WRECK DIVER

INSTRUCTOR GUIDE

Product No. 70232 (Rev. 08/22) Version 3.0

PADI

PADI Wreck Diver
Specialty Course Instructor Guide

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INTRODUCTION

This section includes suggestions on how to use this guide, an overview of course philosophy and goals, a flow chart to show you how course components and materials work together for success, and ways you can organize and integrate student diver learning.

How to Use this Guide

This guide speaks to you, the PADI Wreck Diver Specialty Instructor. The guide contains three sections: the first contains standards specific to this course, the second contains knowledge development presentations, the third considers optional confined water and/or surface training and details the open water dives. All required standards, learning objectives, activities and performance requirements specific to the PADI Wreck Diver course appear in **boldface** print. **The boldface assists you in easily identifying those requirements that you must adhere to when you conduct the course.** Items not in boldface print are recommendations for your information and consideration. General course standards applicable to all PADI courses are located in the General Standards and Procedures section of your PADI *Instructor Manual.*

Course Philosophy and Goals

Diving through 9 metres/30 feet, then 12 metres/40 feet, 15 metres/50 feet, and finally 18 metres/60 feet of azure blue salt water, you see it lying there like a wounded bird, one of its wings fractured and one of the engines gone. Did enemy fighters blow away the engine? Was the engine loss what plunged it from the tropical sky decades ago?

It was a B-25, an Allied workhorse of World War II in the Pacific. You don't have to stretch your imagination too far to see the plane in its original state, ready to fight again. The crumpled nose houses two machine guns – still stacked with bullets – now covered with hard coral, algae and crimson red gorgonians. The cockpit escape hatch sits open, slid back as it had been on that fateful day in 1943. It's clear to see the pilot had cleverly ditched his bomber in a narrow shallow strait between Wongat Island and mainland New Guinea. Did the crew swim to the island? Did Japanese forces capture them? How old were these men? Twenty? Twenty-one?

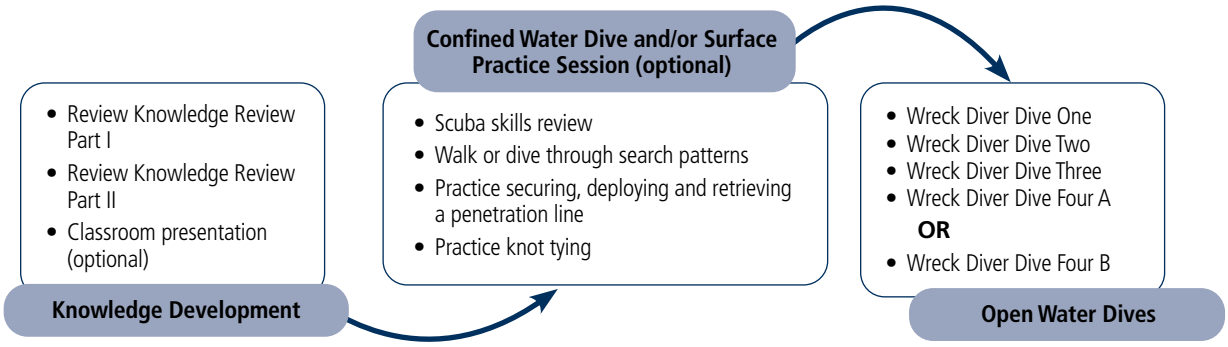
You watch as parrotfish dine on a coral-encrusted machine-gun barrel. Two angelfish casually glide through the bomb bay doors while translucent shrimp dance their way over the rusty face of the altimeter gauge.

Diving on wrecks appeals to most divers, though for many different reasons. You may find yourself attracted to the challenge of exploring the wreck, or a fascination with its history. Underwater photographers love wrecks for their photo potential, while those interested

in nature like that wrecks quickly become artificial reefs. Wrecks are typically ships but can include railroad cars, aircraft and automobiles. As with most diving sites, you'll find wreck dives range from those that are good for novices to those only accessible by the most experienced technical divers.

