Section 5

Handline Vessels and Dead Tows

5.1 Scheduling of Handline Vessels

a. *Purpose*

These scheduling procedures have been developed to promote safety to handlines and handline personnel, to make more efficient use of Authority resources, and to minimize delays to regularly scheduled transit vessels. Safety is enhanced by scheduling the transit of handlines during daylight hours to the extent practicable.

b. *Scheduling Procedures*

(1) Handlines are usually locked in lockages with qualified transiting vessels. Transit may take place in two phases. If the handline can make sufficient speed, and the schedule permits, the entire transit may be completed in one day. Slower vessels or those vessels which are deemed not safe for night transit may lock up, lay over in Gatun Lake and complete their transit the following day. In such case, handlines will proceed either as far as Gatun Lake Anchorage

designated area or to the anchorage area in the vicinity of Gamboa moorings. Handlines may be scheduled without regard to these procedures should scheduling efficiency or operational requirements dictate. The Canal Operations Captain or his designee will determine which handlines are exempt from these scheduling procedures.

(2) When necessary, or if operationally efficient, special handline lockages (without transiting vessels) may be scheduled. In such cases, handlines are to be scheduled in the non-relay side or as the first or last lockage in the relay side and the lockage shall be scheduled early in the day so that all or most of the transit between Pedro Miguel and Gatun Locks may be accomplished during daylight hours. When there is no relay crew, handlines may “follow through” following the last vessel before the change of direction, similar to the last lockage in a relay.

(3) During special handline lockages, northbound handlines starting transit at the Pacific Locks and southbound handlines completing transit will lock at the Pacific Locks while they are idle following departure of northbound and before the arrival of southbound clear-Cut daylight vessels. These small craft may meet clear-Cut vessels in Gaillard Cut.

(4) Transits must be arranged for in advance. A handline vessel will not be scheduled for a transit unless all arrangements have been completed not later than 1100 hours on the day preceding the transit.

(5) Handlines desiring to transit the Canal will be inspected by the Canal Operations Captain or his designee. Owners and operators must be aware of the regulations governing the operation as contained in Maritime Regulations for the Operation of the Panama Canal (MROPC). They must also be aware of the importance of having sufficient deckhands aboard, adequate mooring lines, adequate fendering, and good on-board illumination and proper navigation lights.

(6) For handline vessels that do not have sufficient deckhands onboard, the Authority may provide deckhands at the prevailing tariff rates. Authority deckhands will board just before the vessel arrives at the locks and they will depart as soon as the vessel clears the locks.

(7) As provided in *ACP Navigation Regulations, Articles 90 to 101,* all vessels transiting the Canal are under the direction of a Panama Canal pilot. Except in unusual circumstances and as determined by the Canal Operations Captain or his designee, vessels under 65 feet (19.8 m) in length should not be assigned a pilot but will instead be assigned a transit advisor when available, whenever owners or representatives of vessels under 65 feet (19.8 m) in length request the assignment of a regular pilot to avoid delays due to an unavailability of a transit advisor, the vessel will be assessed the tariff for pilot assigned. Such request should be made with sufficient notification.

5.2 Handline Transit Requirements

a. The Transit Operations Division Executive Manager or his designee must measure all vessels prior to their initial transit, or their first transit after any structural modification.

b. All information required for transiting the Panama Canal must be submitted utilizing the Electronic Data Collection System - EDCS (Web or CIG), at least 96 hours prior to arrival at Panama Canal waters. Since many small craft do not have a computer on board, the Admeasurement Office (Atlantic and Pacific), is available for assistance to collect all the

information necessary to be introduced in EDCS, so it can be assigned an estimated time of arrival to the small craft, which allows to be inspected and subsequently be able to perform the transit. If a handline vessel has no agent, the master must contact the Admeasurement and Billing Unit to make arrangements for admeasurement, inspection for transit requirements and to be cleared by Authority boarding officials. After admeasurement and/or Authority clearance, the master should pay the required fee which includes the tolls, transit vessel inspection (TVI) and security fees, and the buffer**c.** Payment of tolls can be arranged through a local bonded agent, or can be paid directly at the Citibank branch in Balboa or the Citibank branch in Cristobal. Direct payments are accepted in U.S. dollars, either cash or wire transfer. In order to pay tolls directly to the bank, the master must present the proper Admeasurement Clearance and Handline Inspection (No Agent) Form No. 4614 (OPTC-A).

