

UW Marine Ops SMS	Emergency Preparation Index	SMM 8.0.0
Version 2018July29	Updated MBC Approved DGR	Page 1 of 1

Procedure	Title
8.0.1	Emergency Contacts
8.0.2	General Instructions
8.1.1	Fire Checklist
8.1.2	Collision and Allision Checklist
8.1.3	Structural Failure Checklist
8.1.4	Steering Gear Failure Checklist
8.1.5	Propulsion and Electrical Failure Checklist
8.1.6	Grounding Checklist
8.1.7	HAZMAT Spills Checklist
8.1.8	Flooding Checklist
8.1.9	Machinery Casualty
8.1.10	Abandoning Ship Checklist
8.1.11	Search and Rescue Checklist
8.1.12	Man Overboard Checklist
8.1.13	Serious Injury/Illness/Death Checklist
8.1.14	Security
8.1.14.1	Vessel Security Inport Bill
8.1.14.2	Vessel Security At Sea Bill
8.2.4	Enclosed Space Rescue Checklist

UW Marine Ops SMS	Emergency Contacts	SMM 8.0.1
Version 2018July29	Updated MBC Approved DGR	Page 1 of 2

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UW Marine Ops SMS	Emergency Contacts	SMM 8.0.1
Version 2018July29	Updated MBC Approved DGR	Page 2 of 2

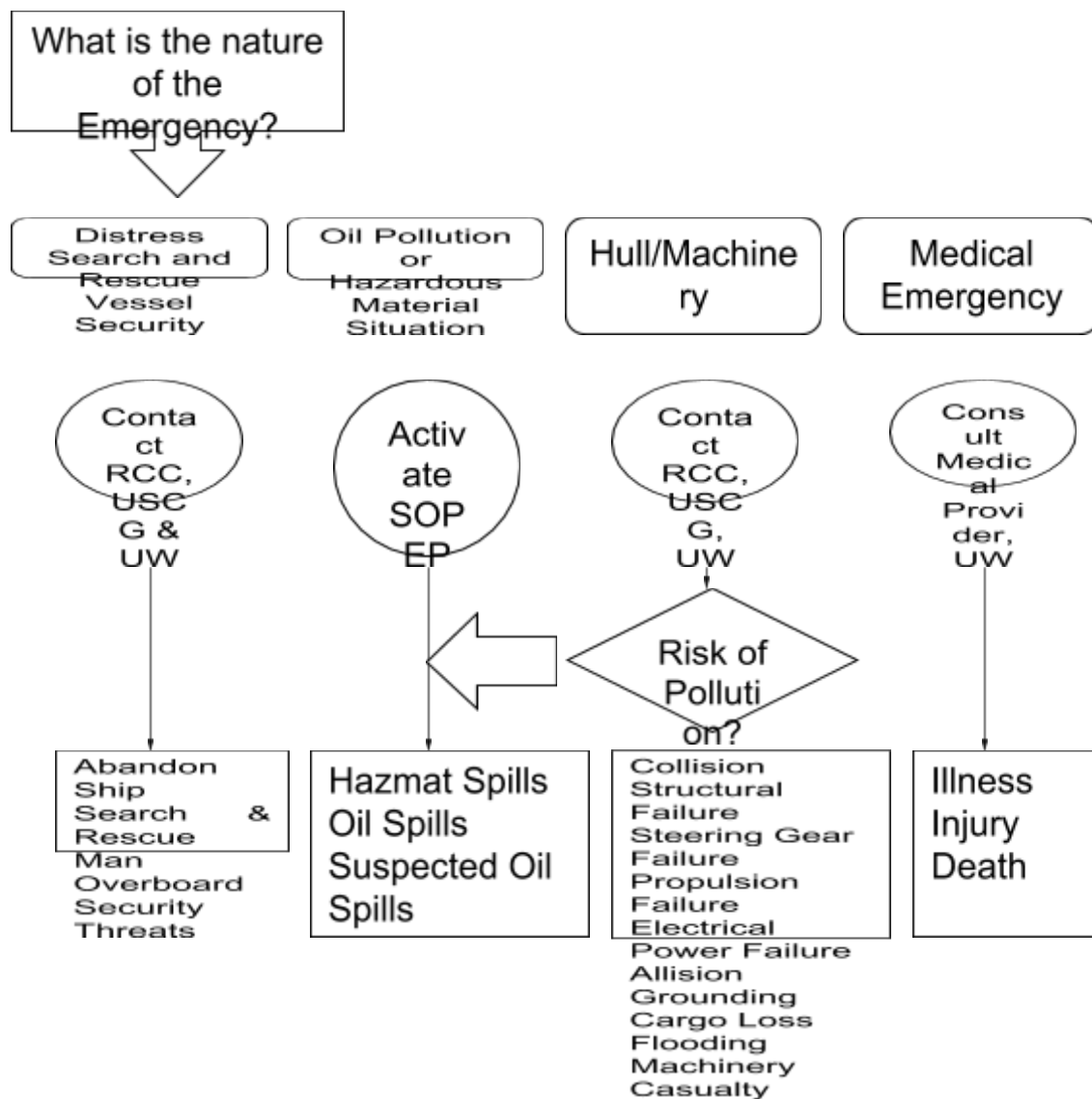
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UW Marine Ops SMS	General Instructions	SMM 8.0.2
Version 2018 July 29	Updated MBC Approved DGR	Page 1 of 1

Procedure

- Any person aboard who determines that an emergency might exist is called upon to notify the bridge and sound the alarm.
- When determining which type of emergency exists and what procedure to follow, the duty officer must evaluate the risk to the ship, the persons aboard and the environment.
- If the structural integrity of the hull or the vessel's stability is in jeopardy, the Master must also assume that the risk or probability of oil pollution is high. In addition to responding to the specific threat, the Master should activate the Oil Pollution response as established in the SOPEP.
- To determine the correct procedures to follow, the Emergency Flowchart will guide the officers in the emergency response.

