

AGREEMENT No. 13
(of June 3, 1999)

“Whereby the Regulation on Navigation in Panama Canal Waters is approved”

THE BOARD OF DIRECTORS OF THE PANAMA CANAL AUTHORITY

WHEREAS:

In accordance with article 18.5 e of the Panama Canal Authority Organic Law, the Board of Directors is responsible for approving the regulations regarding navigation, marine traffic control, pilotage, and matters concerning navigation in the Canal.

The draft regulations on the foregoing subjects have been submitted by the Administrator, in exercise of the authority granted to him by article 25.6 of the above mentioned law.

AGREES:

The following regulations on navigation in Canal waters are adopted:

REGULATIONS ON NAVIGATION IN PANAMA CANAL WATERS

Chapter I
General Provisions

Section One
General Provisions and Definitions

Article 1: All activities related to navigation of vessels in waters that are within the Canal Operation Compatibility Area, as described in the Annex of the Panama Canal Authority Organic Law, shall be controlled by this regulation.

The Administrator, Panama Canal Authority, shall apply this regulation through the administrative units designated for such purpose.

Article 2: Vessels shall keep aboard a copy of the regulations regarding navigation in Canal waters.

Article 3: The Authority shall establish the requirements and conditions of stability, list, trim, draft, cargo, hull, machinery, and of any other nature, including boarding and sanitation facilities, to allow transit of the vessel and to ensure its safety, as well as that of Canal personnel and structures.

The Authority may deny a vessel's transit if any of the established requirements are not met.

Article 4: Any vessel that fails to meet the requirements for a normal transit, may only transit with the Authority's express authorization, provided the master of the vessel signs a document undertaking to release from all liability and to indemnify the Panama Canal Authority and the Republic of Panama for any damages sustained. The vessel is also liable for any damages sustained by third parties, arising as a result of the above.

Failure to comply with the above requirement shall not relieve the vessel, her owners, or any other person having an interest in her, from liability incurred as a result of any damages sustained.

Article 5: Embarking or disembarking a vessel in Canal waters without the authorization of the Authority, is a risk to navigation safety. These acts shall be punished in accordance with article 127 of the Organic Law, and the Authority shall not be liable for any resulting personal injuries, or damages to vessels or property.

Article 6: Failure to comply with any of the requirements or conditions established by this regulation, shall be reason to deny any claims for delays in navigation.

Article 7: Vessels are subject to inspection, to ensure compliance with and application of this regulation and the regulations pertaining to Safety, Admeasurement and Sanitation and Prevention of Communicable Diseases.

Article 8: The words, expressions, and abbreviations used in this Regulation shall have the following meaning and scope:

Panama Canal Waters. Refers to all waters within the Canal Operation Compatibility Area.

Canal Operation Compatibility Area. The geographic area described in item a of the Annex, including its lands and waters, where only activities compatible with the operation of the Canal may be carried out.

Vessel. Every description of water craft, including non-displacement craft and seaplanes, used or capable of being used as a means of transportation on water.

Power-driven vessel. Any vessel propelled by machinery.

Sailing Vessel. Any vessel under sail, provided that propelling machinery, if fitted, is not being used.

Vessel engaged in fishing. Any vessel fishing with nets, lines, trawls or other fishing apparatus, which restrict maneuverability, but does not include a vessel fishing with trolling lines or other fishing apparatus which do not restrict maneuverability.

Seaplane. Any aircraft designed to maneuver on the water.

Vessel not under command. A vessel which, through some exceptional circumstance, is unable to maneuver as required, and is unable to keep out of the way of another vessel.

Vessel restricted in her ability to maneuver. A vessel which from the nature of her work is restricted in her ability to maneuver as required, and is unable to keep out of the way of another vessel. (See item **b** of the Annex.)

Under way. Applies to a vessel that is not at anchor, or made fast to the shore, or aground.

Length and breadth. The length overall and greatest breadth of a vessel.

Vessels in sight of one another. Only when one can be observed visually from the other.

Restricted Visibility. Any condition in which visibility is restricted by fog, mist, smoke, heavy rainstorms, or any other similar causes.

Motorboat. A power-driven vessel 20 meters (65 feet) in length or less.

Pilot Vessel. A vessel engaged in pilotage duty.

Composite Unit. A pushing vessel that is rigidly connected by mechanical means to a vessel being pushed ahead, so that they react to sea and swell as one vessel. *Mechanical means* does not include lines, wires, hawsers or chains.

Barge-Tank. A non-self-propelled tank vessel.

Dangerous Vessel. A vessel whose character or condition of the cargo, hull, or machinery is such as to endanger the environment, the quality of the water, or the structures pertaining to the Canal, or which might render the vessel liable to obstruct the Canal, or whose draft, at any part of the vessel, exceeds the maximum allowable draft in the Canal, as designated by the Authority.

Rules for the Prevention of Collisions in the Panama Canal. The provisions pertaining to this matter, of which the scope of application is defined in Rule 1 of Article 108 of the Annex.

Rules of the International Regulations for Preventing Collisions at Sea, 1972 (72 COLREGS). International regulations pertaining to this matter, that shall apply in Panama Canal Waters outside of the boundary lines described above.

Booked for transit. Assignment in advance of a specific date for transit of a vessel through the Canal.

Commercial Passenger Vessel. A vessel that principally transports passengers, and runs on fixed published schedules.

Regular Transit. Movement through the Canal of a vessel that has not been booked for transit, on the date and time determined by the Authority.

Required Arrival Time. Date and time established by the Authority as the deadline by which a vessel booked for transit must arrive in order to transit.

Vessel Agent. Person or entity that has been authorized by a vessel owner or operator, in the manner prescribed by Canal authorities, and is empowered to represent him.

Radio Communication. Transmission by radio of writing, signs, signals, pictures, and sounds of all kinds, including all instrumentalities, facilities, apparatus, systems, and services pertaining to the transmissions; among these, the receipt, forwarding, and delivery of radio communication.

Boarding Officer. Any qualified employee of the Panama Canal Authority who is assigned the functions of inspector, with the purpose of ensuring compliance with this Regulation, and the regulations pertaining to Safety, Admeasurement and Sanitation and Communicable Disease Prevention.

Significant Event. An incident affecting the environment, public health, Canal operation, or the safety of individuals, vessels, or structures.

Barge. A flat-bottomed vessel of full body and heavy construction without installed means of propulsion.

Commercial Vessel. A self-propelled vessel, other than a naval, military or other privately owned vessel.

Tropical Fresh Water (TFW). Tropical fresh water of Gatun Lake, density .9954 gms/cc, at 29.1° Centigrade (85° F).

Published tropical fresh water (TFW) Maximum Draft. Deepest point of immersion in Canal waters, authorized by the Authority, taking into account the water level of Gatun Lake and other limitations deemed necessary because of restrictions in the Canal.

Maximum Authorized Transit Draft. Deepest point of immersion in tropical fresh water (TFW) of a particular vessel, as authorized by its Loadline Certificate, Gatun Lake level and Canal restrictions permitting.

Maximum Beam. The maximum breadth (width) of the hull, between the outside surface of the shell plating.

Maximum Length. The distance between the forward and after extremities of a vessel, including the bulbous bow, and any other protrusions.

Maximum Width. The extreme width of a vessel, including protrusions, at its widest point.

Non-Self-Propelled Vessel. A vessel which either does not have an installed means of propulsion, or has an installed means of propulsion which is not functioning during transit.

Small crafts. Vessels up to 38.1 meters (125 feet) length overall, which normally transit the Canal as *handlines*, and do not use locomotives in the locks.

Protrusion. Anything that extends beyond any portion of the hull of a vessel, whether permanent or temporary.

Maximum Height. The allowable height (air draft) for any vessel to pass under any structure across the Canal.

Certificate of Fitness. A certificate issued by or on behalf of a national government, in accordance with the Bulk Chemical Code or the Gas Carrier Code, or the International Gas Carrier Code, certifying that the construction and equipment of the vessel are adequate for safe transportation of the specified dangerous substances in the vessel.

Combustible Liquids. Volatile liquids with flash points at or above 61° C (141° F).

Dangerous Cargo.

- a. Any substance, whether packaged or in bulk, intended for carriage or storage, and having properties coming within the classes listed in the International Maritime Dangerous Cargo Code (IMDG); and
- b. Any substance shipped in bulk, not coming within the IMDG Code classes, but which is subject to the requirements of the Bulk Chemical Code, the Gas Carrier Code, the International Gas Carrier Code, or Appendix B of the Solid Bulk Code.

Dangerous Cargo in Bulk. Any dangerous substance, carried without any intermediate form of containment, in a tank or cargo space which is a structural part of a vessel or in a tank permanently fixed in or on a vessel.

IMO Class. The classification of a dangerous substance under the International Convention for the Safety of life at Sea, 1974, as amended. Under this system of classification, dangerous substances are divided into 9 classes and subdivisions, based on their particular properties.

IOPP Certificate. An IMO International Oil Pollution Prevention Certificate, certifying that the ship has been surveyed in accordance with regulations of MARPOL 73/78.

Packaged dangerous goods. Any dangerous cargo contained in a receptacle, portable tank, container, or vehicle. The term includes an empty receptacle, portable tank or tank vehicle which has been previously used for the carriage of a dangerous substance, unless such receptacle or tank has been cleaned and dried, or when the nature of the former contents permits transport with safety.

Navigation Bridge. The highest closed space of the vessel's superstructures, which allows for complete visibility all around the vessel with the least interference, and which contains all the instruments required for navigation, as well as the machinery and steering controls, and from which the crew and the pilots control the vessel.

Marpol 73/78. The IMO International Convention for the Prevention of Pollution From Ships, 1973, as modified by the Protocol of 1978. Any annex thereto applies to vessels in Panama Canal Waters beginning on the date on which the annex enters into force.

Bulk Chemical Code. The Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk, which is generally applicable to ships built on or after April 12, 1972, but before July 1, 1986.

International Bulk Chemical Code. International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk, which is generally applicable to ships built after July 1, 1986.

International Gas Carrier Code. The International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk, which is generally applicable to ships built after July 1, 1986.

Gas Carrier Code. The Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk, which is generally applicable to ships built after December 31, 1976, but before July 1, 1986.

Code for Existing Gas Carriers. The Code for Existing Ships Carrying Liquefied Gases in Bulk, which is generally applicable to ships delivered before December 31, 1976.

Solid Bulk Code. The International Code of Safe Practice for Solid Bulk Cargoes.

SOLAS. The International Convention for the Safety of Life at Sea, 1974/78.

STCW. The International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers, 1978/95.

IMDG. The International Maritime Dangerous Goods Code.

IMO. The International Maritime Organization.

Section Two Risk Prevention and Control

Article 9: The Authority shall have the authority and responsibility for coordinating the prevention and control of any dangerous events, acts, and accidents which may occur during navigation in Canal waters, for the purpose of safeguarding Canal operations, including the following:

1. Disasters, principally spills of oil and other noxious substances.
2. Elimination of waste.
3. Jettison, principally of the industrial type
4. Transit of dangerous goods
5. Ballast management.

Article 10: The Authority shall have the authority to take charge of and respond to all vessel emergencies in Canal waters, as well as to adopt the pertinent decisions in case any event of this nature occurs in the area.

It shall also be responsible for maintaining communications and notifying the pertinent authorities, and of coordinating the work of any public or private organizations that may participate in the operations.

Article 11: Vessels shall inform of any incident that interferes or hinders safe navigation in Canal waters.

Section Three Scheduling, Booking, Order, and Preference in Transit

Article 12: The Authority shall adopt a vessel transit schedule which shall include a transit reservation system to reserve transit slots before arriving to the Canal and to start transit on a date previously established, provided the vessel has complied with the established requirements.

Article 13: The transit schedule and order of preference established in accordance with the reservation system shall not affect the provisions of Article VI of the Treaty Concerning the Permanent Neutrality and Operation of the Panama Canal, in relation to the right of vessels of war or auxiliary vessels of the Republic of Panama or the United States of America to transit the Panama Canal expeditiously, under the terms and limitations agreed therein.

Article 14: The specific order of transits shall be established daily for all types of vessels, whether booked or regular transits.

Article 15: Canal users shall have a total of 21 reserved transit slots available daily, distributed among the booking periods established by the Authority. The total number of available reserved transit slots may be adjusted commensurate with the safe and efficient operation of the Canal.

Article 16: Transit reservations must be made with the previously established time in advance for each booking period, as established in the Annex, and shall be charged the prescribed booking fee, applied in accordance with the last official publication.

Article 17: A vessel booked for transit will be deemed to have transited the Canal on its reserved transit date if the vessel complies with the conditions established in the Annex.

Article 18: Regular transit shall be on the date and in the order determined by the Authority, and will equal or exceed one-half of the total number of daily vessel transits.

Article 19: Commercial passenger vessels shall be given preference over other vessels in transiting, provided they have been booked, and to the extent that such treatment does not impair safe and efficient operation of the Canal.

Article 20: Substitution of reserved transit slots between or among vessels will be permitted only on conditions specified by the Authority.

Article 21: A vessel booked for transit may not transit prior to its reserved transit date, unless the Authority assigns it an earlier transit slot, after determining that this would not impair the safe and efficient operation of the Canal.

Article 22: A cancellation fee shall be charged, the amount of which will depend on the amount of notice received by the Authority in advance of the vessel's required arrival time.

Receipt of notice of cancellation by the Authority after the vessel's required arrival time, will result in levy of a cancellation fee equal to the entire prescribed booking fee.

Article 23: The Authority shall cancel the reserved transit slot and assess a penalty fee when a vessel incurs in any of the cases described in the Annex, except if acceptable proof of any of the exonerating circumstances established therein is submitted.

When a vessel's reserved transit slot is cancelled, the Authority may re-schedule the vessel for regular transit upon its arrival.

Article 24: A vessel may request cancellation of its transit reservation and re-scheduling for regular transit, or alternatively, make another transit reservation in the cases described in the Annex.

Article 25: The Authority may suspend the vessel transit reservation system in whole or in part.

No penalty fee will be levied against any vessel whose reserved transit slot is cancelled by reason of a temporary suspension of the system.

Section Four
Requirements and Prohibitions

Article 26: All vessels shall display the Panamanian flag from dawn to 1800 hours while they are in Canal waters, and may also display their national and house flags.

Article 27: No firearms may be discharged from vessels while in Canal waters.

Chapter II
Radio Communications

Article 28: The Panama Canal Authority shall regulate radio communications in the Canal operating areas, so far as concerns or affects vessels in Panama Canal Waters or the navigation of such waters. All radio communications shall be in English.

Article 29: Vessels shall comply with the requirements on radio equipment indicated in the Annex to this Regulation.

Article 30: Vessels approaching the Panama Canal shall communicate by radio not less than 48 hours in advance of arrival, and shall provide the Authority the information required by the Annex, unless this information has been previously communicated to the Authority by other means.

Failure to comply with this provision may subject a vessel to delay in transiting.

Article 31: No vessel navigating in Canal waters shall communicate by radio with any other vessel or shore station, local or distant. Except for emergencies, communication with vessel agents, and routine bridge-to-bridge VHF communications, duly approved by the Canal pilot. This restriction shall not apply to Panamanian government vessels.

Article 32: Vessels equipped with a radio shall have a qualified radio operator on board, available to operate the radio while the vessel is in Canal waters.

Article 33: The Authority must be informed by radio of any incident that may cause delay or require assistance. If a Canal pilot is on board, such information shall be reported by the pilot.

Article 34: Vessels shall operate their radio equipment in conformity with the principles and rules stipulated in the international conventions to which the Republic of Panama is a party.

Chapter III Vessel Arrival and Anchorage

Section One Communication and Coordination

Article 35: The Authority shall maintain established communication stations (signal stations) at both the Atlantic and Pacific entrances of the Canal, to facilitate access to Canal waters. Vessels shall contact these stations prior to their arrival, on channel 12 in the 156 MHz frequency band.

Article 36: Coordination for the use of the Atlantic and Pacific anchorage areas shall be carried out in accordance with the provisions stipulated in the Annex.

Section Two Anchorage and Inspection

Article 37: There shall be authorized anchorage areas at the entrances to the Canal, as described in the Annex.

If there should be any discrepancies between the authorized anchorage areas pursuant to this article, and the anchorage areas described in Annex B of the Treaty Concerning the Permanent Neutrality and Operation of the Panama Canal, the description in the treaty documents shall govern.

Article 38: Anchorage in other than a designated anchorage area in accordance with the Annex, and tie up to any aid to navigation in Canal waters, is hereby prohibited.

Article 39: A vessel in danger, or in an emergency situation, or in need of assistance, may use a non-designated anchorage area, provided such vessel has, if possible, given due notice in advance to the Authority.

In such a case, vessels going to anchor inside the Cristobal breakwater may use a pilot for such purpose.

Article 40: Vessels shall anchor in the designated areas to await for instructions and inspection.

Article 41: All vessels shall hand the documentation described in the Annex to the authorized person, to be verified for compliance with all the requirements established herein.

Article 42: Vessels receiving a favorable inspection report shall be admitted for entrance to the Canal.

Article 43: The Authority may deny entry to a vessel for failure to comply with Panama Canal regulations. However, vessels may be provisionally admitted, under the conditions set forth by

the Authority, if they comply with the requirements established in the Annex before departing Canal waters.

Article 44: Embarking/disembarking is prohibited until an anchored vessel has been declared safe, in accordance with public health regulations.

Article 45: Persons authorized to embark/disembark vessels under way shall do so at points that have been designated by the Authority, in accordance with the provisions of the Annex.

Article 46: No person may embark a vessel at anchor or under way in Canal waters, with or without the Master's consent, except for pilots, shipping agents, inspection officers in the performance of their duties, and any persons authorized by the Authority.

Section Three Precautionary Measures and Attachment of Vessels

Article 47: A vessel that is in transit shall not be stopped.

Article 48: The Authority shall provide the required transit information so that precautionary measures or attachments may be taken at the end of the vessel's transit.

Article 49: As provided in the Annex, the Authority shall cooperate with the competent authorities in carrying out any decreed precautionary measure or attachment of the vessel.

Chapter IV General and Specific Provisions Regarding Vessels

Section One Dangerous Vessels

Article 50: Dangerous vessels may be denied passage through the Canal, under any of the circumstances stipulated in the Annex.

Article 51: Transit through the Canal may be permitted, at the discretion of the Authority, and at the vessel's own risk, when the vessel has a list of between 3 and 10 degrees; her beam exceeds 32.31 meters (106 feet); or is so loaded or trimmed as to adversely affect her maneuverability.

The vessel representative shall sign a document releasing the Authority from liability, in accordance with the provisions of article 4.

Section Two Size, Draft, and Trim Limitations of Vessels

Article 52: Vessels to transit the Canal must comply with the draft rules set forth in the Annex.

Article 53: The draft of a vessel may be restricted under the circumstances indicated in the Annex.

Article 54: The master or any member of the crew may not alter the trim or draft of a vessel while it is transiting the Canal, without the prior express approval of the pilot.

Article 55: Size limitations regarding the beam, length, width, height, and protrusions of the vessels may also be imposed, in accordance with the Annex.

Article 56: The Authority shall be released from liability and indemnified for damages sustained as a result of accidents occurring under the situations indicated in the Annex.

Section Three Boarding Facility Requirements

Article 57: All vessels must have appropriate and safe boarding facilities, in accordance with the provisions of the Annex.

Article 58: The boarding facilities must conform with the requirements described in the International Convention for Safety of Life at Sea, 1974/78 (SOLAS).

Section Four Construction, Number, and Locations of Chocks and Bitts

Article 59: Vessels transiting the Canal must comply with the requirements regarding the construction, number and locations of the chocks and bitts, as indicated in the Annex.

Any vessel which fails to meet the requirements of this article may be denied transit.

Article 60: The Authority, at its discretion and at the vessel's own risk, may allow a vessel to transit notwithstanding her failure to comply with the requirements of this article, provided it does not pose undue danger to equipment or to personnel, and the vessel representative has previously executed a release.

In case of losses or damages, the Authority shall be indemnified in accordance with the provisions of article 63 and other pertinent articles of the Organic Law.

Section Five Navigation Bridge Requirements

Article 61: Vessels in transit must comply with the following navigation bridge structures, equipment, and conditions, as specified in the Annex:

1. Navigation Bridge
2. Bridge wings
3. Conning Positions
4. Minimum visibility requirements
5. Indicators
6. Bow/Stern Thrusters
7. Whistle Controls
8. Magnetic Compass and Gyro Compass
9. High frequency radio equipment
10. Steering Light

Article 62: Vessels which fail to comply with the requirements of the foregoing article may transit the Canal at the discretion of the Authority, in accordance with article 4.

Article 63: Vessels may be denied future transits if deficiencies are not corrected in the allowed period of time indicated in the required release document referred to in the foregoing article.

Article 64: The Authority may require installation of pilot shelter platforms, in accordance with the vessel's design, dimensions, location of the navigation bridge, and number of pilots assigned, as provided in the Annex.

Section Six Maneuvering Characteristics

Article 65: Each vessel of 1,600 gross tons or over shall have the maneuvering information stipulated in the Annex prominently displayed in the navigation bridge.

Section Seven Signal System

Article 66: All vessels shall have a signal system in good operating conditions between the navigation bridge and the engine room.

Failure to comply with the above may cause delay in transiting.

**Section Eight
Engine Orders to be Recorded**

Article 67: All vessels are required to have a system to record every engine order transmitted to the engine room, and another record of the orders received in the engine room, as indicated in the Annex.

**Section Nine
Provision of Meals**

Article 68: Vessels shall furnish meals without charge to Authority personnel whose assignment will require them to be aboard the vessel for four or more hours.

If a vessel is unable to provide meals, or if such meals are unsuitable, they may be furnished by the Authority at the expense of the vessel.

**Section Ten
Sanitary Facilities**

Article 69: Vessels should have suitable sanitary facilities for Authority personnel aboard.

If a transiting ship does not have adequate sanitary facilities, the interval for which each pilot is assigned will be shortened, with the consequential delay, particularly in the case of vessels whose progress is slow.

**Section Eleven
Disabling of Engines**

Article 70: No vessel at any Authority dock or mooring shall have its engines disabled or otherwise rendered inoperative, except when expressly authorized by the Authority.

**Section Twelve
Emission of Sparks, Smoke, or Noxious Gases**

Article 71: Vessels in Canal waters shall take all necessary precautions to avoid the issuance of sparks, excessive smoke, or noxious gases. Vessels that do not comply with this provision may be moored or anchored until the situation is under control.

Vessels shall be held liable for any damages sustained because of failure to comply with the above.

Section Thirteen Deck Load Cargo

Article 72: A vessel carrying a deck load shall have it stowed safely, arranged as to prevent any shifting or displacement, and sufficiently clear to permit safe access to working spaces by personnel, in accordance with the provisions set forth in the annex.

Article 73: Vessels may transit with deck cargo protruding over one side at their own risk in accordance with the provisions of article 4, if:

1. Deck cargo does not exceed 4.57 meters (15 feet); and
2. If the maximum beam, including protrusions, does not exceed 25.9 meters (85 feet).

Section Fourteen Deck-Loaded Containers on Ships not Purpose-Built for Container Carriage

Article 74: The Authority shall establish minimum visibility requirements for transits with deck-loaded containers by vessels not designed for such purpose.

The Authority shall be released from all liability for damages resulting from noncompliance with the provisions of the foregoing paragraph.

Article 75: Such ships shall provide information regarding:

1. Location of deck-loaded containers by hatch or tank
2. Number of containers loaded abeam, fore and aft
3. How high they are stacked
4. Whether the containers are oriented athwartships or longitudinally
5. Any other information that is required.

Article 76: Vessels transiting for the first time, or that only transit occasionally with deck-loaded containers, shall be checked to determine suitability for transit, and the need to execute a release from liability in case of noncompliance with the visibility requirements.

Vessels transiting regularly with deck-loaded containers shall be advised of any limitations to the number and configuration of deck-loaded containers necessary to satisfy the requirements mentioned in the foregoing paragraph.

Section Fifteen Prohibitions on Fishing, Placing of Nets, and Other Obstructions

Article 77: No fishing nets or other obstructions shall be placed in navigable waters of the Canal.

Article 78: Fishing boats and small craft shall not anchor for the purpose of fishing, nor haul nets or trawls in the anchorages or navigable channels of the Canal.

Article 79: No lines, pipes, or other type of objects shall be passed across any channel or anchorage, so as to obstruct the passage of vessels, except under previous authorization.

Section Sixteen Non-self-propelled vessels

Article 80: Non-self-propelled vessels (dead tows), other than composite units, shall require advance permission for initial transit. This permission shall be granted on a case-by-case basis.

These vessels must comply with the requirements set forth in the annex.

Section Seventeen Small Craft, Yachts, and other Handlines

Article 81: Small crafts not transiting the Canal shall be subject to the provisions of Rule 36, article 108 in the annex.

Article 82: Handlines transiting the Canal shall be under the control of the Authority, and must comply with the requirements set forth in the annex.

