



# Silver Medallion – IRB Driver

## Learner Guide

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## Acknowledgements

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## Course introduction

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The purpose of this course is to help you develop skills and knowledge to safely and effectively drive an Inflatable Rescue Boat (IRB).

This course leads to the SLSA Award:

- Silver Medallion IRB Driver

This course is aligned to the following units of competency:

- PUAEQU001B Prepare, maintain and test response equipment
- PUASAR014A Operate and maintain a small powercraft and motor for rescue operations

These units are also part of the PUA31312 Certificate III in Public Safety (Aquatic Search and Rescue).

## Course outcomes

By the end of this course you should be able to:

- understand the roles and responsibilities of an IRB Driver, including
  - list the duties of an IRB Driver
  - list the safety considerations when operating an IRB
  - provide direction to an IRB Crewperson in all their operational duties
  - communicate effectively with crewperson, the public and patients in the normal performance of duties.
- drive an IRB
  - identify the components of an IRB motor
  - launch an IRB safely and efficiently
  - list motor hazards in the surf
  - safely and efficiently negotiate the surf while driving an IRB
  - perform emergency procedures
- perform rescues in an IRB as a Driver
  - perform conscious and unconscious patient pick-ups
  - contribute to search and rescue operations; liaising effectively with other emergency response services as required.
- prepare and maintain an IRB motor
  - perform pre-operational checks and preventative maintenance of the IRB motor
  - perform post-operational maintenance of the IRB motor
  - perform motor re-start procedure after immersion in the surf
  - report major wear or damage according to organisational procedures

## Prerequisites

To commence training for the Silver Medallion (IRB Driver) you must meet the following course prerequisites:

- minimum of 16 years of age to commence training
- minimum of 17 years of age on the date of final assessment
- hold and be proficient in the SLSA awards:
  - Bronze Medallion
  - IRB Crew Certificate
- have met the marine licensing requirements in your state (where required)

## What you need to complete this course

- A qualified IRB Training Officer (trainer) OR IRB Facilitator.
- An experienced and qualified IRB Driver (may be the IRB trainer).
- SLSA *Powercraft Training Manual* 8th Edition.
- This Learner Guide, which includes your Assessment Portfolio.
- Access to IRB operating procedures (state/club).
- Access to fully-equipped IRBs, including all PPE required.

## Topic 1 – Course introduction

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This topic will help you answer the following questions:

1. What is this course about?
2. How will this course be assessed?
3. What are the key safety issues when driving an IRB?
4. What is the role of an IRB driver?

Most of the content for this topic is in the *SLSA Powercraft Training Manual 8th Edition*. Your trainer will tell you when to refer to the manual and will provide updated information as required. Your Assessment Portfolio is included in this Learner Guide.

The IRB is an expensive piece of rescue equipment. All qualified drivers and crews are responsible for looking after the equipment and it is expected that all drivers and crew will treat the boat and motor with the utmost care and respect.

The IRB is a high profile piece of equipment – it attracts attention when in use – and all drivers must be aware of their responsibility to take training seriously and not run the risk of being seen as fooling around dangerously.

Safety is the primary consideration in all IRB operations. Poor driving, or inappropriate driving for the prevailing conditions, can be the cause of injuries to driver, crew and beach users and will not be tolerated.

Be aware of your own limitations and those of your crew. Operate within these and behave in a professional manner at all times.

### **Remember this!**

Safety is the primary consideration in all IRB operations. You should be aware of your limitations and those of your crew.

## Role of the driver

*Reference: Powercraft Training Manual 8th Ed, p 42*

As an IRB driver you will have overall responsibility for the operation of the IRB and will be responsible for the boat and crewperson and to the community and organisation for its safe and effective operation. You will also be responsible for supervising, and directing, the crewperson in the performance of their tasks.

This course will help you to develop your skills and confidence, but all of us have limitations. Being aware of your own limitations and level of competence and confidence is an important part of ensuring the safety of yourself and others, as well as of the boat and equipment.

### **Remember this!**

Operating an IRB is an important responsibility with serious potential dangers. NEVER show off or act irresponsibly in an IRB.

## Leading the IRB Crewperson

Your safety and the safety of others rely on effective teamwork between you and the IRB crewperson. They need to have confidence in your ability in order for them to follow your directions and effectively perform tasks as a team.

## Communication skills for IRB Drivers

The IRB driver is responsible for the overall effectiveness of communication within the boat and between the IRB and the patrol on the beach, as well as with swimmers, surfers and the public generally.

