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# **MA-RE 1 Operational Guidelines**

## General

- 1. Only the Director of the Marine Research (MA-RE) Institute or the head of the Research Dive Unit (RDU) or their designated alternates are authorised to permit usage of the boat. These entities are responsible for the maintenance and management of the boat.
- 2. A fee will be charged for the use of the boat based on a reasonable pro rata cost for maintenance of the boat over it lifespan. A fund number must be supplied when the boat is signed out and this fund must have sufficient funds to cover the usage fee for the period the boat is requested.
- 3. The number of days that will be charged will be based on the period for which the boat is signed out of the Oceanography Garage regardless of whether the boat is operated or not during that period. The boat usage fee will be on a full day basis only. If the boat is returned before 09h00 that day will not be charged for.
- 4. The Skipper will be designated the authorised operator of the boat and responsible for all aspects of its operation. The Skipper also acts as proxy for researchers or departments making use of the boat. Only the Skipper as designated authorised user and responsible person may sign out the boat from MA-RE/RDU
- 5. No modification may be carried out to the boat or any of its equipment WHATSOEVER. If a modification is required permission for this must be requested in advance from the MA-RE Director or head of the RDU, and must be authorised in writing.
- 6. The MA-RE boat is a scientific research and diver training vessel and only bona fide research or diver training activities may be undertaken on this vessel. The Skipper, as designated authority, must ensure that all permits or permissions are obtained and in date for the activities that will be undertaken and warrants that all regulations and statutes applicable will be adhered to. The University of Cape Town is not responsible for any contraventions that occur either through negligence, ignorance of these statutes or wilful contravention of these laws.
- 7. Unless specifically linked to the research or diver training activities, no organisms, samples or salvage may be collected from the MA-RE vessel. This

specifically refers to fishing, spear-fishing, collection of commercially exploitable/edible marine organisms either for personal use or resale, and/or salvage items.

#### **Statutory Requirements**

- 8. The Skipper of the boat must be in possession of a valid SAMSA Certification of Competence (Skippers ticket) AND a Restricted Marine Radio Operators Licence. A copy of this must be presented to the RDU before the boat will be released for use. No person who does not possess a valid skipper's ticket may operate the boat. Should the authorised Skipper allow an unauthorised person to operate the boat, the authorised Skipper may be banned from further usage.
- 9. The Boat (Registration No. DTC 8057B) is licensed to carry up to 10 persons only.
- 10. The boat has been issued a B-Category SAMSA certificate, Certificate No. 16804, Small Research Vessel operating no more than 40 miles offshore in the area Orange River to Punto Do Ouro. The vessel may not be operated outside of these category restrictions. While the boat is registered for 40 mile offshore operation, the Skipper may only operate the boat to the extent of the zones covered by his category of skipper's competency certificate.

## **Pre-check**

- 11. The boat must be thoroughly checked and the checklist completed and signed by the Skipper prior to accepting the boat from MA-RE/RDU. The onus is on the Skipper to carry out this check thoroughly and completely. The boat will be assumed to be in good order and any damage noted (and not covered by insurance) on return, and not indicated on the checklist by the Skipper, will be for the users account.
- 12. No more than 450kg may be loaded on the boat while towing. This is the absolute maximum beyond which the trailer will no longer be legal and hence will not be covered by insurance. It is recommended that as little as possible is loaded on the trailer while towing.

#### Insurance

- 13. The boat is a UCT asset and is insured through UCT and hence only bona fide UCT personnel may operate the boat. The cost of insurance excesses will be for the account of the user at the rate of 5% of damage claims (Min excess payable R500) and 15% of theft claims (Min excess payable R500)
- 14. Skippers are reminded that if the boat and trailer are used negligently, or used in contravention of statutes or regulations thereby invalidating the UCT insurance coverage, the Skipper could be held personally liable for damages sustained to the boat and any injuries to passengers.

15. Any damage must be reported to the RDU and provisions made for the cost of replacement or repair of damaged items. Skippers are advised that damage to the propellers, skegs, cooling system, overheating, mechanical failure, damage to engines from incorrect usage are expressly NOT covered by the insurance and are for the users account.