Article 83: In no case shall handlines be allowed to pass beyond the Bridge of the Americas northbound, or beyond buoys 3 and 6, Limon Bay, southbound, without the services of a Canal pilot or transit advisor.

Article 84: Handlines may transit on any day of the week, consistent with safety and locks personnel availability.

Article 85: All handlines must be scheduled to transit in daylight, unless approved for night transit, with the exception of certain local, commercial, and official small crafts, which may be scheduled for daylight and night transit, at the discretion of the Authority.

Night transits shall lock to the side wall only.

Article 86: The Authority shall deny transit, if a handline vessel cannot maintain a speed of five knots. However, a vessel may be towed through the Canal by another handline that can maintain five knots, or make arrangements to be towed, at her own expense, by a PCA launch.

Section Eighteen
Navigation in Culebra Cut (Gaillard)

Article 87: Other than vessels transiting the Canal, no small craft may navigate in Culebra Cut, except with express authorization by the Authority.

Section Nineteen
Gear for Transiting

Article 88: Before beginning transit of the Canal, a vessel shall have her required gear, as set forth in the annex.

Section Twenty
Flags and Pennants

Article 89: All transiting vessels shall display flag signals with the assigned schedule number, according to the instructions contained in the annex.

Chapter V
Pilotage

Section One
Compulsory Pilotage

Article 90: Pilotage is compulsory in Canal waters. The Authority shall determine the number of pilots assigned to each vessel navigating in Canal waters, including the ports of Cristobal and Balboa, pursuant to the provisions of the annex.

Article 91: Authority vessels, tugs and other floating equipment are exempted from compulsory pilotage.

Article 92: The pilot assigned to a vessel shall have control of the navigation and movement of such a vessel.

Article 93: The assigned pilot shall board the vessel within the breakwater north of the Mole Beacon, at the Atlantic entrance, and in the anchorage to seaward of buoys 1 and 2, at the Pacific entrance.

Article 94: Vessels arriving at the Atlantic entrance may be boarded before entering the breakwater, at the request of the interested party, in accordance with the requirements set forth in the annex.

Article 95: Small crafts less than 20 meters (65 feet) in length shall be assigned a traffic advisor, who will function as an advisor to the crew, providing knowledge of the Canal operating area, and procedures to follow. Only under special circumstances shall these vessels be assigned a Panama Canal pilot.

Article 96: Small crafts of more than 20 meters (65 feet), shall require a pilot.

Article 97: The Authority may suspend the rule on compulsory pilotage whenever there is a critical shortage of certified Panama Canal Authority pilots. For this, it will impose such conditions as are necessary with respect to any given vessel, to protect human life, the environment and the property and facilities of the Panama Canal.

Section Two Exemptions from Compulsory Pilotage in the Ports

Article 98: The Authority shall determine the vessels and small crafts categories that may be exempted from compulsory pilotage in the ports.

Article 99: Vessels or small crafts exempted from compulsory pilotage must comply with the operation requirements specified in the annex, as the case may be.

Article 100: Small vessels anchored in Anchorage Area F may proceed to sea without a Canal pilot on board, prior permission by the Authority to depart. However, vessels anchored in Anchorage Area C shall require a Canal pilot to this effect.

Article 101: Pilotage for vessels in transit through the Canal is included in the tolls. Should a vessel require a pilot for other than transit, she shall assume the corresponding pilotage charges.

Chapter VI Requirements Concerning the Crew

Section One Vessels to be Fully Manned

Article 102: A vessel navigating the waters of the Canal shall be sufficiently manned to permit safe handling of the vessel. The crew must meet the standards set forth in the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW).

Article 103: When under way in Canal waters, a vessel shall keep a full watch on deck and in the engine room, as set forth in the annex.

Article 104: Transit of the Canal may be denied to any vessel which does not comply with the requirements set forth in the foregoing articles.

Section Two Master and Officers

Article 105: The master of the vessel or a qualified officer shall be present on the bridge, as set forth in the annex.

Section Three Persons not Allowed on Bridge

Article 106: While a vessel is under way, no person shall be allowed on the bridge or in the pilot shelter, except Authority personnel, the master, and other members of the crew or representatives of the vessel.

Chapter VII Entering and Passing Through the Locks

Article 107: When entering and passing through the locks, vessels must comply with the safety rules, technical provisions, and prohibitions set forth in the annex, relating to:

1. Passengers and crew.
2. Embarking or disembarking at locks.
3. Use of locomotives and linehandlers.
4. Arrow signals.
5. Use of towing locomotives.
6. Handlines.
7. Required Lines.

Chapter VIII Prevention of Collisions

Article 108: Vessels and seaplanes navigating the Canal waters shall comply with the international rules contained in 72 COLREGS, and the Rules for the Prevention of Collisions in the Panama Canal, constituted by provisions on collision prevention, maneuvering, and warning whistle signals, of particular application in the Canal, as dictated by the Authority, and contained in the annex hereto.

Article 109: Vessels or small crafts of special construction or destined to a special purpose, exempted from compliance with the international rules (72 COLREGS), shall have a certificate of alternative compliance issued by the government of the vessel concerned, and approved by the Authority.

Article 110: Nothing in this Chapter shall exonerate any vessel, or the owner, master, or crew thereof, from the consequences of neglecting to comply with these regulations, or with any precaution which may be required by the normal practice of seamen or the particular circumstances of the case.

Article 111: In construing and complying with the rules set forth in this Chapter and its annex, due regard shall be had to all dangers of navigation and collision, and to any special circumstances, including the limitations of the vessels involved, which may make a departure from said regulations necessary, to avoid imminent danger.

Chapter IX Dangerous Cargo

Section One General provisions, Classification, and Inspection

Article 112: War or auxiliary vessels, as defined in the Treaty Concerning the Permanent Neutrality and Operation of the Panama Canal, shall not be subject to the rules relative to the transportation of dangerous cargo contained in these regulations.

Article 113: On the subject of dangerous cargo, reference to codes, international agreements, or other regulations, shall also be deemed to refer to any amendments or additions thereto on or after the date such amendments or additions become effective.

Article 114: The Authority shall determine the nature or classification of dangerous cargo in accordance with IMO guidelines, as set forth in the annex.

Article 115: All vessels carrying dangerous cargo shall test all their monitoring alarms, safety devices, and fire fighting systems 24 hours prior to arrival in Canal Waters, pursuant to the provisions of the annex.

Article 116: The Authority may inspect any vessel carrying dangerous cargo to ensure compliance with the requirements set forth in these regulations.

Section Two Dangerous Cargo in Bulk

Article 117: This section only applies to vessels carrying dangerous liquefied gases, liquids, and solids in bulk, including direct reduced iron, or tankers in ballast condition which are not gas free.

Transportation of this type of cargo is subject to the requirements of advance notice, presentation of documents, and prohibited cargoes; and to the restrictions established herein.

Article 118: These provisions shall not apply to vessels carrying combustible liquids in bulk having a flash point above 61° C (141° F).

Article 119: The Authority must be provided 48 hours advance notice of the information required by the “GOLF” item in the pre-arrival radio message prescribed in article 30 of the annex.

Article 120: Vessels carrying dangerous cargo must comply with anchoring, signal, transit, and cargo requirements, as well as the standards set forth in IMO conventions and codes on the subject, as prescribed by the annex.

Article 121: Vessels subject to the provisions of this Section must submit the documentation listed in the annex to the Authority.

Article 122: Unstable or explosive substances in bulk which are unduly sensitive or so reactive as to be subject to spontaneous reaction, are prohibited in Canal Waters.

Article 123: Cargo not listed in the Bulk Chemical Code, Gas Carrier Codes, International Gas Carrier Code, or Bulk Carrier Code, as appropriate, are prohibited unless advance approval is given by the Authority.

Article 124: Bulk chemical and liquefied gas carriers are prohibited to carry dangerous cargoes not listed in their Certificate of Fitness or Compliance in Canal waters, unless approval is requested 30 days in advance, and is given by the Authority.

Article 125: Chemicals listed in Chapter 7 of the “Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk” or in Chapter 18 of the “International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk,” do not have to appear in the Certificate of Fitness.

Article 126: Vessels carrying *direct reduced iron* in any of its forms shall comply with the requirements established in IMO conventions and codes on the subject, as well as the cargo requirements prescribed in article 120 and the Solid Bulk Code, and provide the documentation prescribed in the annex.

Section Three Dangerous Packaged Goods

Article 127: Vessels carrying packaged dangerous goods shall comply with the requirements on advance notice, documentation to be provided, prohibited cargo, and the restrictions contemplated herein.

Article 128: Vessels carrying packaged dangerous goods must meet the requirements on anchoring, transit, and cargo, and the requirements established by the IMO conventions and codes on the subject, as set forth in the annex.

Article 129: The Authority shall be provided at least 48 hours advance notice of the information required in the “HOTEL” item on the pre-arrival radio message, pursuant to article 30 of the annex; however, if the cargo is explosive, the information required in the “GOLF” item of the message shall be provided.

Article 130: Vessels carrying dangerous packaged goods must deliver to the Authority a Dangerous Cargo Manifest, as described in the annex.

Article 131: Packaged dangerous goods which are not carried in compliance with the IMDG Code are prohibited in Canal waters.

Article 132: Vessels carrying explosives (**Class 1**) shall comply with the requirements set forth in the OMI conventions and codes, and those relative to the cargo indicated in the annex, as well as the provisions of the IMDG Code.

Article 133: Loading or unloading of explosives for the use of the Authority shall only be done in the areas designated by the Authority.

Article 134: Unloading explosives at other locations may be done only under the conditions described in the annex.

Article 135: Vessels carrying *radioactive substances* (**Class 7**) shall comply with the same requirements set forth in the IMO codes and conventions, the cargo requirements set forth in article 128 of the annex, as well as the provisions contained in the IMDG Code.

Article 136: Canal waters will be considered a country en route for the transportation of radioactive substances, for the purpose of prior notification and approval of shipments, in accordance with the IMDG Code.

Article 137: Notification shall be given to the Authority 30 days in advance of the arrival of the vessel in Canal waters for all fissionable materials, to obtain approval to transit such cargo.

Article 138: No container or cask containing radioactive substances, or any attachments thereto, may weigh more than 150 tons.

Article 139: Vessels carrying radioactive substances shall be required to provide current proof of financial responsibility and adequate provision for indemnity to the Republic of Panama, the Authority, or any agency thereof, covering public liability and loss as a result of accidents owing to radioactive cargo.

Article 140: The vessels referred to in the foregoing article must furnish the Authority copy of the cargo radiation safety inspection, in compliance with the Class 7 IMDG Code requirements, as soon as the inspection is completed, and before the radioactive shipment is loaded.

Article 141: Vessels carrying low specific activity or low level solid radioactive substances, as well as radioactive substances carried in limited quantities, shall provide no less than 48-hour advance information, as required under article 30 of the annex, including the specifics required by the IMDG Code set forth in the annex.

Chapter X Offenses, Sanctions, and Sanctioning Proceedings

Section One General Provisions

Article 142: A negligent act or omission in violation of the provisions on the safety of navigation in Canal waters of the Organic law and the Authority regulations, relating to the use of the Canal and its facilities, traffic administration, and pollution prevention in Canal waters, shall be considered an administrative offense.

The provisions referred to in the foregoing paragraph include any additional regulations, procedure manuals, prohibitions, orders, instructions, and authorizations issued by the Authority, with the purpose of enforcing or applying the regulations.

Article 143: Liability for violations to the safety of navigation in Canal Waters arises from failure to comply, by the owners, operators, masters, mates, crew members, and passengers of a vessel, with Authority provisions, rules, orders, or authorizations.

In these cases, the master or officer in command of the vessel shall be liable in solidum for any offenses with the vessel owner and operator.

Article 144: Natural or juridical persons, national or foreign not directly involved with the vessel's operation and transit, shall be equally liable for the conducts described in the foregoing article.

In these cases, when members or representatives of a juridical person commit offenses attributable to that juridical person, the member or representative and the juridical person shall be liable in solidum for any offenses committed.

Article 145: Sanctions shall be imposed by the Administrator of the Authority or his designee.

Article 146: Sanctioning the offenses described in this Chapter will not preclude the Authority from demanding the resulting damages as set forth in article 127 of the Organic Law.

Article 147: The indemnification for damages caused by an offense shall be determined through a separate procedure, in accordance with the regulations issued by the Authority for such purpose.

Section Two Offenses

Article 148: Offenses are classified as not serious, serious, and very serious, according to the magnitude of the damage, risk, or danger caused, or other circumstances surrounding the facts.

Article 149: Offenses related to maritime safety and pollution are considered violations of the provisions on safety of navigation in Canal Waters.

Maritime Safety Offenses

1. Any particular activity not authorized by the Authority, which in any way impairs, delays, stops, obstructs or prevents navigation or operation of vessels in Canal waters, or the operation of the locks, or which by any means threatens such activities.
2. Not providing the information required by the regulations, or requested by the Authority upon a vessel's arrival, or providing incorrect, false, or deficient information.
3. Failure to submit the vessel's required or exact documentation, or any documentation that may be required for the vessel's inspection.
4. Undertake navigation or giving orders for the vessel to be under way, without the vessel having the proper seaworthiness, as required by this regulation.
5. Failure to comply with the regulations, orders, or instructions issued by the Authority in relation to maritime operations in Canal areas.
6. Failure to comply with the regulations on cargo loading and unloading, or embarking or disembarking of passengers.

7. Failure to comply with any provisions or instructions on shipping, handling, or stowage of dangerous cargo; concealment of dangerous cargo; or concealment of the cargo's dangerous nature.
8. Failure to comply with Authority rules or instructions on the transit of and provisions on small crafts, including vessels for recreational or other purposes, and on the use of any devices, equipment, or gear which may imply a risk to navigation in Canal waters.
9. Violation of the rules on dismantling a vessel's engines or rendering them inoperative, or abandoning or destroying vessels in Canal waters.
10. Failure to comply with the rules contained in international codes, conventions, and treaties on maritime safety, subscribed by the Republic of Panama.
11. Unauthorized navigation of any type of vessel, small crafts, or artifacts used for transportation, fishing, or recreation, in the areas designated by the Authority as areas of restricted access, or traveling at a speed in excess of the limits set forth by the effective regulations.
12. Navigation without the required signal systems, designed for the permanent location and detection of the vessel.
13. Use of unauthorized acoustic signals.
14. Carrying of weapons, devices or illegal or dangerous substances not authorized by the Authority.
15. Failure to comply with the duty to report any incidents that may endanger the safety of navigation in Canal waters.
16. Actions or omissions not included in the above items, which may imply a risk or which may be dangerous to the safety of navigation in Canal waters.

Pollution of Canal Waters

1. Any activity that implies a risk of, or results in, pollution of the waters within the Canal operation compatibility area.
2. Failure to comply with the provisions or prohibitions contained in the regulations, as well as in the international codes, conventions, and treaties relative to waters pollution and prevention thereof, to the extent that it affects the safety of navigation in Canal waters.

3. Dumping of solids, liquids, gases, or other substances in Canal waters, from vessels, or any other floating artifacts.
4. Not reporting immediately to the Authority any accidental dumping or spills from a vessel.
5. Carrying out any repairs, cleaning, or other activities which may cause pollution.
6. Any other actions or omissions not included in the above items, which violate the regulations on Sanitation and Prevention of Communicable Diseases.

Article 150: When the administrative offense may be considered a criminal offense, the case shall be referred to the competent authorities.

Section Three Sanctions

Article 151: The following sanctions shall be imposed for offenses, according to their seriousness:

1. Non-serious offenses: fines of one hundred Balboas, to ten thousand Balboas (B/.100.00 – B/.10,000.00).
2. Serious offenses: fines of ten thousand and one Balboas, to one hundred thousand Balboas (B/.10,001.00 – B/.100,000.00).
3. Very serious offenses: fines of one hundred thousand and one Balboas, to one million Balboas (B/.100,001.00 – B/.1,000,000.00).

Article 152: In ranking the fines to be imposed, due consideration shall be given to the proportion between the seriousness and significance of the offense and the punishment applied, with special consideration of, but not limited to, the following criteria:

1. Whether the offender is a natural or juridical person.
2. Nature, kind, means, purpose, time, place, and any other characteristics of the offense.
3. Intensity of the criminal intent or degree of negligence.
4. Nature and magnitude of the damage, danger, or risk involved.
5. Repetition of an offense of the same nature within a period of one year.

Article 153: When applying the specific sanctions contemplated in this Regulation, it shall also be considered that committing the offense should not be more beneficial to the offender than complying with the provisions he has violated.

Article 154: If the alleged offender does not justify his actions, confesses to having committed the offense, and states that he agrees to abide by the punishment, the Authority shall immediately assess the appropriate fine, reducing it by one third.

Section Four

Opening of the Proceedings

Article 155: The sanctioning proceeding shall be initiated by the Administration sua sponte, as a result of a superior order, at the justified request of another government agency, or in response to a denunciation.

The superior order, the justified request, or denunciation shall specify, to the extent possible, the person or persons presumably responsible for committing the offense; the conduct or facts that constitute the offense and its legal typification; and the place, date, or period of time in which the facts took place.

Article 156: Preliminary inquiries may be carried out prior to formal initiation of the proceedings, to determine if the circumstances warrant the proceedings.

The inquiries shall be carried out by the persons or the administrative unit in charge of inspection and investigation of such matters, and shall be oriented towards determining as precisely as possible the facts which may warrant the initiation of the proceeding, identification of the responsible persons, and other relevant circumstances.

Article 157: The proceedings shall be initiated through a formal statement containing, as a minimum, the following information:

1. Identification of the alleged offender(s).
2. The reasons justifying the proceeding, possible legal typification of the offense, and applicable sanctions, notwithstanding the results of the investigation.
3. Designation of the investigating official, and the Secretary of the proceedings or case file.
4. Reference to the Regulation assigning jurisdictional competency, with indication of the possibility that the alleged offender may voluntarily admit his offense, with the effects set forth in article 154.
5. Any temporary measures taken to ensure the effectiveness of the investigation, pursuant to article 162.
6. Indication of the alleged offender's right to make allegations within ten working days, following his notification.

Article 158: The formal statement initiating the proceedings shall be referred to the investigating officials, including all pertinent documentation, and notice shall be given to the alleged offender. In this notice the offender shall be advised that his non-appearance to contest the charges in the prescribed term shall be cause for immediate sanctioning of the offense.

Article 159: When the offender is a juridical person, the charges shall be made against and notified to its legal representative. However, if the offense was committed in or by means of a vessel, the charges shall be made against and notified to the master, or in his absence, to the officer in command of the vessel.

If the offense is committed by a natural person who is a member or a representative of a juridical person, and the offense is attributable to that juridical person, the charges shall be made against and notified to both.

Article 160: The Administration shall begin at its own initiative all the proceedings according to the principles of promptness and transparency, through its conclusion. Failure to comply with this provision shall result in disciplinary action against the transgressing personnel.

Section Five Investigation

Article 161: The required investigations for the determination, knowledge, and verification of the facts or the data on which the decision shall be based, so that the Administration may arrive at an informed decision, shall be carried out without prejudice to the right of the alleged offenders to request any actions that may require the intervention of the Administration.

Article 162: To ensure the effectiveness of the investigation, when an offense so warrants it, the competent authority may, through a decision setting forth the reasons thereof, proceed to take any temporary precautionary measures. These temporary measures may not exceed the time required to take the specific action, as the circumstances may require.

When they are so urgent that they cannot be postponed, the investigating organization may take the temporary precautionary measures, subject to the formalities and restrictions set forth in this article.

Article 163: The alleged offenders shall have the term set forth in article 157 to make allegations, and to submit any documentation and information they deem necessary in their defense, as well as to present evidence, specifying the means that they will use in their defense.

Article 164: Facts that are relevant to a decision in a proceeding may be proven by any means that are admissible by law.

Article 165: When the Administration has reason to doubt the facts alleged by the persons charged with the offense, or when evidence has been presented, the investigator may agree to a period of no more than twenty, and no less than five, working days to submit any evidence, so that he can hear any evidence he deems pertinent.

The investigator in the case may only reject the evidence submitted when it is evidently inadmissible or unnecessary, through a resolution laying out the reasons therefor.

Article 166: The alleged offenders shall be given notice of the proceeding referred to in the foregoing article with sufficient anticipation, indicating the place, date, and time in which each evidence admitted shall be heard, and a statement to the effect that the offender may appoint experts to assist him.

Article 167: In case the hearing of any evidence requested by the alleged offender causes any expenses to the Administration, it may require payment in advance for these expenses, subject to definitive payment of the total amount.

Article 168: Upon concluding the investigation, the investigator in the case shall prepare a proposed resolution, explaining and supporting his findings, indicating the facts that have been proven and their legal typification, specifying the offense that was committed, the person or persons who allegedly committed it, and the proposed sanction; or he shall make a statement to the effect that the offense or the liability is non-existent.

Section Six Conclusion of the Proceedings

Article 169: Before issuing a resolution, the competent authority may decide, setting forth the reasons thereof, to carry out complementary actions indispensable for the proper resolution of the proceedings. This decision shall be notified to the alleged offenders, indicating the term established to carry out these actions, which shall not exceed fifteen days.

Article 170: The resolution concluding the proceedings shall set forth the reasons for such a decision, and shall address all the issues presented by the offenders, and derived from the proceedings. It shall include an evaluation of the evidence that was heard, especially the evidence that constitutes the basis for the decision, and shall establish the facts, the persons responsible for committing the offense, the offense committed, its seriousness, and the corresponding sanction.

The resolution shall also contain a statement of the offender's appeal rights, the authority to which he may appeal, and the time allowed for the appeal.

Article 171: The resolution issued shall be immediately enforceable, unless the interested parties file the appropriate appeal within the prescribed term.

Article 172: The Administration may rectify at any time, sua sponte, or at the request of the alleged offenders, any material, factual, or arithmetical mistakes found in the proceedings.

Section Seven Summary Proceedings

Article 173: When the investigator or his personnel have reasons to believe that there is sufficient evidence to classify the offense as "not serious", and the offense has not caused any damages, the case shall be tried expeditiously, by means of a summary proceeding.

Article 174: The summary proceeding shall be held in accordance with the following procedure:

1. A record shall be prepared, documenting the facts of the offense, the alleged offender, and the basis for such classification of the offense, stating that no material damage or harm has been caused.
2. A resolution shall be issued based on the foregoing document, relating the above circumstances, and the corresponding sanction.

However, if in the opinion of the competent authority, the facts constitute a serious offense, the case shall follow the regular procedure established in this Regulation.

Article 175: Immediate notice of the convicting resolution shall be given to the offender or his shipping agent, if the case may be, who may appeal it, in accordance with the foregoing articles.

Section Eight Administrative Remedies

Article 176: The administrative procedure for offenses against the safety of navigation in Canal waters only admits one of the following forms of appeal:

1. Appeal for reconsideration to the Administrator of the Authority or his designee, provided the fine assessed does not exceed the amount of one hundred thousand Balboas (B/.100,000.00).
2. Appeal to the Board of Directors in full, when the amount of the fine assessed exceeds the amount indicated in item 1 above.

The appropriate appeal to the issuing authority must be filed and formalized within five working days, following the appellant's receipt of the notice of decision.

Article 177: The authority to which the appeal is made shall contact the appellants, to advise them that they must present their allegations, documentation and support material, within ten working days following receipt of notice of the decision that was appealed.

Article 178: Notwithstanding the above, the authority hearing the appeal may examine new evidence ex officio, within a period of a maximum of ten working days.

Article 179: In deciding the appeal, all the formalities and merits of the case in process shall be examined, whether alleged or not.

Article 180: Resolutions to decide an appeal may not impose greater sanctions than those imposed by the original decision.

Article 181: The decisions issued shall terminate the administrative procedure and shall be enforceable immediately.

Section Nine
Notices

Article 182: Resolutions shall be personally served to the offender, within two working days of their date of issuance.

Article 183: When the alleged offender is not found, this shall be recorded in the case file, and notice shall be given to the offender by means of a public notice posted in the appropriate administrative office, for a period of three working days. Notice will be considered given on the date the public notice is removed. In the case of offenses committed aboard or by means of a vessel, the public notice may be posted in the bridge, and it shall be considered given, without prejudice to giving notice to the vessel's shipping agent domiciled in the Republic.

The public notice shall contain a statement regarding the matter in question, the date, the dispositive part of the resolution, and the lawful forms of appeal.

Article 184: Notwithstanding the provisions of the foregoing article, any resolutions the course of which is not known to the alleged offender shall be personally served; if this is not feasible, public notice shall be posted, pursuant to the Judicial Code of the Republic of Panama.

Article 185: This Regulation shall become effective on December thirty-one, nineteen hundred and ninety-nine, at twelve noon.

PARAGRAPH: The Administrator of the Panama Canal Authority is hereby authorized to publish and disseminate this Regulation with a different format, including annotations and comments, to facilitate its use by the users of the Canal.”

Given in Panama, on the third day of June, nineteen hundred and ninety-nine.

To be published and enforced.

