

(1) Number of pages _____

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MADRAS RECORD OFFICE.**Government of Madras.***Public works* **DEPARTMENT.**

G.O. No. 1915	Press
265-266	Mis.
Dated 12-8-	1872.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
12th August 1872.*

No. 205. Read the following letter from G. ROBERTSON, Esq Harbour Engineer for India, to the Secretary to Government, Public Works Department, dated Bombay, 15th July 1872 —

WITH reference to yours of July 3rd, with enclosures, regarding the proposed light for Point Godavery, I have to reply that one reason why I suggested a floating light in preference to a fixed lighthouse on piles was a doubt as to the safety of any structure on soft ground at the mouth of a river subject to violent floods, the piles at the same time exposed to the action of breakers. When at home last year I received some information as to the behaviour of piled structures in such a position, which induced me to recommend a floating light for the mouth of the Godavery. Having no information to the contrary I had to take for granted that, where deltas are being so rapidly formed by alluvial deposit brought down by the river, the bottom, for at least a considerable depth, must be of a soft nature. If a hard, firm spot can be found in a suitable position, of course this objection to a piled structure will be removed.

2. I have no plan of Cocanada Bay with me; but, from recollection, I think that any new light should be placed at more than five miles from Hope Island light, and should be in much more than six feet of water. At the rate at which the deltas are forming, a lighthouse in such a position would in a few years be inland and surrounded by a swampy jungle. It is a point greatly in favour of a floating light that it can be shifted as the delta increases, so as always to be in the best position for the navigation. A floating light can be moored quite clear of the extreme point of Point Godavery as easily as at any other place, and be kept free from the misty exhalations which rise from the swamps.

3. If properly moored, with patent spring moorings, the risk of a ship drifting is not great; and even should the ship drift into Cocanada bay, it would receive little harm, as that bay is so covered with soft mud that a vessel would run little risk in going ashore.

4. For these reasons I much prefer a floating light for the site in question; but as the cost of maintenance is greater for a floating light than a fixed one, it would be advisable for Government to have estimates prepared of the cost of both. In deciding on which kind to adopt it will be well for Government to bear in mind that, in the case of a fixed light, its position, though the best that can be chosen now, will each year deteriorate from the increase of the delta. On the other hand, a floating light, though at first cheaper, will undoubtedly require renewal, after a length of time, depending on the age and character of the vessel employed.

5. In a question of such importance as a light for navigation, it appears to me however that the best possible position for the light is of more real importance than the expense of maintaining it. At Point Godavery the best position for a light can only be obtained by shifting the light as the delta increases.

No. 206. ORDER THEREON, 12th August 1872, No. 1,915.

CIVIL WORKS, No. 14.

UNDER the exceptional circumstances in which a light is required to be shown off the entrance of Cocanada

*Proceedings of the Madras Government, Public Works Department,
12th August 1872.*

Bay, the eastern spit of which is an alluvial deposit extending gradually to the north and east, the Governor in Council concurs with Mr. Robertson that it will be the wiser policy to incur the heavier annual expense of a floating light than to construct another permanent lighthouse, which like that on Hope Island will in the course of years be comparatively valueless.

2. Provision for a light ship and apparatus and their maintenance will accordingly be made in the Marine Department Budget of 1873-74, and steps will be taken in that department to fix the exact position in which it should be moored at first; and as the survey of Cocanada Bay made in 1857 requires revision, further steps should be taken in that department to secure the services of a Marine Surveyor for that purpose, the agency at command of the Public Works Department not being adapted for such work.

(True Extract.)

Colonel, R.E.,

Secretary to Government.

To the Acting Superintending Engineer, 1st Division.
,, Marine Department.

" G. Robertson Esq.

Exd. E C. Shunker.

34
Bombay

July 15/72

From

G. Robertson, M. Inst. C.E.

Harbour Engineer for India.

To

Col. Walker R.E.

