

MADRAS RECORD OFFICE.

Government of Madras.

Marine DEPARTMENT.

G.O. No. 242.

Press
~~Mis.~~

Dated 26. 7. 1861.

Not to be folded or roughly handled

Proceedings of the Madras Government, Marine Department,
26th July 1861.

No. 39. Read the following letter from J. J. FRANKLIN, Esq., Superintendent of Marine ; to T. PYCROFT, Esq., Chief Secretary to Government, Fort Saint George, dated 17th July 1861, No. 2,047.

I have the honor to forward for the consideration of Government a very interesting report from Captain Castor, Master Attendant at Cochin, of the formation of a mud bank about five miles to the north of that port, which like the one existing at Alipee has the effect of breaking the force of the ocean swell even in the height of the monsoon, and on which vessels can anchor during the worst season of the year, as far as is now known, in perfect safety.

2. It seems strange that a place like this should have existed for so many years at such a short distance from the much frequented port of Cochin without having been known to the local authorities or the local shipping community, but the testimony of Captain Castor, who is an exceedingly intelligent Officer, is conclusive as to the absence of all surf or even of any ripple on the beach during his several visits to the spot in the south west monsoon when a heavy sea was breaking on each side to the north and to the south of it.

3. Mr. Grant, the Collector of Malabar, recommends that a scientific Naval Officer should be at once sent to examine the mud bank whilst the monsoon is at its height, as he would then have the opportunity of ascertaining its value as a landing port under the most trying circumstances. This point is a matter of the utmost importance in connexion with the landing and shipment of mails and passengers during that season of the year when the Malabar Coast is generally closed to navigation. I think however that Captain Castor is fully competent to conduct this inquiry, and as he resides within a few miles of the spot I would suggest that I be permitted to instruct him to proceed there at the public expense on the occasion of any unusually heavy weather during the present monsoon, and report on the state of the sea in the roadstead as well as on the shore. The coast has already been surveyed and the bank laid down. All that we require now to ascertain is whether during the strong monsoon breezes the sea remains smooth enough for vessels to lie in safety and for communication to be kept up with the shore. Captain Castor, as a thorough sailor and with his local knowledge, is well qualified to furnish a trustworthy report on the matter.

4. Should the report herein contemplated prove Narrakal to be a fit place for anchorage during the south west monsoon, I will then address Government as to the means which it may be advisable to adopt to indicate the most favorable position for vessels to occupy.

From JOHN CASTOR, Esq., Master Attendant at Cochin ; to P. GRANT, Esq., Collector of Malabar, Calicut, dated 6th July 1861, No. 201.

I have the honor to bring to your notice some interesting particulars with reference to a place on the coast situate about five miles to the north of British Cochin, and in the Cochin Rajah's territory.

2. Considering how few places there are on this part of the coast capable of affording shelter to vessels in distress, during the prevalence of the S.W. monsoon, it is no unimportant matter to the toiling Mariner to know that on this unsheltered coast there is a mud-flat, within sight of this port, where, though exposed to the winds blowing from one half of the compass, he could ride with perfect safety under all circumstances, refit, discharge and load, when this harbour is shut to him.

3. In order to appreciate the necessity of such a place of safety, one has only to run his eye over the chart of this coast, to be instructed how little nature has done in forming places of refuge capable of receiving any class of vessels at all times.

4. Though rumour of a vague nature had previously reached me, in respect to the existence of the mud-flat above alluded to, my attention was particularly drawn to it by a recent occurrence.

5. A vessel in these roads, being unable to maintain her communication with the shore, owing to a heavy sea on the bar, her Commander after a personal visit to the place, proceeded with the vessel to the mud-flat, with a view of testing its capabilities, and it was while she was there, discharging her cargo, that I paid my first visit to the locality.

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6. On my arriving at the spot, and witnessing the quiescent state of the sea, without a murmur, without a ripple, I could scarcely realize the fact that I was standing on the shores of the Indian ocean in the height of the S.W. monsoon.

7. From the notes taken, and observations made during several visits, I beg to submit the following report of the place. From so short an examination, extending over a few hours on each visit, this report cannot be expected to be so complete as I could wish.