c. Some of the requirements/equipment needed for transiting the Canal are: Four ropes at least 125 feet in length of adequate strength, four deckhands at least 12 years old, in addition to the master, an anchor and adequate fendering, a working whistle or horn, and a toilet. The vessel should be able to provide the Pilot or Transit Advisor with a meal and fresh drinking water, an awning over the cockpit to provide shelter from the sun and rain and must have a toilet. Additionally, the vessel should be able to maintain a speed of five knots under its own power. Vessels over 20 meter (65 feet) in LOA must have the AIS system installed and operating, otherwise the Panama Canal Authority will provide a portable unit at an additional cost.

d. There are three types of lockages available to handlines under 125 feet (38.1 m) L.O.A. when transiting the Canal. They are: center chamber, moored to the lock wall or alongside another vessel/Authority tug. All vessels are required to be capable of making a center chamber lockage. If this is not possible, the Canal Port Captain, after the inspection, will decide if the handline may transit in a different way on a case-by-case basis. The other two lockage options will be at the discretion of the owner, subject to approval by the Canal Port Captain.

e. After inspection, the Canal Port Captain will determine whether the vessel transits the Canal as a "center chamber," "sidewall" or “nested” handline lockage. This determination is based on hull configuration, protruding railings, awnings, high masts and spars or anything else which could be damaged if made fast to lock chamber walls. Four 125 feet (38.1 m) lines are needed by the handline vessel in order to transit. On up-lockages, particularly, much turbulence is encountered. All lines should be of sufficient strength to hold the vessel under heavy strain.

f. It is the handline vessel's responsibility to have sufficient and adequate fendering aboard. There should be sufficient experienced and capable crew members on board to provide one person to tend each line, in addition to the vessel operator. Chocks and bitts should be in good condition as they will be under heavy strain during lockage.

g. If a handline vessel cannot make or maintain a speed of five knots, the vessel will be denied transit. A handline vessel can, however, be towed through the Canal by another handline vessel that can maintain five knots or vessel can make arrangements to use a ACP launch to tow through the Canal if towing fees are paid.

h. If a handline vessel is operated from an open cockpit, an awning should be rigged. This will keep the operator, pilot and crew out of the sun and rain during transit. A handline vessel must maintain its schedule regardless of weather conditions. All handlines should provide adequate sanitary facilities on board; otherwise, transit may be delayed.

i. After all fees are paid, MTC will be notified. Only then will the handline vessel be provided a tentative pilot time for the scheduled transit. It will be the vessel's responsibility to call MTC to confirm the pilot time or to make any changes. Due to limited personnel, the MTC scheduler shall, before scheduling handlines for transit, coordinate with the handline transit coordinator or the Maritime Training Unit to ascertain the number of personnel available to act as transit advisors for the day in question.

j. Handline vessels will be charged a delay fee if transit is not cancelled the day previous to scheduled transit and vessel is unable, through no fault of the Panama Canal Authority, to commence transit on the scheduled day.

5.3 Handline Transit Operations

a. Handline vessels are defined as those which do not use locomotives in the locks. They use their own lines and moor to the lock wall, are secured in the center of the chamber or make fast alongside another vessel or ACP tugboat. This is standard procedure for vessels up to 125 feet (38 m) and tugboats up to 150 feet (45.72 m). Some vessels over 125 feet (38 m), other than tugboats, on a case-by-case basis may transit as handlines when approved by Canal Operations Captain. When a vessel over 125 feet (38 m) in length is authorized handline lockage, the Admeasurement and Billing Unit must be notified that towing locomotives will not be used and that Canal deckhands are not required.

b. *Pilots and transit advisors*

(1) Those handlines under 65 feet (20 m) LOA will normally transit with a transit advisor to provide comprehensive local knowledge of the Canal operating area and procedures for an efficient and safe transit. Vessels over 65 feet (20 m) LOA, including military craft and any others designated by the Canal Operations Captain, will normally require a pilot. Local vessels under 65 feet (20 m) LOA, with an appropriately licensed operator, may be allowed to transit on their own when approved by Canal Operations Captain on a case-by-case basis. Any such vessel passing through the locks without a pilot or transit advisor will be under the direction of the lockmaster.

