



UNSW
THE UNIVERSITY OF NEW SOUTH WALES

BEES BOATS: < 7.5 m 2C | 2D | 2E



Safety Management System

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Changes

Version 1.0 – January 2012

Version 1.1 – January 2013

1. Check for compatibility with the National System for Domestic Commercial Vessel Safety

Version 2.0 – June 2014

1. Change each reference to a specific BEES boat to generic term “the vessel” except where vessel name is relevant.
2. Delete repetition in content of the BEES safety and environment statement and check for currency.
3. Change frequency of manager’s inspection to approximately monthly & a minimum of every 2 months.
4. Update health and safety terminology, HS manager contact information, and HS legislation references
5. Clarify responsibility change to reflect BEES practice of the supervisor as approver for boating activities

Definitions

BEES	The School of Biological, Earth and Environmental Science, UNSW.
Crew	Persons who are specifically assisting the master with safe operation of the boat.
Designated Person	The designated person (DP) is the Boating Safety Officer.
Hazard	A source of potential harm or a situation with the potential to cause harm to people, property or the environment.
Incident	Any unplanned event which occurs in the course of UNSW work which could result in: work illnesses; uncontrolled fire and explosion; physical injuries; equipment plant or property damage; dangerous occurrences which could have but did not injure any person; exposure to hazardous substances or circumstances; minor injuries; any other incident that could put employees or plant at risk.
Master, The	Person who has been approved by the BSO to operate the vessel.
National System	The National System for Domestic Commercial Vessel Safety
Relevant officer	A police officer, or an officer of a Department of the New South Wales Government or the Commonwealth Government, or an officer of a statutory authority created under the law of New South Wales or the Commonwealth.
Special Personnel	Persons on board the vessel who are using the vessel to complete a task and do not also fall under the category of Master or crew.
Supervisor	The person who has responsibility for approving or rejecting the work activity.
SIMS	The Sydney Institute of Marine Science
UNSW	The University of New South Wales, ABN 57 195 873 179.
UNSW Associates	Includes, but not limited to, SIMS and its members associated members: The University of Sydney, Macquarie University, University of Technology Sydney, The Australian Museum, Office of Environment and Heritage, Department of Primary Industries.

Relevant Legislation

Work Health and Safety Act 2011; Work Health and Safety Regulation 2011

National System for Domestic Commercial Vessel Safety (National System):

Marine Safety (Domestic Commercial Vessel) National Law Act 2012; Marine Safety (Domestic Commercial Vessel) National Law Regulation 2013; The National Standard for Commercial Vessels; EX15 - Marine Safety (Scientific research and educational activities) Exemption 2013; Marine Orders, local maritime and port authority websites;

Road Transport (General) Act 2005; Road Transport (General) Regulation 2005; Road Transport (Safety and Traffic Management) Act 1999 No 20; Road Transport (Safety and Traffic Management) Regulation 1999; Roads Act 1993 No 33; Road Regulation 2008; Road rules 2008

In addition, all legislative licensing and permit requirements, as applicable to the fieldwork activity must be met.

1. General Information

Vessel Owner and Operator

The School of Biological, Earth and Environmental Sciences (BEES) UNSW

Location and Postal Address

School of BEES
The University of New South Wales
Sydney 2052 NSW Australia

Contact Information

Dean of Science -Professor Merlin Crossley

Phone: (02) 9385 7916 | Email: sarah.byrne@unsw.edu.au

Head of School, BEES -Associate Professor David Cohen

Phone: (02) 9385 8084 | Email: d.cohen@unsw.edu.au

Scientific Boating Committee (Chair), - Professor Iain Suthers

Phone: (02) 9385 2065 | Email: i.suthers@unsw.edu.au

Health and Safety Manager, BEES – Mr Chris Myers

Phone: (02) 9385 8031 | Email: c.myers@unsw.edu.au

Boating Safety Officer - Ms Penny McCracken (Designated Person)