Few moments in diving compare with descending on the past, whether it's your first dive on a wreck or your one hundredth. Keeping that thought, the philosophy of this course is to focus on fun, safety-oriented wreck diving. Thus, the goal of this course is to teach student divers a systematic, methodical approach to enjoying wreck diving. Student divers will develop the techniques involved in wreck diving within recreational limits and while avoiding disturbing delicate marine life.

The best way to learn wreck diving procedures and to apply them is by doing it. This course philosophy expands student diver knowledge about wreck diving law, hazards to avoid, how to research wrecks, wreck diving equipment, the basics of penetrating a wreck and how to interact responsibly with the aquatic life they'll see while wreck diving. Student divers will apply the knowledge they gain by interacting with PADI *Wreck Diver eLearning* or by reading the PADI *Wreck Diver Manual* and watching the companion video, and on at least four open water dives, practicing and demonstrating the practical aspects of wreck diving.



Course Flow Options

Course Flow Options provides a visual representation of how knowledge development and confined water and/or surface practice sessions support open water dives. When possible, it's preferable to have student divers complete PADI *Wreck Diver eLearning* or the PADI *Wreck Diver Manual,* including Knowledge Review Part 1, before participating in the open water dives. Knowledge Review Part I is the same knowledge review that appears in the Wreck Diver section of PADI *Advanced Open Water Diver Manual.* If you have the first part of the Knowledge Review on file you may, at your discretion, have student divers complete only Knowledge Review Part II.

Confined water and/or surface practice sessions are not required for the PADI Wreck Diver course; however, you may choose to have practical sessions that allow student divers to practice skills such as securing, deploying and retrieving a penetration line, navigation patterns and knot tying.

There are four dives to complete. **You may rearrange skill sequences within each dive; however, the sequence of dives must stay intact.** You may add more dives as necessary to meet student divers' needs. Organize your course to incorporate environment-friendly techniques throughout each dive, to accommodate student diver learning styles, logistical needs and your sequencing preferences.

SECTION ONE

Course Standards

This section includes the course standards, recommendations and suggestions for conducting the PADI Wreck Diver course.

Standards at a Glance

Topic	Course Standard	
Minimum Instructor Rating	**PADI Wreck Diver Specialty Instructor**	
Prerequisites **Minimum Age**	**PADI Adventure Diver** **15 years**	
Ratios	**Open Water: 8:1 Instructor; 4:1 Certified Assistant** **Wreck Penetration: 2:1 Instructor**	
Site, Depths and Hours	**Depth:** 18 metres/60 feet recommended **Minimum Open Water Dives: 4 dives over 2 days** Hours Recommended: 24	
Materials and Equipment	**Instructor:** • **PADI Wreck Diver Specialty Course Instructor Guide** • **PADI *Wreck Diver eLearning* or *Manual*** • **Penetration line and reel** • **Safety equipment**	**Student Diver:** • **PADI *Wreck Diver eLearning* or *Manual*** • PADI *Wreck Diving* video

Instructor Prerequisites

To qualify to teach the PADI Wreck Diver course, an individual must be a Teaching status PADI Open Water Scuba Instructor or higher. PADI Instructors may apply for the Wreck Diver Specialty Instructor rating after completing a Specialty Instructor Training course with a PADI Course Director, or by providing proof of experience and applying directly. For further detail, reference the Professional Membership section of your PADI *Instructor Manual.*

Student Diver Prerequisites

By the start of the course, a diver must be:

1. **Certified as a PADI Adventure Diver or PADI Advanced Open Water Diver or have a qualifying certification from another training organization.**
2. **At least 15 years old.**

Supervision and Ratios

Open Water Dives

A Teaching status PADI Wreck Diver Specialty Instructor must be present and in control of all activities. On Dive One, student divers must be accompanied by either the Specialty Instructor or a certified assistant. If Dive One is conducted deeper than 18 metres/60 feet, the Specialty Instructor must directly supervise at a ratio of no greater than eight student divers per instructor (8:1). The Specialty Instructor may *indirectly supervise* Dive Two, Three, and Four B, though it is recommended that a certified assistant accompany each buddy team. **During wreck penetration dives, divers must be accompanied by the Specialty Instructor. The Specialty Instructor must ensure that all performance requirements are met.**

The ratio for open water dives is eight student divers per instructor (8:1), or four student divers per certified assistant (4:1). The ratio for wreck penetration is two student divers per instructor (2:1). These ratios may not be increased by adding certified assistants.