This includes:

- verbal communication, to give instructions and listen to feedback
- non-verbal communication, including instructing the crewperson on signals to give to shore
- radio communication

## Topic 2 – Revision of IRB equipment and pre-operational duties

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This topic will help you answer the following questions:

1. What IRB equipment will I be working with and where is it stored?
2. What are the key safety issues in the IRB equipment area?
3. What are the roles of the Driver and Crewperson when preparing for IRB operations?

Most of the content for this topic is in the *SLSA Powercraft Training Manual 8th Edition*. Your trainer will tell you when to refer to the manual.

### Equipment (revision)

Much of this content was covered in the IRB Crew Certificate. It is included here as a refresher.

#### Practical activities

Your trainer will show you equipment and demonstrate its use, and discuss relevant procedures with you.

#### Activity 1

Familiarisation with the IRB area- name the equipment and its storage areas; explain safety precautions such as safe storage of fuel procedures.

#### Activity 2

Discuss any relevant SLSA equipment policy and equipment approved by SLSA

#### Activity 3

Discuss safe manual handling procedures including coordinating the movement of the IRB and using towing equipment and local standard operating procedures for using towing equipment and knots and lashings

### Crewperson preoperational duties (revision)

#### Practical activities

*Reference: Powercraft Manual 8<sup>th</sup> Ed, p.42*

Your trainer will discuss and demonstrate the role of an IRB crewperson when preparing for IRB operations, including

1. Inflation to correct pressure
2. Assisting Driver with fuelling
3. Assisting Driver with placing motor onto the transom
4. Ensuring that all foot straps and handles are secure
5. Checking ancillary equipment
6. Completing log books
7. Reporting damaged equipment
8. Warming up

## Driver preoperational duties

### Practical activities

Your trainer will discuss and demonstrate the role of an IRB driver when preparing for IRB operations, including

1. Checking logbooks and preparing the motor
2. Supervising and assisting the Crewperson in the set-up and checks of the IRB hull
3. Assembly of the fuel cell and motor onto the hull
4. Set-up of radio communications

### Activity 1

The Driver should always check the logbook before operations and note any comments listed. The motor must be prepared according to the following list:

- Check that all components are in place
- Check that all moveable parts are able to move freely and not jammed
- Place the motor in a test tank as per your local SOPs
- Fill fuel cell, ensuring that you calculate your fuel requirements correctly
- Connect the fuel line to the motor
- Start the motor
- Run the motor for 2 mins
- Check that the motor is operational while running and sounds like it is working correctly
  - If the motor is ok, stop the motor after 2 minutes and continue with other pre-operation activities.
  - If the motor is not ok, document your findings in the logbook and report the maintenance required as per your local SOPs. If you have another motor, you will need to run the pre-operational checks again. If you do not have another motor, you will need to notify the patrol captain that the IRB is unavailable.

If an IRB is non-operational for any reason when preparing for patrol, or while on patrol, this needs to be reported immediately to your Patrol Captain. There are SOPs that the Patrol Captain will need to follow that may include closing the beach until an IRB is available.

### Activity 2

You will need assistance to assemble the motor and fuel cell on to the IRB. IRB motors are heavy and present a manual handling risk. Ensure that you and your Crewperson lift the motor correctly. Fuel cells can also be heavy and should be lifted with two people where possible.

To assemble the motor and fuel cell:

- lift the motor onto the transom and secure the transom clamps (spinners)
- secure the leg of the motor to the IRB using the safety cable
- adjust the trim of the motor as required (this may require practice to get right)
- check that the propeller is free of damage and can spin freely
- check that the prop guard is attached securely and free of damage
- place the fuel cell in the bow of the IRB and secure in place with clips
- run the fuel line down the side of the IRB under the loops
- attach the fuel line to the motor
- prime the fuel bulb by squeezing it until it is firm.

## Topic 3 – Introduction to driving an IRB

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This topic will help you answer the following questions:

1. How should I warm up for IRB activities?
2. How is the IRB carried safely?
3. How do I enter the IRB as Driver?
4. What are the techniques I will use as an IRB Driver?

Most of the content for this topic is in the SLSA *Powercraft Training Manual* 8th Edition. Your trainer will tell you when to refer to the manual.

### Warming up for IRB personnel

At the start of any practical training session and prior to routine operations, IRB personnel should warm-up physically to minimise the risk of injury. Your trainer will supervise you to perform a 10-15 minute warm-up that includes a heart-rate raising activity such as jogging, followed by stretching.

