

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No. 2020

Press
MIS

Dated 13-12-1870

Not to be folded or roughly handled

*Proceedings of the Madras Government, Revenue Department,
13th December 1870.*

No. 272. Read the following Proceedings of the Board of Revenue, dated 7th December 1870 :—

Read the following letter from the Officiating Collector of Vizagapatam, to the Acting Secretary to the Board of Revenue, dated Vizianagram, 23rd November 1870, No. 889.

I HAVE the honour to submit a report on the damage caused by the cyclone 4th instant.

2. Vizagapatam, with Waltair, experienced the greatest force of the hurricane already reported by the Acting Principal Assistant. In both these stations, the water part of the thatched houses were blown down; most of the tiled houses tumbled more or less; three-fourths of trees in avenues and in the compounds of houses were torn up. The Municipality of Vizagapatam sustained loss, in damage to roads and buildings, to the extent of some 10,000 Rupees. The Cutcherry and Court were injured, and the temporary jail and the lines of the 2nd Native Infantry almost levelled with the ground.

The cyclone was accompanied by an unusually high tide, and considerable damage to roads and houses was caused by the consequent inundation. Out of sixty-three Masula boats, only thirty were found next morning to be sea-worthy.

Bimlipatam.—The storm was not so violent, and the loss was consequently less than at Vizagapatam. Many huts were blown down, and boats destroyed.

Vizianagram.—In this station, the storm was not so violent as at Vizagapatam. Some trees and thatched houses were thrown down. Most natives, with whom I have spoken, consider that the force of the wind was greater than in the cyclone which occurred at this station in September 1867.

2. In the sub-division, considerable damage was done to houses and trees, particularly to the avenue along the trunk road at Pudimadaka. The town was inundated by an unusually high tide, and much damage done.

In Palconda more than 1,000 trees were destroyed.

Two bridges were carried away on the roads between Rayagadda and Cudipeta. The wind does not seem to have been very violent in this part of the district.

3. I enclose copy of an original report on the cyclone, kindly furnished by V. Nursing Row; also reports from the Master/Attendants at Vizagapatam and Bimlipatam, together with an extract from the Log of a French ship which was on the Vizagapatam roads when the cyclone commenced, and had to put out to sea for safety.

4. From reports that have reached me, it seems that the storm was worst at Vizagapatam, and decreased in violence north and east of that station. It was hardly felt twenty miles inland from Vizianagram, nor along the coast north of Conada.

5. *Salt Works.*—At Karasa, the thatching of the heaps was blown off, and the salt heaps injured by the rain. The Superintendent's office and the Constables' lines were injured, and the Commercial shed blown down. Similar loss occurred at Bimlipatam and Balacheruvu. Less damage was sustained at Kuppili and Pentacotta.

The Salt Deputy-Collector informs me that there is no fear of any deficiency of salt in the district, and promises to report more fully after personal inspection.

6. I have not heard of any loss of life, except that already reported as having occurred at Vizagapatam.

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ENCLOSURE No. 1.

From Captain J. H. GRAVES, Master Attendant, to the Collector of Vizagapatam, dated Bimlipatam, 5th November 1870.

I HAVE the honour to inform you that this Port was visited by a severe cyclone during the night, lasting 11 P.M. till 7 A.M. this day. Much damages have been done to the boats along the sea-shore and the boatmen's village on the backwater has been swept away. great many boats have been smashed up, leaving only twelve fit for service.

2. The flag-staff is all right, with the exception of the iron fustock-band which has been carried away; one door of the Signaller's bungalow has been broken, and two or three of the veranda pillars slightly injured. The new Master Attendant's office, in course of erection, is slightly damaged. The storm was severe, but the rain-fall was under 1 inch.

3. The direction of the wind and readings of the Aneroid Barometer were—

	Barometer.
November 4th—Wind 8 P.M., N., fresh gale...	29-71
11 P.M. N.N.-E., strong gale...	29-44
Midnight N.-E., strong gale and squally...	29-40
November 5th—2 A.M. E.N.-E., heavy at its heaviest...	29-32
3 A.M. E., storm moderating...	29-25
5 A.M. E.S.-E., fresh gale...	29-35
7 A.M. S.-E., fresh gale...	29-65
10 A.M. S.S.-E., fresh gale...	29-78

You being on circuit, I have forwarded the copy of this direct to the Master Attendant Madras.

ENCLOSURE No. 2.

From A. V. NURSING ROW, to the Meteorological Reporter to the Government of Bengal, Calcutta, dated Vizagapatam, 6th November 1870.

We had a violent cyclonic storm on the night of the 4th instant, between 11 P.M. and 6 A.M. of the following morning.

