

CAYMAN ISLANDS
TOURISM ASSOCIATION

WATER SPORTS OPERATIONS GUIDELINES

CAYMAN ISLANDS TOURISM ASSOCIATION (CITA)

Updated **October 2016**

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The Watersports operator's first duty is to the safety of all divers, snorkelers, riders, participants and other individuals affected by the Watersports operation.

The Watersports operator shall abide by the following:

1. Assure the safety of all participants.
2. Individually follow all safe diving, snorkeling, training and boating principles, recognizing that influence by example is the cornerstone to the development and promotion of safe practices.
3. Maintain a level of professional competence equal to standards established by the Association.
4. All vessels operated by a member of the CITA **must** comply with the Marine Conservations Laws of the Cayman Islands **See Appendix 'E'**.
5. All CITA watersports members must adhere to the following CITA guidelines:
 - Any land based scuba or snorkeling facility **must** be equipped with:
 - 1- At least one life buoy and float line
 - 2- One spinal immobilization backboard
 - 3- At least one complete oxygen kit and complete first aid kit
 - 4- VHF 2-way radio
 - Any vessel taking customers out for scuba diving or snorkeling **must** be equipped with:

Safety Equipment on vessels over 20f/6m up to 40f/12m shall carry not less than:

 - 1- One life preserver or buoyant vest for each person on board
 - 2- One life buoy and float line
 - 3- Oxygen kit, first aid kit and backboard
 - 4- VHF 2-way radio
 - 5- One bailer or manual bilge pump
 - 6- One anchor with not less than 75 feet of rope attached
 - 7- One sound-signaling apparatus
 - 8- Three hand-held red flares, one pocket mirror, and either one waterproof flashlight or one hand-held flare and two parachute flares - all in a watertight container.
 - 9- One fire extinguisher of not less than 10 pounds content in effective working condition

Safety Equipment on vessels over 40f/12m shall not carry less than:

 - 1- All equipment required for vessels 20-40f/6-12m in length and in addition;
 - 2- One anchor with not less than 100 feet of rope or cable attached
 - 3- Three hand-held red flares, three parachute flares and one orange smoke signal - all in a watertight container.
 - The Red/White or the international 'A' Dive flag(s) **must** be flown when in-water activities from boat or shore are in progress and the all white flag when fishing activities are in progress. At all other times the flag must be rolled or taken down.

- Special rigid compliance is required in the operation of a boat within 200 yards/182 meters of the shoreline and within 200 yards/182 meters of an anchored or moored vessel or in other areas so marked.
 - Vessels anchored, moored or maneuvering in the territorial water-ways of the Islands must at all times exhibit the lights required for their class by the International Collision at Sea regulations.
 - A vessel approaching within 200 yards/182 meters of a diver's down flag or diver's down light shall not exceed a speed of 3 knots and shall have a look out on the bow for divers and swimmers and shall either make radio or visual contact with the person acting as look out on the vessel displaying such flag or light.
 - All CITA members must monitor a VHF radio frequency for communications between vessels and from vessels to shore. All members' operating channels found in **Appendix 'A'**.
 - Hang tanks (hookahs) **must** be in the water at 15-20 feet/ 4.5-6 meters during all scuba dives below 60 feet/18 meters. Hookah lines are recommended instead of hanging tanks.
6. Divers **must** present a valid certification card or positive proof of such certification (a current log book etc). Divers with certification cards without photographs on them should also show a photo ID. **See Appendix 'B'**
 7. All divers **must** have a buoyancy compensator; an underwater timing device, a depth gauge and each diver must also have an octopus regulator or another form of alternate air source.
 8. The **recommended maximum** depth limit with recreational scuba customers is 100 feet/30 meters, **if within certification (See Appendix 'B')**. The **maximum** depth with recreational scuba customers is 130 feet/39 meters and 100 feet/39 meters for repetitive dives the same day.
 9. The recommended maximum depth for resort courses is 40ft per training agency standards.
 10. All shore divers must have one dive float/flag in the water per buddy team. This flag may be their personal flag, loaned or given, sold or rented. No flag is required if diving in a marked dive area. All shore divers **must** be informed of the Cayman Islands laws and regulations requiring a float/flag for all shore diving activities and Marine Conservation Laws.
 11. It is recommended that when renting scuba cylinders to open water divers that only one tank per certification card be given. It is recommended that when renting scuba cylinders to a certified and insured scuba instructor that only one cylinder per student is given and proof of teaching status & liability insurance of the instructor be shown.
 12. All dive vessels are required to carry a manifest or list of all passengers on board and account for all passengers prior to departing a site or area after in water activities have taken place.
 13. Dive master/Customer Ratio –
 - a. Supervised Wall Dives from boats:
The **required** maximum in-water dive master/customer ratio is 1 dive master: 12 certified divers however; recommended ratio is 1:10.
 - b. Unguided Wall Dives from boats
Operators may elect to allow customers to do unsupervised wall dives with their buddies. It is recommended they meet the following criteria:
 - i. The divers must show proficiency at the member's discretion.
 - ii. The divers must dive in a buddy team and each member of the team must have a computer and understand computer diving techniques.

- iii. The divers must agree to adhere to depth/certification limitations established by the CITA.
 - iv. The ratios for working crew on any vessel offering scuba diving **must** still be one dive master for each 12 certified divers on board.
 - c. Supervised shallow dives from boats: supervision is at the discretion of the individual member.
 - d. Unguided shallow dives from boats: supervision is at the discretion of the individual member.
 - e. Instructional dives from boats: The ratios for working crew on any vessel offering scuba diving, where there are students *engaged in scuba, the ratio should reflect the student to instructor ratio as required by the training agency being taught.*
 - f. Supervised snorkelers from boats: recommended limit of divemasters / lifeguard to snorkelers 1:30 in water too deep to stand up in and 1:40 in water shallow enough to stand up in.
 - g. Shore diving / snorkeling: recommended that there is a lookout on shore that is trained in first aid, CPR and oxygen administration.
14. Divemasters are **NOT** required to endanger their own safety or the safety of other customers by chasing a run-away diver.
15. Refresher courses and/or refresher dives should be **recommended** based on the following guidelines:
- i. If it has been more than 18 months but less than 24 months since the customer's last dive, a shallow dive is suggested before doing a wall dive.
 - ii. If it has been over 24 months since the customer's last dive, a refresher course is recommended before any unsupervised (shallow or wall dives) are allowed.
 - iii. If it has been more than 36 months since the customer's last dive, a refresher course is mandatory prior to participating in any diving activities.
- As with any set of guidelines there will be exceptions. The dive operator may elect to waive these recommendations if the customer can prove efficiency via a valid and comprehensive logbook or other means of proof. (A valid logbook consists of diving activities being recorded and accompanied with a dive master or instructor's signature and number or a stamp.)*
16. Rogue divers, defined as those divers who refuse to adhere to the safety code of the CITA, should be reported immediately to all dive operators via email broadcast from the CITA membership office.
17. All staff conducting training dives or dives with non-certified divers must be a certified dive master, assistant instructor or Instructor as required by their training agency and their activities must comply with training standards issued by their certification agency.
18. All working dive masters, assistant instructors, and instructors **must** have formal training from a recognized training agency and be current with their certification and agency. All must have current liability insurance and CPR, first aid, or medic first aid training. All individual operators are encouraged to hold first aid and rescue training sessions with their staff on a quarterly basis.
19. All vessel handlers/safety support crew **must** have current certification in CPR as well as training in first aid, rescue procedures and oxygen administration.
20. Dive site etiquette: When a dive master is entering the water with a supervised group, and there are already other groups in the water. His/her briefing and directions **must** emphasize that the divers should stay with the group and avoiding getting mixed up with the other groups.

21. All CITA members may provide enriched air Nitrox for staff and customers providing they show proof of certification, analyze gas before use, sign log and specify maximum operating depth at 1.6 PO2. Nitrox experience dives may also be conducted under the supervision of a nitrox certified instructor. Nitrox rules & equipment requirements are listed in **Appendix 'D'**.
22. Technical diving permitted by those members qualified to offer it. All dives must be conducted within the limitations of the technical divers' certification level or as part of a training class. All members must follow technical guidelines in **Appendix 'C'**.
23. Free diving / breath hold diving / apnea permitted by those members qualified to offer it. All dives must be conducted within the limitations of the free diver's certification or training level with a free diving buddy on the surface at all times while free divers are underwater.
24. CITA members are to recommend that divers follow current flying after diving guidelines as specified by their associated training agencies and organizations.
25. All CITA members are required to have scuba cylinders visually inspected and marked every 12 months and hydrostatically tested and stamped every five (5) years.
26. All dive equipment rented out that is subject to annual service must be properly maintained and in good working condition per the manufacturers' specifications.
27. All vessels **must** have a qualified lookout on board per Port Authority regulations.
28. Violations of these safety rules and codes are to be handled in accordance with approved ethics and safety procedures.
29. All members, upon renewal of membership or application for membership will sign and date these safety rules. In addition, all dive staff should be aware of the guidelines contained within this document and sign a copy of the guidelines to acknowledge they understand them.

I have read and understand the CITA Watersports Operations Guidelines and agree to uphold all safety provisions as identified herein, including any provisions, recommendations, laws and the like as contained in Appendices A, B, F, H, and I that form a part of this agreement.

CITA Member: _____

Signature: _____

Date: _____

Appendix list:

- A Contact & VHF Operating channel list
- B Recreational & Technical Certification Limits
- C Technical Diving Rules & Regulations
- E Nitrox Rules & Equipment Requirements
- F Marine Conservation Laws
- H Divemaster Training / Orientation Guide
- I1 DoE Use of Public Mooring Buoys Guidelines
- I2 DoE Public Mooring Listing – Grand Cayman
- I3 DoE Public Mooring Listing – Cayman Brac
- I4 DoE Public Mooring Listing – Little Cayman

APPENDIX A: CONTACT & VHF OPERATING CHANNELS

Phone Radio Channel

EMERGENCY

Police	911
Hospital	911
Fire	911
Chamber	949 2989

WATERSPORTS OPERATORS

COMPANY	PHONE	RADIO CHANNEL
7 Mile Watersports	946-3483	
Air Supply (Red Sail)	945-7706	69
Ambassador Divers	949-4530	16
Atlantis Adventures	949-7700	77
Avalon Marine	945-5103	
Brac Scuba Shack	925 3215	
Capt. Marvin's Watersports Ltd.	945-4590	1
Caribbean Marine Services	623 3229	
Cathy Church's Underwater Photo	949-7415	16
Cayman Aggressor IV (Ocean's International)	916-3237 (boat#) 916 3466	16
Cayman Diving School	926-4729	16
Cayman Islands Boat Rentals/Moore Marine Services	949-6672	
Cayman Eco Divers	938-4904	16
Cayman Luxury Charters Ltd.	938-2525	
Cayman Turtle Divers	938-0184	16
Cayman University Divers	327-1238	16
Charter Cayman	923 4266	16
Deep Blue Divers	916-1293	16
Divers Down	945-1611	66
Divers Supply (Cayman) Ltd.	949-7621	n/a
Divetech Ltd.	946-5658/949-1700	16
DNS Diving	916-2490	18/16
Don Foster's Dive Cayman	949-5679	79
Eden Rock Diving Center	949-7243	n/a
Epic Divers	323-3742	16
Go Pro Diving	925 9092	n/a
Indepth Watersports	916-8604	16
Indigo Divers	525-3932	16
Living The Dream Divers	526-3483	16

Lobster Pot Dive Centre	949-6469	18/16
Neptunes Divers	925-3990/945-3990	16
Ocean Frontiers Ltd.	640-7500	22/16
Off the Wall Divers	916-0303	16
Parasailing Professionals	916-2953	72
Pirate Divers	324-3271	16
Red Sail Sports Ltd:-	-	-
Westin	949-8732	69
Marriott	949-6343	69
Beach Suites	949-8745	69
Rum Point	947-9203	81
Office	623-5965	n/a
Resort Sports (Beach Club)	745-8100	80
Seasports	916-3261	16
Six Senses Cayman Adventures Ltd.	938-3303	16
Sunset Divers	949-7111	19
Tortuga Divers (Red Sail Sports)	947- 2097	71
Underwater Supply	949-4812	n/a
Wall to Wall Diving	916-6408	
White Sand Watersports	916-7263	

CONTACT & VHF OPERATING CHANNELS

	Phone	Radio Channel
<i>OTHER</i>		
Beefers Dock	949 2145	16
Harbour House Marina	947 1307	16
Lions Center	916 5778	n/a
Marine Parks	949 8469	16
Marine Power	947 1945	16
Dept. of Environment	949 8469	16
Pro Yachts		
Port Authority	949 2228	16
Pure Air	949 4677	n/a

DIVING DR'S

Addleson	945 2881
Glatz	949 8150
Hetley	949 7400
Maddin	949 8150
Smith	949 6066

APPENDIX B: Recreational & Technical Certification Limits

Divers **must** present a valid certification card or positive proof of such certification (a current log book etc). Divers with certification cards without photographs on them should also show a photo ID

certification limits are based on CMAS or PADI levels for simplicity.