Emergency Flowchart



UW Marine Ops SMS	Fire Checklist	SMM 8.1.1
Version 2018July29	Updated MBC Approved DGR	Page 1 of 2

- Any vessel person determining that a fire may be occurring on board shall sound the alarm and send word to the bridge (or duty officer if in port) about the location, class and size.
- The person sounding the alarm shall make every effort to make a first response with a fire extinguisher if possible and appropriate. The person should calmly assist the evacuation of persons away from the affected area while closing all doors, staying low and keeping an eye towards the seat of the fire while backing away.
- The bridge shall sound the general alarm and make announcements over the intercom with the reported location, class and size of the fire. All shipboard operations not essential to vessel navigation and safety must end immediately. Persons throughout the vessel must secure their space and report to their emergency station as instructed and trained, closing all doors as they move.
- The emergency squads are to be activated according to the station bill. The initial response group will investigate the fire and confirm the situation to the Master by radio with a recommendation on the response necessary. The initial fire investigation will make an additional attempt to contain the fire and prepare for the full response by fire teams.
- The Master must assess the situation and take command. A complete understanding of fuel sources, hazards to personnel, and risks to the environment must quickly be made and a plan developed to attack the fire.
- The Engine Room will secure power and ventilation systems to prevent the spread of the fire.
- The Fire Teams will be mustering and suiting up to attack the fire, while other personnel will be securing vents and providing support.
- The Response Team will be dispatched to the scene where the Chief Officer will take control and lead the firefighting effort as the On Scene Leader.
- Other personnel will be in the Support Team and they may be called in addition to provide a second hose or support the firefighting efforts.
- The Command Team will be on the Bridge and in the Engine Room securing critical systems, providing emergency communications and monitoring the response, with the Master in charge of the emergency.
- The Science Party will be mustered and may be called upon to support search and rescue efforts in the vessel structure.

UW Marine Ops SMS	Fire Checklist	SMM 8.1.1
Version 2018July29	Updated MBC Approved DGR	Page 2 of 2

- If the fire is in the Machinery Spaces, the First Assistant Engineer shall be responsible for leading the fire fighting efforts.
- If the fire is in the Machinery Spaces, the Master shall make the determination to use a fixed system if all efforts to contain the fire have failed. If the Master is not present, the Chief Engineer, Chief Officer or First Assistant in that order will make the determination. The space shall be evacuated and secured prior to using any fixed extinguishing system.
- If the fire is out of control or the decision to regroup is made, the second team shall back out of the space with protection provided by the Attack Team.
- The Attack team may be stationed to continue containing the fire and protection hoses while other efforts to attack the fire or abandon ship are made.
- If the fire is contained, the scene must be evaluated for the extent of the damage. A hose and extinguisher team must be ready for a reflash and overhaul commenced immediately. Excess firewater must be pumped off of the vessel.
- The Master must evaluate the damage to the vessel and its resulting effect on ship's stability. The risk of pollution must be evaluated and the SOPEP activated if necessary.
- A follow up communication must be made to neighboring vessels or shore support as directed.
- A continual fire watch will be maintained, and the overhaul of all combustible materials must be thorough.
- Fire often travels throughout unknown corridors, so a complete vessel search for damage and heat must be conducted.

Documentation

- Ship Fire and Emergency Plan
- Station Bill
- Emergency Flowchart
- SOPEP
- Drill documented in Sinex

UW Marine Ops SMS	Collision and Allision Checklist	SMM 8.1.2
Version 2018July29	Updated MBC Approved DGR	Page 1 of 2

The Mate on Watch shall observe the International and Inland Rules to prevent all collisions while operating UW vessels. Total and continual vigilance is necessary to maintain control of the vessel while maintaining awareness of other vessels. Officers are to use every means possible of maneuvering the vessel to either avoid or to mitigate the severity of a collision. The Mate Watch shall understand the limits of the electronic tools on the bridge, and never overly rely on them alone.

Hitting a solid object is a severe risk to the ship's structural integrity and stability. Generally this type of accident will occur at very low speeds and a puncture is the greatest immediate threat. However, severe damage to the hull and its structural integrity can occur and must be treated as an emergency.

If it is too late to completely avoid a collision or allision, officers are instructed to:

- Reduce or eliminate relative speed, and to position the vessel for a side to side impact if possible and keep below waterline damage to a minimum. The officer should be aware of critical areas below the waterline and make every attempt to reduce the risk to persons and machinery in these extreme circumstances.
- Any vessel person determining that a collision may occur shall sound the alarm and send word to the bridge (or duty officer if in port) about the other vessel's relative position to the ship, a description and possible impact area. He/she should assist the evacuation of persons away from the affected area while closing all doors. All persons should move away and above the expected impact area.
- The bridge shall sound the general alarm and make announcements over the intercom. All shipboard operations not essential to vessel navigation and safety must end immediately.
- The ship's watertight doors shall be secured.
- Persons throughout the vessel must secure their spaces and report to their emergency stations as instructed and trained, closing all doors as they move.
- The emergency squads should be activated according to the station bill. The initial response group will investigate the damage and confirm the situation to the Master by radio with a recommendation on the response necessary. The initial investigation will make an additional attempt to contain the damage and prepare for the full response by emergency teams.
- The Master must assess the situation and take command. A complete understanding of fuel sources, hazards to personnel, and risks to the environment must be quickly assessed and a plan developed to deal with any damage, flooding, loss of stability, and/or release of oil.

UW Marine Ops SMS	Collision and Allision Checklist	SMM 8.1.2
Version 2018July29	Updated MBC Approved DGR	Page 2 of 2

- The additional risk of other hazards must be assessed like fire and flooding emergencies and addressed as necessary according to the emergency flowchart. If the risk of oil pollution is present the SOPEP must be activated.
- If at all possible, the ship's movement should be minimized. The ship shall deploy anchors and mooring lines to the shore to keep the vessel stationary.
- Free Communication of water in and out at the waterline must be reduced if possible.
- Stability should be assessed when taking any action.
- Emergency communications should be initiated.
- An OFI/CAR should be generated after the incident is over.
- The ship should make arrangements for temporary repairs before moving to make permanent adjustments.
- A hull surveyor, the naval architects and authorities should be consulted. The Master has authority to engage any of these sources of assistance as may be required.