8. The mud-flat commences half a mile south of a village called Narrakal, which is situated about five miles from the port of Cochin, and extends northward along the coast, to about four miles, but the greatest stillness and the total absence of surf on the beach prevail between a village called Nairambolom and Narrakal, the former being about 1½ mile north of the latter. The extent of land which separates the sea from the back-water is about half a mile.

9. The beach opposite to Narrakal is sandy to the margin of the water, but the soft mud begins immediately from this line to seaward; but the shore abreast of Nairambolom is formed of an extensive mud bank (an unusual feature of a sea beach) running in shore about 200 yards from the sea, and very inconvenient for landing or embarking, as the boats have to be dragged through the mud.

10. The stratum on the shore fronting the mud-flat abreast of Narrakal is composed of a crust of sand to several feet deep, then it is slightly mixed with mud; but off Nairambolom, there seem to be two strata, superposing each other; the lower stratum being mud several feet deep, and the upper, sand intermixed with mud. On the flat itself, the stratum is composed wholly of mud.

11. On all occasions that I visited the locality, I embarked from the beach, and put out to sea in a small canoe, for the purpose of taking soundings. The depths on this flat are regular and gradual, with very soft bottom, and offering no resistance to a 7 lb lead which penetrated in some parts to three feet, in depths of six, to ten feet water; and from the lead barely intimating its contact with the bottom, it required very close attention to obtain accurate soundings. A bamboo penetrated 6 feet into the mud, in a depth of 6 feet water. Beyond a depth of 16 feet, however, the nature of the bottom attains greater consistency, and appears good holding ground.

12. At a distance of about three miles from shore, the depth I obtained was from 5 to 5½ fathoms; and this depth gradually shoals as the shore is approached, but the decrease is so slow as to be imperceptible till a considerable distance has been traversed.

13. At the depth of five fathoms, an easy motion was experienced, but as the swell advances towards the shore, it subsides and entirely disappears, in a calm day, in 18 feet; not even exhausting itself in the smallest ripple on the beach. It was remarkable that while on the contiguous parts of the coast, a most turbulent sea was breaking, so that no boats dared venture out, here, the fishermen pursued their daily occupations in perfect safety, as if upon a lake.

14. It is further worthy of observation, that the long rolling ocean swell, driven by a furious monsoon, and breaking with such percussive power hard by, should lose itself and imperceptibly disappear as it approaches the flat. Various are the causes assigned to this phenomenon, but it would be undesirable to discuss the point here.

15. As sea beaches are in a constant state of change, and ruin, and are governed by laws of nature which materially disturb them; I spared no pains in making diligent and searching enquiries of fishermen, and respectable natives of villages before alluded to, as to how long the sea has ceased from breaking on the beach, and the deposits of mud had existed.

16. Some of my informants, who were old residents of the place bore testimony as to their remembrance of the existence of the mud-flat since their boyhood. Others again dated its appearance from a later period, some from 20, and some 30 years; but all agree as to the stillness of the sea, and the absence of breakers, in all weathers, and winds from all quarters. I may further add that the only thing they alleged to have observed was that the sea advanced and receded occasionally; and in some places to the north of this flat, considerable ground had been left permanently uncovered and where Coconut plantations are now thriving. But this action of nature is visible in other places.

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17. Such are the leading features of this mud-flat, as they have presented themselves to me. I must state, however, that my observations were hitherto made in moderate weather, excepting so far as the sea was concerned, having invariably selected a day when the sea was high at Cochin and the adjacent coast. It remains therefore to view the place during the prevalence of heavy winds, and to keep it under observation throughout the monsoon.

18. In the south west monsoon, when communication with Cochin is rendered difficult or impracticable; or, on the approach of bad weather when it is desirable that vessels should leave the port, this mud-flat would be found a place of great security and convenience; and uninterrupted communication could be maintained with it by land, or backwater, at a run of an hour and a half from Cochin.

