27th W 17-10-87

No. 2026 C of 2-6-86

Copy of G.O. No. 1218 W. dated 13 May 1886 was forwarded to the Suptg. Engineer IV Circle with reference to para 3 of the Chief Engineers Note No. 840 C. dated 2/3/86 in view to the lights situated on the West Coast in the IV Circle being inspected by the S.E. in company with Port officers concerned

2. It is requested that notes of inspection may be submitted as early as practicable.

reminder on 31/5-1886

2/11/86

S.E. IV C

31.5.86

Mcle 4079

From

The Supg. Engineer,
Fourth circle.

No. 1218 W of 13-3-86
- 1053 - - 24-4-86
- 2490 - - 22-10-85
- 840/841 C - 2-3-86.

No. 2026 C of 2-6-86

Dated 27th }
Desp: 28th } May 1886.
Rw 29

No: 177
RW

Lighthouses:—

Enquiring whether G.O. No: 1218 W of 13th May 1886, approving Chief Engineer's proposals for improvements to certain — is intended for the Supg. Engineer 4th circle.

30th July 1885, Nos. 321, 322, Marine.

GOVERNMENT OF MADRAS.

MARINE DEPARTMENT.

Read—the following paper:—

From J. H. TAYLOR, Esq., Lieut., R.N.R., Master Attendant, Madras, to the Chief Secretary to Government, dated Madras, 16th July 1885, No. 5910.

Administrative department.

I have the honor to submit the accompanying report on the Madras Lights for the official year 1884-85.

Enclosures.

Report on the Lights of the Madras Presidency for the official year 1884-85.

During the year the efficiency of the different lights belonging to this presidency was maintained satisfactorily. No changes took place, and the only important measure to record is the regular inspection of the lighthouses by the Chief Engineer and the Master Attendant ordered by Government. They are periodically to visit the light-houses and report upon their condition. Such visits should be made as frequently as may be necessary with respect to the conditions affecting each light-house, but every one should be visited once at least in the course of the year. The first inspection was made by those officers in February and March last. The light-house buildings at Pulicat were badly damaged during the cyclone of 21st November, and those at Armeghon also sustained some injury. There are thirteen lights on the East, and seven on the West Coast, or twenty altogether. The strength of the establishments maintained for the whole number is as follow: four Superintendents on Rs. (70) seventy, three on Rs. (100) one hundred, and one on Rs. (125) one hundred and twenty-five monthly; and seventy-eight Assistant Superintendents and lightkeepers, whose salaries range at Rs. (21) twenty-one, (15) fifteen, (12) twelve, (11) eleven, (10) ten, (9) nine, (8) eight, (7) seven, and (6) six per mensem. The total expenditure on account of establishments and other charges amounted to Rupees (30,374-14-11) thirty thousand three hundred and seventy-four, Annas fourteen and Pies eleven, viz., establishments Rs. (16,830-6-6) sixteen thousand eight hundred and thirty, Annas six and Pies six, contingencies Rs. (11,672-4-10) eleven thousand six hundred and seventy-two, Annas four and Pies ten, and public works charges Rs. (1,872-3-7) one thousand eight hundred and seventy-two, Annas three and Pies seven. Kerosene oil is used by most of the lighthouses, and the others, four in number, burn cocoanut oil. The average annual cost of kerosine and cocoanut oil for each light was Rs. (118-12-6) one hundred and eighteen, Annas twelve and Pies six, and Rs. (1,286-8-8) one thousand two hundred and eighty-six, Annas eight and Pies eight, respectively.

LIST OF LIGHTS IN THE MADRAS PRESIDENCY.