CMAS *	1Star Diver = PADI Open Water Diver	
CMAS **	2 Star Diver = PADI Rescue	
CMAS ***	3 Star Diver = PADI Divemaster	
ACUC	American/Canadian Underwater Council	Should have CMAS rating on it
ADS	Association of Diving Schools (Japan)	Should have CMAS rating on it.
ANSI	Associazione Nazionale Istruttori Subacquei (Italy)	Should have CMAS rating on it.
BARAKUDA	Barakuda International Aquanautic Club	Should have CMAS rating on it.
BSAC	British Sub-Aqua Club	Should have CMAS rating on it.
Canadian Forces Dept of National Defense Card		Should state SCUBA
County of Los Angeles Certificate Card		Should state SCUBA
DIT	Divers Institute of Technology Commercial Certification	Should state SCUBA
FAUI	Federation of Australian Underwater Instructors	VOID without logbook
FIAS	Federazione Italiana Attivita Subacquee (Italy)	Base Avanzato = PADI OPW
FMAS	Federation Mexicana De Actividades Subauaticas (Mexico)	Should have CMAS rating on it.
FUAI	Israel Diving Federation	Should have CMAS rating on it.
GUE	DIR Fundamental - OPW + 15 dives. Pre-requisite to GUE technical training.	
HAS	Handicapped Scuba Association	Open Water = to PADI OPW
IANTD	International Association of Nitrox and Technical Divers	Open Water = to PADI OPW <u>OR</u> Open Water Nitrox Diver use Nitrox<40%
IDEA	International Diving Educators Association	Open Water = to PADI OPW
JULIA	Japan Underwater Leaders & Instructors Association	Open Water = to PADI OPW
MEDA	Multinational Diving Educators Association	Void without logbook.
NASDS	National Association Scuba Diving Schools	Open Water = to PADI OPW
NAUI	National Association Underwater Instructors	Open Water = to PADI OPW
Nordiskf Sportdykarbevis (Scandinavian)		Should have CMAS rating on it.

PDIC	Professional Diving Instructor Corp.	Open Water = to PADI OPW
PADI	Professional Association of Diving Instructors	
	Skin Diver	Not a scuba card
	Scuba Diver	After 2000 should state on card
	Junior Open Water (10 to 12)	Should state on card
	Junior Open Water (12 to 15)	Should state on card
	Advanced Junior Diver	Should state on card
	Pre 2000 = to OPW, Limited to 40 FSW	
	Limited to 60 FSW	
	Limited to 70 FSW	
SDI	Scuba Diving International	Open Water = to PADI OPW (computer)
SSI	Scuba Schools International	Open Water = to PADI OPW
SUSV-FSS	Swiss Underwater Sports Federation	Should have CMAS rating on it.

APPENDIX B: RECREATIONAL DIVING CERTIFICATION LIMITS

TDI	Technical Diving International	Should have rating on card
YMCA	Young Men's Christian Association	Card must state SCUBA

If you see a card that is not on this list please check with your dive operations manager for approval.

TECHNICAL DIVING CERTIFICATION LIMITS

DSAT

DSAT Apprentice Tec Diver

Max depth: 130fsw/30msw, nitrox up to 60% doubles, no decompression.

DSAT Tec Deep Diver

Max depth: 165fsw/50msw, oxygen, nitrox, doubles, stages, and decompression.

GUE

GUE The following applies to ALL GUE certifications:

1. Full qualification: certified to the maximum of his/her certification level.
2. Provisional: this card will have all restrictions on it.

GUE Technical Diver (Level 1)

Max depth: 150fsw/45msw, non-hypoxic mixes (min 21% O₂), oxygen, nitrox, doubles, single stage, and decompression.

GUE Technical Diver Level 2

Max depth 240fsw/73msw, hypoxic mixes (less than 21%) oxygen, nitrox, doubles, multiple stages, and decompression.

GUE Technical Diver Level 3

No depth limit, all mixes, oxygen, nitrox, doubles, multiple stages decompression.

GUE Rebreather Diver Level 1

Max depth 100fsw/30msw, Halcyon semi-closed, nitrox, no decompression.

GUE Rebreather Diver Level 2

Max depth 150fsw/45msw, Halcyon semi-closed, nitrox, trimix, decompression.

IANTD

IANTD Open Water Diver

Max depth: 70fsw/21msw with buddy, 100fsw/30msw with divemaster.

IANTD Open Water Nitrox Diver

Air to EAN 40 at same depths as above.

IANTD Advanced Open Water Diver

Max depth: 100fsw/30msw

IANTD Advanced Nitrox

Max depth: 140fsw/42msw, nitrox up to 50%, doubles, up to 15min decompression.

IANTD Recreational Trimix Diver

Max depth: 130fsw/30msw, 28% to 40% O₂ and END 40 to 80fsw (20 O₂/35 He), no deco.

IANTD Advanced Recreational Trimix Diver

Max depth: 160fsw/48msw, 21% to 40% O₂ and END up to 80fsw, up to 15min deco.

IANTD Technical Diver

Max depth: 170fsw/51msw, oxygen, nitrox, doubles, stages, and decompression.

IANTD Normoxic Trimix

Max depth: 200fsw/60msw, non-hypoxic mixes (min O₂ 19%) END 120 fsw/36msw, oxygen, nitrox, doubles, stages, and decompression.

IANTD Trimix

Max depth 333fsw/100msw; hypoxic mixes (less than 21%) oxygen, nitrox, doubles, multiple stages, and decompression. END 130fsw/39msw

IANTD Rebreather

Unit Specific Recreational CCR Diver

Max depth: 70fsw/21msw, max PO₂ 1.2, no decompression

Unit Specific Closed Circuit Rebreather Diver

Max depth: 160fsw/48msw w/ He, 140fsw/42msw w/ air, up to 15min deco.

Unit Specific Normoxic

Max depth 200fsw/60msw, decompression

Unit Specific Trimix

Max depth 333fsw/100msw, decompression.

TDI

TDI Advanced Nitrox

Max depth: 130fsw/40msw, nitrox up to 100%, doubles, no decompression.

TDI Decompression Procedures

Max depth: 150fsw/45msw, nitrox, 100% O₂, doubles, and decompression

TDI Extended Range

Max depth: 180fsw/55msw, oxygen, nitrox, doubles, stages, and decompression.

TDI Entry Level Trimix

200fsw/60msw

Deco

Max depth: 200fsw/60msw, oxygen, not less than 18% O₂, doubles, stages, and decompression.

TDI Advanced Trimix

Max depth: 330fsw/100msw, oxygen, nitrox, doubles, stages, and decompression.

TDI Rebreather

Air diluent Closed Circuit Rebreather – Unit Specific

Max depth: 100fsw/30msw, no decompression.

Air diluent Closed Circuit Rebreather Diver Deco Procedures – Unit Specific

Max depth: 150fsw/45msw, decompression.

Mixed Gas Closed Circuit Rebreather – Unit Specific

Max depth: 200fsw/60msw, > 15% O₂, decompression.

Advanced Mixed Gas Closed Circuit Rebreather – Unit Specific

Max depth: 330fsw/100msw, decompression.

APPENDIX C: Technical Diving Rules & Regulations

DEFINITION: TECHNICAL DIVING

Technical diving is described as any dives that are beyond recreational limits, in an overhead environment, are beyond 130 ft/39 m linear to the surface, require decompression stop(s) or use a gas mix (other than nitrox below 40% oxygen)

SAFETY GUIDELINES

Additionally the following equipment must be on the boat from which technical divers are diving:

- a. Oxygen: A minimum of 2x standard O₂ kits or 1x100 cu ft tank O₂ kit or enough oxygen to sustain first aid treatment for two divers until handed over to emergency services.
- b. Profiles: All profiles including backups need to be filed with the captain/surface support personnel.
- c. Emergency Decompression Gases: A minimum of 1x50 cu ft of nitrox 80% or higher for every six (6) divers should be staged at the appropriate stop or be available for emergency deployment (if not returning to start point i.e. drift dives).
- d. A Technical Dive master, Supervisor or Instructor: A diver, knowledgeable in the needs of decompression divers must remain on board the boat while divers are in the water.
- e. Slates: A slate and pencil for communications with divers.
- f. Decompression Station: A suitably constructed decompression station must be deployed (rapidly) to allow decompression divers to drift (or tie off on a mooring) in the event that the boat needs to leave the vicinity for an emergency. (Boat diving only)
- g. Divers may carry a lift bag in lieu of a decompression station.

CERTIFICATION

All divers engaged in technical diving must dive within their level of certification. Certification must be with an internationally recognized training agency. See Appendix B.

All working dive masters, supervisors, and technical Instructors must have formal technical supervisory training and certification from a recognized training agency and be current with their certification and agency. All must have current liability insurance for technical diving.

EQUIPMENT

- a. **All divers must utilize equipment as specified by their training agencies standards.**
- b. All rebreather divers must carry a bailout for decompression dives deeper than 130 fsw/ 39 msw.
- c. All tank configurations, stages, side mounts, diluents and drive gas bottles will be labeled in accordance with agency standards, with a minimum of mix and MOD indicated.

DEPTH GUIDELINES

Diving beyond 130 fsw/ 39 msw is permitted provided:

- a. All rules as stated herein are followed.
- b. All dives must be conducted within the limitations of the diver's certification level. (For specifics see Appendix B.)
- c. All divers must employ the rule of thirds gas management principles unless return to starting point is not required.

- d. All dive profiles will track and monitor CNS O₂ loading and UPTD O₂ loading to manage overall oxygen toxicity on both single and repetitive dive profiles.
- e. All divers must not exceed a Maximum PO₂ of 1.6 for decompression gas and no-stop dives, a maximum PO₂ of 1.5 for bottom gas and a maximum END of 170 fsw/ 51 msw for mixed gas dives.

TECHNICAL SHORE DIVING FACILITIES

- a. All technical shore divers must have a lift bag.
- b. All technical shore facilities must have a manifest or roster of all technical divers including divers names, profile, bailout profiles, gas mixes and time to surface for divers in the water.
- c. A minimum of 1x50 cu ft of nitrox 80% or higher for every six (6) divers should be staged in a predetermined place (can be on land).
- d. A technical dive master or supervisor knowledgeable in the needs of decompression divers must remain at the shore locations at all times while divers are in the water.

VESSELS CONDUCTING TECHNICAL DIVING

All dive vessels conducting technical diving are required to carry a manifest or roster of all divers including divers' names, profile, bailout profiles, gas mixes and time to surface.

RATIOS

Dive master/customer ratio – All technical dives from boats will employ an in-water certified technical supervisor/divemaster.

- a. Supervised Wall Dives from boats:
The required maximum in-water dive master/customer ratio is one technical dive master to eight technical divers (1:8); however, the recommended ratio is 1:6.
- b. Unguided Wall Dives from shore:
Operators may elect to allow customers to do unsupervised wall dives with their buddies, and it is recommended they meet the following criteria:
 - i. The divers must show proficiency at the member's discretion.
 - ii. The divers must dive in a buddy team.
 - iii. The divers must agree to adhere to depth/certification limitations established by the CITA.
- c. Instructional dives from boats:
The ratios for working crew on any vessel offering scuba diving, where there are students engaged in technical dive training, the ratio should reflect the student to instructor ratio as required by the training agency being taught

VIOLATIONS

- a. Rogue technical divers, defined as those divers who refuse to adhere to the safety code of the CITA, should be reported immediately to all dive operators via email broadcast from the CITA membership office.
- b. Rogue technical divers who are part of the CITA (employees) should be reported immediately to appropriate dive operator.