Jorge Eduardo Ritter

Diógenes De La Rosa

Minister for Canal Affairs

Secretary

“ANNEX

Chapter I General Provisions

Section One General Provisions and Definitions

Article 8:

a. *Canal Operation Compatibility Area.* Described as a continuous area generally following the course of the Panama Canal, and generally contiguous to it, running from the Atlantic ocean to the Pacific ocean. It includes the Atlantic entrance and its anchorage areas, the port of Cristobal, Gatun Locks, Gatun Dam, Gatun Spillway, Gatun power station, portions of Gatun Lake, Culebra Cut, Pedro Miguel Locks, Miraflores Lake, Miraflores Locks, Miraflores Spillway, Miraflores Filtration Plant, Miraflores power station, the port of Balboa, the Pacific entrance and its anchorage areas, as well as the land and water areas encompassing them.

b. *Vessel restricted in her ability to maneuver.* This term includes, but is not limited to:

b.1 A vessel engaged in laying, servicing or picking up a navigation mark, submarine cable or pipeline.

b.2 A vessel engaged in dredging, hydrographic, or oceanographic activities, or in underwater operations.

b.3 A vessel engaged in a towing operation that severely restricts the towing vessel and her tow in their ability to deviate from their course.

Section Three Scheduling, Booking, Order, and Preference in Transit

Article 16: Transit reservation may be made only during the following periods:

1. First period: 365 to 22 days prior to transit date.

2. Second period: 21 to 4 days prior to transit date.

3. Third period: 3 to 2 days prior to transit date.

Article 17: A vessel booked for transit will be deemed to have transited the Canal on its reserved transit date if the vessel arrives at the first set of locks in either of the Canal terminals before 2400 hours that same day; and its in transit time (ITT) is 18 hours or less. ITT starts when the vessel enters the first set of locks in either of the terminals of the Canal; and ends when

the vessel exits the last set of locks at the opposite terminal. Booking fees shall not be applied if, through no fault of the vessel, and as determined by Canal authorities, ITT exceeds 18 hours, except that this provision shall not apply in the case of turn-around transits, where the vessel enters and exits the same set of locks, in either of the Canal terminals.

Article 23: The Authority shall cancel the reserved transit slot and assess a penalty fee equivalent to the booking fee, or to the amount established in the Schedule of Tariffs, whichever is greater, in the following cases:

1. When a vessel with transit restrictions (i.e., one way transit in the Cut, daylight transit in the Cut) arrives at a Canal terminal after 0200 hours on the day the vessel is scheduled for transit.
2. When a vessel without transit restrictions arrives at a Canal terminal after 1400 hours on the day the vessel is scheduled for transit.
3. When a vessel arrives on time, but cannot, or by decision of her operator, does not transit as scheduled, notwithstanding the Authority's willingness to proceed with the transit.

Failure to provide the accurate and complete information required by the Authority when a transit reservation is requested, shall be cause for denial of the request or cancellation of the transit slot.

Exempting circumstances:

Acceptable proof that the late arrival was due to a medical or humanitarian emergency which occurred during the voyage, an act of God, extraordinary phenomenon, or a mayor event, which could not reasonably have been anticipated.

Article 24: A regular or reserved transit may be re-scheduled if the transit slot is cancelled, in the following cases:

1. If for any reason the Authority cancels the transit of a vessel with a transit reservation that is otherwise ready to proceed as scheduled, or
2. If for any reason the Authority delays the transit of a vessel with a transit reservation, to the point where it may prevent the vessel's arrival on time for a second transit on a later date, that has been reserved before the delay of the first transit occurred.

Chapter II Radio Communications

Article 29: The following vessels shall comply with the radio equipment requirements of this Chapter:

1. Power-driven vessels of 300 gross tons or over.
2. Power-driven vessels of 100 gross tons or over, carrying one or more passengers for hire.
3. Power-driven vessels of 100 gross tons or over, carrying dangerous cargo.
4. Commercial towing vessels of 8 meters (26 feet) in length or over.

A vessel of any of the types described above shall be equipped with a radio system which can be operated from the navigation bridge, and which can be used to communicate on the following channels in the 156-162 MHz frequency band:

1. Channel 12, 156.600 MHz
2. Channel 13, 156.650 MHz
3. Channel 16, 156.800 MHz

Further, vessels which have notified the Authority that they are ready to transit or otherwise navigate in Canal waters and require a Canal pilot, shall, until a pilot boards the vessel, maintain a continuous watch on Channel 12, and await instructions. Channel 12 shall be used for notification to vessels of their transit time, and for advisory harbor control communication in Limon Bay and Flamenco Island.

While in Canal waters, such vessels shall use Channel 13 for bridge-to-bridge navigational communications only. Channel 13 shall use a one watt maximum power, except that in emergencies more power may be used. When such vessels have a Canal pilot aboard, Channel 13 may be used only by the pilot or at his direction, for navigational communications. The signal stations on Flamenco Island and in Cristobal may be called on Channel 12 or 16. Channel 16, however, is reserved for cases of distress, urgency, safety, and calling only. Once radio contact is established on Channel 16, another channel shall be selected for routine communications.

Article 30: The following items of information shall be provided, using symbols of the phonetic alphabet to identify each item, and the word "NEGAT" shall be used after the items that can be answered "no," "none", or "not applicable," as follows:

- ALFA – The Panama Canal Identification Number of the vessel.

- BRAVO – Estimated date and time of arrival, port of arrival, and request for Canal transit, if desired.
- CHARLIE – Estimated draft upon arrival, and estimated draft for transit, if the vessel is scheduled for loading or bunkering before transiting, in meters and decimeters, fore and aft, in Tropical Fresh Water (TFW).
- DELTA – Any changes in the vessel’s name, country of registry, structure, or use of tanks, that have occurred since the vessel’s last call or transit.
- ECHO – Will the vessel dock at Balboa or Cristobal? What is the reason for docking? If it is for cargo operations, bunkering, or water intake, give the tonnage involved in each case. Is there any other reason the vessel will not be ready to transit upon arrival? What is the reason?
- FOXTROT – The nature and tonnage of any deck cargo.
- GOLF – If the vessel is carrying any explosives or dangerous cargo in bulk, as classified in Chapter IX of this Regulation, it shall state:
 1. Its correct technical name.
 2. Quantity (in metric tons).
 3. The United Nations classification number.
 4. International Maritime Organization class and division (including compatibility group only for explosives).
 5. The stowage for each dangerous cargo carried.
 6. Flashpoint of each product.
 7. Use of inert gas in cargo or cargo slop tanks. Tankers claiming to be gas-free shall report “cargo tanks including cargo slop tanks are safe for hot work and safe for entry”.
 8. Last cargo of empty tanks not gas-free. If the vessel is a tanker in ballast condition and not gas free, it shall state:
 - a. Technical name
 - b. United Nations classification number
 - c. International Maritime Organization class and division of the previously carried cargo.

Tankers reporting “GOLF:NEGAT” shall, in addition, state the technical names of non-dangerous cargoes carried.

- HOTEL – If the vessel carries any packaged dangerous cargo, as stated in Chapter IX of these regulations, other than explosives, it shall state the IMO class and division, and the total quantity (in metric tons) within each class.
- INDIA – Quarantine and immigration information:
 1. Is radio pratique desired?
 2. State the ports at which the vessel has called within 15 days preceding its arrival at the Canal.
 3. State all cases of communicable disease aboard and the nature of the disease or diseases, if known.
 4. The number of deaths which have occurred since departure from the last port and the cause of each death, if known.
 5. The number of passengers disembarking and their port of disembarkation.
 6. The number and ports of origin of any stowaways, and a brief description of the identity papers of each stowaway.
 7. The number, kind, and country of origin of any animals aboard. Are any animals to be landed?
 8. The country of origin of all meat, whether carried as cargo or as ship’s stores.
 9. Has the vessel called at a port in any country infected with foot-and-mouth disease or rinderpest during its present voyage, in accordance with the list issued periodically by the World Health Organization?
 10. Specify whether the vessel has a valid deratting certificate or a deratting exemption certificate issued 180 days prior to arrival.

The following additional information shall be provided:

1. Vessels approaching from the Pacific shall report actual time of passing Cape Mala, or the latitude of Cape Mala, and the vessel’s speed.
2. Vessels approaching from the Atlantic shall report 12 hours prior to arrival at Cristobal any change of one hour or more in the expected time of arrival.
3. Any other matters of importance and interest.

Failure to comply with these reporting requirements may subject a vessel to delay.

Chapter III Vessel Arrival and Anchorage

Section One Communication and Coordination

Article 36: Coordination for vessel anchorage:

Atlantic Entrance:

1. Communications:

Vessels approaching the Atlantic entrance shall maintain a continuous watch on Channel 12 VHF until an Authority pilot assumes control of the vessel's navigation, and shall communicate with the Cristobal signal station at least six miles before entering the breakwater. Channel 12 will be used to notify vessels of their transit time and for harbor traffic coordination within Limon Bay. Channel 13 will be used when vessels are under way in Canal waters, exclusively for bridge-to-bridge communication.

2. Pilotage:

Pilotage is required for vessels departing Anchorage Area C (south of Buoy No. 2) until the vessel is safely in the channel, and clear of oncoming traffic.

Vessels may only enter, depart, or move within Limon Bay with proper authorization from the signal station.

3. Anchorage:

Priority for use of inner anchorages shall be granted in the following order:

- a. Vessels requiring stores, crew change, bunkering, etc.
- b. Transiting vessels, in order of scheduled transit.
- c. Other vessels.

Pacific Entrance

1. Communications:

All vessels must contact the Flamenco Communication Station using channel 12 VHF, when approaching the Canal Pacific entrance, and must maintain watch over this radio channel. Channel 12 shall be used to notify vessels of their transit and pilot time. Channel 13 will be used when vessels are under way in Canal waters, exclusively for bridge-to-bridge communication.

2. Anchorage:

Vessels shall anchor in the appropriate anchorage areas, and shall not enter the channel or pass *Buoys 1 and 2* without a pilot aboard, unless authorized by the Authority. Vessels may not enter, depart or move in the Pacific anchorages, especially across the channel area between the *Sea Buoy* and Channel entrance *Buoys No. 1 and 2*, unless they have first contacted the Flamenco Signal station and obtained approval. Such authorization is valid for a specific time; if the vessel does not proceed, it must obtain a new authorization.

Section Two Anchorage and Inspection

Article 37: The following areas are designated as authorized anchorage within Canal waters:

1. Atlantic Entrance.

The areas designated for anchorage are indicated in nautical chart DMA No. 26068 (WGS – 1984).

a. Atlantic Outer Anchorage for Merchant Vessels.

An area located north of the Cristobal Breakwater, bounded as follows: starting at a point on the east end of the west breakwater in position 9°23'19" N., 79°55'23" W; thence 2940 meters (3216 yards) 270° true to a point in position 9°23'19" N, 79°57'00" W, thence, 3625 meters (3966 yards) 000° true to a point through *Lighted Buoy S* to position 9°25'17" N., 79°57'00" W., thence 4576 meters (5006 yards) 090° true to a point in position 9°25'17" N., 79°57'00" W., thence 3625 meters (3966 yards) 180° true to a point in position 9°23'19" N., 79°54'30" W., thence 458 meters (501 yards) 270° true to a point on the west end of the east breakwater in position 9°23'19" N., 79°54'45" W.

b. Atlantic Outer anchorage Expansion.

An extension of the Atlantic Outer Anchorage to the north, as follows: From a point in position 9°25'17" N., 79°57'00" W.; thence 1936 meters (2118 yards) 000° true to a point in position 9°26'20" N., 79°57'00" W; thence, 4576 meters (5006 yards) 090° true to a point in position

9°26'20" N., 79°54'30" W; marked by the *Whistle Sea Buoy*, thence 1936 meters (2118 yards), 180° true to a point in position 9°25'17" N, 79°54'30" W.

Atlantic Outer Dangerous Cargo Anchorage.

An area located in the west central side of the outer anchorage for merchant vessels, and bounded as follows: starting at a point located in position 9°24'00" N., 79°56'31" W; thence, 1381 meters (1511 yards) 000° true to a point in position 9°24'45" N, 79°56'31" W; thence, 869 meters (950 yards) 270° true to a point in position 9°24'45" N., 79°57'00" W; thence, 1381 meters (1511 yards) 180° true to a point in position 9°24'00" N., 79°57'00" W; marked by *Lighted Buoy S*, thence 869 meters (950 yards) true to the starting point.

c. Merchant Vessel Inner Anchorage (Areas A and B).

d.1 **Area A:** An area located south of the west breakwater, to the west of the Canal channel, bounded as follows: starting at a point in position 9°23'12" N., 79°55'19" W; thence, 1654 meters (1810 yards) 239° true, through *Lighted Buoy k*, to a point in position 9°22'44" N., 79°56'05" W. marked by *Lighted Buoy J*, thence 911 meters (997 yards) 180° true to a point in position 9°22'14" N., 79°56'05" W; thence 1005 meters (1099 yards) 125° true to a point in position 9°21'55" N., 79°55'38" W, marked by *Lighted Buoy I*, thence 1074 meters (1175 yards) 180° true to a point in position 9°21'20" N., 79°55'38" W; thence 598 meters (654 yards) 90° true to a point in position 9°21'20" N., 79°55'19" W, marked by *Lighted Buoy 2*, thence 3420 meters (3742 yards) 000° true to the starting point.

d.2 **Area B:** An area located south of the west breakwater, to the west of the Canal channel and the Area A anchorage, bounded as follows: starting at a point in position 9°22'44" N., 79°56'05" W., marked by *Lighted Buoy J*, thence 929 meters (1016 yards) 239° true to a point in position 9°22'28" N., 79°56'31" W.; thence 225 meters (246 yards) 180° true to a point in position 9°22'21" N., 79°56'31" W., marked by "*Shelter Point*" *Lighted Beacon*, thence 1337 meters (1463 yards) 180° true to a point in position 9°21'37" N., 79°56'31" W., marked by *Lighted Buoy H*, thence 1288 meters (1409 yards) 76° true to a point in position 9°21'47" N., 79°55'50" W., thence 1966 meters (2151 yards) 180° true to a point in position 9°20'43" N., 79°55'50" W., thence 1274 meters (1394 yards) 115° true to a point in position 9°20'25" N., 79°55'12" W., on the west prism line of the Canal channel; thence 123 meters (134 yards) 353° true to a point in position 9°20'30" N., 79°55'13" W.; thence 153 meters (168 yards) 323° true to a point in position 9°20'33" N., 79°55'16" W.; thence 837 meters (915 yards) 305° true to a point in position 9°20'49" N., 79°55'38" W., marked by *Lighted Buoy F*, thence 2029 meters (2220 yards) 000° true to a point in position 9°21'55" N., 79°55'38" W., marked by *Lighted Buoy I*; thence 1005 meters (1099 yards) 305° true to a point in position 9°22'14" N., 79°56'05" W.; thence 911 meters (997 yards) 000° true to starting point at *Lighted Buoy J*.
In this area there are two unlighted mooring buoys: the most northerly mooring buoy is at 9°21'26" N., 79°55'46" W., and the most southerly is at 9°21'04.5" N., 79°55'44.5" W.

e. Dangerous Cargo Inner Anchorage.

An area located immediately south of the west breakwater in Anchorage Areas A and B, bounded as follows: starting at a point in position 9°22'57" N., 79°55'43" W., marked by *Lighted Buoy K*, thence 1712 meters (1873 yards) 239° true through *Lighted Buoy J* to a point in position 9°22'28" N., 79°56'31" W., thence 225 meters (246 yards) 180° true to a point in position 9°22'21" N., 79°56'31" W., marked by *Shelter Point Lighted Beacon*, thence 479 meters (524 yards), 149° true to a point in position 9°22'08" N., 79°56'23" W., thence 1829 meters (2001 yards), 059° true to a point in position 9°22'39" N., 79°55'32" W., thence 671 meters (734 yards), 329° true to starting point at *Lighted Buoy K*.

f. Merchant Vessel Inner Anchorage (Area D).

An area located south of the east breakwater, east of the Canal channel, bounded as follows: starting at a point in position 9°21'57" N., 79°54'58" W., thence 393 meters (430 yards) 090° true to a point marked by *Lighted Buoy E-4*, in position 9°21'57" N., 79°54'45" W., thence 1206 meters (1319 yards) 059° true to a point marked by *Lighted Buoy E-3*, in position 9°22'17" N., 79°54'11" W., thence 1014 meters (1109 yards) 000° true through a point marked by *Lighted Buoy E-2*, to a point marked by *Lighted Buoy E-1* at position 9°22'50" N., 79°54'11" W., thence 1562 meters (1709 yards) 295° true to a point in position 9°23'11" N., 79°54'58" W., thence 2280 meters (2495 yards) 180° true to starting point.

g. Merchant Vessel Inner Anchorage (Area C).

An area which requires pilotage both inbound and outbound, located south of *Lighted buoy No. 2*, and west of the Canal channel. Area C is bounded as follows: starting at a point at position 9°21'20" N., 79°55'19" W., marked by *Lighted Buoy 2*, thence 598 meters (654 yards) 270° true to a point in position 9°21'20" N., 79°55'38" W., thence 955 meters (1045 yards) 180° true to a point in position 9°20'49" N., 79°55'38" W., thence 837 meters (915 yards) 125° true to a point in position 9°20'33" N., 79°55'16" W., thence 153 meters (168 yards) 143° true to a point in position 9°20'30" N., 79°55'13" W., thence 123 meters (134 yards) 173° true to a point in position 9°20'26" N., 79°55'12" W., thence 1376 meters (1505 yards) 000° true to a point in position 9°21'10" N., 79°55'12" W., thence 192 meters (210 yards) 270° true to a point in position 9°21'10" N., 79°55'19" W., thence 308 meters (337 yards) 000° true to starting point at *Lighted Buoy 2*.

h. Small Craft Anchorage (Area F).

An area located south of Cristobal Bay, east of the Canal channel, and northeast of *Lighted Buoy 5*, bounded as follows: starting at *Lighted Buoy A* in position 9°20'37" N., 79°55'00" W.; thence 520 meters (568 yards) 062° true to *Lighted Buoy B* in position 9°20'47" N., 79°54'45" W.; thence 611 meters (668 yards) 087° true to *Lighted Buoy C* in position 9°20'46" N., 79°54'25" W.; thence 433 meters (473 yards) 225° true to *Lighted Buoy L4* in position 9°20'36" N., 79°54'35" W.; thence 693 meters (758 yards) 233° true to *Lighted Buoy L2* in position 9°20'23" N., 79°54'53" W.; thence 431 meters (471 yards) 265° true to *Lighted Buoy 5* in position

9°20'21" N., 79°55'07" W.; thence 534 meters (584 yards) 024° true to starting point at *Lighted Buoy A*.

i. Beaching Area.

Located south of anchorage Area C, between *Lighted Buoy 6* and *Lighted Buoy 8*, west of the Canal channel. This beaching area extends to the southwest for approximately one half mile, and has a depth ranging from 7 meters in the north, to 4 meters in the south. Starting at a point in position 9°20'27" N., 79°55'15" W.; thence 946 meters (1035 yards) 295° true to a point in position 9°20'40" N., 79°55'43" W.; thence 1050 meters (1149 yards) 210° true to the southwest corner marked by a buoy in position 9°20'11" N., 79°56'01" W.; thence 943 meters (1031 yards) 120° true to the southeast corner marked by a buoy in position 9°19'55" N., 79°55'34" W.; thence 1132 meters (1239 yards) 030° true to starting point.

2. Gatun Lake Anchorages.

The areas designated as anchorage areas are indicated in DMA Chart No. 21604 (WGS – 1984).

a. Gatun Anchorage.

An area immediately adjacent to the east side of the Canal channel. Starting at an unmarked point in position 9°16'03" N., 79°55'23" W., and bounded by a line extending at the south end of the east wing wall of Gatun Locks, thence 464 meters (508 yards) 123° true to a point in position 9°15'54" N., 79°55'11" W.; thence 609 meters (666 yards) 146° true to *Flashing Buoy A* in position 9°15'38" N., 79°54'59" W.; thence 1282 meters (1402 yards) 78° true to *Flashing Buoy 1* in position 9°15'46" N., 79°54'18" W.; thence 1085 meters (1187 yards) 155° true to *Flashing Buoy 3* in position 9°15'14" N., 79°54'03" W.; thence 1125 meters (1231 yards) 225° true to *Flashing Buoy 5* in position 9°14'48" N., 79°54'29" W.; thence 971 meters (1062 yards) 225° true to *Flashing Buoy 7* in position 9°14'26" N., 79°54'52" W.; thence 819 meters (896 yards) 220° true to *Flashing Buoy 9* in position 9°14'06" N., 79°55'09" W.; thence 863 meters (944 yards) 206° true to *Flashing Buoy 11*, in position 9°13'40" N., 79°55'21" W., the channel prism line being the westerly boundary line of the anchorage area.

b. Dangerous Cargo Anchorage.

An area located west of the Canal channel in Gatun Reach, bounded as follows: starting at *Lighted Buoy 10* in position 9°13'58" N., 79°55'31" W.; thence 700 meters (765 yards) 270° true to *Flashing Buoy 10A* in position 9°13'58" N., 79°55'54" W.; thence 1140 meters (1247 yards) 180° true to *Flashing Buoy 10B* in position 9°13'21" N., 79°55'54" W.; thence 878 meters (960 yards) 127° true to *Lighted Buoy 14* in position 9°13'04" N., 79°55'31" W.; thence 1669 meters (1826 yards) 000° true to starting point at *Lighted Buoy 10*. There is an unlighted mooring buoy at the south end of the anchorage.

3. Pacific Entrance.

The areas designated as anchorage areas are indicated in DMA No. 21603 (WGS-1984).

a. Merchant Vessel Anchorage.

Bounded as follows: starting at a point in position 8°51'45" N., 79°29'50" W.; marked by *Whistle Sea Buoy*, which is painted with red and white vertical stripes, and shows a short-long flashing white light (Morse A), 3606 meters (3944 yards) 90° true to a point in position 8°51'45" N., 79°27'52" W.; thence 4915 meters (5377 yards) 000° true to a point in position 8°54'25" N., 79°27'52" W.; thence 4985 meters (5454 yards) 270° true to a point in position 8°54'25" N., 79°30'35" W.; thence 2238 meters (2448 yards) 211° true to a point in position 8°53'23" N., 79°31'13" W., marked by *Lighted Buoy 2* at the Canal entrance; thence 3931 meters (4300 yards) 140° true to starting point at *Sea Buoy*.

b. Merchant Vessel Anchorage Expansion.

Extends to the southwest as follows: starting from a point in position 8°51'45" N., 79°32'21" W., thence 8219 meters (8992 yards) 090° true through the *Sea Buoy* to a point in position 8°51'45" N., 79°27'52" W.; thence 3379 meters (3697 yards) 180° true to a point in position 8°49'55" N., 79°27'52" W.; thence 8219 meters (8992 yards) 270° true to a point in position 8°49'55" N., 79°32'21" W., thence 3379 meters (3697 yards) 000° true to starting point.

c. Dangerous Cargo Anchorage.

An area to the west of the Canal channel, bounded as follows: starting at a point in position 8°51'45" N., 79°32'42" W.; thence 1588 meters (1738 yards) 025° true to *Lighted Buoy Y* in position 8°52'32" N., 79°32'21" W., thence 1594 meters (1744 yards) 078° true, through *Lighted Buoy Y-1* to *Lighted Buoy X* in position 8°52'43" N., 79°31'30" W., thence 3537 meters (3870 yards) 120° true to *Sea Buoy* in position 8°51'45" N., 79°29'50" W.; thence 5275 meters (5771 yards) 270° true to starting point.

d. Small Craft Anchorage.

Small craft shall anchor inside an area between 183 meters (200 yards) off shore of Flamenco Island and the Canal channel *Buoy 6*.

Article 38: Anchorage area restrictions.

The southern limit of the Atlantic anchorage areas for unpowered vessels is a line extending due west 270° true from the Cristobal Mole through *Lighted Beacon No. 1* (Mole) and *Lighted Buoy 2* (9°21'20" N), to the spoil area boundary line. The Pacific Anchorage Area boundary limit for unpowered vessels is a line passing through the channel buoys Nos. 1 and 2 at the Canal Pacific entrance, extending from *Lighted Buoy X* in the dangerous cargo anchorage area, to San Jose

Rock east of the channel. Unless authorized by the Authority, no vessel shall pass these lines without a Canal pilot aboard.

It is prohibited to anchor in the area of 335 meters (1100 feet) on each side of the Canal Channel centerline, where the channel course runs nearby or through a designated anchorage, and includes the outer anchorage extensions at the Atlantic or the Pacific entrances.

Article 41:

All vessels arriving at Canal waters must submit the following documentation to the Authority:

1. Ship's Information and Quarantine Declaration – 4 copies
2. Cargo Declaration – 1 copy
3. Crew List – 1 copy
4. List of passengers – 1 copy
5. Dangerous Cargo Manifest and/or Loading Plan – 1 copy
6. Declaration of all Arms and Munitions of War Aboard, other than those declared separately, except for war or auxiliary vessels, as defined in the Treaty Concerning the Permanent Neutrality and Operation of the Panama Canal.

