



**OP NOTICE TO SHIPPING No. N-10-2009**

**Operational Equipment Tests**







January 1, 2009

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To: Steamship Agents, Owners and Operators

Subject: Operational Equipment Tests

### **1. Effective Date and Cancellation**

This Notice is effective on the date of issue and cancels OP Notice to Shipping No. N-10-2008. The content of this Notice remains the same as in the previous year.

A revised Notice will be issued in January of each year or when otherwise required.

### **2. Authority**

This document is issued under the authority of the Maritime Regulations for the Operation of the Panama Canal (MROPC), MR Notice to Shipping No. N-1-2006, and the International Convention for the Safety of Life at Sea (1974/78 SOLAS). The American Bureau of Shipping (ABS) rules are cited when required as good seamanship practice, essential for transiting the Panama Canal.

### **3. Purpose and Scope**

a. Failure of operational equipment prior to or during transit is a problem of increasing concern to the Panama Canal Authority (ACP) because of its potential to affect the safety of transiting vessels as well as Canal facilities and equipment. These incidents frequently result in delays to shipping and/or inefficient use of Canal resources.

b. To ensure a vessel is ready to begin their transit, a joint effort between the master and Canal officials is arranged for testing the navigational and safety equipment. This is critical to ensure the transit is timely, safe and expeditious. Tests should contribute to identify problems before they have a negative impact on an operation which requires that all equipment on board be ready to repeatedly carry out maneuvers that are very seldom performed during ocean voyages.

c. The purpose of this document is to inform the shipping community of the procedures necessary to implement published regulations requiring the master to ensure, by actual test, the readiness of his vessel before a transit begins and to ensure that the vessel's navigational and safety equipment comply with Canal and international regulations.

d. Recording a test as successful does not relieve the vessel of the responsibility of having all equipment ready and operational during the complete transit.

#### **4. Procedure**

a. The master shall assure himself, by actual equipment test and verification of compliance with Canal and international regulations, of the readiness of his vessel to transit safely, as per attached Test and Verification Procedure chart.

b. In addition, an Authority official may board the vessel while in transit to verify the operational condition of the equipment.

#### **5. Reporting Deficiencies or Non-Compliance of Equipment**

a. At least two hours prior to the "pilot time" assigned by Maritime Traffic Control Unit, the master shall notify the Cristobal or Balboa Signal Station that all equipment has been tested and is in operational condition and the vessel is ready to proceed. (Regulation on Navigation in Panama Canal Waters, *ACP Navigation Regulations, Article 3.*)

b. Prior to commencing the transit, the master shall confirm to the pilot that all equipment has been tested and is in operational condition and the vessel is ready to proceed. (*ACP Navigation Regulations, Article 3.*)

c. Masters of vessels with deficiencies, including equipment that does not perform as designed or required by standards, shall immediately notify the Cristobal or Flamenco Signal Station of the deficiencies and describe the type of problem. (*ACP Navigation Regulations, Article 11.*)

d. The Canal port captain on duty will evaluate the vessel's conditions and determine if it will proceed to transit or be delayed until the deficiencies are corrected. If

delayed, a new "ready to transit time" will be assigned when all deficiencies have been corrected to the satisfaction of the ACP. (*ACP Navigation Regulations, Articles 3, 6, 8 and 50.*)

e. Failure to perform the operational equipment test and/or report the vessel's condition may lead to transit delays until the Canal is satisfied that the vessel is safe to transit the Canal. (*ACP Navigation Regulations, Articles 3 and 6.*)

## **6. Calibration of Magnetic Compasses in Panama Canal Waters**

a. It has recently come to the attention of the Panama Canal Authority (ACP) that in certain instances, the magnetic compasses of transiting vessels have been calibrated or repaired without following established procedures and internationally accepted practices, which could result in unsatisfactory performance of the equipment during the vessel's transit through the Panama Canal.

b. The ACP places great importance on a properly adjusted magnetic compass. For this reason, effective immediately, the ACP requires that whenever a magnetic compass is calibrated or repaired in Panama Canal waters, the vessel's master must sign the ACP boarding officer's inspection checklist, corroborating that the magnetic compass was serviced using the appropriate procedures and that the equipment is in proper working order for the transit.

c. A compass deviation card issued in Panama Canal waters without the corroborating signature of the master will not be accepted as valid and it will be considered as a vessel deficiency.

d. In order to comply with Panama Canal requirements and assure a safe and expeditious transit, masters of vessels bound for the waterway are encouraged to take necessary steps to ensure that their navigational equipment is properly serviced by a qualified technician.