Phone: (02) 9385 8054 | Email: p.mccracken@unsw.edu.au

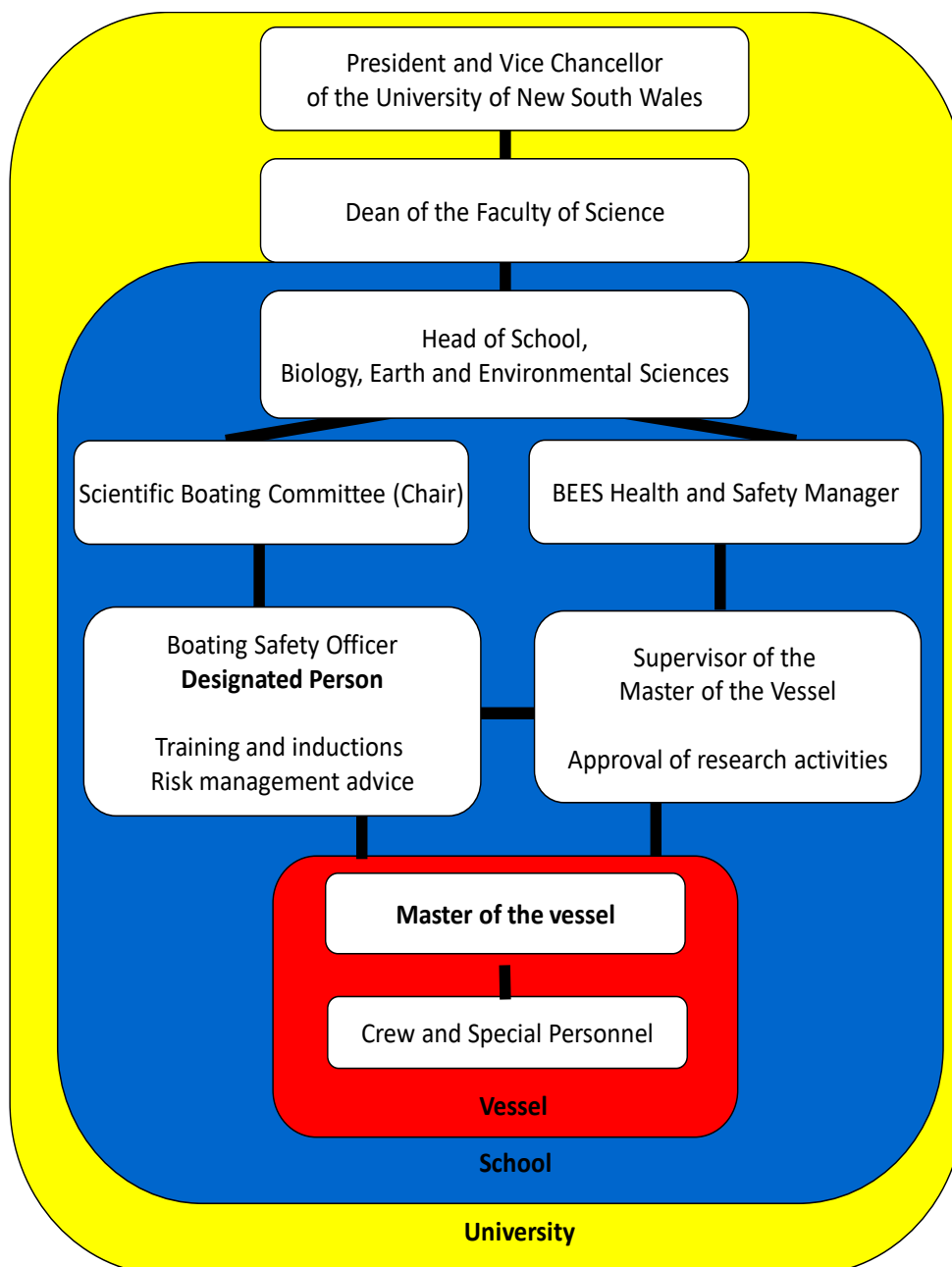
Boating Safety Officer - Michael de Mol

Phone: (02) 9385 8030 | Email: m.demol@unsw.edu.au

Fleet Manager, FM Assist (registration) - Estely Pruze

Phone: 02 9385 5497 | Email: e.pruze@unsw.edu.au

Company responsibilities flow chart



About BEES

The primary purpose of the School of Biological, Earth and Environmental Sciences (BEES) is to undertake scientific research. The School of BEES also provides education and training for science students. The boating activities undertaken at BEES may include, but are not limited to, scientific research and educational activities approved by UNSW, outreach and training for staff, students, and UNSW associates.

About the master, crew, and special personnel

The Master must be familiar with this SMS, be approved by the designated officer to operate the vessel, and have been inducted to the specific vessel by the designated officer or their delegate. Crew assist the master with the safe operation of the vessel and are familiar with the emergency management plan and the safety management system. All other persons on board are special personnel. BEES vessels do not carry passengers.

About BEES Vessels

All vessels currently owned by BEES are <7.5 m in length and are registered to operate coastally to 15 nm or to a lesser area as described in each boats certificate of operation and / or survey documents. A list of BEES vessels are provide below and SIMS vessels have been included to aid in trip planning but it should be noted that they have their own SMS. Contact the SIMS delegate for a copy.