Sequencing

1. Ideally, student divers should complete Knowledge Review Part I before Wreck Dive One.
2. Student divers should complete Knowledge Review Part II before Wreck Dive Two.
3. **Training dives must be conducted in order.** You may rearrange skill sequences within a dive.

Site, Depths and Hours

Site

Choose sites with conditions and environments suitable for completing requirements. Special consideration should be given for wrecks that lie in water deeper than 18 metres/60 feet and/or where there is moderate current by planning for reduced bottom time and rapid air use. It's preferable to conduct wreck penetration on a wreck surveyed on a previous dive. When possible, use shallow wrecks to allow divers more time to complete tasks and for penetration. Plan to visit different wreck sites, if possible, to give student divers experience in dealing with a variety of environmental conditions (incorporate environment friendly techniques throughout each dive) and logistical challenges. Practice skills, especially line and reel use, in confined water sessions first to better prepare divers to apply skills in open water later.

Depths

Recommended: 18 metres/60 feet

Maximum: 30 metres/100 feet limit for Dive One (Wreck Adventure Dive)

Maximum: 40 metres/130 feet from the surface (vertical and horizontal distance included) and within the light zone for penetration dives. No out-of-air drills may be practiced in the overhead environment.

Hours

The PADI Wreck Diver course includes four open water dives conducted over at least two days. Dives that do not include wreck penetration may be conducted at night for divers who have completed the Night Adventure Dive or the first dive of the PADI Night Diver Specialty course, or have qualifying night diving experience.

The minimum number of recommended hours is 24.

Materials and Equipment

Instructor

- **PADI Wreck Diver Specialty Course Instructor Guide**
- **PADI *Wreck Diver eLearning* or *Manual***
- **Specialty equipment needed for student divers to perform wreck and wreck penetration dives.**
  - **Penetration line and reel** (e.g., a robust line that resists abrasion or cutting on sharp objects that is 6 millimetres/0.25 inches thick for easy grasping)
  - **Safety equipment** (e.g., first-aid kit, emergency oxygen, AED; flag and surface float; weighted line with contingency gas supply at safety stop depth for deep dives; and descent or down line)
- PADI *Wreck Diving* video (included in eLearning)
- As needed: backup wreck line and reel, extra lights and navigational aids for divers

Student Diver

- **PADI *Wreck Diver eLearning* or *Manual***
- PADI *Wreck Diving* video (eLearning contains the video)
- Access to support equipment as necessary, including but not limited to: dive light, slate, and line and reel

Assessment Standards

For eLearners, check the diver's eRecord to verify successful completion of *Wreck Diver eLearning,* including Knowledge Review.

To assess knowledge of divers using the manual, have divers complete the Wreck Diver Knowledge Reviews (located in the Appendix of this guide and in the *Wreck Diver Manual)* and review missed questions until they demonstrate adequate knowledge.

During open water dives, divers must perform all skills – procedures and motor skills – in a reasonably comfortable, fluid, repeatable manner as would be expected of a diver at this certification level.

Certification Requirements and Procedures

Document student diver training by completing the PADI Specialty Training Record for Wreck Diver (see Appendix). **To qualify for certification, student divers must complete**

all performance requirements for Wreck Diver Open Water Dives One, Two, Three and Four.

The instructor certifying the student diver must ensure that all certification requirements have been met.

Links to Other Courses

Divers who successfully complete Wreck Dive One may receive credit for an Adventure Dive toward the PADI Advanced Open Water Diver certification. The Wreck Adventure Dive conducted during the PADI Advanced Open Water Diver course may count as the first dive toward this specialty at your discretion. Divers may also credit the specialty certification toward the PADI Master Scuba Diver rating.