Documentation

- Ship Fire and Emergency Plan
- Station Bill
- Emergency Flowchart
- SOPEP
- Drill documented in Sinex

UW Marine Ops SMS	Structural Failure Checklist	SMM 8.1.3
Version 2018July29	Updated MBC Approved DGR	Page 1 of 2

Structural failure has many causes including fire, external forces, fatigue and decay. If Structural failure is detected either by inspection or as the result of another casualty, immediate action must be taken to mitigate the risk to the ship and personnel.

- The Master shall initiate an investigation with his senior officers to survey the damage. Ship's plans and Damage Stability Plan should be consulted and emergency communications initiated.
- The ship's watertight doors shall be secured.
- Ballasting and movement of fuel should only be done once it is determined that such action will not adversely affect the ship's integrity and stability.
- If the damage is at or near the waterline, a serious risk of flooding may be imminent and all personnel should be brought above decks until the situation is resolved.
- Dewatering pumps should be readied.
- Make announcements over the intercom. All shipboard operations not essential to vessel navigation and safety must end immediately. Persons throughout the vessel must secure their spaces and report to their emergency station as instructed and trained, closing all doors as they move.
- The emergency squads should be activated according to the station bill. The initial response group will investigate the damage and confirm the situation to the Master by radio with a recommendation on the response necessary. The initial investigation will make an additional attempt to contain the damage and prepare for the full response by emergency teams.
- The Master must assess the situation and take command. A complete understanding of fuel sources, hazards to personnel, and risks to the environment must be quickly assessed and a plan developed to deal with the situation. The Command team will initiate emergency communications.
- The additional risk of other hazards must be assessed like fire, flooding or changes to stability, and addressed as necessary according to the emergency flowchart. If it is a possibility that oil pollution may be present then the SOPEP must be activated.
- Communications with authorities and the shore emergency management team must be established.
- A plan must be developed to make temporary repairs to augment the emergency measures already taken until the ship can be towed or make a safe harbor.

Documentation

- Ship Fire and Emergency Plan
- Station Bill
- Emergency Flowchart

UW Marine Ops SMS	Structural Failure Checklist	SMM 8.1.3
Version 2018July29	Updated MBC Approved DGR	Page 2 of 2

- SOPEP
- Drill documented in Sinex

UW Marine Ops SMS	Steering Gear Failure Checklist	SMM 8.1.4
Version 2018July29	Updated MBC Approved DGR	Page 1 of 2

Steering gear failures often lead to other maritime failures and early action must be taken to mitigate this hazard.

- Immediately notify the Master when navigation equipment or propulsion is not working properly. When operating in congested or pilotage waters, the Master may elect to man the emergency steering station.
- The Mate on Watch must take immediate action when it is determined that a steering gear failure has occurred. The failure should be announced over the intercom to alert members of the Bridge Team and Engineering staff to assist. Off duty and available members of the deck department should report to the bridge.
- The Master must assess the situation and take command. A complete assessment of steering system failure modes, hazards to personnel, and risks to the environment must be quickly made and a plan developed to respond to the situation and initiate emergency communications as required.
- The Master may dispatch a team to ready the anchors and standby to lower them.
- The current ship's navigation status should be considered, along with traffic, depths, currents, hazards, and visibility. Science operations in progress could be immediately impacted.
- The Mate on Watch must notify the Engineer on Watch and inform him/her that there is a possible steering gear failure. The after steering station should be manned by a qualified engineering staff member and a qualified helmsman as soon as possible.
- Using other propulsion gear like the bow thruster to compensate may be an effective temporary measure.
- The additional risk of other hazards must be assessed. Communications with authorities and the shore emergency management team must be established and an OFI/CAR generated after the incident is over.
- The ship should proceed to a safe place where repairs can be conducted, if unable to do so underway, and arrangements for towing may have to be made by the Master.
- The actual cause of the steering failure should be determined to avoid future occurrences.
- The Mate on Watch should be reminded of any new limitations placed on the steering capability until full control is restored.

Documentation

- Emergency Flowchart

UW Marine Ops SMS	Steering Gear Failure Checklist	SMM 8.1.4
Version 2018July29	Updated MBC Approved DGR	Page 2 of 2

- Drill documented in Sinex

UW Marine Ops SMS	Propulsion and Electrical Failure Checklist	SMM 8.1.5
Version 2018July29	Updated MBC Approved DGR	Page 1 of 2

Propulsion and electrical failures can lead to other maritime failures and prompt action must be taken to mitigate this hazard.

- The Mate on Watch must operate the ship within the safe parameters established by the standing orders and immediately notify the Master when navigation equipment or propulsion is not working properly. When operating in congested or pilotage waters, the Master may elect to man the emergency steering station.
- The Mate on Watch must take immediate action when it is determined that a propulsion failure has occurred. The failure should be announced over the intercom to alert members of the Bridge Team and Engineering staff to assist. Off duty and available members of the deck department should report to the bridge.
- The Master must assess the situation and take command. A complete assessment of failure modes, hazards to personnel, and risks to the environment must be made quickly and a plan developed to respond to the situation. Initiate emergency communications.
- The Master may dispatch a team to ready the anchors and standby to lower them.
- The current ship's navigation status should be considered, along with traffic, hazards, visibility and other hazards. Science operations in progress could be immediately impacted.
- The Mate on Watch must notify the Engineer on Watch and inform him/her that there is a possible propulsion failure. The after steering should be manned by a qualified engineering staff member and a qualified helmsman as soon as possible.
- Using other propulsion gear like the bow thruster to compensate may be an effective temporary measure.
- The additional risk of other hazards must be assessed. Communications with authorities and the shore emergency management team must be established and an OFI/CAR generated after the incident is over.
- The ship should proceed to a safe place where repairs can be conducted if unable to do so underway, and arrangements for towing may have to be made by the master.
- The actual cause of the electrical and/or propulsion failure should be determined to avoid future reoccurrences.
- The Mate on Watch should be reminded of the any limitations placed on the maneuvering characteristics until full propulsion is restored.
- There are many sources of alternate power aboard the ship, and the emergency diesel generator and batteries should provide minimal power to critical systems, but total power loss must be assumed if the emergency diesel generator fails to pick up the load.
- Communication with surrounding vessels by radio is essential as well as displaying the correct lights and day-shapes. Every effort should be directed towards the prompt re-powering of these essential appliances.