Owner	Name Rego	HP	L (m)	POB 2C *	POB 2D/E*	POB 2C *dive	Primary Purpose
BEES	EDDY 24247	60:60	5.2	1:4	1:4	1:3	Dive, FADS
BEES	GUS 24358	40:40	5.0	1:2	1:4	No	Bays – deck space
BEES-AWRC	Lord Faraday 58484	50	5.2	No	3	No	Electrofishing Restricted Use
SIMS	RAMPAGE 24178	80:80	6.2	2:6	2:6	2:4	Coastal, has cabin
SIMS	KIRBY 24276	90	5.7	1:5	1:7	1:3	Coastal diving 5nm
SIMS	CLARKE	80	5.5	No	7	No	Bays
SIMS	YAMBA PUNT	80	6.6	No	7	No	Deck space
* POB = maximum persons on board (master/crew: special personnel)							

3. Related Documents

The following documents relate to the management of boat users and of BEES boats.

Document Name	Location
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Documents to register a user and use boats

BOAT00 BOAT DOCUMENT REGISTER	SBO
BOAT01 BEES BOAT USER REGISTRATION PROCEDURE	BEES web
BOAT02 BEES BOAT USER REGISTRATION APPLICATION	BEES web
BOAT03 BEES ASSESSMENT RECORD - Drive and manoeuvre a trailer	BEES web
BOAT04 BEES ASSESSMENT RECORD - Safely operate a boat < 7.5 m	BEES web
BOAT05 15 HOURS OF SUPERVISED BOAT EXPERIENCE	BEES web
BOAT06 BEES BOAT INDUCTION - OFFWATER < 7.5 m	BEES web
BOAT07 SIMS BOAT INDUCTION - OFFWATER < 7.5 m	BEES web
BOAT08 REQUEST TO USE AN EXTERNAL BOAT FOR UNSW RESEARCH	BEES web
BOAT09 BOAT TRIP LOG AND MAINTENANCE CHECKS	BEES web

Policy, planning and emergency management information for users and BSO

BOAT10 SAFETY MANAGEMENT SYSTEM	BEES web
BOAT11 OPERATIONAL PROCEDURES BOATS <7.5 m	SBO, Boat
BOAT12 EMERGENCY PROCEDURES BOATS <7.5 m	SBO, boat
BOAT13 REDUCE RISK AND MANAGE AN EMERGENCY	draft
BOAT14 EXAMPLE - Fieldtrip planning	draft
BOAT15 EXAMPLE - An emergency plan	draft
BOAT16 EXAMPLE - Safety briefing	draft
BOAT17 EXAMPLE - Personal boat log	draft

Boat Management Documents

BOAT20 BEES BSO RESPONSIBILITIES AND TASKS	draft
BOAT21 BEES BSO MAINTENANCE CHECKS	SBO
BOAT22 BEES BSO FIRST AID KIT CHECK SCALE F	SBO
BOAT23 BEES BSO LIFE JACKET INSPECTION	SBO
SCI-BEES-RMF-11 General use of boats, boat user induction and assessment.	SafeSys
SCI-BEES-SWP-8 GUS Lifting gear	SafeSys

4. Safety and Environment Policy

WHS Policy UNSW



The UNSW WHS Policy (29/4/13) statement describes the commitment of the University of New South Wales to the health, safety and welfare of all people who work, study, or visit this organisation.

The Policy applies to staff, students, visitors, contractors and labour hire employees of UNSW. Our overall aim is “Harm to Zero”, with the expectation that all persons shall come to no harm while in the workplace.

The following values form the basis of achieving our aim of “Harm to Zero”:

- People are our most valuable asset, and we are all committed to ensuring the health, safety and wellbeing of everyone in the workplace
- Everyone has a responsibility for safety, their own and that of others
- Injuries can be prevented, and an incident-free working and learning environment is actively pursued
- Communication and consultation are central to working together for a safer workplace

Risk management

BEES will:

- Promote and provide for safe practices and a safe working environment.
- Use the UNSW Health and Safety procedures to identify risks and establish controls.
- Minimise the impact of our vessels on the environment.
- Strive to continually improve our environmental procedures associated with boating operations.

These objectives will be achieved by:

- Ensuring that risk assessments are completed for all boating operations and that the responsible person is satisfied that foreseeable hazards are identified, assessed and controlled. This will be achieved through the UNSW HS procedures.
- Identifying, providing, and documenting appropriate training for all boat users. This will be achieved through a training, induction, and assessment procedure (BOATS01 BEES Boat user policy).

