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Over-the-Side Operations	E. Buck/R. Wilson	0	210
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1.0 PURPOSE

1.1 This section provides a generic checklist of items to consider regarding over-the-side operations.

2.0 POLICY

2.1 Before beginning over-the-side operations on a cruise (whether deploying, recovering or otherwise working with equipment over the side), the Master ensures that a meeting takes place as described in <u>SMM 205; General Policy on Shipboard Scientific Operations</u>. During this meeting, the scientific requirements are reviewed and a plan is developed to accomplish the work at hand.

3.0 ITEMS TO CONSIDER PRIOR TO COMMENCING OVER-THE-SIDE OPERATIONS

- 3.1 The person in charge of scientific deck operations (usually the Resident Technician) shall check on the following:
 - Inspect involved ship's equipment and science support items for suitability and safety.
 - Inspect rigging and attachment points (whether supplied by the science party or the ship) for suitability and safety.
 - Hold additional planning sessions if necessary.
 - Brief Chief Engineer on winch, crane, A-frame and other equipment requirements. Consider lead times necessary for crew to get certain pieces of equipment on-line.
 - Tour the work area with personnel involved in the operations. If necessary, hold practice sessions or rehearsals of the operation.
 - Remove (to the extent possible) unnecessary equipment and obstructions from the work area.
 - Lay out or pre-position equipment for efficient use during the operation.

4.0 BEFORE EACH OCEANOGRAPHIC STATION

4.1 Before each oceanographic station, review the requirements for the station with the Mate on watch. Provide ample notice for winch or other equipment requirements.

5.0 ON STATION

- 5.1 Prior to commencing work on station:
 - Hold a final briefing between involved personnel. Ensure all hands know their specific tasks and know who is in charge. Review safety items.
 - Verify communications with the Bridge watch officer, winch operator, etc.
 - Check rigging and handling equipment one last time.
 - Ensure all involved personnel are wearing appropriate Personal Protective Equipment (PPE) including a workvest.
 - Direct nonessential or unassigned personnel away from the work area.
 - DO NOT put anything over the side without permission from the Bridge.

6.0 COMMENCING THE OPERATION

- 6.1 Upon verifying that all hands and equipment are ready to go, notify the mate on watch that you are ready to begin. Upon receiving permission to begin from the Mate, lower lifelines and commence the operation.
- 6.2 During the course of the operation, keep the Mate well informed of developments on deck.
- 6.3 Replace lifelines and bulwarks or otherwise secure openings in the rail as soon as possible.

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7.0 SECURING THE OPERATION

- Ensure that equipment is secured, put away or otherwise prevented from coming adrift.
- Ensure that lifelines and bulwarks are replaced or that openings in the rail are secured.
- Account for all personnel.
- The ship may not get underway for the next station until the person in charge of the deck operation is satisfied that involved equipment and the work area are secure.
- Advise the Mate on watch that the person in charge of the deck operation is ready to get underway to the next station, etc.

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SAFETY MANAGEMENT MANUAL

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1.0 PURPOSE

2.0 BACKGROUND

- 2.1 A wide variety of scientific operations take place aboard SIO ships; from one cruise to the next there can be a great variance in the kinds of data collected and the methods for collecting same. Some operations are fairly standardized while others are unique; some are simple, some are complex. Recognizing this and the experimental nature of much of the equipment deployed from the ships, it becomes impractical to have a uniform set of established procedures for every conceivable scientific operation. However, common safety precautions can be applied to most operations.
- 2.2 In keeping with SIO's declared policy for accomplishing cruise objectives (<u>MSP 760</u>), the Master and crew of each ship must make all reasonable efforts within the bounds of safety and regulatory constraints to facilitate the scientific work at hand.

3.0 POLICY

- 3.1 Prior to commencement of scientific work, the Master ensures that a formal exchange of information takes place between himself, the Chief Scientist, the Chief Engineer (as necessary), technicians and other personnel who will be involved in the operation(s). The exchange of information may take place at the *Scientific Party Vessel Orientation and Safety* meeting (SMM 55) or at a separate meeting. This meeting may be brief or very detailed depending on the nature and complexity of the work to be performed. The main goals of the meeting are to ensure that all persons involved in a particular operation share a common understanding of the planned activities and to address safety concerns. During the course of the meeting, the following points may need to be considered:
 - Complexity of the operation(s)
 - Hazards
 - Development of checklists and procedures (if necessary)
 - Designation of person in charge on deck
 - Designation of the "team"
 - Clear assignment of tasks
 - Communications
 - Qualifications of personnel involved in critical areas of the operation(s)
 - Coordination with ship's crew
 - Limitations of personnel and equipment
 - Environmental conditions (wind, weather, sea state, etc.)
 - Contingency plans
- 3.2 Handling and use of hazardous materials (HazMat) shall be in accordance with applicable federal, state and/or University regulations.

^{1.1} This section describes MarFac policy on shipboard scientific operations.