I have read and understand the CITA Technical Diving Safety Requirements & Standards and agree to uphold all safety provisions as identified herein.

APPENDIX D: NITROX RULES and EQUIPMENT REQUIRMENTS

Members

- a. Members offering nitrox must provide an oxygen analyzer as a means of measuring the oxygen content.
- b. Members must log all nitrox fills in a form of a facility logbook, which will document the diver's names, certification type, oxygen content, MOD and the divers' initials.

Certification

Divers **must** present a valid nitrox certification card or positive proof of such certification. Divers with certification cards without photographs on them should also show a photo ID. (**See Appendix 'B'**)

Procedures

- a. Divers must analyze their own nitrox and log it in a facility logbook.
- b. A contents label stating mixture and maximum operating depth must be affixed to the tank.
- c. Tanks used for nitrox will be labeled in accordance with International Standards. Which is: ***"a 4-inch green band, with a 1-inch yellow band top and bottom, starting within 1-inch of the curve of the top of the tank."***

Partial Pressures

The recommended maximum PO_2 is 1.4. The required maximum PO_2 is 1.6.

Instruction

All dive instructors conducting nitrox training or orientation dives must be a nitrox instructor.

Staff

All staff conducting nitrox dives or supervising nitrox divers must be a certified nitrox diver.

I have read and understand the CITA Nitrox Rules and agree to uphold all safety provisions as identified herein.

APPENDIX E: Marine Conservation Laws

Rules for Cayman Islands Marine Parks

MARINE PARK ZONE

- No taking of any marine life alive or dead, except:
- line fishing from shore is permitted;
- line fishing at depths of 80 ft or greater is permitted;
- taking fry and spat with a fry or cast net is permitted. NOTE: fish traps, spear guns, pole spears and other nets are totally prohibited.
- No anchoring - use of fixed moorings only, except:
- boats of 60 ft or less may anchor in sand, so long as no grappling hook is used, and neither the anchor nor the rope or chain will impact coral;
- anchoring permitted in designated Port anchorage areas—contact Port Security VHF Channel 16;
- anchoring prohibitions suspended during emergencies and by permission of Port Director.
- Bloody Bay, Little Cayman - Special restrictions have been placed on the use of the Bloody Bay Marine Park: no commercial operations may use the park without a licence from the Marine Conservation Board.

DESIGNATED GROUPER SPAWNING AREAS

- East and West End of: Cayman Brac, Little Cayman and Twelve Mile Bank, Coswain Bank and South West Point Grand Cayman;
- No fishing for Nassau groupers 1 November through 31 March;
- No fish pots or spear fishing within one-mile radius of Designated Grouper Spawning Area from 1 November through 31 March.

NO DIVING ZONE

- No SCUBA diving

ENVIRONMENTAL ZONE

- No taking of any marine life, alive or dead with no exceptions;
 - No in-water activities;
 - Public may access only at speeds of 5 mph or less;
 - No anchoring of any boat.
- NOTE: Line fishing, fish traps, nets, spear guns and sinkers are totally prohibited.

REPLENISHMENT ZONE

- No taking of conch or lobster by any means;
 - Line fishing and anchoring permitted;
 - Anchor, chain or line must not touch coral;
 - Spear guns, pole spears, fish traps and nets prohibited, except that fry and spat may be taken with a fry or cast net.
- NOTE: These zones include the outside edge of the reef to a depth of 20 feet.

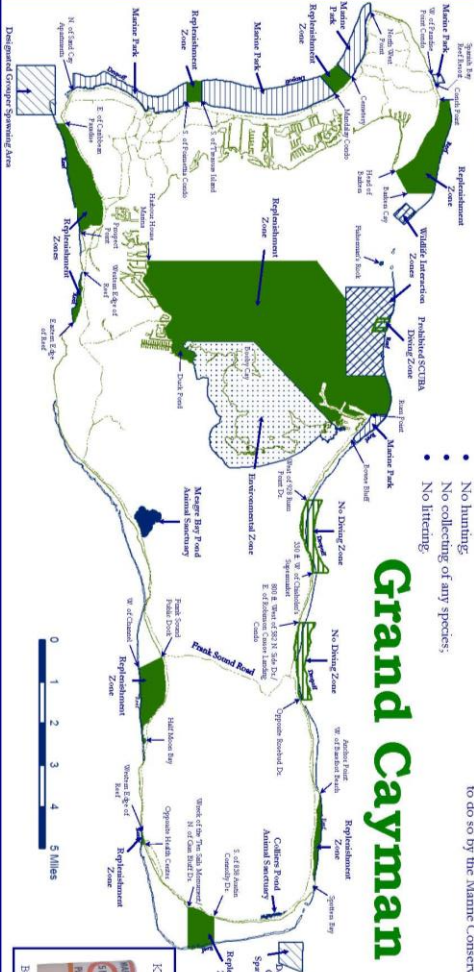
WILDLIFE INTERACTION ZONES (WIZ)

- No taking any marine life by any means;
- No selling of fish from boats;
- No removing of any marine life from the water;
- No anchoring in water shallower than three feet or so that the anchor or boat is within 20 ft of any reef structure;
- No feeding any marine life with food of any kind or amount other than that approved by the Marine Conservation Board;
- Fish feeding is prohibited anywhere in Cayman waters outside of a designated WIZ unless licensed by the Marine Conservation Board;
- No wearing any footwear in water shallower than four feet;
- Special conditions apply to commercial boats who must have a licence issued by the Marine Conservation Board and clearly displayed on the boat to enter this area.

ANIMAL SANCTUARIES/ RAMSAR SITES

- No hunting;
 - No collecting of any species;
 - No littering.
- PROHIBITED DIVING ZONE
- No SCUBA diving within this zone unless licensed to do so by the Marine Conservation Board

Grand Cayman

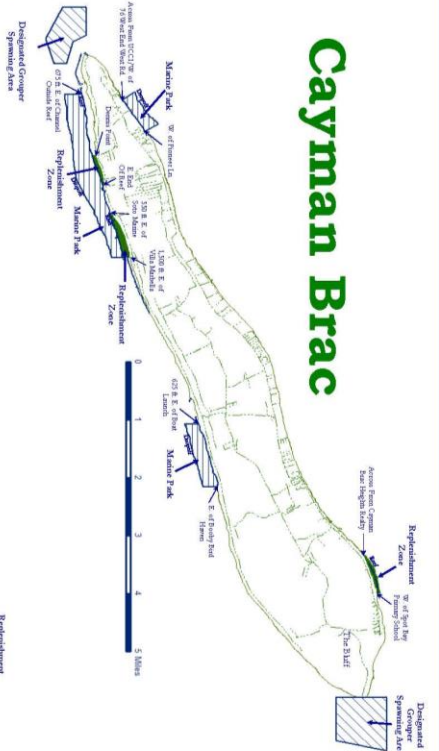


KNOW THE MARINE PARK SIGNS!

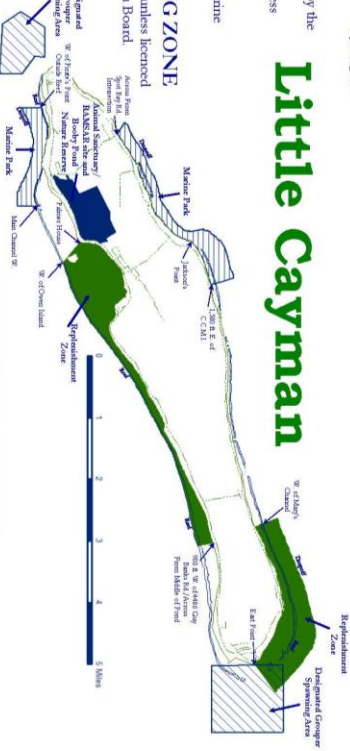
Public moorings are located around each of the islands to reduce anchor damage to coral. It is an offence to anchor so as to damage coral ANYWHERE in Cayman waters. These 18 and 30 inch white buoys may be identified by their blue stripe and yellow pick-up line and may be used free of charge. The smaller buoys are designed to hold vessels up to 60 feet long and the larger buoys are for vessels up to 100 feet. Public moorings should not be used when wind speeds reach or exceed 25 knots. Please limit your use of the mooring to 3 hours or less. It is the responsibility of the boat operator to ensure that the mooring is in safe condition — do not leave the boat unattended while on the mooring.

Damaged moorings may be reported to the Department of Environment on 949-8469 or email DoE@gov.ky

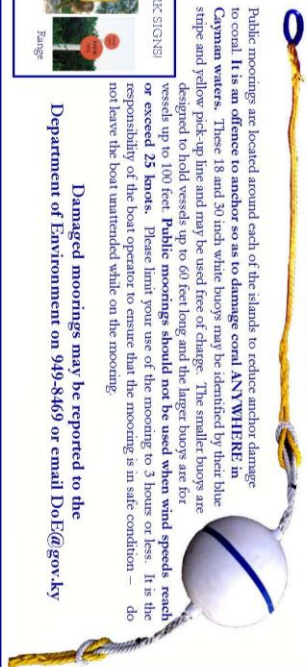
Cayman Brac



Little Cayman



PUBLIC MOORINGS



SUMMARY OF CAYMAN ISLANDS CONSERVATION LAWS

LOBSTERS

- **Closed season:** 1 March through 30 November. No one may take lobster from Cayman waters during these months. No one may purchase, receive or possess lobster taken from Cayman waters during these months.
- **Open season catch limit:** Three per person or six per boat per day, whichever is less.
- **Size limit:** Six inch tail minimum size.
- Only spiny lobster (*P. argus*) may be taken.

CONCH

- **Closed season:** 1 May through 31 October. No one may take conch from Cayman waters during these months. No one may purchase, receive or possess conch taken from Cayman waters during these months.
- **Open season catch limit:** Five per person or ten per boat per day, whichever is less.
- No one may purchase or receive more than five conch from Cayman waters in any one day.

WHELKS

- **Closed season:** 1 May through 31 October. No one may take whelk from Cayman waters during these months. No one may purchase, receive or possess whelk taken from Cayman waters during these months.
- **Open season catch limit:** Two and a-half gallons in the shell or two-and-a-half pounds of processed whelks per person per day.
- No one may purchase or receive more than two-and-a-half gallons in the shell or two-and-a-half pounds processed whelks from Cayman waters in any one day.
- Chitons, periwinkles and bleeding teeth may not be taken from Cayman waters at any time.

ECHINODERMS

- Echinoderms (includes starfish, sea eggs/urchins, sea cucumbers and sand dollars) may not be taken from Cayman waters at any time.

TURTLES

- No one may disturb, molest or take turtles in Cayman waters without a licence.
- Possession of turtle eggs is prohibited.
- For licensed fishermen, closed season runs from 1 April through 30 November.

SHARKS & RAYS

- May not be taken from Cayman waters at any time.
- No one may feed, attempt to feed or provide or use food to attract any shark in Cayman waters.

NASSAU GROUPERS

- **Size limit:** Twelve inch minimum size limit applies throughout Cayman waters year round EXCEPT:
- **Designated Grouper Spawning Areas are protected.**
- No one may take Nassau grouper from any of the Designated Grouper Spawning Areas from 1 November through 31 March.
- No one may spearfish or set a fish-pot within a one-mile radius of any Designated Grouper Spawning Area from 1 November through 31 March.
- No one may use a speargun to take Nassau Grouper.

OTHER FISH

- **Protected fish:** Jew fish (goliath grouper), filefish (whites), filefish (pupers) and angelfish, including Grey, French and Queen angels (old monks), may not be taken from Cayman waters at any time.
- **Size limit:** Eight-inch minimum size on all other fish except goggle eyes, heringies (including sprats), anchovies and silversides (including logghead and line fry).

FISH POTS

- Must be licensed.
- Only Caymanians over 18 may be granted licences.
- Only two pots per family and pots must be identified with a DOE tag.
- No fish pot may be set within a one-mile radius of any Designated Grouper Spawning Area from 1 November through 31 March.