UW Marine Ops SMS	Propulsion and Electrical Failure Checklist	SMM 8.1.5
Version 2018July29	Updated MBC Approved DGR	Page 2 of 2

Documentation

- Emergency Flowchart
- Drill documented in Sinex

UW Marine Ops SMS	Grounding Checklist	SMM 8.1.6
Version 2018July29	Updated MBC Approved DGR	Page 1 of 2

Contacting a solid object under the waterline is a severe risk to the ship's structural integrity and stability. Grounding poses an immediate threat to life, property and the environment. If grounding occurs:

- Reduce or eliminate speed. The ship shall deploy anchors and mooring lines to the shore to keep the vessel stationary. The officer should be aware of critical areas below the waterline and make every attempt to reduce the risk to persons and machinery in these circumstances. Stability should be assessed with respect to all actions that are undertaken.
- The ship's watertight doors shall be secured.
- The bridge shall sound the general alarm and make announcements over the intercom. All shipboard operations not essential to vessel navigation and safety must end immediately. Persons throughout the vessel must secure their space and report to their emergency station as instructed and trained, closing all doors as they move.
- The emergency squads should be activated according to the station bill. The initial response group will investigate the damage and confirm the situation to the Master by radio with a recommendation on the response necessary. The initial investigation will make an additional attempt to contain any damage and prepare for the full response by emergency teams.
- The Master must assess the situation and take command. A complete assessment of the grounding, hazards to personnel, and risks to the environment must be made quickly and a plan developed to resolve the situation. Soundings should be taken throughout and around the ship.
- The additional risk of other hazards must be assessed like fire and flooding and addressed as necessary according to the emergency flowchart. If the risk of oil pollution is present the SOPEP must be activated.
- Taking on ballast may be required if the vessel cannot be re-floated immediately and swell threatens further damage to the hull.
- Ballast pumps should be readied as well as dewatering pumps.
- Ship's personnel should begin making the rescue craft ready.
- Emergency communications should be initiated.
- An OFI/CAR should be generated.
- The ship should make arrangements for temporary repairs before moving to a facility to make permanent repairs.
- A hull surveyor, the naval architects and authorities should be consulted. Divers and salvage teams may have to be engaged on short notice. The Master has the authority to secure any assistance from such providers.

Documentation

UW Marine Ops SMS	Grounding Checklist	SMM 8.1.6
Version 2018July29	Updated MBC Approved DGR	Page 2 of 2

- Ship Fire and Emergency Plan
- Damage Control Plan and Stability Information
- Station Bill
- Emergency Flowchart
- SOPEP
- Drill documented in Sinex

UW Marine Ops SMS	HAZMAT Spills Checklist	SMM 8.1.7
Version 2018July29	Updated MBC Approved DGR	Page 1 of 2

Hazardous materials can pose a threat to personnel and the ship, especially if they are mishandled or there is a risk of fire. Prevention is the best procedure with HAZMAT situations because they are so difficult to contain and mitigate afterwards. Awareness of the materials on board and familiarization with MSDS's, and the potential risks of specific materials will help immensely. For more information, see Science HAZMAT 7.4.7 and Spill Prevention 7.0.7 that discusses proper HAZMAT storage and spill prevention procedures.

- All spills should be immediately reported to the Bridge and the person reporting the spill should try to supply the bridge with as much information as possible from a safe location. The MSDS for the material involved should be consulted.
- The Master should be informed immediately of any spill and take command. The Chief Officer should be dispatched with members of the deck department to assist. The damage control locker on the 01 deck should be utilized for staging to keep response personnel clear of affected areas.
- Announcements should be made to evacuate all ship's personnel away from the affected areas.
- Emergency teams responding must be wearing the appropriate PPE and breathing apparatus.
- Avoid contaminating other areas of the ship if possible by securing ventilation and traffic through the affected spaces.
- Any spill should first be contained. Containers of remaining or different HAZMAT should be moved to a safe location. Once the space is secured and the spill is contained, efforts to dilute or remove the material can begin as directed by the handling and clean-up instructions in the MSDS.
- The Mate on Watch shall make adjustments to the heading of the ship and reduce the ship's motion or provide a desired relative wind.
- A plan should be formulated for the actions to be taken to minimize the hazards to the ship and personnel. The Lead Technician shall assist the Chief Officer in the cleanup efforts if the HAZMAT release is science related.
- Power sources on deck may have to be secured in case of damage to electrical components.
- An OFI/CAR should be generated after the incident.
- If personnel are injured in the HAZMAT incident or exposed to hazardous substances, the shore medical provider shall be contacted immediately.

Documentation

UW Marine Ops SMS	HAZMAT Spills Checklist	SMM 8.1.7
Version 2018July29	Updated MBC Approved DGR	Page 2 of 2

Ship Fire and Emergency Plan
Damage Control Plan
Stability Information
Station Bill

Emergency Flowchart
Drill documented in Sinex

UW Marine Ops SMS	Flooding Checklist	SMM 8.1.8
Version 2018July29	Updated MBC Approved DGR	Page 1 of 1

Flooding can pose serious threat to vessel stability, personnel and machinery.