Secy to Govt of Madras

P. W. Department.

Sir,

- (1) With reference to yours of July 2nd, with enclosures regarding the proposed light for Point Godavery, I have to reply, that one reason why I suggested a floating light in preference to a fixed lighthouse on piers, was a doubt as to the safety of any structure on soft ground at the mouth of a river subject to violent floods; the piers at the same time exposed to the action of breakers - When at home last year I

received some information as to the
behaviour of piled structures in such
a position which induced me
to recommend a floating light
for the mouth of the Godavary.

Having no information to the
contrary I had to take for granted
that, where deltas are being so
rapidly formed by alluvial deposit
brought down by the river, the
bottom, for at least a considerable
depth, must be of a soft nature.

If a hard, firm, spot can
be found ~~can be found~~ in a
suitable position, of course this
objection to a piled structure
will be removed.

(2) I have no plan of Coconada
Bay with me, but, from recollection,
I think that any new light
should be placed at more
than five miles from Hope
Island light, and should be
in much more than six feet
of water - At least the water

at which the deltas are forming
a lighthouse in such a position
would in a few years be inland,
and surrounded by a swampy
jungle. It is a point greatly in
favour of a floating light that it
can be shifted as the delta increases,
so as always to be in the best
position for the navigation.

A floating light can be moored
quite clear of the extreme point
of Point Godavary as easily as
at any other place, and be kept
quite free from the misty exhal-
ations which rise from the swamps.

(3) If properly moored, with patent
spring moorings, the risk of a ship
drifting is not great; and, even
should the ship drift into Coconada
Bay, it would receive little harm,
as that bay is so covered with soft
mud that a vessel would run
little risk in going ashore.

(4) For these reasons I much prefer a
floating light for the site in question;

but, as the cost of maintenance is greater for a floating light than a fixed one, it would be advisable for Govt. to have estimates prepared of the cost of both. In deciding in which kind to adopt it will be well for Govt. to bear in mind that, in the case of a fixed light its position, though the best that can be chosen now, will each year deteriorate from the increase of the delta — On the other hand, a floating light, though at first cheaper, will undoubtedly require renewal, after a ^{length of} time depending on the age and character of the vessel employed.

- (5) In a question of such importance as a light for navigation it appears to me, however, that the best possible position for the light is of more real importance than the expense of maintaining it. At Point Godavary the ^{best} position for a light ^{can}

12
only be obtained by ^{shifting} moving the light as the delta increases.

I have the honor to be
Sir

Yours most obdt. Servt.

H. P. Roberts.

will be the wiser

Sept 15 1891

Under the

exceptional circumstances

in which a light is

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off the entrance of

Canada Bay, the

eastern spit of which

is an alluvial deposit

extending gradually

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the Governor in Council

concerns with a Mr

Robertson that it

will be the wisest

Lo!

Pr

AA

From
of Robertson Esq.
Barboursburg

Noted is the
Recd of 3rd Sept 1891
Informing the (Hick)

Attending his
reasons for suggest-
ing an floating
light for the mouth
of the Fox River
or Lake Island

Sept 15 12 Sept 12

Sept 30

policy to incur the
heavier annual ex-
-pense of a floating
Light, than to con-
-struct another per-
-manent Light house
which like that on
Hope Island will in
the course of years be
comparatively valueless.

Provision for a
Light ship, and
apparatus, and their
maintenance, will
accordingly be made
in the Marine Dept^{to}

Budget of 1873/74.

and

and steps will be
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to fix the exact
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Survey of Coanada
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requires revision, further
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a Marine Surveyor
for that purpose, the
Agency at command
of the Public Works
Dept^{to} not being adapted
for such work.

S. Engr 1st Div

Marine Dept^{to}, Dec 12/72.
By Robert H. [unclear]

G.W.W.

Ch 3825

Govt. of Madras.

PUBLIC WORKS.

To Mr. Superintending Eng-
g^r (Civil)

Dated

Recd.

Encl

G. O. 12th Aug 1879, No. 1915

NO. 205 + 206

Floating light - Passengore
on the letter from Mr. G. P. P. P.
Kasham Engineer, stating his
reasons for suggesting a floating
light for the mouth of Godavari
or Hope Island.