SPEAR GUNS & SEINE NETS

- No one may use a speargun (includes Hawaiian sling, polepear, harpoon, hookstick or any device with a pointed end which may be used to impale, stab or pierce any marine life but does not include a stick) or seine net without a licence from the Marine Conservation Board. **NOTE:** A stick is defined as a wooden pole, at least 10ft long, with a maximum of 2 barb-less prongs attached to one end.
- No one may possess a speargun without a licence.
- No one may import a speargun or any parts for a speargun.
- Only Caymanians over 18 may be granted licences.
- **Speargun catch limit:** Three fish per licensed person per day.
- No one may use a speargun in water less than 20ft deep.
- No one may possess more than six fish that have been caught by a speargun.
- No one may spearfish within a one-mile radius of any Designated Grouper Spawning Area from 1 November through 31 March.
- Licence holders must carry licence when using seine net or spear fishing and adhere to licence conditions.
- No one may use a speargun to take Nassau Grouper.

GENERAL RULES

- Damaging coral by anchor, chains or any other means ANYWHERE in Cayman waters is prohibited.
- No taking of ANY marine life alive or dead while on SCUBA.
- No taking of any coral, sponges, etc. from Cayman waters.
- Wearing gloves while diving or snorkelling in Cayman waters is prohibited.
- Export of live fish or other marine life is prohibited.
- Fishing with gill nets, poison or other noxious substances is prohibited.
- Dumping ANYTHING in Cayman waters is prohibited.
- The export of more than three conch shells, and/or the shipment of any black coral other than items worn or carried in personal luggage, requires a CITES permit, issued through the DOE.
- All wild birds, bats, and native iguanas are protected at all times within the Cayman Islands. As are some native orchids.

PENALTIES

Violation of any of these laws is an offence carrying a maximum penalty of C\$500,000 fine and four years in jail. Upon conviction, forfeiture of the vessel or other equipment may also be ordered.

CONTACT INFORMATION

For additional information contact the
Department of Environment
580 North Sound Road, Grand Cayman
Phone: 949-8469 Fax: 949-4020
EMAIL: doe@gov.ky
Web: www.DOE.ky

If you see a marine turtle nest call the
Turtle Hotline: 938-NEST / 938-6378

Report Offences to:
Grand Cayman: 949-8469 or 916-4271
Cayman Brac: 926-0136
Little Cayman: 916-7021 or 926-2342
Or Call 911

Report oil spills or other marine pollution
to the DOE 949-8469 or 911



National Conservation Laws & Regulations Cayman Islands



Department
of Environment



APPENDIX F: CAYMAN ISLANDS DEPARTMENT OF ENVIRONMENT (DOE) LIONFISH RESPONSE (SPEAR) LICENSE

TERMS AND CONDITIONS FOR DIVE COMPANIES

As provided for under PART VI, Section 27.(2) of the Marine Conservation Law (2003 Revision), in issuing a special license to participants of the Lionfish Eradication Program being implemented by the Department of Environment, the Marine Conservation Board has attached the following conditions which shall apply:

- 1. Only the Red Lionfish (*Pterois volitans*) may be taken under this license.**
 - a. Culled lionfish shall not be fed to any other form of marine life.**
 - b. All culled lionfish must be placed in an appropriate containment device**
 - c. ALL Lionfish captured under this license MUST be killed and removed from Cayman Islands waters - there shall be no keeping, trade, or disposal of any live specimens unless specifically permitted by the Board**
- 2. The licensee is exempt from the following provisions in the law pertaining to the taking of marine life:**
 - A. Restriction on the taking of marine life using SCUBA.**
 - B. Restriction on the use of gloves while on SCUBA.**
 - C. Restriction on taking marine life within Marine Parks and Replenishment Zones.**
 - D. Restriction on taking fish less than eight inches in fork length.**
 - E. The use of a spearing device provided that the following conditions are adhered to:**
 - a. Only DoE issued spears may be used under this license**
 - b. Only licensed Lionfish Cullers currently employed by licensee may use the licensed spears**
 - c. Each spear will be tagged and licensed to one company but will remain property of DoE**
 - d. The licensee shall not lend, give, or sell their spears to any other person or company.**
 - e. ID cards must accompany spear at all times**
 - f. Each company will provide DoE with a complete list of all employees for approval to use the spears and must notify DoE if approved employees leave.**
 - g. Spears must be kept in a secure location at place of employment, NOT ON BOATS!**
 - h. Report lost spears or broken tags to DoE IMMEDIATELY.**
 - i. DoE will not be held responsible for any injuries resulting from the use of these spears**
- 3. The following are still prohibited:**
 - A. Entering the water within the Environmental Zone, Grand Cayman.**
 - B. Scuba Diving in the No Diving Zones.**
 - C. The use of any noxious substances.**
- 4. The licensee must report all catches of lionfish and provide details such as name of culler, date, time, location, number of lionfish and approximate sizes and dive company (if applicable). For size approximation: S means less than 6 inches, M means 6 to 12 inches, L means over 12 inches. See example below:**

John DoE, 1st January 2011, 9:00am, Trinity Caves, 15 lionfish, 2S, 8M, 5L.
- 5. PLEASE HAVE THE LAMINATED LICENSE AVAILABLE WHEN IN THE FIELD COLLECTING LIONFISH. On the boat (or in your car if shore diving) is acceptable.**
- 6. Failure to abide by these conditions will result in immediate revocation of this license and may result in prosecution.**

APPENDIX G: DIVEMASTER TRAINING / ORIENTATION GUIDE

Location: Dockside/Prior to Departure

Considering the importance of good communications with your passengers in respect to the safety of the dive trip and the feeling of trusting the crew of the vessel, the following instructions are to be given to guests before commencing to the dive site.

1. **Greet Guests.** Help passengers aboard; insure everyone is given guidance/instructions and space for their personal requirements.
2. **Roll Call.** Roll call should be taken and there will be a complete list of all passengers on board. At this time, the dive master shall make any additions or corrections to the master list. Dive operators are required to maintain records of passenger information and dive profiles for a minimum of six (6) months.
3. **Welcome Aboard Introduction.** This information shall be given on all dive trips regardless of the number of passengers. The following information is provided as a guide to insure that the Captain is providing comprehensive instructions for the safety and comfort of the passengers.
 - a) **Introduce yourself and fellow crew members.** In doing so, explain what each of the crew's function is during the dive trip.
 - b) **Explain features of the vessel.** The location of the following as appropriate: drinking water, trash can, camera rinse tank, weights and belts, head and its operation, shower, dry areas, any "off limit areas", and safety equipment location (swim rings, first aid kit, O₂, life jackets if necessary). Divers are expected to use their own personal flotation devices, BC's or rented BC's in case of emergency. Non-divers shall be provided with life jackets and be informed of the location of these flotation devices.
 - c) **Explain procedures in setting up dive equipment and preparation for diving activities.** In this section you should include the following: the length of the boat ride and when divers are expected to be prepared for the dive, surface interval between each dive, what to do with empty tanks and the location of full tanks. Explain how you expect divers to handle their personal gear and its storage aboard the boat.
 - d) **Final check before departure to dive site.** Check for everyone before final departure. Allow time to hand out any equipment necessary for rental requests, etc. Ask everyone to make one last check to see that all personal equipment required is on board.
 - e) **Safety of the voyage.** Inform guests of procedures for any unforeseen emergency with the vessel. Important to explain to passengers any escape route and/or information necessary to facilitate emergency procedures. Reassure all passengers of the vessels safety and that you have a plan for handling emergencies. Inform passengers concerning safety while moving about the vessel en route.
 - f) **Remind** divers to make sure they are adequately hydrated.

LOCATION: FIRST DIVE SITE

These instructions are for deep dives and/or first dives of a multi-tank boat dive. In accordance with safety standards of CITA, these dives can be unguided; however, they must be supervised and a guide is recommended. In accordance with safety standards of the CITA, the maximum personnel ratio will be one (1) dive master to 12 divers (1:12).

1. Be sure to have everyone's complete attention and do not allow anyone to set up equipment during the briefing.
2. Give a brief site description and note points of interest regarding the dive site. Give special instructions for photographers, environmentalists and/or special checkout dive students as necessary.

3. Explain the dive profile and exactly what you expect your guests to do while underwater. Example #1 Follow the lead dive master to the wall and proceed in buddy teams on a complete tour, returning to the mooring line. Give depth and bottom time limitations. Example #2 Follow the lead dive master to the wall. Buddy teams are not required to follow tour. The dive master will remain on the wall at the extreme limits of the dive site and stand by to lend assistance where or if needed. Give depth and bottom time limitations.
4. Identify and/or select buddy teams.
5. Explain procedures for gearing up and easy entry into the water. Instruct everyone to wait at the surface on the drift line or at the mooring line with the group until everyone is ready to descend. Give information regarding the signal to descend.
6. Explain procedures for safety stops and using of the anchor line/hang bar etc. Include information concerning the hookah/hang tank, for emergencies only. When divers are seen going for the emergency equipment, this action will alert the Divemaster of an emergency in progress. Explain to divers that the safety stop is recommended and everyone should maintain 15f/4.5m for 3- 5 minutes.
7. Remind everyone to set dive time devices and to monitor depth and pressure gauges during the dive. Instruct the divers to alert the closest dive master when air pressure is down to 1500 psi on deep dives. If anyone feels ill underwater or should see his/her buddy not responding to signals, they are to alert the dive master immediately.
8. Give brief summary of events if an emergency situation arises, what will take place in Class I verses Class II or III. Example: In the case of an emergency situation requiring immediate evacuation, before the dive is completed, the vessel will get underway immediately. Divers left on site are instructed to meet at the surface where the vessel was either moored or anchored. The group shall then remain on the surface while holding fast to the mooring line, their BC's comfortably inflated. Everyone is reminded to stay together and no one is to swim to shore for help. Divers will be picked up, in accordance with planned procedures within the CITA and could take 30-60 minutes. The most qualified person in the group shall take charge. When there is no mooring at the dive site, and an immediate evacuation is necessary, it is required that the captain leaves the anchor behind with float attached.
9. Ask everyone if they are feeling well and ready for the dive. Ask if anyone is taking any kind of medication, if so, to let the dive masters know before going into the water. Captain and/or dive master are to ensure that all divers appear coherent. If drugs or alcohol use is detected or suspected, the captain or dive master shall refuse diving privileges.
10. A mention of good buoyancy control, breath control buoyancy, the need to let air out of the BC upon ascent and that the dive masters will be checking on everyone underwater to see if weights need to be taken off for the next dive. The dive masters will be responsible to insure that adjustments are made to divers' equipment and technique underwater for the safety of the diver and the protection of the reef.
11. Recommend to all divers a maximum rate of ascent be 30 ft/ 9m per minute or slower. Explain how slow this will seem.
12. No dive masters shall prescribe/recommend or administer any medication to divers prior to diving activities.
13. **Review of Marine Conservation Laws.** There will be no taking of marine life on any dive in the Cayman Islands. Shellfish, coral, sponges, etc. alive or dead will not be brought back to the dive boats. Please do not harass the marine life. Example: riding a sea turtle, handling the fish and/or damage the environment with careless use of dive equipment. Example: fins touching the reef, consoles dragging on the reef, sitting in sponges, squeezing the coral or sponges with hands and/or feeding the fish any substance that in turn may cause damage to the animal's health. Explain to everyone the no "gloves" law and reasons for it. [Info on lionfish standards from DoE – or make a new appendix...?](#)

14. Ask all divers if they understand everything that has been explained, ask questions. Wish everyone a great dive and commence diving operations.

After dive is completed, a role call or diver on board check is to be completed by the dive master. Debrief if necessary. Vessel will get underway.

DIVE MASTER BRIEFING AT SITE TWO/THREE

These instructions are for dive masters that are conducting the second or third dive of a multi-tank boat dive. In accordance with safety standards of CITA, these dives can be unguided; however, they must be supervised.

1. Obtain the full attention of everyone.
2. Give a brief site description and note points of interest regarding the dive site. Provide special instructions for photographers, environmentalists and/or special checkout dive students as necessary.
3. Explain the dive profile and exactly what you expect your guest to accomplish on the dive. Example: "The dive site is located directly in front of the boat. Since you will not be guided you may enter when you are ready with your buddy and proceed down the anchor line to the bottom. Once you reach the bottom you can proceed with your plan as to the direction you plan to take. You should be sure that you and your buddy understand the plan for your course. You may elect to use a triangle pattern, square pattern, a circle pattern or a direct out and back pattern. Please notice the position of the boat in relationship to the dive site once you are on the bottom, the depth of mooring line attachment or anchor and notice underwater landmarks during your dive to remind you of the boats location.