(2) Before a transit advisor is allowed to transit on a handline by itself, he or she shall comply with the requirements for a qualified transit advisor established by RHSM in their training programs.

(3) Unusual types of handline vessels shall be assigned pilots of adequate qualifications as determined by the Canal Port Captain on a case-by-case basis.

c. *Contact on arrival.* Visiting handline vessels are permitted to enter the Canal channel and proceed to the appropriate anchorage or mooring area only after receiving permission from the appropriate signal station on VHF Channel 12.

(1) Small vessels approaching the Atlantic entrance shall communicate on Channel 12 VHF with the Cristobal Signal Station at least 3 miles before entering the Breakwater. The handline shall maintain a continuous watch on this channel.

(2) All small vessels approaching the Pacific entrance must contact the Flamenco Signal Station using Channel 12 VHF passing the Sea Buoy, and must maintain watch over this radio channel at all times.

(3) The Signal station shall be responsible for coordinating the movement of these craft to avoid conflict with transiting vessels.

(4) In no case will such craft be allowed to pass beyond the Bridge of the Americas when northbound, nor Buoys No. 5 and No. 6 when southbound, without the services of a Panama Canal pilot or transit advisor.

(5) The signal station shall notify all visiting craft of these movement limits.

d. *Making and meeting the transit schedules*

(1) Commercial vessels and other approved handline vessels may, if necessary, be scheduled, consistent with safety, resources, and lockage availability, any day of the week regardless of the day transit preparations are completed. No more than three handlines will normally be allowed with a vessel. The Canal Operations Captain or his designee will, on a case-by-case basis, waive this restriction. Handline shall not, for safety reasons, moor alongside two ACP tugboats that are side by side.

(2) A local handline, when conned by a qualified individual, may be allowed to transit on any day of the week, consistent with safety and locks personnel availability. The Canal Port Captain will notify the scheduler when a vessel is so qualified.

(3) Handlines that cannot meet the speed requirement (5 knots) or are not ready at the assigned ready time will be removed from the schedule until corrections are made. When ready, such vessel will be rescheduled for transit as approved by the Canal Operations Captain.

(4) Handlines shall be ready for transit at the assigned pilot time by MTC or the Signal Station. If a handline will not be ready for transit at the assigned time, MTC or the Signal Station should be notified immediately.

(5) The pilot/transit advisor shall board handlines at designated sites in Cristobal/Balboa in sufficient time to make the scheduled lockage time allowing for vessel speed and nesting time required. Nesting is mandatory to the extent feasible.

e. *Sharing the chamber.* (See more details in 2.8)

(1) After vessel transit requirements have been established by the Canal Port Captain, handline vessels will normally be locked with ships in order to comply with applicable rules and regulations governing overall lengths and hazardous cargo. The length of the handline shall be added to the length of all other vessels in the lock chamber to determine overall lengths. The Canal Operations Captain or his designee may authorize exceptions to the length restrictions in cases of operational necessity.

(2) No more than three handlines will normally be allowed with a vessel. The Canal Operations Captain or his designee will, on a case-by-case basis, waive this restriction.

(3) Handline shall not, for safety reasons, moor alongside two ACP tugboats that are side by side.

(4) Nesting is mandatory to the extent feasible and operational necessity. Vessels unable to nest may expect delays to the transit. When nested, the nest shall be treated as a single vessel. The length of the longest vessel in the nest shall be used to determine overall length of the nest. The same principle shall apply when a handline locks alongside an ACP tug, with the length of the longer vessel being used to determine overall length.

(5) During special handline lockages, such as those encountered during round-the-world races, up to three handlines may nest together, with a maximum of 18 handlines in the chamber. The Canal Operations Captain, based on the safety, size and suitability of the craft involved, will determine the manner of nesting and number of handlines to be in the chamber. Whenever possible, and taking into consideration the configuration, material and horsepower of the handline, the largest vessel should be in the center of the nest. The pilot/transit advisor aboard the center vessel in a nest should be in charge of the movements of that nest of vessels.