19. Although the vessels at anchor here will be exposed to the full force of the monsoon, they will ride smooth and safe; and should they by any misfortune be driven on shore, no injury can be sustained by Ships getting on a soft mud bank, where there is no sea or surf; and they can easily be floated off again. The gales which visit Cochin are not so severe as those which blow higher up the coast or in the Bay of Bengal.

20. I have refrained, for the present, from giving any directions by which vessels could take up a good berth on the flat, in bad weather. My attention hitherto was more confined to the soundings, and the nature of the ground, than to any bearings of objects by which vessels can safely run in and anchor. The Cochin flagstaff before being struck, is clearly visible from the flat and will afford a good guide by day; and its light which is also visible, will be of great service to vessels wishing to avail themselves of the place in the south west monsoon.

21. The frequent setting in of the monsoon before the completion of the Shipping operations of the season, compels the Merchants to send their vessels to the neighbouring port of Alleppee, a distance of thirty miles, to complete their cargoes, which are conveyed there by backwater at great expense and inconvenience to the shipper. For the vexatious detentions at the different backwater Chowkies, and the duties payable to both Native Governments, are sources of great hardship. These difficulties will now to a great extent be modified and Narrakal resorted to instead of Alleppee, for such purposes.

22. As there are no prominent objects by which the place could be distinguished, I would respectfully suggest that a masonry pillar, or obelisk, be erected on the beach, on a spot hereafter to be fixed, as a guide for the anchorage, and a flag displayed from a staff to be fixed on the column. As the Cochin Circar will derive much benefit from vessels resorting to the place, the question by whom the cost of erection will have to be borne, will be a matter for consideration by higher authority.

23. When by the completion of the Railway from coast to coast, Madras will be brought within a few hours of Beypore, I trust, it will not be thought foreign to my present province, to offer a few remarks on the advantages arising, from the Malabar coast being made the point of arrival and departure of the Overland Mail Steamers.

24. It has been said that Beypore could be used for 8 or 9 months in the year, and that in the height of the south west monsoon the communication with the shore is neither open nor practicable; on this account the landing of Mails and passengers on this coast is objected to.

25. The supposed difficulties against this coast being fixed as the next point of land to be made from the Arabian shore, will be removed when the fact is known, that at such periods when Beypore is shut, there is another point involving but a trifling divergence from their course,* where the Steamers can touch with perfect safety, and effect their purpose.

26. I cannot speak from any personal knowledge of the port of Beypore. But if it could be made use of, for three-fourths of the year, as it is stated in official papers, Narrakal might be availed of for the remaining period, as it possesses the advantage of a ship-building port in close proximity, offering every convenience and facility in case of need.

27. This arrangement will be open to the objection that it will create a detention of twenty-four hours, in reaching the Railway Station at Shooranoor, (distance about 50 miles) by back-

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water. This detention would in a great measure be balanced by that now incurred at Galle.

* Mails and Passengers could land at Narrakal at all hours of the night.

When Steamers do not reach that port before dark,* they remain out all night, and are exposed to a heavy sea in the south west monsoon, while here, they would be able to run into smooth water and anchor for the night, and the danger of going in and out of Galle harbour be avoided.

28. It will be observed, that I have assumed twenty-four hours as the probable detention of meeting the Railway at Shooranoor, when Beypore is not used; but this period might be very considerably reduced by improved backwater communication.

29. It now remains to be shewn, what advantages will be gained by adopting a direct line in preference to the circuitous route round Ceylon. The distance from Aden to Madras, is at all times, 2,700 miles; but from Madras to Aden, in the south west monsoon, (I assume that the Mail boats adopt the route through the one and half degree channel) is 3,000 miles, and this distance, I believe, is performed for four months in the year, or from the beginning of May to the end of August.

30. The distance from Aden to Beypore is, at all times, 1,830 miles; and Beypore to Aden in the south west monsoon is 2,000 miles.

31. The distance then, that would be saved by the Suez Steamers touching at Beypore, instead of adopting the Ceylon route, would be 870 geographical miles, or four days actual steaming, at an average rate of 9 knots per hour, with some allowance, of course, as the monsoons may be prevailing.