Safety Management System: BEES BOATS

- Ensuring that all vessel operators have suitable training and experience to use the vessel type for the proposed activities.
- Ensuring that the vessel is safe and suitable for the proposed activities, through regular maintenance inspections.
- Ensuring that all persons onboard the vessel are briefed in the aspects of the vessel, trip and safety procedures through pre-trip briefings
- Ensuring that documented procedures are followed through regular operator refreshers.
- Consulting with boat users about boat use procedures to identify areas for improvement and monitor the performance of the SMS.
- Communicating this document with all BEES boat users through BEES Explode mailing list.
- Following all relevant rules and regulations.

All boat users are expected to follow the relevant rules, regulations and procedures at all times and to take the necessary precautions in the interests of human life, property and the environment.

Risk management review

You must review your risk management documents:

- When controls are not working effectively
- When there is a change in the workplace that can impact on the controls
- If there is a new hazard identified
- If consultation indicates a review is necessary
- If a health and safety representative requests a review
- If new information on a hazard becomes available
- If there is a change in legislation
- On a regular basis (this will depend on the level of the risk, more serious risks should be reviewed more regularly).

Record keeping

Risk management forms are kept for as long as they are in use and then 7 years after last use.

Smoking, drugs and alcohol

It is recognised that the operation of a vessel can become dangerous under the influence of alcohol and other drugs. That danger extends beyond the master of the vessel to others aboard the vessel, other waterway users and the general public. The following code of behaviour must therefore be observed by all people on board the vessel:



- Smoking is prohibited on board or near all UNSW boats and vehicles.
- No alcohol or illicit drug is to be consumed on board the vessel.
- A person under the influence of alcohol or illicit drugs is not to board the vessel.
- A person who is taking medication that may impair their ability to safely participate on board the vessel should seek medical advice before engaging in boating operations. If necessary, the person should exclude themselves from boating operations.

Protecting the environment

BEES is committed to minimising the impact of their boating operations. All boat users should follow these guidelines below unless specifically permitted to do otherwise (e.g. through approved research permits). The master of the vessel will be held accountable, and will be responsible for any fines or criminal proceedings relating to environmental issues caused by BEES vessels when under their control.

Discharge and rubbish

- It is illegal to discharge raw sewage into NSW waterways.
- It is illegal to pollute NSW waterways.
- Collect all rubbish and waste on board and dispose of it onshore.
- Take care with fuels and oils to ensure there is no discharge into the marine environment.



Noise

- Excessive noise can disturb other waterway users, the general public and wildlife.
- Keep noise to a level that is acceptable to a reasonable person.

Bank erosion and wash

- The wash from a boat can erode banks in sheltered waterways. The larger the wake, the greater the potential for bank erosion.
- The master of the vessel should be aware of the wash being produced by the boat at all times and when necessary should minimise it where possible.

- Follow all “No Wash” and speed limit signs to limit the damage caused by wash.

Seagrass

- Seagrass beds provide food and shelter to a wide variety of fish and invertebrates. They also help bind the sea floor and improve water quality.
- When possible, do not drive across shallow seagrass beds where the propeller can cause damage to seagrass.
- Where possible, do not anchor in seagrass areas.

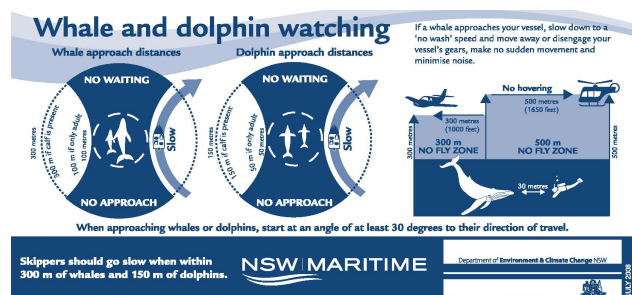
Invasive species

- The movement of trailer boats and boating equipment between waterways has the potential to spread invasive species.
- *Caulerpa taxifolia* is an invasive marine seaweed that has been found in several NSW estuaries, and can be transported as small fragments on boating equipment.
- If possible avoid shallow weedy areas where *Caulerpa taxifolia* can be collected on equipment.
- Obey any local vessel exclusion zones.
- Inspect all equipment, particularly ropes and anchors, after use.
- Wash all equipment, the boat, and flush engines after use, particularly if moving between waterways.



Protected species

- All native birds, mammals and reptiles are protected in NSW.
- The master of the vessel should, where possible, minimise the disturbance to these animals.
- Be aware of the rules relating to approach distances and speeds near marine mammals.
- At times during the year special restrictions may be in operation to protect species such as the little penguin.
- It is the master's responsibility to be aware of any rules or restrictions.



4. Designated Person (DP)

Safety Management System: BEES BOATS

The Boating Safety Officer is the Designated Person for the School of Biological, Earth and Environmental Sciences.

