(1) பக்கங்களின் எண்ணிக்கை 8

(2) புதுக்கித் திருப்பிய நாள் March 90.

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம் Loss

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

வேளாண்மைத் துறை

அரசாணை எண்.
மு. கோப்புத் தாள் எண். 2746

அச்சகம்
பலவகை

நாள் : 17-10-1890 198 .

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

அவ. கா-1—18,000—15-6-87.

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GOVERNMENT OF MADRAS.

MARINE DEPARTMENT.

READ—again the following paper:—

G.O., dated 3rd April 1890, Mis. No. 143, Marine.

ABSTRACT.—Regarding repetition at the Fort flagstaff of the storm signals hoisted at the Port flagstaff.

READ—also the following papers:—

From the Presidency Port Officer, dated 20th May 1890, No. 422—267-G.
" Commissioner of Police, dated 4th August 1890, No. 77.
" Adjutant-General, dated 11th September 1890, No. 871-E.
" Presidency Port Officer, dated 16th September 1890, No. 422—446-G.

ORDER—dated 20th September 1890, No. 343, Marine.

The Cyclone Code, as finally revised with reference to the alterations and suggestions made in the foregoing papers, will be published in the *Fort St. George Gazette*.

2. The new Code supersedes that circulated with G.O., No. 494, Marine, dated 23rd October 1888.

(True Extract.)

Chief Secretary.

To the Military Department.
" Public Works Department.
" Presidency Port Officer.
" Chairman, Harbour Trust Board.
" Surgeon-General with the Government of Madras.
" Commissioner of Police.
" Inspector-General of Police.
" Government Astronomer.
" Meteorological Reporter, Madras.
" Superintendent, Government Press.

ENDORSEMENT—dated 20th September 1890, No. 344, Marine.

Copy to the Government of India, Military (Marine) Department.

J. F. PRICE,
Chief Secretary.

Exd. A. Raitt.

APPENDIX.

MADRAS CYCLONE CODE.

CHAPTER I.

GENERAL ARRANGEMENTS IN CONNECTION WITH THE HOISTING OF STORM SIGNALS AT MADRAS AND COAST PORTS.

1. The arrangements for the communication to the Presidency Port Officer and to the several coast Port officers of information respecting the formation, growth and course of cyclonic storms, necessary for their guidance in hoisting the storm signals, are carried out by the Meteorological Reporters of Bombay and Calcutta under the general direction of the Meteorological Reporter to the Government of India.

The Madras ports included in this storm-warning system are as follows :—

A.—Ports on the Coromandel Coast.

Gopálpur.	Madras.
Calingapatam.	Cuddalore.
Bimlipatam.	Porto Novo.
Vizagapatam.	Negapatam.
Cocanada.	Pámban.
Masulipatam.	Tuticorin.

B.—Ports on the Malabar Coast.

Cannanore.	Cochin.
Tellicherry.	Calicut.
Mangalore.	Beypore.

The Meteorological Reporter to the Government of Bengal (Calcutta) supplies the information and works the system for those ports classed as belonging to the Coromandel Coast, and the Meteorological Reporter for Western India (Bombay) for the Malabar Coast ports as defined above. These officers also afford information respecting the first indications of bad weather in the Bay of Bengal and the Indian Ocean to the Presidency Port Officer, Madras, who will, if he deems it desirable, communicate it to any of the Port officers subordinate to him, in view of the shipping being warned.