Names of lights.	Location.	Position.						Color of lights.	Fixed, flashing, intermitting, alternating, or revolving.	Interval of revolution or flash.	Miles visible in clear weather.	Height in feet of centre of lantern above high water.	Height in feet of building from base to vane.	Arc of illumination (bearings are magnetic and from seaward).	Nature of construction, color, or any peculiarity of light-house.	Character and order of illuminating apparatus.	Year lighted.	Remarks.
		Latitude.			Longitude.													
		N. DEG.	M.	S.	E. DEG.	M.	S.				MILES.	FEET.	FEET.					
Gopálpur ..	On mainland, sixty yards from low-water mark.	19	13	0	84	52	0	White.	Fixed..	..	10	85	..	180°, or the whole sea horizon.	Flagstaff painted white.	Third-class, country-made.	1871.	Intended as a guide to vessels making the anchorage at night, and exhibited at the special requisition of Commanders of the British India Steam Navigation Company's mail steamers.
Calingapatam ..	On the point ..	18	19	0	84	7	30	Do. ..	Do. ..	..	8	68	73	..	Obelisk of cut-stone, column white, capital dark blue.	Do. ..	15th December 1876.	Intended to warn vessels off a small reef which projects from the point, and which should not be passed in less than eight fathoms when making the port at night.
Santopilly ..	On Santopilly hill, three-quarters of a mile inland.	18	4	56	83	37	35	Do. ..	Do. ..	..	14	169	31	180°, facing S.E.	On the roof of a house.	Dioptric, 4th order.	1st November 1849; improved 1871.	Exhibited to warn mariners off the Santopilly rocks, from which this light bears N.W. ⅝ W., distance 6½ miles.
Cocanada (Vakalapudi).	Four-and-three-quarter miles north of Cocanada river, 500 yards from the shore.	17	0	40	82	16	30	Do. ..	Revolving.	A flash every 10 seconds.	14	80	76	In every direction seaward.	White column..	Catoptric, 4th order.	15th January 1879.	This light is intended to lead vessels clear of the shoals to the northward of Point Godávari when coming into the Cocanada anchorage from the southward and eastward.
Coringa or Hope Island.	On the southern part of Hope Island and distant about two-and-a-half miles from the sea.	16	49	5	82	18	58	Do. ..	Fixed..	..	10 to 12	83	94	All round the compass.	Masonry tower horizontal alternate bands of black and white.	Country-made, with brass reflectors.	1817.	Intended to lead vessels clear of the rocks and shoals off Godávari Point.
Masulipatam ..	In the fort	16	9	15	81	9	25	Do. ..	Do. ..	..	6	69	112	180°	Flagstaff ..	Dioptric, 6th order.	1858; improved 1870.	As a guide for vessels to the anchorage.
Point Divi ..	Two miles N. W. of point.	15	58	55	81	9	25	Do. ..	Do. ..	..	14	48½	50	225°, or from north through west to south-west.	Masonry column white.	Dioptric, 4th order.	1st May 1851; improved 1870.	Is intended to point out the position of the danger.
Armeghon or Armogham.	Mainland, village of Moona or Moonapollium.	13	53	8	80	11	47	Do. ..	Flashing.	A flash every 20 seconds.	14	107	111	180°, or the whole sea horizon.	Do. ..	Do. ..	1st January 1853; improved 1881.	Warns vessels off the Armeghon shoal, the shoalest part of which (1¾ fathoms) lies six miles off shore.
Pulicat	Near the beach ..	13	25	15	80	19	6	Do. ..	Fixed..	..	14	68	57	180°, or the whole sea horizon.	Masonry column with black bands.	Do. ..	1859; altered 1881.	To guide vessels clear of the Pulicat shoal. When the light bears W. ½ N. a vessel is to the northward of all dangers.
Madras	On esplanade north of the fort.	13	5	11	80	16	51	Do. ..	Flashing.	Light has five faces, and every minute one face flashes towards the same spot, but three faces are presented seaward at one time.	20	128	125	310°, facing east.	Granite column.	Catadioptric ..	1st January 1844.	To guide vessels clear of the Pulicat shoal and into the roadstead. Mariners should not bring this light to southward of S.S.W. ½ W. to avoid Pulicat shoal.
Negapatam ..	On bastion	10	45	30	79	50	20	Do. ..	Fixed..	..	14	79½	83	180°, or the whole sea horizon.	Masonry column white.	Dioptric, 4th order.	1st August 1846; improved 1870.	As a guide for vessels to the anchorage.
Pamban Pass ..	On a sand hill about one mile east of northern channel.	9	17	14	79	12	38	Do. ..	Do. ..	..	14	97	72	All round the compass.	Circular masonry column.	Catadioptric, 4th order.	21st April 1846; improved 1860.	Is a guide to vessels making for the Pámban channel.
Tuticorin ..	North extreme of Hare Island or Paundiantivo, 2½ miles east of Tuticorin.	8	47	10	78	11	20	Do. ..	Do. ..	..	14	85	91	All round the compass.	Sandstone column, colored, brown, lantern white.	Do. ..	15th May 1845; improved 1874.	As a guide for vessels to the anchorage.
Muttum (Cadiapatam).	A rocky promontory known as "Muttum Point."	8	7	30	77	18	10	Do. ..	Do. ..	..	20	132	72	All round [illegible]	[illegible] grey granite column.	First order, dioptric.	1st January 1883.	This light, in the territory of Travancore, is intended to mark the vicinity of the Crocodile rock.