SECTION TWO

Knowledge Development

Conduct

Student divers complete independent study by interacting with PADI *Wreck Diver eLearning* or by reading the PADI *Wreck Diver Manual* and by watching the PADI *Wreck Diving* video. Use these knowledge development presentations to prescriptively address student diver misconceptions, or to provide clarification on certain points of interest.

If there is a need for instructor-led presentations, such as when PADI *Wreck Diver eLearning* or *Manual* does not exist in a language student divers understand, use the following teaching outline to cover the knowledge development learning objectives and course content. The Wreck Diver Knowledge Reviews (located in this guide's Appendix) must be completed and reviewed before the diver is certified**.**

I. Introduction

Note to Instructor

Have staff introduce themselves and provide a bit of background. Have student divers introduce themselves and explain why they are interested in developing wreck diving skills.

A. Course Goals

1. Develop your practical knowledge of wreck diving.
2. Increase your diving skills and ability, and provide additional supervised experience.
3. Help you plan, organize and make wreck dives.
4. Encourage you to participate in other specialty training.

B. Course Overview and Schedule

Note to Instructor

Discuss the course sequence, assignments, meeting times, places and other information about all class, practical application sessions and training dives. Build excitement about the course, particularly the training dives.

C. Costs, Equipment Requirements and Paperwork

Note to Instructor

Explain all costs, equipment requirements and logistical details as necessary. Reconfirm prerequisites if appropriate and complete all paperwork – see Section One, and Paperwork and Administrative Procedures, General Standards, PADI *Instructor Manual*. Collect outstanding fees.

D. Performance Requirements and Certification

1. To qualify for any PADI certification, you must meet specific performance requirements.
    a. You pay for the course, but must earn the certification.
    b. Performance-based learning is objective – a student either meets a requirement or not; your instructor is not arbitrary in assessing performance.
2. Although you must meet all performance requirements, having difficulty does not mean you will be unsuccessful.
    a. You take a course to learn – making mistakes and needing time to master knowledge and skills is part of learning.
    b. You may pick up some skills and knowledge quickly and others slowly; what matters is that you demonstrate mastery, not how long it takes.
    c. You move on at the pace you learn – you may need extra dives or other practice.
3. Upon successfully completing this course, you'll receive the PADI Wreck Diver specialty certification.
4. Certification means that you've completed all performance requirements and are trained to:
    a. Plan, organize, make, and log wreck dives in conditions generally comparable to or better than, those in which you are trained.
    b. Apply for the PADI Master Scuba Diver rating if you are a PADI Advanced Open Water Diver (or have a qualifying certification from another organization), and a PADI Rescue Diver (or have a qualifying certification from another organization) with certification in four other PADI Specialty ratings and 50 logged dives.

II. The Appeal of Wreck Diving

Learning Objective

By the end of this section, you should be able to answer the following question:

1. What are four common reasons why people wreck dive?

1. What are four common reasons why people wreck dive?

A. People have different reasons for being interested in wreck diving, so people you dive with may have different motivations for diving on wrecks. You and your buddy may both enjoy the dive more if you understand common reasons why people dive on wrecks.

1. Curiosity – Divers are fascinated by wrecks and want to know what is inside them. You may find yourself curious about what you'll find on a wreck, or about what made the wreck sink in the first place. Curiosity may prompt you to research the wreck, to understand what it was as you explore what it has become.
2. History – Some divers engage in research or work with archaeologists and historians. Wrecks are tangible historical resources that you have direct access to; a strong interest in history may motivate you to wreck dive.

Note to Instructor

Remind student divers that artifact removal is not done except in very specific circumstances (such as artifact documentation and historical archiving, etc.), where authorities incorporate time-consuming and very expensive controlled conditions that use extensive conservation techniques. Divers are encouraged to preserve our maritime cultural heritage and protect the fragile artificial reef habitat and aquatic life around wrecks. It's best to take a hands-off, take-nothing-but-photos approach to wreck diving. Local laws and regulations that govern wreck diving will be addressed in more detail later in the course.

