

1.0 PURPOSE

Establish the minimum lifesaving and rescue equipment required aboard vessels operating in Panama Canal waters.

2.0 BACKGROUND

This document supports the following:

- 2.1** The Panama Canal Administrator's Directive AD-2004-04, dated May 14, 2004.

3.0 SCOPE

These requirements apply to vessels owned or operated by the Panama Canal Authority, or owned by third parties operating in Canal waters.

4.0 LEGAL FOUNDATION

Agreement No. 12 of the Board of Directors of the Panama Canal Authority, Occupational Safety and Health Regulations, Chapter III, Article 22, item 1, and Chapter IV, Article 26.

5.0 DEFINITIONS

For the purposes of this Standard, the following definitions shall apply:

5.1 Vessel: Any water craft, including nondisplacement craft and seaplanes whether self-propelled or not, that can be used as a means of transportation on the water.

5.2 Shipowner: A person or company in whom title of a vessel is vested

5.3 Canal Waters: Those within the geographic area that follows the course of the Panama Canal from the Pacific Ocean to the Atlantic Ocean, including anchorage areas, the Port of Cristobal and the Port of Balboa, shores and areas where only activities compatible with the operation of the Canal may be carried out.

5.4 Length overall (LOA): The horizontal distance between forwardmost and aftermost points on the hull of a vessel.

5.5 Midship: The middle of the ship, either lengthwise or widthwise, or both.

5.6 USCG: United States Coast Guard.

5.7 ESSM: Marine Safety Branch.

5.8 Crew: All personnel aboard a vessel other than the captain.

5.9 Passengers: All persons on board who do not belong to the crew.

5.10 Persons: Everyone on board, whether crew members or passengers.

6.0 GENERAL

6.1 Vessels less than 7 meters in length operating in Canal waters, and canoes or cayucos less than 20 meters in length equipped with outboard motors and operating in Gatun Lake shall carry the following lifesaving and rescue equipment on board:

- 2 oars or paddles.
- 1 whistle or any other equipment capable of producing acoustic signals according to regulations.
- 20 meters of manila rope with a diameter of not less than 15 mm (5/8 inches), or a synthetic rope of equivalent breaking strength.
- 1 approved life jacket (USCG Type I or Type II) for each crew member and passenger, in a quantity equal to the maximum number of persons allowed on board during operations.
- 1 handheld lantern equipped with a red light.
- 1 red flag.

6.2 Vessels 7 meters in length and up to 12 meters shall carry the following lifesaving and rescue equipment:

- 1 approved life ring buoy (USCG Type IV) with an outside diameter of not less than 600 mm (24 inches) with a 20-meter floating stem with a diameter of not less than 8 mm (5/16 inches). Check reference table and consult ESSM.
- 1 mechanical whistle or any other appliance capable of producing regulatory acoustic signals.
- 20 meters of manila rope with a diameter of not less than 18 mm (3/4 inches), or a synthetic rope of equivalent breaking strength.
- 1 approved life jacket (USCG Type I or Type II) for each crew member and passenger, equal to the maximum number of persons allowed on board during operation.
- 1 handheld lantern equipped with red light.
- 1 red flag.
- 1 first aid kit containing a minimum 25 items.
- 1 boat hook.
- Approved buoyant survival apparatus (USCG) are required on vessels with a capacity of 12 or more persons. The minimum number of buoyant survival apparatus shall be calculated on the base of 50% of the total number of persons allow on board divided by the buoyant survival apparatus capacity. Each buoyant survival apparatus shall have two oars not less than 1.21 meters (4 feet) in length.

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6.3 Vessels 12 meters length or over and up to 20 meters shall carry the following lifesaving and rescue equipment:

- Approved life ring buoys (USCG Type IV) with an outside diameter of not less than 600 mm (24 inches). One life ring buoy shall have a 20-meter floating stem with a diameter of not less than 8 mm (5/16 inches) attached, and the other shall have an automatic activated man overboard light. This light must be designed to operate underwater and send signals at a flash rate of more than 50 times per minute on an arc of the horizon of 360 degrees. Check references and consult ESSM.
- 1 mechanical whistle or any other appliance capable of producing regulatory acoustic signals.
- 25 meters of manila rope with a diameter not less than 21 mm or synthetic rope of equivalent breaking strength.
- 1 approved life jacket (USCG Type I or Type II) for each crewmember and passenger, equal to the maximum number of persons allowed on board during operation.
- 1 handheld lantern equipped with red light.
- 1 red flag.
- 1 man over board rescue and recovery system.
- Approved buoyant survival apparatus (USCG) is required. The minimum number of buoyant survival apparatus shall be calculated on the basis of 50% of the total number of persons allow on board divided by the buoyant survival apparatus capacity. Each buoyant survival apparatus shall have two oars not less than 1.21 meters (4 feet) long. This buoyant survival apparatus is not required on vessels with a total rated capacity of not more than three (3) persons.
- 1 first aid kit containing a minimum of 25 items.
- 2 boathooks.

6.4 Vessels over 20 meters and up to 50 meters length shall carry the following lifesaving and rescue equipment:

- Approved buoyant survival apparatus (USCG) is required. The minimum number of buoyant survival apparatus shall be calculated on the basis of 50% of the total number of persons allow on board divided by the buoyant survival apparatus capacity. Each buoyant survival apparatus shall have two oars not less than 1.21 meters (4 feet) long.
- Approved life ring buoys (USCG Type IV) with an outside diameter of not less than 800 mm (30 inches). Two life ring buoys shall have a 30-meter buoyant stem with a diameter of not less than 8 mm (5/16 inches) attached, and the other two shall have an automatic activated man overboard light. This light must be designed to operate underwater and send signals at a flash rate of more than 50 times per minute on an arc of the horizon of 360 degrees. Check references and consult ESSM.