### **Boat Operation**

- 16. Skippers are expected to familiarise themselves with the operation of the boat, engines, trailer and equipment prior to operation. Manuals are provided on the boat for this purpose. Damage arising from negligence or incorrect operation will be the responsibility of the Skipper.
- 17. Skippers are advised that emergency steering use, requires that the hydraulic steering arm is disconnected.
- 18. Engines must be tested prior to signing for the boat. This is essential not only to confirm they are operable, but also to ensure that the carburettors are full to protect needles and floats while towing the boat.
- 19. Engines must also be tested prior to launching the boat, preferably warmed up while on flushing muffs. Any sign of malfunction of one or both motors should result in the trip being aborted, until these problems have been rectified by qualified personnel. Under no circumstances should the boat be launched with only one operational outboard.
- 20. Only Premium grade 95 octane, unleaded petrol is to be used. Outboard Engine 2-Stroke Oil must have a certified rating of TC-W3. Users must ensure that sufficient oil is in the reservoir for the duration of the trip. Users must also ensure that at least 25% more fuel than is normally required for the planned journey, is on board.
- 21. Prior to launching the Skipper must check that all bungs are firmly in place and that drains are clear and drain sleeves unclipped.
- 22. Pontoons must be correctly inflated before use. Pontoons do have overinflation valves to prevent over inflation
- 23. Pontoon protective sheets must be used when deploying equipment or divers overboard.
- 24. All sharp objects, hooks, knives etc must be handled with extreme care to prevent damage to pontoons, and must be stowed appropriately.
- 25. Prior to returning the boat to MA-RE both motors must be flushed with fresh water and the carburettors run dry. The entire boat and trailer must be sprayed with fresh water with particular attention paid to the wheels and hubs. It is also good practice to flush the motors after each use with fresh water where feasible in the field.

#### Safety

- 26. Boat users must familiarise themselves with the location and function of all safety equipment on board. Should any safety equipment be absent, expired or inoperable, the vessel may not be launched until this is replaced or repaired.
- 27. The Skipper is responsible for the safety of all on board. Hence all decisions made that influence the safety of the boat and passengers are made solely by the skipper and are unequivocal.
- 28. Sufficient Life jackets for each person must be present on board at all times. Life jackets must be worn when launching through the surf, during rough sea conditions, when a storm is approaching, or at the discretion of the skipper. Should a passenger or skipper be unable to swim competently, the life jacket must be worn at all times. Under no circumstances may the life jackets be used for seating or to cushion equipment. This compresses the foam and reduces the buoyancy hence reducing the effectiveness of the life jacket.
- 29. No person may operate or be on board the boat after drinking alcohol or taking narcotics. No person may smoke on board the boat.
- 30. The Skipper is responsible for the behaviour of all passengers on board and their safety.
- 31. Due regard for safety must be considered when operating the boat in inclement or rough sea conditions. No tethered equipment may be deployed overboard or the gantry used, in rough sea conditions. Evaluation of sea state is the responsibility of the skipper.
- 32. No equipment exceeding 200kg in mass may be deployed overboard to a maximum tethered depth of 50m
- 33. No steel cables may be used for the deployment of tethered equipment unless an effective safety release is available. When using rope, a knife or line cutter must be available for emergency severing of the rope in the case of snagging or tipping of the boat.
- 34. The maximum permissible operating mass of the boat, in accordance with the vessel flotation certificate, is 2370kg including the boat, motors, batteries, all persons, equipment and fuel. The unladen mass of the boat with 8 full fuel tanks and standard and fixed equipment is 1450kg. If the boat is operated with the maximum 10 persons on board (750kg) approximately 170kg only in additional equipment may be loaded. Skippers are required to adhere to these maximum loading specifications as overloading will severely compromise the safety of the boat and passengers, and also invalidate the UCT insurance cover in the case of accident.

#### Trailer (CA166574) and Towing

- 35. Engines must be trimmed up when the boat is trailered and towed.
- 36. The user must ensure that the boat is secured firmly using all 4 turnbuckle attachments (2 front, 2 back).
- 37. Users must ensure that the tow hitch engages completely and that the hitch indicator shows green "+". The jockey wheel must be retracted, lifted and firmly tightened before towing. The safety chain and emergency brake cable must be placed over the tow ball. The reverse "pin" must be removed to ensure that the braking system is not disabled.
- 38. When reversing the boat, the reverse pin to deactivate the brake must be put in place to prevent engaging of the brake. THIS PIN MUST BE REMOVED BEFORE NORMAL TOWING OTHERWISE THE BRAKING SYSTEM WILL REMAIN DEACTIVATED, WHICH COULD RESULT IN ACCIDENT AND INJURY.
- 39. The user must ensure that all pins and locking clips are securely in place securing towbar extension and breakneck of the trailer, before towing to prevent loss of pins and damage to trailer.
- 40. Users must ensure that all trailer lights are operational prior to towing. Any defective lights must be replaced prior to towing (Spare light is supplied).
- 41. Any traffic fines received for speeding, illegal parking or any other contravention of the traffic laws will be the responsibility of the user.
- 42. Tow vehicle maximum towing mass capacity must meet or exceed that required by the Dept. of Transport legislation. Note: This is based on the Gross Vehicle Mass (GVM) of the trailer and the maximum permissible Combined Vehicle Mass (CVM) of the Tow Vehicle. The GMV of the trailer is 2600kg. The maximum CVM = (GVM Tow Vehicle) + (GVM Trailer). This value is normally specified by the manufacturer. It is important to note that loading of the tow vehicle and trailer will influence whether the CVM is exceeded. Failure to adhere to the maximum CVM is highly hazardous and may result in heavy fines and/or impounding of the vehicle and trailer by traffic authorities.