

# DIVE PLANNING

**Dive Planning is the step-by-step process used to prepare for an open water dive.**

**1. ADVANCE PLANNING**

**2. PRE-DIVE PREPARATION**

**3. ON SITE PREPARATION**

**4. THE DIVE PLAN**

# PLAN THE DIVE ... DIVE THE PLAN

- Proper dive planning and preparation will ensure each dive is **safe and enjoyable**.
- Accidents happen when the plan is *not* followed

# 1. Advance Planning

- ▶ **Who are you diving with?**
- ▶ **Where do you want to dive?**
- ▶ **Why are you diving?**
- ▶ **What type of dive? - shore or boat**

etc.....

# A. Buddy Selection

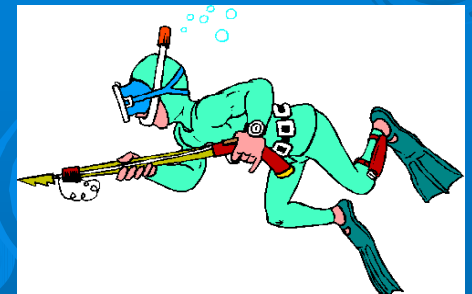
- ▶ **Who are you going to dive with?**
- ▶ **Have you dove with them before?**
- ▶ **Experience level of your buddy**
- ▶ **Need to feel comfortable with your buddy and they need to be comfortable diving with you**

## B. Dive Objective



What is the purpose of the dive?

- Pleasure
- Sight seeing
- Photography
- Spearfishing
- Recovery of an item, watch, fishing tackle, etc.



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- ▶ **An objective focuses you and your buddy on what it is you are doing**
- ▶ **If you have different ideas, confusion can occur and then safety becomes a concern**
- ▶ **Identifies what equipment you will need**

## C. Site Information<sup>-</sup>

- ▶ **The objective of the dive will help with the site selection**
- ▶ **Local dive shops and clubs are a good source of potential dive locations**
- ▶ **Buddy dove there previously**
- ▶ **A dive at a special site will be different at different times of the year**

## Find information on:

- **Depths**
- **Expected visibility**
- **Hazards**
- **Surf**
- **Tides**
- **Currents**
- **type of bottom**
- **anything peculiar**
- **special equipment needs**

## If unable to scout out in person:

- **dive shops may have information**
- **Libraries**
- **Internet**

## D. Alternate Dive Site-

- ▶ Alternate location selection is important so that if first choice is unsuitable due to conditions, access or other unforeseen reasons
- ▶ The objective of the dive will also help with alternative site selection
- ▶ Alternate location should be within a **reasonable distance** of the first site

## E. Time of Day for Dive

- ▶ **Visibility changes with the time of day**  
**(early morning, high noon, twilight)**
- ▶ **Tide considerations (currents)**
- ▶ **Are there other activities taking place in the area (water skiing, boating, fishing, etc.)**
- ▶ **Check with local shops or boat rental places for information**

## F. Dive Logistics –

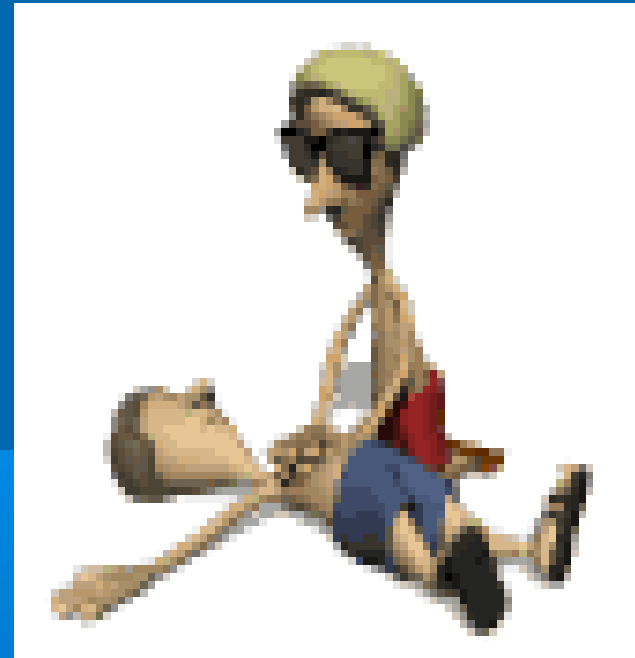
- ▶ **Access to dive location (transportation, getting there)**
- ▶ **Emergency transportation access is important (IE: Roads into the lake with access to the shore)**
- ▶ **Distance to carry equipment if beach is not accessible**
- ▶ **Type of terrain (rocks, brush, steep banks, weedy shore entry)**

## Equipment required for the dive

- Type of dive (boat, shore) will impact the equipment you will need
- Check list is an easy way of **not forgetting** something that may prevent you from diving
- **Both buddies** need to know how to operate the equipment  
(IE: the boat or any other special gear)

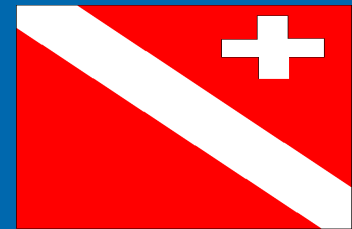
# Emergency contact information

- ▶ **Location of nearest telephone**
- ▶ **If taking a cell phone along, how is reception?**  
Northern locations don't have good reception... if any!
- ▶ **Emergency phone numbers:**  
Write them down, where both buddies know where to find them



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If member of **Divers Alert Network** have  
the number written down....

