which would form a basis
for the survey of the Protectorate. It
was decided to postpone the
consideration of the survey of the
British Central Africa Protectorate
until the question of staff had
been settled and ^{also the question of the survey of the Protectorate} pending the
receipt of Lt. Col. Smith's
report on the Survey Dept of the
South African Protectorate. The
proceedings of the meeting of the
Committee and the consideration
of the requirements of maps and
Southern Regions.

7. Inspection

The question of making arrangements
for inspection will be considered later.

8. Records of Committee

It was decided that the proceedings
of the Committee should be printed
and sent to members in proof.

work of the War Office Party in
determining a number of fixed 398
points which would form a basis
for the survey of the Protectorate. It
was decided to postpone the
consideration of the survey of the
British Central Africa Protectorate
until the question of staff had
been settled and pending the
receipt of Lt. Genl. Col Smith's
report on the Survey Dept of the
South Africa Protectorate, the
proceedings of the meeting of the
Committee will be considered
after the receipt of the report
of the Survey Dept.

7. Inspection

The question of making arrangements
for inspection will be considered later.

8. Records of Committee

It was decided that the proceedings
of the Committee should be printed
and sent to members in proof.

The

The 15th of October was provisionally
fixed for the next meeting
of the Committee.

The 15th of October was provisionally
agreed upon for the next meeting
of the Com. App.
