

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following letter from D. C. GORDON, Esq., Examiner of Public Works Accounts, to the Secretary to Government, Public Works Department, dated Madras, 23rd June 1883, No. 57 W. :—

With reference to the orders of Government contained in G.O., No. 1666 W., dated 14th June 1883, and with reference to the accompanying copy of letter, No. 109 V.Z., dated 8th June 1883, from the Superintending Engineer, First Circle, I have the honor to inquire whether the cost of the establishment of the late A. Project Division may now be charged to the grant to be provided in connection with these Harbour Schemes.

2. The favor of early orders solicited.

ENCLOSURE.

Copy of letter from the Superintending Engineer, First Circle, to the Examiner of Public Works Accounts, dated 8th June 1883, No. 109 V.Z.

With reference to your letter, No. 98 S.E. 1st, dated 29th May 1883, I have the honor to inform you that the establishment of A. Project Division is at present employed under the direct orders of the Executive Engineer, Vizagapatam Division, in carrying out the surveys of the Vizagapatam and Bimlipatam Harbours; and this has been reported * to the Chief Engineer, Public Works Department, in reply to G.O., No. 1240 W., of 25th April 1883.

2. As the establishment has not been lent to the Vizagapatam Division, it appears to me that their claims to salaries and travelling allowances will have to be included in the A. Project Division bill as hitherto.

ORDER—dated 2nd July 1883, No. 1839 W., Public Works.

Communicated to the Superintending Engineer, First Circle, who will submit an estimate of the cost of the surveys in question, to which the cost of the establishment will be debited. On receipt of the estimate, application will be made to the Financial Department for a grant from Port Funds, and meanwhile the pay of the men will be met from savings.

2. While on this detached duty the "A." Project Establishment will come under Section 71 of the Civil Pension Code.

(True Extract.)

(Signed) R. H. SANKEY, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Superintending Engineer, First Circle.
,, Examiner, Public Works Accounts.
,, Financial Department.
,, Master Attendant.

Exd. A. F. Goodall.

Spare Copies

GENERAL.
ESTABLISHMENT.

Gobt. of (1883) Madras.

PUBLIC WORKS.

Dated July, 2nd.

Recd.

Encl.

G.O., 2nd July 1883, No. 1839 W.

JULY.

A. Project Division Establish-
ment

Passing orders on letter from the Examiner, Public Works Accounts, anent the cost of the —.



27TH JULY 1883, Nos. 393, 394, MARINE.

GOVERNMENT OF MADRAS.

MARINE DEPARTMENT.

READ—the following papers:—

From Captain J. HEXT, R.N., Director of the Indian Marine, to the Chief Secretary to Government, dated Bombay, 3rd July 1883, No. 2763.

I have the honor to forward, for the information of the Government of Madras, a copy of the programme of work laid down with the sanction of the Government of India for the Indian Marine Survey Department for the season 1883-84.

2. I would ask that Port Officers and others concerned may be directed to afford every facility to the officers of the Marine Survey in carrying out the work prescribed.

ENCLOSURE.

RECOMMENDATIONS FOR CARRYING OUT THE MARINE SURVEY OF
INDIA FOR THE SEASON 1883-84.

[A Chart illustrating the places to be surveyed accompanies this Report.]

“ INVESTIGATOR.”

1. The *Investigator* should receive her crew and proceed to sea during the second week in October, and I would recommend that the months of October and November be spent in making a fresh survey of the port of Cochin. This was called for by the Madras Government and was about to be undertaken some four years ago, but, owing to the death of the officer in charge of the Party, both this and the Beypore survey fell through.

This survey should be made on a scale of six inches to a mile.

2. Continuous complaints have been received as to the extension of the banks, silting of channels and general alterations in the hydrography of the Rangoon river. This survey is a difficult one, and will require the presence of a ship to move about from place to place independently of camping-places and local assistance. The *Investigator* should therefore proceed to Rangoon, taking a line of deep sea soundings across the Bay of Bengal en route between Dondra Head of Ceylon and that port.

A complete survey of Rangoon should be made on a scale of two inches to the mile, and local authority should be consulted as to the extent up river or inland to which the survey should be carried, the Grand Trigonometrical data being used as the basis for the survey.

This survey should be completed by the end of January.

3. In February, March, and part of April the island of Cheduba and Strait, with the Ramree Roadstead, on a scale of two inches to the mile, should be carried out on a scale of one inch to the nautical mile.

The *Investigator* should return via Pamban passage to Bombay during the latter part of April, taking the channel at entrance to Palk's Bay southward of the Pedro shoals. (This year the channel south of Calimere Point was the one used and checked.)

No. 2 Boat Party.

4. If the Steam Cutter *Greenwich* has been successfully repaired at the Government Dockyard, Calcutta, the Officer in charge of No. 2 Boat Party should proceed overland, with his subordinates, to that place on the 1st of October, engage his crew and proceed by British India steamer to Akyab and complete the survey of that port in November and December.

It is considered that an artificial breakwater extending to the east and north from the Dolphin's Head would give protection to excellent anchorage, safe for ten months of the year, or from January to October inclusive.

The probability of a railway being constructed from this port to the heart of the country points to the necessity of a proper harbour terminus.