2. Suspicion of storm arose at 2-30 P.M. of the 4th, when my observer reported a fall of 142. The last observation of the barometer was 29-658. The space of time between the observations being two hours, and as we have been able to judge within what space of time that fall has taken place, we have been obliged to wait, with close watch, for another change up to 9 P.M. The column has been all along 29 without variation, north-west wind prevailing, which brought on some clouds from the north. The force of the wind has comparatively decreased. Kind of clouds up to 10 P.M. or 11 P.M. — S. Strong currents. Aspect of the sky was then very ugly. The fall of Barometer from 11 to 11-35 and 12 P.M. was 146, from 29-640, which was registered at 10 P.M.; at 12-20 A.M., it was 29-260; 2-33 A.M., 29-124; 3 A.M., 28-960; and 5-30 A.M., 28-300. From this continued fall, the wind keeping in the same quarter up to the fall of the cyclone, but increasing in violence, one would be induced to think that our geographical position was very close to the centre of the cyclone, if not almost in the centre.

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SUBMIT intensity of the cyclone was felt from little before 2 to 3-50. In the interim, at 2-30 a lull was observed, and great hopes were entertained of entire cessation, but within 10 minutes, 90° apart from N.-E., that is, with S.-E. wind. At the time of the said lull, the sky was not very ugly, horizon quite gloomy, much lightning was then traversing to S.-E. as appearances.

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It will be observed, from the figures given in paragraph 2, that the fall between 2 and 3 A.M. three-tenths, which fall of mercurial column in one hour, I believe, is not common.

5. Thermometric condition—dry bulb at 10 P.M. 81-4, wet 72-5; 1 A.M. dry 77-3, wet 72-5; 2 A.M. dry 78-1, wet 73. At 2 and after 2-45 A.M., the violence of the wind was so very great that the doors of the house were smashed, and some of the walls of the upper rooms of the house were prostrated; and we were quite mad that the house may be down upon us. However, the observations of the Barometer and the notes of the appearances of the sky were steadily continued.

6. Barometer commenced to rise from 4 A.M., when it was 28-860; and while the violence of the cyclone prevailed, rose as steadily with S. and S.-W. winds, as it had previously fallen with N.-E. and S.-E. winds. Thermometric condition at 4 A.M. dry 77-9, wet 74; direction of wind unsettled, S.-E., S., and S.-W.

7. Anemometer observations—at 10 A.M. 4th, the Anemometer was registered 441-50 miles. At 11 P.M., although it is not usual time to register, is yet our suspicions prompted us to register it. It was then 451-50. At 2-30 A.M. 650-0; 4 A.M. 850-55. The wind apparently travelled 399-05 in five hours. Average rate of motion was 79-81; but during the intensity of the cyclone, it will be observed, from the foregoing figures, that the rate of motion in one hour greatly exceeded 100 miles. This, of course, is distinct from the velocity of the progress of the cyclone.

8. Fifteen minutes after 4 A.M., the bar of the Anemometer, holding the hemispherical cups, was seen bent, and one of the four cups blown off; we were, therefore, denuded of the means of registering the velocity after the said time.

9. The decrease of the violence was to a certain degree sensible at 4-30. The vanishing point at 6-30 A.M.

10. The intensity was nearly two hours, and the duration of the cyclone itself was seven hours; therefore, the progress of the cyclone we can safely calculate at 28 miles per hour, and the diameter of the cyclone to be 140 miles.

11. Fall of rain during the cyclone was three inches.

12. Atmospheric condition on the two previous dates, 2nd and 3rd, sultriness, oppressive feeling of evaporation being abated, haze round the sun. In the nights larger hulos round the moon; stars looked pale and dull without rays. I mean the brightest star of first magnitude *Sirius*, and the one nearly equal to it *Canopus*, in addition to several others of different magnitudes.

13. The trees were blown facing S.-W. and N.-W. The prevalent was the former direction.

14.

15. A comparative statement of the cyclone years of 1867 and 1870 is herein enclosed, showing the instrumental readings, direction and change of wind, etc., for ten days previous to the respective cyclones.

* I mean circumference of the trunks.

16. The girth* of the trees blown I measured 11 feet. This is what I found in my landed estates. May be more, the trees blown in other parts.

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Enclosure No. 3.

From the Master Attendant, Vizagapatam, to the Acting Collector of Vizagapatam, dated 13th November 1870, No. 63.

I beg to forward, for your information, the following statement of the weather at the 3rd, 4th, and 5th instant.

2. 3rd November, began with hazy weather and light winds from N.-E. by N. at noon and surf increasing, and looking heavy to eastward. No ground swell; Barometer 29.99 5 p.m. not so strong; and from N.-E., till 11 p.m. afterwards, the wind shifted to N.-W., and began blowing hard with squalls.

