PROJECT ORGANIZATION

Module 7 Dive Planning & Safely

UASBC
Underwater Archaeological Society of BC

Project Organization

By the end of this module you will understand:

- Key considerations of a **project plan**
- Responsibilities of **project leaders**
- Important aspects of **boating safety**
- How to **ensure diver safety** while accomplishing project goals

PROJECT PLAN

All projects require a project plan detailing what is to be accomplished.

- Where is the site?
- What is the site?
- What has been done?
- What needs to be done?
- What are the hazards?
- How will hazards be dealt with?

PROJECT PLAN

Archaeological dives have a **purpose**. Some of the most common reasons for UASBC dives are:

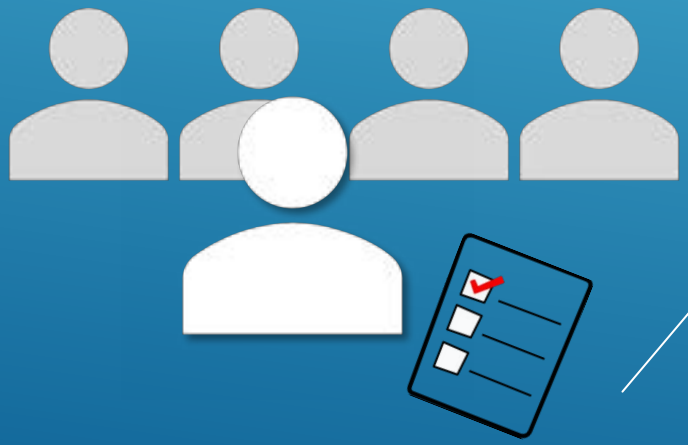
- Searching for wrecks
- Surveying wrecks
- Conducting photogrammetry
- Establishing and maintaining mooring buoys
- Placing interpretive plaques
- Excavating submerged cultural sites

PROJECT LEADERSHIP

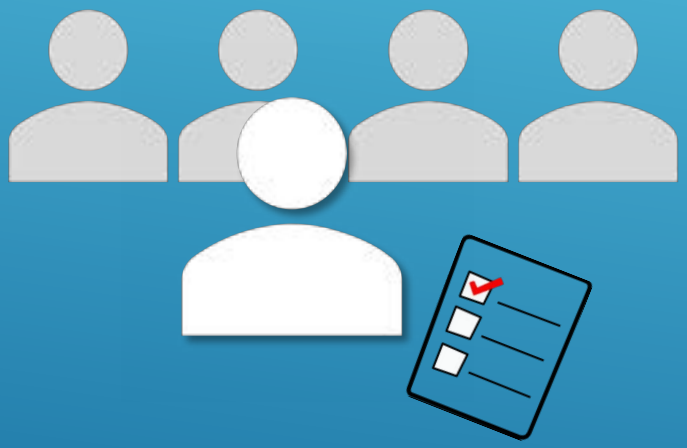
Once the purpose of a dive is known, the next step will be to make expedition arrangements.

Successful projects don't just happen, they are the result of **effective teamwork** under **dedicated leadership**.

A project leader is responsible for ensuring projects are **organized and safe**, and that each team member contributes based on their skills and limitations.



PROJECT LEADERSHIP



Preparing for dives:

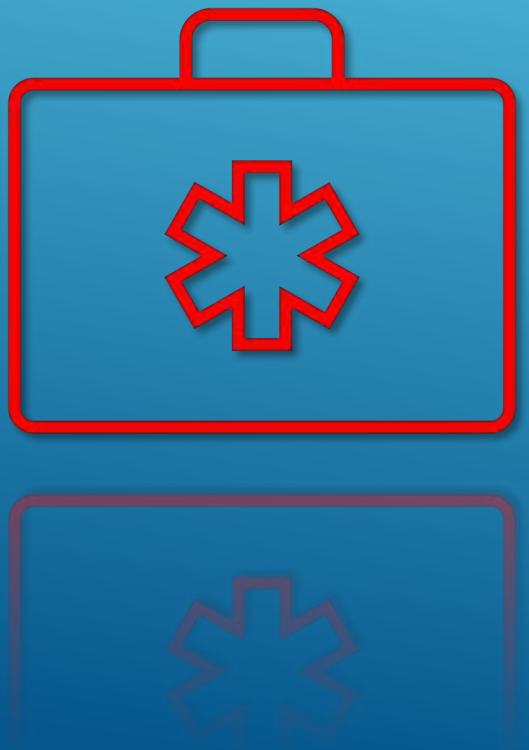
- Selecting project dates
- Advertising dives
- Maintain list of participants
- Provide participants with details
- Monitor weather
- Emergency Preparedness