(6) Pilots/transit advisors should confer before getting to the locks to decide on nesting and who is to be in charge of the nest. It is the responsibility of the pilot/transit advisor in charge of the nest to ensure that the nest is assembled in ample time and place, in order to minimize loss of time at the locks. The pilot/transit advisor will decide the best location to nest, always following safety precautions and keeping clear of any traffic.

(7) The pilot/transit advisor in charge of nest must report to MTC and lockmaster the names or transit numbers of handlines in his nest. He is the primary contact between MTC, the lockmaster and other handlines in his nest. He should report to MTC or lockmaster any handlines unable to nest or reasons for any delays in nesting. The lockmaster must assist and become involved in moving handline vessels through locks to coordinate timing and avoid delays.

(8) Center chamber handlines will nest together prior to entering the chamber. Whenever possible, the nest should remain together while moving from chamber to chamber.

(9) Handlines may go alongside an ACP Launch in the chamber, if agreeable to the pilot/transit advisor and the launch operator, approved by the Canal Port Captain. Unless a Handline is in tow, it is not allowed to remain lashed to any ACP launch when moving. This has proven to be a dangerous procedure which imperils both the handline and personnel aboard.

f. *Filling the chamber.* During any handline lockage, the lock chamber shall not be filled until the person in charge signals that all handlines are secure in chamber.

5.4 Embarking and Disembarking Procedures

a. *Purpose*

To provide safety procedures and special locations for embarking and disembarking a handline vessel.

b. *Embarkation for a Northbound Handline Transit*

(1) Small Craft Anchorage in the Pacific side, an area between 600 feet (183 meters) offshore from Flamenco Island and Buoy 6.

(2) Outside the boundary of Balboa Yacht Club anchorage, located between Buoys 16 and 14 against the east side of the channel.

c. *Disembarkation for a Northbound Handline Transit*

Cristobal Harbor Basin between Buoys 1 and 5 against the east side of the channel, including the Anchorage Area F, also called "the Flats." Small craft anchored in Anchorage Area F, with the prior approval of the Authority, may proceed to sea without a Panama Canal pilot/transit advisor on board.

d. *Embarkation for a Southbound Handline Transit*

Cristobal Harbor Basin between Buoys 1 and 5 against the east side of the channel, including Anchorage Area F ("the Flats").

e. *Disembarkation for a Southbound Handline Transit*

(1) If the destination of the handline is the Balboa Yacht Club, the pilot/transit advisor should disembark south of the Bridge of the Americas before the vessel departs the channel and enters the Balboa Yacht Club.

(2) If the handline proceeds to open sea, the pilot/transit advisor should not disembark until clearing the Pacific Entrance, except when weather and sea conditions will not permit disembarkation at that point.

f. *Embarkation/disembarkation for Partial Handline Transit (northbound or southbound)*

(1) For handlines that anchor overnight at Gamboa, a designated anchorage area at the beaching area 15 on the west side of Chagres Crossing, but limited to 200 feet from Buoy 94 in a direction away from the channel.

(2) For handlines that stay overnight at Gatun Lake, a designated area in front of Dock 45 is marked by yellow buoys and fitted with yacht moorings (6).

g. *Special Provisions*

Whenever any of the above requirements can not be complied, the Canal Port Captain, on a case-by-case basis, will waive any restrictions and determine if the handline may transit or not.

5.5 Requirements for Dead Tows

a. *Purpose*

To provide safety and equipment requirements and to define the towing responsibilities of tugs.

b. *Preparations for Transit*

(1) Upon arrival, the towing tug will break up the tow and secure the bridle so no part of it extends below the surface of the water.

(2) All tows will be inspected by Canal Port Captain before being scheduled for transit. Canal Port Captain will enter the dead tow requirements in the EVTMS and will notify MTC. If deemed necessary will notify the Tugboat Section, the Transportation and Deck Assistance Section, and the transit pilots of any special characteristics of the tow.

(3) Boarding facilities will comply with SOLAS and ACP regulations. There must be a clear passage, free of obstructions, from the boarding facility to all work areas; otherwise, catwalks with handrails and steps must be provided. The working area near chocks and bitts on all dead tows must be clear of obstructions and fitted with safety rails or lines at the vessel's sides. No dead tow will be brought into the channel or into the inner harbor until it is determined that the chain towing bridle is clear and secured and the dead tow has safe boarding facilities, sufficient lines on board for mooring and working areas are clear with safety rails or lines.