### **ORIGINAL SIGNED**

Manuel E. Benítez  
Executive Vice President of Operations

# **TEST AND VERIFICATION PROCEDURE**

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[Applicable rules from the Maritime Regulations for the Operation of the Panama Canal, MROPC, Notice to Shipping N-1-2004, 1974 SOLAS, or American Bureau of Shipping (ABS) are indicated in brackets for immediate reference]

<p><b>VERIFY UPON ARRIVAL AT THE ANCHORAGE</b></p>	<p><b>MAXIMUM DRAFT:</b> Verify arrival draft, fore and aft in Tropical Fresh Water (TFW), the Minimum Salt Water Draft (TSW), and the Transit Draft in TFW if scheduled to work cargo or take bunkers. [ACP Navigation Regulations, Article 52]</p> <p><b>LOAD, TRIM AND LIST:</b> Verify that the load, trim and list are within safe limits. [ACP Navigation Regulations, Articles 51 and 54]</p> <p><b>TRANSIT DRAFT:</b> Ensure that the vessel will be properly trimmed when in fresh water, and will not exceed at any point the Canal's Published TFW Draft limit, the Maximum Authorized Transit Draft established by the Authority for the vessel, or its Maximum Allowable Draft established by a classification society.</p> <p>Vessels working cargo or taking bunker shall confirm the <b>TRANSIT DRAFT</b>, fore and aft, in TFW to the Signal Station as soon as possible prior to starting the transit.</p> <p>Vessels anticipating a <b>TRANSIT DRAFT</b> exceeding 39'06" (12.04 m) or the Maximum Authorized Transit Draft established for the vessel, shall immediately inform the Signal Station of this condition. [ACP Navigation Regulations, Article 52] <b>Vessels with drafts exceeding these figures are subject to denial of transit.</b></p>
<p><b>PERFORM WITHIN HOURS PRIOR TO TRANSIT, BUT BEFORE PILOT BOARDS</b></p>	<p><b>STEERING SYSTEM:</b> Shift from 35 degrees on one side to 35 degrees on the other. Record actual angle readings. [1974/78 SOLAS, II-1, C-29]</p> <p>Shift from 35 degrees one side to 30 degrees on the other in 28 seconds or less. Record actual time. [1974/78 SOLAS, II-1, C-29]</p> <p>Observe the steering gear linkage and motors in the steering room while conducting the above two tests, also verify the bridge rudder angle indicator's accuracy with the steering gear. [ACP Navigation Regulations, Articles 3, 6, and 61 to 64]</p> <p>Operate the steering from each available position on the bridge [ACP Navigation Regulations, Articles 3 and 6] and, if required to be so equipped, verify that <b>RUDDER ANGLE INDICATORS</b> are easily read, lighted and operational. [ACP Navigation Regulations, Articles 3 and 61 to 64]</p> <p>Verify that steering pumps are operational. [ACP Navigation Regulations, Articles 3 and 6]</p> <hr/> <p><b>PROPULSION:</b> Test reversing propeller once if this does not require stopping and reversing the main engine. Twice if the engine must be stopped to reverse [1974/78 SOLAS, II-1, C-28].</p> <p>If required to be so equipped, verify that <b>PROPELLER RPM AND THE PITCH INDICATORS</b> are easily read, lighted and operational [ACP Navigation Regulations, Articles 3 and 61 to 64].</p> <p><b>AIR RESERVE:</b> Ensure that air capacity in reservoirs is capable, without recharging, of producing for each engine a minimum of 12 consecutive starts for reversible engines and 6 for non-reversible. [ABS 34.37.2]</p> <p><b>MANEUVERING FUEL:</b> If so equipped, <b>change from heavy to light prior to entry into Canal approach channel.</b></p>