The fringing reefs grow perpendicular to the shoreline with the reef bases parallel to the shoreline and you may use this information to navigate by. Give the depth and time limit for the dive. Explain to everyone that they should check their own dive tables and give everyone dive group designator and limitations accordingly.

4. Explain that you expect everyone to know where the boat is at 1000 psi/ 68 bar and to be back on board with no less than 500 psi/ 34 bar. Recommend a safety stop on ascent at the anchor or hang bar, at 15 ft/ 4.5m.
5. Be sure that groups and buddy teams have communicated and planned their dive and understand how each other's gear operates.
6. Remind divers to set dive time devices and help everyone into the water.
7. Give everyone information regarding any potential problems that may occur on the dive. Inform them of anything that you do not want them to do since you won't be able to watch everyone all the time. Examples: Swimming down currents, harass marine life, chances of exceeding depth limits and/or penetration into caves or wrecks.
8. Ask everyone to remember the Marine Conservation Laws and to help us protect the underwater environment. The only thing that we are going to take from the water on this dive is pictures and memories.
9. Ask everyone if they understand the dive profile and if they have any questions concerning the plan.

After all divers and non-divers have returned to the boat, the dive masters will complete a check of all guests on board or do a roll call. Information should be given at this time concerning how long it will take to reach the shore and what is expected of the guest in preparing themselves to disembark.

CITA DIVE MASTER CHECKLIST

Location: Dockside

- ❖ Greet guests, help aboard and give instructions.
- ❖ Welcome aboard introduction, explain the vessels features and voyage.
- ❖ Introduction of crew, procedures for setting up gear, length of boat ride.
- ❖ Explain the safety of voyage and procedures in case of emergency.

Dive Briefing Site One

- ❖ Get everyone's attention.
- ❖ Give description of dive site, points of interest, position of vessel to site.
- ❖ Explain the dive profile, what is expected of divers when underwater.
- ❖ Select groups and/or buddy teams.
- ❖ Explain procedures for gearing up and entry into water.
- ❖ Procedure for safety stop.
- ❖ Remind everyone to set time devices and monitor gauges underwater.
- ❖ Alert dive master at 1000 psi/ 68 bar, back onboard with 500 psi/ 34 bar.
- ❖ To alert dive master if ill or if emergency occurs.
- ❖ Explain what would happen in case of unforeseen emergencies.
- ❖ Ask if everyone if feeling all right and/or taking any medication.
- ❖ Explain good buoyancy control, and breath control.
- ❖ Recommended 30 ft/ 4.5m per minute or slower ascent.
- ❖ Review of Marine Conservation Laws:
 - No collecting, handling or damaging environment, fins touching down on reef, consoles dragging on the reef. No Gloves.
- ❖ Ask everyone if they have any questions and understand everything.
- ❖ Everyone have a fun and safe dive.

Dive Briefing Site Two/Three

- ❖ Get everyone's attention.
- ❖ Give description of dive site, points of interest, position of vessel to site.
- ❖ Explain the 1000 psi/ 68 bar rule and the 500 psi/ 34 bar rule.
- ❖ Be sure of buddy teams and dive plan communication.
- ❖ Remind everyone to set time devices and monitor gauges underwater.
- ❖ Give info on dive plan, maximum depth and dive time.
- ❖ Give necessary warning: currents, marine life, depth, and penetration into wreck or cave.
- ❖ Review Marine Conservation Laws again.
- ❖ Is everyone feeling all right?
- ❖ Ask everyone if they understand the dive plan and if any questions.
- ❖ Everyone have a fun and safe dive.

TRAINING SYLLABUS FOR CITA

ACCIDENT MANAGEMENT/EMERGENCY EVACUATION PROCEDURES

Reference DAN Underwater Diving Accident Manual
Enclosures: DAN Underwater Diving Accident Manual
 Victim Log and Evaluation Sheet (Captains Report)
 Victim Tender Checklist

Please find enclosed references and enclosures to support procedures and **Accident Management**. Use this information as a guide to establish a checklist to be followed for insuring all possible care and attention of responsibilities are covered when handling a victim of an accident. All situations are different and may require additional care, treatments and/or procedure changes as deemed to be necessary by the individual case.

Management is required to insure that boat crews are properly trained in these procedures and a quarterly review is held. A training coordinator shall be appointed for each CITA operation and responsible for all training, recording and reporting of dive staff training. All members of CITA in respect of boat crews are required to have current certifications in CPR, life saving, first-aid and/or any other certifications held and required at time of employment.

INJURY ASSESSMENT AND PRIORITY OF EVACUATION

This section describes specific classifications of injuries; however, it is not limited to the following outline. The captain has the ultimate responsibility for injury assessment and priority of evacuation determination.

Class I (Priority One)

The vessel will get underway immediately. Diver down recall would be impossible and all divers not aboard would be left behind. This procedure will require assessment of the total situation with consideration for the safety of divers remaining in the water. The captain ultimately has the authority to get underway but must consider the deterrents of this action.

Note: When divers are left behind, a dive master or suitable crewmember would remain with customers whenever possible, providing requirements are met in coordinating existing emergency. Boat captain shall make arrangements for pick up in these cases. Divers left behind shall be instructed to stay together with group and hold fast to mooring. When mooring is not available divers shall be instructed to seek a comfortable resting place, possibly in shallow water, and await help.

EXAMPLES OF EMERGENCIES REQUIRING CLASS I EVACUATION:

Air embolism, deep lacerations with arterial bleeding, respirator/cardiac arrest or any life threatening situations requiring immediate care and treatment by shore based facility.

Class II (Priority Two)

The vessel will get underway immediately upon diver recall. Diver recall would be accomplished by on deck crewmembers and with assistance of all able bodies. Captain may elect to use the main engines sounding to alert divers; however, would post a watch beside the controls so that engaging underwater propulsion was not possible.

Note: This recall system is to be discussed and explained in captain's briefing with passengers at the start of each charter. Pay special attention to safety in boarding and accounting for divers down so as not to further complicate emergency with additional injuries.

Examples of Class II Evacuation:

Victim is complaining about chest pain, shortness of breath, paralysis, limb pain, etc. A deep cut or wound without arterial bleeding, or any injury requiring treatment of shore based facility but not life threatening.

Class III (Priority III)

The vessel may or may not get underway according to the availability of shore base rescue vehicles and/or personnel. The determining factor of the speediness of this evacuation depends on victims' state of mind and condition. Not to allow delay that could cause additional injury due to infections, shock or other related injuries from failure to treat promptly.

Example of Class III Evacuation:

Small cuts or abrasions, or any illness of underdetermined origin, an injury that would not necessarily require shore based treatment.

PREPARATION FOR TRANSFER OF VICTIM

1. Follow the procedures on the Victim Tender Checklist. Insure proper procedures are followed.
2. Talk to the victim and gather information for your checklist. Reassure the victim that they are in good hands and not in serious danger.
3. Prepare the deck for evacuation, clear all equipment and people that may hamper swift operation.
4. Put the victim on a backboard or personnel basket and secure tightly but not to be uncomfortable. Prepare backboard/basket to lift, free of surrounding obstructions.
5. Organize team to lift the victim with backboard and make the transfer to shore. Give instructions to your team as for tentative plan.
6. Recruit assistant to log all chain of events on proper log provided. Be sure that this log goes with the victim.
7. Instruct other passengers to be seated but not closely to the victim allowing a clear view for captain and or radio assistance. Inform them of what will take place and any additional assistance that may be needed.

CAPTAIN'S ASSIGNMENT OF DUTIES IN EMERGENCIES

The captain should know in advance which crewmembers are suited for each part of the evacuation procedure. Assignments of these duties, with intentions for backups in all cases, should be covered by advance instructions. These procedures should be planned and practiced in advance in the form of a drill; recommended on a quarterly basis.

1. The captain ultimately pilots the vessel while giving consideration to all functions that make the evacuation a success and directs communications with all members of the crew to start the process. The captain may elect to give radio communications to another crewmember so that they may also be able to go back and forth to the victim getting up to date data of the victim. The captain may also do this function themselves when another suitable operator is available for the operation of the vessel.
 - a) Recruit someone to record information concerning the chain of events. Provide all necessary information about the victim as per victim report log.
 - b) Find out if any passengers have EMT training and/or are a doctor or nurse that may help in the first aid treatment.
 - c) Keep all unnecessary people from around the victim to allow plenty of room.
 - d) Decide what the best-coordinated efforts are to get the victim off the vessel and into the capable hands of the shore based facility.
 - e) Keep the other passengers informed, reassuring the situation is well in hand.
 - f) Prepare the vessel for transfer of victim, (see preparation for transport).
 - g) Prepare the vessel for landing etc. (bumpers, area clear, engines and equipment checked, crew with instructions).
 - h) Oxygen bottle ready to transport with victim.
 - i) Inform the other passengers what is going to happen.

- j) Alert shore base activity where landing is to take place. Be clear of any obstructions and or swimmers etc.
- k) Secure victims gear, rinse and hold, DO NOT disassemble.
- l) The captain is required to complete a full report of any accident and submit to the operations manager, as per the following. A copy of this report shall be submitted to the safety committee of CITA.

CITA INFORMATION FOR ALL DIVE BOATS

1. The Director of Ports or any person duly authorized in writing by the Authority has the right to board any vessel for grounds of believing that there is or has been contravention of the Laws.
2. The owner of a vessel or boat shall be held responsible for compliance with Regulations of the Port Authority.
3. For the purpose of sub-regulation the owner shall, while another person is using the vessel or boat, when he/she is not on board, be deemed to include the person in charge of the vessel or boat, if no one is in charge thereof, all persons using the vessel or boat.
4. As the operator and/or owner of a vessel you are responsible not only for the prudent and safe operation of you boat, but also for the lives and safety of your passengers and others around you.
5. Vessel operators are required to be knowledgeable with the official sea code of the Cayman Islands regarding boat operation. All navigation and piloting of vessels in the Cayman Islands shall be in respect of good seamanship and boat handling with regards to conditions and weather.

QUALIFICATIONS FOR CAPTAINS

CITA members are to insure qualified boat captains operate all vessels. Since there are no current requirements for licenses in the Cayman Islands, captains must be qualified by the individual organizations. Training for positions of captains shall be required by the CITA and needing the following criteria.

1. Handling the vessel in and around docking facilities, dive sites and while otherwise underway.
2. Knowledge of machinery and working parts of the vessel, capable of trouble shooting and making emergency repairs.
3. Proper operation of VHF radio and/or SSB when required.
4. Anchoring and mooring the vessel.
5. Procedure for: fire at sea, man overboard, rough weather or crossing hazardous bars.
6. Emergency evacuation procedures.
7. Safety of the voyage and prior preparation.
8. Equipment required for all vessels engaged in handling of divers as per these CITA regulations.
9. One (1) compass mounted and lighted for night operation.
10. Running lights, mast, stern, side lights and anchor
11. Cabin or overhead lights for night operation.
12. One (1) life jacket for each person on board, (divers personal safety vest or buoyancy compensator allowed).
13. One (1) horn, electric or mechanical.
14. Spot light
15. Boat hook
16. One (1) set of tools including: pipe wrench, shifting wrench, large pliers, small pliers, two (2) Phillips screwdrivers, two (2) flat head screwdrivers, knife, duct tape, electrical tape.
17. One (1) oxygen tank minimum at 100% demand.
18. One (1) oxygen regulator demand system
19. One (1) hang line/bar system (15 ft/ 4.5m depth).

- 20. One (1) first aid kit (see required list of supplies)
- 21. Two (2) gallons fresh water
- 22. One (1) laminated dive master briefing checklist
- 23. One (1) laminated emergency evacuation procedures

CTA MOORINGS & ANCHORING INSTRUCTIONS:

1. Moorings

Each time a vessel picks up a mooring, the captain is responsible for insuring proper hookup and inspection.

- a) When hooking up to a mooring, give consideration for a **minimum** of 30-degree scope from the attached tail line on the vessel, downward to the waterline. It may be necessary to attach an additional piece of line for vessels that have higher bows.
- b) Check the tail line thoroughly from the boat cleat down to the surface float.
- c) Check the surface float for chaffing and/or through line splices, also check both connections for the buoy, down line and tail line.
- d) Check down line thoroughly for chaffing and all the way down to the underwater gear, pins and shackles.
- e) Check all pins, shackles and underwater equipment for wear and chaffing.