- If flooding is discovered, the person must promptly notify the bridge or duty officer. That person is to make all reasonable attempts to ensure that all persons are evacuated out of the space, securing doors behind them
- The Bridge officer shall immediately sound the General Alarm, activate Emergency Teams, close all water tight doors, then notify the Engine Room and the Master.
- The Bridge officer is to make announcements over the intercom to alert the Chief Officer and the investigative team where the flooding is occurring. Dewatering equipment and ballast pumps should be prepared.
- All power should be secured to the affected spaces to prevent grounding and the risk of electrocution.
- The vessel's motion should be slowed and all propulsion stopped.
- The first priority is to slow or stop the introduction of water below the waterline, and to isolate the affected compartments.
- Once the situation is stabilized, soundings should be taken in all tanks and double bottoms. The vessel's stability plans should be consulted to assess the extent of the damage and the effect of flooding upon reserve buoyancy and stability.
- Emergency communications should be established.
- An OFI/CAR should be generated.
- No action should be taken without considering its effects upon stability.
- Temporary damage control measures should be taken as needed before moving the vessel to a location for permanent repairs.

Documentation

- Ship Fire and Emergency Plan
- Damage Control Plan and Stability Information
- Station Bill
- Emergency Flowchart
- Drill documented in Sinex

<i>UW Marine Ops SMS</i>	<i>Machinery Casualty</i>	<i>SMM 8.1.9</i>
Version 2018June15	Updated BBB/MBC Approved DGR	Page 1 of 1

A catastrophic machinery failure in the engine room can pose extreme hazards to personnel and the vessel. Because the Machinery Room is the center of usual damage control activity, a generator disintegrating could pose serious consequences.

- A member of the engine department witnessing a major engine room malfunction causing damage must contact the duty engineer and the bridge. The Mate on Watch needs to be aware of the situation as soon as possible.
- The Master should be notified and should take command. All additional risks should be examined. If the risk of oil pollution is possible, the SOPEP should be activated.
- The General Alarm should be sounded and personnel mustered. The Chief Engineer and assigned engine room personnel should be dispatched to a safe area.
- All reasonable attempts to evacuate personnel should be made and the person on scene should begin securing equipment, fuel and machinery in the space. If there is a risk of flying debris, personnel should take alternative measures to secure equipment at remote shutoffs.
- An observer should give communication to the bridge so that the Master is fully informed of the current situation.
- Emergency communications should be established. Proper day-shapes and navigation lights should be displayed.
- Once the situation is stabilized, temporary repairs should be made until the ship can make a safe harbor for permanent repairs.
- An OFI/CAR should be generated.

Documentation

- Ship Fire and Emergency Plan
- Station Bill
- SOPEP
- Drill documented in Sinex

UW Marine Ops SMS	Abandoning Ship Checklist	SMM 8.1.10
Version 2018July29	Updated MBC Approved DGR	Page 1 of 2

In the event that the vessel must be evacuated, the decision to abandon ship is only made by the Master. If the Master has been incapacitated, the most senior deck officer shall assume command and make the decision. The final decision to abandon hopefully will be preceded by sufficient time to make the necessary arrangements, but time may be short in an actual emergency, so planning and practice are essential.

- The rescue boat should be kept ready for launch.
- Once the decision is made, the crew shall be given the order to proceed to Boat Stations and to abandon ship. All personnel shall be mustered and shall bring their survival gear. Missing persons shall be accounted for and a search conducted, if time permits.
- Emergency Communications shall be established at the onset of the emergency.
- The ship shall be illuminated and emergency flares deployed if there are other vessels, aircraft or land near by during the evacuation. Other wise flares should be saved and used when the probability of someone seeing them is highest.
- The ship should be brought the best heading to the seas to protect the abandon ship effort.
- If time permits, blankets, extra food and supplies should be brought to the rescue boat and liferafts along with the ship's logbook, charts and signaling equipment.
- Navigation equipment, SARTS, radios and the EPIRB shall be brought to the rescue boat station and activated. Liferings with lights shall be brought and made ready for persons who may fall in the water.
- The liferafts must be prepared and marshaled alongside the vessel and if time permits, a cargo net or ladder should be rigged.
- The rescue boat should be launched and keep the liferafts alongside and rescue any persons accidentally falling in the water.
- Members of the science party shall be assisted into the rafts first. All efforts to keep people out of the water should be made. The marine technicians will be in charge of escorting science personnel to the life raft embarkation station, and will maintain a count of science and crew personnel as they board the rafts.
- The Master should only depart the vessel once it is apparent that the ship would endanger his/her life. Other crewmembers standing by with the Master should be taken off the ship before the Master boards his assigned raft.
- Prior to departing the vessel, the Master must make sure that all possible efforts to establish communications with surrounding vessels and shore rescuers have been made. If possible, current wind and sea conditions should be passed to rescuers so they can track the drifting of rafts better.
- Once the vessel is abandoned, the rescue boat and liferafts should stay close to the last location sent to the shore.

UW Marine Ops SMS	Abandoning Ship Checklist	SMM 8.1.10
Version 2018July29	Updated MBC Approved DGR	Page 2 of 2

- The Master should establish a command structure between the rafts and communications. Morale is important and a properly prepared crew can safely survive for extended periods of time.

Documentation

- Ship Fire and Emergency Plan
- Station Bill
- Emergency Flowchart
- Drill documented in Sinex

UW Marine Ops SMS	Search and Rescue Checklist	SMM 8.1.11
Version 2018July29	Updated MBC Approved DGR	Page 1 of 1

UW MAROPS vessels may be called upon at any time to participate in a search and rescue effort.

- The Bridge Team shall be briefed and Emergency Communications established. Additional personnel for lookouts and steering shall be assigned as needed.
- The Chief Engineer will be briefed and the machinery prepared for maneuvering and or high-speed capability.
- All other operations should be terminated promptly.
- The Rescue boat shall be checked to confirm it is ready.
- If necessary, the crew should be brought to Emergency Stations.
- The ship should be prepared to receive survivors, with berthing, food and shelter.
- The hospital and medical facilities should be made ready to provide first aid.
- Preparations to receive persons and liferafts alongside should be made. Lifelines, nets and a ladder should be rigged.
- Survivors being transferred are to be tended to and names recorded. The names of each person should be communicated once confirmed.
- The Master shall determine when the Search and Rescue situation is completed, after consultation with the Search and Rescue on scene commander of the appropriate Rescue Coordination Center.
- All deck watch officers shall familiarize themselves with the contents of the MERSAR manual.
- UW MAROPS ships will participate in AMVER or other reporting systems as directed by the Administration.

