SOUTH AFRICAN SAILING

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INLAND WATERS SYLLABUS

As at 14 May 2012

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The Inland Waters Syllabus is designed to ensure that the skipper is competent to skipper a yacht on inland waters by day or by night.

SECTION 1: NAUTICAL TERMS

Candidates must know, and be able to explain, the nautical terms listed below. They must have a strong command of those nautical terms necessary to give precise and concise instructions.

HULL AND FITTINGS

Bilge, bilge pump, bow, bunk, chain plate, cleat, coach roof, cockpit, companionway, deck, fairlead, fiddle, guardrail and stanchions, gudgeon and pintle, heads, hull, jackstay, keel, lifeline, pulpit, pushpit, rudder, sea-cock, tiller, transom, wheel, winch and windlass.

MAST, SPARS AND STANDING RIGGING

Boom, gooseneck, rigging screw (or bottle screw or turnbuckle), spinnaker pole, spreader, shackle, snap shackle, shroud, stay (backstay and forestay), track.

RUNNING RIGGING

Block, gybe preventer, halyard, kicker (kicking strap or boom vang), outhaul, purchase, roller furler, main sheet, jib sheet and topping lift.

SAILS

Batten, bolt rope, clew, cringle, foot, genoa, head, headsail or foresail, jib, leech, leech line, luff, piston hank, roach, , slides, spinnaker, storm jib, track and.

MOORING GEAR

Boat hook, breast line, bow line, bow spring, stern spring, stern line, heaving line.

NAVIGATIONAL INSTRUMENTS AND AIDS

Barometer, echo sounder (depth gauge), hand bearing compass, lead line, log, log book, parallel ruler and Portland plotter.

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SAILING AND GENERAL NAUTICAL TERMS

Abaft, abeam, aboard, aft, aground, alongside, amidships, ashore, , beat, bear away, bear up, bearing, below, berth, bright, bow, broach, buoy, cable, cast off, close hauled, draft, , fetch, galley, gimbals, go about, gybe, heave to, heel, helm, in irons, jury, rig, kedge, lashing, lee oh, leeward, leeway, lee helm, weather helm, lee shore, luffing, make way, under way, masthead, moor, on deck, over board, pinch, , port, starboard, quarter, reach, reef, run, trim a sail, spring off, steady, steerageway, tack or go about, tender, veer or back, wake, wash, to weather or to windward, weigh anchor.

SECTION 2: KNOTS AND ROPEWORK

Candidates must know the purpose of the following knots and be able to tie them in the dark or with their eyes closed – a figure of eight, a round turn and two half hitches, a rolling hitch, bowline, a reef knot, a single and double sheet bend and a clove hitch. In particular, candidates must be able to use a rolling hitch to release the tension on a jib sheet in order to release the over wind on a winch.

Candidates must understand the essential properties of nylon, polyester and polypropylene ropes. They must also know that three strand constructions provide more stretch than braided constructions but braided constructions are more robust. Candidates must be able to coil a line or for storage or for neatly securing the mast. Candidates must be able to heave a line and lasso a buoy.

SECTION 3: CHARTS AND NAVIGATIONAL PUBLICATIONS

The candidate must be familiar with the chart for the inland waters where he will be examined. He must have a full understanding of the information presented on the chart and its significance to the recreational sailor.

The candidate must be familiar with SAN HO-15 (The International Regulations for the Prevention of Collisions at Sea)

SECTION 4: NAVIGATION

The candidates must understand the basics of a magnetic compass including variation and deviation. He must be able to take a bearing with a hand-bearing compass and plot the resulting line of position on a chart.

The candidate must be able to obtain his position from a GPS or GPS enabled device of his choice and plot this position on a chart.

The candidate must be able to determine the compass course to steer from position A to position B on a chart, assuming that deviation is negligible. He must be able to determine the distance from A to b in nautical miles using the latitude scale on a cgart, and be able to estimate the time required to get from A to B based on an estimate of his expected speed in knots.

The candidate must be able to steer a compass course.

SECTION 5: GPS

The candidate must understand that a GPS provides a more accurate and reliable fix than any other means, and has many safety features as well.