Always report discrepancies in mooring equipment to the operations manager, the day of such findings. Managers are required to call the Marine Parks Officers at 949-8469 or channel #17 on the VHF radio.

2. Anchoring

Anchoring in the Marine Parks and/or to cause damage to coral and the environment is illegal. When otherwise anchoring is required, please follow these guidelines:

- a) Be familiar with white sandy holes in the areas close to the dive sites without moorings.
- b) Using a danforth type anchor only, lower the anchor into the sand watching the anchor all the way to the bottom. The captain should keep the vessel positioned directly over the sand hole until the anchor reaches the bottom.
- c) Once the anchor touches bottom, the captain may come astern slowly in order to let out line.
- d) Allowing scope of three (3) times length for depth of water minimum, in normal wind and sea conditions, recommended 5-7 times for adverse conditions.
- e) Once the anchor line slack is out, set the anchor to be sure that it does not drag and cause harm to coral.
- f) The dive master should descend down the anchor line with group and check the position and security before continuing on the dive.

CTA EMERGENCY INSTRUCTIONS FOR AT SEA:

1. Rough Weather at Sea or Crossing Hazardous Bars

- a) Close all watertight doors, hatches and airports to prevent taking on water.
- b) Keep bilges dry to prevent loss of stability due to water in the bilges.
- c) Keep passengers seated and evenly distributed.
- d) Have passengers put on life preservers if the going becomes very rough or if the vessel is about to cross a hazardous bar.
- e) If assistance is needed, use the International Distress call over VHF Radio or call local authority immediately.
- f) Prepare Life rafts for launching if applicable or give instructions to passengers concerning leaving the vessel, staying together and/or listening for instructions.

2. Man Overboard

- a) Post a lookout to keep the person overboard in sight at all times.
- b) Throw a ring buoy overboard as close to the person as possible.
- c) Have a crewmember put on a life jacket, attach a safety line to themselves and have them standby to jump into the water to assist the person overboard if necessary.
- d) Maneuver the vessel to pick up the person in the water.
- e) If the person is not immediately located, notify the local authority and other vessels in the vicinity by VHF radio.
- f) Continue to search until released by authorities.

3. Fire at Sea

- a) Cut off air supply to fire, close hatches, ports, doors, ventilators, etc.
- b) Immediately use portable fire extinguishers at base of flames for inflammable liquid and grease fires or water for fires of ordinary combustible materials.
- c) If the fire is in machinery spaces, shut off the fuel supply and ventilation and discharge fixed CO₂ if installed.
- d) Maneuver vessel to minimize effects of wind and fire.
- e) If unable to control fire, immediately notify local authorities and other boats in the vicinity by VHF Radio.
- f) Move passengers away from fire, have them put on life preservers and if necessary prepare to abandon ship.

APPENDIX H1: DoE Use of Public Mooring Buoys Guidelines

Moorings for public use have been installed by the Department of Environment to prevent anchor damage to coral reefs. Please tie to a mooring buoy instead of anchoring whenever possible.

Public moorings may be identified by the white buoy (either 18" or 30" in diameter) with either a blue or yellow stripe and yellow mooring line. The public moorings are provided for use by the general public. Any boat, private or commercial, including fishing vessels, may tie on to the moorings provided that the following regulations are observed.

- Size limits for vessels using the moorings are generally: vessels up to 60 ft/ 18 m may use 18" or 30" buoys; vessels over 60ft/18m and less than 100 ft/ 30 m may only use the larger 30" buoys.
- The buoy line should not be attached to the vessel. Please use a bow-line with a minimum scope of 10 ft/ 3 m to secure your vessel. Using your own bow-line increases the shock absorbency of the buoy and prevents chafing of the buoy line.
- The safety of the vessel while on the moorings is the sole responsibility of the vessel operator. Please examine the condition of the mooring line and do not leave the vessel unattended while on the mooring.
- Please use good judgment when weather conditions are not ideal. Strong winds and heavy seas place a great strain on the moorings. Use a longer scope on the bow-line and use a larger buoy if possible.
- Please reduce speed when passing within 200 yd/ 184 meters of a vessel tied to a mooring. The boat wake increases the strain on the mooring, and the vessel may have divers on the surface or be fishing.
- Use of the moorings is regulated by the Department of Environment and vessel operators must comply with directions given by Enforcement Officers and D.O.E. staff.
- Please do not monopolise the mooring - there are many more boats in Cayman than there are buoys. Do not remain on the mooring for more than three hours.
- Vessels are not permitted to overnight on the moorings without the prior permission of the D.O.E. Exception is made for commercial live-aboard dive vessels operating in the Cayman Islands.
- There are also large, orange moorings in the George Town Harbour and at the Spotts and Creeks anchorages specifically for visiting yachts to use during their stay.
- Damaged or missing moorings, or any questions regarding their use, should be referred to the Department of Environment.

Tel 949-8469 or Fax 949-4020

DoE@gov.ky

Use of Yacht Moorings

- Yacht moorings are identified as a 30" orange buoy with a blue stripe and are provided for the convenience of visiting recreational vessels.
- Only vessels visiting the Islands are permitted to tie to these moorings. Permission must be granted by Port Authority or Dept. of Environment.
- Users must inspect the mooring. Neither DoE or Port Authority can guarantee the safety of the mooring.
- Moorings may be used by vessels less than 100 ft in length in fair weather.
- Vessel operators must comply with directions given by Dept. of Environment or Port Authority.

APPENDIX H2: DoE Public Mooring Listing – Grand Cayman

ID	Site	Northing	Easting	Depth	Type	Island
1	13 Trees	19.357370	-81.395720	40.0 ft	1	GCY
2	3 Towers	19.400000	-81.389720	55.1 ft	1	GCY
3	3B Wall	19.383480	-81.307770	62.0 ft	1	GCY
4	Alex's Alley	19.399850	-81.363580	65.0 ft	1	GCY
5	Anchor Pt.	19.358170	-81.131870	65.0 ft	1	GCY
6	Andes Reef	19.363970	-81.253800	30.0 ft	1	GCY
7	Andes Wall	19.364850	-81.252880	60.0 ft	1	GCY
8	Angelfish Reef	19.346030	-81.391870	35.0 ft	2	GCY
9	Aquarium	19.344920	-81.391000	34.0 ft	1	GCY
10	Armchair Reef	19.279520	-81.394250	35.0 ft	1	GCY
11	Babylon	19.353320	-81.164320	55.0 ft	1	GCY
12	Balboa	19.297230	-81.386430	25.0 ft	2	GCY
13	Barracuda Ron's Reef	19.262800	-81.377020	20.0 ft	1	GCY
14	Barracuda Wall	19.323020	-81.394570	60.0 ft	1	GCY
15	Barrel Sponge Wall	19.356950	-81.099530	60.0 ft	1	GCY
16	Bat Cave Reef	19.268170	-81.309830	18.0 ft	1	GCY
17	Bear's Paw	19.397880	-81.360230	30.0 ft	1	GCY
18	Big Dipper	19.365900	-81.410830	70.0 ft	1	GCY
19	Big Tunnels	19.368270	-81.416520	55.0 ft	2	GCY
20	Black Forest	19.271150	-81.395620	65.0 ft	1	GCY
21	Black Forest north	19.384050	-81.328420	50.0 ft	1	GCY
22	Black Rock Canyon	19.357600	-81.105420	60.0 ft	1	GCY
23	Black Rock Dropoff	19.356350	-81.105030	29.9 ft	1	GCY
24	Blackie's Hole	19.272280	-81.395600	50.0 ft	1	GCY
25	Blue Peter Reef	19.382950	-81.322020	29.9 ft	1	GCY
26	Blue Pinnacles	19.393830	-81.345620	60.0 ft	1	GCY
27	Bolero	19.347850	-81.392400	35.0 ft	1	GCY
28	Bonnie's Arch	19.370380	-81.419500	45.0 ft	2	GCY
29	Breakers Wall	19.288750	-81.193950	69.9 ft	2	GCY
30	Broadbelt's Bommie	19.268900	-81.336870	52.0 ft	1	GCY
31	Bullwinkle east	19.265480	-81.360320	25.0 ft	2	GCY
32	Bullwinkle west	19.265620	-81.361480	25.0 ft	1	GCY
33	Butterfly Bluff	19.380530	-81.292500	57.1 ft	1	GCY
34	Cable Wall	19.321730	-81.394370	60.0 ft	1	GCY
35	Caribbean Club Sand Chute	19.332130	-81.391670	55.0 ft	1	GCY
36	Carson's Reef	19.399300	-81.389120	25.0 ft	1	GCY

37	Castle Wall	19.384630	-81.315000	65.0 ft	1	GCY
38	Cayman Crossing	19.265730	-81.355630	25.0 ft	1	GCY
39	Chain Reef	19.368050	-81.408630	35.0 ft	1	GCY
40	Charlie's Caverns	19.268800	-81.343080	40.0 ft	1	GCY
41	Chelonia Wall	19.346370	-81.393580	58.0 ft	1	GCY
42	Chinese Garden	19.267800	-81.347350	18.0 ft	1	GCY
43	Chinese Wall	19.380870	-81.299550	58.1 ft	1	GCY
44	Christina's Wall	19.261500	-81.374000	67.9 ft	1	GCY
45	Christopher's Wall	19.382920	-81.282920	60.0 ft	1	GCY
46	Chubb Hole	19.350470	-81.084280	25.0 ft	1	GCY
47	Cinderella's Castle	19.349350	-81.082820	25.0 ft	1	GCY
48	Conch Point	19.397470	-81.392170	31.0 ft	1	GCY
49	Conch Point Reef	19.394240	-81.399990	35.0 ft	1	GCY
50	Creole Cliff	19.384370	-81.310730	64.0 ft	1	GCY
51	Crossroads	19.262730	-81.371870	65.0 ft	1	GCY
52	Crusher's Wall	19.290120	-81.146020	64.0 ft	1	GCY
53	Dangerous Dan's Dropoff	19.264670	-81.351020	85.0 ft	1	GCY
54	Darvin's Theory	19.353670	-81.395780	55.0 ft	1	GCY
55	Dede's Garden	19.264050	-81.374200	35.0 ft	1	GCY
56	Deila's Delight	19.358950	-81.245300	50.0 ft	1	GCY
57	Delwin's Delight	19.357850	-81.115000	30.0 ft	1	GCY
58	Devil's Grotto North	19.292480	-81.387500	20.0 ft	1	GCY
59	Devil's Grotto South	19.291650	-81.388250	20.0 ft	2	GCY
60	Disneyworld	19.273750	-81.393430	35.0 ft	1	GCY
61	Doc Poulson Wreck	19.360480	-81.399150	50.0 ft	2	GCY
62	Dolphin Dropoff	19.369220	-81.419700	70.0 ft	1	GCY
63	Dragon's Hole	19.366300	-81.412270	70.0 ft	1	GCY
64	Dragon's Lair	19.342870	-81.077970	30.0 ft	1	GCY
65	Dream Weaver Reef	19.381980	-81.303630	55.1 ft	1	GCY
66	Dumbo's Lookout	19.289300	-81.116690	65.0 ft	1	GCY
67	Durgon's Domain	19.383450	-81.318120	35.0 ft	1	GCY
68	Eagle Ray Rock	19.274070	-81.395200	52.0 ft	2	GCY
69	Eagleray Pass	19.383850	-81.324920	52.0 ft	1	GCY
70	Eagles Nest	19.341400	-81.392080	60.0 ft	1	GCY
71	Easy Street	19.367920	-81.415880	65.0 ft	1	GCY
72	Eden Rock North	19.293630	-81.387120	20.0 ft	1	GCY
73	Eden Rock South	19.293100	-81.387270	20.0 ft	1	GCY
74	Eeny Meenie Miny Moe	19.287850	-81.190820	60.0 ft	1	GCY
75	Elmo's Wall	19.289530	-81.170280	65.0 ft	1	GCY
76	Eye of the Needle	19.263370	-81.369600	75.0 ft	1	GCY