### Manual handling of the IRB (revision)

*Reference: Powercraft Training Manual 8th Ed, p. 43*

#### Practical activities

This session will involve you in practical activities. Your trainer will explain and demonstrate the following tasks, which you will then have the opportunity to practice:

Practice correct manual handling procedures with IRB and equipment

1. In the IRB storage area
2. On the beach

Discuss and practice correct transportation of IRBs using trailers, ATVs or beach vehicles.

## Introduction to IRB driving techniques

Reference: Powercraft Training Manual 8th Ed p. 44-48

Initially you will practice IRB driving techniques in an unladen IRB on land, before progressing to practicing in the water.

### Practical activities

This session will involve your participants in practical activities. Your trainer will explain and demonstrate the following tasks, which you will then have the opportunity to practice

1. Launching – entry to the boat
2. Sitting positions in IRB types available at your club
3. Hand and foot positions
4. Driver techniques when turning, parallel runs, negotiating the break
5. Trimming the boat
6. Emergency drills
7. Roll over procedure -including surfing an IRB to shore
8. Search and rescue techniques
9. Patient pick-up
10. Patient care and support
11. Return to shore
12. Transporting and lifting patients out of the boat
13. Solo driving

## Topic 4 – Prepare and drive the IRB

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This topic will help you answer the following questions

1. What is the driver's role in setting up and restoring the IRB?
2. How do I work with a crewperson to prepare and launch the IRB?
3. What key skills are used in driving the IRB safely in a variety of conditions?
4. How is the IRB safely returned to shore?

Most of the content for this topic is in the SLSA *Powercraft Training Manual* 8th Edition. Your trainer will tell you when to refer to the manual.

### Equipment set-up

At the start of every practical training session you will practice driver pre-operational procedures, as demonstrated in topic 2, and supervising a crewperson to perform their duties. Your trainer will supervise you whilst you do this.

### Crewing skills review

*Reference: Powercraft Manual 8th Ed, p. 32-29*

In the early stages of training, candidates should crew the boat whilst the trainer launches it, before swapping over in open water. Further into training candidates may also crew for each other if a qualified trainer is present. Therefore, a recap of safe crewing techniques is necessary.

#### Practical activities

This session will involve you in a number of practical activities. Your trainer will explain and demonstrate the following tasks, which you will then have the opportunity to practice.

##### Activity 1

On the beach simulate boarding the IRB as a Crewperson, the correct positions for left and right turns and punching a wave.

##### Activity 2

Launch and board the IRB in water and practice crewing skills in the water, including communication skills and signals.

## Basic driving skills

Reference: *Powercraft Training Manual, 8th Ed, p. 44-48*

### Practical activities

This session will involve you in a number of practical activities. To start with, your trainer may drive the IRB at launch then swap positions with you in open water. This is to give you practice at controlling the boat before having to deal with surf. Your Trainer will explain and demonstrate the following tasks, which you will then have the opportunity to practice. You should expect to practice some of these tasks many times in developing your skills.

#### Activity 1

Practice using the throttle and tiller to manoeuvre the IRB on flat/calm water initially before attempting more challenging conditions. Practice wide and slow port and starboard turns. Your trainer or supervising driver (acting as crew) will demonstrate when necessary and provide feedback on your skills. They may also place you in the crew position while they demonstrate the skills. If you do not act safely and responsibly and follow the trainer's instructions the training session will be terminated.

## Postoperational procedures and basic maintenance

Reference: *Powercraft Manual, 8th Ed, p. 27-29*

The IRB driver's responsibilities for post-operational procedures include supervising and checking that all the crewperson's tasks are carried out effectively. The driver takes overall responsibility for all post-operational procedures and also has a range of specific duties to complete.

### Practical activities

This session will involve you in a number of practical activities under the supervision of your trainer. Your trainer will explain and demonstrate the following tasks, which you will then have the opportunity to practice. You should expect to practice some of these tasks many times in developing your skills.

#### Activity 1

At the end of every practical training session, practice recovering, cleaning and storing the IRB including:

- supervising the crewperson in completion of their postoperational tasks
- removing the motor cowling, hosing the motor with fresh water and running out remaining fuel
- removing and storing the motor in accordance with local policy and procedures
- checking the IRB for damage, loose components or breakages
- storing the IRB in accordance with local policy and procedures
- refilling the fuel cell.