The Boating Safety Officer reports to the BEES Scientific Boating Committee

The Boating Safety Officer is:

Penny McCracken

Phone: +61 2 9385 8054 Email: p.mccracken@unsw.edu.au

In the event that Penny is unavailable the reserve Boating Safety Officer is:

Michael de Mol

Phone: +61 2 9385 8030 Email: m.demol@unsw.edu.au

The Boating Safety Officer is responsible for:

- The registration, induction, training and assessment of boat users.
- Conducting audits of the SMS.
- Reviewing the SMS and making additions or changes as necessary.
- The maintenance of BEES vessels.
- Provide advice on risk management of boating activities.
- The maintenance of boating records for BEES.
- Liaising with NSW Roads and Maritime services for audits of the SMS and other boating matters.

5. Master's Responsibility and Authority

The Master of the vessel is a person approved by UNSW to be in control of the vessel at that time, has been inducted into the use of the vessel, and is competent to lead the activities being conducted on board the vessel.

The Master reports to their Supervisor who is responsible for approving the boating operation. The Boating Safety Officer is responsible for providing advice to the Supervisor and Master related to boating safety and risk management.

The Master must advise the Boating Safety Officer and their Supervisor of any matters that have implications for the safe operation of the vessel as soon as practicable.

The Master is always in charge of the vessel and the safety of the people on board. The Master may deviate from the stated / normal procedures if human life, property or the environment is at risk. For example:

- a) action taken for the purpose of securing the safety of any person or avoiding significant risk to the environment, or
- b) action taken in compliance with a direction given by a relevant officer.

BOATS02 BEES BOAT USER REGISTRATION APPLICATION

Specifically, the master is responsible for:

- Providing a safety briefing to all on board which includes actions to be undertaken in the event of an emergency.
- Evaluating the adequacy and relevance of emergency planning for the work being conducted.
- Practicing and documenting emergency drills with the crew or special personnel.
- The decision to commence or postpone boating activities based on the weather, the condition of the vessel, the abilities of those on board and the tasks to be performed.
- The decision to cease activities if conditions become unsafe or a likely to become unsafe.
- Ensuring that all appropriate safety equipment is on board and operational before setting off.
- Allocating tasks to those on board and ensuring that they have sufficient training or instruction to carry out those tasks.
- Issuing clear and concise instructions to others on board when necessary.
- Coordinating emergency responses and delegating tasks.
- The condition and daily maintenance of the vessel while in their use, and must report any maintenance issues to the Boating Officer as soon as possible after they arise.

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- Reporting of incidents or near misses. Reporting is done via UNSW Harm2Zero, nominates the supervisor and advise the Boating Safety Officer.
- T & NSW Maritime Vessel incident report (if required).
- Reviewing operational, safety and environmental procedures and reporting any necessary changes to the Boating Safety Officer.
- Assisting the Boating Safety Officer with reviews of this SMS.

6. Resources and Personnel

The Master must be familiar with this SMS prior to operating a BEES vessel. Special personnel (crew) should be familiar with this SMS. Boat operators will be given the opportunity to become familiar with this SMS prior to their induction and assessment. The SMS available on line, in the boat, or from the BSO and should be re-read when necessary.

BEES will ensure that masters:

- are qualified with a minimum of a General Boat Licence or a higher qualification.
- have completed an induction and assessment and have displayed competency in:
 - Vessel handling, manoeuvring, and collision regulations
 - Actions to take in an emergency
 - Actions to take to maintain safety on board
 - Use and maintenance of safety equipment
 - Seamanship and monitoring sea conditions
 - Pre trip equipment checking including trailers
 - Launching and retrieving procedures
- through suitable instructions, checklists and/or this SMS are aware of their individual responsibility for the safe operation of the vessel and protection of the environment.
- Provide safety and operational instructions to those on board prior to departure through pre-departure briefings. See sections 7 & 8 of this SMS
- Maintain their skills and knowledge of operating procedures through refresher sessions, including on-water refreshers for masters who have not logged any sea time for 12 months (or more often as required).
- Training records are maintained by the Boating Safety Officer and are kept for a minimum of 5 years.

A person who has not successfully completed the induction program will not be authorised to use a BEES vessel.

Following induction, if a person feels that they do not possess sufficient skills to perform the required tasks they should not act as the Master.

It is a requirement that at least one person on board the vessel (the Master or a Special Personnel) hold a first aid certification. For coastal operations the Master or one other person on board must hold a VHF marine radio licence.

Single person operator: The vessel may only be operated for fieldwork by a single person in situations that are reasonably considered low risk and must have the prior approval of the Designated Person or their delegate.

7. Operational Procedures

The Operations and Emergency Procedures should be consulted upon by all persons who operate the vessel and they are encouraged to provide feedback if operations could be improved or new operations added. A copy of this SMS is available in the boats and via the BEES resources webpage.

