

R-300 EMERGENCY PLAN

REV 2-26-22



INSTRUCTION: To be completed prior to dive and leave it with the dive Submersible Operations Commander (SOC) and Safety Officer (SO). If you have a change in plan, notify SOC and SO. Notify SOC and SO upon completion of dive.



www.uscgboating.org

VESSEL

IDENTIFICATION:

Name R-300
Registration TX-9049 AH HIN TXZ201606342
Length 17.3 ft Type Submersible Draft 2' 7"
Hull & Trim Colors White with black accent
Prominent Features Manned submersible with viewport

COMMUNICATION:

Radio Call Sign / Number R-300
Radio-1 VHF Ch. Monitored 68
Radio-2 OTS Ch. Monitored 1
Cell / Satellite 830-931-1280
Email cliffordredus@sbcglobalnet

PROPULSION:

Primary Type Electric Thrusters Power 2.2 HP x 4
Maximum Depth 300ft Endurance 72 hours

NAVIGATION: (check all onboard)

☒ Compass ☐ Radar ☐ GPS ☒ Depth Sounder

SAFETY & SURVIVAL

DISTRESS SIGNALS:

- ☐ Electric Distress Light (night only)
☒ Horn
☒ Whistle
☒ Location acoustic pinger 72.5 kHz

ADDITIONAL GEAR:

- ☒ Fire Extinguisher ☒ Flashlight
☒ Food for 3 days ☒ Water 1 days
☒ BIBS ☐ Emergency Buoy
☒ Steinke Hood ☒ Life Jacket

PERSONS ONBOARD

OPERATOR:

Name Cliff L. Redus
Address 612 Ingram Rd,
City Devine State TX Zip 78016
Age 64 Gender M

Experience with: ☒ this vessel; ☐ boating area
Home Phone 830-538-4496
Vehicle (year, make & model) 2018 Toyota Tundra
Vehicle License No. KLS 8572 ☒ Trailer

CONTACTS

SOC TBD Phone Number TBD
Wife Phyllis Redus Phone Number 830-538-4496
LOCAL Bernie Hellstrom Phone Number TBD

EVENTS:

ENTANGLEMENT

- 1) Operator notifies SOC of entanglement and waits for rescue
- 2) Divers (2) to locate psub using Desert Star System Dive Tracker Sport Receiver
- 3) Divers to attach a line on the bow lifting lug and use lift bag to surface the line
- 4) Divers to descend on line attached to psub and clear entanglement using bolts cutters and or dive knife
- 5) Operator to surface the psub using vertical thrusters

INCAPACITATED OPERATOR ON BOTTOM

- 1) After 30 minutes overdue, initiate search using submersible
- 2) Diver team (2) to locate psub using Desert Star System Dive Tracker Sport Receiver
- 3) On finding boat, diver marks location with lift bag secured to boat with line
- 4) Divers use 80 SCF scuba tank with whip to manually fill MBTs at open MBT vent ports at bottom.
- 5) Divers move back and forth between the forward and the two aft MBT flood ports while blowing
- 6) When Psub becomes positively buoyant, stop manual blow
- 7) When the Psub surfaces, attach tow line to psub and tow to boat ramp
- 8) At boat ramp open hatch (drive screwdriver under hatch) and recover operator if unconscious
- 9) Contact 911 if medical emergency

FIRES

- 1) Operator to notify SOC of fire and abort dive
- 2) Use fire extinguisher to put the fire out
- 3) Use Built In Breathing System (BIBS)
- 4) Surface psub and maneuver to boat ramp
- 5) Open hatch and recover operator

LEAKS or DAMAGE CONTROL

- 1) Operator to notify SOC of significant leak or damage and abort dive
- 2) Operator to execute MBT blow at depth
- 3) After Psub surfaces, surface transit to boat ramp

UNCONTROLLED FLOODING

- 1) Operator to execute MBT blow at depth using manual MBT blow valve
- 2) Use Built In Breathing System (BIBS)
- 3) If operator cannot generate positive buoyancy, jettison emergency weight
- 4) If operator cannot generate positive buoy, execute bailout procedure

CRITERIA SUPPORTING THE DECISION TO ESCAPE:

Escape should be considered if one or more of the following criteria are met:

1. Uncontrolled flooding or fire exists.
2. The carbon dioxide concentration is approaching 1 percent (10k ppm) and is continuing to increase after all means to control carbon dioxide buildup have been used. Waiting until the carbon dioxide levels are intolerable will give survivors only a few extra hours to safely remain on board and will greatly complicate the escape sequence as the survivors' mental capacities deteriorate.
3. The oxygen concentration is approaching 13 percent and is decreasing after using all onboard reserves.
4. The internal atmospheric pressure of the boat is increasing and rescue is not immediately anticipated. Escape should be made before the internal pressure reaches 20 psia to minimize the risk of DCS in survivors when they reach the surface.
5. Persistent toxic atmosphere exists.
6. Surface support is present to retrieve and care for survivor, especially in colder waters.
7. Escape operations are conducted at a depth of 450 feet of seawater (fsw) or less. Successful escapes from greater depths are possible but are riskier.
8. The pilot's physical condition will allow survival in the open water until rescue personnel arrive.