77	Fantasy Land	19.291120	-81.154330	25.0 ft	1	GCY
78	Fish Pot Reef	19.300080	-81.385320	21.0 ft	1	GCY
79	Fish Tank	19.356750	-81.106970	38.0 ft	1	GCY
80	Flamingo Flamenco	19.379470	-81.296220	35.0 ft	1	GCY
81	Frank Sound Gardens	19.290730	-81.176070	30.0 ft	1	GCY
82	Funky Sponge	19.370070	-81.417720	25.0 ft	1	GCY
83	Gail's Mountain	19.380600	-81.296130	55.0 ft	1	GCY
84	Gary's Reef	19.263950	-81.373200	33.0 ft	1	GCY
85	Gary's Wall	19.263750	-81.366430	82.0 ft	1	GCY
86	Ghost Mountain	19.402300	-81.385680	75.0 ft	1	GCY
87	Giant's Slide	19.326320	-81.393500	55.0 ft	1	GCY
88	Giglin Marlin	19.304130	-81.072800	20.0 ft	1	GCY
89	Glamis	19.346740	-81.080110	20.0 ft	2	GCY
90	Great House Wall	19.343150	-81.392650	60.0 ft	1	GCY
91	Grouper Grotto	19.296280	-81.085980	25.0 ft	1	GCY
92	Hammerhead Hill	19.383970	-81.309080	50.0 ft	2	GCY
93	Hammerhead Hole	19.336220	-81.389120	30.0 ft	1	GCY
94	Harlequin	19.381350	-81.305050	32.0 ft	1	GCY
95	Haunted House	19.380550	-81.294730	60.0 ft	1	GCY
96	Heather's Hallway	19.368000	-81.257220	55.0 ft	1	GCY
97	Hepp's Pipeline	19.385380	-81.416450	25.0 ft	1	GCY
98	Hepp's Wall	19.386130	-81.417670	60.0 ft	1	GCY
99	High Rock Dropoff	19.290080	-81.124030	50.0 ft	2	GCY
100	Hole In the Wall	19.393380	-81.345220	60.0 ft	1	GCY
101	Holiday Inn Dropoff	19.337770	-81.391850	65.0 ft	1	GCY
102	In Between	19.367300	-81.414370	57.0 ft	1	GCY
103	Indigo Drop Off	19.397810	-81.351280	60.0 ft	1	GCY
104	Ironshore Gardens	19.291420	-81.143630	30.0 ft	1	GCY
105	Japanese Garden	19.268320	-81.345320	29.0 ft	1	GCY
106	Jax Dax	19.340850	-81.390050	40.0 ft	2	GCY
107	John Halas Wall	19.385680	-81.336030	55.0 ft	1	GCY
108	Julie's Wall	19.352650	-81.166050	58.0 ft	1	GCY
109	Kangaroo Gorge	19.288870	-81.121400	65.0 ft	1	GCY
110	Kathleen's Reef	19.358450	-81.123480	30.0 ft	1	GCY
111	Kelly's Caverns	19.291280	-81.146020	30.0 ft	1	GCY
112	Kent's Caves	19.258580	-81.385730	31.0 ft	1	GCY
113	Killer Pillar	19.324580	-81.391400	30.0 ft	1	GCY
114	Killer Puffer	19.343670	-81.390730	35.0 ft	1	GCY
115	Kittiwake	19.361900	-81.401220	60.0 ft	1	GCY
116	Knife	19.359120	-81.399350	75.0 ft	1	GCY

117	Laura's Reef	19.265470	-81.362470	32.0 ft	1	GCY
118	LCM David Nicholson	19.287350	-81.392620	60.0 ft	2	GCY
119	Ledges	19.402770	-81.373280	80.0 ft	1	GCY
120	Lemon Reef	19.382950	-81.323850	30.0 ft	1	GCY
121	Lemon Wall	19.383930	-81.322430	55.0 ft	1	GCY
122	Leslie's Curl	19.383830	-81.320230	60.0 ft	1	GCY
123	Lexau's Legacy	19.391630	-81.408440	35.0 ft	1	GCY
124	Lighthouse Ledges	19.374130	-81.422790	65.0 ft	1	GCY
125	Lighthouse Wall 2	19.293570	-81.093950	70.0 ft	1	GCY
126	Little Bluff Reef	19.356430	-81.138720	32.0 ft	1	GCY
127	Little House on the Prairie	19.291220	-81.148150	30.0 ft	1	GCY
128	Little Table Rock	19.258550	-81.386320	29.0 ft	1	GCY
129	Little Tunnels	19.365680	-81.410230	58.0 ft	1	GCY
130	Little Tunnels Wall	19.395230	-81.401050	70.0 ft	1	GCY
131	Lodge Anchor	19.290570	-81.112350	30.0 ft	1	GCY
132	Lone Star Reef	19.327000	-81.390970	30.0 ft	1	GCY
133	Lost Treasure Reef	19.353850	-81.393400	31.0 ft	2	GCY
134	Lost Valley	19.289050	-81.119500	65.0 ft	1	GCY
135	Lost Wall	19.317930	-81.072450	60.0 ft	1	GCY
136	Maggie's Maze	19.291170	-81.144780	40.0 ft	1	GCY
137	Main Street	19.390880	-81.343270	60.0 ft	1	GCY
138	Marin's Playground	19.267500	-81.350800	25.0 ft	1	GCY
139	Marty's Wall	19.360120	-81.400000	50.0 ft	1	GCY
140	Max's Garden	19.381580	-81.282670	35.0 ft	1	GCY
141	McCurly's Wall	19.353730	-81.163570	50.0 ft	2	GCY
142	McKenny's Canyon	19.293430	-81.090370	60.0 ft	1	GCY
143	Memorial Reef	19.362380	-81.398200	30.0 ft	1	GCY
144	Meridian Drop	19.334080	-81.391680	50.0 ft	1	GCY
145	Mesa	19.321680	-81.393080	34.0 ft	1	GCY
146	Mitch Miller Reef	19.360850	-81.397080	30.0 ft	1	GCY
147	Monet's Garden	19.380570	-81.302980	35.0 ft	1	GCY
148	Ned's Tunnels	19.266400	-81.352680	40.0 ft	1	GCY
149	Neptunes Wall	19.363670	-81.405500	60.0 ft	2	GCY
150	No Name Wall	19.264020	-81.365150	64.0 ft	1	GCY
151	North West Point	19.369420	-81.420670	64.0 ft	1	GCY
152	Northern Lights	19.354920	-81.162000	55.0 ft	1	GCY
153	Old #12	19.358320	-81.130780	60.0 ft	1	GCY
154	Old Issacs	19.295300	-81.089080	30.0 ft	1	GCY
155	Ollen's Office	19.262950	-81.370630	65.0 ft	1	GCY
156	Omega Reef	19.356350	-81.142570	31.0 ft	1	GCY

157	Orange Canyon	19.368680	-81.418050	61.0 ft	1	GCY
158	Oro Verde bow	19.338200	-81.390380	50.0 ft	1	GCY
159	Oro Verde stern	19.338570	-81.390480	50.0 ft	2	GCY
160	Pageant Beach Reef	19.306470	-81.388320	31.0 ft	1	GCY
161	Pallas Pinnacle central	19.260420	-81.376120	85.0 ft	1	GCY
162	Pallas Pinnacle east	19.260970	-81.375670	75.0 ft	1	GCY
163	Pallas Pinnacle west	19.259720	-81.376700	75.0 ft	1	GCY
164	Pallas Reef	19.262150	-81.378420	18.0 ft	1	GCY
165	Paradise Reef	19.339200	-81.389920	46.0 ft	1	GCY
166	Park Place	19.400580	-81.372520	26.0 ft	1	GCY
167	Pat's Wall	19.292930	-81.089020	60.0 ft	1	GCY
168	Pedro Castle	19.265750	-81.294300	40.0 ft	1	GCY
169	Pedro Pinnacle	19.263430	-81.292020	78.0 ft	1	GCY
170	Pedro Reef	19.266450	-81.294370	27.0 ft	1	GCY
171	Penny's Arch	19.376620	-81.265750	30.0 ft	1	GCY
172	Peppermint Reef	19.365780	-81.406150	43.0 ft	1	GCY
173	Peter's Reef	19.342770	-81.390520	35.0 ft	1	GCY
174	Peter's Playground	19.380730	-81.291020	50.0 ft	1	GCY
175	Phantom Ledge	19.263600	-81.367670	75.0 ft	1	GCY
176	Pinnacle Reef	19.379420	-81.293900	30.0 ft	1	GCY
177	Pirate's Cove	19.264150	-81.372200	34.0 ft	1	GCY
178	Playing Field	19.292780	-81.105000	30.0 ft	1	GCY
179	Portobello	19.377950	-81.421080	44.0 ft	1	GCY
180	Princess Penny's Wall	19.384280	-81.331530	46.0 ft	1	GCY
181	Prospect Reef	19.270120	-81.336670	45.0 ft	1	GCY
182	Queen's Throne	19.380020	-81.291270	39.0 ft	1	GCY
183	Rainbow Reef West	19.367970	-81.412380	30.0 ft	1	GCY
184	Ray's Bedroom	19.379930	-81.299530	35.0 ft	1	GCY
185	Red Bay Caves	19.265530	-81.366670	26.0 ft	1	GCY
186	River of Sands	19.290600	-81.125770	54.0 ft	1	GCY
187	Robert's Wall	19.380770	-81.298030	50.0 ft	1	GCY
188	Roger's Reef	19.355480	-81.098420	30.0 ft	1	GCY
189	Ron's Wall	19.259170	-81.377750	70.0 ft	1	GCY
190	Ronnie's Nemesis	19.384920	-81.334250	60.0 ft	1	GCY
191	Round a Bout	19.384330	-81.318300	55.0 ft	1	GCY
192	Round Rock East	19.364830	-81.407870	55.0 ft	1	GCY
193	Round Rock West	19.364900	-81.408130	58.0 ft	2	GCY
194	Royal Palms Ledge	19.318950	-81.393280	40.0 ft	1	GCY
195	Sand Chute	19.361700	-81.401680	55.0 ft	1	GCY
196	Sand Hole Reef	19.390960	-81.410820	35.0 ft	1	GCY

197	Schoolhouse Reef	19.393060	-81.403770	35.0 ft	1	GCY
198	Scuba Bowl	19.292330	-81.087980	77.0 ft	1	GCY
199	Seaview Reef	19.291960	-81.389530	26.0 ft	1	GCY
200	Sentinel Rock	19.368370	-81.417350	70.0 ft	1	GCY
201	Severn's Fathom	19.384570	-81.312820	70.0 ft	1	GCY
202	Skye Arch	19.269720	-81.340830	30.0 ft	1	GCY
203	Slaughterhouse Wall	19.362970	-81.404050	52.0 ft	1	GCY
204	Smith Cove	19.275770	-81.393180	32.0 ft	1	GCY
205	Snapper Hole	19.344150	-81.077830	36.0 ft	1	GCY
206	Sotos Central	19.302620	-81.385520	12.0 ft	1	GCY
207	Spanish Anchor	19.352900	-81.393550	40.0 ft	1	GCY
208	Split Rock	19.358730	-81.112550	56.0 ft	1	GCY
209	Spotts Reef	19.268620	-81.311380	17.0 ft	1	GCY
210	Stingray City East	19.384520	-81.343430	12.0 ft	1	GCY
211	Stingray City West	19.384820	-81.343730	12.0 ft	1	GCY
212	Stuey's Crevasse	19.272680	-81.393300	35.0 ft	1	GCY
213	Tarpon Alley	19.386050	-81.336680	55.0 ft	2	GCY
214	Tarpon Tap Room	19.291370	-81.150170	35.0 ft	1	GCY
215	Tarpon Terrace	19.291150	-81.123270	30.0 ft	1	GCY
216	Tarpon Tunnels	19.386930	-81.338150	65.0 ft	1	GCY
217	The Arch	19.290470	-81.114580	30.0 ft	1	GCY
218	The Maze	19.294020	-81.092300	50.0 ft	2	GCY
219	Three Sisters	19.288520	-81.117720	64.0 ft	1	GCY
220	Three Trees	19.350470	-81.392880	35.0 ft	1	GCY
221	Tilley's Tower	19.372720	-81.260720	61.0 ft	1	GCY
222	Top Secret	19.357080	-81.150370	35.0 ft	1	GCY
223	Trinity Caves	19.364830	-81.407170	50.0 ft	1	GCY
224	Turtle Pass	19.356170	-81.095520	60.0 ft	1	GCY
225	Turtle Schooner Reef	19.363970	-81.402730	27.0 ft	1	GCY
226	Valley of the Dolls	19.357100	-81.100830	55.0 ft	1	GCY
227	Valley of the Turtles	19.392010	-81.412200	60.0 ft	1	GCY
228	Victoria's Secret	19.355780	-81.394670	30.0 ft	1	GCY
229	Wall Street	19.362100	-81.402650	52.0 ft	1	GCY
230	White Stroke Canyon	19.381430	-81.288300	60.0 ft	2	GCY
231	Wild Hammer	19.339350	-81.389430	40.0 ft	1	GCY
232	Wildlife Reef	19.331230	-81.389820	39.0 ft	1	GCY
233	ZZ's Top	19.403720	-81.383070	65.0 ft	1	GCY