2. As soon as the existence and probable course of a cyclonic storm in the Bay of Bengal or the Indian Ocean has been ascertained by the Meteorological Reporter of Calcutta or Bombay, the Port officers of the ports likely to be affected by the storm will be informed and warned by the Reporter appointed to give such warnings to his port. The warning signal should usually be hoisted immediately after the receipt of this information. The Meteorological Reporter will continue to keep the Port officers of the warned ports acquainted with the growth, progress, course and other features of the storm, which will be useful as a guide to the Port officer in hoisting, when necessary, the danger signal. The danger signal should be hoisted as soon as the Port officer considers it advisable to warn the shipping that a cyclone is approaching either the port itself or the coast in the near vicinity. By these arrangements, the Meteorological Reporters will transmit information and warnings direct to the Presidency Port Officer at Madras and the Port officers of Gopálpur, Bimlipatam, Vizagapatam, Cocanada, Masulipatara, Negapatam, Tuticorin, Mangalore, Cochin and Calicut. At the remaining ports, viz., Calingapatam, Cuddalore, Porto Novo, Cannanore, Tellicherry and Beypore, where the signals will be hoisted by the Port Conservators, the Port officer under whom they are immediately placed will instruct them by urgent telegram to hoist the warning and danger signals at the same time that they hoist them at their own ports. By this arrangement information respecting bad weather and direction relating to the hoisting of storm-signals will be communicated to the—

Port Conservator of Calingapatam—By the Port Officer of Gopálpur.

Port Conservators of Cuddalore and Porto Novo—By the Port Officer of Negapatam.

Port Conservators of Cannanore, Tellicherry and Beypore—By the Port Officer of Calicut.

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3. The duties of the Meteorological Reporters of Bombay and Calcutta are confined solely to furnishing as definite, full, and early information as possible of the character, position, course, probable time of approach, and varying phases of cyclonic storms, to the Port officers of all ports to which the cyclone will probably cause dangerous weather and a high sea. The responsibility of hoisting and taking down the storm signals rests solely with the Port officers at coast ports, and at Madras with the Presidency Port Officer, and in his absence with the Deputy Conservator of the Port. These officers will usually be guided mainly by the information received from the Meteorological Reporter, but if that information be insufficient or be delayed in transmission, or if telegraphic communication be suspended by breaks in the lines, they will then be guided by the indications of the barometer, force of the wind, state of the sea, and general aspect of the weather.

4. The storm signals to be employed are of two kinds—one for day use and the second for use at night. They are as follows :—

1st—Day Signals.

No. I.—Bad weather or warning signal—A ball.
„ II.—Storm or danger signal—A drum.

2nd—Night Signals.

No. I.—Bad weather or warning signal—Three white lights arranged in a vertical line.
„ II.—Storm or danger signal—Two white lights arranged in a vertical line.

The ball or three white lights when hoisted indicates that a cyclonic storm has formed which will probably advance to that part of the coast on which the port is situated, but is still at a considerable distance from it.

The drum or two white lights when hoisted indicates that a storm is approaching the coast on which the port is situated, and will shortly cross it.

According as the storm is expected to strike the coast to the northward or southward of the port or to pass over the port itself, the storm signal will be hoisted either at the north or south arm of the yard of the Port Office flagstaff or at the gaff of the flagstaff.

The intensity of the storm will be indicated during daylight by additional balls of a size half the diameter of the ball used as a warning signal, hoisted to the same yard-arm as the warning or danger signal but between it and the flagstaff in the case of a storm to the north or south of the port, and by these balls being hoisted over the warning or danger signal when the storm is expected to pass over the port; thus, one small ball will indicate a storm of slight intensity, two small balls a storm of considerable intensity.

5. In order to facilitate and expedite the working of these arrangements, the Telegraph Department has granted the privilege of "Precedence urgency" to telegrams referring to stormy weather and the hoisting of storm signals between the Meteorological Reporter of Calcutta and the following officers and Meteorological Superintendents :—

Cocanada.	Madras.
Gopálpur.	Negapatam.
Masulipatam.	Vizagapatam.

The names of other officers will be added to this list as found necessary for the proper working of the system.

6. Copies of all telegrams despatched to Port officers other than the Presidency Port Officer, Madras, relating to the approach of cyclonic storms, will be sent at the same time to the Presidency Port Officer, Madras, in order that he may be kept fully acquainted with the weather information and instructions communicated by the Meteorological Reporters to the Port officers subordinate to him.

7. Whenever the Astronomer at Madras shall have reason to apprehend the advent of a gale or cyclone, he will at once, by telegram or otherwise, communicate warning to the Presidency Port Officer, and during the prevalence of such gale or cyclone, he will continue to give such information regarding its varying phases, as may be deemed by him to be of possible utility.