The following additional documents must be submitted:

1. Ship's plans (general arrangement, capacity, midships section, etc.). – 1 copy
2. Panama Canal Tonnage Certificate – 1 copy

The following documents must be available for examination:

1. Ship's log.
2. All ship's documents pertaining to cargo, classification, construction, load lines, equipment, safety, sanitation, and tonnage.
3. SOLAS certificate, for vessels carrying dangerous cargo in bulk.
4. The International Oil Pollution Prevention Certificate, issued to vessels carrying dangerous cargo in bulk (MARPOL 73/78).
5. Certificates showing compliance with the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers, 1978/95 (STCW). Certification requirements shall apply only to officers and crew responsible for the safe handling of the vessel.

6. The Company's Complementary Document (DOC), and Maritime Safety Management Certificate (ISM).

7. Any other document required by the Authority, relative to circumstances guaranteeing safety in Canal waters.

Article 43: Any vessel provisionally admitted to the Canal must comply with the following requirements, prior to its departure therefrom:

1. Provide all required documents and statistical data on the ship and the ship's cargo.
2. Pay or secure payment of tolls and other charges for related services and/or complementary activities.

Should the vessel depart Canal Waters without complying with the above provisions, the vessel may be subject to delay or denial for future transit requests.

Article 45: Embarking or disembarking a vessel under way shall be done under the following conditions:

1. Persons authorized to use Authority launches will only be permitted to embark or disembark from transiting vessels at points that have been designated for such purpose. Pilots, linehandlers, and other employees shall be governed by operational requirements when performing their official duties.
2. When necessary, and under prior authorization by the Authority, exceptions to the above provisions may be made on a case-by-case basis, including embarking or disembarking at the locks. Authorization must be obtained prior to embarking a person on a ship with the intent to disembark at some point other than those designated by the Authority for such purpose.
3. Fort Davis and Paraiso Landing facilities are not to be used by non-Authority personnel for embarking/disembarking. Exceptions to this rule must be approved by the Authority.

Embarking and Disembarking by Authority employees in these areas is discouraged, with the exception of linehandlers and pilots going to and from the Paraiso Tie-up Station.

Section Three Precautionary Measures and Attachment of Vessels

Article 49: The Authority has established the following operating guidelines with regard to attachment of vessels:

1. The Authority shall assist by providing services, such as launch service for the process server, on a cost-reimbursable basis. Further, the Authority shall permit the service of the writ of

attachment at any time after the vessel has cleared the last lock in the course of its transit. If the vessel is to be docked subject to the attachment, unless operationally feasible to do otherwise, the Authority shall permit alteration of the vessel's intended course only after it has passed *Buoys 1 and 2*, in the case of a southbound vessel, and the *Mole Buoy at Cristobal*, in the case of a northbound vessel. Arrangements may be made for the services of a pilot to return the vessel to the dock prior to reaching those points, on a cost-reimbursable basis.

2. If a writ of attachment of a vessel that is at anchor is presented to the Authority, such vessel shall not transit. In these cases the writ of attachment must be received in time to notify the pilot prior to the vessel's weighing anchor.

3. If a writ of attachment of a vessel that is docked is presented to the Authority, and the pilot assigned to move it has not cast off the lines, the pilot will be instructed not to do so. If the pilot has already ordered the lines cast off, and the dock workers have not done so, the pilot will not make any further attempt to get underway. If the lines have been cast off, the pilot shall assume control of the vessel's movements, in the interest of safety. The guidelines contained in item 1 above shall apply hereinafter.

4. Once a duly executed writ of attachment has been presented to the Authority, the vessel will not be rescheduled for transit or provided with pilot services, until such measure is lifted by a court order from the competent maritime court.

Chapter IV General and Specific Provisions Regarding Vessels

Section One Dangerous Vessels

Article 50: Specific circumstances under which transit shall be denied include, but are not limited to, the following:

1. When the vessel's maximum point of immersion exceeds its maximum authorized draft.
2. When the vessel's maximum point of immersion exceeds the published tropical fresh water (TFW) maximum draft then in effect.
3. When the length overall including bulbous bow exceeds that stated in article 55 of this annex, unless the vessel was approved for regular transit prior to March 10, 1981.
4. When the maximum beam exceeds by any amount that stated in article 55 of this annex, unless the vessel was approved for regular transit prior to March 10, 1981.

5. When a vessel has equipment or protrusions which will interfere with the safe transit of the vessel or present a hazard to Canal structures, as determined by the Authority.
6. When the vessel has a list of 10 degrees or more.
7. When visibility from the navigation bridge of a vessel does not meet the minimum requirements as stated in article 61, or when, in the judgment of the Authority, the operation would present an extreme hazard.

Section Two Size, Draft, and Trim Limitations of Vessels

Article 52: Vessels must comply with the following draft rules:

1. Maximum Draft:

The maximum authorized transit draft is 12.04 meters (39.5 feet) tropical fresh water (TFW), with Gatun Lake level at 24.84 meters (81.5 feet) or more. This provides a safe navigational margin of at least 1.50 meters (5 feet) in critical Canal areas, and a safe margin of at least 0.60 meters (2 feet) over the lock sills.

- a. Before initial transit of a vessel having a draft over 10.82 meters (35.5 feet), its owners, operators or agents shall provide all the information required in **b** of this part, and shall request the Authority for the maximum authorized transit draft of the vessel (maximum point of immersion), at least two weeks before loading. This request shall be returned with the maximum authorized transit draft stamped thereon.
- b. The information required by **a** of this part shall be submitted in the following format:

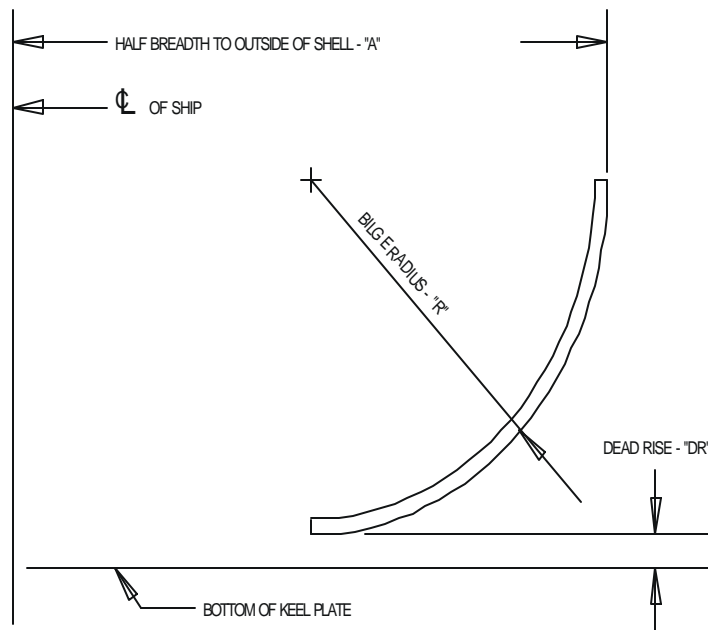
INFORMATION NEEDED PRIOR TO INITIAL TRANSIT THROUGH THE PANAMA CANAL

Bilge Information

Name of vessel _____ Date _____
Authorized tropical fresh water load line (TFW) _____
Admeasurer _____ Certified as correct _____

[Master – Owners – Agents]

- (a) "A" - Half breadth of vessel to the outside of shell (meters/feet & inches) _____
- (b) "R" - Radius of turn of bilge (meters/feet & inches) _____
- (c) "DR" - Dead rise at side of vessel (centimeters/inches) _____



NOTE: During an off center lockage in which the vessel contacts the locks walls, the bilge radius should be free from chamber slopes in the most critical part, as shown in Table of Limiting Drafts of this annex.

c. The initial transit is permitted at or under the approved maximum authorized transit draft. After the initial transit, unless the vessel's agent or owner is notified of any restrictions imposed by the Authority, this maximum authorized transit draft shall remain in effect.

**TABLE OF LIMITING DRAFTS DUE TO BILGE RADIUS
CONTACTING CHAMBER BATTERS**

Allows for 15 cm (6") thick rubber fenders on lock walls at batter locations.

	Radius of turn of bilge (meters)				
	0.30 m	0.60 m	0.90 m	1.20 m	1.50 m
0.000 m	10.87 m	11.12 m	11.37 m	11.62 m	11.87 m
0.025 m	10.89 m	11.14 m	11.39 m	11.64 m	11.89 m
0.050 m	10.91 m	11.16 m	11.41 m	11.66 m	11.91 m
0.075 m	10.93 m	11.18 m	11.43 m	11.68 m	11.93 m
0.100 m	10.95 m	11.20 m	11.45 m	11.70 m	11.96 m
0.125 m	10.97 m	11.22 m	11.47 m	11.73 m	11.98 m
0.150 m	10.99 m	11.24 m	11.50 m	11.75 m	12.00 m
0.175 m	11.01 m	11.27 m	11.52 m	11.77 m	12.02 m
0.200 m	11.04 m	11.29 m	11.54 m	11.79 m	12.04 m
0.225 m	11.06 m	11.31 m	11.56 m	11.81 m	-
0.250 m	11.08	11.33 m	11.58 m	11.83 m	-
0.275 m	11.10	11.35 m	11.60 m	11.85 m	-

	Radius of turn of bilge (feet)				
	1'	2'	3'	4'	5'
0"	35'8"	36'6"	37'4"	38'2"	39'0"
1"	35'9'	36'7"	37'5"	38'3"	39'1"
2"	35'10"	36'8"	37'6"	38'4"	39'2"
3"	35'10"	36'8"	37'6"	38'5"	39'3"
4"	35'11"	36'9"	37'7"	38'5"	39'3"
5"	36'0"	36'10"	37'8"	38'6"	39'4"
6"	36'1"	36'11"	37'9"	38'7"	39'5"
7"	36'2"	37'0"	37'10"	38'8"	39'6"
8"	36'3"	37'1"	37'11"	38'10"	-
9"	36'3"	37'1"	38'0"	38'10"	-
10"	36'4"	37'2"	38'0"	38'10"	-
11"	36'5"	37'3"	38'1"	38'11"	-

EXAMPLE: To find draft of ship having a radius of turn of bilge of 1.325 m (4'4"), read across top of table to column headed 1.20 m (4'), thence down column opposite 0.125 m (4") – Read 11.73 m (38'5").

NOTE: Dead rise not included in above tabulations and must be added to above readings.

2. Minimum Draft:

a. All vessels must have sufficient ballast to permit safe handling. The following are minimum salt water drafts for vessels anticipating transit:

LENGTH	MINIMUM DRAFTS IN TROPICAL SALT WATER (TSW)			
Up to 129.54m (425')	Trimmed so pilot can see the ranges over the forecastle from center of navigation bridge.			
Over 129.54m. (425')	2.44m (8')	forward,	4.27m (14') aft,	TSW
Over 144.78m (475')	5.49m (18')	forward,	6.10m (20') aft,	TSW
Over 160.02m (525')	6.10m (20')	forward,	6.71m (22') aft,	TSW
Over 176.78m (580')	6.71m (22')	forward,	7.31m (24') aft,	TSW
Over 190.50m (626')	7.31m (24')	forward,	7.92m (26') aft,	TSW

a.1 Drag must not adversely affect maneuverability or visibility.

a.2 Drag normally should not exceed 1.80 meters (6.0 feet).

b. A vessel whose ballast draft does not meet the minimum draft requirements may be accepted for transit, provided the following information is submitted:

b.1 Principal dimensions of the vessel.

b.2 Maximum attainable draft under this condition (fore and aft).

b.3 Limitations on visibility fore and aft from the navigation bridge.

b.4 Copies of excerpts from the vessel’s plans, drawings and maneuvering data that relate to the vessel’s suitability for transit.

c. A vessel having received permission to transit at less than the minimum required draft will be inspected by the Authority upon its first visit under ballast conditions. If the vessel is acceptable for transit at less than the prescribed minimum draft, the operator will be notified that transit on a regular basis is authorized, provided the vessel meets the special minimum draft specified in that notification, and the master executes a form releasing the Authority from liability.

Article 53: Draft restrictions may become necessary under the following circumstances:

1. In the event of an unusually dry season.

2. When the Gatun Lake level decreases below 24.81 meters (81.5 feet).

3. Any other fact justifying such action.

The reductions are made in 15 centimeter (6 inch) decrements, with 3-week advance notice where possible, based on precipitation forecasts. Ships already loaded to a prevailing draft limitation at the time of promulgation of a new draft restriction are held to a tolerance of not more than 15 centimeters (6 inches) above that restriction, and may be required to trim ship or off-load, to achieve a safe draft for Canal transit.

Article 55: Size limitations are established regarding the following aspects:

1. Maximum beam:

- a. The maximum beam for a commercial vessel and the integrated tug-barge combination acceptable for regular transit is 32.3 meters (106 feet).
- b. Commercial vessels and integrated tug-barge combinations up to 32.6 meters (107 feet) may be permitted for transit on a one-time delivery basis only, with prior approval of the Authority, provided draft does not exceed 11.3 meters (37 feet).
- c. The maximum beam for non-self-propelled vessels (other than integrated tug-barge combinations) acceptable for regular transit is 30.5 meters (100 feet). One-time transit of wider vessels may be permitted with prior approval of the Authority, on a case-by-case basis, and subject to the requirements and draft limitations listed in article 80 of this annex.

2. Maximum Length:

- a. The maximum length overall, including bulbous bow, for a commercial vessel acceptable for regular transit is 289.6 meters (950 feet), except passenger and container ships, which may be 294.3 meters (965 feet). Vessels transiting the Canal for the first time at an overall length exceeding 274.3 meters (900 feet), whether newly constructed or newly modified, are subject to the requirements of inspection and prior review and approval of vessel plans. Vessels not receiving advance approval and/or not complying with Canal requirements, may be denied transit in accordance with the provisions of article 50 of this annex.
- b. The maximum length for composite units acceptable for regular transit is 274.3 meters (900 feet), including tug and barge. An integrated tug-barge must transit together as one unit, with the tug supplying the propulsion.
- c. The maximum length overall for non-self-propelled vessels acceptable for transit is 259.08 meters (850 feet), including accompanying tug. Normally, accompanying tugs must lock through with the non-self-propelled vessel. One-time only transits that exceed these limitations may be permitted on a case-by-case basis, with prior approval of the Authority, in accordance with article 4. The draft restrictions indicated in article 80 of this annex shall apply.

3. Maximum Width:

No vessel with a maximum width exceeding its maximum beam may transit the Canal without prior review and approval of vessel plans. Vessels not receiving advance approval and/or not complying with Canal requirements, shall be denied transit.

4. Maximum Height:

The allowable height for any vessel transiting the Canal or entering the Port of Balboa is 57.91 meters (190 feet) at any state of the tide, measured from the waterline to the highest point. Height may be permitted to 62.48 meters (205 feet), subject to approval of the Authority on a case-by-case basis, with passage at low water (MLWS) beneath the bridge at Balboa.

5. Protrusions:

- a. Anything which extends beyond a vessel's hull shall be considered a protrusion, and shall be subject to the respective rules and limitations.
- b. The Authority is not responsible for damages to protrusions, whether permanent or temporary.
- c. Vessels with protrusions may be permitted to transit, provided that such protrusions will not interfere with the safe transit of the vessel or present a hazard to Canal structures, as determined by the Authority.
- d. Vessels with permanent protrusions must furnish detailed information about the protrusions, including plans, and request authorization for transit before proceeding to the Canal. Advance information will minimize the possibility that transit may be delayed nor denied.
- e. These vessels may be permitted transit, prior approval of the Authority, and on a case-by-case basis, provided that protrusions do not represent a hazard or interfere with lock structures, equipment, and/or operation.
- f. For a safe relay lockage operation, all newly constructed vessels must maintain a minimum clearance of one meter (3.30 feet) between any locks equipment and any protrusions extending beyond the vertical plane of the vessel's hull shell plating. Additionally, any vessels with windows, portlights, sideports, or other appurtenances below a level of 12.90 meters (42.20 feet) above the waterline at transit draft must take measures to ensure their protection, should the vessel contact the lock wall.

For reasonable safety considerations, additional restrictions may be imposed on vessels whose length, trim, or maneuverability characteristics present a hazard to the vessel, third parties, or Canal facilities.

Article 56: Before transiting, the master of the vessel shall be required to release from liability and indemnify against any damages resulting from an accident, when:

1. A vessel has a draft of less than the minimum transit draft, a list of over 3 degrees, or is so trimmed or otherwise so loaded as to dangerously affect her stability or maneuverability.
2. A vessel has protrusions.
3. Visibility from the navigation bridge presents a hazard, as determined by the Authority.
4. The vessel's chocks and bits, or other equipment, fail to meet Canal requirements.
5. A vessel transiting on a one-time delivery basis has a beam exceeding 32.31 meters (106 feet), or exceeding any length or beam limitations.
6. A vessel has any other deficiencies as described in the rules and procedures of this Regulation.
7. A vessel is docked, made fast, or moved to the dry dock by a Canal pilot.

Section Three Boarding Facilities

Article 57: Vessels must have the following boarding facilities available for use by pilots and linehandlers:

1. Pilot's Ladder:

- a. The ladder shall be efficient for the purpose of embarking and disembarking safely. It shall be kept clean and in good order, and may be used by officials and other persons when a ship arrives at or leaves a port.
- b. The ladder shall be secured in a position so that it is clear of any possible discharges from the ship, that each step rests firmly against the ship's side, and that it is clear so far as practicable of the finer lines of the ship, so that the pilot can gain safe and convenient access to the ship after climbing not less than 1.5 meters (5 feet) and not more than 9 meters (30 feet). A single length of ladder shall be used, capable of reaching the water from the point of access to the ship; All necessary steps shall be taken to observe this condition under any situation of load or trim affecting the vessel, and for a list to the opposite side of 15°. When the distance from sea level to the point of access to the ship is more than 9 meters (30 feet), access from the pilot ladder to the ship shall be by means of an accommodation ladder or other equally safe and convenient means.
- c. The steps of the pilot ladder shall have the following characteristics:

- c.1 Shall be constructed of hardwood or other material of equivalent properties, made in one piece free of knots, having a non-slip surface; the four lowest steps may be made of rubber of sufficient strength and stiffness, or of other suitable material of equivalent characteristics.
- c.2 Shall not be painted an opaque color, nor with high gloss paint.
- c.3 Shall have the grain and character of the wood visible, so that any cracks or defects can be readily visible to the person using the ladder.
- c.4 Shall not be less than 480 millimeters (19 inches) long, 115 millimeters (4½ inches) wide, and 25 millimeters (1 inch) in depth, excluding any non-slip device.
- c.5 Shall be equally spaced, not less than 300 millimeters (12 inches), nor more than 380 millimeters (15 inches) apart, and secured in such a manner that they remain horizontal.
- d. No pilot ladder shall have more than two replacement steps secured in position by a method different from that used in the original construction of the ladder. Any step so secured shall be replaced as soon as practicable by steps secured in position by the method used in the original construction of the ladder. When any replacement step is secured to the side ropes of the ladder by means of grooves in the sides of the step, such grooves shall be in the longer sides of the step.
- e. The side ropes of the ladder shall consist of uncovered manila ropes, not less than 60 millimeters (2 ¼ inches) in circumference on each side. Each rope shall be continuous, with not joints below the top step. Two manropes properly secured to the ship, and not less than 65 millimeters (2½ inches) in circumference, and a safety line shall be kept at hand, ready for use if required.
- f. Battens made of hardwood, or other material of equivalent properties, in one piece, and not less than 1.80 meters (6 feet) long shall be provided, at such intervals as will prevent the pilot ladder from twisting. The lowest batten shall be on the fifth step from the bottom of the ladder, and the interval between any batten and the next shall not exceed 9 steps.
- g. Means shall be provided to ensure safe and convenient passage onto and off the ship between the head of the pilot ladder or of any accommodation ladder or other appliance provided, and the ship. Where such passage is by means of a gateway in the rails or bulwark, adequate hand holds shall be provided. Where such passage is by means of a bulwark ladder, such ladder shall be securely attached to the bulwark rail or platform, and two handhold stanchions shall be fitted at the point of boarding or leaving the ship, not less than 0.7 meters (2 feet 3 inches) apart, and no more than 0.8 meters (2 feet 7 inches) apart. Each stanchion shall be rigidly secured to the ship structure at or near its base, and also at a higher point, and shall not be less than 40 millimeters (1 ½ inch) in diameter, and shall extend not less than 1.2 meters (3 feet 11 inches) above the top of the bulwark.

- h. Lighting shall be provided at night, so that both the pilot ladder overside, and the position where the pilot boards the ship shall be adequately lit. A life buoy, equipped with an igniting light and a heaving line, shall be kept at hand ready for use.
- i. Means shall be provided to enable the pilot ladder to be used on either side of the ship.
- j. The placement of the ladder, and the embarkation and disembarkation of a pilot, shall be supervised by a responsible officer of the ship.
- k. Where on any ship construction features such as rubbing bands would prevent the implementation of any of these provisions, special arrangements shall be made to the satisfaction of the Authority, to ensure that persons are able to embark and disembark safely.

2. Mechanical Pilot Hoists:

- a. A mechanical pilot hoist and its ancillary equipment, if provided, shall be of a type approved by the Authority. It shall be of such design and construction as to ensure that the pilot can be embarked and disembarked in a safe manner, including a safe access from the hoist to the deck, and vice versa.
- b. A pilot ladder shall be kept on deck adjacent to the hoist, and available for immediate use.

3. Accommodation Ladder:

- a. Accommodation ladders shall lead aft, that is, with the lower platform at the after end. Accommodation ladders which lead forward, or which do not rest firmly against the vessel' side, are not considered safe for use by Authority employees,. The lower end of the accommodation ladder must be within the parallel mid-body of the vessel, not near the bow or stern. Safety stanchions and rails or lines shall be properly rigged. The lower platform of the accommodation ladder shall be kept in a horizontal position, with vertical stanchions installed, and it should be held at a distance above the water equal to the deck of the boarding launch. The boat spar shall be extended. The upper platform shall also have vertical stanchions and a safety line in place.
- b. An accommodation ladder used in combination with a pilot ladder should have a maximum slope of 55 degrees. The pilot ladder and the accommodation ladder must be close together, and secured together at the edge of the lower platform, with the pilot ladder hanging vertically. The lower platform must be held at a level to allow for the height of the launch deck, plus the height of a person standing on the deck, plus the rise and fall due to swell; normally, 7 meters (23 feet) above the water is sufficient.
- c. When using an accommodation ladder, the provisions of item 1.h of this article on safety equipment and personnel must be observed.

d. An accommodation ladder that is not appropriate may require the use of tugs to make the vessel come to a complete stop while embarking or disembarking personnel. This is considered a deficiency, and tugs shall be provided at the expense of the vessel.

4. Side Ports:

When side ports are used for boarding, the minimum vertical distance between the waterline and the bottom of the side port at any draft shall be 1.80 meters (6 feet).