<p><b>EXERCISE AND/OR VERIFY SATISFACTORY OPERATION WITHIN THE LAST 24 HOURS</b></p>	<p><b>ANCHORS AND DECK MACHINERY:</b> Exercise and verify that they are operational. Ensure anchors can be retrieved. [ACP Navigation Regulations, Articles 3 and 88]</p>
	<p><b>CLOCKS:</b> Ensure bridge and engine room clocks are synchronized. [ACP Navigation Regulations, Articles 3 and 6]</p>
	<p><b>COMMUNICATION:</b> Verify that voice communications with bow, stern and engine room are working. [ACP Navigation Regulations, Articles 3, 6 and 66]</p>
	<p><b>EMERGENCY GENERATOR:</b> Verify that it is operational. [ACP Navigation Regulations, Articles 3 and 6]</p>
	<p><b>EMERGENCY LIGHTING:</b> Verify that it is operational. [1974/78 SOLAS, II-1, D-40 &amp; 41; ACP Navigation Regulations, Articles 3 and 6]</p>
	<p><b>EMERGENCY STEERING:</b> Verify that it is operational. [1974/78 SOLAS, II-1, C-29; ACP Navigation Regulations, Articles 3 and 6]</p>
	<p><b>ENGINE TELEGRAPHS:</b> Verify that they are operational. [ACP Navigation Regulations, Article 66]</p>
	<p><b>FIRE FIGHTING:</b> Operate the fire pump for five minutes and place an effective stream of water from the hose farthest from the pump and one hose near the bridge. [1974/78 SOLAS, II-2, A-4; ACP Navigation Regulations, Articles 3 and 6]</p>
	<p><b>GENERAL ALARMS:</b> Verify that they are operational. [1974/78 SOLAS Reg. II-2, A-13.1; ACP Navigation Regulations, Articles 3 and 6]</p>
	<p><b>GYRO COMPASS:</b> Verify that gyros and repeaters are operational and accurate within 2 degrees of each other, and error is less than 2 degrees. [1974/78 SOLAS V-12; ACP Navigation Regulations, Articles 3, 6, and 61]</p>
	<p><b>RADARS:</b> Ensure all radars are operational. [1974/78 SOLAS, V-12; ACP Navigation Regulations, Articles 3 and 6]</p>
	<p><b>RADIO:</b> Verify that required frequencies (Channels 12, 13 and 16) are operational, and monitor Channel 12. [ACP Navigation Regulations, Articles 29 and 61]</p>
	<p><b>SHIP'S WHISTLE:</b> Verify that it is operational. [ACP Navigation Regulations, Articles 3, 61 and 88]</p>
<p><b>STEERING LIGHT:</b> When required, verify that it is operational. [ACP Navigation Regulations, Article 61]</p>	
<p><b>THRUSTERS, BOW OR STERN:</b> If so equipped, verify that they are operational. [ACP Navigation Regulations, Articles 3, 6 and 61]</p>	



<b>VERIFY SATISFACTORY COMPLIANCE WITH CANAL REQUIREMENTS</b>	<b>DECK PASSAGES AND WORKING SPACES:</b> Verify that they are not obstructed. [ <i>ACP Navigation Regulations, Articles 72 and 73</i> ]
	<b>DECK WORKING LIGHTS:</b> Verify that they are operational. [Notice N-1-2000, Par. 6.i]
	<b>ENGINE ROOM MECHANICAL SIGNALS:</b> Verify that the system is operational. [ <i>ACP Navigation Regulations, Article 66</i> ]
	<b>ENGINE ORDER RECORDS:</b> Verify that bell book is available or that automatic recorder is operational. [ <i>ACP Navigation Regulations, Article 67</i> ]
	<b>LOAD, TRIM, AND LIST:</b> Verify that they comply with requirements. [ <i>ACP Navigation Regulations, Articles 51 and 54</i> ]
	<b>MANEUVERING CHARACTERISTICS:</b> Verify that they are displayed in the wheelhouse. [ <i>ACP Navigation Regulations, Article 65</i> ]
	<b>MANNING:</b> Verify that the vessel is sufficiently manned. [ <i>ACP Navigation Regulations, Articles 102 to 104</i> ]
	<b>MOORING LINES:</b> Verify that they are on deck, ready and in good condition. [Six (6) forward and six (6) aft]. [Notice N-1-2000, Par. 9; <i>ACP Navigation Regulations, Articles 3 and 88</i> ]
	<b>PILOT SHELTERS:</b> Verify that they are erected prior to starting the transit. [ <i>ACP Navigation Regulations, Article 64</i> ]
	<b>PILOT AND ACCOMMODATION LADDERS:</b> Verify that safe boarding facilities are rigged and in compliance with regulations. [ <i>ACP Navigation Regulations, Articles 57 and 58</i> ]
	<b>PROTRUSION:</b> Verify that no protrusion extends beyond the vessel's hull. Vessels with protrusions shall report this condition to the Signal Station for evaluation by the Canal Operations Captain. [Notice N-1-2007, Par. 2.d; <i>ACP Navigation Regulations, Article 73</i> ]
	<b>SPARKS, SMOKE OR NOXIOUS GASES:</b> Verify that necessary precautions have been taken to avoid issuance of sparks, smoke or noxious gases. [ <i>ACP Navigation Regulations, Article 71</i> ]
<b>VISIBILITY:</b> Verify that the vessel complies with the minimum visibility requirements for safe transit. [Notice N-1-2000, Par. 4.e; <i>ACP Navigation Regulations, Article 61</i> ]	