8. As cyclones, after passing over Southern India from east to west, have been known to be destructive to shipping on and beyond the West Coast, the Government Astronomer will communicate to the Presidency Port Officer his opinion regarding the inland direction and progress of any future cyclone, in order that timely warning of the apprehended danger may, when possible, be given to the local authorities along that coast, and may by them be given to the shipping.

9. The Presidency Port Officer, Madras, will communicate all meteorological information received during storms from the Government Astronomer, Madras, to the Calcutta Meteorological Reporter for his information.

10. Port officers noting the appearance of suspicious weather before the receipt of any telegrams from the Meteorological Reporter in connection (or co-operating) with them, should communicate the information without delay to that officer.

11. All Port officers receiving telegrams from the Meteorological Reporters during a storm should send a brief statement, after the cyclone has passed away, of the telegrams received from the Reporters and of the exact times when they were delivered by the telegraph officers, &c., in order that the Meteorological Department may exercise an effective check over this part of the working of the system and secure the necessary rapidity of telegraphic communication required for the proper working of the system.

CHAPTER II.

General Arrangements to be made at Madras on the "Warning," "Danger," and "Wreck" Signals being displayed.

1. During the period of the display of any one of these signals, all arrangements in connection with the safety of the shipping in the port will be made by the Presidency Port Officer.

2. The Chairman, Harbour Trust Board, will arrange that on such occasions the services of the Deputy Conservator of the Port and of the Port Conservancy establishment shall be at the disposal of the Presidency Port Officer.

Note.—In the absence of the Presidency Port Officer from the port, the arrangements connected with the safety of the shipping will be carried out by the Deputy Conservator of the Port.

3. Whenever any one of the storm signals is hoisted or lowered, the fact is to be communicated as soon as practicable, by the Presidency Port Officer to the undermentioned officials, viz :—

The Chief Secretary to Government.
The Private Secretary to His Excellency the Governor, should His Excellency be in Madras.
The Chairman, Harbour Trust Board.
The Commissioner of Police, through the Deputy Commissioner of Police.
The Assistant Adjutant-General for communication to all Military officers concerned.
The Chief Engineer for Irrigation, and in his absence from Madras, or between 5 P.M. and 11 A.M., to the Executive Engineer, St. Thomas' Mount.
The Collector of Chingleput.

CHAPTER III.

Special Arrangements to be made at Madras by the various Departments.

Section 1.—*On the Warning Signal being hoisted.*

A.—Port Department.

The port life-saving apparatus to be prepared for immediate use.

B.—Military Department.

The Assistant Adjutant-General will cause the information to be conveyed to the Brigadier-General, the Officer Commanding Royal Artillery, Fort St. George, and the heads of the Medical, Commissariat and Ordnance Departments.

Section 2.—*On the Danger Signal being hoisted.*

A.—Port Department.

The services of the Pier establishment will be placed by the Chairman of the Harbour Trust Board at the disposal of the Presidency Port Officer.

B.—Military Department.

1. The Assistant Adjutant-General will cause the information to be conveyed to the Brigadier-General, the Officer Commandinding Royal Artillery, Fort St. George, and the heads of the Medical, Commissariat and Ordnance Departments.

2. The Officer Commanding Royal Artillery in the Fort will at once arrange for the rocket party being in readiness for immediate service together with all available lascars.

3. When the cyclone is expected to pass over the port, the Assistant Adjutant-General, on receiving intimation to that effect, will arrange for seven guns to be fired from the salient of the North-east Demi-Bastion, with an interval of 5 minutes between each gun.

C.—Police Department.

The Commissioner of Police will make the necessary arrangements for reinforcing the Beach Division of Police, and place the Police Boat establishment at the disposal of the Presidency Port Officer.

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Section 3.—*Wreck Arrangements.*

When the Presidency Port Officer deems that imminent danger of wreck has arisen, he will order the following signal to be made :—

By Day.—A cone apex downwards ;
By Night.—A red light at the mast head of the flagstaff ;

and upon this each of the undermentioned departments shall make the arrangements detailed below :—

A.—Port Department.