3. Aquatic life – Wrecks become man-made reefs that attract aquatic life. In some areas, wrecks may be the only dive sites with appreciable concentrations of life. Some divers are attracted to wrecks more by their role as a reef than as an artifact or challenge.
4. Underwater imaging – Wrecks make dramatic backgrounds for photos and video of divers and wildlife, and wrecks themselves are photogenic. This makes imaging on wrecks interesting and rewarding. Dive carefully, as many aquatic creatures and wrecks are fragile. Improper techniques while taking or editing images underwater can damage sensitive aquatic life and damage wrecks with the bump of a camera or cylinder, swipe of a fin, or even the touch of a hand.

Note to Instructor

Describe popular local wrecks, best access and pertinent information about their background.

If possible, give divers references to local wreck dives.

Since the student divers have not yet learned about assessing a wreck and potential hazards, your descriptions should raise interest by emphasizing what a diver can expect to see and do, and by giving vivid historical backgrounds.

III. Wreck Diving and the Law

Learning Objectives

By the end of this section, you should be able to answer the following questions:

1. **What two primary considerations have led to the development of shipwreck laws?**
2. **Why should only trained archaeologists disturb artifacts on a historical wreck?**
3. **What are the two main arguments against recreational divers removing objects and artifacts from nonhistorical wrecks?**
4. **What are the two main arguments in favor of recreational divers removing, restoring and collecting objects and artifacts from nonhistorical wrecks?**
5. **Why does recovering an object require special training beyond the scope of the PADI Wreck Diver course?**
6. **What is your responsibility with regard to laws that apply to the wrecks on which you dive?**

1. What two primary considerations have led to the development of shipwreck laws?

A. There are two main sources for the origin of modern shipwreck laws.
   1. Salvage laws – These laws determine who owns something lost in the sea. Items include wrecks and other craft such as sailboats, houseboats, railroad cars, automobiles, aircraft and military rafts.
      a. Developed before scuba diving, salvage laws define when a lost object is still the original owner's, and when anyone can salvage it. In most countries, salvage law says it's "finders-keepers" once owners have abandoned lost property. However:
         i. Different areas have different salvage laws.
         ii. Many owners and insurance companies do not regard their ships as abandoned and still claim title.
         iii. Laws, other than salvage laws, protect virtually all historical wrecks, and many other lost items.

Note to Instructor

Speak to student divers about local salvage laws. Where possible, cite references (library and internet) for local salvage laws. For example, around the coast of the United Kingdom (UK) there are, currently, approximately 93 wreck sites designated as protected wrecks of one level or another. Reference www.mcga.gov.uk and www.english-heritage.org.uk for more information. There are three main pieces of legislation under which wreck sites have been protected in the UK.

1. Protection of Wrecks Act 1973: Certain designated, charted, historic or dangerous sites may not be dived without a license.
2. Protection of Military Remains Act 1986: Military aircraft and designated ship (controlled sites), are considered war graves that can only be dived with a license. Other designated ships (protected sites) may be dived providing the divers do not enter, disturb or remove artifacts.
3. Merchant Shipping Act 1995: All wrecks and cargoes are owned – each artifact removed must be reported to the Receiver of the Wreck.

Another example is in the US, where the Sunken Military Craft Act protects vessels, aircraft and space vessels, including foreign vessels in US waters, from unauthorized disturbance while allowing divers to have non-intrusive access.

For information on wrecks in Australia, reference the National Shipwreck Database for Australia at www.environment.gov.au/heritage/historic-shipwrecks/australian-national-shipwreck-database. For information on laws and heritage for wrecks in Australia, reference the Department of Environmental and Heritage Shipwreck at www.environment.gov.au/heritage/historic-shipwrecks.

2. Antiquity protection laws – These laws protect historical resources.
    a. After recreational diving began to grow in the 1950s and 1960s, divers discovered many wrecks. Often, divers ignorantly or uncaringly destroyed wreck sites before study by archaeologists.
    b. Most countries now have laws to prevent divers from removing or even moving objects when visiting historical wrecks. The definition of historical varies regionally. As a rule of thumb, consider a wreck historical if:
        i. It has been declared historical by law (the *Dartmouth*, for example).
        ii. It has known historical significance (the *Titanic*, for example).
        iii. It is approximately more than 100 years old (such as the remains of a Roman cargo ship).
        iv. It is designated as a war grave.

