Public Works 9313.

~~Marine~~ (1896) Department.

G.O., No. 3001

DATED 22nd octr 1896

[Despatch Abstract.]

Light houses and lights: Endt from the Presy: Port officer forwarding a copy of report on ——— in the Bombay Presidency for 1895-96, Recorded

[M. 6. 1,000—13-10-96.]

T.C 22/10.

22/10

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

Public Works

Marine (189 6) Department.

CURRENT No. 9313

Order No. 3001 W dy 22nd October 1896.

Recorded.

21/10/96

From The Presidency Sott Officer Madras

No. 534/326 4

Dated 10 October 1896

Received 16.10.96

Enclosures one

Spare copies

SUBJECT.

Forwarding a copy of report on Lighthouses and Lights in the Bombay Presidency for 1895-96.

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

Heading

No. 534 / 326 G

Presidency Port Office,

Madras, 10th October 1896.

From

The Presidency Port Officer, Madras.

To

× Forwarded to the Secretary to Government, Public Works Department, with reference to G. O. Financial, No. 791 dated 11th October 1895.

I have,
Commander R. S. Ha
for Presidency Portofficer

× 1 Copy of Report on Lighthouses and other Lights in the Bombay Presidency for 1895-96.

ANNUAL REPORT

ON THE

LIGHT-HOUSES, LIGHTS, &c.,

IN THE

BOMBAY PRESIDENCY

FOR THE

YEAR 1895-96.

REPORT

ON THE

LIGHT-HOUSES, LIGHTS, &c.,

UNDER THE CONTROL

OF THE

BOMBAY PORT TRUST.

Name of Light.	Location.	Latitude N.	Longitude E.	Nature of Construction, Colour, or any peculiarity of Light-house.	Colour of Light.	Fixed, Flashing, Intermitting, Alternating or Revolving.	Interval of Revolution or Flash or Occultation.	Miles visible in clear Weather.	Arc of Illumination (Bearings are Magnetic and from Seaward).
Prongs Light-house.	Near extreme of reef extending southward from Colába.	18° 53′	72° 48′	Circular masonry tower with white red, white and black bands.	White...	Flashing.	Ten seconds.	18	All round the horizon ...
Kennery Light-house.	On the highest part of the Kennery Island.	18° 42′	72° 48′	Octagonal masonry tower on centre of a flat roofed house.	White with red sector.	Fixed ...	.....	19	From N. 25° W., through North, East, and South to S. 20° W.
Sunk Rock Light-house.	On the rock ...	18° 53′	72° 50′	Circular masonry tower painted black.	Red and white.	Occulting.	Five seconds	14	From S. 7° W., through West and North, to N. 69° E. *White* between S. 7° W. and S. 30° W. *Red* from S. 30° W., through West, to N. 15° E. *White* from N. 15° E. to N. 31° E., and *Red* from N. 31° E. to N. 69° E.
Dolphin Rock Light-house.	Ditto ...	18° 55′	72° 50′	Grey masonry tower with white dome.	Green and white.	Fixed ...	.....	3	*Green* from North to West, *White* from West to S. 56° W. and *Green* from S. 56° W. to S. 34° E.
Light Vessel "Bombay."	In 6½ fathoms, 4½ miles S. 22° W. from Colába point.	18° 49′	72° 47′	Light vessel, painted red, by day shows a red ball at mast head.	Red ...	Revolving.	Twenty seconds.	10	.....

PORT OFFICE,
Bombay, 1*st April* 1896.

Character and order of Illuminating Apparatus.	Height of Lantern above High Water, (in feet).	For what period of the year exhibited.	Year in which first exhibited.	Additions, Alterations, Improvements or Repairs executed since last Annual Report.	Additions, Alterations, Improvements or Repairs considered necessary during current year.	Annual Cost of Maintenance.			State of Lightning Conductor.	Remarks.
						Establishments.	Stores.	Total.		
						Rs.	Rs.	Rs.		
D. 1st order.	136	All round.	1874 ...	Repairs estimated to cost Rs. 800.	Repairs estimated to cost Rs. 100.	6,488	3,239	9,727	Satisfactory.	Electric Telegraph to Bombay.
C. D. 1st order.	153	Do. ...	1867 ...	Repairs estimated to cost Rs. 650.	Repairs estimated to cost Rs. 600.	5,493	4,439	9,932	Do. ...	A red ray is visible from seaward from North to N. 25° W. A flagstaff with yards 200 feet high stands N. E. by N. from the light tower. Electric Telegraph to Bombay *vid* Alibág.
D. 3rd order.	64	Do. ...	1884 ...	Repairs estimated to cost Rs. 500.	Repairs estimated to cost Rs. 500.	3,071	2,089	5,160	Do. ...	The eclipses are from one to two seconds.
D. 5th order.	31	Do. ...	1856; altered, 1878.	Repairs estimated to cost Rs. 300.	Proposed to be re-built at an estimated cost of Rs. 50,000	480	800	1,280	None ...	The *White* light indicates the anchorage for the English Mail Steamers at night.
C. ...	36	Do. ...	1842 ...	Repairs estimated to cost Rs. 1,500.	Repairs estimated to cost Rs. 1,500.	8,902	6,939	15,841	Do. ...	A *blue* light is burnt every half hour from 1st June to 30th September, and from 1st October to 31st May, a *blue* light is burnt every hour and a torch every half hour. In day light a *red* flag is hoisted when a vessel is seen.

