



<h1 style="margin: 0;">ATL 02 ATLANTIS MAINTENANCE PROGRAM</h1>	
Originator:	Approved By:
Theophilus Moniz III	Theophilus Moniz III

INFORMATION

This document outlines the Maintenance Program that will be used to maintain the vital system automation safety systems on board the **R/V Atlantis**. The use of this program and the Periodic Safety Test Procedure will verify each system continued reliability for unattended operation and demonstrate that each system’s operational capabilities remain consistent.

This program, which was taken from the existing shipboard maintenance program, has been tailored to focus on the vital systems and supplement the Periodic Safety testing Procedure sections referenced below. The comprehensive maintenance program is comprised of both the vital systems and those systems considered non-vital.

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|----|--|-------------|
| a. | Main generator control Systems | Section I |
| b. | Emergency Generator Control Systems | Sections II |
| c. | Main Propulsion Control Systems | Section III |
| d. | Emergency Equipment and Systems | Section IV |
| e. | Central Machinery Alarm Systems | Section V |
| f. | Fire Detection and Extinguishing Systems | Section VI |
| g. | Flooding Safety Systems | Section VII |

The **FREQ** column describes the frequency of which each task would be conducted and is defined below: **IP**: In port, **W**: Weekly, **2W**: Bi-weekly, **M**: Monthly, **2M**: Bi-monthly, **4M**: Every four months, **6M**: Semi-annually, **Y**: Yearly, **2Y**: Bi-annually and **XXXX**: Every **XXXX** hours of operation.

The small “**X**” in the program table defines when the task would be scheduled during the year.

The circuit description, schematics, diagnostic flow charts and discussions which describe the maintenance procedures and the test equipment required to complete each task are described in the equipment operation and maintenance manuals summarized below which are kept onboard.



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OPERATIONS & MAINTENANCE MANUALS

1. GENERAL ELECTRIC
 - a) Automatic Control Console Unattended
 - b) Engineers Operating Manual
 - c) Propulsion Drive Module
 - d) Distributed Micro-controller
 - e) DC Motor
 - f) Main Switchboard
 - g) Emergency switchboard
 - h) Circuit Breakers
 - i) AKR drawout & POWER BREAK circuit breakers
 - ii) Molded case circuit breakers
2. LIPS
 - a) Propulsion, Steering and Auxiliaries
3. CATERPILLAR
 - a) 3516 engine
 - i) Kato generator
 - b) 3508 engine
 - i) Kato generator
 - c) 3406B engine
 - i) Kato generator
4. PYROTRONICS
 - a) Fire Detection
5. AURORA
 - a) Fire pump
 - b) Ballast & bilge pumps
6. HOSE McCANN
 - a) General Alarm
 - b) Sound Powered Phone
 - c) Engineer's Call

SAFETY PRECAUTIONS & NOTES

1. Subsequent to working on electrical circuits, open and tag the power supply circuit breakers and verify that the circuit is de-energized.
2. When equipment must be energized for testing, take extra care for electrical shock hazard and do not touch any bare wires, connectors or internal components of the equipment.



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3. Prior to starting rotating equipment, verify that the equipment is free to rotate, all protective guards are in place and the area is clear of all unnecessary material and personnel.
4. Consideration should be given to coordinating with vessel operations to schedule those tests that require operation of the main power generation or propulsion systems when the vessel is at sea.
5. The maintenance procedures must be scheduled during periods that would be least disruptive to vessel operations and conducted under the guidance of qualified vessel engineers familiar with the equipment.



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MAINTENANCE CHECK LIST			
DESCRIPTION	VERIFY	INIT.	DATE
3. Verify that the Fire Detection System is clear of alarms and that the fire pump controller is powered.	_____	_____	_____
4. Verify that the Emergency Generator start control has been set for automatic.	_____	_____	_____
5. Test and Verify operation of the ENGINEER'S ASSISTANCE NEEDED and ENGINEER TROUBLE alarms.	_____	_____	_____
a) Pilot House Control Station (PHCS)	_____	_____	_____
b) Chief Engineers Room	_____	_____	_____
c) Remote Alarm Panels	_____	_____	_____
6. Verify there is sufficient fuel before leaving the console unattended.	_____	_____	_____
7. Just prior to departing the MCSC, after 1630 or the completion of the workday, the Duty Engineer is to notify the PHCS that the MCSC is unmanned.	_____	_____	_____
8. Upon beginning a new workday, the Duty Engineer will notify the PHCS that the MCSC is manned.	_____	_____	_____