fixed. Whi

IV Circle

	Amount. RS.	A.	P.	Total. RS.	A.	P.
Cochin Light-house.						
One Assistant Superintendent	144	0	0			
Two Lascars	203	8	0			
Oil	127	8	0			
Stores	8	0	0			
Contingencies	9	1	4			
				492	1	4
Calicut Lighthouse.						
One Assistant Superintendent	120	0	0			
Three Lascars	276	0	0			
Stores	13	2	0			
Contingencies	20	2	5			
				429	4	5
Beypore Light.						
One Lightkeeper	120	0	0			
Oil	14	0	0			
Contingencies	2	1	0			
				136	1	0
Tellicherry Light.						
One Assistant Superintendent	120	0	0			
Two Lascars	180	0	0			
Oil	85	0	0			
Stores	18	4	0			
Contingencies	15	2	9			
				418	6	9
Cannanore Light-house.						
One Assistant Superintendent	120	0	0			
One Lascar	96	0	0			
Oil	136	0	0			
Stores	12	0	0			
Contingencies	17	4	1			
				381	4	0
Mangalore Light-house.						
One Assistant Superintendent	120	0	0			
Four Lascars	348	0	0			
Oil	13	0	0			
Stores	19	8	0			
Contingencies	24	2	11			
				664	10	11
Total				30,374	14	11

Order—dated 30th July 1885, No. 321, Marine.

Ordered to be forwarded to the Government of India.

(True Extract.)

E. F. WEBSTER,
Chief Secretary.

To the Master Attendant, Madras.

Endorsement—dated 30th July 1885, No. 322, Marine.

Copy forwarded to the Government of India, Department of Finance.

E. F. WEBSTER,
Chief Secretary.

Exd. J. Wright.

(True Copy)

Ag. Under Secretary

For the P.W.D.

Nos 474 E. 17. 8. 85.
312 & 313 A of 21. 7. 84 Marine

No 2026 W of 1st Septr/85

B

Communicated to the Supdg. Engrs concerned, for information.

25. 8. 85

+ R.K. wrote Noted

Supdg. Engrs I, II, IV, V & VI Circles
De 1/9

P.W.S. 93/8.

Mch 7/807

Govt. of (1885) Madras.

MARINE.

Issued

Recd. 27/8/85. Encl.

G.O., &c., 30th July 1885,
Nos. 321, 322.

No 2026 W of 1st Septr/85

JULY.

Light-houses.

Forwarding to the Government of India copy of a report by the Master Attendant on the Madras Lights for 1884-85.

With order

Notes of inspection by the Chief Engr. P.W. Dept. 22nd January to 8th Feby 1885

410 – D 21 Feby 85

4. Calicut Lighthouse. ~~Same as in 1884–85 report~~. In good order. The iron railings at top would be the better for a coat of paint. The pillar itself appears to have been painted over old plaster it should be scraped & painted white. An estimate has been prepared for enclosing the ground round the lighthouse now in a filthy state & open to thieves. This should be sanctioned & the well closed & a wretched little thatched building should be re-roofed with Calicut Tiles & then the surroundings of the lighthouse will be decent.
Est. for a lightning conductor which is entirely omitted is under preparation.