(Signed) MAURICE BEAN, Commander, R. I. M.,
Port Officer, Bombay.

REPORT

ON THE

LIGHT-HOUSES, LIGHTS, &c.

UNDER THE CONTROL

OF THE

POLITICAL RESIDENT, ADEN.

ADEN.

Name of Light.	Location.	Latitude N.	Longitude E.	Nature of Construction, Colour, or any peculiarity of Light-house.	Colour of Light.	Fixed, Flashing, Intermitting, Alternating or Revolving.	Interval of Revolution or Flash or Occultation.	Miles visible in clear Weather.	Arc of Illumination (Bearings are Magnetic and from Seaward).
Aden Cape ...	On Ras Marshag S. E. part of Cape.	12° 45′	45° 03′	Dark Grey Stone...	White...	F. ...	.....	20	All round the horizon ...
Aden Light Vessel	South side of Channel, inner harbour, moored in 18 feet of water.	12° 47′	44° 58′	Light Vessel painted red.	White...	Fl. ...	One minute.	10	Ditto ..
Morbat Shoal Light Vessel, Aden.	On the edge of Morbat Shoal in 22 feet of water 2¾ cables S. 27° W. from Aden Light Vessel.	12° 47′	44° 58′	Light Vessel painted red. By day shows a red ball at mast head.	Red ...	F. ..	.....	8	Ditto ...

ADEN,
25th April 1896.

Character and order of Illuminating Apparatus.	Height of Lantern above High Water, (in feet).	For what period of the year exhibited.	Year in which first exhibited.	Additions, Alterations, Improvements or Repairs executed since the last Annual Report.	Additions, Alterations, Improvements or Repairs considered necessary during the current year.	Annual Cost of Maintenance.			State of Lightning Conductor.	Remarks.
						Establishments.	Stores.	Total.		
						Rs.	Rs.	Rs.		
D. 1st order.	244 ...	Whole year.	1867	Nil	.....	2,244	1,082	3,326	Good ...	.....
C.	39 ...	Do. ...	1850, altered 1889.	Do.	.....	2,244	1,503	3,747	None ...	Fires a gun upon a vessel entering at night. By day the depth of water is hoisted.
D.	20 (lower light).	Do. ...	1895	Do.	.....	432	204	636	None ...	Vertical 8 feet apart. Inner harbour buoys. On the starboard side shows red lights and port side green lights.

H. B. SIMPSON, Commander, R.I.M.,
Port Officer, Aden.

PERIM.

Name of Light.	Location.	Latitude N.	Longitude E.	Nature of Construction, Colour, or any peculiarity of Light-house.	Colour of Light.	Fixed, Flashing, Intermitting, Alternating or Revolving.	Interval of Revolution or Flash or Occultation.	Miles visible in clear Weather.	Arc of Illumination (Bearings are Magnetic and from Seaward).
High Light, Perim.	On the summit 1,100 yards S. W. of Obstruction Point.	12° 39′	43° 25′	Dark blue stone ...	White...	Revolving.	One minute...	22	All round the horizon...
Obstruction Point, Perim.	On Obstruction Point.	12° 39′	43° 26′	Grey octagonal stone tower.	White...	Occulting.	Ten seconds *i. e.*, light, seven seconds, eclipse, one second, light, one second, eclipse, one second.	14	From North 42° W. through West to S. 26° E.

ADEN,
2nd May 1896.

Character and order of Illuminating Apparatus.	Height of Lantern above High Water, (in feet).	For what period of the year exhibited.	Year in which first exhibited.	Additions, Alterations, Improvements or Repairs executed since the last Annual Report.	Additions, Alterations, Improvements or Repairs considered necessary during the current year.	Annual Cost of Maintenance.			State of Lightning Conductor.	Remarks.
						Establishments.	Stores.	Total.		
						Rs.	Rs.	Rs.		
C. D. 1st order.	249 ..	Whole year.	1861, altered 1871.	Nil	.....	3,444	2,646	6,210	Good ...	Eclipses not total within 15 miles.
D. 4th order.	85 ...	Do. ...	1885	Do.	.....		120		Do. ...	The light appears dim about the bearing of limits of visibility; a bearing of the light is therefore a necessary precaution.

H. B. SIMPSON, Commander, R.I.M.,
Officer in Charge Perim Lights, Aden.

SOMALI COAST.