Section Four
Construction, Number, and Locations of Chocks and Bitts

Article 59: Following are the requirements regarding construction, number, and locations of the chocks and bitts:

1. A vessel passing through the locks shall normally be assisted by locks locomotives using steel towing wires. At the discretion of the Authority, certain vessels under 38.1 meters (125.0 feet) in length, may be handled with their own lines, either against the lock wall or from both walls in the center of the chamber.
 - a. All chocks for towing wires shall be of heavy closed construction and shall have a convex bearing surface with a radius of not less than 180 millimeters (7 inches). The convex surface shall extend so that a wire from the bitt, or from the towing locomotive through the chock, shall be tangent to the 180-millimeter (7 inch) radius at any angle up to 90 degrees with respect to a straight line through the chock.
 - b. No part of the vessel which may be contacted by the towing wires, at any angle, shall have less than a 180-millimeter (7 inch) radius.
 - c. Chocks designated as single chocks shall have a throat opening of not less than 650 square centimeters (100 square inches) in area. Preferred dimensions are 305 x 230 millimeters (12 x 9 inches), and they shall be capable of withstanding a strain of 45,000 kilograms (100,000 pounds) on a towing wire from any direction.
 - d. Chocks designated as double chocks shall have a throat opening of not less than 900 square centimeters (140 square inches) in area. Preferred dimensions are 355 x 255 millimeters (14 x 10 inches), and they shall be capable of withstanding a strain of 64,000 kilograms (140,000 pounds) on the towing wires from any direction.
 - e. Use of existing roller chocks is permissible, provided they are not less than 15 meters (49 feet) above the waterline at the vessel's maximum Panama Canal draft, and provided they are in good condition, meet all of the requirements as specified above, as the case may be, and are so fitted that transition from the rollers to the chock body will prevent damage to towing wires.
 - f. Each single chock shall have an accompanying bitt capable of withstanding a strain of 45,000 kilograms (100,000 pounds).
 - g. Each double chock located at the stem and at the stern, in accordance with item **h** of this article shall have two pairs of heavy bitts; each bitt of each pair shall be capable of withstanding a strain of 45,000 kilograms (100,000 pounds). Other double chocks shall have a pair of heavy bitts with each bitt capable of withstanding a strain of 45,000 kilograms (100,000 pounds).
 - h. All vessels, except a vessel not requiring locomotives, shall be fitted with a double chock set athwartships, right in the stem, and another double chock set athwartships, right in the stern,

except that on vessels of less than 22.86 meters (75 feet) beam, two single chocks may be substituted for each double chock required by this article. On vessels of over 22.86 meters (75 feet) beam, two double chocks may be substituted for each double chock required by this article. If such substitution is made, the chocks shall be placed port and starboard, not more than 2.5 meters (8 feet) abaft the stem or 3 meters (10 feet) forward of the stern, provided that these chocks are not more than 3 meters (10 feet) from the center line of the vessel.

i. Vessels under 60.06 meters (200 feet) in length, and not exceeding 9.14 meters (30 feet) in beam shall have a double chock or two single chocks at the stem and stern. If the vessel is equipped with the two single chocks, they shall be placed, port and starboard, not more than 2.5 meters (8 feet) abaft the stem, or 3 meters (10 feet) forward of the stern, and not more than 3 meters (10 feet) off the center line.

j. Vessels 60.96 to 121.92 meters (200 to 400 feet) in length, and not exceeding 22.86 meters (75 feet) in beam, shall have a double chock at the stem and at the stern, or two single chocks at the bow and stern, port and starboard, not more than 2.5 meters (8 feet) abaft the stem or 3 meters (10 feet) forward of the stern, and not more than 3 meters (10 feet) off the center line, and shall have two additional single chocks, port and starboard, 9 to 16 meters (30 to 50 feet) abaft the stem, and 9 to 16 meters (30 to 50 feet) forward of the stern.

k. Vessels 121.92 to 173.74 meters (400 to 570 feet) in length, and not more than 22.86 meters (75 feet) in beam, shall have a double chock at the stem and stern or two single chocks at the bow and stern, port and starboard, and in addition shall have a double chock, port and starboard, 12 to 16 meters (40 to 50 feet) abaft the stem, a single chock port and starboard, 24 to 28 meters (80 to 90 feet) abaft the stem, and a single chock, port and starboard, 12 to 16 meters (40 to 50 feet) forward of the stern.

l. Vessels over 173.74 meters (570 feet) in length, or 22.86 meters (75 feet) in beam or over, shall have a double chock at the stem and stern; a double chock, port and starboard, 12 to 16 meters (40 to 50 feet) abaft the stem; a single chock port and starboard, 24 to 28 meters (80 to 90 feet) abaft the stem; a double chock, port and starboard, 12 to 16 meters (40 to 50 feet) forward of the stern, and a single chock, port and starboard, 24 to 28 meters (80 to 90 feet) forward of the stern.

m. All vessels with a maximum beam of 27.74 meters (91 feet) or more, in addition to the double chock at the stern, required in the preceding item, shall have two single chocks at the stern. One chock shall be to port of the centerline, and one chock shall be to starboard of the centerline. The single chocks shall be symmetrically spaced, not less than 3 meters (10 feet), nor more than 6 meters (20 feet), from the centerline.

n. Vessels with large flared bows, or unusually high freeboard such as container vessels or vehicle carriers, will be required to provide single closed chocks located further aft than those required in l above, for correct positioning of assisting tugs or may be required to fit recessed tug bollards into the hull, so the tugs can work without coming in contact with the bow flare, or having to use extra long lines and/or inefficient leads.

o. Where recessed hull bitts are installed in the hull, they shall be installed not less than 3.7 meters (12 feet) nor more than 4.6 meters (15 feet) above the vessel's waterline. Vessels which have an appreciable variation in draft may be required to install two sets of recessed hull bitts so that one bitt is located over the other bitt. Also, the recessed hull bitts are to be installed in the hull as far forward as possible, both port and starboard sides, where the bow flare does not exceed 25 degrees as measured from the vertical line of the vessel's side. This position may require locating the chocks and bitts further aft than the 24 to 28 meters (80 to 90 feet) abaft the stem as stipulated in item **k** above. This position will allow Authority tugboats to work safely under the bow flare without the tugboats' mast or pilothouse coming in contact with the vessel's hull.

p. A vessel not requiring locomotives shall have a chock arrangement similar to that described in item **i** above, except that the chocks need only be single chocks or, if approved by the Authority, of lesser strength.

q. Any vessel which fails to meet the requirements of this article may be denied transit. If the Authority decides that the vessel can be handled without undue danger to equipment or personnel, notwithstanding her failure to comply with these requirements, the vessel may be allowed to transit, in accordance with article 60 of this Regulation.

r. Newly constructed vessels placed in service after March 1, 1997, must comply with all the requirements of this article. Vessels placed in service before that date are granted a waiver for one round trip or for one year from the date of the waiver, whichever comes first.

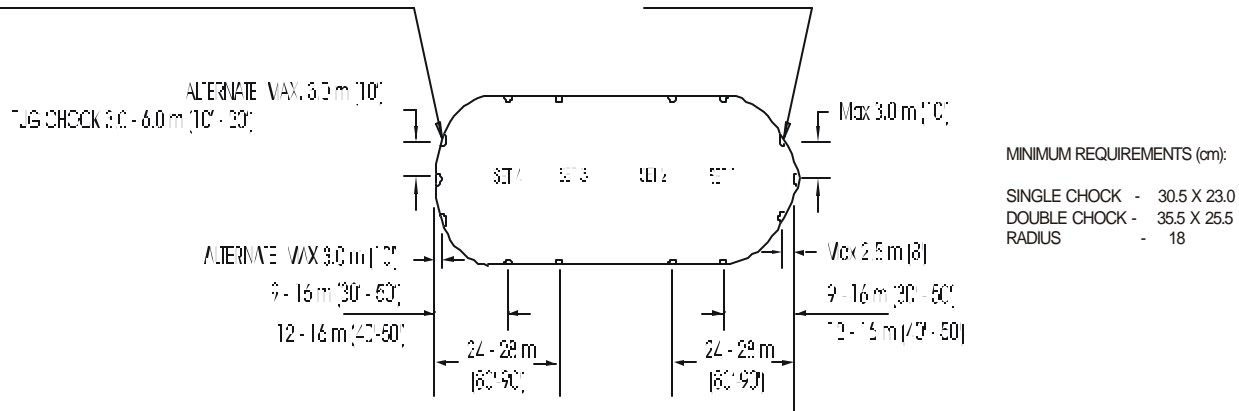
Certain tank vessels, and other vessels which prove, to the satisfaction of the Authority, that the work necessary to fit the chocks on the stern, as required by item **m** above, cannot be safely performed while at dockside, will be granted a waiver extending until the vessel's next dry-docking. Vessels with a Authority approved recessed bitt on the stern may, upon written application, be exempted from this requirement.

2. Table for chocks and bitts:

ALTERNATE CHECK IF NO CENTER LINE BOW CHECK PROVIDED
 (MAX 3.0 m (10') FORWARD OF STEW, MAX 3.0 m (10') CENTERLINE)

ADDITIONAL SINGLE TUGBOAT CHECK
 (MAX 3.0 m (10') FORWARD OF STEW, MAX 3.0 m (10') CENTERLINE)

ALTERNATE CHECK IF NO CENTER LINE BOW CHECK PROVIDED
 (MAX 3.0 m (10') AHEAD OF STEW, MAX 3.0 m (10') ON CENTERLINE)



VESSEL SET

- Vessel under 60.96 m (200') O.L. and less than 9.14 m (30') beam.
- Vessel 60.96 m - 121.92 m (200' - 400') O.L. and less than 22.86 m (75') beam.
- Vessel 121.92 m - 173.74 m (400' - 570') O.L. and less than 22.86 m (75') beam.
- Vessel over 173.74 m (570') O.L. or 22.86 m (75') beam.

NOTE: Vessels with and unusual high freeboard such as car-carriers, may replace the checks in Sets 2 and 3 using the bits on the recess of the hull no less than 3.60 m (12 feet) and no more than 4.6 m (15 feet) over the draft line.

CHECKS REQUIRED

- Low cameline (Double) Stem cameline (Double)
- No single (alternate if no cameline provided)
- In addition to Bow and Stem checks:
 - Set 1 (Single 9 to 16 m (30 to 50') abaft of stem)
 - Set 4 (Single 9 to 16 m (30 to 50') forward of stem)
- In addition to Bow and Stem checks:
 - Set 1 (Double 12 to 16 m (40 to 50') abaft of stem)
 - Set 2 (Single 24 to 28 m (80 to 90') abaft of stem)
 - Set 4 (Single 12 to 16 m (40 to 50') forward of stem)
- Low cameline (Double) Stem cameline (Double)
- No cameline checks (alternate if no cameline provided)
- Set 1 (Double 12 to 16 m (40 to 50') abaft of stem)
- Set 2 (Single 24 to 28 m (80 to 90') abaft of stem)
- Set 3 (Single 24 to 28 m (80 to 90') forward of stem)
- Set 4 (Double 12 to 16 m (40 to 50') forward of stem)

Section Five

Navigation Bridge Requirements

Article 61: The following structures, equipment, and conditions are required for the navigation bridge:

1. **Navigation Bridge:** wheelhouse windows shall be:
 - a. Of sufficient size and number to provide a clear view.
 - b. Of clear safety glass. Tinted windows must be removable.
 - c. Arranged so as to include a center window.
 - d. Equipped with mechanically operated rain wiper blades on windows at normal bridge conning positions, as described in item 3.

2. **Bridge Wings:** Bridge wings shall extend to the maximum beam of the vessel, and shall provide a clear, unobstructed passage along their forward portions from the wheelhouse doors to the extreme ends of the bridge wings. If it is impossible to extend these bridge wings the full breadth of the vessel, they shall extend as far as possible and wing-out or portable platforms shall be provided, as follows:
 - a. Extending to the maximum beam of the vessel.
 - b. Of adequate size, strength, and rigidity to hold two persons.
 - c. Equipped with safety handrails, and a toe board around the deck of a minimum of 10 centimeters (4 inches) high.
 - d. Platforms shall be safe and secure, and maintained in good conditions.

3. **Normal Conning Positions** (see visibility drawing):
 - a. Conning Position No. 1 is located directly behind and close to the forward center wheelhouse window.
 - b. Conning Position No. 2 is located to port of Conning Position No. 1, directly behind and close to the nearest window thereto, so that it provides a clear unobstructed view ahead.
 - c. Conning Position No. 3 is located to starboard of Conning Position No. 1, directly behind and close to the nearest window thereto, so that it provides a clear, unobstructed view ahead.
 - d. Conning Position No. 4 is located at the extreme end of the port bridge wing, and must provide a clear and unobstructed view fore and aft of the vessel's port side.

e. Conning Position No. 5 is located at the extreme end of the starboard bridge wing, and must provide a clear and unobstructed view fore and aft of the vessel's starboard side.

4. Minimum Visibility Requirements:

a. If the vessel is laden, the surface of the water must be visible from the navigation bridge Conning Positions Nos. 1, 2, and 3, one ship length forward (see drawing).

b. If the vessel is in ballast, the surface of the water shall be visible from the navigation bridge one and one-half ship lengths forward (see drawing).

c. If visibility from normal conning positions is obscured by cargo gear or other objects or structures forward of the beam, the total arc of obstructed visibility shall not exceed 15 degrees.

d. The sides of the vessel, fore and aft, shall be visible from the bridge wing conning positions.

e. If the Authority considers that visibility forward or aft is unsafe, the vessel may have transit restrictions imposed that will require tug assistance, delay transit, or have transit denied.

5. Indicators: All vessels over 45.72 meters (150 feet) in length shall be equipped with properly operating rudder-angle and propeller-revolution indicators in the wheelhouse and bridge wings, so located and illuminated as follows:

a. Rudder Angle Indicators:

a.1 On vessels less than 24.38 meters (80 feet) in beam, at least one of such design that it can be easily read by day or night from all normal conning positions, and from the steering station.

a.2 On vessels of 24.38 meters (80 feet) or more in beam, at least one inside the wheelhouse, and one on each bridge wing, of such design and placement so that at least one can be easily read by day or night from each conning position, and from the steering station.

a.3 These indicators must show in degrees clearly and accurately the position and directions of the rudder or rudders.

b. Propeller Revolution Tachometers or Variable Pitch Propeller Indicators:

b.1 On vessels less than 24.38 meters (80 feet) in beam, at least one for each propeller, of such design as to be easily read by day or night from all normal conning positions.

b.2 On vessels 24.38 meters (80 feet) or more in beam, at least one for each propeller located inside the wheelhouse, and one for each propeller located on each bridge wing, of such design and placement, so that at least one can be easily read by day or night from each conning position.

b.3 Indicators shall show revolutions per minute clearly, and shall accurately indicate the direction of the propeller or propellers.

b.4 All vessels with variable pitch propeller control indicators will have them so located as required in items b.1 and b.2.

6. **Bow/Stern Thrusters:** Vessels equipped with bow/stern thrusters shall provide controls located at the extreme ends of the bridge wings, as well as inside the wheelhouse.

7. **Whistle Controls:** Vessels shall be provided with whistle controls as follows:

a. All vessels shall have one within easy reach on the navigation bridge from Conning Positions Nos. 2 and 3, as described in item 3 above.

b. If the beam of the vessel is more than 15 meters (49.2 feet), additional controls shall be provided at the extreme end of bridge wings, at Conning Positions Nos. 4 and 5.

c. Controls shall make it possible to regulate precisely any whistle signal (see rules 31 and 32, article 108 of this annex).

8. **Magnetic Compass and Gyro Compass:**

a. All power-driven vessels that transit the Canal must be fitted with a magnetic compass, so located and illuminated as to be readily visible to the pilot day or night.

b. Vessels equipped with a gyro compass must have properly operating repeaters, so located and illuminated as to be readily visible to the pilot day or night.

9. **Very High Frequency (VHF) Radio:** Every power-driven vessel of 300 gross tons or over, every power-driven vessel of 100 gross tons or over carrying passengers for hire, and every commercial towing vessel of 7.92 meters (26 feet) in length or over, shall be equipped with at least one VHF transceiver, as follows:

a. The transceiver must be operable from the navigation bridge.

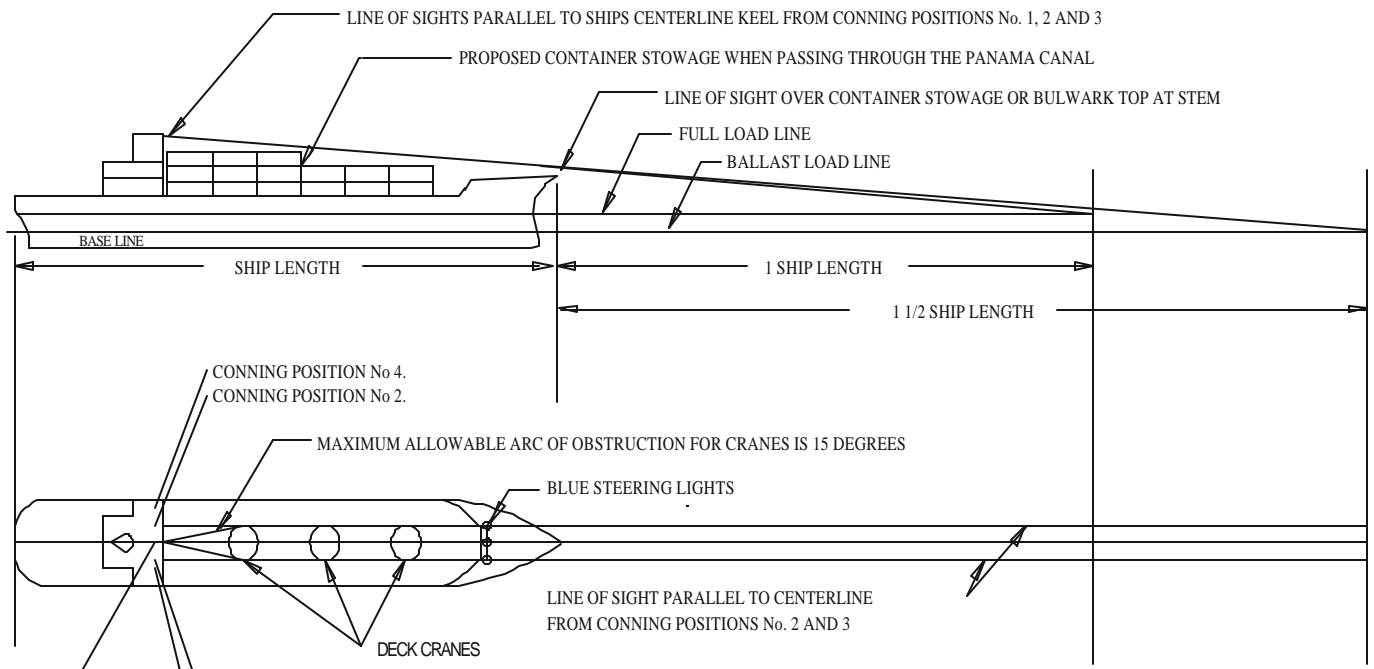
b. It must be equipped with International Channels 12 (156.99 MHz), 13 (156.650 MHz), and 16 (156.800 MHz).

10. **Steering Light:**

a. All vessels over 100 meters (328 feet) in length shall have installed, at or near the stem, a fixed blue transit light, which shall be clearly visible from the bridge, along the center line. If said transit light so placed would be partially or completely obstructed, then two such transit lights must be installed at an equal distance from the center line, and shall be clearly visible along lines parallel thereto.

b. Military vessels exempted from the requirements of 72 COLREGS shall also be exempt from the requirements of the steering light.

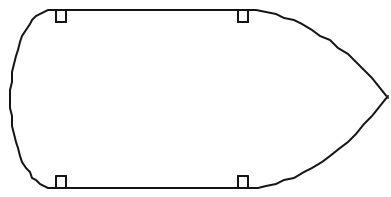
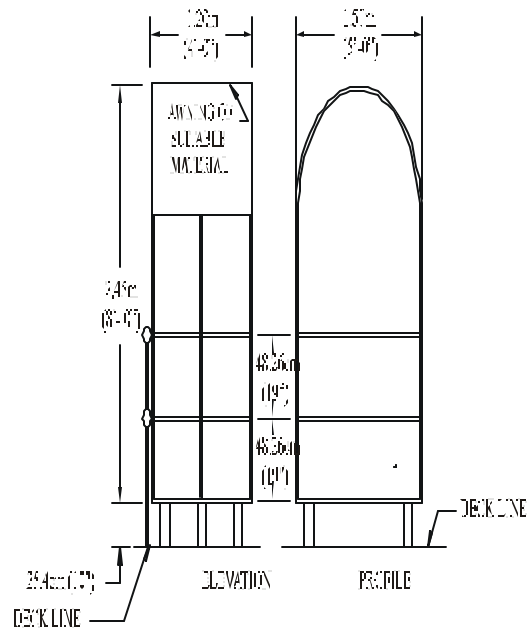
- c. The light shall be able to be controlled from the navigation bridge, the forecastle deck, or both.
- d. The use of this light shall be at the discretion of the Canal pilot.



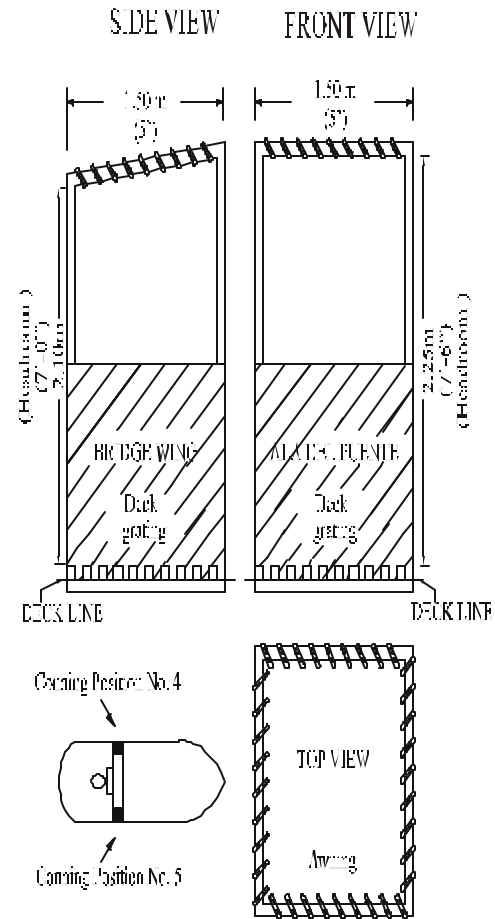
- NOTES:
1. ON VESSELS WITHOUT CENTERLINE CRANES OR ANY OTHER CENTERLINE OBSTRUCTIONS, VISIBILITY SHALL BE MEASURED ALONG THE CENTERLINE OVER THE STEM.
 2. ON VESSELS WITH CENTERLINE CRANES OR ANY OTHER CENTERLINE OBSTRUCTION, VISIBILITY SHOULD BE MEASURED ALONG LINES WHICH ARE PARALLEL TO VESSELS CENTERLINE KEEL FROM CONNING POSITIONS No. 2 & 3 OVER VESSELS BOW.
 3. CONNING POSITIONS No. 2 & 3 ARE TO BE AT THOSE WINDOWS IN THE WHEELHOUSE WHICH ARE THE NEAREST WINDOWS TO THE CENTERLINE WHICH WILL PROVIDE A CLEAR UNOBSTRUCTED VIEW AHEAD ALONG LINES WHICH ARE PARALLEL TO VESSELS CENTERLINE.

Article 64: Pilot Shelter Platforms must meet the following requirements (see diagram in this article):

1. Vessels with a breadth of 30.48 meters (100 feet), and overall length of 274.4 meters (900 feet) or more, may require two or more pilots when transiting. On such vessels, the shelter platforms shall be located as follows:
 - a. On vessels with the bridge in the extreme after part of the vessel, platforms shall be located forward.
 - b. On vessels with the bridge in the extreme forepart of the vessel, platforms shall be located aft.
 - c. Pilot shelter platforms may also be required on certain smaller ships, when the Authority determines that three or more pilots are required.
2. Each platform shall be erected over the furthest forward point of the extreme beam at the waterline, and not more than 15 centimeters (6 inches) from the vertical plane of the shell plating. For vessels of unorthodox design requiring aft platforms, they shall be erected at a position which is approximately over the aftermost point of the extreme beam at the waterline, and not more than 15 centimeters (six inches) from the vertical plane of the shell plating.
3. The awning indicated in the sketches of this article is to be made of suitable material, to provide shelter from sun and rain, and shall be rigged to avoid spilling water inside the framework of the shelter during rain. Platforms must allow the maximum possible visibility.
4. The deck of the pilot shelter platforms shall be made of wood or other material with a non-skid surface, to provide dry footing at all times.
5. In addition to the pilot shelter platforms referred to in “1” of this article, all vessels whose extreme beam is 24.4 meters (80 feet) or more, are required to provide bridge wing shelters for the protection of control pilots. Alternate arrangements, including portable shelters, which provide equivalent or better protection and visibility, may be acceptable.
6. On vessels that have a raised conning station at the edge of the bridge wing above the deck level, the height of the awning should be raised accordingly, to maintain the minimum specified headroom. Awnings are to extend at least 1.5 meters (5 feet) inboard from the outboard edge of the bridge wing. Similarly, their fore-and-aft dimension is to be at least 1.5 meters (5 feet), extending aft from the forward part of the bridge wing. If ship control equipment (engine, rudder, or thruster controls, etc.) are located on the bridge wings, these shelters must also extend at least 30 centimeters (1 foot) beyond such equipment, but must not extend beyond the outboard edge of the bridge wing.



FOOT SHIELD PLATFORMS MAY BE REQUIRED ON VESSELS WITH A MAXIMUM BEAM OF 3.46m (11'5") OR MORE AND AN OVERALL LENGTH OF 19.5m (65'0") OR MORE.



Section Six Maneuvering Characteristics

Article 65: The vessel's maneuvering information shall be prominently displayed in the navigation bridge, as follows:

1. Conditions:

Maneuvering information is to be based on the following:

- a. Calm weather – wind 10 knots or less, calm sea.
- b. No current.
- c. Deep water conditions – water depth twice the vessel's draft or greater.
- d. Clean hull.

2. Sources:

The information that appears on the fact sheet shall be obtained from:

- a. Trial trip observations.
- b. Model tests.
- c. Analytical calculations.
- d. Simulations.
- e. Information established from another vessel of similar power, rudder, propeller, and hull form, or
- f. Any combination of the above. The accuracy of the information in the fact sheet is that attainable by ordinary shipboard navigation equipment.

3. Contents:

- a. For full and half speed, a turning circle diagram to port and starboard, showing the time and distance of advance and transfer required to alter the course 90 degrees, with maximum rudder angle, and constant power settings.
- b. The time and distance required to stop the vessel from full and half speed, while maintaining approximately the initial heading, with minimum application of rudder.
- c. For vessels with a fixed propeller, a table of shaft revolutions per minute for a representative range of speeds.

d. For vessels with a controllable pitch propeller, a table of control settings for a representative range of speeds.

e. For vessels fitted with an auxiliary device to assist in maneuvering, such as a bow thruster, a table of vessel speeds at which the auxiliary device is effective in maneuvering the vessel.