North America: #1-919-684-8111



**DAN**

## Location of nearest emergency support

- Police
- Ambulance services
- Rescue centres (land & sea)
- Location of nearest hospitals and their telephone numbers
- Location of nearest **recompression facilities** and telephone number  
(Closest in Saskatchewan is in Moose Jaw)

## **2. Pre-Dive Preparation**

### **A. Equipment Inspection**

- ▶ **Needs to be checked well in advance of departure so repairs can be carried out**
- ▶ **Will prevent frustration at dive site and possible risk to dive partners**
  - **Familiarization**
  - **Visual inspection**
  - **Operation**

## B. Equipment Checklist

- ▶ **Equipment checklist is a great way of not forgetting anything**
- ▶ **There is one in your log book!**



## C. Current Weather Report

- ▶ A phone call can save you an unnecessary trip if the weather at the dive site location is not good
- ▶ Check the weather network (TV or internet)
- ▶ DO NOT dive if there is lightning
- ▶ Avoid diving during foggy conditions

## D. File a Dive Plan

- ▶ **Tell someone else about the planned dive**
  - **Where are you diving**
  - **How to get there**
  - **How will it be marked (signs, marker tape, etc)**
  - **Expected time of return**
  - **What the person should do if you are not back within a certain time frame**
  - **Who should be contacted**

## E. Pack Equipment



- ▶ Know where everything is
- ▶ **Safety is important** when transporting air tanks
  - If tanks cannot be secured vertically, secure horizontally with tank valve toward oncoming traffic
- ▶ If flying, carry your regulator on board to avoid damage during handling

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- Information on transporting tanks in aircraft is in the Open Water Sport Diver book
- You will not usually take a tank to a fly-in location as local dive operators will supply tanks
- **Important to recheck equipment** upon arrival if it was not handled by yourself

### 3. On Site Preparation

#### A. Evaluate Dive Site

- Upon arrival, assess the conditions
- It may be different than what someone told you
- **Or** it may be different than what you remember

## **Water conditions:**

- **Water Colour is an indication of what the visibility will be like at depth**
- **Plankton bloom will reduce visibility**
- **Current can increase turbidity (stir up mud and sand from the bottom)**

## **If conditions are:**

### **▶ Unfavourable**

- **Move to your preplanned, alternate location**
- **If still unfavourable....Abort dive**

### **▶ Favourable**

- **Select entry site**
- **Select exit site, if different**
- **Look around, note landmarks, take compass bearings**

# Diver conditions

- How are you both feeling, sometimes your condition can change
- If you do not feel well... **don't dive**
- ***Both*** 'buddies' need to be comfortable with the dive for it to be safe and enjoyable!

## 4. The Dive Plan

### A. Methods of Communications

- ▶ **Hand signals**
  - **Review with buddy**
- ▶ **Slate**
  - **Ensure pencil is securely attached**

# AIR CONSUMPTION

## 80 cu ft tank

- at surface would last for 80 minutes
- at 33' depth will last for 40 minutes
- at 60' depth will last for 26.5 minutes

This is a generalization and does not factor in ability, experience, environmental conditions, etc.

## B. Dive Planning Using Tables

- Plan to include a sufficient safety margin to provide for unforeseen difficulties
- Plan to maximize your bottom time within the perimeters of the No Decompression limits
- Calculate minimum surface interval to avoid decompression stops
- Calculate maximum time on second dive without decompression
- Plan to do a safety stop on every dive (3-5 min @ 10-20 ft / based on chest height)
- Dive depth (max sport diving is \_\_\_\_\_ )

## C. Discuss Dive Profile<sup>-</sup>

### Emergency procedures

#### Diver separation / lost buddy procedure

- 360 rotation
- If unable to locate buddy, surface and inflate BC
- Rejoin buddy at surface

# Diver Recall

- ▶ **Method and signal used must be agreed upon prior to the dive and all divers need to be aware of this**
  - Tapping on tank with knife
  - Using an air powered signal
  - Visual indication
- ▶ **If divers are recalled by Dive Master you need to get out of the water right away**
- ▶ **Dive Master has responsibility for all divers and you need to follow his/her directions**

# The Descent

- Pre-dive buddy check, equipment inspection and familiarization with each other's equipment
- Quick review of the depth and time limits
- Entry into water, method to use depends on type of dive
- When ready descend together, checking with each other often to make sure everything is **OK**
- Need to maintain buddy contact, better to be close to each other in the event of an **emergency**

# At Depth:

- Obtain neutral buoyancy
- Maintain visual contact and use hand signals or slate to communicate
- Follow the dive plan
- **PLAN THE DIVE .... DIVE THE PLAN**

# The Ascent:

- Follow the planned ascent procedure: (rope, anchor, bottom contour, compass heading, etc)
- Maintain buddy contact throughout ascent
- Ascent rate should be no more than \_\_\_\_\_ feet per minute (no faster than your smallest bubbles)
- Assume the ascent position, head back, arm extended overhead, slow rotation
- Always plan a safety stop to off- gas
- At surface signal the **OK** to the boat operator if a boat dive and to other groups of divers that may be surfacing nearby, lets them know everything is **OK**

# D. Post Dive Procedures / Considerations

## Logging Your Dive

- Record of your dive for future reference (weight used, thermal protection at various temperatures, etc.)
- Training record
- Safety information in case of medical concerns hours later
- Provides proof of experience

# Flying After Diving -

- must be considered when planning your dive
- Need adequate surface time between dive and flying.....Why?
- Minimum 'pre flight' Surface Interval after a single dive \_\_\_\_\_
- Minimum 'pre flight' Surface Interval after a repetitive or multilevel dive \_\_\_\_\_

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