REPORT

ON THE

LIGHT-HOUSES, LIGHTS, &c.,

UNDER THE CONTROL

OF THE

KARACHI PORT TRUST.

ANNUAL REPORT of LIGHT-HOUSES, LIGHTS, &c., under the control of the Karachi Port Trust for the year ending 31st March 1896.

Name of Light.	Location.	Latitude N.	Longitude E.	Nature of Construction, Colour, or any peculiarity of Light-house.	Colour of Light.	Fixed, Flashing, Intermitting, Alternating or Revolving.	Interval of Revolution or Flash or Occultation.	Miles visible in clear Weather.	Arc of Illumination (Bearings are Magnetic and from Seaward).	Character and order of Illuminating Apparatus.	Height of Lantern above High Water, (in feet).	For what period of the year exhibited.	Year in which first exhibited.	Additions, Alterations, Improvements or Repairs executed since last Annual Report.	Additions, Alterations, Improvements or Repairs considered necessary during current year.	Annual Cost of Maintenance.			State of Lightning Conductor.	Remarks.
																Establishments.	Stores.	Total.		
																Rs.	Rs.	Rs.		
1) Karachi ...	Near Saint Paul's Church on Manora Point, west side of Entrance, 16 yards to the northward.	24° 47′ 37″	66° 58′ 36″	Round tower built of drab coloured stone, seaward half white, washed and 91 feet in height from ground to top of coping.	White...	Fixed ...	Nil ...	20	Visible seaward with full brilliancy from N. 56° W. to S. 56° E; landward semicircle partially screened by a Dioptric Mirror.	D. 1st Order.	148	Throughout the year.	1849; improved 1877; altered 1889.	Ordinary repairs costing Rs. 259.	Ordinary repairs necessary.	3,186	2,438	5,624	Good ...	During S. W. Monsoon visible from 10 to 15 miles only. Candle power = 10,000.
(2) Breakwater Light.	At the extreme end of the Breakwater.	24° 47′ 23″	66° 59′ 6″	Run out from top of cliff to beacon at end of breakwater (from whence it is exhibited) by means of an endless wire rope supported by masts at intervals.	Red ...	Fixed ...	Nil ...	5	.....	All round anchor pattern of ship's light 125 m/m.	54½	Do. ...	Improved 1890.	Nil	Nil	The light is worked by the Light-house Establishment.	45	45	Do. ...	During the S. W. Monsoon visible at least 2½ miles.

PORT OFFICER'S OFFICE,
Manora, 29th April 1896.

E. R. SHOPLAND, Commander, R. I. M.,
Port Officer, Karachi.

REPORT

ON THE

LIGHT-HOUSES, LIGHTS, &CA.,

UNDER THE CONTROL OF THE

SALT DEPARTMENT.

B 660

Letter from the COLLECTOR of Salt Revenue, Bombay, No. 2727, dated the 27th June 1896.

2. With the addition of the new light, exhibited at Gogha from the 1st April 1895, the total number of coast and harbour lights in charge of this Department was twenty-three, of which eight are in the Northern and fifteen in the Southern Division.

3. The mast of the Dandi light which had been in a precarious condition since 1892 fell in the course of the last monsoon, but fortunately sustained no damage. It was re-erected on a site further inland, and the light was exhibited from the new position from the 17th February 1895. Quarters for the establishment were put up at the same time.

4. During the fair season the Assistant Collector in charge Coast Guard Service was, in addition to his ordinary duties, occupied in completing the new lights at Lohara, and at Nanaoli (Rájpuri) and Jáfarabad for the Janjira State. He was, therefore, unable during the year under report to undertake the putting up of the new lights at Jaigad and Harnai, sanctioned by Government in their Resolution, in the Revenue Department, No. 1862 of the 12th March 1894. The inner and outer lights at Jaigad were, however, undertaken in the early part of April and completed by the end of May last, and the light at Harnai will be put up immediately after the rains.

5. The new quarters for the establishment at Tádri and Bhatkal, which were in course of construction by the Public Works Department last year, were completed and handed over to this Department during the year under report.

6. All the light-houses have repeatedly been visited and inspected during the year under report by the Sarkárkuns, Coast Guard Inspectors and Assistant Collectors. They have been efficiently maintained throughout the year, and the conduct of the establishment has on the whole been satisfactory. No complaints have been received regarding any of the lights from masters of vessels or others.