#### Activity 2

Conduct debriefing with crewperson/s and take special note of any signs or symptoms of operational stress on the part of crew or self – particularly following challenging incidents, accidents or injuries. Complete IRB logbooks and any other reports as required for the specific operations conducted or by organisational policies and procedures.

#### Activity 3

Complete basic preventative maintenance such as:

- lubrication and cleaning of the motor as required
- replacement of spark plugs as required.

## Launching and boarding the IRB

Reference: *Powercraft Training Manual, 8th Ed, p. 44-48*

### Practical activities

This session will involve you in a number of practical activities. Your trainer will explain and demonstrate the following tasks, which you will then have the opportunity to practice. Where possible you should run through all procedures on dry land before progressing to flat/calm water and finally to more challenging conditions:

#### Activity 1

Simulate coordinating the launch and boarding of the IRB – making sure you communicate clearly to your crewperson when to board the IRB and the position to take up.

#### Activity 2

Complete pre-operational checks before proceeding to practice coordinating the launch and boarding of the IRB in the water. Follow the operational start checks and the start-up procedures.

#### Activity 3

Coordinate the launch and boarding of the IRB in calm conditions. Brief the crewperson on the mission/task and the commands used for boarding and operating. Practice different ways of launching and boarding the IRB suitable for different conditions.

#### Activity 4

Practice driving the boat out through small surf while providing instructions to the crew person to enable them to effectively balance the boat. Practice the skills required to head out through the surf at an angle, unless larger waves need to be approached head on. Practice using the throttle to maintain the correct speed to ensure safe and economical progress through the waves.

#### Activity 5

Practice returning to shore, ensuring crew person and beach patrol are both making appropriate observation to warn you of obstacles you cannot see. Provide directions to the crew person about when/how to alight from the IRB and lift the IRB above the water line.

## Advanced driving skills

Reference: *Powercraft Training Manual, 8th Ed, p. 44-48*

### Practical activities

This session will involve you in a number of practical activities with your trainer or an experienced IRB Driver acting as your crewperson. Your trainer will explain and demonstrate the following tasks, which you will then have the opportunity to practice. You should expect to practice some of these tasks many times in developing your skills.

#### Activity 1

Practice driving the boat out through moderate surf while providing instructions to the crewperson to enable them to effectively balance the boat. Practice the skills required to approach larger waves head on and punch through waves. Practice using the throttle to maintain the correct speed to ensure safe and economical progress through the waves.

#### Activity 2

Driving in slightly more challenging conditions e.g. larger surf. Parallel running can also be attempted provided your trainer agrees that you are ready to practice this skill. Parallel running should be practiced in small surf first (wave height should be less than the side of the vessel) before moving on to more challenging conditions.

#### Activity 3

Practice solo driving, as would be required if your crewperson fell overboard. Including picking up a crewperson and returning to shore solo.

#### Activity 4

Practice returning to shore in more challenging conditions, including the use of signals.

## Topic 5 - Drive IRB for rescues and perform emergency drills

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This topic will help you answer the following questions

1. How is the IRB deployed in rescues?
2. What is the driver's role in performing rescues, including
  - a. driving and manoeuvring the IRB?
  - b. patient pick up and transport?
  - c. coordination and communication with other patrol members and other emergency response services?
3. What emergencies can occur in operating the IRB and how should these be handled?

Most of the content for this topic is in the *SLSA Powercraft Training Manual* 8th Edition. Your trainer will tell you when to refer to the Manual.

### Rescue operations

Reference: *Powercraft Manual, 8th Ed, p. 56-61*

#### Practical activities

This session will involve you in a number of practical activities under the supervision of your trainer and with an IRB Driver acting as your crewperson. Your trainer will explain and demonstrate the following tasks, which you will then have the opportunity to practice. You should expect to practice some of these tasks many times in developing your skills.

#### Activity 1

Practice approaching single patients in flat/calm water, coming alongside and holding the IRB in position while the crewperson lifts the patient on board – assisting with lifting as required while maintaining control of the throttle. Next practice this for more than one patient in clear open water. (Tip: Use a waterproof LifeTec Water Rescue Dummy or similar if you have one or can borrow one) Practice all appropriate methods of patient pick up suitable – on-the-run; 1,2,3 bounce; tube rescue - and different types of patients (conscious/unconscious, different sizes). All of these rescue techniques are listed in the *Powercraft Training Manual, 8<sup>th</sup> edition*.

#### Note

All personnel acting as patients in Powercraft training must wear an SLSA approved helmet. Lifejackets may be removed while in the water acting as a patient or performing a rescue, but must be put straight back on (patients and crew) after re-entering the boat.