4. Inspection and Control:

The fact sheet information shall be:

a. Verified six months after the vessel is placed into service; or

b. Modified six months after the vessel is placed into service, and verified thereafter within three months.

Tankers shall submit maneuvering information for the normal load and normal ballast condition.

All other vessels shall include, besides the maneuvering information required by this article, the normal load and normal light condition for a particular condition of loading.

Section Eight Engine Orders to be Recorded

Article 67: Every power-driven vessel over 76 meters (250 feet) in length, while navigating in Canal waters under the control of a Canal pilot, shall maintain a bridge bell book, and an engine room bell book.

The bridge bell book shall consist of a contemporaneous record of each engine order, and the time it is transmitted from the bridge to the engine room, unless it is equipped with an automatic device which produces a permanent, legible record of every engine order transmitted from the bridge. Also, the record of orders received in the engine room shall contain each order received, and the time it was received.

The response and the time of response to the message transmitted to the engine room must be recorded.

If the vessel is equipped with other navigation equipment, such as a course recorder, speed recorder, depth recorder, or ruder angle recorder, these automatic devices must be in operation during transit.

In case of an accident, all bell books and automatic recordings must be made available to the Authority for copying and inspection.

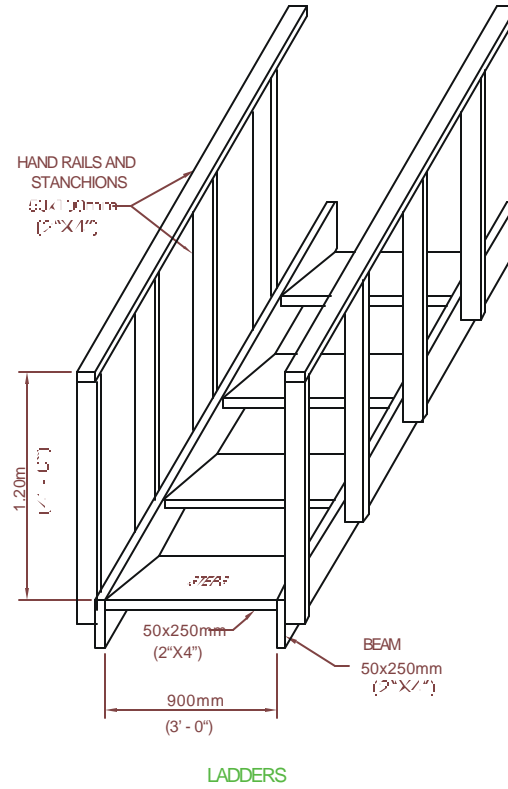
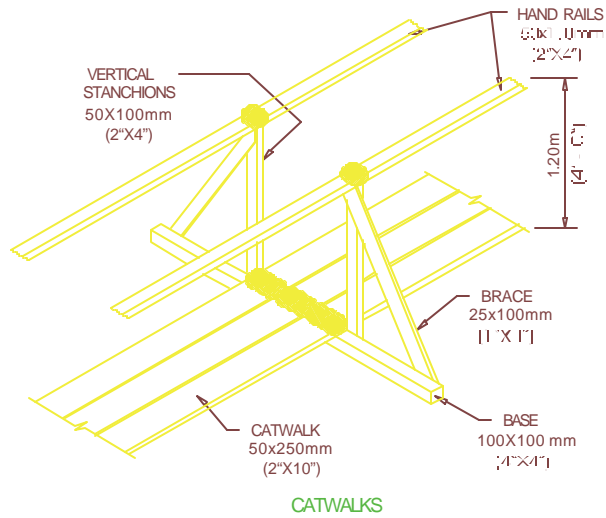
Section Thirteen

Deck Load Cargo

Article 72: General cargo and lumber shall be stowed as indicated below:

1. It shall be stowed so as to be sufficiently clear to provide safe working space around all chocks, bitts, and other gear used in transiting, and so arranged as to not obstruct any direct lead from chocks to bitts.
2. If access to working spaces is necessary over a deck load, as with lumber, a catwalk will normally be required, unless a level, continuous surface free of encumbrances is already provided. When catwalks are required, they shall be at least 0.9 meters (3 feet) in width, and provided with adequate guard rails. Where the deck cargo is sufficiently level for gangway purposes without a catwalk, guard rails or life lines, spaced not more than 30 centimeters (12 inches) apart, must be provided on each side of the deck cargo, to a height of at least 1.20 meters (4 feet) above the cargo.
3. If deck access is provided on deck adjacent to deck cargo, a level continuous passage at least 0.90 meters (3 feet) in width shall be provided. This access shall be unencumbered by obstacles deemed hazardous to normal passage.
4. When personnel are required to traverse over deck cargo, ladders adequate for safe access must be provided between the deck and top of deck cargo. Such ladders must be provided with guard rails or safety lines, as previously described for catwalks.
5. An adequate bulwark or railing shall be provided between deck cargo and the ship's sides.
6. All sharp edges and projections adjacent to normal access shall be adequately protected to prevent injury to personnel.
7. Sufficient lighting shall be provided by the vessel to illuminate deck accesses and working spaces during hours of darkness.

DECK CARGO



NOTES

1. SKETCHES SHOW ACCEPTABLE AND EASILY CONSTRUCTED CATWALKS AND LADDERS TO PROVIDE SAFE ACCESS TO WORK AREAS ON SHIPS CARRYING DECK LOAD CARGO.
2. DIMENSIONS MAY VARY PROVIDED BASIC SAFETY REQUIREMENTS ARE MAINTAINED AND CONSTRUCTION IS APPROVED BY AQA.
3. ALL PASSAGEWAYS SHALL BE FREE OF OBSTACLES OR HAZARDS FOR THE USERS.

Section Sixteen

Non-Self-Propelled Vessels

Article 80: Requirements for non-self-propelled vessels:

1. Displacement of these vessels is limited to 35,000 tons, and the draft requirements of article 52.1 of this annex shall apply.
2. The draft of non-self-propelled barges 167.65 meters (550 feet) or more in length may be limited, when in the opinion of the Authority, such limitation is necessary to ensure reasonable safety.
3. Upon arrival, the tug will break up the tow and secure the bridle, so that no part of it extends below the surface of the water.
4. Tows shall have the capability of anchoring.
5. Tows will be inspected before being scheduled for transit.
6. Agents, operators, and owners will be responsible for making any required alterations or additions to equipment or stowage.
7. Boarding facilities shall comply with the International Convention for Safety of Life at Sea, 1974/78 – SOLAS. There must be a clear passage, free of obstructions, from the boarding facility to all working areas; otherwise, catwalks with handrails and steps must be provided.
8. The working area near chocks and bitts on all ships and barges must be clear of obstructions, and fitted with safety rails or lines at the vessel's sides.
9. Ships and barges must provide a pilot shelter, approximately midway between the bow and stern, with a clear view forward, on the center line. This shelter may be permanent or portable, but must protect the pilot from the elements. If needed, extra shelters may be required. In addition to the center line shelter, tows with a beam in excess of 24.35 meters (79.9 feet), shall provide pilot shelters at the extreme beams, from which the pilots can readily see the vessel's sides.
10. All ships or barges must be equipped with the chocks and bitts set forth in article 59 of this annex.
11. Towed ships and barges must provide mooring and heaving lines, as well as bitts or cleats for securing tugs, that do not interfere with those chocks and bitts required for locomotive wires.
12. All barges must be fitted so that a pusher tug can be secured with its stem held firmly to the center line. Pushing tugs are to be equipped with wire cable snubbers and springs. Commercial tugs pushing a barge with poor visibility forward will not be allowed to push in notch or in a

blind position. In these cases, the tug must tow with a bridle, using another tug astern to assist with control.

13. Riding crews must be provided in sufficient numbers to safely handle towboat lines and boarding ladders, and to assist in mooring. While the tow is underway in Canal waters, anchors shall be manned and ready to be dropped in case of emergency.

14. All barges must have portable toilets on board prior to departure for transit.

15. The Authority shall decide, on a case-by-case basis, whether the commercial tug may be used to assist during transit. A composite unit that has bridge wings to extreme beam of tow with required visibility forward, and that meets all other Authority requirements, may be scheduled for transit as a normal ship.

Agents, operators, and owners of dead tows should contact the Authority as early as possible, but no later than 48 hours prior to ETA, so that particular requirements essential to planned transits can be met without delay.

Section Seventeen Small Craft, Yachts, and Other Handlines

Article 82: Small craft, yachts, and other handlines must comply with the following requirements:

1. Those arriving at Balboa or Cristobal must contact the signal station to receive instructions.
2. They may enter the Canal channel and proceed to the appropriate anchorage only after receiving permission from the signal station on VHF Channel 12.
 - a. The signal station shall be responsible for coordinating the movement of these craft, to avoid conflict with transiting vessels.
 - b. The signal station shall notify all craft of these limits to movement.
3. Handlines arriving for transit, and whose agents have made arrangements for transit, shall be boarded by the inspection officer on arrival.
4. If a handline has no agent, the master shall contact the signal station to make arrangements for admeasurement and to be received by the Authority. After admeasurement and Authority clearance, the master must make arrangements for Canal transit, and pay the required tolls. The Authority will provide information on the equipment and procedures for transiting.

5. If a handline vessel is operated from an open cockpit, an awning should be installed, if possible, to keep the pilot and the crew out of the sun and rain during transit. A vessel must maintain its schedule, regardless of weather conditions. Also, adequate sanitary facilities shall be provided aboard, otherwise the transit may be subject to delay.
6. Handlines moor to the lock wall or in the center of the chamber. Some vessels over 38.1 meters (125 feet) may transit as handlines when approved by the Authority.
7. All handlines must have an anchor, adequate fendering, and at least four (4) mooring lines not less than 38.1 meters (125 feet) long, capable of resisting its weight under tension, and must be sufficiently manned, in addition to the master, to handle them.

Section Nineteen Gear for Transiting

Article 88: Before beginning transit of the Canal, a vessel shall have hawsers, lines, and fenders ready for passing through the locks, for towing or mooring, as the case may be; and shall have both anchors ready for letting go. The master shall verify that engines, steering gear, engine room telegraphs, whistle, rudder-angle and engine-revolution indicators, anchors, and any other navigation equipment is operating correctly.

During the transit, at all times while a vessel is under way or moored against the lock walls, her deck winches, capstans, and other hydraulic equipment for handling lines, as well as her mooring bitts, chocks, cleats, hawse pipes, etc., shall be ready for handling the vessel, to the exclusion of all other work.

Section Twenty Flags and Pennants

Article 89: All transiting vessels shall display flag signals as follows:

1. When a pilot is assigned to a vessel for transit, he is given a schedule number and the expected time of arrival at the locks. The vessel shall display the flag or flags designating the assigned schedule number. This number will be the vessel's identification while in transit.
2. Northbound vessels shall be assigned odd numbers, and southbound vessels shall be assigned even numbers.
3. The "H" (Hotel) flag shall be displayed below the number, for northbound transits, and above the number, for southbound transits.

All vessels maneuvering in Canal waters and not transiting shall display the "H" (Hotel) flags when a pilot is on board.

In addition, vessels shall display the following signal flags, as the case may be:

1. Preference vessels shall display the “Z” (Zulu) flag and a blue light at night. Vessels which have been imposed a restriction due to cargo shall display a flag.
2. The flag “B” (Bravo): indicates flammables or explosives aboard. A red light is to be displayed at night.
3. The flag “T” (Tango): indicates toxic or radioactive materials aboard. A red light is to be displayed at night.
4. The flag “X” (X-Ray): When two (2) vessels are dispatched in tandem on the same schedule, the leading vessel shall display the assigned schedule number. The second vessel shall display, in addition to the assigned schedule number, the flag “X” and shall be designated as “extra.”
5. The flag “A” (Alfa): Vessels delayed after having commenced transit by being tied up at Gamboa moorings, Paraiso Tie-up Station, or anchored in Gatun Lake until after the next day’s traffic has commenced, shall display this flag under the schedule number.

Chapter V Pilotage

Section One Compulsory Pilotage

Article 90: Pilotage is compulsory at the Atlantic entrance from a line starting at the Cristobal Mole, 270° true west, passing by *Lighted Beacon 1* (Mole), and *Lighted Buoy 2* (9°20’21”N), to the line passing by *Buoys 1 and 2* at the Pacific entrance to the Canal, extending from *Lighted Buoy X* to San Jose Rock, east of the channel.

Article 94: When a vessel requires the services of a pilot before entering the breakwater, she shall wait outside, and contact the Cristobal signal station to request the pilot.

Section Two Exemptions from Compulsory Pilotage in the Ports

Article 99: Operation requirements for pilot-exempted vessels:

1. **Licensed Master or Operator Experience:** The master or operator must be licensed to operate the vessel involved, issued by the respective authority of the Republic of Panama, and be certified by the Board of Inspectors of the Authority. This certification shall be valid for one

year, and may be renewed if renewal is requested one month prior to its expiration; it shall be kept on board, and be presented upon request.

In addition, local small craft masters and operators must purchase a copy of the “Panama Canal Waters Technical Operations Manual,” at their own expense, and shall keep it on board.

2. **Permission to move:** Vessels must obtain permission from the Authority prior to any movement in or out of the harbor, including arrival or departure, or when shifting berths. They shall follow instructions, and maintain a watch on VHF channel 12 (156.000 MHz) to receive any further instructions while maneuvering.

3. **Crossing Canal Channel:** Pilot not required. However, the vessel shall establish communications on Channel 12 with the appropriate communications station, and maintain watch throughout crossing.

4. **Harbor Movements or Movements Not Involving the Canal Channel:** Pilots normally not required. In these instances, the vessel shall establish communications on channel 12 with the appropriate communications station, and shall maintain watch throughout movement. However, pilots are required for bunkering operations in the harbor, or for moving dead tows in or out and within the harbor.

5. **Boarding for inspection:** In order to comply with these rules, pilot-exempted vessels are subject to inspection by the Authority at least once a year. Any vessel owner/operator who does not comply with the rules shall have the exemption revoked, and will not be reconsidered for a period of one year after the noncompliance was discovered.

Chapter VI Requirements Concerning the Crew

Section One Vessels to be Fully Manned

Article 103: The crew shall keep watch as follows:

1. A vessel shall have sufficient seamen forward and aft, if so requested by the pilot, to handle lines expeditiously when approaching a lock, mooring temporarily to a lock wall or in a lock chamber, or when docking, undocking, mooring, or shifting berth.

2. In addition to the regular engineer officer of the watch, the chief engineer of a vessel shall remain on duty in the engine room during the approach to, and while passing through, the locks, and until the vessel is clear of the lock walls. The chief engineer shall also be on duty in the engine room while the vessel is passing through Culebra Cut, docking or undocking, getting under way, anchoring, mooring, or shifting berth.

3. An officer shall stand by on the forecastle when a vessel is under way in Culebra Cut, or when docking, undocking, getting under way, anchoring, mooring, or when so requested by the pilot.
4. An officer shall be stationed on the forecastle, and another on the stern, from the time a vessel enters until it leaves a lock, while docking, undocking, mooring, or shifting berth, or when so requested by the pilot.
5. In addition to meeting the requirements of 1 and 2 above, every vessel with a Canal pilot on board shall have a seaman stationed on the forecastle with effective communication with the navigation bridge, who is capable of and ready to operate the ground tackle throughout the transit.
6. In addition to meeting the requirements of 1, 2, and 3 above, every vessel with a tug made fast on the stern shall have an officer or qualified seaman stand by on the stern. An effective communication with the bridge shall be maintained. This requirement is for tug safety in the vicinity of the vessel's propeller action.
7. When anchored, moored, or lying at a Panama Canal pier, a vessel shall have on board at least one qualified deck officer, one qualified engineer officer, and sufficient crew to provide for the safety of the vessel.
8. A vessel shall have its engines operating at full capacity at all times mentioned in this article.

Section Two Master and Officers

Article 105: The master or a qualified officer shall be on the bridge, as indicated below:

1. The master shall be on the bridge when a vessel is entering or leaving a lock, docking or undocking, getting under way, anchoring, mooring, or shifting berth, is under way in Culebra Cut, or when so requested by the pilot.
2. At all other times the master or his qualified representative shall be on the bridge and shall keep the pilot informed concerning the handling of the vessel, so that the pilot may be better able to control the navigation and movement of the vessel. All other officers shall be at their regular stations throughout the maneuvers described herein.
3. The master and his qualified representative shall ensure that the pilot's orders are promptly and properly carried out by the crew at all times, and must have a working knowledge of the English language.

Chapter VII

Entering and Passing Through the Locks

Article 107: When entering and passing through the locks, vessels must comply with the following:

1. Passengers and Crew:

The master and officers of a vessel shall require all passengers and personnel not directly engaged in the vessel's maneuvers to keep well clear of cables, lines, chocks, bits, capstans, and other equipment and gear used in connection with the lockage.

2. Embarking or Disembarking at locks:

- a. No crew member or passenger shall embark or disembark from a vessel while it is in a lock, without prior authorization from the Authority. Except in an emergency, embarking or disembarking at the locks is restricted to Gatun and Miraflores.
- b. The Authority shall not be responsible for any injuries to persons or property, or for damage to vessels, which may result from the granting of such special permission.
- c. The carrying of firearms in the area of the locks is prohibited, except in the case of law enforcement officials or Authority employees who are authorized to carry weapons in the performance of their official duties.
- d. Personnel on board a vessel are prohibited from using ladders or boatswain's chairs while the vessel is in the lock chamber. Draft readings are to be obtained through the pilot. Further, personnel are prohibited from disembarking onto the lock walls for any purpose.
- e. Crew members or any person jumping from a transiting ship into Canal waters, the locks, or any other Authority structure or equipment, shall be reported immediately after noticed. The person shall be put under the custody of the Authority, which shall be responsible for contacting the vessel's agent. The vessel's agent shall turn the individual back to the ship, or turn him over to the competent authority.

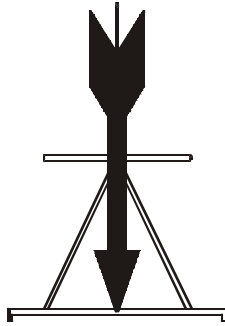
3. Use of Locomotives and Linehandlers:

The Authority shall determine:

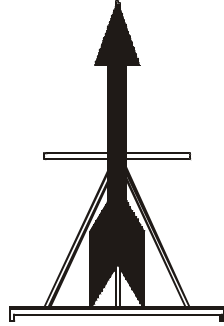
- a. The number of locomotives and towing wires required in the locks by a transiting vessel, depending upon her length, beam, displacement, and special conditions; and
- b. The number of Canal linehandlers to be placed on board a transiting vessel to assist her crew in handling towing wires in the locks.

4. Arrow Signals:

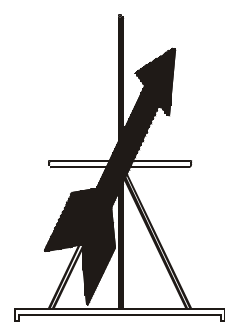
The Authority shall choose between east and west chambers. Vessels shall stand toward the chamber indicated and shall comply with the arrow signal, unless it is unsafe to do so. The arrow signals indicate the following:



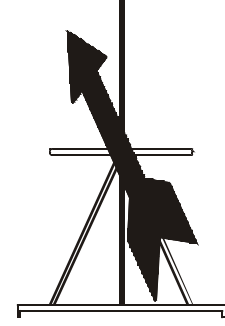
- He still has a feeling of a decision.
- He's ready to charge into his place for some time.



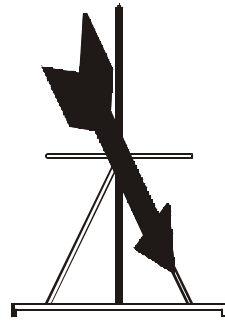
- No real firm challenge, a brief distance to the goal, imagine preparation at the front of the field.
- No ready, stand off with clear of back, prepared to approach or stand.



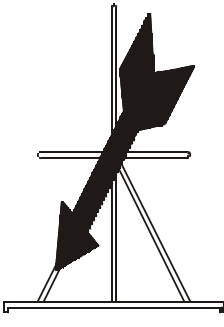
- They can't see us, probably want to see us, but we're not in a position to see them, y angona para sistema o sistema o sistema o sistema de la señal.
- Looks making preparation, probably be ready in 10 minutes or less, you may approach with caution, prepared to be up or out or right hand side or signal.



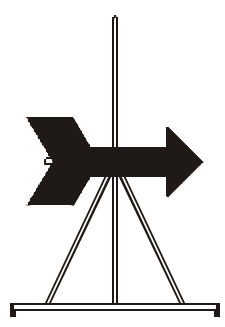
- They can't see us, probably want to see us, but we're not in a position to see them, y angona para sistema o sistema o sistema o sistema de la señal.
- Looks making preparation, probably be ready in 10 minutes or less, you may approach with caution, prepared to be up or out or left hand side or signal.



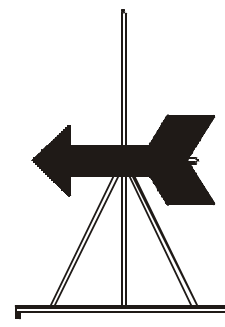
- Assume a number of time, and in case of a decision to move down.
- Also to approach with caution, or right hand side.



- Assume a number of time, and in case of a decision to move down.
- Also to approach with caution, or left hand side.



- Both go to the right.
- Inter-angled side.



- From point by point.
- From left hand side.

5. Use of Towing Locomotives:

- a. A vessel passing through the locks shall be assisted by towing locomotives using steel towing wires.
- b. After towing wires from the towing locomotives have been secured on board, the pilot shall decide whether or not to use the vessel's engines in the locks.

6. Handlines:

When towing locomotives are not used, vessels or small craft may be permitted to pass through the locks under their own power, in the following cases:

- a. A small vessel up to 38.1 meters (125 feet) in length, and a towboat up to 45.72 meters (150 feet) in length, may be handled with their own manila, hemp, or synthetic lines, along the wall, if their structure and fendering will permit their contact with the wall.
- b. A small vessel not over 30.48 meters (100 feet) in length, having good maneuvering characteristics, may be handled with her own manila, hemp, or synthetic fiber lines in the center of the chamber.

In the cases indicated in a. and b. above, larger craft may be permitted on a case-by-case basis by the Authority.

7. Required Lines:

1. To dock, moor at a lock approach wall, or secure in a lock chamber, it shall be the vessel's responsibility to have on deck and ready for immediate use six (6) manila or synthetic mooring lines forward, and six (6) aft, of appropriate size and strength, prior to commencing transit. The master shall inform the boarding official whether or not the vessel complies with the above, so that he may advise the Authority.
2. Each line shall be at least 75 meters (250 feet) in length, and shall have an eye of at least 1.50 meters (5 feet) spliced in one end. They shall be in good condition. Wire ropes, and ropes composed of both wire and fiber or filament are not acceptable for Canal operations. Non compliance with this requirement could result in transit delay.

Chapter VIII Prevention of Collisions

Section One General Provisions

Article 108: Vessels and seaplanes navigating the waters of the Canal shall comply with the following:

Rule 1: Application.

1. The provisions of this part shall apply to navigable waters between a line connecting the East Breakwater Light and the West Breakwater Light at the Atlantic entrance to the Canal, and a line passing through *Buoys 1 and 2* and San Jose Rock at the Pacific entrance to the Canal, joining stations 72 (8°52'49.60" latitude; 79°32'25.50" longitude), and 86 (8°54'19.71" latitude; 79°31'09.91" longitude) at the Canal operation compatibility area boundary line.
2. The Rules of the International Regulations for Preventing Collisions at Sea, 1972 (72 COLREGS) shall apply in Canal waters to seaward of these boundary lines.

Rule 2: General Definitions.

For the purpose of this article, except where the context otherwise requires, the expressions used herein shall have the following meaning:

Vessel. Includes every description of water craft, including non-displacement craft and seaplanes, used or capable of being used as a means of transportation on water.

Power-driven Vessel. Means any vessel propelled by machinery.

Sailing Vessel. Means any vessel under sail, provided that propelling machinery, if fitted, is not being used.

Vessel Engaged in Fishing. Means any vessel fishing with nets, lines, trawls, or other fishing apparatus which restrict maneuverability, but does not include a vessel fishing with trolling lines or other fishing apparatus which do not restrict maneuverability.

Seaplane. Includes any aircraft designed to maneuver on the water.

Vessel Not Under Command. Means a vessel which, through some exceptional circumstance, is unable to maneuver as required by this chapter, and is therefore unable to keep out of the way of another vessel.

