

1. Purpose

The purpose of this procedure is to set forth the routine for the engineering watch personnel and the expectations with regard to watch standing responsibilities. This procedure covers both underway duty rotations and in port watchstanding.

2. Responsibility

It is the responsibility of the Chief Engineer to establish the watchstanding coverage for the engineers working in his/her department. In executing this responsibility, various factors shall be taken into consideration1 by the Chief Engineer in establishing the utilization of engineering personnel.

3. General

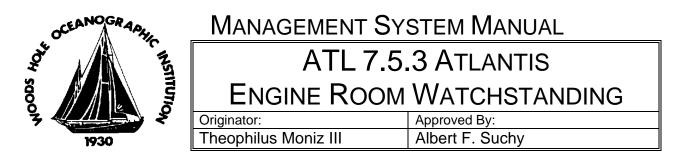
R/V Atlantis has been certified by the U.S. Coast Guard to operate as a periodically unattended engine room. As such, the engine room does not need to be manned 24-hours per day. However, during special evolutions, the engine room shall be attended to in order to address emergencies immediately.

The most important factor is whether the vessel is in port or at sea. If the vessel is at sea, the allocation of engineering resources is predicated on what evolutions are taking place on or about the vessel. For safety purposes, long transits in restricted waters and DSV Alvin operations require special considerations.

Within the context of the above factors, the Chief Engineer must consider the STCW standards as set forth in Title 46 Code of Federal Regulations 15.1111. In particular the following apply:

- a. Each engineer shall receive a minimum of 10 hours of rest in any 24-hour period.
- b. The hours of rest required may be divided into no more than two periods, of which one must be at least 6 hours in length.
- c. The requirements above need not be maintained in the case of an emergency or drill or in other overriding operational conditions.
- d. The minimum period of 10 hours of rest may be reduced to not less than 6 consecutive hours as long as:
 - 1) No reduction extends beyond 2 days; and
 - 2) Not less than 70 hours of rest are provided each 7-day period.
- e. The minimum period of rest required under paragraph (a) may not be devoted to watch keeping or other duties.

The individual assigned to perform the preventative maintenance shall refer to vendor's technical manuals, the Maintenance Module of NS5 and other reference materials located on the vessel. Maintenance shall be recorded in NS5.



4. In Port

- a) The 1st Assistant Engineer will make up the duty watch rotation and it will be provided to the Chief Engineer, the Bridge and posted in the engine control room (MCS).
- b) The Duty Watch will consist of one licensed engineer; all other engineering personnel will be day workers
- c) Each watch rotation will have the duty for a 24 hour period, followed by the next 48 hours off duty while the ship is in port
- d) The Duty Watch Engineer will wear appropriate work attire.
- e) The Duty Watch Engineer must be sober, alert, and well rested prior to assuming the Watch.
- f) If a situation arises or you are in doubt about anything, contact either the 1st Assistant Engineer or the Chief Engineer
- g) Overtime: other than that earned by standing a watch, OT must be approved by either the 1st Assistant or Chief Engineer.
- h) If an individual requires time off while in port, he/she must notify either the 1st Assistant Engineer or the Chief Engineer.

5. At Sea

Normal At Sea

The engineers shall maintain a rotating schedule of 8 hours on duty and 16 hours off duty. This results in the engine room being manned by a licensed engineer for the full 24 hours. OT shall be performed during the 16 hour period that the engineer is off duty. The engineers shall stand the following watch schedule:

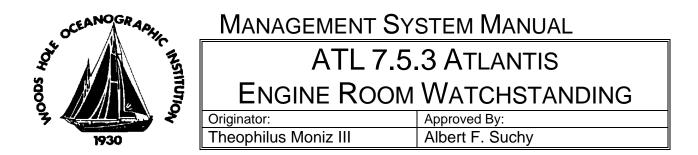
0800-1600 First & Oiler 1600-2400 3rd & Oiler 0000-0800 2nd & Oiler

The vessel is allowed reduced manning so that there may not be 3 oilers on board. When less than 3 oilers are on board, the watch schedule shall be at the discretion of the chief engineer as approved by the master.

Alvin Operations

The Normal At Sea schedule shall be maintained. The engineer's control room shall be manned during Alvin launch and recovery evolutions by a licensed engineer. Once the Bridge has notified the control room that Alvin is submerged or back on deck the engineer can resume his/her normal duties.

Canal Transits



As directed by the Master, during canal transits or similar periods when the vessel is in waters with restricted maneuvering the watch routine shall remain in the Normal At Sea schedule. In addition, either the 1st Assistant Engineer or the Chief Engineer shall be in the control room. They shall agree upon a schedule beforehand that will allow for proper periods of rest for themselves.

Science Night Operations

Special arrangements will be accommodated on a per cruise basis.

6. Overtime

Engineers will work their overtime after they have completed an 8-hour workday. As noted above, the Duty Watch Engineer will earn overtime if called after his/her eight (8) hour day has been completed. It should be noted that the eight (8) hours worked on the weekend and on holidays are considered overtime.

7. Unattended Status

Enclosure 1 is a checklist to be performed at the end of the normal work day, before the machinery spaces become "unattended"