CHOOSING DIVE DATE

Selecting an appropriate dive date is a critical part of organizing an effective project. Considerations include:

- **Tides & Currents**
  - Slack water
  - Advantageous currents (e.g., drift search)
  - Maximum diving depth
- **Season**:
  - Wind and weather
  - Kelp, Algae and freshet
- Boat **availability**
- Diver availability

EMERGENCY PREPAREDNESS



Project Leaders are responsible for project divers, and must:

- Consider the **hazards** and prepare accordingly.
- Carry emergency contact information and a **mobile communication device** (mobile phone, satellite communicator).
- Ensure all participants sign an **official liability release** or waiver and provide emergency contact information.
- Bring appropriate **emergency equipment** (oxygen kit, First Aid kit)

PROJECT PROTOCOLS

- Ensure all divers, equipment and safety kits are on the boat.
- Oxygen and a first aid kit must accompany all trips - no exceptions.
- All divers sign a liability release form.
- Assign tasks and ensure all data collected is safeguarded.
- All divers logged in and out of the water.

BOATING SAFETY

The UASBC uses charter boats for 90% of its operations, from large displacement hull boats to small RHIBs.

Charter operators are required by law to provide a briefing on the safety features of their vessel. This should include:

- Location of **life jackets**
- Location of **life rafts**
- Emergency **radio channels**
- Location of **fire fighting equipment**
- **Action plan** in the event of sinking

BOATING SAFETY

Project Leaders should check that the boat operator is certified under local laws, and that the vessel is properly equipped.

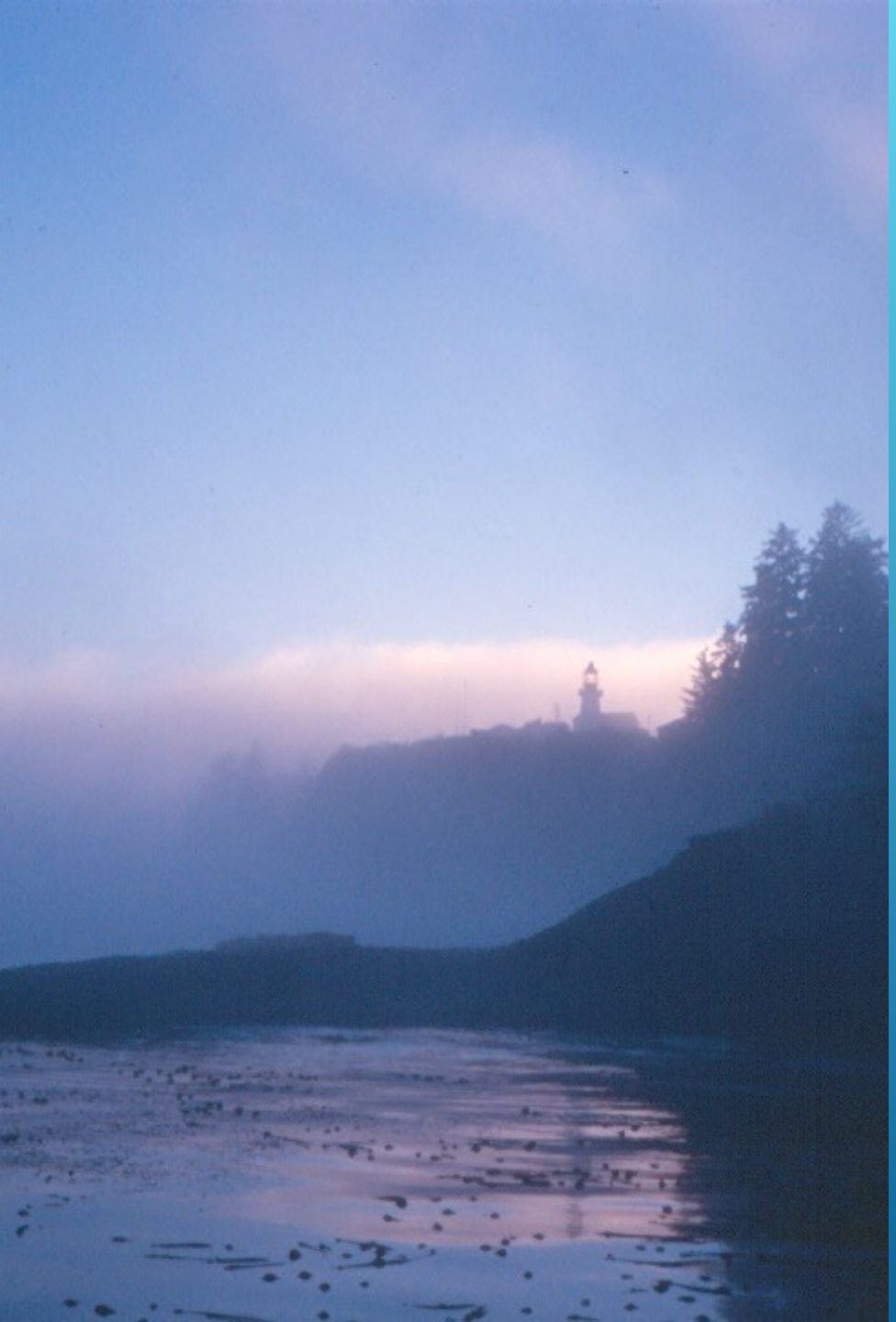
Even small boats may be required to have:

- one lifejacket per passenger
- a flashlight or distress flares
- a fire extinguisher
- a bailer or manual bilge pump
- an anchor
- alternate propulsion (oars)
- a whistle or horn
- VHF Radio

BOATING SAFETY

Most governments issue guides for the safe operation of small boats.

- Know boat capacities & capabilities
- Distribute loads properly and do not overload
- Secure all equipment and passengers while underway
- Ensure all passengers wear a PFD
- Carry safety equipment required by law
- Monitor emergency radio frequency (Ch. 16)
- Know how to call for help
- Be aware of local hazards



BOAT DIVING HAZARDS

- Wind
- Swells/Waves
- Current
- Fog
- Anchoring
- Entry & Exit
- Live boating

Addressing hazards is critical for a safe and effective diving project. Project leaders should also assess the cost of overcoming these hazards against the value of the project. **Is it worth it**?

BOAT DIVING HAZARDS

- **Wind -** do not go out during poor weather (strong wind warnings)
- **Swells -** do not deploy divers in swell heights greater than 1.5 m.
- **Current -** dive at slack, deploy a tag line and have divers carry surface marker buoy(SMB).
- **Fog -** never deploy divers in fog.
- **Anchoring -** ensure adequate scope and fly your dive flag.
- **Exiting -** ensure divers can get back on board if conditions become marginal.
- **Live boating –** ensure all divers carry a surface marker buoy and know how to use it; boat operators should know where divers are always.

PRE-DIVE BRIEFINGS

Archaeological diving's focus on achieving goals and collecting specific data, makes pre-dive briefings important. Once divers enter the water, communication is extremely limited.