Vessel Restricted in Her Ability to Maneuver. Means a vessel which from the nature of her work is restricted in her ability to maneuver as required by this chapter, and is therefore unable to keep out of the way of another vessel. This term includes, but is not limited to:

- a. A vessel engaged in laying, servicing, or picking up a navigation mark, submarine cable, or pipeline.
- b. A vessel engaged in dredging, hydrographic or oceanographic work, or underwater operations.
- c. A vessel engaged in a towing operation that severely restricts the towing vessel and her tow in their ability to deviate from their course.

Under Way. Means that a vessel is not at anchor, or made fast to the shore, or aground.

Length and Breadth. Means the vessel's length overall, and greatest breadth.

Vessels in sight of each other. Vessels shall be deemed to be in sight of one another only when one can be observed visually from the other.

Restricted Visibility. Means any condition in which visibility is restricted by fog, mist, heavy rainstorms, or any other similar causes.

Motorboat. Means a power-driven vessel 20 meters (65 feet) in length or less.

Pilot Vessel. A vessel engaged in pilotage duty.

Composite Unit. A pushing vessel that is rigidly connected by mechanical means (other than lines, hawsers, wires or chains) to a vessel being pushed ahead, so they react to sea and swell as one vessel.

Barge-Tank. Defined as a tank vessel without self propulsion.

Section Two

Steering and Sailing Rules

Conduct of Vessels in any Condition of Visibility

Rule 3: Application.

The rules of this section apply in any condition of visibility.

Rule 4: Lookout.

Every vessel shall at all times while under way in the Canal and adjacent waters, maintain a proper lookout by sight and hearing, as well as by all available means appropriate in the prevailing circumstances and conditions, so as to make a full appraisal of the situation, and of the risk of collision. The person acting as lookout shall have no other assigned duties, and shall report immediately all relevant and material information to the person in charge of the navigation of the vessel.

Rule 5: Safe Speed.

Every vessel shall at all times proceed at a safe speed, so that she can take proper and effective action to avoid collision, and be stopped within a distance appropriate to the prevailing circumstances and conditions. In determining a safe speed, the following factors, among others, shall be taken into account:

1. On all vessels:
 - a. The state of visibility.
 - b. The traffic density, including concentrations of small crafts or any other vessels.
 - c. The maneuverability of the vessel, with special reference to stopping distance, and turning ability in the prevailing conditions.
 - d. At night, the presence of background light, such as from shore lights, or from back scatter of her own lights.
 - e. The state of wind, sea, and current, and the proximity of hazards to navigation.
 - f. The draft, in relation to the available depth of water.
2. Additionally, on vessels with operational radar:
 - a. The characteristics, efficiency, and limitations of the radar equipment.
 - b. Any constraints imposed by the radar range scale in use.
 - c. The effect on radar detection of the sea state, weather, and other sources of interference.
 - d. The possibility that small vessels and other floating objects may not be detected by radar at an adequate range.
 - e. The number, location, and movement of vessels detected by radar.

3. The more exact assessment of the visibility that may be possible when radar is used to determine the range of other vessels or other objects.
4. The GPS system shall be used to determine the position and speed, when available.
5. The Authority shall establish the speed limits for vessels in the different Canal areas. Speed limits may vary in accordance with different circumstances and safety conditions, and such variations thereto shall be published.
6. A vessel transiting in Canal waters at locations other than those for which speed limits have been specified, including Gatun Anchorage, Bohio Bend, Mamey Curve, Miraflores Lake, and in or near the locks, shall not exceed a speed that is safe under the existing circumstances and conditions, except in an emergency.
7. Whenever a vessel is under way in areas where speed is limited to six knots, and the vessel's speed at dead slow ahead exceeds 6 knots, she is permitted to proceed at the slowest speed possible required to safely maintain maneuverability.
8. The Authority may authorize departures from the maximum speeds established, in the case of particular vessels whose handling characteristics are such as to indicate that a higher speed or speeds can be prudently allowed.
9. Paragraph 5 of this rule does not apply to motorboats or to vessels of the Authority. Nevertheless, motorboats and vessels of the Authority when underway shall proceed at a speed which is reasonable under the prevailing circumstances and conditions, and which does not create a hazard to life or property.

Rule 6: Risk of Collision.

1. Every vessel shall use all available means appropriate to the prevailing circumstances and conditions, to determine if risk of collision exists. If there is any doubt, such risk shall be deemed to exist.
2. Proper use shall be made of radar equipment, if fitted and operational.
3. Assumptions shall not be made on the basis of scanty information, especially scanty radar information.
4. In determining if risk of collision exists, the following considerations shall be among those taken into account:
 - a. It shall be deemed that there is a risk of collision if the compass bearing of an approaching vessel does not appreciably change.

b. In some cases, such risk may exist even when an appreciable bearing change is evident, particularly when approaching a very large vessel or a tow, or when approaching a vessel at close range.

Rule 7: Maneuvers to Avoid Collision.

1. If permitted by the circumstances of the case, any maneuver to avoid collision shall be clear, made in ample time, and with due regard to the observance of good seamanship.
2. If permitted by the circumstances of the case, any alteration of course and/or speed to avoid collision shall be large enough to be readily apparent to another vessel observing visually or by radar. A succession of small alterations of course and/or speed shall be avoided.
3. If there is sufficient sea room, alteration of course alone may be the most effective action to avoid a close-quarters situation, provided that it is made in good time, is substantial, and does not result in another close-quarters situation.
4. Any maneuvers to avoid collision with another vessel shall be such as to result in passing at a safe distance. The effectiveness of the maneuver shall be carefully checked until the other vessel is finally past and clear.
5. If necessary to avoid collision, or allow more time to assess the situation, a vessel shall slacken her speed, or take all way off by stopping or reversing her means of propulsion.
6. When two vessels are proceeding in such directions as to involve risk of collision, a power-driven vessel, motorboat, or sailing vessel that is entering or preparing to enter the main channel of the Canal from either side, shall not cross the bow of a vessel proceeding in either direction along the Canal axis, and shall keep clear until the vessel proceeding along the Canal axis has passed.

Rule 8: Narrow Channels.

1. A vessel proceeding along the course of a narrow channel or fairway shall keep as near to the outer limit of the channel or fairway which lies on her starboard side, provided this can be done safely.
2. A vessel less than 20 meters (65 feet) in length, or a sailing vessel, shall not impede the passage of a vessel which can safely navigate only within a narrow channel or fairway.
3. A vessel engaged in fishing shall not impede the passage of any other vessel navigating within a narrow channel or fairway.

4. A vessel shall not cross a narrow channel or fairway if such crossing impedes the passage of a vessel which can safely navigate only within such channel or fairway. The latter vessel shall use the acoustic signal prescribed in Rule 31.4, if in doubt as to the intention of the crossing vessel.

5.a. When overtaking in a narrow channel or fairway, the vessel intending to overtake shall indicate her intention by sounding the appropriate acoustic signal prescribed in Rule 31.3. The overtaken vessel, if in agreement, shall sound the appropriate signal. If in doubt, she shall sound the acoustic signal prescribed in Rule 31.4.

b. The provisions of this rule do not relieve the overtaking vessel of her obligations under Rule 11.

6. A vessel nearing a bend, or an area of a narrow channel or fairway, where other vessels may be obscured by an intervening obstruction, shall navigate with alertness and caution.

7. Vessels shall avoid anchoring in a narrow channel, if permitted by the circumstances of the case.

8. When two power-driven vessels are meeting end on, or nearly end on in the Canal, and in the vicinity of an obstruction, e.g., a dredge, drill barge, slide, etc., the vessel whose side of the Canal is clear shall have the right-of-way, and the other vessel shall hold back and keep out of the way, until the privileged vessel is clear.

Conduct of Vessels in Sight of One Another

Rule 9: Application.

Rules 10 through 16 shall apply only to vessels in sight of one another.

Rule 10: Sailing Vessels.

1. When two sailing vessels are approaching one another, so as to involve risk of collision, one of them shall keep out of the way of the other as follows:

a. When each has the wind on a different side, the vessel which has the wind on the port side shall keep out of the way of the other.

b. When both have the wind on the same side, the vessel which is to windward shall keep out of the way of the vessel which is to leeward.

c. If a vessel with the wind on the port side sees a vessel to windward, and cannot determine with certainty whether the other vessel has the wind on the port or on the starboard side, she shall keep out of the way of the other.

2. For the purpose of this rule, the windward side shall be deemed to be the side opposite to that on which the mainsail is carried or, in the case of a square-rigged vessel, the side opposite to that on which the largest fore-and-aft sail is carried.

Rule 11: Overtaking.

1. Notwithstanding the provisions contained in the rules of this section, any vessel overtaking any other shall keep out of the way of the overtaken vessel, except that within the Canal channel, all pleasure vessels and crafts, even though they are an overtaken vessel, shall keep out of the way of transiting vessels, and Panama Canal Authority floating equipment.

2. A vessel shall be deemed to be overtaking, when coming up with another vessel from a direction more than 22.5 degrees abaft her beam, that is, in such a position with reference to the vessel she is overtaking, that at night she would be able to see only the stern light of that vessel, but neither of her sidelights.

3. When a vessel is in any doubt as to whether she is overtaking another, she shall assume that this is the case, and act accordingly.

4. Any subsequent alteration of the bearing between the two vessels shall not make the overtaking vessel a crossing vessel within the meaning of this chapter, nor relieve her of the duty of keeping clear of the overtaken vessel, until she is finally past and clear.

5. Except as specially authorized by the Authority, a power-driven vessel shall not overtake and pass another power-driven vessel, in Culebra Cut, Mamey Curve, or Bohio Bend, between *Buoys 38 and 40A*, or in any channel under 215 meters (700 feet) in width (Pacific entrance channel, between Bridge of the Americas and Miraflores Locks, Chagres Crossing, Gamboa Reach, and the Atlantic Channel from Gatun Locks to Buoy No. 6). This paragraph does not apply where either the overtaking or the overtaken vessel is less than 45.8 meters (150 feet) in length or is an Authority vessel.

Rule 12: Head-on Situation.

1. When two power-driven vessels are meeting on reciprocal or nearly reciprocal courses, so as to involve risk of collision, each shall alter her course to starboard, so that each shall pass on the port side of the other.

2. Such a situation shall be deemed to exist when a vessel sees the other ahead, or nearly ahead, and by night she could see the masthead lights of the other in a line or nearly in a line, and/or both sidelights, and by day she observes the corresponding aspect of the other vessel.

3. When a vessel is in doubt as to whether such a situation exists, she shall assume that it does exist, and act accordingly.

4. In the Canal channel, every power-driven vessel encountering another vessel while proceeding along the line of the channel, shall keep to that side of the fairway or mid-channel which lies on its starboard side. When two such vessels so proceeding are bound in opposite directions, they shall, when it is safe and practicable, be governed by the provisions of “1.” above, even when, by reason of an intervening bend in the channel, their headings are not substantially opposite when they first sight each other; and neither of them shall alter course to port across the course of the other. Tugs and motorboats shall, whenever practicable, keep well over to that side of the Canal which is to their starboard when large vessels are passing.

Rule 13: Crossing Situation.

When two power-driven vessels are crossing so as to involve risk of collision, the vessel which has the other on her own starboard side shall keep out of the way and shall, if the circumstances of the case permit, avoid crossing ahead of the other vessel.

Rule 14: Maneuvering by Give-Way Vessel.

Every vessel which is directed to keep out of the way of another vessel shall, so far as possible, take early and substantial action to keep well clear.

Rule 15: Maneuvering by Stand-On Vessel.

1.a. When one of the vessels is to keep out of the way of the other, the latter shall keep her course and speed.

b. However, the latter vessel may take action to avoid collision by her maneuver alone, as soon as it becomes apparent to her that the vessel required to keep out of the way is not taking appropriate action to comply with this rule.

2. When, from any cause, the vessel required to keep her course and speed finds herself so close that collision cannot be avoided by the action of the give-way vessel alone, she shall take such action as will best aid to avoid collision.

3. A power-driven vessel which takes action in a crossing situation in accordance with 1.b of this rule to avoid collision with another power-driven vessel, shall, if the circumstances of the case permit, not alter course to port for a vessel on her own port side.

4. This rule does not relieve the give-way vessel of her obligation to keep out of the way.

Rule 16: Responsibilities between types of vessels.

Except where rules 8 and 13 of this section otherwise require:

1. A power-driven vessel under way shall keep out of the way of:

- a. A vessel not under command.
 - b. A vessel restricted in her ability to maneuver.
2. A sailing vessel under way shall keep out of the way of:
- a. A vessel not under command.
 - b. A vessel restricted in her ability to maneuver.
 - c. A power-driven vessel, except a motorboat.
3. In general, a seaplane on the water shall keep well clear of all vessels, and avoid impeding their navigation. However, if there is risk of collision, she shall comply with the provisions of rules 3 through 16 of this chapter.
4. Panama Canal floating equipment at work in a stationary position shall have a privileged right to such position, and no passing vessel shall foul such equipment or its moorings, or pass at such speed as to create a dangerous wash or wake. Floating equipment of the Canal from which divers are working, and floating equipment so moored, and vessels under repair and in such condition that a high wash might cause swamping or be hazardous to the workmen, shall be passed by all vessels at a speed sufficiently slow as not to create a dangerous wash or wake.

Rule 17: Conduct of Vessels in Restricted Visibility.

1. This rule applies to vessels not in sight of one another when navigating in or near an area of restricted visibility.
2. Vessels shall proceed at a safe speed adapted to the prevailing circumstances, and conditions of restricted visibility. A power-driven vessel shall have her engines ready for immediate maneuver.
3. Vessels shall have due regard to the prevailing circumstances and conditions of restricted visibility when complying with rules 3 through 8.
4. A vessel which detects by radar alone the presence of another vessel, shall determine if a close-quarters situation is developing, or if risk of collision exists. If so, she shall maneuver in ample time, provided that when such maneuver consists of an alteration of course, so far as possible the following shall be avoided:
 - a. An alteration of course to port for a vessel forward of the beam, other than for a vessel being overtaken.
 - b. An alteration of course towards a vessel abeam or abaft the beam.

5. Except where it has been determined that a risk of collision does not exist, every vessel which hears apparently forward of her beam the fog signal of another vessel, or which cannot avoid a close-quarters situation with another vessel forward of her beam, shall reduce her speed to the minimum at which she can be kept on her course. She shall, if necessary, take all her way off, and in any event, navigate with extreme caution until the danger of collision is over.

6. Except as provided in paragraph 7 of this rule, vessels moored or at anchor shall not get under way when, because of atmospheric conditions, visibility is less than 300 meters (1,000 feet). Vessels under way in such conditions shall anchor or moor as soon as practicable, and contact the Authority immediately, by radio or other available means.

7. Vessels specially equipped to navigate under conditions restricting visibility, and which have a pilot aboard, and vessels which have a pilot aboard and which are assisted by Authority vessels specially equipped to navigate under such conditions, may, at the discretion of the Authority, be navigated when visibility is less than 300 meters (1,000 feet).

Section Three Lights and Shapes

Rule 18: Application.

1. The provisions of rule 18 through 28 shall be complied with in all weather conditions.
2. The rules concerning lights shall be complied with from sunset to sunrise, and during such times, no other lights shall be exhibited, except such lights as cannot be mistaken for the lights specified in this part, or do not impair their visibility or distinctive character, or interfere with the keeping of a proper lookout.
3. The lights prescribed by these rules, if carried, shall also be exhibited from sunrise to sunset in restricted visibility, and may be exhibited in all other circumstances when it is deemed necessary.
4. The rules concerning shapes shall be complied with by day.
5. The lights and shapes specified in this part shall comply with the provisions of Annex I to 72 COLREGS.

Rule 19: Definitions.

Masthead Light: A white light placed over the fore and aft centerline of the vessel, showing an unbroken light over an arc of the horizon of 225 degrees, and so fixed as to show the light from right ahead to 22.5 degrees abaft the beam, on either side of the vessel.

Sidelights: A green light on the starboard side, and a red light on the port side, each showing an unbroken light over an arc of the horizon of 112.5 degrees, and so fixed as to show the light from right ahead to 22.5 degrees abaft the beam on its respective side. In a vessel less than 20 meters (65 feet) in length, the sidelights may be combined in one lantern carried on the fore and aft centerline of the vessel.

Stern Light: A white light placed as nearly as practicable at the stern, showing an unbroken light over an arc of the horizon of 135 degrees, and so fixed as to show the light 67.5 degrees from the stern, on each side of the vessel.

Towing Light: A yellow light, having the same characteristics as the stern light defined above.

All-round Light: A light showing an unbroken light over an arc of the horizon of 360 degrees.

Flashing Light: A light flashing at regular intervals, at a frequency of 120 flashes or more per minute.

Rule 20: Visibility of Lights.

The lights prescribed in this section shall have an intensity as specified in section 8 of Annex 1 to 72 COLREGS, so as to be visible at the following minimum ranges:

1. In vessels of 50 meters or more in length:
 - a. A masthead light, 6 miles.
 - b. A sidelight, 3 miles.
 - c. A stern light, 3 miles.
 - d. A towing light, 3 miles.
 - e. A white, red, green, or yellow all-round light, 3 miles.
2. In vessels of 12 meters or more in length, but less than 50 meters in length:
 - a. A masthead light, 5 miles; except that, where the length of the vessel is less than 20 meters (65 feet), 3 miles.
 - b. A sidelight, 2 miles.
 - c. A stern light, 2 miles.
 - d. A towing light, 2 miles.

- e. A white, red, green, or yellow all-round light, 2 miles.
3. In vessels of less than 12 meters in length:
- a. A masthead light, 2 miles.
 - b. A sidelight, 1 mile.
 - c. A stern light, 2 miles.
 - d. A towing light, 2 miles.
 - e. A white, red, green, or yellow all-round light, 2 miles.
4. In inconspicuous, partly submerged vessels or objects being towed:
- A white all-round light, 3 miles.

Rule 21: Power-driven vessels under way.

1. A power-driven vessel underway shall exhibit:
- a. A masthead light forward.
 - b. A second masthead light abaft of and higher than the forward one; except that a vessel of less than 50 meters in length shall not be obliged to exhibit such light, but may do so.
 - c. Sidelights.
 - d. A stern light.
2. An air-cushion vessel, when operating in the non-displacement mode shall, in addition to the lights prescribed in paragraph 1 of this rule, exhibit an all-round flashing yellow light.
- 3.a A power-driven vessel of less than 12 meters in length may, in lieu of the lights prescribed in paragraph 1 of this rule, exhibit an all-round white light and sidelights.
- b. A power-driven vessel of less than 7 meters in length, and whose maximum speed does not exceed 7 knots may, in lieu of the lights prescribed in paragraph 1 of this rule, exhibit an all-round white light, and shall, if practicable, also exhibit sidelights.
 - c. The masthead light or all-round white light on a power-driven vessel of less than 12 meters in length may be displaced from the fore and aft centerline of the vessel, if centerline fitting is not practicable, provided that the sidelights are combined in one lantern which shall be carried on the

fore and aft centerline of the vessel, or located as nearly as practicable in the same fore and aft line as the masthead light or the all-round white light.

4. A vessel employed in the transportation or transfer of flammable, explosive, toxic, or radioactive commodities shall carry, in addition to her appropriate mooring, anchor, or navigation lights, where it can best be seen, a red all-round light, of such a character as to be visible at a distance of at least 2 miles. By day, she shall display, where it can best be seen, a red flag if the cargo includes flammable or explosive commodities, and the international single flag signal "T", if the commodity is toxic or radioactive only.

Rule 22: Vessels Towing and Pushing.

1. A power-driven vessel when towing shall exhibit:

a. Instead of the light prescribed in "a" or "b" of paragraph 1, Rule 21, two masthead lights in a vertical line. When the length of the tow, measuring from the stern of the towing vessel to the after end of the tow, exceeds 200 meters, it shall exhibit three such lights in a vertical line.

b. Sidelights.

c. A stern light.

d. A towing light in a vertical line above the stern light.

e. When the length of the tow exceeds 200 meters, a diamond shape where it can best be seen.

2. When a pushing vessel and a vessel being pushed ahead are rigidly connected in a composite unit, they shall be regarded as a power-driven vessel, and shall exhibit the lights prescribed in Rule 21.

3. A power-driven vessel, when pushing ahead or towing alongside, except in the case of a composite unit, shall exhibit:

a. Instead of the light prescribed in "a" or "b" of paragraph 1, Rule 21, two masthead lights in a vertical line.

b. Sidelights.

c. A stern light.

4. A power-driven vessel to which paragraph 1 or 3 above apply, shall also comply with "b" of paragraph 1, Rule 21.

5. A vessel or object being towed shall exhibit:

- a. Sidelights.
 - b. A stern light.
 - c. When the length of the tow exceeds 200 meters, a diamond shape where it can best be seen.
6. Considering that any number of vessels being towed alongside or pushed in a group shall be lighted as one vessel:
- a. A vessel being pushed ahead, not being part of a composite unit, shall exhibit sidelights at the forward end.
 - b. A vessel being towed alongside, shall exhibit a stern light and sidelights at the forward end.
7. An inconspicuous, partly submerged vessel or object, or combination of such vessels or objects being towed, shall exhibit:
- a. If it is less than 25 meters in breadth, one all-round white light at or near the forward end and one at or near the after end, except that dracones need not exhibit a light.
 - b. If it is 25 meters or more in breadth, two additional all-round white lights at or near the extremities of its breadth.
 - c. If it exceeds 100 meters in length, additional all-round white lights between the lights prescribed in paragraphs 7 “a” and “b” of this rule, so that the distance between the lights shall not exceed 100 meters.
 - d. A diamond shape at or near the aftermost extremity of the last vessel or object being towed, and if the length of the tow exceeds 200 meters, an additional diamond shape where it can best be seen, and located as far forward as is practicable.
8. Where, from any sufficient cause it is impracticable for a vessel or object being towed to exhibit the lights or shapes prescribed in paragraph 5 or 7 of this rule, all possible measures shall be taken to light the vessel or object towed, or at least to indicate the presence of the unlighted vessel or object.
9. Where, from any sufficient cause, it is impracticable for a vessel not normally engaged in towing operations, to display the lights prescribed in paragraph 1 or 3 of this rule, such vessel shall not be required to exhibit those lights when engaged in towing another vessel in distress or otherwise in need of assistance. All possible measures shall be taken to indicate the nature of the relationship between the towing vessel and the vessel being towed, in accordance with rule 33, in particular by illuminating the towline.

Rule 23: Sailing Vessels Under Way and Vessels Under Oars

1. A sailing vessel under way shall exhibit:
 - a. Sidelights.
 - b. A stern light.
2. In a sailing vessel less than 20 meters (65 feet) in length, the lights prescribed in paragraph 1 of this rule may be combined in one lantern, carried at or near the top of the mast, where it can best be seen.
3. A sailing vessel under way may, in addition to the lights prescribed in paragraph 1 of this rule, exhibit at or near the top of the mast, where they can best be seen, two all-round lights in a vertical line, the upper being red, and the lower green, but these lights shall not be exhibited in conjunction with the combined lantern permitted by paragraph 2 of this rule.
- 4.a. A sailing vessel of less than 7 meters in length shall, if practicable, exhibit the lights prescribed in paragraph 1 or 2 of this rule, but if she does not, she shall have ready at hand an electric torch or lighted lantern, showing a white light, which shall be exhibited in sufficient time to prevent collision.
- b. A vessel under oars may exhibit the lights prescribed in this rule for sailing vessels, but if she does not, she shall have ready at hand an electric torch or lighted lantern, showing a white light, which shall be exhibited in sufficient time to prevent collision.
5. A vessel proceeding under sail, when also being propelled by machinery, shall exhibit forward where it can best be seen, a conical shape, apex downwards.

Rule 24: Fishing Vessels.

Vessels engaged in fishing, as defined in Rule 2, shall stay well clear of the navigable waters of the Canal Operation Compatibility Area.

Rule 25: Vessels Not Under Command or Restricted in their Ability to Maneuver.

1. A vessel not under command shall exhibit:
 - a. Two all-round red lights in a vertical line, where they can best be seen.
 - b. Two balls or similar shapes in a vertical line, where they can best be seen.
 - c. When making way through the water, in addition to the lights prescribed in this paragraph, sidelights and the stern light.

2. A vessel restricted in her ability to maneuver shall exhibit:
 - a. Three all-round lights in a vertical line, where they can best be seen. The highest and lowest of these lights shall be red, and the middle light shall be white.
 - b. Three shapes in a vertical line, where they can best be seen. The highest and lowest of these shapes shall be balls, and the middle one a diamond.
 - c. When making way through the water, masthead light or lights, sidelights, and a stern light, in addition to the lights prescribed in paragraph 2 a of this rule.
 - d. When at anchor, in addition to the lights or shapes prescribed in paragraphs 2 “a” and “b” of this rule, the lights or shapes prescribed in rule 27.
3. A vessel engaged in a towing operation that severely restricts the towing vessel and her tow in their ability to deviate from their course, shall, in addition to the lights or shapes prescribed in paragraph 1 of rule 22, exhibit the light or shapes prescribed in paragraphs 2 “a” and “b” of this rule.
4. A vessel engaged in dredging or underwater operations, when restricted in her ability to maneuver, shall exhibit the lights and shapes prescribed in paragraph 2 “a,” “b,” and “c” of this rule, and in addition, when an obstruction exists, shall exhibit:
 - a. Two all-round red lights, or two balls in a vertical line, to indicate the side on which the obstruction exists.
 - b. Two all-round green lights, or two diamonds on a vertical line, to indicate the side in which another vessel may pass.
 - c. When at anchor, the lights or shapes prescribed in this paragraph, instead of the lights or shapes prescribed in rule 27.
5. Whenever the size of a vessel engaged in diving operations makes it impracticable to exhibit all lights and shapes prescribed by paragraph 4 of this rule, the lights and shapes prescribed by rule 35 shall be exhibited.
6. Vessels of less than 12 meters in length, except those engaged in diving operations, shall not be required to exhibit the lights or shapes prescribed in this rule.
7. The signals prescribed in this rule are not signals of vessels in distress and requiring assistance. Such signals are contained in rule 34.