Name of Light.	Location.	Latitude N.	Longitude E.	Nature of Construction, Colour, or any peculiarity of Light-house.	Colour of Light.	Fixed, Flashing Intermitting, Alternating or Revolving.	Interval of Revolution or Flash or Occultation.	Miles visible in clear Weather.	Arc of Illumination (Bearings are Magnetic and from Seaward).
Bulsár	At the mouth of the Auranga River (Southern side).	20° 37′ 15″	72° 32′ 35″	Wooden staff with service cabin at the base, *White*.	White .	Fixed ...	Nil ...	9 to 10	180° E.
Tápti	At the mouth of the Tápti River, North side.	21° 5′ 0″	72° 37′ 0″	Stone masonry column, white, Plateglass lantern House.	Do. ...	Do. ...	Do. ...	18	South, through eastward North to 8° W. 250°.
Bhagwa Dándi ...	On a sand mound S. W. by W ¾ W from Dandi Village.	21° 19′ 20″	72° 35′ 0″	Wooden staff with iron travellers, *White*.	Do. ...	Do. ...	Do. ...	10	S½ W., through East and North, to N½ W., 213° 45′ 0″.
Piram	On the island of Piram near Gogo. 3 miles from the main land.	21° 35′ 30″	92° 20′ 0″	Stone masonry column with black balcony and plate glass lantern House, *White*.	Do. ...	Do. ...	Do. ...	18	N. E. by N½ N., through North and West, to S. E½ E. 288°.
Lohara	At the entrance of the Narbada River, Gulf of Cambay.	21° 39′ 0″	72° 30′ 0″	Trellis work iron structure.	Red ...	Do. ...	Do. ...	8	S. E., through East and North to N. W. (202° 30′ 0″).
Deojagan ...	On the north bank at the entrance of the Dhadhur river, Gulf of Cambay.	21° 55′ 0″	72° 30′ 0″	Brick masonry column, *White*.	White .	Do. ...	Do. ...	12	South, through East and North to N. 67 W. 248°.
Gogo	On the southern side of the town of Gogo.	21° 40′ 43″	92° 15′ 38″	Trellis work iron structure.	Do. ...	Do. ...	Do. ...	10	N. W., through West and South to S. S. E. 247° 30′ 0″.
Dholera	Western shore of the Gulf of Cambay. 2 miles from Chilkhari or Whittle Bandar.	22° 13′ 0″	72° 13′ 33″	Wooden structure with platform at the top for the lantern.	Do. ...	Do. ...	Do. ..	12	E¼ N., through North and West, to S. S. E. 270.
Anjanvel Green Light.	Northernmost point of the Anjanvel Fort.	17° 34′ 0″	73° 0′ 0″	Teakwood post with iron bracket for lantern to rest on.	Green .	Do. ...	Do. ...	5	Seaward from N 15° W., through East, to S. 17° E.
Dábhol Red Light.	West end of the Dábhol Bandar.	17° 35′ 0″	73° 0′ 0″	Do. do. ..	Red ...	Do. ...	Do. ...	4	Ditto
Tolkeshwar Light House.	On Tolkeshvar Point, south side of entrance	17° 34′ 0″	73° 0′ 0″	An iron column with house at base painted white.	White .	Do. ...	Do. ...	15	Seaward from N. 15° W., through North and East, to S. 30° E.
Ratnágiri Light House.	On the western-most point of the south and the highest bastion of the Fort.	16° 59′ 0″	73° 0′ 0″	White masonry tower.	Do. ...	Do. ...	Do. ...	15	From N. 17° W., through North and East to S. 30° W.
Jaitápur Light House.	On the edge of the cliff at the south point of Bay.	16° 36′ 0″	73° 0′ 0″	Do. do. ...	Do. ...	Do. ...	Do. ...	9	S. 30° W., through south and east, to N. 15° W.
Ilvan Floating Light.	South-east of rock at the entrance.	16° 0′ 0″	73° 0′ 0″	A small native craft fitted as light vessel.	Red ...	Floating	Do. ...	4	Ditto.
Ilvan Green-shore Light.	On the beach, 230 yards north of a white stone cross Mehindi harbour	16° 0′ 0″	73° 0′ 0″	White mast. ...	Green .	Fixed	Do. ...	2	One quadrant between S. 67° E. and North 22° E.
Vengorla Rock Light House.	On the north-west extreme S. E. Rock.	15° 52′ 0″	73° 0′ 0″	White masonry tower on square building.	White .	Do. ...	Do. ...	16	From S 15° W., through East to North 70° W.