In addition an Operations and Emergency Procedures a Quick Reference Guide is kept on board the vessel.

Operations and Emergency Procedures and Quick Reference Guide are kept for as long as it is in use and then 5 years after last use. It is reviewed when an incident occurs or if operations change or if there are any issues of concern or annually.

The Boating Safety Officer is the person responsible for updating the Operations and Emergency Procedures and Quick Reference Guide.

These documents are being rewritten in 2014. SEE SBO for details. Completion expected in December 2014.

8. Emergency Procedures

BEES aims to provide a safe work environment, however if an accident occurs it is necessary to respond appropriately.

The procedures to be followed in an emergency are defined in the vessel Operations and Emergency Procedures. A copy is available on the Faculty of Science HS database: www.unsw.edu.au/boats and an emergency Quick Reference is kept on board the vessel. It is essential that Masters are familiar with these procedures prior to operating the vessel and that these procedures are covered during the pre-trip briefing of the crew.

In the event of an emergency the Master is responsible for coordinating the response and the actions of those on board. The Master can delegate tasks and responsibilities as appropriate under the circumstances.

In the event of the Master being incapacitated another BEES inducted boat operator should take control of the vessel. If there is no other inducted boat operator available, then another crew member is to follow the master incapacitated procedures in the Emergency Procedures Booklet.

The Master is allowed to deviate from the emergency procedures if the situation prohibits following the procedures. Any actions by the master must not increase the risk to the vessel or to people onboard or near to the vessel.

During induction boat operators will be trained and drilled in the emergency procedures. The competency of the boat operators must be assessed by the BSO or their delegate..

Masters are to run drills at least once every two months to refresh their skills, train others onboard and to identify any areas that need improvement. If the vessel is not used for more than two months the drills are to be run at the next use. Masters are to record the running of drills on the Onsite Boat Trip Plan and Risk Assessment. Supervisors can arrange for the Boating Safety Officer to conduct skills assessments when required or annually.

Any boat user who identifies an area of the emergency procedures that needs improvement should notify the Boating Safety Officer. The Boating Safety Officer is the person responsible for reviewing the Operations and Emergency Procedures and Quick Reference Guide.

Operations and Emergency Procedures and Quick Reference Guides are kept for as long as it is in use and then 5 years after last use. It is reviewed when an incident occurs or if operations change or if there are any issues of concern or annually.

See “Related Documents” Vessel Emergency Procedures Quick Reference Guide

Emergency preparedness training for master and crew

In addition to the initial safety training required for all BEES masters, there shall be ongoing individual and team emergency preparedness training in the operational and emergency procedures specified in the emergency plan.

The training shall establish, maintain and verify the competence and capacity of the crew to respond rapidly and effectively to an emergency situation and to follow the requirements of the emergency plan.

The training shall be tailored to the duties of each member of the crew to ensure they are able to fulfil the roles required of them in the emergency plan. Training should allow for variations to the plan due to planned and unexpected changes to the crew e.g. leave, changes to schedules, ill-health.

Frequency of emergency preparedness training

The frequency of emergency preparedness training shall be sufficient to maintain crew competence at a level needed to ensure the crew's rapid and effective response to emergencies at all times. The frequency of training shall take into account—

- a) the likelihood that crew performance will deteriorate over time without periodic practising because of loss of familiarity with procedures and the location and use of equipment; and
- b) that new crew members may join the vessel who will need the opportunity to practice with and learn from other members of the crew.

It is recommended that:

- For optimum training value, the period for repetition of emergency preparedness training should not exceed 2 months.
- Some training may be conducted as a simulation on board combined with hands-on practical training conducted off the vessel (e.g. oxygen provision and CPR). Other training may be a discussion or review of actions relevant to an emergency situation. The value of training is enhanced when conducted at different levels (i.e. review of — what if situations, regular simulated drills to ensure all members know what they should do, with an occasional abandon ship trial.
- Training may involve combining several scenarios in one training session in order to relieve the drill load; e.g. explosion followed by a fire followed by abandon ship, or collision involving an injury and subsequent oil pollution.
- The shore communications and coordination arrangements between the vessel and the shore owner/office that would be required to cope with a serious emergency to the vessel need to be tested on an annual basis.

Recording of emergency preparedness training

Recording the emergency preparedness training undertaken shall include date, persons participating, nature and location of the training: use the BOATS09 Trip Log and Maintenance Checks form to record drill practice and scenarios.

9. Reporting Incidents and Accidents

The University of New South Wales has procedures for reporting, analysing and responding to hazards and accidents.