2. Why should only trained archaeologists disturb artifacts on a historical wreck?

B. There are two primary reasons only a trained archaeologist should disturb artifacts on a historical wreck.
   1. A disturbed wreck site has less value to an archaeologist. Archaeologists learn a great deal from how objects lie in relation to each other on a wreck. Important information about the past is lost when an artifact and its resting place are disturbed improperly.
      a. The physical relationship between artifacts in a site reveals patterns of human use and behavior that no single artifact can.
      b. Removing artifacts and disturbing wrecks from their original context loses valuable information, information that is lost forever.
   2. Historical objects and wrecks are cultural resources that should benefit the public. Most governments believe historical objects from a wreck belong in public museums rather than private collections.
   3. Undisturbed wrecks will remain attractive to future generations of divers.

Note to Instructor

Inform student divers that while it's uncommon to come across human bones while wreck diving, it does happen, particularly when making penetration dives on war wrecks. If you ever discover human bones on a wreck:

1. Do not disturb them. In effect, you are visiting someone's final resting place, whether you intended to or not. Show the same respect you would when visiting a cemetery or any other final resting place.
2. If you think you may be the first to discover remains on a particular wreck, report your find to the proper authorities. If it is an older historical wreck, the remains may have archaeological significance. If it is a more recent wreck, authorities may want to recover the bones for reburial elsewhere.

3. What are the two main arguments against recreational divers removing objects and artifacts from nonhistorical wrecks?

C. Two schools of thought challenge recreational divers collecting objects from wrecks that are not historically significant.
   1. This controversy also involves legal decisions as to what wrecks are not historically significant.
   2. Those against removing objects from wrecks argue that:
      a. An artifact removed from the water deteriorates rapidly if not given proper treatment. Artifact removal can therefore lead to total loss of the artifact.
      b. A wreck stripped bare is less interesting; therefore, artifact removal eventually reduces the number of interesting wrecks to dive.

4. What are the two main arguments in favor of recreational divers removing, restoring and collecting objects/artifacts from nonhistorical wrecks?

D. Those who believe removing objects from nonhistorical wrecks is acceptable, if done responsibly, argue that:

1. Many underwater environments rapidly destroy objects anyway; therefore, objects removed and responsibly treated will be saved from eventual loss, and if displayed properly these artifacts will be seen by many nondivers who could never otherwise see them.
2. The desire to collect artifacts is a primary motivation for individuals to look for and research wrecks. Without this motivation, many wrecks would remain undiscovered because neither the government nor museums have sufficient money to locate and research them.

5. Why does recovering an object require special training beyond the scope of the PADI Wreck Diver course?

E. Recovering objects often requires special training in rigging and lift bag use, and in artifact preservation and documentation.

1. Those interested in artifact removal should work with trained underwater archaeologists or other sources to learn and apply the techniques for artifact recovery and proper artifact treatment.
2. To learn proper rigging and lift bag use, enroll in a PADI Search and Recovery Diver course. (You may have already learned basic lift bag use in the elective Search and Recovery Dive in the PADI Advanced Open Water Diver program.)

Note to Instructor

Remind student divers that artifact removal is not done except in very specific circumstances (such as artifact documentation and historical archiving etc.), where authorities incorporate time consuming and very expensive controlled conditions that use extensive conservation techniques.

6. What is your responsibility with regard to laws that apply to the wrecks on which you dive?

F. Your responsibility as a wreck diver includes finding out what laws apply before you go diving, and obeying those laws while you dive.