Rule 26: Pilot Vessels.

1. A vessel engaged on pilotage duty shall exhibit:
 - a. At or near the masthead, two all-round lights in a vertical line, the upper being white, and the lower red.
 - b. When under way, sidelights and a stern light.
 - c. When at anchor, in addition to the lights prescribed in paragraph 1 “a” of this rule, the light, lights or shapes prescribed in rule 27 for vessels at anchor.
 - d. The International Flag “H” (Hotel) flying at or near the masthead.
2. A pilot vessel, when not engaged on pilotage duty, shall exhibit the lights or shapes prescribed for similar vessels of her length.

Rule 27: Anchored Vessels and Vessels Aground.

1. A vessel at anchor shall exhibit, where it can best be seen:
 - a. In the fore part, an all-round white light or one ball.
 - b. At or near the stern, and at a lower level than the light prescribed in paragraph 1 “a” of this rule, an all-round white light.
2. A vessel of less than 50 meters in length, may exhibit an all-round white light where it can best be seen, instead of the lights prescribed in paragraph 1 of this rule.
3. A vessel at anchor may, and a vessel of 100 meters and more in length shall, also use the available working or equivalent lights to illuminate her decks.
4. A vessel aground shall exhibit the lights prescribed in paragraph 1 or 2 of this rule, and in addition, where they can best be seen:
 - a. Two all-round red lights in a vertical line.
 - b. Three balls in a vertical line.
5. A vessel of less than 7 meters in length, when at anchor, not in or near a narrow channel, fairway or anchorage, or where other vessels normally navigate, shall not be required to exhibit the lights or shapes prescribed in paragraphs 1 and 2 of this rule.

6. When aground, a vessel of less than 20 meters (65 feet) shall not be required to exhibit the lights or shapes prescribed in paragraphs 4 a and b of this rule.
7. Vessels less than 20 meters (65 feet) in length, when at anchor in any special anchorage designated by the Authority for such vessels, shall not be required to carry or exhibit the lights or shapes specified in paragraph 1 of this rule.

Rule 28: Seaplanes.

Where it is impracticable for a seaplane to exhibit lights and shapes of the characteristics or in the positions prescribed in the rules, she shall exhibit lights and shapes as closely similar in characteristics and position as is possible.

**Section Four
Sound and Light Signals.**

Rule 29: Definitions.

Whistle. Means any sound-signaling appliance, capable of producing the prescribed blasts, and which complies with the specifications in Annex III to the 72 COLREGS.

Short Blast. Means a blast of about one second's duration.

Prolonged Blast. Means a blast of from four to six second's duration.

Rule 30: Equipment for Sound Signals.

1. A vessel of 12 meters or more in length shall be provided with a whistle, and a bell, and a vessel of 100 meters or more in length shall, in addition, be provided with a gong, the tone and sound of which cannot be confused with that of the bell. The whistle, bell, and gong shall comply with the specifications in Annex III to the 72 COLREGS. The bell, or gong, or both, may be replaced by other equipment having the same respective sound characteristics, provided that manual sounding of the prescribed signals shall always be possible.

2. Vessels of less than 12 meters in length shall not be obliged to carry the sound-signaling appliances prescribed in paragraph 1 of this rule, but if they do not, they shall be provided with some other means of making an efficient sound signal.

Rule 31: Maneuvering and Warning Signals.

1. When several vessels are in sight of one another, and meeting or crossing at a distance within half a mile of each other, each vessel under way, when maneuvering as authorized or required by the provisions of this rule:

- a. Shall indicate that maneuver by the following signals on her whistle: one short blast to mean, *I intend to leave you on my port side*; two short blasts to mean, *I intend to leave you on my starboard side*; and three short blasts to mean, *I am operating astern propulsion*.
 - b. Upon hearing the one or two blast signals of the other, shall, if in agreement, sound the same whistle signal, and take the steps necessary to effect a safe passing. If, for any reason, the vessel doubts the safety of the proposed maneuver, she shall sound the danger signal specified in paragraph 4 of this rule, and each vessel shall take appropriate precautionary action, until a safe passing agreement is made.
2. A vessel may supplement the whistle signals prescribed in paragraph 1 of this rule by light signals.
 - a. These signals shall have the following significance: one flash to mean, *I intend to leave you on my port side*; two flashes to mean, *I intend to leave you on my starboard side*; and three flashes to mean, *I am operating astern propulsion*.
 - b. The duration of each flash shall be about one second, the interval between flashes shall be about one second, and the interval between successive signals shall be not less than ten seconds.
 - c. The light used for this signal, if fitted, shall be an all-round white light, visible at a minimum range of 5 miles, and shall comply with the provisions of Annex I of the 72 COLREGS.
 3. When two vessels are in sight of one another:
 - a. A vessel intending to overtake another vessel shall indicate her intention by the following signals on her whistle: one short blast to mean, *I intend to overtake you on your starboard side*; and two short blasts to mean, *I intend to overtake you on your port side*.
 - b. The power-driven vessel about to be overtaken shall, if in agreement, sound a similar sound signal. If in doubt, she shall sound the danger signal prescribed in paragraph 4 of this rule.
 4. When several vessels in sight of one another are approaching each other, and for any reason, one vessel fails to understand the intentions or actions of the other, or is in doubt whether sufficient action is being taken by the other to avoid collision, the vessel in doubt shall immediately indicate such doubt by giving at least five short and rapid blasts on the whistle. This acoustic signal may be supplemented by a light signal of at least five short and rapid flashes.
 5. If whistles are fitted on a vessel at a distance apart of more than 100 meters, one whistle only shall be used for giving maneuvering and warning signals.
 6. When a power-driven vessel is leaving a dock or berth, she shall sound one prolonged blast.

7. A vessel that reaches agreement with another vessel in a meeting, crossing, or overtaking situation by using radiotelephone on the customary frequencies, is not obliged to sound the prescribed whistle signals, but may do so. If agreement is not reached, then whistle signals shall be exchanged in a timely manner, and shall prevail.

8. When a power-driven vessel or motorboat is approaching a pipeline obstructing the channel, and desires to pass through the gate, she shall give a signal of two blasts, namely, one prolonged blast followed by a short blast, which signal shall be promptly answered by the gate tender with the same signal, if she is ready to have the approaching vessel pass, or by the danger signal, if it is not safe for her to pass. In no case shall the approaching vessel attempt to pass until the gate tender signifies by a signal of one prolonged and one short blast that the channel is open. The gate tender shall so signify as soon as practicable, and the approaching vessel shall answer with a similar signal.

Rule 32: Sound Signals in Restricted Visibility.

In or near an area of restricted visibility, whether by day or night, the signals prescribed in this rule shall be used as follows:

1. A power-driven vessel making way through the water shall sound at intervals of not more than 2 minutes one prolonged blast.

2. A power-driven vessel under way, but stopped, and making no way through the water, shall sound at intervals of not more than 2 minutes two prolonged blasts in succession, with an interval of about 2 seconds between them.

3. A vessel not under command, a vessel restricted in her ability to maneuver, a sailing vessel, and a vessel engaged in towing or pushing another vessel shall, instead of the signals prescribed in paragraph 1 or 2 of this rule, sound at intervals of not more than 2 minutes three blasts in succession, namely one prolonged, followed by two short blasts.

4. A vessel restricted in her ability to maneuver, when carrying out her work at anchor, shall, instead of the signals prescribed in paragraph 7 of this rule, sound the signal prescribed in paragraph 3 of this rule.

5. A vessel towed or if more than one vessel is towed, the last vessel of the tow, if manned, shall sound four blasts in succession, namely one prolonged, followed by three short blasts. When practicable, this signal shall be made immediately after the signal made by the towing vessel.

6. When a pushing vessel and a vessel being pushed ahead are rigidly connected in a composite unit, they shall be regarded as a power-driven vessel, and shall give the signals prescribed in paragraph 1 or 2 of this rule.

7. A vessel at anchor shall, at intervals of not more than one minute, ring the bell for about 5 seconds. In a vessel of 100 meters or more in length, the bell shall be sounded in the forepart of the vessel, and immediately after the ringing of the bell, the gong shall be sounded rapidly for about 5 seconds in the after part of the vessel. A vessel at anchor may, in addition, sound three blasts in succession, namely one short, one prolonged, and one short blast, to give warning of her position, and of the possibility of collision to an approaching vessel.

8. A vessel aground shall give the bell signal, and if required, the gong signal prescribed in paragraph 7 of his rule. In addition, it shall give three separate and distinct strokes on the bell, immediately before and after the rapid ringing of the bell. A vessel aground may, in addition, sound an appropriate whistle signal.

9. A vessel of less than 12 meters in length shall not be obliged to give the above mentioned signals, but if she does not, shall make some other efficient sound signal at intervals of not more than 2 minutes.

10. A pilot vessel, when engaged on pilotage duty, may, in addition to the signals prescribed in paragraphs 1, 2, or 7 of this rule, sound an identity signal consisting of four short blasts.

Rule 33: Signals to Attract Attention.

1. If necessary to attract the attention of another vessel, any vessel may make light or sound signals that cannot be mistaken for any signal authorized elsewhere in any other rule, or may direct the beam of her search light in the direction of the danger, in such a way as not to disturb any other vessel. Any light to attract attention of another vessel shall be such that it cannot be mistaken for any aid to navigation. For the purpose of this section, the use of high intensity intermittent or revolving lights, such as strobe lights, shall be avoided.

2. Under no circumstances shall the rays of a search light or any other type of blinding light be directed into the pilot house, or in any other manner or direction which would interfere with the navigation of another vessel.

3. Submarines may display as a distinctive means of identification, an intermittent flashing amber (yellow) beacon with a sequence of operation of one flash per second for three seconds, followed by a three-second off-period.

Rule 34: Distress Signals.

1. The following signals used or exhibited indicate distress and need of assistance:

a. A gun or other explosive signal, fired at intervals of about a minute.

b. A continuous sounding, with any fog-signaling apparatus.

- c. Rockets or shells, throwing red stars, fired one at a time, at short intervals.
 - d. A signal made by radiotelegraphy or by any other signaling method, consisting of the group ...---... (SOS) in the Morse Code.
 - e. A signal sent by radiotelephone, consisting of the spoken word *mayday*.
 - f. The International Code Signal of distress, indicated by "NC."
 - g. A signal consisting of a square flag, having above or below it a ball or anything resembling a ball.
 - h. Flames on the vessel (as from a burning tar barrel, oil barrel, etc.).
 - i. A rocket parachute flare or a hand flare showing a red light.
 - j. A smoke signal giving off orange-colored smoke.
 - k. Slowly and repeatedly raising and lowering arms outstretched to each side.
 - l. The radiotelegraph alarm signal.
 - m. The radiotelephone alarm signal.
 - n. Signals transmitted by emergency position-indicating radio beacons.
2. The use or exhibition of any of the foregoing signals, except for the purpose of indicating distress and need of assistance, and the use of other signals which may be confused with any of the above signals, is prohibited.
 3. Attention is drawn to the relevant sections of the International Code of Signals, the Merchant Ship Search and Rescue Manual, and the following signals:
 - a. A piece of orange-colored canvas, with either a black square and a circle, or other appropriate symbol (for identification from the air).
 - b. A dye marker.

Section Five Miscellaneous

Rule 35: Diving Operations.

1. When industrial or commercial diving operations have been coordinated with the Authority, and are being conducted in the Canal, or waters adjacent thereto, a revolving red light shall be displayed in all weather conditions, from sunset to sunrise, from the diving barge or other craft serving the diver. The light shall be so mounted, and of sufficient intensity, as to be visible for not less than 1 mile. The International Code Flag "A", not less than 45 centimeters (18 inches) in height, and of standard proportions, shall be displayed from such craft by day, where it may best be seen. A rigid replica of this flag may be substituted in lieu thereof.

2. Recreational skin diving in waters of the Canal, including Culebra Cut and the channel through Gatun and Miraflores lakes, and in the waters of all ships' anchorages, is prohibited unless authorized in writing by the Authority. Authorization shall not be given for skin diving at night or at any time, within 450 meters (500 yards) of the Canal axis. When recreational skin diving activities are under way in the Canal, or waters adjacent thereto, a flag of the type described in paragraph 1 of this rule shall be displayed from the craft serving the skin diver, in a manner which allows all-round visibility. However, the flag displayed for recreational diving shall not be less than 30 centimeters (12 inches) in height, and shall be of standard proportions.

3. Vessels approaching or passing an area where diving activities are under way, shall reduce speed sufficiently to avoid creating a dangerous wash or wake.

Rule 36: Regulations on Small Crafts Not Transiting the Canal.

1. For the purpose of this rule, a small craft is defined as any vessel for recreational purposes up to 20 meters (65 feet) in length, operating in navigable waters of the Canal Operation Compatibility Area. Such craft must be operated by a person of more than 18 years of age, holding a Small Craft Operator License, issued by the Panama Canal Authority.

2. Small Craft Operator License:

Applicants to obtain a Small Craft Operator License must pass a test administered by the Board of Inspectors of the Panama Canal Authority, purchase a copy of the "Panama Canal Waters Technical Operations Manual" at their own expense, and shall keep it on board.

3. Prohibitions:

Navigation in Culebra Cut, Miraflores Lake, approaches to the locks, and the Canal channel is prohibited, except when such operation is incidental to movement between points on either side of the navigation channel. The use of water skis, jet skis, windsurf boards, aquaplanes, or similar

equipment, and sports such as swimming and net fishing within the areas described in this paragraph, including the anchorage areas, is also prohibited.

4. Operator Restrictions:

No vessel shall be operated if her operator:

- a. Is intoxicated or under the influence of any drug, or
- b. Is incapable of safely operating the vessel, because he is under the influence of any drug, whether or not the drug is legal. The fact that one lawfully is or has been using any drug, shall not constitute a defense against a charge of violating this rule.

5. Safety:

No person shall operate a small craft so close to a transiting or other vessel, so as to hamper the safe operation of either vessel; nor shall any person operate a small craft so as to endanger life or property. A violation of this rule is considered a serious offense, and shall result in the cancellation of the offender's operator license.

6. Surveillance:

The Authority shall coordinate the surveillance of the Canal Operation Compatibility Area with the respective government authorities, to ensure maximum safety of small crafts, and to prevent unlawful activities or non-compliance with these regulations.

7. Penalties:

Violations of any of these rules shall be penalized in accordance with the provisions of Chapter X.

Rule 37: Lights; Marking of Pipeline Laid in Navigable Waters.

Whenever a pipeline is laid in navigable waters, it shall be marked at night by amber lights, at intervals of 60 meters (200 feet). The lights marking the limits of the gate shall be a vertical display of a white and a red light, the white light to be at least 122 centimeters (4 feet) above the red light. These lights shall be so constructed as to show all around the horizon, and be visible from a distance of at least 1 mile.

Rule 38: Lights on Barges at Bank or Dock.

1. The following barges shall display at night and, if practicable, in periods of restricted visibility, the lights described in paragraph 2 of this rule:

- a. Every barge projecting into a buoyed or restricted channel.
 - b. Every barge so moored that it reduces the available navigable width of any channel to less than 80 meters (262 feet).
 - c. Barges moored in groups more than two barges wide, or to a maximum width of over 25 meters, or a single barge over 25 meters.
 - d. Every barge not moored parallel to the bank or dock.
2. Barges described in paragraph 1 above shall carry two unobstructed white lights of an intensity to be visible for at least one mile on a clear dark night, and arranged as follows:
- a. On a single moored barge, lights shall be placed on the two corners farthest from the bank or dock.
 - b. On barges moored in group formation, a light shall be placed on each end, on the corners farthest from the bank or dock.
 - c. Any barge in a group, projecting from the main body of the group toward the channel, shall be lighted as a single barge.
 - d. Barges moored in any slip or slough which is used primarily for mooring barges, are exempt from the lighting requirements of this rule.

Chapter IX Dangerous Cargo

Section One General Provisions, Classification, and Inspection

Article 114: Dangerous cargo shall be classified in accordance with the IMO class and division. Whenever there is a doubt as to the explosive or dangerous nature of any commodity, or in case of conflict as to its classification, the Authority shall determine the nature and classification of such cargoes.

Dangerous cargoes shall be divided into the following classes:

1. Class 1: Explosives.
 - a. 1.1 – Substances and articles which have a mass explosion hazard.

- b. 1.2 – Substances and articles which have a projection hazard, but not a mass explosion hazard.
 - c. 1.3 – Substances and articles which have a fire hazard, and either a minor blast hazard, or a minor projection hazard, or both, but not a mass explosion hazard.
 - d. 1.4 – Substances and articles which present no significant hazard.
 - e. 1.5 – Very insensitive substances, which have a mass explosion hazard.
2. Class 2: Gases; compressed, liquefied, or dissolved under pressure.
- a. 2.1 – Flammable gases.
 - b. 2.2 – Nonflammable gases.
 - c. 2.3 – Poisonous gases.
3. Class 3: Flammable Liquids.
- a. 3.1 – Low flash point group (flash point below -18°C or 0°F)
 - b. 3.2 – Intermediate flash point group [flash point between -18°C (0°F), and 23°C (73°F)]
 - c. 3.3 – High flash point group [flash point between 23°C (73°F), and 61°C (141°F)].
4. Class 4: Flammable solids or substances.
- a. 4.1 – Flammable solids.
 - b. 4.2 – Substances liable to spontaneous combustion.
 - c. 4.3 – Substances emitting flammable gases when wet.
5. Class 5: Oxidizing substances and organic peroxides.
- a. 5.1 – Oxidizing substances.
 - b. 5.2 – Organic peroxides.
6. Class 6: Poisonous and infectious substances.
- a. 6.1 – Poisonous substances.

- b. 6.2 – Infectious substances.
- 7. Class 7: Radioactive substances.
- 8. Class 8: Corrosives.
- 9. Class 9: Miscellaneous dangerous substances.

This class includes any other substance which experience has shown, or may show, to be of such a dangerous character that the application of the hazardous cargo rules are warranted. Class 9 includes a number of substances and articles which cannot be properly covered by the provisions applicable to the other classes, or which present a relatively low transportation hazard.

Combustible liquids having flash points above 61° C (141° F) are not considered to be dangerous by virtue of their fire hazard.

Article 115: All vessels carrying dangerous cargoes shall make an entry in the ship's log stating that the monitoring alarms and safety devices were tested, and that the vessel's fire-fighting systems were found to be in proper working order. If not in proper order, a detailed listing of discrepancies shall be included.

This log entry shall be available for inspection by the Authority, and any deviations from the proper working order condition shall be brought to its attention.

While in Canal operating waters, fire hoses with suitable nozzles attached shall be connected to the outlets, and they shall be sufficiently long to reach all parts of the vessel.

Vessels shall be prepared to keep the tank-top decks effectively covered with a film of water throughout the transit, when such action is required by the Authority.

Section Two Dangerous Cargo in Bulk

Article 120:

1. Anchoring Requirements:

- a. Vessels shall communicate with the signal stations at Flamenco Island or Cristobal prior to arrival, and await instructions before anchoring.
- b. Such vessels will be instructed to anchor in one of the anchorage areas designated for vessels carrying explosives at the Atlantic or Pacific entrance, as the case may be, as described in article 37 of this annex.

2. Signal Requirements:

Vessels shall display the flags and lights described in rule 21 of article 108 of this annex.

3. Transit Requirements:

- a. The Authority may impose additional operating restrictions on vessels carrying dangerous cargoes.
- b. Such vessels shall have safety towing pendants ready at hand, fore and aft, prior to entering the locks, and when anchored or moored in Canal waters. Synthetic or natural fiber ropes or lines are not considered suitable for use as safety towing pendants.

4. Cargo Requirements:

- a. The loading, handling, inspection, stowage, segregation, maintenance, and certification of dangerous bulk cargo shall be in compliance with the IMO rules and regulations.
- b. Any special requirements for carrying chemicals or liquefied gasses in bulk as stated on a vessel's Certificate of Fitness shall be complied with.

5. Requirements Related to IMO Conventions and Codes:

Vessels carrying dangerous bulk cargoes shall comply with the following standards set forth in IMO conventions and codes, which are hereby incorporated by reference:

- a. Vessels subject to this section shall comply with MARPOL 73/78.
- b. Vessels carrying dangerous chemicals in bulk shall comply with the Bulk Chemical Code.
- c. Bulk liquefied gas carriers shall comply with the Gas Carrier codes.
3. Solid bulk carriers shall comply with the Solid Bulk Code.

Article 121: Such vessels shall submit the following documentation:

1. A loading plan, as described in article 41.5 of this annex.
2. Such vessels shall have ready for examination, as prescribed by article 41, the following certificates:
 - a. A valid MARPOL 73/78 Certificate (same as International Oil Pollution Prevention Certificate).

- b. A valid SOLAS Certificate.
- c. A valid Certificate of Fitness (required for bulk chemical and liquefied gas carriers only).
- d. If any of the above certificates is invalid, the latest issue aboard the vessel shall be examined, plus information provided on when the certificate will be renewed.

Article 126: Vessels carrying direct reduced iron shall be required to provide the following documents:

- 1. Copy of certification that direct reduced iron is suitable for loading.
- 2. Copy of certification that direct reduced iron conforms to IMO requirements.
- 3. Statement from the master or shipper that IMO precautions as listed in the IMO “Code of Safety Practices for Solid Bulk Cargoes” for cold or hot molded briquettes have been followed.
- 4. Copy of procedures to be followed by the vessel to ensure safety of vessel and cargo in the event the cargo gets wet.

Section Three Dangerous Packaged Goods

Article 128: Following are the requirements for vessels carrying dangerous packaged goods:

1. Anchoring Requirements:

- a. Vessels subject to the provisions of this article shall communicate with the signal stations at Flamenco island or Cristobal prior to arrival, in accordance with article 35, and await instructions before anchoring.
- b. Such vessels will be instructed to anchor in one of the designated anchorage areas, as described in article 37, paragraphs 1 and 3.
- c. Vessels carrying explosives or especially reactive or large amounts of dangerous materials, as determined by the Authority, may be instructed to anchor in one of the explosive anchorage areas described in paragraph 1 “b” and “c”, and paragraph 3 “b” of article 37.

2. Requirements Related to IMO Conventions and Codes:

Vessels subject to this article shall comply with the standards set forth in SOLAS and IMDG pertaining to the construction, maintenance, inspection, certification, and classification of the vessel, its safety equipment including alarms, and its cargo stowage and handling systems.

3. Transit Requirements:

Normal operating restrictions shall generally apply, unless such vessels are transporting five tons or more of IMO 1.1 explosives, or large amounts of dangerous goods, as determined by the Authority, in which case additional operating restrictions may be imposed.

4. Cargo Requirements:

The loading, packing, labeling, marking, handling, stowage, segregation, maintenance, inspection, and certification of dangerous packaged goods shall be in compliance with the IMDG Code.

Article 130: The dangerous cargo manifest that must be submitted by vessels carrying dangerous packaged goods must indicate the correct technical name of the product, the corresponding United Nations classification number, the OMI class and division, place of storage, and the amount of each dangerous commodity carried.

Article 132: Vessels carrying dangerous packaged goods (**Class 1**) shall comply with the following requirements:

1. Requirements Related to OMI Conventions and Codes:

Vessels carrying dangerous packaged goods (Class 1), shall comply with SOLAS Convention and IMDG Code, pertaining to the construction, maintenance, inspection, certification, and classification of the vessel, its safety equipment including alarms, and its cargo stowage and handling systems.

2. Cargo Requirements:

The loading, packing, labeling, marking, handling, stowage, segregation, maintenance, inspection, and certification of dangerous packaged goods shall be in compliance with the IMDG Code.

Article 134: The Authority, upon application, may permit the discharge of explosives at its docks and other locations within Canal waters in an emergency or when the character or packing of the explosives permits their safe discharge there.

Article 141: For the following *radioactive substances*, not less than 48-hour advance information required under article 30 of this annex shall be provided, indicating the specifics required by the IMDG Code:

1. Low specific activity substances or low level solid radioactive substances as specified in Class 7, schedules 5, 6, and 7 of the IMDG Code.

2. Radioactive substances carried in limited quantities as specified in Class 7, schedules 1, 2, 3, and 4 of the IMDG Code.