APPENDIX H3: DoE Public Mooring Listing – Cayman Brac

ID	Site Name	Northing	Easting	Depth	Type	Island
1	Airport Wall	19.69130	-79.89465	60.0 ft	1	CYB
2	Anchor Wall	19.67802	-79.88370	75.0 ft	1	CYB
3	Angel Reef	19.68145	-79.87447	30.0 ft	1	CYB
4	Atlantis	19.71563	-79.83608	50.0 ft	1	CYB
5	Bert Brother's	19.75818	-79.74095	25.0 ft	1	CYB
6	Buccaneer Reef	19.69335	-79.88338	25.0 ft	1	CYB
7	Butterfly Reef	19.68140	-79.87603	35.0 ft	1	CYB
8	Capt. K Tibbetts	19.69467	-79.88465	50.0 ft	2	CYB
9	Capt. K Tibbetts 2	19.69530	-79.88462	80.0 ft	1	CYB
10	Capt. K Tibbetts 3	19.69528	-79.88500	80.0 ft	1	CYB
11	Cayman Keys	19.68628	-79.85562	36.0 ft	1	CYB
12	Cemetary Wall	19.69848	-79.87798	50.0 ft	1	CYB
13	Charlie's Reef	19.69732	-79.87767	25.0 ft	1	CYB
14	Crab Alley	19.67973	-79.87310	70.0 ft	1	CYB
15	Double Wall	19.69070	-79.89615	60.0 ft	1	CYB
16	Duppies	19.71268	-79.83885	33.0 ft	1	CYB
17	East Chute	19.69317	-79.89013	60.0 ft	1	CYB
18	Eden Wall	19.68948	-79.84187	65.0 ft	1	CYB
19	Elkhorn Forest	19.68203	-79.86987	37.0 ft	1	CYB
20	End of Island	19.68785	-79.89408	32.0 ft	1	CYB
21	Fisheries Reef	19.68692	-79.89538	36.0 ft	1	CYB
22	Foster's Wall	19.71295	-79.77585	65.0 ft	1	CYB
23	Garden Eel Wall	19.69695	-79.88118	80.0 ft	1	CYB
24	Gilimbo Wall	19.70252	-79.81008	65.0 ft	1	CYB
25	Greenhouse Reef	19.72025	-79.82833	20.0 ft	1	CYB
26	Grunt Valley	19.70020	-79.87427	30.0 ft	1	CYB
27	Hedy's Reef	19.68640	-79.85483	42.0 ft	1	CYB
28	Hoyt's Wall	19.72048	-79.83043	60.0 ft	1	CYB
29	Inside Out	19.68868	-79.84420	65.0 ft	1	CYB
30	Jan's Drop-off	19.72345	-79.82762	67.0 ft	1	CYB
31	Jan's Reef	19.72253	-79.82652	25.0 ft	1	CYB
32	Ken's Mountain	19.71422	-79.76847	60.0 ft	1	CYB
33	Kissimmee	19.69590	-79.88018	38.0 ft	1	CYB
34	Knuckles Wall	19.69350	-79.88843	54.0 ft	1	CYB
35	Leslyn's Palace	19.69652	-79.88247	87.0 ft	1	CYB
36	Lighthouse Reef	19.67987	-79.88748	28.0 ft	1	CYB
37	Lynn's Reef	19.71380	-79.83663	30.0 ft	1	CYB

38	Manta Caynon	19.68820	-79.84585	55.0 ft	1	CYB
39	Middle Chute	19.69272	-79.89140	65.0 ft	1	CYB
40	Norbert's Reef	19.70992	-79.79308	40.0 ft	1	CYB
41	Orange Canyon Sl	19.67848	-79.88083	80.0 ft	1	CYB
42	Patch Reef	19.69892	-79.87565	30.0 ft	1	CYB
43	Pillar Coral Reef	19.68257	-79.86590	43.0 ft	1	CYB
44	Piper's Wall	19.69940	-79.87715	50.0 ft	1	CYB
45	Plymouth Reef	19.71738	-79.83215	30.0 ft	1	CYB
46	Preacher's Barge	19.69170	-79.88630	30.0 ft	1	CYB
47	Prince Fredrik	19.71123	-79.78772	43.0 ft	1	CYB
48	Public Beach Reef	19.69023	-79.84498	25.0 ft	1	CYB
49	Radar Reef	19.71590	-79.83393	25.0 ft	1	CYB
50	Rock Monster Chimney	19.71360	-79.77410	55.0 ft	1	CYB
51	Schoolhouse Wall	19.70745	-79.86508	70.0 ft	1	CYB
52	Seafeather Wall	19.67930	-79.87488	79.0 ft	1	CYB
53	Sgt. Major Reef	19.68073	-79.88282	32.0 ft	2	CYB
54	Shark Hole	19.72380	-79.82495	35.0 ft	1	CYB
55	Snapper Point	19.68103	-79.89720	30.0 ft	1	CYB
56	Snapper Reef	19.70640	-79.85415	35.0 ft	1	CYB
57	Son of Rock Monster	19.71393	-79.77063	62.0 ft	1	CYB
58	Strawberry Sponge Wall	19.69745	-79.88032	85.0 ft	1	CYB
59	Tailor Wall East	19.75483	-79.76050	80.0 ft	1	CYB
60	Tailor Wall West	19.75338	-79.76257	73.0 ft	1	CYB
61	Tarpon Reef	19.67985	-79.88912	21.0 ft	1	CYB
62	Tina's Reef	19.72752	-79.74137	30.0 ft	1	CYB
63	Tombstone	19.69462	-79.88175	35.0 ft	1	CYB
64	Treehouse Reef	19.71010	-79.84370	32.0 ft	1	CYB
65	Walbert's Playground	19.69342	-79.83225	35.0 ft	1	CYB
66	West Chute	19.69192	-79.89342	55.0 ft	1	CYB
67	Wilderness Wall	19.70415	-79.80778	46.0 ft	1	CYB

APPENDIX H4: DoE Public Mooring Listing – Little Cayman

ID	Site Name	Northing	Easting	Depth	Type	Island
1	Barracuda Bight	19.67977	-80.09150	30.0 ft	1	LCY
2	Black Hole	19.65600	-80.09207	50.0 ft	2	LCY
3	Blacktip Blvd.	19.68632	-80.07492	60.0 ft	1	LCY
4	Blacktip Tunnels	19.71473	-79.95822	50.0 ft	1	LCY
5	Booby Pass	19.70803	-80.01338	50.0 ft	1	LCY
6	Bus Stop	19.68885	-80.07082	35.0 ft	1	LCY
7	Bush Gardens	19.66630	-80.10682	25.0 ft	1	LCY
8	Cascades	19.69640	-80.06865	55.0 ft	1	LCY
9	Charlie's Chimney	19.65583	-80.09370	65.0 ft	1	LCY
10	Coconut Wall	19.68077	-80.08983	35.0 ft	1	LCY
11	Coral City	19.68075	-80.02330	35.0 ft	1	LCY
12	Crystal Palace Wall	19.70283	-80.05085	50.0 ft	1	LCY
13	Cumber's Caves	19.68955	-80.06995	20.0 ft	2	LCY
14	Disneyland	19.67903	-80.02338	66.0 ft	1	LCY
15	Diver's Delight	19.65437	-80.08380	50.0 ft	1	LCY
16	Donna's Delight	19.68440	-80.08060	30.0 ft	1	LCY
17	Dot's Hot Spot	19.67713	-80.09548	21.0 ft	1	LCY
18	Dynamite Drop-off	19.65535	-80.09565	30.0 ft	1	LCY
19	Eagleray Roundup	19.69120	-80.06927	20.0 ft	1	LCY
20	Fisheye Fantasy	19.67003	-80.10608	50.0 ft	1	LCY
21	Gay's Reef	19.65737	-80.09402	30.0 ft	1	LCY
22	Great Wall East	19.68298	-80.08415	25.0 ft	1	LCY
23	Great Wall West	19.68233	-80.08547	20.0 ft	2	LCY
24	Grundy's Gardens	19.65733	-80.08955	30.0 ft	2	LCY
25	Harold's Hole	19.65388	-80.08250	55.0 ft	1	LCY
26	Jackson Reef & Wall	19.69073	-80.06942	20.0 ft	2	LCY
27	Jigsaw Puzzle	19.67148	-80.10338	50.0 ft	1	LCY
28	Joy's Joy	19.67877	-80.09298	25.0 ft	2	LCY
29	Lappy's Leap	19.65842	-80.06193	60.0 ft	1	LCY
30	Lea Lea's Lookout	19.68137	-80.08860	40.0 ft	2	LCY
31	Lighthouse Wall	19.65323	-80.10138	75.0 ft	1	LCY
32	Luca's Ledges	19.66883	-80.04243	50.0 ft	1	LCY
33	Magic Roundabout	19.69358	-80.06920	40.0 ft	2	LCY
34	Martha's Finyard	19.66487	-80.11118	45.0 ft	1	LCY
35	Marylin's Cut	19.68473	-80.07907	35.0 ft	2	LCY
36	McCoy's Wall	19.67655	-80.09830	55.0 ft	1	LCY
37	Mike's Mountain	19.69280	-80.06907	25.0 ft	1	LCY

38	Paradise Plunge	19.67247	-80.10338	48.0 ft	1	LCY
39	Patty's Place	19.65507	-80.09745	65.0 ft	2	LCY
40	Paul's Anchor	19.69443	-80.06943	40.0 ft	1	LCY
41	Penguin's Leap	19.70960	-80.00790	55.0 ft	1	LCY
42	Pete's Plunge	19.65615	-80.06778	60.0 ft	1	LCY
43	Pirate's Point Reef	19.65658	-80.09780	35.0 ft	2	LCY
44	Randy's Gazebo	19.68378	-80.08297	30.0 ft	2	LCY
45	Richard's Reef	19.65660	-80.09698	40.0 ft	1	LCY
46	Rock Bottom Wall	19.70242	-80.05687	64.0 ft	1	LCY
47	Rockhouse Wall	19.66737	-80.04217	75.0 ft	1	LCY
48	Ron's Rock	19.66295	-80.11182	40.0 ft	1	LCY
49	Sailfin Miniwall	19.68527	-80.07567	20.0 ft	1	LCY
50	Sailfin Reef	19.70683	-80.01220	36.0 ft	1	LCY
51	Sand Castle	19.66850	-80.10782	55.0 ft	1	LCY
52	Sarah's Set	19.68737	-80.07257	25.0 ft	2	LCY
53	Shear Wall	19.68193	-80.08648	25.0 ft	1	LCY
54	Snap Shot	19.70088	-80.05683	35.0 ft	1	LCY
55	Soto Trader	19.65538	-80.08245	35.0 ft	2	LCY
56	Splitsville	19.67468	-80.03443	40.0 ft	1	LCY
57	The Bluff	19.70448	-80.03965	50.0 ft	1	LCY
58	The Edge	19.65300	-80.08088	55.0 ft	1	LCY
59	The Meadows	19.69257	-80.06853	25.0 ft	2	LCY
60	Thompson's Reef	19.65523	-80.08437	50.0 ft	1	LCY
61	Three Fathom Wall	19.68492	-80.07800	25.0 ft	2	LCY
62	Tibbett's Top	19.67375	-80.10078	25.0 ft	1	LCY
63	Uncle Lucky's	19.65603	-80.08980	50.0 ft	1	LCY
64	Wahoo Reef	19.65688	-80.08847	37.0 ft	1	LCY
65	West Point	19.65497	-80.10360	40.0 ft	1	LCY
66	Windsock Reef	19.65730	-80.09190	30.0 ft	1	LCY