2. Tellicherry. In good order but wood work needs painting or tarring. On the West Coast all woodwork should be painted or tarred once a year. An Est. for a lightning conductor is under preparation, it can be led into an old well outside the compound. The peepul & banian trees growing in the pit wall in the immediate vicinity of the lighthouse should be destroyed.

?

3. Cannanore. In good order but the ladder needs attention & the rope used as a hand rail should be replaced by a stout iron rod

a lightning conductor should be attached to the flag staff which is close alongside the palace & made higher, & led down one of the wire stays & thence as subaqueous down to the sea -

1. Mangalore. The lighthouse is in good order & ~~needs~~ wants only ^bands white washing ~~like the buildings under West Coast~~ ~~Marine Department this once a year~~. The stone risers at foot of column need a little repair also. There is a lightning conductor of copper wire which it was decided should be led into a nullah at a little distance where the ground would be moist, Conductor Lemon who has been instructed in testing conductors, is to test this conductor & arrange for its proper earth connection. The lantern & lightroom is ^very well ~~carefully~~ kept & painted when necessary - 3 of the glasses of the lighthouse were cracked long ago it is said, but the cracks have been mended with strips of lead & do not interfere with the light -

Cochin The light house ^is in very good order & neatly kept - Lightning conductor has been tested & found deficient - an Estimate will be submitted for carrying the copper rod down into moist ~~sandy~~ ^soil & making a proper earth connection. The groynes on the coast immediately round the lighthouse have been very little damaged & sand has been accumulating between them - an Estimate will be prepared for making up the noses where necessary & the southernmost groyne which has been most knocked about, but no lengthening of the groynes should be allowed & they should be kept as nearly as possible all of one length from the shore line -

The landing steps & marine buildings ~~[illegible]~~ ^are also in good order, but the boat shed wants improvement, the posts which support it being apparently decayed in the ground -

x Cony Milapse Supp. - There seems ~~[illegible]~~ no reason for alarm with regard to the bund, a little of the revetment has subsided somewhat on the lagoon side & this is to be made ^with stone rubble spalls up. - Estimates are now being taken which will show ~~[illegible]~~ whether there has been any scour near the foot of ~~dam~~ bund & there the ballast stone which has been collected should be thrown in to protect the toe of the bund. The planting of screw pine & creepers has not been properly attended to by the watchman. It would be well to make some arrangement whereby all ballast brought by ships to the port can be bought & stored as a reserve at the bund.

x Muttam. The only 1st Class light on the coast besides Madras. The building was constructed in 1882 & is very solid & in excellent order. Every thing is well kept here, both the light room & apparatus ~~kept~~ ^are scrupulously clean. The lightning conductor is led into a hollow where the ground is kept moist, but it

3847/1

6th December 1888, No. 3847 W., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Account.

Read—the following paper:—

From Captain E. G. BARROW, Assistant Secretary to the Government of India, Marine Department, to the Secretary to the Government of Madras, Public Works Department, dated Fort William, 29th November 1888, No. 1297.

In reply to your letter No. 2802 W., of the 10th September 1888, I am directed to say, for the information of the Governor in Council, that the rules contained in Marine Department No. 10-S., of the 4th June 1877, are not applicable to the new ferry steamer required at Rajahmundry, as her cost is to be met from Canal and Ferry funds.

Order—dated 6th December 1888, No. 3847 W., Public Works.

Recorded, with reference to G.O., No. 2801 W., dated 10th September 1888.

(True Extract.)

Captain, R.E.,
Under-Secy. to Govt., P.W.D.

To the Superintending Engineer, I Circle.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.
" Revenue Department.

Exd. J. Moses.
Spare Copies

should be tested when there is an opportunity. The dwelling house is roofed with Mangalore tiles & the Supt. represented that in strong wind & rain water gets under the tiles. The position is so exposed to the burst of the S.W. monsoon that it will be difficult to prevent this unless some corrugated iron is placed under the tiles, but the S.E. side are ~~sheltered [illegible] with across~~ the ~~purpose~~ what can be done to prevent the leakage, it would seem that the slope of the roof is too flat for these tiles.