The port life-saving apparatus to be taken to the beach and worked either independently or in co-operation with the Ordnance rocket parties under arrangements to be made by the Presidency Port Officer.

Note.—All officers of the Port Department to appear in uniform.

B.—Military Department.

1. On receiving intimation of the wreck signal having been hoisted, the Assistant Adjutant-General will have two guns fired in quick succession from St. George's Bastion (which will be twice repeated at intervals of three minutes) and send intimation to all Military Departments concerned.

2. On these guns being fired, the following arrangements are to be made :—

(*a*) A working party of 1 officer and 50 men, made up from the Royal Artillery and the British Regiment garrisoning the Fort, is to be promptly despatched to the scene of action and placed at the disposal of the Presidency Port Officer. A second working party of the same strength is to be kept in readiness in case of additional assistance being required by the Presidency Port Officer.

(*b*) A non-commissioned officer and two troopers of His Excellency the Governor's Body Guard will proceed to the Fort and place themselves under the orders of the Assistant Adjutant-General. They will be used as orderlies as occasion may require.

(*c*) The Native Infantry in garrison will be restricted to their respective lines and await further orders.

3. The officers commanding working parties will consult with the officers of the Port Department on the spot as to where and how the services of their men can be most usefully employed, and the advice of the officers of the Port Department will be met with marked attention.

4. The action of the troops will be mainly directed towards saving life and property and aiding the Police in keeping guard or in any way as may be required.

5. Arrangements will be made for the relief, food, &c., of working parties by the regiments and departments concerned.

6. The Officer Commanding Troops in garrison will make emergent requisition on the Ordnance Officer in charge of the Arsenal for such tents as may be required to shelter shipwrecked people.

7. As many parties of the Royal Artillery stationed in Fort St. George as may be necessary will (with a proper complement of officers) proceed as speedily as possible with the life-saving apparatus including boat or fire hooks, ropes, grappling irons, &c., to the point or points where their services are most urgently required. These points, and the ships to which the aid is to be first given, will be decided by the Port Department. If rockets are used in the rescue of any ship's crew, the whole apparatus attached to the rocket cart will, under ordinary circumstances, be employed and will be worked by the men of the Royal Artillery.

8. Two trollies drawn by mules have been ordered on occasions of wreck to be placed at the disposal of the Officer Commanding Royal Artillery, Fort St. George, by the Commissariat Department. They are intended to be used for the conveyance of rocket apparatus, hawsers, &c., should any wreck or wrecks take place at a distance from the Fort, such as St. Thomé or the Adyar ; but should they not be required for this purpose, they may be employed, under the orders of the aforesaid officer, for any other necessary use connected with wreck work.

9. When hawsers are necessarily left attached to wrecks, the Senior Artillery Officer present will inform the Police of the fact.

Note.—The Officer Commanding Royal Artillery, Fort St. George, will be responsible that three sets of life-saving apparatus, with rockets, boat or fire hooks, ropes, grappling irons, lanterns for night work, &c., complete, are at all times kept packed in carts ready for use in the most convenient part of the Fort, and that the officers, non-commissioned officers and men under his command are told off into rocket parties, and are instructed and periodically drilled to the practical use of the whole apparatus.

Ordnance Department.

1. The Ordnance Officer in charge of the Arsenal will, in cases of wreck, promptly comply with emergent requisitions for tents for the shelter of shipwrecked people, without waiting for sanction from any superior authority. Should the officer in charge be absent from the Arsenal, the same power may be exercised by the Warrant Officer in charge of Camp Equipage.

2. All officers, warrant and non-commissioned officers, and store lascars, will be in uniform on wreck occasions.

Commissariat and Transport Departments.

1. On intimation being received from the Assistant Adjutant-General of imminent danger to shipping, or on the "Wreck signal" being heard, two trollies drawn by mules will immediately proceed under a Staff Serjeant to the Arsenal and there await the orders of the Ordnance Officer.