#### Activity 2

Practice full rescue scenarios from launch to carrying the patient from the IRB upon returning to the beach (including use of signals). Practice prioritising patients in a simulated mass rescue.

## Advanced rescue operations

Reference: *Powercraft Training Manual, 8th Ed, p.56-61*

### Practical activities

This session involves a number of practical activities.

#### Activity 1

Practice rescues in slightly more challenging conditions e.g. broken water. Gradually increase the difficulty or level of challenge as your skills develop. Practice instructing the crewperson to perform rescues using the rescue tube when conditions require this.

#### Activity 2

Practice rescue skills from start to finish, making all the decisions required during the process and maintaining appropriate communication with crewperson, beach patrol and others involved, such as:

- receive the call
- prepare and launch the IRB
- maintain communication
- effect the rescue/s
- transport the patient.

## IRB emergencies

Reference: *Powercraft Training Manual, 8th Ed, p. 39, 49-53*

A range of different emergency situations can arise in the operation of an IRB. These are often due to the environment and conditions in which the IRB is operated. It is impossible to predict everything that could occur and so the IRB driver needs to be prepared to take various actions to ensure the safety of themselves, the crewperson/s, patients and others in and around the IRB when the emergency occurs. As an emergency response organisation, a surf life saving club will always put a major emphasis on safety in all its operations.

This topic deals with the following types of situations:

- IRB capsize
- fire on IRB/abandon IRB drill
- IRB breakdowns and emergency maintenance

### Practical activities

This session will involve you in a number of practical activities under the supervision of your trainer and/or with an experienced IRB driver acting as your crewperson. Your trainer will explain and demonstrate the following tasks, which you will then have the opportunity to practice. You should expect to practice some of these tasks many times in developing your skills to the point where you can make decisions and act appropriately under stress:

#### Activity 1

Practice capsizing and righting the IRB without a motor (or, with an old motor that is no longer in service if your club has one). Practice in calm water and move on to more challenging conditions as your skill develops.

*Note: This task is not safe to perform on land.*

## **Activity 2**

Practice fire on IRB drill, including protecting others from potential danger, and in increasingly challenging conditions. This task should include practising abandoning (and later recovering) the IRB, although this routine may also be required in circumstances other than fire.

## **Activity 3**

Practice recognising basic motor faults and how to rectify them while the IRB is underway, and also practice manoeuvring the IRB without a motor. Basic faults should be simulated rather than created where appropriate and be restricted to:

- fuel blockages
- faulty fuel lines
- loose electrical connections
- water in fuel
- air in fuel cell

## Topic 6 – IRB towing

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This topic will help you answer the following questions:

1. What state or territory marine laws affect towing?
2. How to attach/remove a tow rope

### Practical activities

*Reference: Powercraft Training Manual, 8th Ed, p. 49-50*

Your trainer will explain and demonstrate the following task, which you will then have the opportunity to practice.

### Activity 1

Discuss and practice correct towing procedures. You will cover state/NT marine laws regarding towing and attaching/removing tow ropes.

## Assessment information

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Below is a description of the assessment tasks required to demonstrate competence in this course. This section is for information only. All evidence should be collected in the assessment portfolio section of this learner guide.

### Assessment Task 1: Training log

Candidates must demonstrate that they have completed their practical training in a variety of local surf conditions and record this training in the log of training hours presented for assessment. This training must be supervised by an IRB Training Officer and the training log sighted by an IRB Assessor.

If local surf conditions do not provide a full range of training opportunities, candidates should undertake additional training if they wish to drive an IRB in another area.

### Assessment Task 2: Observation 1

Observation is to be carried out using an IRB and equipment in the beach environment during completion of training over a period of time. You must demonstrate each item in the checklist individually.

The IRB Driver has responsibility for ensuring equipment is operational and provides assistance to crewpersons in undertaking checks.

Tasks are to be performed with the IRB driver demonstrating leadership and two way communication skills with crewpersons. Organisational policies and procedures are to be followed in all situations.

### Assessment Task 3: Observation 2

In addition to the training log, you will need to demonstrate to an Assessor the skills required to perform a rescue.

Tasks are to be performed with the IRB driver demonstrating leadership and two way communication skills with crewpersons. Organisational policies and procedures are to be followed in all rescue situations.

Candidates are to perform a minimum of two rescues

1. Rescue 1—unconscious casualty beyond the break
2. Rescue 2 – conscious casualty in the surf zone