Tuticorin. Lighthouse on Hare Island. The Lighthouse is in excellent order, and the light good & well kept. The sandstone of which the column is built throughout has been slightly affected in places by the sea air, but, at present this is of no consequence: if the evil extends it may be necessary to plaster the column with Portland cement, but this will probably not be required for some years. The lightning conductor is said to have been tested some years ago, ~~but~~ when opportunity offers it should be tested again, the

island itself is so little above sea level that the conductor must be in moist soil. The buildings for the lighthouse attendants are small, but well kept & in good order, & seem to be all that is necessary.

Jetty. Some complaints have been made regarding the depth of water at the landing place & that the former lengthening of 250 feet is insufficient, but it ~~[illegible]~~ appears that boats still unload between the head of the jetty and the shore, and it is very seldom that boats drawing 4 feet cannot get up to the head at low water, while a further lengthening of 250 feet would only give 6" more water at the head. Under these circumstances it does not seem necessary to lengthen the jetty, it would however be a great convenience to traffic if it were widened & this could easily be done, doubling the width from the head to the shore, it would then be advisable to carry the tramway to the pier head & perhaps to lay down a double line of rails.

should be tested when there is an opportunity. The dwelling house is roofed with Mangalore tiles & the Supt. represented that in stormy wind & rain water gets under the tiles. The position is so exposed to the brunt of the S.W. monsoon that it will be difficult to prevent this unless ~~some~~ corrugated iron is placed under the tiles, but the S.E. side are ~~[illegible] [illegible] [illegible] [illegible] the~~ ~~purpose~~ what can be done to prevent the leakage, it would seem that the slope of the roof is too flat for these tiles.

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should be tested when there is an opportunity. The dwelling house is roofed with Mangalore tiles & the Supt. represented that in strong wind & rain water gets under the tiles. The position is so exposed to the brunt of the S.W. monsoon that it will be difficult to prevent this unless [illegible] corrugated iron is placed under the tiles, but the S.E. side can ~~whether painting will answer the purpose~~ what can be done to prevent the leakage, it would seem that the slope of the roof is too flat for these tiles.

Tuticorin. Lighthouse on Hare Island. The Lighthouse is in excellent order, and the light good & well kept. The sand stone of which the column is built throughout has been slightly affected in places by the sea air, but, at present this is of no consequence; if the evil extends it may be necessary to plaster the column with Portland cement, but this will probably not be required for some years. The lightning conductor is laid & has been tested some years ago, ~~but~~ when opportunity offers it should be tested again, the

island itself is so little above sea level that the conductor must be in moist soil. The buildings for the lighthouse attendants are small, but well kept & in good order, & seem to be all that is necessary

Jetty. Some complaints have been made regarding the depth of water at the landing place & that the former lengthening of 250 feet is insufficient, but it ~~[illegible]~~ appears that boats often ground between the head of the jetty and the shore, and it is very seldom that boats drawing 4 feet cannot get up to the pier head at low water, while a further lengthening of 250 feet would only give 6" more water at the head. Under these circumstances it does not seem necessary to lengthen the jetty, it would however be a great convenience to traffic if it were widened & this could easily be done, doubling the width from the head to the shore, it would then be advisable to carry the tramway to the pier head & perhaps to lay down a double line of rails.

Pamban. Lighthouse. The column appears to be sound & in good order but much discolored, it should be scraped & painted with white anti-corrosive paint. The Light, a 4th order dioptric light, does not compare favorably with other lights of the same class on the coast. For some unexplained reason the glass lantern is fixed on the level of the platform, without the iron light room which has been sent out & is in use in other places & it may be due to the light ~~being~~ passing so nearly below it a broad platform, painted white, that some of the light is absorbed, and it is very awkward for the man to attend on the light, as there is hardly head room for any one to stand up inside the lantern. It seemed doubtful also whether the flame of the lamp was immediately in the centre of the lenses & at Captain Taylor's suggestion it was lowered & this seemed to have a good result as on leaving the port at night we could easily discern the light at a distance of 12 to 14 miles by measuring our distance by the log line. I would however paint the platform a darker color which I understand can be done on the spot. If complaints of the light then continue, I would raise the lantern on a wooden octagonal light room about 3 feet high securely bolted down to the head of the column. This would not be very expensive and would be much lighter than the ordinary cast iron light room, which may have been omitted from there being some doubt of the fitness of the column to carry so heavy a weight.