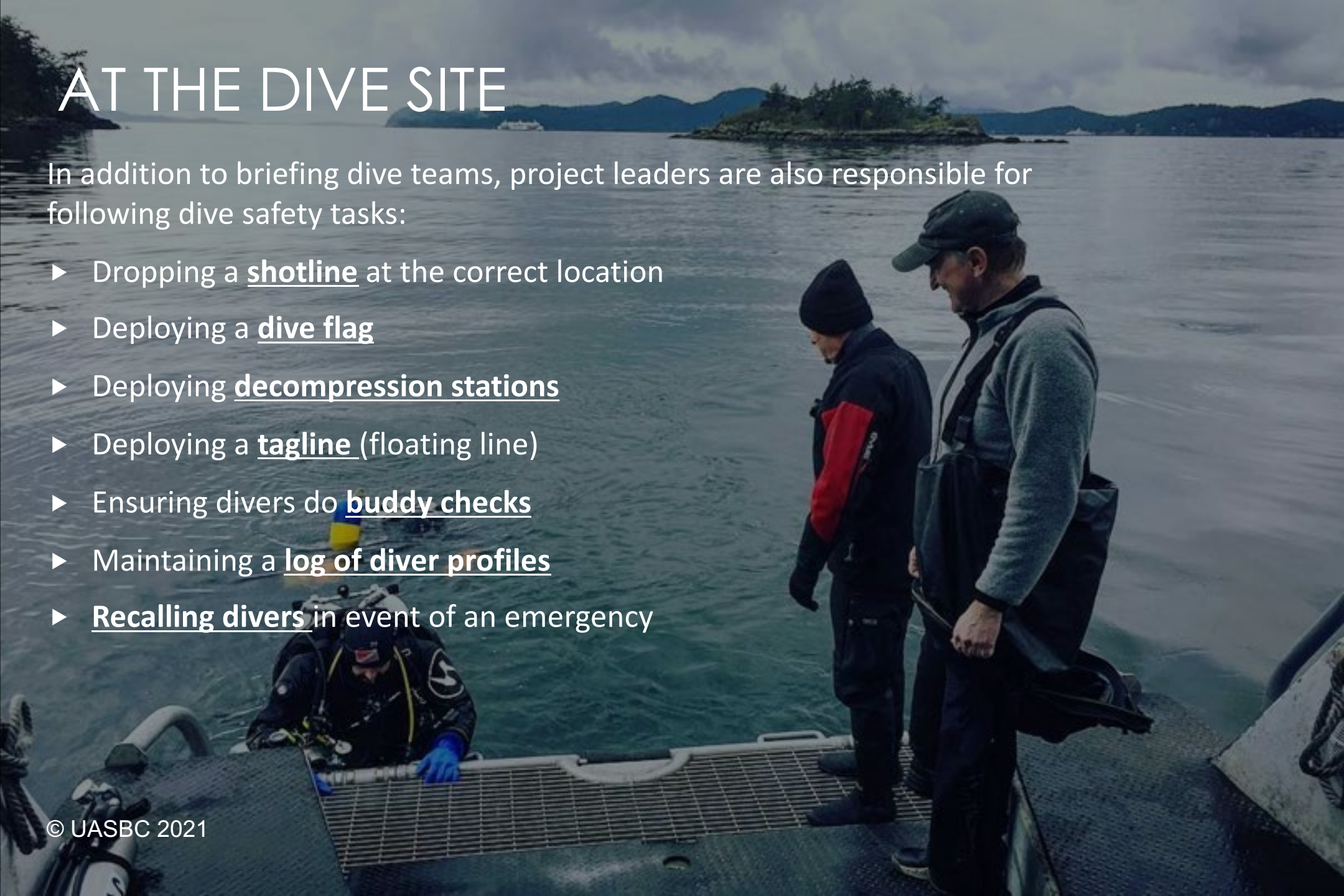
Pre-dive briefings should cover:

- Dive team assignments
- Dive log requirements (depth, time, gas)
- Underwater conditions & hazards
- Description of the wreck or site
- Expected dive runtime
- Location of emergency equipment
- Emergency recall signal

AT THE DIVE SITE

In addition to briefing dive teams, project leaders are also responsible for following dive safety tasks:

- Dropping a **shotline** at the correct location
- Deploying a **dive flag**
- Deploying **decompression stations**
- Deploying a **tagline** (floating line)
- Ensuring divers do **buddy checks**
- Maintaining a **log of diver profiles**
- **Recalling divers** in event of an emergency



DIVER RESPONSIBILITIES

Safe and effective project diving is also the responsibility of individual diver participants. Regardless of their specific skills or contributions to the project, each diver must:

- Know the project goals
- Listen to dive briefing
- Understand their task
- Know the hazards
- Dive within their skill level and comfort zone
- Complete a buddy check
- Know what to do in an emergency

If you don't know ask!

DIVER RESPONSIBILITIES

It is the responsibility of each diver to refuse to dive if they:

- feel unfit or in any way unprepared for the dive.
- judge the conditions to be unsafe or unfavorable.
- feel that the dive is beyond their skill level or training.

A project participant who is feeling uncomfortable with diving should never be pressured to dive.

QUIZ

A project plan does what?

1. Identifies where a site is
2. What the site is
3. Work that must be completed
4. All of the above

What must be considered when choosing a project date?

1. Location of wreck
2. Time of year
3. Boat availability & currents
4. Boat availability & weather

Should charter operators provide a safety briefing?

1. Yes
2. No

QUIZ

Identify which items below are hazards to boat diving.

1. Wind
2. Waves
3. Fog
4. Gasoline Fumes

Should divers be forced to dive once the boat leaves the dock?

1. Yes
2. No

Which item below is a dive safety precaution?

1. Understanding project goals.
2. Knowing what your job is
3. Deploying a dive flag
4. Not overloading the boat.