



# CORAL REEF MONITORING DIVING CHECKLIST

## 1. Muster of participating scouts and instructor divers

- Who/What are the Buddy System teams?
- Who will serve as Primary Dive and Safety Instructor for the dive?
- What will be the role of the Instructor and Safety divers?

## 2. Discuss purpose, objectives and site location of dive

- Provide coordinates
- Time of Departure
- Expected time of arrival on site
- Provide map of area and full description of Module orientation.
- Depth of site to be researched.
- \*\*What will the objectives be of scheduled dive?
- \*\*What is/are the objective(s) of the entire coral reef monitoring project?

## 3. Weather

- Tides/Currents
- Cloud cover / temperature / wind speed / wind direction
- Wave height
- Who will record this data?
- How will it be recorded?
- Where will it be recorded'?

## 4. Equipment

- Discuss personal diving equipment, i.e., maintenance checks
- Full scuba tanks required
- Miscellaneous but necessary gear such as gloves, first aid kit, fresh water, flashlights, life sticks, etc. Who will bring?
- Discuss how to clip equipment to BC, etc. (regulators and dive computer). Bring additional clips.
- Discuss research equipment and how it is used and secured:

— Quadrant

- Secchi disk and associated equipment
- Milk bottles for salinity test
- UW photography equipment, film, flash, protective bag, land camera, video camera
- Who will bring the dive flag? How will it be displayed? Will it be anchored from the bottom?
- What spares will be brought?
- Is there any miscellaneous equipment to be considered?

## **5. Logistics**

- How are we getting to the dive site?
- Where and what time will we depart enroute to Marina or boat launching facility?
- Who are the drivers?
- What attire is required enroute?
- Have we put in for a travel/tour permit with District?
- What time will we meet at boat launching facility'?
- Where will the cars be parked?
- What cell phone number to call if running late. (obtain everyone's cell phone)
- What are the precise GPS coordinates to the site?
- Are there any buoys on site?
- Where will the boat be anchored?

## **6. Decide which team will conduct UW Photography.**

- Who will have the primary responsibility to take pictures? ( 2 cameras available)
- Who will ensure that the camera is fully operational (fresh batteries for both camera and flash)?
- Have UW camera photography procedures been rehearsed?
- Who will record the individual pictures? How will they be recorded?
- How many pictures will be taken and recorded?
- Will any video be taken?
- Will any transect video be taken? By whom?
- Upon completion of dive, who will have the film developed?
- Have Gregg Hickmann critique the photography.
- Who will take photos on deck for distribution to Gulfstream and Website?

## **7. Decide which team will be responsible for Quadrant.**

- Who will descend with quadrant?
- Who will hand the quadrant from the boat to the person in the water?
- How will the quadrant be orientated on the bottom?
- How will the quadrant be anchored in place to assure precise positioning for the next dive?
- Will the compass be used for orientation? How will it be used?
- Who will orient the quadrant?
- Who will bring the quadrant back up to the surface upon completion of data gathering?

## **8. Decide which team will be responsible for data collection.**

- Who will record the data?
- How will the data be recorded?
- What data will be recorded? (species count, coral growth, etc.)
- Who will use clipboards? Who will use measuring devices? What measuring devices will be used?
- What writing instruments will be used? Who will carry spares?
- Who will bring the vellum paper, pencils?
- Does each data recorder understand the means by which data will be documented?
- Who will do the SALINITY TEST? How will it be conducted?
- Who will do the SECCHI DISK / Visibility test? Who will record the data? How will the test be conducted?

## **9. Decide who will take the UW tape measure and lay it on the bottom.**

- How will the measuring tape be oriented on the bottom (alongside one of the edges of the module in the sand)?
- How will the measuring tape be anchored in place?

## **10. Determine length of time for first dive.**

- How long will it take to get the gear on the bottom and in place?
- What length of time will be required to conduct the research? Will one or two dives be required to meet objectives?

## **11. Dive preparation.**

- Make a pre-dive maintenance check of all gear, especially regulator. Check fin straps, hoses, and BC. Ensure sufficient amount of weights are on weight belt.
- Pack extra towel, bathing suit, extra-warm clothing, hat, windbreaker, sunscreen, etc.
- Thermos containing Hot Chocolate or soup
- Water bottles, energy bars, sandwich, etc.
- Wet Suit with Hood (or Cheater), gloves, boots.
- \*\*First Aid kit to include band-aids, etc.
- Discuss who will be the lead in your buddy system team. Rehearse who will carry equipment during the dive and be responsible for getting it back to the surface. Discuss the pace at which you and your buddy wish to descend and ascend.
- Discuss the frequency of air checks while on the bottom and determine the PSI level to resurface.
- Understand who will be the lead/primary dive and safety instructor.
- How will the equipment be lowered from the boat into the water?
- Who will lower the equipment into the water?
- Discuss method for entering and exiting the water.

## **12. Emergency Procedures**

- Rehearse procedures in the event you and your buddy become lost or disoriented.
- Rehearse procedure in the event you become detached and lost from your buddy.
- Rehearse primary communication signals and signals of distress (air problem, slung by a hydroid, cramp, etc).
- Discuss communication procedure to be used if and when a diver is stung by hydroid or other stinging species.
- Discuss procedures for rescue and/or recovery of a drowning victim.
- Discuss procedures to prevent air embolism (signs, symptoms, and first aid for air embolism)
- What phone number/radio frequency will be used in the event of a medical emergency? Will there be a cell phone on the vessel?

## **13. Post Dive**

- Provide all data to Andrew Olson for consolidation and eventual entry into database.
- Discuss the procedures for rinsing the gear and maintaining the gear for the next dive.
- Record all comments and lessons learned from dive into logbook.
- Record GPS of site and accurately depict on drawing and measurement of location of quadrant for next dive.
- Record into personal logbook.

## **14. Other**

- Are dues been collected and up to date?
- Has the money been collected to help defray fuel/maintenance cost of vessel?
- Have donations been provided to Dive Instructors for their participation?
- Schedule next meeting and location.
- Schedule data analysis and record input session at lab.

## **15. Lab Analysis**

- As soon as practicable, assign who will record the data into application for trend analysis. To be conducted at Dr. Jaap's lab or on applications provided by Dr. Jaap.
- Schedule follow up instruction with Dr. Jaap to include additional methods of analysis, species recognition and other tools of the trade.