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- 1 man over board rescue and recovery system.
- 1 approved life jacket (USCG Type I or Type II) for each crew member and passenger, equal to the maximum number of persons allowed on board during operation.
- General emergency alarm system.
- Muster list with emergency instructions and duties.
- 2 self-contained breathing apparatus (SCBA) with spare cylinders.
- 2 submersible pumps with a minimum capacity of 300 gpm.
- 1 damage control box.
- 1 first aid kit containing a minimum of 50 items.
- 1 aluminum rescue ladder for man overboard.
- 2 boathooks.

6.5 Vessels over 50 meters long shall carry the following lifesaving and rescue equipment:

- 1 approved life jacket (USCG Type I or Type II) for each crew member and passenger, equal to the maximum number of persons allowed on board during operation.
- Approved buoyant survival apparatus (USCG) is required. The minimum number of buoyant survival apparatus shall be calculated on the basis of 50% of the total number of persons allow on board divided by the buoyant survival apparatus capacity. Each buoyant survival apparatus shall have two oars not less than 1.21 meters (4 feet) long.
- General emergency alarm system.
- Muster list with emergency duties and instructions
- 2 self-contained breathing apparatus (SCBA) with spare cylinders.
- Approved life ring buoys (USCG Type IV) with an outside diameter of not less than 800 mm (30 inches). Two life ring buoys shall have a 30-meter buoyant stem with a diameter of not less than 8 mm (5/16 inches) attached, and the other two shall have an automatic activated man overboard light. This light must be designed to operate underwater and send signals at a flash rate of more than 50 times per minute on an arc of the horizon of 360 degrees. Check references and consult ESSM.
- 2 submersible pumps with a minimum capacity of 300 gpm.
- Damage control box.

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- 1 first aid kit containing a minimum of 50 items.
- 1 aluminum rescue ladder for man overboard.
- 2 boathooks.

6.6 All life ring buoys shall be stowed in a position that is readily accessible to crew members for launching, and none may be permanently secured to the vessel in any way. Lifejackets must be readily accessible in clearly marked stowage positions

6.7 Muster lists with duties, instructions, and drills:

6.7.1 Shall be posted in conspicuous places throughout the vessel including the bridge, the engine room, and crew accommodation spaces.

6.7.2 Shall specify crew member duties, muster stations, and abandon-ship, firefighting, and man overboard drills.

6.7.3 Once a month, the entire crew shall participate in every drill mentioned in 6.7.2.

6.7.4 As far as practicable, drills shall be conducted as if there were an actual emergency.

6.8 Each buoyant survival apparatus, life ring buoys, and life jackets required herein must be marked permanently with the name of the vessel carrying them.

6.9 Each buoyant survival apparatus, life ring buoys, and life jackets required herein shall be fitted with retro-reflective material or tape.

6.10 Reference Table to determine the minimum number of life ring buoys:

Length of Passenger Vessel	Minimum number of life ring buoys	Minimum number of life ring buoys with automatic activated man overboard light
7 and up to 12 meters	1	
12 and up to 20 meters	2	1
20 and up to 30 meters	4	2
30 and up to 50 meters	8	4
50 and up to 120 meters	12	4
120 and up to 180 meters	18	9
180 and up to 240 meters	24	12
More than 240 meters	30	15
Length of Cargo Vessels	Minimum number of life ring buoys	Minimum number of life ring buoys with automatic activated man overboard light
7 and up to 12 meters	1	
12 and up to 20 meters	2	1
20 and up to 30 meters	4	2
30 and up to 50 meters	6	3
50 and up to 100 meters	8	4
100 and up to 150 meters	10	5
150 and up to 200 meters	12	6
More than 200 meters	14	7

7.0 RESPONSIBILITIES

7.1 Shipowners or operators shall:

7.1.1 Ensure the vessel's compliance with the minimum lifesaving and rescue equipment requirements.

7.1.2 Maintain the proper number of lifesaving and rescue equipment on board in good operating condition, at the proper location, and with the proper markings.

7.2 The Marine Safety Branch (ESSM) shall:

7.2.1 Establish the minimum requirements for the lifesaving and rescue equipment to be carried aboard vessels.

7.2.2 Respond to inquiries or requests for exceptions to this Standard, as specified in items 8.0 and 9.0.

7.3 Floating equipment inspectors of the Marine Safety Branch shall:

7.3.1 Monitor compliance with this Standard, the condition and proper number of the equipment required by 6.0.

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8.0 INQUIRIES

Any information or clarification of the content or application of this Standard must be requested in writing to the Safety Division.

9.0 EXCEPTIONS

Any requests for changes or temporary exceptions to this Standard must be made in writing to the Safety Division.

10.0 TERM

This Standard shall remain in force until amended or revised.

11.0 REFERENCES

11.1 Law Decree No.61 dated October 23, 1979, whereby Articles 8 and 9 of Law 54 dated December 11, 1926, of the Panama Maritime Authority are regulated.

11.2 International Convention for the Safety of Life at Sea (SOLAS 74).