A survey, therefore, on a scale of six inches to a mile should be made during the months of January, February, and March.

No. 2 Boat Party might undertake this on the completion of Akyab, proceeding by British India steamer with stores, boats and appliances to Vizagapatam at the latter end of December.

No. 1 Boat Party.

5. During October, November, and December No. 1 Boat Party should be engaged in the survey of Quilon, the officers, stores, and instruments being carried thither in the *Investigator* prior to commencing Cochin.

The Travancore Government has informed the Indian Government of its anxiety to construct a deep water harbour at Quilon, there being no other harbour on the Travancore sea board. The locality offers facilities for an artificial harbour open only to the south-east, from which quarter strong winds seldom or never blow.

Quilon is centrally situated; backwaters extend forty miles to the southward and sixty miles to the northward, admitting of boat traffic up to the base of the hills.

A thorough survey on a scale of four inches to the mile, with the enclosed harbour on six inches, might be completed by the end of December.

6. One of the Indian Government troopships or a British India steamer should then convey No. 1 Boat Party to the nearest port of call to Mowa (Maháwa) bay and creek, on the Káthiá-wár coast. The owners of the coasting steamers have asked for a large scale survey of this place, which should be carried out on six inches to the mile.

The weather in this neighbourhood during the months of January, February, and March is at its finest.

Time permitting, the same party might then undertake a survey of the anchorage inside Sálbet island. The interior of the country here is being developed by roads; in the course of time railways may be expected, and the Thákor of Bhávnagar, to whom the land belongs, is desirous to attract commerce to what is now an almost unknown port.

No. 1 Boat Party should return to Bombay, possibly being conveyed to that port early in May by the *Investigator*.

7. The plan of bringing the whole of the surveying parties together during the recess will, I feel convinced, be found well-judged, giving the officer in charge of the survey a better opportunity of marking progress, inclination and zeal.

BOMBAY,
30th April 1883.

(Signed) L. S. DAWSON, Commander, R.N.,
In charge of the Marine Survey of India.

No. 1321.

Referred to the Master Attendant for any remarks he may wish to make prior to the issue of orders to the Civil and Marine authorities.

13th July 1883.

(Signed) E. F. WEBSTER,
Acting Chief Secretary.

From J. H. TAYLOR, Esq., Lieut., R.N.R., Master Attendant, Madras, to the Acting Chief Secretary to Government, dated Madras, 19th July 1883, No. 7061.

Administrative Department.

In returning the programme of work laid down for the Indian Marine Survey Department for 1883-84, I have the honor respectfully to draw attention to the concluding paragraph of the work denoted for No. 2 Boat Party. This refers to a survey of Vizagapatam, for which work a large sum has already been allotted from Port Funds, the survey to be carried out under the direct orders of the Executive Engineer. It is evident that both cannot be required, and looking to the great advantages possessed by the Marine Survey Department in boats, instruments and appliances, which are not available locally, nor indeed in the Presidency, I would suggest that the order in the Public Works Department sanctioning the survey be cancelled.

2. A survey was made of Cochin Bar by Lieutenant Hammond in 1877, but the great changes that obtain continually among the sand banks and on the coast line render surveys of less value than in more settled regions, and the constant observation of Port Officer and Pilots supply their place.

3. Almost the only danger that requires attention and careful placing on the charts of this Presidency is the Sacramento shoal, south of Gordeware point, and somewhere off Bendamurlunka river.

No. 1404.

Referred to the Public Works Department with suggestion that the departmental survey of the Vizagapatam Harbour should be abandoned.

2. Early orders on the subject are requested by this Department.

(Signed) E. F. WEBSTER,
Acting Chief Secretary.

24th July 1883.

No. 244-E.

Under the circumstances explained in these papers, the survey of the Vizagapatam Harbour by the Public Works Department will be abandoned.

OOTACAMUND, (Signed) R. H. SANKEY, Major-General, R.E.,
25th July 1883. *Secy. to Govt., P.W.D.*

To the Marine Department, with papers returned.
" Superintending Engineer, First Circle.

ORDER—dated 27th July 1883, No. 393, Marine.

The programme of work for the Marine Survey Department will be communicated to the Master Attendant and to the district officials concerned.

2. The Government desire that every assistance be given to the officers carrying out the surveys.

(True Extract.)

C. Thiruvalluvar
Under Secy. P.W.D.
Acting Chief Secretary.

To the Master Attendant, Madras, with one enclosure.
" Collectors concerned.
" Public Works Department.
" Resident in Travancore and Cochin.

ENDORSEMENT—dated 27th July 1883, No. 394, Marine.

Copy to the Director of Indian Marine.

E. F. WEBSTER,
Acting Chief Secretary.

Exd. J. Wright.

No 2192 Way 9th Aug/83

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Govt. of (1883) Madra.

MARINE.

S.S.C.

Issued

Recd.

4/8/83

Encl.

G.O., &c., 27th July 1883,
Nos. 393, 394.

J.S.C.

JULY.

No 2192 Way 9-8-83

Indian Marine Survey Department.

Communicating to the Master Attendant and to
the district officials concerned the programme of
work for the — for the season 1883-84.

1 copy to only

With order

With order

Subd. in Receipt Register