(4) Agents, operators, and/or owners will be responsible for making any required alterations or additions to equipment or stowage for tow/tug to safely transit the Canal. Agents, operators, and/or owners of dead tows are urged to provide advance notification and also provide the information for the essential requirements so that planned transits can be met without delay.

c. *Transit Requirements*

(1) Tows must provide a pilot shelter with a clear view forward, on the centerline, about midway between the bow and stern. This shelter may be permanent or portable, but must protect the pilot from the elements. All tows with beam in excess of 79.9 feet (24.35 m) shall provide, in addition to the centerline shelter, pilot shelters at the extreme beams from which the pilots may readily view the vessel's sides.

(2) Dead tows must must comply with the chocks and bitts requirement for a vessel of its size. In case that the dead tow is unable to comply with transit requirements on this regard, safe alternatives must be provided.

(3) Tows must provide mooring and heaving lines and have mooring arrangements, and bitts or cleats for securing tugs, that do not interfere with those chocks and bitts required for locomotive wires.

(4) All barges that will be pushed on the stern by a tug during transit should be equipped with a notch designed for that purpose. Barges not fitted with a notch, may transit with a tug pushing on the stern the tug can be secured perpendicularly to the transom and with its stem held firmly to the centerline of the barge.

(5) Commercial tugs without forward visibility over the barge in tow will not be allowed to push in a blind position and will be required to tow barge from a forward position when transiting the Canal, using another tug astern to assist with control.

(6) All barges will be required to have portable toilets on board prior to departure for transit.

d. *Scheduling of Dead Tows*

(1) Control pilots to be assigned according to rotation/qualification and will be considered as assigned to tow without change unless Canal Port Captain on duty authorizes a change in assignment. First control pilot of a dead tow may approved by the Canal Port Captain to inspect the dead tow after assignment and is authorized to submit a time card for two hours duty for performing the inspection.

(2) The suitability for use of the commercial tug to assist during the transit will be decided on by the Canal Port Captain after inspection. In special circumstances as determined by the Canal Operations Captain, ACP tugboats may proceed with a tow without a Panama Canal pilot on board the tugboat.

(3) When a commercial tug is towing alongside, the aggregate beam (up to 85 ft) shall be used to determine the number and qualification of pilot(s) assigned. When an ACP tug is towing alongside, the number and qualification of the pilot(s) will be determined by the beam or characteristics of the tow alone. The total beam of the tug and tow, either commercial or ACP, will be the governing factor for scheduling through the Cut, when the tug is lashed up alongside the tow.

(4) No dead tows will be boarded by ACP personnel during the hours of darkness unless sufficient lighting is provided. The transit will be scheduled so that the pilot and Canal deckhands will board and disembark during daylight hours and the tow will be in the locks during daylight hours. With the mooring buoys available in Gatun Lake (Explosive Anchorage/Gamboa), if the speed of the tow is too slow, the transit may be made in two days instead of one day.

(5) Submarines, dead tows with hazardous deck conditions or inadequate deck lighting, and all dead tows on the hawser or on the hip, shall have a Daylight Transit restriction thru the Gaillard Cut. However, dead tows arranged as an Integrated Tug and Barge (ITB); or dead tows arranged pusher style or in the notch which are properly secured, and which have good handling characteristics, may be allowed to transit the Gaillard Cut during the hours of darkness.

(6) All Canal deckhands should wear life vests or jackets at all times while on the barge.

(7) All dead tows should be inspected by a Canal Port Captain prior to being scheduled, whether or not they have transited on previous occasions. Experience has shown that due to different types and shapes of the cargoes, different tugs being used, different owners or crews, etc., compliance with Canal operating regulations may vary from transit to transit. A fully integrated tug and tow, that has bridge wings extending to the extreme beam of the tow, with required visibility forward and transit pilots assigned to the tug and not to the tow, may be scheduled for transit as a ship, provided the tow meets all other ACP requirements for transit.

e. *Movement of ACP Caissons*

Pilot assignment of movements of the caisson will be decided on a case-by-case basis by the Canal Operations Captain. A tow sheet will be prepared by the Canal Port Captain and distributed to all concerned. Omni-directional tugs should be used if available. Lash-up should be in a towing position rather than a pushing position when omni-directional tugs are used. (See Figure 1).