32. The overland transit by rail is next to be considered. I presume this will occupy 24 hours, and if the present detention at Galle, which varies according to circumstances, is taken into account, the Mails will reach Madras $3\frac{1}{2}$ to 4 days earlier than at present.

33. The result in the south west monsoon in the case of the outgoing Steamer, would be still more favorable. The distance saved would be 1,000 miles, or nearly $4\frac{1}{2}$ days steaming.

34. There will, of course, be a subsidiary Steamer at Madras to take on the Mails and passengers to Calcutta.

35. If the saving of 3 or 4 days in receiving intelligence from England is of such unquestionable importance to the Government and the Public, it is not without corresponding advantage to the P. and O. Company, as carriers, as the following rough estimate will shew.

36. The present number of Steamers on the Calcutta line, annually, is 48. The saving in the difference between the present and the proposed route, in round numbers would be

48 trips, saving 4 days on each trip, or 192 days at 35 tons Coal
per day at 30 Rupees Rupees 201,600

At the above very moderate computation, the result shews an annual saving in coal alone of upwards of 20,000 £ to the P. & O. Company, to say nothing of other minor items of expenditure which amount to a considerable sum in the aggregate, and this too by avoiding the inconveniences of the present route, and lessening the wear and tear of their vessels.

37. With respect to the Ceylon Mails, brought by the Overland Steamers, there can be no difficulty in arranging for their transmission from Beypore by the Bombay Steamers proceeding twice a month to China touching at Galle. At all events such an arrangement can be attended with no obstacle sufficiently cogent to necessitate the abandonment of so important an advantage as the saving of about 4 days in the conveyance of the Mails from England to India.

38. Again, an argument may possibly be raised against the proposed route, on the ground that Ceylon will lose the advantage of receiving her Mails near Colombo, and as early as now. The same objection would equally apply to a proposal recently made to give up Galle and land the mails at Trincomallee. All material inconvenience could, I conceive, be avoided by sending the mails from Beypore direct to Colombo in a small Steamer.

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39. It would be needless at present to enter into the minor arrangements, which will become necessary by the adoption of the course proposed, as they might be conveniently left to be discussed hereafter. I may however mention that, in my opinion, the alteration under notice will be attended with little or no expense to the State, beyond perhaps a small floating light vessel, a good wharf, and a few boats adapted for the work, involving a sum altogether insignificant when the hastening of the Mails is considered.

40. There can be no doubt that the advantage will be immense to the Government and the Public who are deeply interested in the establishment of speedier communication with England; while to the P. and O. Company, will accrue a substantial saving of fuel, and other items of expense, and not least, the lessening of the danger and risk of a long and circuitous route, and this at a juncture when they are unexpectedly called upon to enter into a formidable competition with a new Company, of a foreign nation, subsidized by their Government.

41. Although the question as to the expediency of the change herein advocated must of course be fully discussed by those who are more capable of judging in the case, it may not be out of place to observe, that as far as the route between the Malabar and Arabian coasts, and the practicability of landing the Mails throughout the year on this coast, affect the question, I believe there is not the slightest obstacle or difficulty.

42. I beg you will be pleased to submit this report to the Superintendent of Marine, for eventual submission to Government, if that Officer deems it desirable.

No. 40. ORDER THEREON, 26th July 1861, No. 242.

His Excellency the Governor in Council has attentively perused Captain Castor's very interesting letter to the Collector of Malabar, on the subject of the mud bank, similar to that off Alipee, discovered five miles to the north of Cochin, and considers it of great importance that an observation should be made as to the state of the sea at that spot in very boisterous weather during the present monsoon on that coast. The Superintendent of Marine will instruct Captain Castor accordingly. His expenses, while so employed, will be reimbursed to him.

2. A copy of these Proceedings will be forwarded to the Resident of Travancore and Cochin.

(Signed) J. D. SIM,
Secretary to Government.

Marine. 5

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Read letter from
the Inf. Col. of

Marine — Inter 17 July '61-

N^o. 2047.

Order. 26th July 1861 N^o. 242.

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„ Collector of Malabar.

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sep. 27th 1843

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Pres. of the Madrid
Government.