BAILOUT PROCEDURE:

1. Release hatch latches.
2. Turn on the dive light attached to life jacket.
3. Locate "Steinke hood", set snorkel valve to "open position" and place hood overhead and bite down on mouth piece.
4. Orally inflate the "Steinke hood" ballast chamber.
5. Turn off both the master switch and the circuit breaker.
6. Fully open scuttle valve.
7. When water level reaches level A (approximately chest level), repeat oral inflation of Steinke hood ballast chamber, **close snorkel valve** on Steinke hood and grip hatch handles.
8. When hatch opens, launch yourself upwards through the hatch. **Breathe normally** during ascent to prevent lung over inflation.
9. On surfacing, open snorkel valve to breathe surface air then inflate (embedded CO2 cartridge) life jacket to increase buoyancy. If calm sea state, remove Steinke hood.
10. Once on the surface, activate flashing light on life jacket and use whistle to communicate with the support vehicle

Notes:

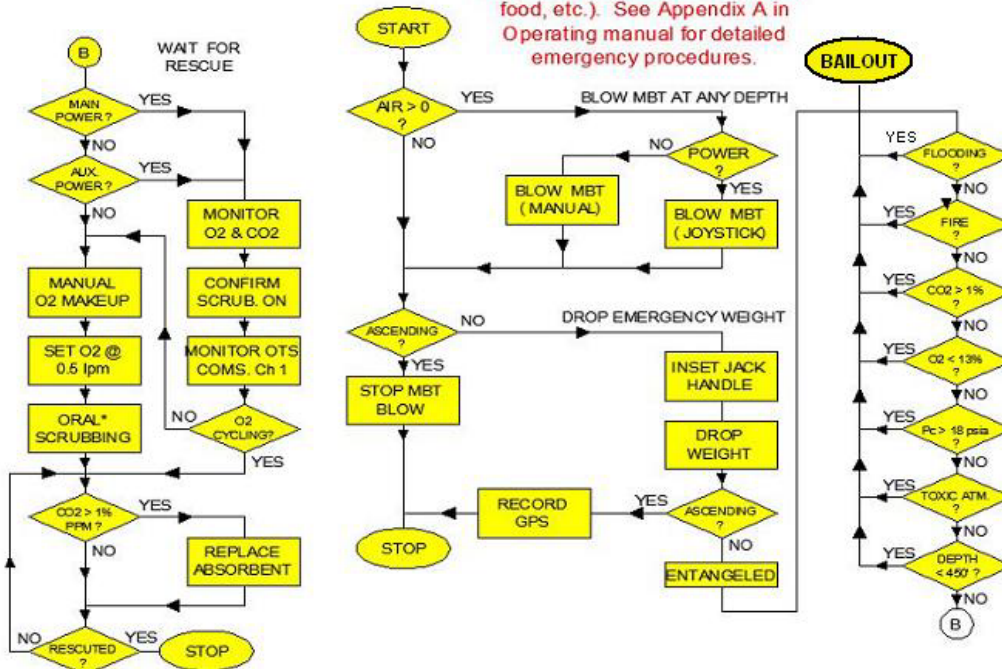
1. Step 1 - high differential pressure will prevent hatch opening at this point.
2. Step 3 - open Snorkel valve enables pilot to breath cabin air without building up CO₂ in hood.
3. Step 4 - oral inflation of the "Steinke hood" ballast chamber occurs twice to account for increasing pressure in the cabin compressing air in the appliance.
4. Step 7 - Level A: Pressure in boat has reached 44.3 psia (3 atmospheres) assuming boat was stranded at 300'. This should take 64 seconds if scuttle valve is fully open.
5. Step 8 - hatch opens at 94 seconds assuming a fully opened scuttle valve.
6. Assent rate will be approximately 425 ft/min with fully inflated Steinke hood.

BAILOUT DECISION:

EMERGENCY EVACUATION

02:35 PM 11-DEC-16

Don't panic; there is 3 days life support in the submersible (water, food, etc.). See Appendix A in Operating manual for detailed emergency procedures.



HOME

BAILOUT

?

STEINKE HOOD:

