



SJR LLC TRIP BOOKING FORM DETAILS

Date of trip being booked: _____ Destination of trip: _____

NAME OF DIVER: _____ **DOB:** _____

Full Contact Address: _____

Email: _____

Contact numbers: (H) _____ (Mob) _____

Signature: _____
(by signing this form, you agree to all the booking conditions)

Next of Kin of diver: _____

Full Contact Address: _____

Email: _____

Contact Numbers - please put full international codes: (H) _____ (Mob) _____

DAN INSURANCE # _____ (exp) _____

TYPE OF POLICY: _____

HIGHEST CERTIFICATION: _____ (hours experience at this level)

CERT CARD #: _____ Training Agency: _____

NOTE: Please indicate your highest level of certification and include a photocopy or scan of the front and back of your certification card. Rebreather CCR cards with highest level of qualification would be appreciated..

TOTAL DIVING exp in HOURS: _____

Please Select: _____ Type of CCR: _____

TANK SIZE/Setup: _____ Sorb needed in kg: _____

TRIMIX require: _____ Deco Mix you require: _____

Additional Gear needs: _____

Please note that hireage costs will be incurred unless previously agreed. If you are completely self sufficient then just put NO gear needed.!

LIABILITY RELEASE AND EXPRESS ASSUMPTIONS OF RISK FOR DIVING

THIS IS A RELEASE OF YOUR RIGHTS TO SUE SJR LLC, AND/OR ANY OF THEIR EMPLOYEES, AGENTS AND ASSIGNS, AND ANY ENTITY FOR PERSONAL INJURIES OR WRONGFUL DEATH THAT MAY OCCUR DURING YOUR FORTHCOMING DIVE ACTIVITIES AS A RESULT OF THE INHERENT RISKS ASSOCIATED WITH SCUBA (OR CCR) DIVING/SNORKELING AND THE UNIQUE ENVIRONMENT.

Please place your initials next to each of the following sections:

1. I acknowledge that I am a certified scuba Diver or CCR diver. My **Highest** certification level is

agency name

card #

date certified

NOTE: Please indicate your highest level of certification and include a photocopy of the front and back of your certification card. Rebreather divers - CCR cards with highest level of qualification would be appreciated..

2. I have _____ hours of diving experience on the above certification level. Total amount of hours

of diving is _____.

3. I carry adequate Medical/Diving Insurance (where applicable) to handle any medical problems I may develop in connection with my upcoming dives.

4. I understand that diving with compressed air or mixed gases (or on a Rebreather) involves certain inherent risks, including decompression sickness, embolism, Oxygen Toxicity, or other hyperbaric injuries. I further understand that even though I follow all of the appropriate dive practices, there is still some risk of sustaining these injuries, and I expressly assume the risk and responsibility of said injuries.

5. I certify that I am in good physical and mental health, and any health concerns have been addressed by visiting a diving medical professional rendering me fit to dive. If you answer YES to any of the questions in the attached DAN RSTC Medical form you will be required to undergo a diver medical. Details of that form are to be attached.

6. If I suspect that I have DCS I will immediately inform the dive supervisor or tour leader.

7. I understand that I will always dive safe, not put myself or others at risk. If I do put myself or other people at risk, I will not be able to continue diving with this group.

8. I understand that scuba (and CCR) diving are physically strenuous activities and that I will be exerting myself during my diving activities. If I am injured as a result of a heart attack, panic attack, hyperventilation or other injury/illness related to diving, I expressly assume the risk of all said injuries.

9. I understand that safe practices for scuba (or CCR) diving include but are not limited to the following:

- a) I will **not** scuba (or CCR) dive while under the influence of alcohol, drugs and/or any other controlled substance.
- b) I will **not** dive alone or with a person whom I have not thoroughly discussed the dive plan. Each of us will review one another's diving equipment and emergency procedures before each dive.
- c) I will dive with properly maintained and serviced regulators, ensuring that **ALL OXYGEN CLEANING** is done within 12 months of the trip dates on ALL regulators with anything higher than EAN40 (or as stated by the manufacturer, and Serviced by a Proper service agent. buoyancy control device that has a power inflation system, a depth gauge, a submersible pressure gauge and a timing device.
- d) I will adjust weights to maintain neutral buoyancy with no air in my buoyancy control device at the surface of the water and position weights to keep the quick-release buckle centered and accessible at all times.
- e) I will **not** dive in conditions I which I do not feel comfortable or that I believe exceed my physical abilities, overhead environments and other dangerous environments.
- f) I will surface with at least 30-50 bar in my air tank (DIL) and no less than 30 bar of O2 and will not stay underwater until my gas supply has exhausted.
- g) I am proficient with the use of a dive table and/or a dive computer and (or) can plan extended decompression dives if appropriately trained.
- h) I understand that the boat captain and dive supervisor (s) will make the final selection of dive location, based upon the weather conditions, and I will abide by their selection.
- i) (For CCR divers only) I will **not** exceed the single maximum CNS dose or daily dose both with

CNS or OTU and if levels exceed 100% you will be required to stand down for 12 hours

- J) (For CCR divers only) I will **not** dive if my rebreather is faulty or shows (but not limited to) cell failure, Low battery, controller problems before the dive and if I have any failures I will end the dive immediately.

10. I state that I am at least twenty-one (21) years of age and legally competent to sign this Liability Release and Express Assumption of Risk.

11. I understand that this Liability Release and Express Assumption of Risk constitutes a contract between myself and the released parties listed above and that I have signed this document of my own free will

I HAVE FULLY INFORMED MYSELF OF THE CONTENTS OF THIS LIABILITY RELEASE AND EXPRESS ASSUMPTION OF RISK BY READING IT BEFORE I SIGNED IT ON BEHALF OF MYSELF, AND HEIRS AND MY ESTATE.

Printed name of diver: _____ **DOB:** _____

Signature of diver: _____ **Date** _____



MEMORANDUM OF UNDERSTANDING

By and Between

SJR LLC

and

SECTION 1. Parties

- A. This Memorandum of Understanding (hereinafter referred to as “**Agreement**”) is made and entered into by and between SJR LLC, whose address is: _____ (“**SJR LLC**”), and _____, whose address is: _____ (the “**Participant**”).

SECTION 2. Purpose

- A. To establish a mutual understanding of the terms for the **Participant’s** participation in the **SJR LLC’s** _____ **Research Expedition** project, conducted from _____, and taking place at _____; (the “**Project**”).
- B. To clearly define the role of the **Participant** as representative(s) of themselves or their own institution, and not as employees or formal volunteers of **SJR LLC**.
- C. To serve as the guiding document as to the respective rights and responsibilities of the **Participant** and **SJR LLC** for the planning and operation for the **Project**.

SECTION 3. Term

- A. This **Agreement** will be in effect from _____ and may be extended or shortened at any time by the written agreement of both parties. Either party may unilaterally shorten the term of this **Agreement** by providing the other party with written notice no later than 30 days before the new expiration date. Either party may terminate this **Agreement** without cause upon giving 2 weeks prior written notice thereof to the other party.

SECTION 4. The Participant shall be responsible for providing the following:

- A. Expertise in the one or more areas of:
- 1) Technical diving;
 - 2) Shallow water diving;
 - 3) Deep water diving;
 - 4) Mixed gas rebreather diving;
 - 5) Scientific expertise;
 - 6) Expedition research expertise;
 - 7) Imaging expertise;
 - 8) Public outreach expertise;
 - 9) Education expertise; and/or
 - 10) Other tasks as deemed necessary for or complimentary to the **Project**.

- B. Insurance coverage in commercially reasonable amounts relating to the **Participant's** participation in the **Project**, including but not limited to dive accident insurance coverage. The **Participant** shall provide evidence of such coverage upon the request of **SJR LLC**.
- C. All financial costs associated with this/her/their own personal or institutional expenses, including:
 - 1) Airfare and other associated travel expenses;
 - 2) Excess baggage, freight, and other shipping/mailing expenses;
 - 3) Lodging and associated accommodation expenses;
 - 4) Meals and other sustenance expenses;
 - 5) Diving equipment (except as noted below);
 - 6) Scientific and research equipment and supplies;
 - 7) Boat and associated expenses; and
 - 8) Diving supplies (helium, oxygen, CO₂ absorbent, etc.) consumed.
- D. All necessary research, collecting, and other sample extraction permits, export permits, and import permits pertaining to his/her/their own research activities.
- E. Settling all bills and other expenses as noted above owed to on-site vendors and proprietors (e.g., meals, etc.) prior to departure from the site of the **Project**.
- F. Settling all bills and other expenses as noted above (e.g., boat, lodging facilities, meal providers, etc.) owed to **SJR LLC** a deposit of **50%** on or before the _____ and the remaining **50%** 1 month *prior* to the beginning date of the **Project** (_____).
- G. All payments to **SJR LLC** are final and non-refundable <6-months prior to the trip.

SECTION 5. SJR LLC shall provide the following

- A. The opportunity for the **Participant** to take part, where and when approved by **SJR LLC** in its sole discretion, in the **Project** in the capacity of his/her/their area(s) of expertise (as noted above). **SJR LLC** shall be responsible for general planning and **ALL** operational aspects of the **Project**. Prior to their participation in the **Project**, the **Participant** shall acknowledge that they assume full and complete responsibility for their own diving activities, and shall sign **SJR LLC's** release of liability agreement *attached* and also **Exhibit A**.
- B. General guidance and insights on logistics at the **Project** site, including the location of dive sites, knowledge of relevant contacts and local suppliers, and other local knowledge of relevance to the activities conducted during the **Project**.
- C. Instruction on scientific field research procedures conducted during the **Project**.
- D. Certain equipment items used only when *formal qualification has been provided and approved* by **SJR LLC** on the **Project**, including:
 - 1) Gas filling and mixing equipment (e.g., air compressor, booster pumps, trans-fill plumbing, cylinder adapters, associated supplies, etc.);
 - 2) Certain emergency bailout gas cylinders with associated harness equipment and regulators, as defined by both parties prior to the **Project**;
 - 3) General tools and spare parts for certain specific kinds of equipment; and
 - 4) All scientific research equipment associated with the **Project**.

***PERMISSION MUST BE GRANTED PRIOR TO USE OF ALL AND ANY EQUIPMENT OWNED AND PROVIDED BY SJR LLC AND _____**

SECTION 6. Certification and Liability

- A.** Each of the **Participants** and **SJR LLC**, respectively, agrees that it shall be solely responsible for the safety of him/herself and/or its employees and representatives.
- B.** The **Participant** agrees to protect, defend, indemnify and hold harmless **SJR LLC** and its directors, officers, employees, or affiliates from and against all taxes, losses, damages, liabilities, costs and expenses, including attorneys' fees and other legal expenses, arising directly or indirectly from or related to (i) any negligent, reckless or intentionally wrongful act of the **Participant** or the **Participant's** assistants, employees or agents (including divers), (ii) a determination by a court or agency that the **Participant** and/or any of the **Participant's** assistants, employees or agents (including divers) are not independent contractors with respect to **SJR LLC**, (iii) any breach by the **Participant** and/or any of the **Participant's** assistants, employees or agents (including divers) of any of the covenants, warranties, and/or obligations contained in this **Agreement**, (iv) any failure of the **Participant** and/or any of the **Participant's** assistants, employees or agents (including divers) to perform all activities in accordance with all applicable laws, rules and regulations, and/or (v) any injury of any kind incurred the **Participant** and/or any of the **Participant's** assistants, employees or agents (including divers) in connection with the **Project**.
- C.** **SJR LLC** agrees to protect, defend, indemnify and hold harmless the **Participant** and/or any of the **Participant's** directors, officers, employees, or affiliates from and against all taxes, losses, damages, liabilities, costs and expenses, including attorneys' fees and other legal expenses, arising directly or indirectly from or related to (i) any negligent, reckless or intentionally wrongful act of **SJR LLC** and/or any of **SJR LLC's** assistants, employees or agents, (ii) a determination by a court or agency that **SJR** and/or any of **SJR LLC's** assistants, employees or agents are not independent contractors with respect to the **Participant**, (iii) any breach by **SJR LLC** and/or any of **SJR LLC's** assistants, employees or agents of any of the covenants, warranties, and/or obligations contained in this **Agreement**, and/or (iv) any failure of **SJR LLC** and/or any of **SJR LLC's** assistants, employees or agents to perform all activities in the **Project** in accordance with all applicable laws, rules and regulations.
- D.** This **Agreement** shall be governed by and construed in accordance with the laws of the State of Hawai'i. Any suit hereunder will be brought solely in the state and federal courts located in the City and County of Honolulu and the parties hereby submit to the personal jurisdiction of such courts. In the event of disagreement with respect to any aspect of this **Agreement**, the parties agree to discuss in good faith to reach an amicable resolution, and to escalate such resolution process to the appropriate members of their respective management organization who have the power and authority to achieve a successful resolution. Before either party commences an action against the other party, it shall give written notice to the other party of its intention to file such action, and the senior management of the parties then shall meet in good faith to resolve the dispute by an alternative dispute resolution method such as mediation.
- E.** If either party seeks to enforce its rights under this **Agreement** by legal proceedings or otherwise, the non-prevailing party shall pay all costs and expenses incurred by the prevailing party, including without limitation, all reasonable attorneys' fees and costs.
- F.** This **Agreement** may be executed in counterparts, each of which shall be deemed an original, and all of which shall collectively constitute one fully executed agreement.

SECTION 7. Non-Disclosure Agreement and Confidentiality

- A. Data** — All data, findings, samples, photographs, videos, research notes, coordinates, methodologies, and other expedition-related information (“Confidential Information”) collected or shared during the course of this Agreement are the exclusive property of **SJR LLC** unless otherwise agreed in writing.
- B. Distribution** — No party may disclose, distribute, publish, reproduce, or use any Confidential Information for purposes outside the scope of this **Agreement** without the prior written consent of **SJR LLC**. This obligation applies during the term of this **Agreement** and **continues indefinitely thereafter**, regardless of whether the **Agreement** is terminated or completed, unless **SJR LLC** provides written notice releasing such information from confidentiality.
- C. Prevention** — All parties agree to take reasonable measures to protect the confidentiality of such information, including preventing unauthorized access, copying, or transmission.

SECTION 8. Professional Conduct and Misconduct Clause

D. Standard of Conduct

All parties, participants, contractors, employees, and affiliates (“Personnel”) engaged under this Agreement shall at all times conduct themselves in a professional, respectful, and ethical manner. This obligation applies in all contexts of the expedition, including but not limited to scientific operations, travel, accommodations, field sites, and interactions with local communities.

E. Definition of Professional Misconduct

For the purposes of this **Agreement**, **Professional Misconduct** includes, but is not limited to:

- 1) **Harassment or Discrimination** — Any verbal, physical, or non-verbal conduct that constitutes harassment, bullying, intimidation, discrimination, or abuse of authority, including conduct based on gender, sexual orientation, age, race, religion, nationality, disability, or other protected characteristics.
- 2) **Sexual Misconduct** — Any unwelcome sexual advance, request for sexual favors, or other verbal or physical conduct of a sexual nature, whether or not it occurs in a work context, and regardless of perceived intent.
- 3) **Violation of Safety Protocols** — Deliberate or reckless disregard of agreed safety measures, field protocols, or instructions that place any person, equipment, or research at risk.
- 4) **Breach of Research Integrity** — Falsification, fabrication, or misrepresentation of data, plagiarism, or unauthorized removal, destruction, or misuse of specimens, samples, or intellectual property.
- 5) **Disruptive or Undermining Behaviour** — Conduct that materially disrupts the expedition, undermines the authority of the expedition leadership, or erodes the trust and cooperation required for safe and effective fieldwork.
- 6) **Substance Abuse** — Use of alcohol or controlled substances in a manner that impairs judgment, compromises safety, or disrupts the work or well-being of others.

F. Reporting and Investigation

Any person who experiences or witnesses suspected Professional Misconduct is encouraged to report the matter promptly to the designated **SJR LLC** representative. **SJR LLC** will investigate all reports in a fair, impartial, and confidential manner to the extent possible, and will take appropriate corrective action.

G. Consequences

SJR LLC reserves the right, in its sole discretion and without prejudice to any other rights or remedies, to:

- 1) Remove any Personnel from the expedition or premises without prior notice
- 2) Terminate contractual engagement or affiliation immediately
- 3) Seek restitution for damages or losses caused by the misconduct
- 4) Report the misconduct to relevant authorities, professional bodies, or funding agencies where applicable

H. Continuing Obligation

This clause applies for the duration of the expedition and extends to all related activities before departure and after return, including communications, data sharing, and dissemination of results.

APPROVED AND AGREED:

Dr. Sonia J. Rowley



By: Dr. Sonia J. Rowley

Its: **Expedition Leader**

Date:

Address: SJR LLC

Telephone:

Email:

By: _____

Its: **Expedition Participant**

Date:

Address:

Telephone:

Email:

Exhibit A

ASSUMPTION OF RISK, WAIVER AND RELEASE

1. I, _____, the undersigned, in consideration of the **SJR LLC** providing me with the opportunity to participate in **SJR LLC's** _____ project, conducted from _____, and taking place at _____ (the "**Project**"), agree that I fully recognize and appreciate the dangers and hazards inherent in diving to which I may be exposed during diving, including but not limited to arterial gas embolism, ear and/or sinus barotrauma, decompression sickness, drowning, near-drowning, and/or dysbaric osteonecrosis and other long-term effects, as yet poorly defined, and also during transportation to and from dive locations.

2. I do hereby agree to assume all the risks and responsibilities surrounding my participation in diving or any independent research or activities undertaken as an adjunct thereto during the **Project**.

3. I understand that diving operations may be conducted at remote locations at which a recompression chamber is not available, and from which evacuation to such a chamber may be delayed by many hours.

4. I agree that I will be utilizing my own dive equipment, that I am solely responsible for the condition of such equipment and that such dive equipment is serviced up to manufacturers' specifications.

5. I agree to carry and maintain a current policy of dive accident insurance coverage during all periods while I am engaged in scientific diving activities during the **Project**.

6. My participation in diving is voluntary; that I have the right and responsibility to refrain from diving if I feel the activity or conditions are not safe, that my fitness is not adequate for the dive, or for any other reason of safety.

7. My authorization to dive during **SJR LLC's Project** is a privilege granted upon compliance with the Memorandum of Agreement dated _____ by and between **SJR LLC** and myself, and this Assumption of Risk, Waiver and Release. I will follow the rules and precautions for conducting diving operations of my home institution. I agree to strictly observe these rules. I understand that failure to comply may result in review, restriction, or revocation of my authorization by **SJR LLC** to dive during the **Project**.

8. I do for myself, my heirs, executors, and administrators hereby RELEASE, WAIVE, DISCHARGE AND COVENANT NOT TO SUE **SJR LLC** and/or _____, and assigns from and against any and all claims, demands, and actions, or cause of action on account of damage to personal property, or personal injury or death, which may result from my participation, and which result from causes beyond the control of, and with or without the fault or negligence of **SJR LLC** and/or _____ and the _____, and assigns during the period of my participation, and I hereby explicitly waive and relinquish any and all of

the rights and benefits which I may otherwise have or claim to have under relevant jurisdictional laws.

I affirm that I have read this form and fully understand that by signing this form I am giving up legal rights and/or remedies regarding any losses I may sustain. I agree that if any portion is held invalid, the remainder will continue in full force and effect. I agree that I have freely and voluntarily caused this release to be executed this date.

(Signature)

(Print Name)

(Date)

Exhibit A

Project Dive Plan

Document utilises tables, please use cursor or tab feature to retain document formatting.

Begins: XX/XX/2025
Expires: XX/XX/2025
(6 month maximum)

Date: _____ For: Scientific Research Diving
PI/Project Supervisor: Dr. Sonia J. Rowley PI/Project Supervisor Title: Research Assoc.
Project Title: XXXXXXXX Research Expedition
Address: SJR LLC Phone: _____
Email: _____
Fax: -

Dive Plan Purpose: SCIENTIFIC RESEARCH AND EXPLORATION

List of Dive Team Members: (Continue on separate sheet if needed, see DTM form)

| Diver Name | Lead Diver? X | Level SCI/DIT/R EC | Status | Exp. Date | Auth. Depth | Auth. Deco Y/N | Auth. Mix Gas Y/N | Other Endorsements or Comments |
|-----------------|------------------|--------------------------|--------|-----------|----------------|----------------------|-------------------------|-----------------------------------|
| Sonia J. Rowley | X | SCI | N | | >100 | Y | Y | CCR, DC |
| | | | | | | | | |
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*DC=Dive Computer' **E= Employee; V=Official Volunteer; N=Uncompensated Non-Employee

Dive Locations:

Brief Description of Activity (continue on separate sheet if needed):

Exploration of shallow and mesophotic reef habitat; Divers will use closed-circuit rebreathers with a trimix diluent to conduct multi-level dives along walls and dropoffs which require decompression stops. Environmental data loggers will be deployed.

Maximum Planned Depth: 160 m Dives Per Day: 1 per diver Total Daily Dive Time: 360 min.

Diving Mode (Life Support): Divesoft Liberty CCR (SJR, XX)
OC SCUBA (XX + Staff) Breathing Gas: Constant PO₂ of 1.2 max. with trimix diluent (SJR, XXX). See following discussion of gases and bailout. Air/nitrox (XXX + Staff)
Dive Tables to be used: Bail-out and worst-case contingency tables developed on MultiLevel &/or V-Planner Software (SJR, XXX). Dive Computers (where authorized): Onboard integrated dive computers, with *Shearwater* mixed-Gas CCR back-up computer.

Will Any Planned Profiles Entail Decompression Stops, Other Than Safety Stops: YES (see below).

Environment: Nearshore Reef - walls & drop-offs Platform: Small Craft

Source of Breathing Gas: Small air compressor owned by SJR LLC. Oxygen and helium purchased SJR LLC. All mixed gases will be analyzed with Divesoft trimix analyzer on site.

Type of Vessel: XX m small craft, O/B.

Source of Vessel: XXXXXXXXXXXX

Special Equipment
Considerations: See Attached descriptions of diving and safety protocols

Project Title: XXXXXX Research Expedition
PI: Dr. Sonia J. Rowley, SJR LLC

Date:

Emergency Management Plan

Site/Location: _____

Risk Management Assessment:

| Risk Event | Prob. Of Occurrence | Severity of Consequences | Nature of Consequences | Mediation to be Employed |
|------------------------|---------------------|--------------------------|--|---|
| Decompression Sickness | Moderate. | Moderate to Severe | Numbness, paralysis, other neurologic impairment | <p>PREVENTION:</p> <p>Deep divers will conduct no more than one decompression dive per day. Dives will be shallower for the first few days to establish routine protocols and acclimate to local conditions before dives deeper than 60 m will be conducted.</p> <p>Deep divers will follow the most conservative real-time decompression schedule dictated by either the onboard CCR computer, their back-up off-board CCR computer, or those of their buddy.</p> <p>Onboard computer operates using a Buhlmann ZHL16 decompression or DCAP algorithm. Conservatism will be set to a maximum allowable supersaturation of 7% of that nominally allowed by the algorithm for fast tissues (pushing the first stop deeper), and 75% that nominally allowed for slow tissues (increasing total required ascent time), so the resultant decompression profile entails substantially deeper first stops and longer total decompression than the nominal algorithm.</p> <p><i>Shearwater</i> computer will operate on a different decompression algorithm (VPM-B) which produces similar but not identical ascent requirements, and the more restrictive of the two will be followed.</p> <p>All divers will hydrate before and after diving, and ensure adequate rest. Upon surfacing, deep divers will rest on the surface breathing air for 5-10 minutes before exiting the water. Post dive exertion will be kept to a minimum by having the safety diver and local field support do any required lifting and support labor.</p> <p>TREATMENT:</p> <p>Oxygen and In-Water Recompression (IWR) equipment on site. All divers are be trained in CPR, emergency oxygen administration, diving first aid, and field neurologic examination techniques.</p> <p>Coordinate evacuation through DAN.</p> |

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|--|---|--------------------|--|---|
| Aggressive Marine Life or Other Trauma Injury, or Infected wound | Low - region has low shark population to moderate (wound Infection from cuts & scrapes) | Possibly severe | Trauma, bleeding from bites; Sepsis, fever from infected wound. | <p>PREVENTION: Care in placement of hands around holes and crevices to avoid eel bites. Diving will be moved to an alternate site if large sharks are in the area before start of operations. Divers will move out of territory of any aggressive shark, if possible.</p> <p>TREATMENT: Divers position back-to-back, using bailout cylinders and pole spears to fend off overly aggressive animals.</p> <p>All divers are trained in CPR, BLS, Oxygen Administration and First Aid. Control bleeding; provide CPR, BLS and Oxygen as indicated; treat for shock. Extended first aid kit includes suture kit and antibiotics</p> |
| Diver Lost from Boat | Low | Moderate | Diver adrift | <p>PREVENTION: Diving will be mostly on walls and reefs with structure continuous to near the surface.</p> <p>TREATMENT: If separated from dive team, separated diver will deploy SMB lift bag with line reel to indicate location. Surface support team will maintain lookout for SMB arrival as indication of ascent status.</p> |
| Diver Separation | Low | Moderate | Divers lose contact, unable to assist buddy. | <p>PREVENTION: Dive teams will work together as a group.</p> <p>TREATMENT: If separated from dive team, separated diver will deploy SMB lift bag with line reel to indicate location. Surface support team will maintain lookout for SMB arrival as indication of ascent status.</p> |
| Loss of CCR Life Support (flooded loop, electronics failure, double battery failure) | Very Low | Moderate | Required ascent and decompression on open-circuit bailout. | <p>PREVENTION: Proper pre-dive checks, including battery condition checks, positive and negative pressure loop checks. Dive will be postponed if CCR found to not be in proper service in any way.</p> <p>PO₂ and decompression are monitored by duplicate independent processors with independent batteries. Primary processor controls system. In the event of battery failure, PO₂ control will be accomplished with secondary system or manual control.</p> <p>TREATMENT: If occurrence in water, OC Bailout. Ascend on staged OC bailout gases according to established protocol. Deploy SMB to alert topside team, which would deploy with additional decompression gas staged in support vessel. Complete decompression using back-up dive computer in OC mode or back-up worst-case contingency tables.</p> |
| O ₂ Sensor Failure or Loss of Calibration | Low | Moderate to severe | Possible Hyperoxia or Hypoxia, leading to suboptimal decompression, DCS, blackout or seizure, and drowning | <p>PREVENTION: System is equipped with multiple oxygen sensors and incorporates either active sensor validation or voting logic to determine estimated PO₂. A single sensor failure or loss of calibration is accommodated by the CCR software, which determines the composition of the breathing gas.</p> <p>TREATMENT: Sensors on Poseidon systems</p> |

| | | | | |
|--|-----|-------------------------------|---|---|
| | | | | <p>are validated automatically every 5 minutes during the dive. Sensors on Inspiration systems can be validated during the dive by flushing the loop with diluent or oxygen and comparing to known PO₂ of the flushed gas at the target depth. Diver then switches to low PO₂ setpoint and controls PO₂ at desired level by addition of oxygen manually, according to the sensor determined to be accurate.</p> <p>If safe manual control cannot be maintained, diver will switch to OC Bailout and ascend on staged OC bailout gases according to established protocol. Deploy SMB to alert topside team.</p> |
| CO ₂ Scrubber Failure or high CO ₂ | Low | Severe if uncorrected | CO ₂ excess leading to panting, fatigue, panic, or blackout and drowning. | <p>PREVENTION: Proper care and packing of CO₂ absorbent canister with fresh absorbent before every dive. Diligent pre-dive check of one-way valves in mouthpiece, canister assembly. Dive durations will be planned to not exceed established limits.</p> <p>TREATMENT: In the event of CO₂ symptom onset, diver will switch to OC bailout and terminate dive according to prescribed OC decompression schedule dictated by dive computers or contingency tables. Team will deploy SMB lift bag with line reel to indicate assistance needed.</p> |
| Oxygen Solenoid or Manual Addition Valve Stuck Open | Low | Possibly Severe if undetected | Hyperoxia; uncontrolled buoyancy; PO ₂ spiking; oxygen-induced seizures and drowning if uncorrected. | <p>PREVENTION: Unit provides visual, audible and/or tactile warnings if loop PO₂ exceeds 1.6ATA, allowing diver to take corrective action.</p> <p>CORRECTIVE ACTIONS: Switch to OC and diagnose. Dump excess gas in loop; shut down O₂ at valve; flush loop with diluent until safe PO₂ established; return to loop and control oxygen addition manually by cycling the cylinder valve. Ascend and terminate dive according to decompression prescribed by on-board computer. If condition remains unsafe, uncontrolled, or system oxygen is exhausted, switch to OC Bailout and ascend on staged OC bailout gases according to established protocol. SMB to alert topside</p> |
| Oxygen Solenoid Stuck Closed or Oxygen not being added | Low | Low | Hypoxia - suboptimal decompression; possible blackout | <p>PREVENTION: Unit provides visual and audible warnings of low PO₂ at levels well above that which is life-threatening (PO₂ more than 0.2ATA below setpoint; PO₂ < 0.40ATA), allowing diver to take corrective action: addition of oxygen manually.</p> <p>CORRECTIVE ACTIONS: Check O₂ cylinder valve open, O₂ cylinder pressure adequate, and manual valve connections intact. Add oxygen manually to maintain desired PO₂.</p> <p>If condition becomes life-threatening or system oxygen exhausted, switch to OC Bailout. Ascend on staged OC bailout gases according to established protocol. Deploy SMB to alert topside team.</p> |

| | | | | |
|---|----------|----------|---|--|
| Automatic Diluent Valve or Manual Diluent Addition Valve Stuck Open | Low | Low | Increased buoyancy, trouble maintaining PO ₂ at desired setpoint (drifts low). | PREVENTION: Proper pre-dive checks and unit servicing. TREATMENT Shut down diluent valve for duration of dive. Open only if diluent addition needed. Ascent does not require diluent addition to maintain PO ₂ setpoint. |
| Loss of or Insufficient Bail-out Gas Supplies | Very Low | Severe | Emergency ascent; Omitted decompression, DCS, drowning | PREVENTION: Dives will be planned and staged so that each diver has reliable access to 150% or more of the projected required volumes of OC gases for safe return to the surface, including all required decompression according to bail-out schedules. Contingency planning includes scenarios to complete decompression even in the event of loss of any one of planned OC bailout gases (see following). Divers have access to all bailout gas they carry, plus that carried by their buddy, plus staged supplies, plus supplies in the boat. |
| Narcosis | Low | Moderate | Impaired decision making and judgement | Dive gases will be selected to ensure that narcosis exposure is no more than the equivalent to air breathed at 45 m. |

Emergency Oxygen On Site? YES Separate Vessel Captain? YES

First Aid Kit On Site? YES Surface Tender on Site? YES

Emergency Contacts Please supply individual Emergency Management Plans for all islands included in Dive Plan, See EMP form.

| Agency: (Closest to Site) | Location or On Site | Est. Response (miles) | Est. Response Time | Respond Via | Contact Via |
|--|--|-----------------------|--------------------|-----------------------------------|--|
| Coast Guard | NONE. Local small craft for search and rescue. | N/A | N/A | N/A | N/A |
| DAN TravelAssist must arrange any evacuation Call for medical consult and to arrange evacuation | DAN Asia Pacific, Durham, NC, USA (24hr Hotline) | Immediate contact | N/A | Satellite/Phone, Web link: | +1-919-684-9111 (Diving & Non-Diving Emergencies) https://world.dan.org/membership-coverage/asia-pacific/ |
| DAN TravelAssist must arrange any evacuation Call for medical consult and to arrange evacuation | DAN USA, Durham, NC, USA (24hr Hotline) | Immediate contact | N/A | Satellite Phone, Cell Phone | +1-919-684-9111 (Diving & Non-Diving Emergencies) |
| DAN TravelAssist must arrange any evacuation Call for medical consult and to arrange evacuation | DAN EUROPE, Roseto, Italy (24hr Hotline) | Immediate contact | N/A | Satellite Phone, Cell Phone | DAN +39-085-893-0333 (Diving & Non-Diving Emergencies) |

| | | | | | |
|------------------------------|---|-----------|----------|-------------------------------|--|
| Closest Hospital Resources | Pohnpei State Hospital, FSM (24hr Hotline) | <10 miles | <2 hours | Small Craft, Car | +691-320-2213/3805 |
| Hyperbaric Treatment Centers | Chuuk State Hospital (24hr Hotline) | 437 mi. | <24 hr | Satellite/Phone, | +691 330-2217 |
| Hyperbaric Treatment Centers | Hyperbaric Chamber, Guam Regional Medical City, Guam | >1000 mi. | 24 hr | Satellite/Phone, Web link: | +1-671-645-5500 https://www.grmc.gu/hyperbaric-chamber/ |
| Hyperbaric Treatment Centers | University of Hawai'i's Hyperbaric Treatment Center, Kuakini Medical Center, Honolulu | >1000 mi. | 24 hr | Satellite/Phone, Web link: | +1-808-587-3425 https://uhphawaii.org/index.php/htc/ |

Additional Comments/Considerations:

DAN TravelAssist will serve as contact for all MedEvac coordination, with goal of delivering patient to proper care within 24 hours after initial consult with closest competent medical authority (as above).

IN THE EVENT OF DCI SYMPTOMS OR OTHER MEDICAL EMERGENCY BEYOND FIRST AID:

- (1) Provide initial BLS, First Aid and stabilization if required, with 100% oxygen by demand valve.
- (2) Conduct Initial Field Neurologic Exam for DCI
- (3) Evaluate conditions (time to nearest recompression facility, diver disposition, oxygen supply, availability of tender diver, weather conditions, time of day, etc.), contact DAN for advice, and emergency evacuation services, and decide whether IWR is warranted.
- (4) If IWR indicated, initiate IWR protocol (following).
- (5) Contact DAN Travel Assist to advise and consult.
- (6) Once stable, transport to closest medical authority for evaluation
- (7) Decision made to evac by TravelAssist.

IN-WATER RECOMPRESSION TREATMENT PROTOCOL

EQUIPMENT: Prior to start of diving, the following will be placed in readiness:

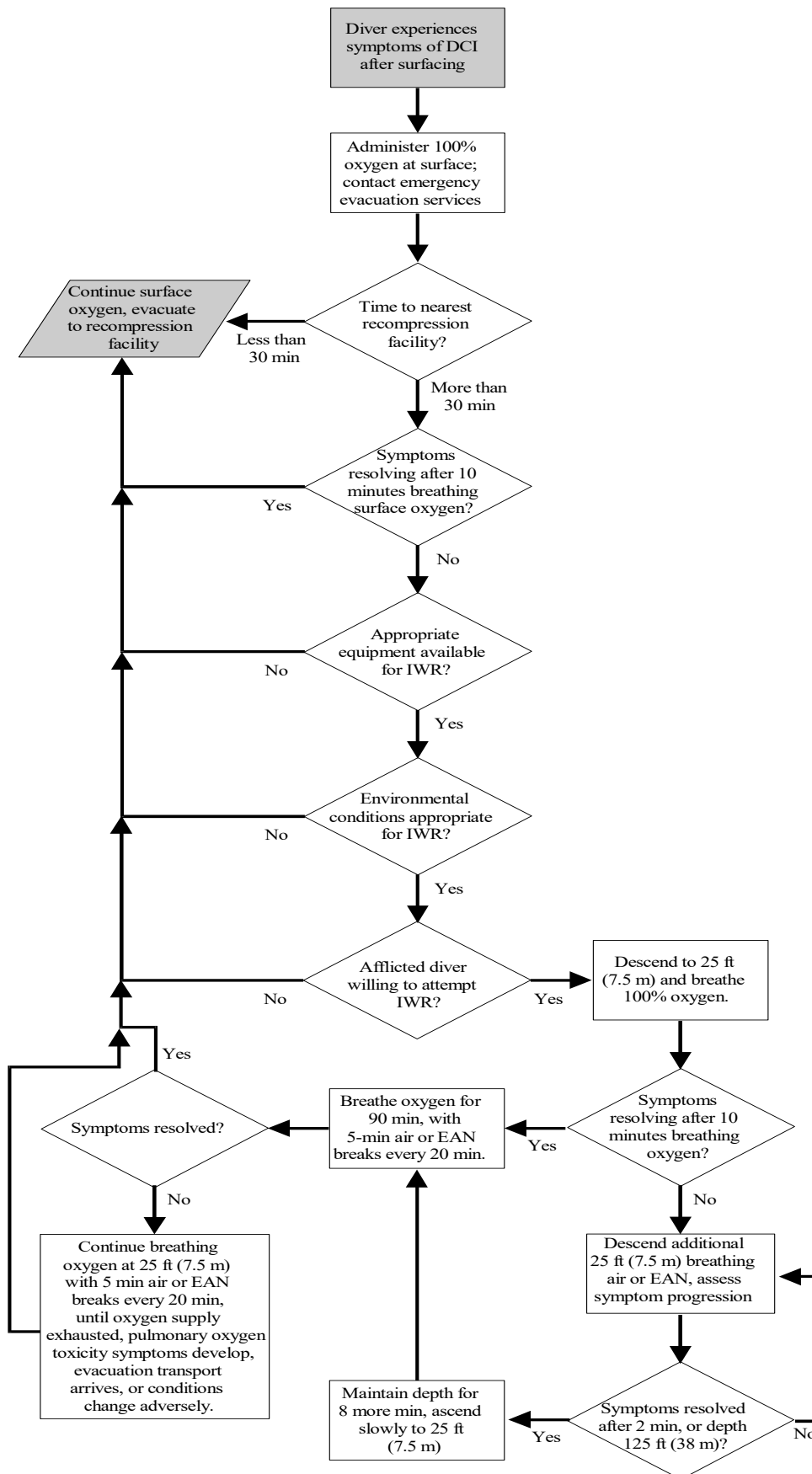
- One AL12Ltr 100% O₂ cylinder with O/C regulator, LP hose, and attached, laminated IWR protocol.
- Also available are the following stage-rigged cylinders from O/C Bail-out supplies: Two AL12Ltr EAN50.

Method

Immediately upon recognizing potential symptoms of DCI:

1. Provide BLS and First Aid as warranted. Administer open-circuit 100% oxygen to diver while at surface for 10 minutes. Assess the progression of symptoms, including INITIAL FIELD NEUROLOGIC EXAM.

2. Evaluate conditions (time to nearest recompression facility, diver disposition, oxygen supply, availability of tender diver, weather conditions, time of day, etc.), contact DAN Asia for advice, and emergency evacuation services, and decide whether IWR is warranted.
3. If IWR is warranted and symptoms are not resolving within 10 minutes of commencement of surface oxygen, descend to 6 m breathing 100% O₂ and remain for 10 minutes under close observation of the tender diver who can maintain communication with surface support. At end of 10 minutes, complete SUBMERGED MODIFIED NEURO EXAM #1 and communicate to surface team.
4. If symptoms are resolving after 10 minutes of breathing 100% oxygen at 6 m, maintain depth and continue breathing oxygen for a period of 90 minutes, interspersed with 5-minute periods breathing air or EAN every 20 minutes.
5. If symptoms persist or continue to progress after the initial 10 minutes at 6 m, switch to EAN50, descend to a depth of 15 m and assess symptom progression for 2 minutes. If
6. symptoms are resolving, maintain depth for 8 additional minutes, then ascend at a rate of 1.5 m/min to 6 m and perform step 4.
7. If symptoms persist or continue to progress after 2 minutes at 15 m, descend to 20 m while breathing EAN50 and assess symptom progression for 2 minutes. If symptoms are resolving, maintain depth for 8 additional minutes, then ascend at a rate of 1.5 m/min to 6 m and perform step 4.
8. If symptoms persist or continue to progress after 2 minutes at 15 m, switch to EAN32, descend to 100' and assess symptom progression for 2 minutes. If symptoms are resolving, maintain depth for 8 additional minutes, then ascend at a rate of 1.5 m/min to 6 m and perform step 4.
9. If symptoms persist or continue to progress after 2 minutes at 30 m, descend to 40 m while breathing EAN32 and assess symptom progression for 2 minutes. After 10 minutes at maximum 40 m return to 6 m at a rate of 1 m/min below 20 m, and 1.5 m/min above 20 m, and perform step 4.
10. After 90 minutes of 100% oxygen with air breaks, if symptoms have resolved, ascend to surface at a rate of 0.5 m/min and continue breathing oxygen at surface until emergency evacuation transport arrives, diver suffers pulmonary oxygen toxicity symptoms, or 3 hours.
11. If symptoms persist or continue to progress after 90 minutes of 100% oxygen with air breaks, maintain depth and continue 20-min oxygen/5 min air cycle until oxygen supply is exhausted, emergency evacuation transport arrives, diver suffers pulmonary oxygen toxicity symptoms, environmental or diver conditions change adversely, or symptoms resolve, then ascend at a rate of 0.5 m/min.





Diver Medical | Participant Questionnaire

Recreational scuba diving and freediving requires good physical and mental health. There are a few medical conditions which can be hazardous while diving, listed below. Those who have, or are predisposed to, any of these conditions, should be evaluated by a physician. This Diver Medical Participant Questionnaire provides a basis to determine if you should seek out that evaluation. If you have any concerns about your diving fitness not represented on this form, consult with your physician before diving. If you are feeling ill, avoid diving. If you think you may have a contagious disease, protect yourself and others by not participating in dive training and/or dive activities. References to "diving" on this form encompass both recreational scuba diving and freediving. This form is principally designed as an initial medical screen for new divers, but is also appropriate for divers taking continuing education. For your safety, and that of others who may dive with you, answer all questions honestly.

Directions

Complete this questionnaire as a prerequisite to a recreational scuba diving or freediving course.

Note to women: If you are pregnant, or attempting to become pregnant, *do not dive*.

| | | |
|--|---|-----------------------------|
| 1. I have had problems with my lungs/breathing, heart, blood, or have been diagnosed with COVID-19. | Yes <input type="checkbox"/> Go to Box A | No <input type="checkbox"/> |
| 2. I am over 45 years of age. | Yes <input type="checkbox"/> Go to Box B | No <input type="checkbox"/> |
| 3. I struggle to perform moderate exercise (for example, walk 1.6 kilometer/one mile in 14 minutes or swim 200 meters/yards without resting), OR I have been unable to participate in a normal physical activity due to fitness or health reasons within the past 12 months. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| 4. I have had problems with my eyes, ears, or nasal passages/sinuses. | Yes <input type="checkbox"/> Go to Box C | No <input type="checkbox"/> |
| 5. I have had surgery within the last 12 months, OR I have ongoing problems related to past surgery. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| 6. I have lost consciousness, had migraine headaches, seizures, stroke, significant head injury, or suffer from persistent neurologic injury or disease. | Yes <input type="checkbox"/> Go to Box D | No <input type="checkbox"/> |
| 7. I am currently undergoing treatment (or have required treatment within the last five years) for psychological problems, personality disorder, panic attacks, or an addiction to drugs or alcohol; or, I have been diagnosed with a learning disability. | Yes <input type="checkbox"/> Go to Box E | No <input type="checkbox"/> |
| 8. I have had back problems, hernia, ulcers, or diabetes. | Yes <input type="checkbox"/> Go to Box F | No <input type="checkbox"/> |
| 9. I have had stomach or intestine problems, including recent diarrhea. | Yes <input type="checkbox"/> Go to Box G | No <input type="checkbox"/> |
| 10. I am taking prescription medications (with the exception of birth control or anti-malarial drugs other than mefloquine/Lariam). | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |

Participant Signature

If you answered NO to all 10 questions above, a medical evaluation is not required. Please read and agree to the participant statement below by signing and dating it.

Participant Statement: I have answered all questions honestly, and understand that I accept responsibility for any consequences resulting from any questions I may have answered inaccurately or for my failure to disclose any existing or past health conditions.

Participant Signature (or, if a minor, participant's parent/guardian signature required.)

Date (dd/mm/yyyy)

Participant Name (Print)

Birthdate (dd/mm/yyyy)

Instructor Name (Print)

Facility Name (Print)

*** If you answered YES** to questions 3, 5 or 10 above **OR** to any of the questions on page 2, please read and agree to the statement above by signing and dating it **AND take all three pages of this form (Participant Questionnaire and the Physician's Evaluation Form) to your physician** for a medical evaluation. Participation in a diving course requires your physician's approval.

Diver Medical | Participant Questionnaire Continued

Box A – I have/have had:

| | | |
|---|--------------------------------|-----------------------------|
| Chest surgery, heart surgery, heart valve surgery, stent placement, or a pneumothorax (collapsed lung). | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Asthma, wheezing, severe allergies, hay fever or congested airways within the last 12 months that limits my physical activity/exercise. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| A problem or illness involving my heart such as: angina, chest pain on exertion, heart failure, immersion pulmonary edema, heart attack or stroke, OR am taking medication for any heart condition. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Recurrent bronchitis and currently coughing within the past 12 months, OR have been diagnosed with emphysema. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| A diagnosis of COVID-19. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |

Box B – I am over 45 years of age AND:

| | | |
|---|--------------------------------|-----------------------------|
| I currently smoke or inhale nicotine by other means. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| I have a high cholesterol level. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| I have high blood pressure. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| I have had a close blood relative die suddenly or of cardiac disease or stroke before the age of 50, OR have a family history of heart disease before age 50 (including abnormal heart rhythms, coronary artery disease or cardiomyopathy). | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |

Box C – I have/have had:

| | | |
|---|--------------------------------|-----------------------------|
| Sinus surgery within the last 6 months. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Ear disease or ear surgery, hearing loss, or problems with balance. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Recurrent sinusitis within the past 12 months. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Eye surgery within the past 3 months. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |

Box D – I have/have had:

| | | |
|--|--------------------------------|-----------------------------|
| Head injury with loss of consciousness within the past 5 years. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Persistent neurologic injury or disease. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Recurring migraine headaches within the past 12 months, or take medications to prevent them. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Blackouts or fainting (full/partial loss of consciousness) within the last 5 years. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Epilepsy, seizures, or convulsions, OR take medications to prevent them. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |

Box E – I have/have had:

| | | |
|---|--------------------------------|-----------------------------|
| Behavioral health, mental or psychological problems requiring medical/psychiatric treatment. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Major depression, suicidal ideation, panic attacks, uncontrolled bipolar disorder requiring medication/psychiatric treatment. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Been diagnosed with a mental health condition or a learning/developmental disorder that requires ongoing care. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| An addiction to drugs or alcohol requiring treatment within the last 5 years. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |

Box F – I have/have had:

| | | |
|--|--------------------------------|-----------------------------|
| Recurrent back problems in the last 6 months that limit my everyday activity. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Back or spinal surgery within the last 12 months. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Diabetes, drug- or diet-controlled, OR gestational diabetes within the last 12 months. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| An uncorrected hernia that limits my physical abilities. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Active or untreated ulcers, problem wounds, or ulcer surgery within the last 6 months. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |

Box G – I have had:

| | | |
|---|--------------------------------|-----------------------------|
| Ostomy surgery and do not have medical clearance to swim or engage in physical activity. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Dehydration requiring medical intervention within the last 7 days. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Active or untreated stomach or intestinal ulcers or ulcer surgery within the last 6 months. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Frequent heartburn, regurgitation, or gastroesophageal reflux disease (GERD). | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Active or uncontrolled ulcerative colitis or Crohn's disease. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |
| Bariatric surgery within the last 12 months. | Yes <input type="checkbox"/> * | No <input type="checkbox"/> |

Diver Medical | Physician's Evaluation Form

Participant Name _____ Birthdate _____
(Print) Date (dd/mm/yyyy)

The above-named person requests your opinion of his/her medical suitability to participate in recreational scuba diving or freediving training or activity. Please visit uhms.org for medical guidance on medical conditions as they relate to diving. Review the areas relevant to your patient as part of your evaluation.

Evaluation Result

- ☐ Approved – I find no conditions that I consider incompatible with recreational scuba diving or freediving.
- ☐ Not approved – I find conditions that I consider incompatible with recreational scuba diving or freediving.

Physician's Signature Date (dd/mm/yyyy)

Physician's Name _____ Specialty _____
(Print)

Clinic/Hospital _____

Address _____

Phone _____ Email _____

Physician/Clinic Stamp (optional)

Created by the Diver Medical Screen Committee in association with the following bodies:

The Undersea & Hyperbaric Medical Society
DAN (US)
DAN Europe
Hyperbaric Medicine Division, University of California, San Diego