Character and order of Illuminating Apparatus.	Height of Lantern above High Water (in feet).	For what period of the year exhibited.	Year in which first exhibited.	Additions, Alterations, Improvements or Repairs executed since last Annual Report.	Additions, Alterations, Improvements or Repairs considered necessary during current year.	Annual Cost of Maintenance. Establishments.	Stores.	Total.	State of Lightning Conductor.	Remarks.
						Rs. a. p.	Rs. a. p.	Rs. a. p.		
6th order Dioptric, two flat wicks kerosine.	About 58	9 monthly 1st September to 31st May.	1883 ...	Nil	Nil	474 10 0	78 11 3	553 5 3	No lightning conductors attached.	
4th order Dioptric, 2 round wicks, Douglas burner heavy mineral oil	91	Throughout the year.	1867 ...	Nil	Half new platform boards in the light room.	584 4 0	60 11 0	644 15 0	In good order.	
6th order Dioptric, 2 flat wicks, Kerosine.	About 36	9 monthly, 1st September to 31st May.	1886 ...	The mast refixed and light keepers' quarters rebuilt at a total cost of Rs. 2,269-10-4.	Hedging round the compound and service cabin at the base.	408 2 7	89 12 0	497 14 7	No lightning conductors attached.	
4th order Dioptric, 2 round wicks, Douglas burner, heavy mineral oil.	115	Throughout the year.	1865 ...	New Douglas burner fitted.	New tracing straps on the outside of the lantern house.	936 14 11	57 10 0	994 8 11	In good order.	
6th order Dioptric, one round wick, kerosine.	About 30 feet.	9 monthly 1st September to 31st May.	1887 ...	Red light substituted and iron structure built.	Nil	269 9 5	82 6 5	351 15 10	No lightning conductors attached.	
6th order Dioptric, kerosine two flat wicks.	40½	Do. ...	1889 ...	Nil	Nil	451 9 5	111 9 3	563 2 8	In good order.	
6th order Dioptric, one round wick, kerosine.	25	All the year round.	1st April 1895.	Nil	Nil	402 0 0	101 7 9	503 7 9	No lightning conductors attached.	
5th order Dioptric, 2 flat wicks, kerosine.	44	9 monthly, 1st September to 31st May.	8th January 1888.	Nil	Nil	615 0 0	107 0 6	722 0 6	Do.	
Ordinary lantern, country made.	36	9 months. 16th September to 15th June.	1889 ...	Nil	Nil	The establishment sanctioned for the red light looks to the work of this light.	147 11 0	147 11 0	Do.	
Do. ...	24	Do. ...	1889 ...	Nil	Nil	567 6 7	88 1 0 333 13 0	989 4 7	Do. Good	
Dioptric 5th order.	333	Throughout the year.	1880 ...	Nil	Nil					
6th order Dioptric.	320	Do. ...	1867 ...	A new wooden flag staff has been put up, the old one having become rotten.	Nil	502 12 0	243 8 0	746 4 0	No lightning conductors.	
Do. ...	75	Do. ...	1873 ...	Nil	Nil	596 15 6	540 14 0	1,137 13 6	Do.	
Lantern ...	28	9 months from 16th September to 15th June.	1878 ...	Nil	Nil	324 0 0	66 11 0	390 11 0	Do.	
Do. ...	20	Do. ...	1878 ...	Nil	Nil	.....	74 12 0	74 12 0	Do.	
4th order Dioptric.	132	Throughout the year.	1890 ...	Ladder and landing stage put up.	Nil	1,675 12 2	660 0 2	2,335 12 4	Good.	

Name of Light.	Location.	Latitude N.	Longitude E.	Nature of Construction, Colour, or any peculiarity of Light-house.	Colour of Light.	Fixed Flashing Intermitting, Alternating or Revolving.	Interval of Revolution or Flash or Occultation.	Miles visible in clear Weather.	Arc of illumination (Bearings are Magnetic and from Seaward).
urla Port ight House.	On Vengurla point, 1 mile west of the town.	15° 51′ 0″	73° 0′ 0″	Mast above roof of a white masonry house. Two vertical lights, one 20 feet above the other.	White...	Fixed ...	Nil ...	9	180° from S. 18° E., through E. to N. 18° W.
ster Rock Light.	On the summit of the Oyster Rocks.	14° 49′ 25″	74° 2′ 50″	Circular masonry tower painted white.	Do. ...	Do....	Do. ...	20	135° seaward also visible, rest of the circle landward.
ey Light ...	Port Office, Kárwár.	14° 48′ 20″	74° 6′ 20″	Flag staff. ...	Red ...	Do....	Do. .	3	In every direction seaward.
Light ...	On the summit of a hill to the north of the entrance of the Tádri River.	14° 31′ 0″	74° 29′ 0″	Wooden mast ...	White .	Do. ...	Do. ...	8	In every direction seaward, through N. to N. by W½ W.
Light ...	On the head land forming the north horn of the Bay.	14½°	74½°	Bright fixed light hoisted and lowered by a small chain leading through an iron tabular mast.	Do. ...	Do. ...	Do. ...	12	270° of Horizon.
ar Light ...	On the south bank of the Honávar creek near the fish-curing yard.	.....	.....	Wooden mast. ...	Do. ...	Do. ...	Do. ...	6	In every direction, seaward.
l Light ...	On the summit of the Hill which form the northern boundary of the Bay.	13° 58′ 0″	74° 31″ 0″	Do. do. ...	Do. ...	Do. ...	Do. ...	8	Ditto.

Character and order of Illuminating Apparatus.	Height of Lantern above High Water, (in feet).	For what period of the year exhibited.	Year in which first exhibited.	Additions, Alterations, Improvements or Repairs executed since last Annual Report.	Additions, Alterations, Improvements or Repairs considered necessary during current year.	Annual Cost of Maintenance. Establishments.	Stores.	Total.	State of Lightning Conductor.	Remarks.
						Rs. a. p.	Rs. a. p.	Rs. a. p.		
6th order Dioptric.	Upper 371 Lower 350	Throughout the year.	1869 ...	Nil	Nil	503 14 11	307 9 8	811 8 7	No lightning conductors.	
1st order Dioptric.	138	Do. ...	1864 ...	Nil	Nil	3,166 0 0	1,379 11 0	4,545 11 0	Good.	
Red Lantern.	65	Do. ...	1864 ...	Nil	Nil	156 0 0	169 0 0	325 0 0	Good.	
Ships mast head light.	120	For 9 months, 16th September to 15th June.	27th January 1891.	Nil	Nil	263 0 0	168 14 6	431 14 6	Good.	
5th order Dioptrict.	116	Throughout the year.	1888 ...	Nil	Nil	532 9 2	165 5 10	697 15 0	Good.	
Ships mast head light.	23	For 9 months, from 16th September to 15th June.	1891 ...	The light has been removed from the north to the south side of the Honáwar Creek.	Nil	264 0 0	61 14 6	325 14 6	Good.	
Do. ...	120	Do. ...	1890 ...	Nil	Nil	264 0 0	39 2 0	303 2 0	Good.	

Bombay, 27th June 1896.

J. L. JENKINS,
Acting Collector of Salt Revenue.

B 660—2

REPORT

ON THE

LIGHT-HOUSES, LIGHTS, &c.

UNDER THE CONTROL

OF THE

POLITICAL DEPARTMENT.

BARODA POLITICAL AGENCY:

ANNUAL information as regards Light Houses

Name of Light.	Location.	Latitude N.	Longitude E.	Nature of Construction, Colour, or any peculiarity of Light-house.	Colour of Light.	Fixed, Flashing, Intermitting, Alternating or Revolving.	Interval of Revolution or Flash or Occultation.	Miles visible in clear Weather.	Arc of Illumination (Bearings are Magnetic and from Seaward).
Dwarka Point ...	On cliff West of Town and 117 yards within high water line.	22° 14′	68° 57′	Circular white stone tower.	White ...	Fixed ...	.....	12 miles.	Arc of illumination 180° bearings seaward from N. 33°W. through North and East to S. 33°E.
Samiani (Beyt Harbour).	On the highest and nearly central part of Samiani Island entrance to Harbour.	22° 29′	69° 04′	Circular white stone tower.	White with red sectors.	Fixed ...	.....	12 miles.	Arc of illumination 360° bearings seaward from N. 53° E. through East, South and West to N. 8° E. A red sector visible between the bearings of S. 37½° W. and S. 67½° W. is shown over the Chinri reef. A red sector is also shown over the Paga sand bank lying to S. E. of Chinri reef between the bearings of S. 80° W. and N. 69° W.
Madhwad Point near Div Head (Baroda State).	On a high rock near the Velan creek.	20° 41′	70° 50′	Tower is built of lime stone and masonry and is hexagonal in form. Including the plinth, the height is 22 feet. The light is 5 feet above the top.	White ...	Revolving.	10 seconds.	14 miles.	Every direction seaward...

BARODA,
4th July 1896.

in Baroda Territory for the year 1895-96.

Character and order of Illuminating Apparatus.	Height of Lantern above High Water, (in feet).	For what period of the year exhibited.	Year in which first exhibited.	Additions, Alterations, Improvements or Repairs executed since the last Annual Report.	Additions, Alterations, Improvements or Repairs considered necessary during the current year.	Annual Cost of Maintenance.			State of Lightning Conductor.	Remarks.
						Establishments.	Stores.	Total.		
						Rs. a. p.	Rs. a. p. oil, &c.	Rs. a. p.		
C. D. 4th order.	70	Whole year.	1866 ...	A few petty repairs.	.....	232 8 0	277 3 1	509 11 1	Conductor not provided. *	Maintained at the cost of His Highness the Gaekwar. Cost of petty repair Rs. 3-13-5.
D. 4th order.	71	Whole year.	1876 ...	Tower and out-houses repaired and new curtain provided.	.....	360 0 0	280 1 0	640 1 0	Conductor not provided. *	Maintained at the cost of His Highness the Gaekwar. Cost of repairing tower and out-houses Rs. 111-14-9.
D. 5th order.	106	Whole year.	1882 ...	Except some petty repairs no additions or alterations were made since.	None	523 14 5	253 14 9	777 13 2	Good ...	Erected at the cost of His Highness the Gaekwar of Baroda.

* The Baroda Darbar have been addressed in view to lightning conductors being provided, as soon as possible, for the Light Houses at Dwarka and Samiani.

N. C. MARTELLI, Lieut.-Colonel,
Agent to the Governor General at Baroda.

KAIRA POLITICAL AGENCY.

REPORT on the Cambay Light Boat

Name of Light.	Location.	Latitude N.	Longitude E.	Nature of Construction, Colour, or any peculiarity of Light-house.	Colour of Light.	Fixed, Flashing, Intermitting, Alternating or Revolving.	Interval of Revolution or Flash or Occultation.	Miles visible in clear Weather.	Arc of Illumination (Bearings are Magnetic and from Seaward).
1	2	3	4	5	6	7	8	9	10
Cambay light boat.	Situated at the mouth of the creek.	22° 17′ 20″	72° 38′ 50″	There is no light-house at Cambay, but the light is exhibited from a light boat specially built for the purpose.	White...	Fixed.....	.....	8 miles...	All round the horizon ...

Kaira, 15th April 1896.

for the year ending 31st March 1896.

Character and order of Illuminating Apparatus.	Height of Lantern above High Water, (in feet).	For what period of the year exhibited.	Year in which first exhibited.	Additions, Alterations, Improvements or Repairs executed since the last Annual Report.	Additions, Alterations, Improvements or Repairs considered necessary during the current year.	Annual Cost of Maintenance.			State of Lightning Conductor.	Remarks.
						Establishments.	Stores.	Total.		
11	12	13	14	15	16	17	18	19	20	21
It is a simple large kerosine oil lamp attached to the mast head of the light boat.	25 feet ...	From 1st October to 15th of June.	1885	Ordinary repairs were made.	Petty repairs such as oiling or painting the boat may be necessary.	Rs. a. p. 156 0 0	Rs. a. p. 50 0 0	Rs. a. p. 206 0 0	The light has no conductor.	

H. W. J. BAGNELL,
Collector and Political Agent, Kaira.

KOLABA POLITICAL AGENCY.

Report by the State Karbhari, Janjira, No. 31, dated 8th March 1896.

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2. The work of improving the light in accordance with the suggestions of Mr. Douglas was completed under the supervision of Mr. McCann, the Assistant Collector of Salt Revenue, in the month of April last. Since then the building and the lighting apparatus continued to be in perfect order and the light was maintained in an efficient manner.

3. The light was regularly exhibited from the white masonry tower throughout the whole year and no complaints as to its range of visibility were received from any quarter. 183 gallons of heavy mineral oil of 250° test were consumed on the exhibition of the light.

4. It was found that the services of two subordinate light-keepers were inadequate to keep the new machinery in order and to do other duties relating to it. The services of one additional subordinate light-keeper were therefore entertained and thus there were 1 head light-keeper and 3 subordinate light-keepers working during the whole of the year. All of them were in good health.

5. The light-house was inspected by Mr. Hayne, Inspector, Coast Guard Service, in the months of May, October and December last, and reported to have been in good order.

Name of Light.	Location.	Latitude N.	Longitude E.	Nature of Construction, Colour, or any peculiarity of Light-house.	Colour of Light.	Fixed, Flashing, Intermitting, Alternating or Revolving.	Interval of Revolution or Flash or Occultation.	Miles visible in clear Weather.	Arc of Illumination (Bearings are Magnetic and from Seaward).
Rajpuri point ...	Near the village of Nanowli on a rock point near extreme.	18° 17′	72° 56′	Masonry tower painted white.	White...	Flashing...	Ten seconds 'Light' and 5 seconds 'Dark.'	18	From S. 35° W., through South and East, to N. 4° W.

Murud Janjira, April 8th, 1896.

Character and order of Illuminating Apparatus.	Height of Lantern above High Water, (in feet).	For what period of the year exhibited.	Year in which first exhibited.	Additions, Alterations, Improvements or Repairs executed since the last Annual Report.	Additions, Alterations, Improvements or Repairs considered necessary during current year.	Annual Cost of Maintenance.			State of Lightning Conductor.	Remarks.
						Establishments.	Stores.	Total.		
						Rs. a. p.	Rs. a. p.	Rs. a. p.		
Dioptric 4th order.	179	Throughout the whole year.	1884	The old fixed light has been altered to occulting from the 7th April 1895 with intervals of 10 seconds 'Light' and 5 seconds 'Dark.'	Nil	409 4 3	569 5 4	978 9 7	In good order.	

SHALOM BAPUJI,
State Karbhari, Janjira.

KUTCH POLITICAL AGENCY.

KATHIAWAR POLITICAL AGENCY.

Name of Light.	Location.	Latitude N.	Longitude E.	Nature of Construction, Colour, or any peculiarity of Light-house.	Colour of Light.	Fixed, Flashing, Intermitting, Alternating or Revolving.	Interval of Revolution or Flash or Occultation.	Miles visible in clear Weather.	Arc of Illumination (Bearings are Magnetic and from Seaward).	Character and order of Illuminating Apparatus.	Height of Lantern above High Water, (in feet).	For what period of the year exhibited.	Year in which first exhibited.	Additions, Alterations, Improvements or Repairs executed since the last Annual Report.	Additions, Alterations, Improvements or Repairs considered necessary during the current year.	Annual Cost of Maintenance. Establishments.	Annual Cost of Maintenance. Stores.	Annual Cost of Maintenance. Total.	State of Lightning Conductor.	Remarks.
				Halar Prant.												Rs. a. p.	Rs. a. p.	Rs. a. p.		
Rojhi ...	Rojhi Island ...	22° 33′	70° 01′	Black Tower round...	White...	Fixed ..	.....	7	From S. 59° E. to S. 59° W.	3 Common kerosine lamps.	42 ..	All the year round.	1867	Nil	It is proposed to place 6th order Dioptric port light.	111 0 0	87 4 11	198 4 11	Good order...	Erected by His Highness the Jam Saheb of Navanagar.
Karambhar...	On the Karambhar Island in the Salaya Creek	22° 26′	69° 35′	Small square Masonry tower painted white.	Do. ...	Do. ..	... ..	10	From S. 59° W. through South and East to N. 18° W.	2 Common kerosine lamps.	36 ...	Do. ...	1884	Do.	Do. do. ...	210 0 0	50 6 6	260 6 6	Do. ...	
				Sorath Prant.																
Porbandar ...	Sea face of town.,	21° 38′	69° 36′	Round Bastion Stone Tower.	Do. ...	Do. ...	.....	15	Seaward from N. 49° W. to South 49° E.	Dioptric 4th order.	90 ...	Do. ...	1876 ..... 1887.	Do.	Nil	361 7 9	665 15 10	1,027 7 1	Good ...	
Navibandar,.	Do. do. ...	21° 26′	69° 47′	Square lantern in Town wall, white.	Do. ...	Do. ...	.....	5	180 from N. 48 W. through N. to S. 48 E.	Anchor light lens Duplex lamp for mineral oil.	60 ...	15th September to 15th June.	1896	.....	.....	.....	.....	.....	No lightning conductor.	For the direction of coasting craft only. Established 5th February 1896.
Mangrol ...	On a bungalow situated opposite the anchorage.	21° 06′	70° 06′	On a top of a square house with wooden roof having a dark appearance.	Do. ...	Do. ...	.....	4	N. W. to S. E.... ...	A country lantern containing 5 burners burning kerosine oil.	75 ..	All the year round.	1877	.....	.....	72 0 0	44 6 3	116 6 3	Do. ...	
Verawal ...	On the Verawal Wharf.	20° 54′	70° 22′	White octangular building with two outside gallaries in the form of a plain Tower, and painted green and red.	Do. ...	Do. ...	.....	10 or 12	141 seaward, made up as under 35 from the S. to the E. 106 from the S. to the W. as already ascertained.	Dioptric 4th order.	56 ...	Do. ...	1865	.....	Arrangements have been made to make some petty repairs in the lantern and to replace 2 broken glasses.	240 0 0	135 8 0	375 8 0	Good ...	
Jafrabad ...	On the promontory at the entrance to the Port of Jafrabad.	20° 52′	71° 23′	The light is fixed at the top of the building painted white. The building has two stories. The first square and the 2nd round.	Do. ...	Flashing..	Single flash every 20 seconds and a complete Revolution of the apparatus in every 2 minutes.	16	360° visible all round the compass.	Do. ...	85 ...	Do. ...	1876 ..... 1895.	Fixed hand rails for the balconies on both the stories of the building. The building was also white washed.	Nil	348 7 1	628 0 5	976 7 6	Do. ..	
				Gohelvad Prant.																
Mahuva ... (Kutpur.)	Mainland ..	21° 02′	71° 49′	Masonry standing on a prominent cliff. The armature being placed on a terrace over the Keeper's residence.	Do. ...	Fixed ..	.....	13·2 English miles.	360°	Catoptric sideral 3rd order.	99 ..	Do. ...	1871	Ordinary repairs were executed.	Do.	366 0 0	224 0 0	590 0 0	The lightning conductor was tested in June 1895 and was found to be in good order.	
Gopnath ...	Mainland on a Hillock 240 yards in shore of Gopnath point.	21° 12′	72° 06′	Lime stone masonry tower.	Do. ...	Do. ...	.....	6	180°	Cato Dioptric 6th order.	67′ 7″...	Do. ...	1879	Do. ...	Do.	252 0 0	240 0 0	492 0 0	Do. ...	
Bhavnagar ...	Mainland ...	21° 47′	72° 14′	An iron cabin 12 feet square & 10 feet high to the cave on iron screw piles through the roof of which rises a wrought iron taper mast 40 feet high to centre of light all painted white.	Do. ...	Do. ...	.....	8	360°	Dioptric sideral 5th order.	43′ 6″...	Do. ...	1891	Do. ...	Do.	411 0 0	120 0 0	531 0 0	No lightning conductor.	

KATHIAWAR POLITICAL AGENCY,
Rajkot, 26th August 1896.

C. W. H. SEALY, Lieut.-Colonel,
Acting Political Agent.

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