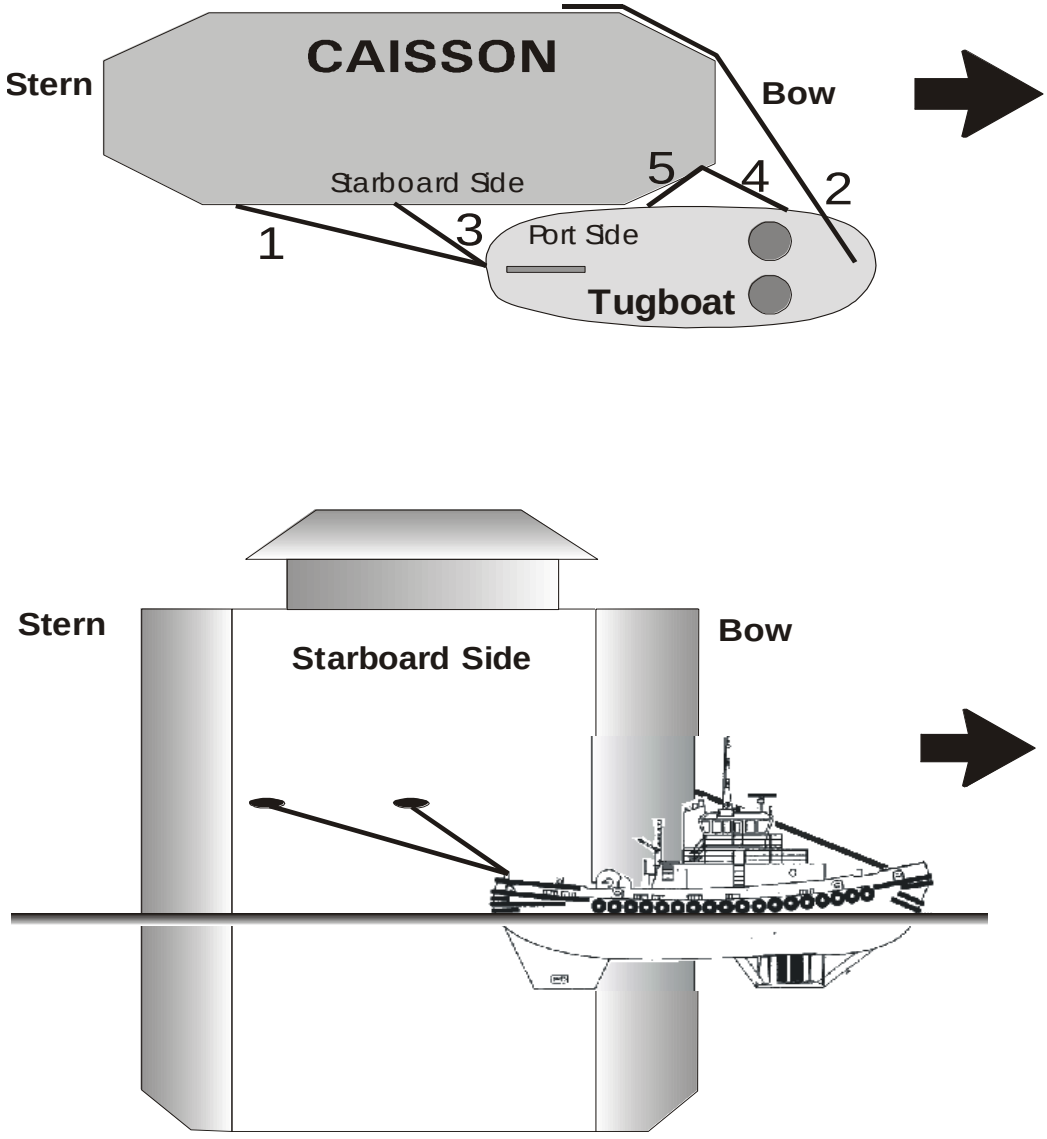

FIGURE 1 - Towing caisson with omni-directional tugboats