Documentation

- Station Bill
- Emergency Flowchart
- MERSAR and AMVER manuals
- Drill documented in Sinex

UW Marine Ops SMS	Man Overboard Checklist	SMM 8.1.12
Version 2018July29	Updated MBC Approved DGR	Page 1 of 2

Man overboard refers to any person in the water and deemed to be in distress by the Master. The person may not necessarily be a member of the ship's company. The greatest threat to the person is heat loss. Depending upon the water temperature, survivability may be measured in minutes.

- Once a person is determined to be missing and the Master determines that there is a Man Overboard, or if a person observes a person in the water or entering the water, the alarm shall be sounded to muster the crew. An announcement should be made over the intercom.
- The person observing someone in the water, shall alert the bridge immediately and inform the Duty Officer where the person is relative to the ship while maintaining eye contact and continually pointing at the person. They shall also throw a life ring and other available floating objects in the water, especially if the ship is moving so there is a "floating trail" leading back to the person.
- Immediate action to maneuver the stern away from the person is required. All other operations should be terminated.
- Research Vessels are very maneuverable which means that there may be a number of options available: quick stop, circling or a Williamson turn. The duty officer may have to make a quick decision taking into account the weather, daylight, sea temperature and the condition of the victim. A smoke and light life ring marker shall be deployed.
- At least one lookout should be posted to keep an eye on the person in the water or last known position. Once posted, this lookout should not be distracted.
- The Bridge Team shall be informed and Emergency Communications established. Additional personnel for lookouts and steering should be made.
- The Duty Engineer should be contacted and the machinery prepared for maneuvering and or high-speed capability.
- The Rescue boat shall be checked to confirm it is ready.
- The ship should be prepared to receive the survivor, with berthing, food and warm blankets.
- The hospital and medical facilities should be made ready to provide first aid. The medical provider should be contacted for treatment assistance.
- If all attempts are made to find the person that is missing and presumed overboard, a search shall be conducted until it is beyond a doubt that the person is missing.
- An OFI/CAR should be generated.
- The Master shall determine when the situation is completed.

Documentation

- Station Bill
- Emergency Flowchart
- Ship's Medical Log
- Drill documented in Sinex

UW Marine Ops SMS	Man Overboard Checklist	SMM 8.1.12
Version 2018July29	Updated MBC Approved DGR	Page 2 of 2

UW Marine Ops SMS	Serious Injury/Illness/Death Checklist	SMM 8.1.13
Version 2018July29	Updated MBC Approved DGR	Page 1 of 2

The Master shall be informed promptly if there is any serious injury, illness or death aboard the ship.

- Any person coming upon a situation where medical assistance of any kind is required shall call the bridge immediately or contact the Master.
- The Master shall call out sufficient personnel to assist in moving or tending to the situation.
- The Master shall determine the level of care necessary and may assign a qualified Deck Officer to administer minor care. The Master has the ultimate responsibility of medical care and may assign a properly qualified Medical Person in Charge to administer more serious medical attention.
- The Master shall contact the shore side medical provider and the UW MAROPS staff to discuss the situation so that the UW can provide the best medical care for the victim. All assets of the University and its agents may be utilized to offer the best care available. The Master has authority to call for medical evacuation, assets, or to suspend operations and proceed without delay to a place where further medical care may be obtained.
- The Master shall use the shore side medical provider information as advice.
- If an injury is incapacitating for more than 72 hours, or the Master believes that the injury might incapacitate for more than 72 hours, a urine sample for drug screening shall be collected as soon as possible by all accident or incident participants. Brief statements and names of witnesses shall be collected.
- If a person should appear to be dead, the Master shall still contact the shore side medical provider and administer first aid to resuscitate the victim.
- The UW MAROPS staff shall be contacted immediately with this information so that arrangements can be made to collect the remains in accordance with the local regulations. UW contracted ship's agents and the shore side medical provider may be utilized in this case for these services.
- The ship and the crew should be respectful of any injured, ill or deceased crewmember and all efforts should be made to reassure and comfort persons disturbed by the situation.
- Evidence of possible criminal acts should be retained as evidence and UW MAROPS notified of any suspicion of such acts. The area may need to be preserved as a crime scene.
- Local law enforcement will be notified as required.
- Appropriate log entries in the Medical log, deck log, official log should be made and OFI/CARs, 2692 and UW incident forms completed. All these are confidential medical records and as such should be kept separate from the Voyage File.

Documentation

- Emergency Flowchart
- Ship's Medical Log
- Official Logbook
- USCG 2692/2692B
- OFI/CAR
- UW Incident/Accident Report

UW Marine Ops SMS	Serious Injury/Illness/Death Checklist	SMM 8.1.13
Version 2018July29	Updated MBC Approved DGR	Page 2 of 2

- Deck Logbook
- Drill documented in Sinex
- Medical Provider Information and Inventory

UW Marine Ops SMS	Security	SMM 8.1.14
Version 2018July29	Updated MBC Approved DGR	Page 1 of 3