2. Two other trollies, drawn by mules, each under care of a warrant or non-commissioned officer, and each containing an assortment (which will be always held in readiness in waterproof covers or cases) of blankets, towels, flannel banians, flannel drawers, biscuits, brandy, water and drinking vessels, will be taken in the first place to the Port Office, and thence, as directed by the Presidency Port Officer, to the scenes of shipwreck, where the contents will, if required, be issued and used for the relief of shipwrecked persons under the orders of the directing Medical, Military or Port Department officers present.

3. The Chief Commissariat Officer will attend to the instructions contained in paragraph 4 of rules laid down for the Medical Department. As many sets of bearers as are available, with hammocks slung on poles, will at the same time be sent to the beach and will be placed at the disposal of the officers concerned.

4. Whenever the warning signal is hoisted, a certain number of Transport attendants will be detailed daily for duty in case of need, and these men will remain at the Transport Depôt at night as long as a storm signal is displayed.

5. The Chief Commissariat Officer will also despatch a supply of bullocks with drivers and as many ambulance tongas as available to the Ordnance Officer in charge of the Arsenal, which will be taken to the beach as soon as the violence of the weather permits, and placed at the disposal of the said officer.

6. The four trollies drawn by mules referred to in paragraphs 1 and 2 above, together with as many ambulance tongas with cattle, as there is room for, will be kept day and night at the Transport Stables, North Beach.

C.—Police Department.

1. On the Inspector of Beach Police seeing the wreck signal, or being informed by the Port authorities of imminent danger of wrecks occurring, he will promptly send intelligence to the Commissioner of Police, who will immediately increase that Division to such an extent as may be practicable at the time.

2. The entire Police force will be under the Commissioner, who will consult the Port officers on the spot as to where the services of his men are likely to be emergently required. The Commissioner will issue whatever detailed orders may be requisite.

3. The Police will be mainly restricted to their own proper duties, *i.e.*, the maintenance of order; protecting personal or other property washed on shore; supervising the conveyance of the shipwrecked crews and passengers to the nearest shelter, and to hospital if necessary; bringing back the hammocks, doolies, and sick-carts; guarding or removing the dead, &c. They are not to be employed in hauling ropes or recovering wreckage or cargo save in emergent circumstances, when there are no military or other working parties on the spot or when such parties are insufficient for this work.

4. The Commissioner of Police will see that duties are so apportioned as to enable the men to be relieved from the reserves as frequently as circumstances may render requisite.

5. All officers and men will be in uniform.

D.—Medical Department.

1. The Assistant Adjutant-General will send intimation to the Principal Medical Officer, Madras District, the Fort Surgeon, the Resident Surgeon at the General Hospital, and the Surgeon, 1st District. The Resident Surgeon will warn the following officers:—

The Surgeon,
„ 2nd Surgeon,
„ Physician,
„ Assistant Physician,
} of the General Hospital.

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2. On hearing the guns of the "Wreck signal," or on receipt of intimation from the District Staff Officer, these Medical officers (except those named in paragraph 3 below), taking with them a portion of their establishments and the medicines and surgical appliances which have been detailed by their departmental head, will forthwith proceed to the beach, and, in consultation with the senior Port Department and Military officers on the spot, will distribute themselves to the various scenes of wreck or apprehended wreck, as occasion may require.

3. The Physician and Resident Surgeon of the General Hospital will remain at the institution, and the Surgeon, 1st District, at the Monegar Choultry, to receive and afford medical aid to all such as may be sent there from the beach for treatment.

4. The Chief Commissariat Officer will despatch to the beach as many sets of bearers as are available, with doolies, muncheels or dandies, to be placed at the disposal of the directing Military, Medical, or Port Department officers present.

Exd. A. Raitt.

Govt. of {1890} Madras.

MARINE.

Issued

Recd. Encl.

G.O., &c., 20th September 1890,
Nos. 343, 344.

SEPTEMBER.

Madras Cyclone Code.

Publishing in the *Fort St. George Gazette* a revised —, and stating that the new Code supersedes that circulated with the Government Order quoted. Copy to the Government of India.