3. 4th, 6 a.m. wind N.-W., blowing fresh; 11 a.m. wind N.-W., blowing fresh; slight rain noon; Barometer 29.90 at 1.30 p.m.; rain and strong squalls from the N.-W. 5 p.m.; Barometer 29.80; the same weather 9 p.m.; Barometer 29.77, and inclined to rise; a hard looking sky N.-W. and a dark bank eastward; 11 p.m. wind increasing with slight rain, heavy surf.

4. 5th, 2 a.m. wind N.N.-E., blowing hard, with rain at 3 a.m.; wind shifted to E. and blew terrific for about 1½ hours with heavy rain; 4.30 a.m. wind shifted to S.-E., blowing hard with very heavy squalls; at 7 a.m. Barometer rising to 29.82 wind, also squalls not so hard, and gradually becoming finer at 10 a.m.; sky more clear; no rain at noon; Barometer 29.89 with a moderate breeze from S.-E.

5. The French Barque *La Soundary*, lying in about 11½ fathoms water, throwing ballast, must have put to sea during the night, is not put back as yet. No intelligence of her from either north or south of this place. Water in the river from bank to bank—a thing that has not occurred for several years. The tide was about 4½ feet above its usual level; one sheet of water as far as the eye can reach over the swamp and backwater.

6. The force of the wind was so great as to pull one of the guns out of the ground to which was made fast the rigging of the old flag-pole, and caused the pole to be blown down.

7. There is hardly a house but which has received damage all about Waltair and Vizagapatam; three-fourths of the Native huts are destroyed; desolation everywhere. Sepoy lines, 2nd M.N.I., destroyed and down. I have only heard of three lives being lost up to 5 p.m.

8. Before the storm came on, I had 63 boats lying on the Beach, out of which number 30 were in good order for work; the rest under repair. On the 5th and 6th I examined the boats to the number of 45, and could only find 8 fit to work; some are completely smashed to pieces, and some require a small repair, and will be ready for work in a few days. Some of the boats are three or four miles up the backwater, and several are lost altogether.

From the Master Attendant, Vizagapatam, to the Acting Collector of Vizagapatam, dated 15th November 1870, No. 69.

I beg to forward to you an extract of the Log of the French Barque *La Soundary*, Captain J. Bertho, for the night of 4th and morning of 5th instant:—

"Between 11 a.m. and midnight, breeze increasing and blowing from N.-W., let chain to 103 fathoms on Port anchor, midnight Barometer showing heavy rain.

"Wind and sea increasing 2 a.m. 2 millimetres above storm, Barometer falling rapidly 2.30 a.m. 4 millimetres under storm. Water breaching over the ship. Ship drifting all the time; let go chain and drifted under bare poles. Ship from S. S.-E. to E. S.-E. very dark and raining in torrents. Vessel lying on her side for about 3 hours. From 3 a.m. to 3.30 a.m. calm, such as will happen in the centre of a cyclone; at 3.30 a.m. wind from S.-W., Barometer going down at 3.45 a.m. Barometer 4 millimetres under storm; wind S.-W. blowing harder than the N.-W. wind; at 4.30 a.m. Barometer rising; at 5 a.m. showing heavy rain and Barometer rising rapidly, wind going down; at 7 a.m. sighted land six or seven miles distance; current going S.-W.; noon, breeze moderate and sea high."

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13th December 1870.*

SUBMITTED for the information of Government in continuation of Board's Proceedings, dated 17th November 1870, No. 6,720.

No. 273.

ORDER THEREON, 13th December 1870, No. 2,020.

Miscellaneous.

COMMUNICATED to the Public Works Department and to the Government Astronomer.

(True Extract.)

(Signed) W. HUDLESTON,
Secretary to Government.

To the Public Works Department.
„ the Government Astronomer.
„ the Board of Revenue.

Ed. F. R. Bantleman.

77.2020.
 Communicated
 to the Public Works Department
 and to the Gov^t. Astronomer.

13th Decem^r.
 1879

at Fort St. George, Dec^r 14
 1 — Gov^t Astronomer
 14 — Gov^t of Public W^{ks}

Bibl. of 1870: 2000

REVENUE.

THE PUBLIC WORKS DEPARTMENT.

Dec^r. 1879.

Dated December 1879.

Recd.

6 O. 1879 December 1879, No. 2, 1879.

DECEMBER.

Nos. 272, 273.

The above is a copy of the report of the
 District Engineer of the Public Works Department
 for the month of December 1879, communi-
 cated to the Public Works Department and Gov^t.
 Engineer.