Routine Security

- All persons aboard shall have photo id in their possession or in their staterooms during their entire time aboard, and these must be made available.
- No visitors are allowed during operations such as fueling or heavy lift crane operations.
- No unaccompanied minors are permitted aboard the vessel. A minor is a person under 16. Groups are to be limited to 15 persons with one authorized guide. No persons under 18 are allowed to sleep aboard unless authorized by the Manager of Marine Operations.
- Absolutely no pets or animals are permitted aboard the vessel. Guide or assist animals are permitted for a limited time and only while the vessel is pier side.
- Overnight guests are only allowed with the permission of the Master or the Manager of Marine Operations.
- Guests or visitors are not to be left unattended. The Machinery spaces, radio room and any secured areas are off limits to visitors.
- Berthing is gender separated aboard the ship. This may only be changed by the Master or Manager of Marine Operations, and only in the case of married persons or in an emergency. Occasionally, mixed gender may be authorized by the Manger of Marine Operations when two individuals are on opposite 12 hours watches, and/or the numbers of male/female members is odd.
- Alcohol, controlled substances, and other contraband is expressly forbidden aboard the vessel.
- The Master is the only person aboard the vessel authorized to maintain any weapon aboard. Any device designed to incapacitate, maim, stun or kill a person or animal is not to be stored aboard or kept by a crew member, scientist or visitor. Ammunition or replacement canisters for mace/pepper spray are not allowed. Hired security personnel or local law enforcement authorities are exempt from this measure.
- In port, the duty officer shall maintain radio communication with the deck watch and engineering watch to be available for immediate assistance.

Procedure

- The Master shall evaluate the vessel's security posture and institute additional requirements as necessary. He/she shall keep informed of any regional threats as supplied by informational communiqués, notices to mariners or broadcast advisories. The vessel shall be, at a minimum, at the same Marsec Level as the port or sea area it is transiting. The master may choose to increase the vessel Marsec Level at any time. Normally this is Marsec Level 1.
- The crew shall be notified on the Vessel Safety Bulletin Board of known security threats and any change in the Marsec Level. A pre-arrival security briefing for crew and science shall be held prior to arrival at any foreign port which is at Marsec Level 2 or higher.
- The Pre-Cruise science questionnaire should be evaluated to determine if the ship is going to be operating in potentially high threat areas. UWMAROPS will evaluate the threat profile to decide whether or not to conduct the cruise.
- The Master is responsible for ensuring that the employees and persons aboard are safe and the ship is secure. Any reasonable measure may be taken by the Master to prevent or mitigate threats against the vessel.

UW Marine Ops SMS	Security	SMM 8.1.14
Version 2018July29	Updated MBC Approved DGR	Page 2 of 3

- Contraband searches may be used to find any materials, which may be determined to be threatening to the ship or personnel, at any Marsec Level. At Marsec Level 2, all visitors are subject to random search, and all baggage coming on board shall be searched.
- If Marsec Level 3 is declared, the Master shall make a decision to protect the vessel by whatever reasonable means available. Shifting the vessel away from the harbor or to a safer berth may be a suitable option. Any loading or discharge operations shall be discontinued, and no visitors will be allowed on board unless specifically okayed by the Master or Vessel Security Officer.
- While in Marsec Level 2 or above, the Master may restrict shore access for crew and vessel access for visitors including searching all materials coming aboard the ship.
- If an imminent threat against the vessel is perceived while underway, (piracy for example), or if the vessel is attacked while anchored or alongside, the SSAS shall be activated to alert authorities of an emergency in progress.
- Emergency communication should be initiated by whatever means available.
- During Marsec Level 3, the vessel should secure all doors, limit access throughout the ship and provide all necessary resistance to repel boarders.
- While in a foreign port, roving security watches and adequate lighting can assist in vessel protection while alongside or anchored. Consideration should be given, while at an uncontrolled foreign berth, to establishing Marsec Level 2.
- Areas of known piracy or actions against vessels should be avoided if at all possible. If necessary to transit waters with known piracy risk, Marsec Level 2 shall, as a minimum, be maintained. Extra watches in the wheelhouse, along with deck rovers, should be utilized, and a sharp lookout for suspicious craft maintained at all times.
- At the UW dock during Marsec Level 1, a dedicated gangway watch is not needed. There shall be a dedicated gangway watch at Marsec Level 2 and above.
- At any berth with uncontrolled access in a foreign port, the vessel shall have a dedicated gangway watch at all times.
- The crew and scientists should be briefed on security measures and instructed on personal safety. Security is a team effort and everyone needs to know the threat levels and the plan.
- Stowaways are a serious security threat to the vessel. A complete stowaway search of all spaces should be conducted. A stowaway search shall be conducted if the vessel is departing an uncontrolled berth in a foreign port. UW MAROPS shall be notified immediately if a stowaway is found. Persons who wish to stowaway are desperate and may cause bodily harm to those persons searching. Searches should be conducted by teams consisting of at least 2 personnel each.
- All tool lockers and unused spaces should be locked and sealed to prevent unauthorized entry while at an uncontrolled foreign berth.
- Suspicious vehicles and parcels should be kept away from the vessel and reported to port authorities.

Documentation

- Pre Cruise Science Questionnaire
- Emergency Flowchart
- Official Logbook
- Deck Logbook
- USCG 2692/2692B
- OFI/CAR
- UW Incident/Accident Report
- Drill documented in Sinex

UW Marine Ops SMS	Security	SMM 8.1.14
Version 2018July29	Updated MBC Approved DGR	Page 3 of 3

UW Marine Ops SMS	Vessel Security Inport Bill	SMM 8.1.14.1
Version 2018July29	Updated MBC Approved DGR	Page 1 of 1

IN-PORT SECURITY BILL

General

The following information promulgates assignments and procedures in relation to the MARSEC Level in the area that the vessel is operating.

Signal

The signal for a security alert or drill shall be 4 short rings on the general alarm and 4 short blasts on the ship whistle, in addition to hailing over the PA system. Muster at normal emergency stations.