The buildings at foot of the lighthouse are in good order.

The Pass itself is understood to be clear, but the shoal below has accumulated & dredging seems to be very necessary there. Nothing is known in this department about the reference made to the Secy. of State for a suitable dredger, and it may be that in the face of the proposal to cut a ship canal through the Rameswaram island, a dredger may be considered unnecessary. But in the proposed agreement between the Co. to be formed for cutting the canal & the Secy. of State it is specially provided that the Pamban Pass shall not be interfered with, & as the canal seem to be available for some years, even if country craft will ever use it, it seems very desirable that a dredger should be obtained as early as possible.

Speculation on the prospects of the canal seems unnecessary, but after examining the ground on the proposed line of the canal & studying the charts, the conclusion arrived at was that the canal itself with its immediate approaches is feasible if sufficient money is spent, but that the real difficulty will be found in the shoals lying between Point Calimere & the Island of Ceylon through which it seems almost impracticable to keep open a passage of sufficient depth to enable large vessels to navigate.

Point Calimere. The pillar at the point partly fell down some time since, and it looks as if the portion remaining were leaning over. ~~Considered necessary by the Marine authorities~~ It seems advisable, as it is supposed that a land mark here is necessary, to estimate for a tripod of iron screw piles here.

Negapatam. ~~The light~~ Lighthouse

The column seems to be in good order & does not require painting at present, but the lightroom, lantern & outside platform & rails is sadly in want of a coat of paint. It was stated that the building had been struck by lightning although provided with a lightning conductor & in proof of that 3 panes of glass a good deal cracked were shown, it is difficult to understand how this occurred though it seems possible that sudden very great heating of the metal frames might have caused expansion & cracked the glass, the discharge however must have been carried off by the conductor, as there is no trace of damage to the column.

The buildings at foot of the lighthouse are in need of repair. the masonry is being eaten away by the sea air. it should be thoroughly scraped & cleaned & then plastered with Portland Cement. nothing else will stand so near the sea.

Jetty. The jetty up to the landing steps has been repaired since it was damaged by the last storm but nothing has been done towards filling up the boat basin. An Est. should now be submitted for removing the concrete blocks with which the basin is lined & filling it with soil which may be procured from a large bank in the creek just above the basin opposite to the Railway premises. The estimate should also provide for building a fence wall to the creek similar to the one below the boat basin, so far as Govt. land extends, using the material taken from the basin as far as possible. Captain Taylor's proposal to extend this fence wall along the Railway premises seems a good one, but it is understood the Railway authorities object thereto. An officer having been placed at the disposal of the Negapatam municipality to draw up a scheme for water supply & drainage, it is hoped that his proposals will enable the vexed question of the discharge of the town drainage into the sea clear of the jetty may shortly be apparently settled. At present it must all flow down the ramps used for landing cargo, a very objectionable arrangement.

Madras: Lighthouse. The outside of the column, at all events near the top, requires pointing in places with Portland cement, and the inside of the well requires plaster renewed in places where it is crumbling away from the action of the sea air. The apertures which give light to the stairs are intended to be closed by glass windows during strong wind, but these windows are very much out of repair, glasses & sometimes frames broken & hooks rusted almost through. They should be properly repaired and finished with brass hooks & eyes. The iron supports to the handrail are in places a good deal corroded, they might be painted with advantage.

The lantern & light room are in good order & painted once a year. Lightning conductor is said to have been tested about a year ago.

The outside gallery at the top is dangerous owing to the parapet being only about 2 feet high. It should certainly be made safe

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x A.

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× H.

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