The candidate must be able to use a GPS or GPS enabled device to plot his position on a chart. The candidate must be aware that on some inland waters there are few lights at night, and navigating at night without the ability to fix the vessel's position could be hazardous.

SECTION 6: OTHER NAVIGATIONAL INSTRUMENTS

The candidate must understand the use of the log and depth sounder. He must be able to calibrate his depth sounder using a lead line and calibrate his log using a measured distance from a chart.

SECTION 7: WATER LEVELS

The candidate must know where to obtain water level information and how to use this information to determine the depths and interpret the contours on an inland water chart.

SECTION 8: EMERGENCY COMMUNICATION

The candidate must be aware of the need to have appropriate emergency numbers programmed into his cell 'phone, and the need to carry his cell 'phone whenever he is on the water.

SECTION 9: COLREGS

The candidate must be aware that the International Regulations for the Prevention of Collisions at Sea apply on Inland Waters in South Africa.

The candidate must be aware of his obligations under Colregs to maintain a proper lookout, to proceed at a safe speed, to monitor the risk of collision and to take appropriate action to avoid a collision.

Candidates must be able to identify the "stand on" and the "give way" vessel in any situation involving the risk of collision with power vessels and sailing vessels. He must know the basic lights for sailing vessels and for power vessels under 50m.

The candidate must know the following manoeuvring and warning signals for vessels in sight of one another:

- One, two and three short blasts
- Five or more short blasts
- One long blast

SECTION 10: IALA BUOYAGE

Candidates must know the IALA system of buoys in region A (excluding the lights as inland waters buoys are unlit).

SECTION 11: HANDLING A BOAT UNDER POWER

The candidate must demonstrate the ability to bring his yachts on and off their moorings under power. He must be able to come alongside a pier, secure his boat alongside with appropriate warps, and spring off.

SECTION 12: HANDLING A BOAT UNDER SAIL

Candidates must understand the basic points of sailing and be able to trim the sail appropriately for each point of sail. Candidates must know how and when to rig a gybe preventer.

Candidates must be able to instruct their crew how to tack, gybe or heave to in a safe and seamanlike manner. Candidates must be able to hoist sails, drop sails, reef sails or shake out a reef under power or sail.

Candidates must be able to pick up a buoy under sail. Candidates must demonstrate the ability to sail back onto a mooring or emergency buoy in the event of engine failure. This may be done in open water if demonstrating it in a marina is considered risky.

SECTION 13: MAN OVERBOARD

Candidates must be able to conduct an efficient MOB procedure when under power. They must be able to describe the alternative means of bringing the person back on board.

SECTION 14: WEATHER

The candidates must be able to describe the weather forecasts he uses before going sailing.

The candidate must be aware of the warning signs of an approaching thunderstorm and the appropriate actions to take under these circumstances.

SECTION 15: ANCHORING

The candidate must be able to demonstrate anchoring under power using the engine to ensure that the anchor has set.

SECTION 16: SAFETY AND EMERGENCY ON THE WATER

Candidates must demonstrate a thorough knowledge of their boat and be able to conduct a safety inspection. They must know the location of all safety equipment and how to use it. They must be able to give an appropriate safety briefing. They must have an understanding of the requirements for an annual Certificate of Fitness inspection.

Candidates must demonstrate the ability to coach the crew to operate in a safe and seamanlike manner at all times and to perform the MOB procedure.

Candidates must be able to explain the precautions they would take to prevent emergency situations e.g. flooding, cooking burns, fire, gas, explosions, ropes around the prop, engine failure and power failure. Candidates should be able to explain how they would handle these emergencies.

Candidates must know the meaning of the flag Alpha.

Candidates must be able to describe the precautions to be taken when caught out in fog.

SECTION 17: DIESEL ENGINES

Candidates must know how to perform basic engine checks on engine oil, gear-box oil and cooling water. They must also know how to bleed the engine.

Candidates must have an understanding of battery management and the protection of the engine starting battery.

SECTION 18: LOCAL KNOWLEDGE

Candidates must have sound local knowledge of their home port as well as a good understanding of local weather and any associated dangers.

SECTION 19: FIRST AID

Candidates must know how to treat burns, hypothermia, dehydration, heat stroke and shock and must be able to give cardiopulmonary resuscitation when required. They must know how to access medical advice via VHF or cell phone.