Any incident or hazard, including those not resulting in damage or injury, must be reported to the Boating Safety Officer immediately upon return from the field using the Harm to Zero procedure on the MyUNSW website and nominating the Boating Safety Officer as the supervisor of the activity.

Harm to Zero is the UNSW HS online hazard and incident reporting system. Information about the reporting process and the response process by supervisors is available at:

http://www.ohs.unsw.edu.au/ohs_reporting/index.html

Any incident resulting in damage to persons, property or the environment must be immediately reported to the Designated Person as further and immediate action may be required. Any of these incidents must be recorded on the online reporting system at minimum.

To report hazards and incidents log into MyUNSW

www.my.unsw.edu.au Go to My Staff Profile, click on the H2O icon to report all incidents, accidents and hazards.



Reportable Incidents:

You must report certain marine incidents to NSW Maritime

- A marine incident or accident is reportable to NSW Maritime if it results in, or could have possibly resulted in:
 - a. The loss of life or injury to any person on board a vessel
 - b. The loss of person from the vessel
 - c. The loss of life or injury to a person that is caused by the vessel
 - d. The loss, or presumed loss of the vessel (including sinking or abandonment of the vessel)
 - e. The capsizing, grounding or flooding of the vessel
 - f. The collision of the vessel with another vessel or with any object
 - g. The vessel being disabled at sea (any case in which it required assistance)
 - h. Any fire onboard the vessel
 - i. Any damage being caused to the vessel (including structural failure)
 - j. Any damage to the environment caused by the vessel or by any substance on, or discharged from, the vessel

The most up to date maritime incident reports can be downloaded from the AMSA website. A copy is provided in each boat bag. Reports must be coordinated with The BEES Boating Safety Officer and Health and Safety Officer.

Response to reported hazards or incidents

Any hazard or incident reported to Harm to Zero will be investigated by the University of New South Wales Health and Safety Department. HS will coordinate the investigation and liaise with any other bodies.

Following the reporting of a hazard or incident the Boating Safety Officer in conjunction with HS will initiate a review of the Risk Assessments and Operational Procedures for the activities associated with the hazard or incident. If an emergency response was involved the Emergency Procedures will also be reviewed.

If new procedures are necessary the Boating Safety Officer will develop these in conjunction with boat operators and HS. Once developed the Boating Safety Officer will communicate these to all boat operators and if necessary hold further training prior to allowing the operation of the vessel.

The reviewed Risk Management Form will be approved by the Health and Safety Officer and lodged with the Boating Safety Officer and added to the BEES risk assessment register.

The expired Risk Management, Operational Procedures and Emergency Procedures are then kept for 5 years after last use.

The new Risk Management, Operational Procedures and Emergency Procedures are then reviewed when an incident occurs or if operations change or if there are any issues of concern or annually.

New documentation is to be appended to this SMS and noted in the Changes section at the front of this document, along with any necessary changes to this SMS.

10. Maintenance and Recording

Master

The Master of the vessel is responsible for checking that the vessel is fully operation and that all safety equipment is present and functional prior to commencing the voyage and at the end of the voyage.

If the vessel is not fully operational or safety equipment is not present or functional the Master should not commence the voyage. If an item of equipment is damaged during a voyage or safety equipment is use

To resolve the issue log a report using the Harm to Zero process in MyUNSW (see 9. Reporting Incidents and Accidents). The report should detail the issue with the vessel and should nominate the Boating Safety Officer as the supervisor for the activity.

The Boating Safety Officer is responsible for the regular inspection and maintenance of the vessel as outlined in the Schedule of Maintenance Items. If an item is identified as needing maintenance the Boating Safety Officer will coordinate the repairs. The Boating Safety Officer, or their delegate, will perform additional maintenance inspections on the vessel at approximately monthly intervals and at least every two months.

Boating Safety Officer

Maintenance inspection reports, records of vessel deficiencies and their corrections, safety equipment checks including first aid and life jackets, are kept in the vessel maintenance log maintained by the Boating Safety Officer.

Following every 100 hours of engine use or every 12 months (whichever is sooner) the Boating Safety Officer will coordinate a professional inspection and service of the engine, boat and trailer.

11. Documentation

A copy of the SMS is available to be inspected by any person associated with the operation of BEES vessels.

BEES will ensure that this SMS is kept up to date and that all relevant people are notified of changes to the document. Staff and students will be notified through BEES Explode mailing list.

The master copy of this SMS will be stored online at the Faculty of Science HS database and managed by the Boating Safety Officer:

<http://www.med.unsw.edu.au/ohswebsci.nsf> or www.unsw.edu.au/boats

If any changes are to be made to the document the Boating Safety Officer will ensure that they are made and recorded in the “changes” section at the front of this document.