Information

The following assignments will be implemented during MARSEC Level One, Two and Three or as the Master, VSO, or OOW deem appropriate

Rank	Marsec Level 1	Marsec Level 2	Marsec Level 3
Master	Overall command	Overall command	Overall command
Chief Mate	PIC of deck watch	PIC of ship security	On duty, VSO
2 nd Mate	PIC of deck watch	PIC of deck watch	On duty, assist as directed
3 rd Mate	PIC of deck watch	PIC of deck watch	On duty, assist as directed
AB	Gangway watch	Gangway watch/patrol	On duty, gangway watch/patrol
AB	Gangway watch	Gangway watch/patrol	On duty, gangway watch/patrol
AB	Gangway watch	Gangway watch/patrol	On duty, gangway watch/patrol
AB	Gangway watch	Gangway watch/patrol	On duty, gangway watch/patrol
AB/OS	Gangway watch	Gangway watch/patrol	On duty, gangway watch/patrol
AB/OS	Gangway watch	Gangway watch/patrol	On duty, gangway watch/patrol
Ch. Eng.	PIC of Engine Room	PIC of Engine Room	On duty, PIC of Engine Room
1 st A/E	PIC of Engine Room	PIC of Engine Room	On duty, Engine Room
2 nd A/E	PIC of Engine Room	PIC of Engine Room	On duty, assist as directed
3 rd A/E	PIC of Engine Room	PIC of Engine Room	On duty, assist as directed
Oiler	Available for gangway watch	Engine Room watch	On duty, assist as directed
Oiler	Available for gangway watch	Engine Room watch	On duty, assist as directed
Oiler	Available for gangway watch	Engine Room watch	On duty, assist as directed
Oiler/Wiper	Available for gangway watch	Engine Room watch	On duty, assist as directed
Steward	Available for gangway watch	Available for gangway watch	On duty, assist as directed
Cook	Available for gangway watch	Available for gangway watch	On duty, assist as directed
Mess Asst.	Available for gangway watch	Available for gangway watch	On duty, assist as directed

Master

VSO

UW Marine Ops SMS	Vessel Security At Sea Bill	SMM 8.1.14.2
Version 2018July29	Updated MBC Approved DGR	Page 1 of 2

AT-SEA SECURITY BILL

General

The following information promulgates assignments and procedures in relation to the MARSEC Level in the area that the vessel is operating.

Signal

The signal for a security alert or drill shall be 4 short rings on the general alarm and 4 short blasts on the ship whistle, in addition to hailing over the PA system. Muster at normal emergency stations.

Information

The following assignments will be implemented during MARSEC Level One, Two and Three or as the Master, VSO, or OOW deem appropriate.

Rank	Marsec Level 1	Marsec Level 2	Marsec Level 3
Master	Overall command	Overall command	Overall command
Chief Mate	PIC of deck watch	PIC of ship security	On duty, VSO
2 nd Mate	PIC of deck watch	PIC of deck watch	On duty, assist as directed
3 rd Mate	PIC of deck watch	PIC of deck watch	On duty, assist as directed
AB	Bridge watch	Bridge watch	On duty, bridge watch/patrol
AB	Bridge watch	Bridge watch	On duty, bridge watch/patrol
AB	Bridge watch	Bridge watch	On duty, bridge watch/patrol
AB	Day work	Deck watch/patrol	On duty, deck watch/patrol
AB/OS	Day work	Deck watch/patrol	On duty, deck watch/patrol
AB/OS	Day work	Deck watch/patrol	On duty, deck watch/patrol
Ch. Eng.	PIC of Engine Room	PIC of Engine Room	On duty, PIC of Engine Room
1 st A/E	PIC of Engine Room	PIC of Engine Room	On duty, Engine Room
2 nd /A/E	PIC of Engine Room	PIC of Engine Room	On duty, assist as directed
3 rd A/E	PIC of Engine Room	PIC of Engine Room	On duty, assist as directed
Oiler	Engine watch	Engine Room watch	On duty, assist as directed
Oiler	Engine watch	Engine Room watch	On duty, assist as directed
Oiler	Engine watch	Engine Room watch	On duty, assist as directed
Oiler/Wiper	Engine watch	Engine Room watch	On duty, assist as directed
Steward	Assist as directed	Assist as directed	On duty, assist as directed
Cook	Assist as directed	Assist as directed	On duty, assist as directed
Mess Asst.	Assist as directed	Assist as directed	On duty, assist as directed

UW Marine Ops SMS	Vessel Security At Sea Bill	SMM 8.1.14.2
Version 2018July29	Updated MBC Approved DGR	Page 2 of 2

Master

VSO

UW Marine Ops SMS	Enclosed Space Rescue Checklist	SMM 8.2.4
Version 2018July29	Updated MBC Approved DGR	Page 1 of 1

Ref: SMM 7.2.4, Enclosed Space Entry Form.

Being prepared to safely rescue someone from an enclosed space takes planning and practice. This checklist cannot cover every detail, however it is a guide to assist in a safe rescue.

- The first action from the person assigned as the attendant should be to raise the alarm. Although speed is often vital in the interest of saving life, rescue operations should not be attempted until assistance has arrived and a planned approach can be made. **Under no circumstances should the attendant enter the enclosed space.**
- A team leader will be identified - this should be a senior officer. The role will be to direct the rescue effort, therefore the leader should not form part of the team that enters the enclosed space.
- After checking the atmosphere with an O₂/gas meter, the team leader will send one individual to investigate the enclosed space. The person entering the space will carry an O₂/gas meter. If the O₂/gas meter provides unsatisfactory readings then the space must be ventilated before any investigation and/or rescue attempt is made.
- If a rescue is determined to be necessary, the team leader will identify personnel to assist. The team leader will also determine the procedure to be used to remove the individual from the enclosed space. The procedure will vary based on the entrance to the enclosed space (ie. vertical or horizontal). Consideration should be given to using a going aloft harness to remove the individual.
- Back up personnel should be employed to rig the rescue equipment, ensuring that the entry team have the equipment and support necessary to carry out their task. One crew member should be assigned to assist the rescue team leader with communications and to maintain a record of events.
- An effective system of communication between the team leader and the entry team should be agreed. Typically the on board UHF radios can be used.
- The hospital and medical facilities should be made ready to provide first aid.

Documentation

- Emergency Flowchart
- Drill documented in Sinex, include this checklist and the applicable 7.2.4 Enclosed Space Entry Form