Any out of date sections of this SMS must be removed and replaced with current information. Changes must be properly recorded and a copy of the out dated SMS must be kept in the records for 5 years.

12. Review and Evaluation

BEES conducts an internal audit / review of this SMS annually. This audit checks that the information contained in this SMS is up to date and that any changes to the organisation, the vessel or associated documents are recorded.

The audit is carried out by the Boating Safety Officer, or their delegate, in conjunction with the BEES Occupational Health and Safety Officer, the Boat Operations, Purchasing and Policies Manager and boat users.

The results of the audit will be passed on to all relevant people through the BEES mailing list.

The results of the audit and any changes made during the audit are recorded in the "Changes" section at the front of this document.

Changes must be properly recorded and a copy of the out dated SMS must be kept in the records for 5 years.

The SMS will be provided to NSW Maritime for external audit at their request.

Crew Briefing (example)

The Master must provide a safety briefing for all crew prior to leaving the launch area. The detail included in the safety briefing will depend on the type of activity and the experience of the crew on the day.

If you have been working with the same crew, in the same area and on the same boat for a multiple day field trip then a full briefing on subsequent days may not be required. In this case the master will still need to regularly check the crew's knowledge.

The following information is to be covered in a safety briefing:

- Location and use of all the safety gear
- UNSW lifejackets rules, whistle, lights, and explain how inflatable jackets are activated
- Location of *Operation and Emergency Procedures*
- EPIRB & Flares (get them out) explain their operation
- Life Ring and/or throw bag how to deploy it
- VHF Radio & channel 16 (at least one person must be able to operate the VHF radio).
- First aid kit (at least one person to have current first aid certification)
- Fire extinguisher, buckets, lanyards, fenders
- Man overboard procedure
- Anchor deployment & location of the sea anchor
- Location of the Operation and Emergency management procedures
- Maintain stability of people and equipment
- Operation of all bilge pumps, scuppers, bailers and bungs
- Engine start and stop, the kill switch, and fuel isolation valves
- If the boat is damaged or you are swamped by a wave
- Safety around propellers

Also:

Explain any specific directions / responsibilities / tasks e.g. procedure for dropping and picking up divers, or towing a net)

The vessel is equipped with a marine VHF radio. In the event of an emergency tune the radio to channel 16, listen to ensure the channel is clear, press and hold the push to talk button, speak clearly into the microphone, release the button and listen for a reply. It is important to know your location if you need to call for help. (Demonstrate radio operations).

If you cannot raise assistance using the radio or a phone and you require emergency assistance deploy the EPIRB. (Demonstrate the EPIRB).

If the engine is not working and the vessel is drifting into danger deploy the anchor. To do so, ensure the anchor rope is not tangled, slowly lower the anchor over the bow until you feel it touch the bottom, pay out as much line as possible, and secure the loose end. Don't just throw the anchor over the side as it may become tangled.

The vessel is powered by an outboard engine with throttle controls. Push the throttle forward to go forward and backward to reverse. To disengage the propeller and stop the boat, move the throttle to the middle – neutral position until you feel it lock. Any throttle movements should be slow and smooth. (Demonstrate controls).

Please ensure that you maintain a good grip of the boat while underway. Loading can affect the stability of the vessel; please do not move around unnecessarily while underway. Please follow the directions of the crew.

Logging on and off with Marine Rescue (example)

Avoid using the radio until 3 min after the hour or half hour as these times are reserved for emergency silences. Check that the radio is on Channel 16:

“Marine Rescue Station Name - Marine Rescue Station Name - Marine Rescue Station Name
 - This is boat name; boat name; boat name. OVER”

“Boat name this is Marine Rescue station name. Go to Channel x “

(Go to channel x) “Marine Rescue *station name*, this is vessel name; I would like to log on.
 OVER”

“Vessel name this is Marine Rescue station name” - followed by questions about the vessel and trip.

How do you spell your vessel's name?	Give phonetic spelling
Vessel registration number	Give phonetic numbers
Vessel Type	Boat model, length, colour
Number of people on board (POB)	Give number POB
Your contact number/ shore contact number	Give mobiles
Working Location	Give location description or GPS
Return time	Time that you intend to return and log off
They may ask boat ramp name & trailer or vehicle rego number	

ALPHA	GOLF	MIKE	SIERRA	YANKEE	Fi-yiv
BRAVO	HOTEL	NOVEMBER	TANGO	ZULU	six
CHARLIE	INDIA	OSCAR	UNIFORM	Wun	seven
DELTA	JULIET	PAPA	VICTOR	Two	ate
ECHO	KILO	QUEBEC	WHISKEY	Thuh-ree	niner
FOXTROT	LIMA	ROMEO	X-RAY	Fow-er	Ze-ro

End Document