Note to Instructor

Shipwrecks offer adventure and are often included among the best dive sites in the world. Divers must be responsible when exploring these submerged sites, looking after themselves, the environment and the cultural heritage. Describe and explain laws and regulations affecting diving on local wrecks. Refer student divers to references – library or the internet – for more detailed information. Some excellent references include:

- www.visit-micronesia.fm
- www.scapaflowwrecks.com
- www.mcga.gov.uk
- www.artificialreefsocietybc.ca
- www.nationalgeographic.com
- www.discoverychannel.co.uk.

IV. Wreck Diving Hazards

Learning Objectives

By the end of this section, you should be able to answer the following questions:

1. **What are five potential hazards common to wrecks, and how do you avoid them?**
2. **What are five hazards of entering (penetrating) a wreck, and what causes these hazards?**

1. What are five potential hazards common to wrecks, and how do you avoid them?

A. Some wrecks may have hazards unique to that wreck, but there are five potential hazards that are common to most.

1. Sharp objects – Rusted metal objects, jagged steel plates, broken glass, splintering wood and rough or sharp coral encrustations pose potential injury sources. You avoid these by wearing exposure suits and protective gloves. It is also wise to keep tetanus immunizations current in the event of an accidental cut.
2. Entanglement – Wrecks may have old line present on them. Because wrecks attract fish they are popular fishing sites, and you may find monofilament fishing line or nets on them. You avoid these by watching where you go. Look up as well as around as you progress to prevent swimming under entangling objects. Carry a sharp knife with a smooth edge and a serrated edge to handle entanglement too difficult to untangle by hand.

Note to Instructor

Inform student divers that many experienced wreck divers wear two or more cutting devices – a large, general-purpose knife or tool, and a smaller, very sharp backup, emergencies-only tool such as a z-knife or dive shears. For additional security, suggest that divers wear cutting tools widely separated, such as one inside the calf and the other on the BCD, to help ensure reaching at least one if entangled.

3. Aquatic life – A wreck quickly becomes an artificial reef that attracts aquatic life. Watch for the same creatures you would on a natural reef, such as those that can defensively sting or bite or are fragile and can be easily disturbed. Avoid these as you would on a natural reef: fine-tune your buoyancy and streamline your equipment to avoid disturbing or damaging fragile habitats; watch where you put your hands, feet and knees; wear protective clothing; and do not touch the aquatic life.

Note to Instructor

As time allows, describe aquatic life on wrecks. Explain that wrecks can serve as important habitats for fish and other aquatic life because the substrate acts as an artificial reef for entire ecosystems. Invertebrates such as mussels, sponges and sea fans attach to the hard surface of the wreck. Since these organisms often support higher levels of the food web, fish populations often congregate and propagate in the safe haven of the structure. The abundance of life and biodiversity on wrecks can be similar to that of the world's most pristine coral reefs. To learn more about aquatic life, do not touch – take a photograph and research the animal as part of the PADI Underwater Naturalist Specialty course. The PADI Peak Performance Buoyancy Specialty course helps divers fine-tune buoyancy skills to prevent disturbing underwater environments and silt-outs when penetrating wrecks.

4. Unstable structure – Many wrecks have unstable frames, ceilings, hatches and other structures. Avoid diving around wrecks with unstable structures. War wrecks may have munitions lying in unstable areas, or the munitions themselves may be unstable. Divers have lost their lives moving and disturbing unstable munitions – do not touch, move or disturb munitions found underwater. Avoid structures that move in the current or surge, give easily when touched, or simply appear unstable.
5. Surge pockets and suction – The movement of surge through a wreck may cause periodic suction at restricted entryways (hatches and holes in hulls, etc.). Watch for this type of water movement, even when diving on a wreck's exterior.

2. What are five hazards of entering (penetrating) a wreck, and what causes these hazards?

B. Cavern diving, cave diving and ice diving necessarily involve entering an overhead environment, whereas in wreck diving, penetrating the wreck is optional.

1. You'll decide whether to explore the inside or to swim on the outside of a wreck for your final course dive. It may be a challenge you enjoy, but for some it may be something you do not particularly enjoy. In that case, don't do it.
2. You can enjoy a lifetime of wreck diving without ever venturing inside – there's plenty to see outside.
3. In the future, if you decide to give wreck penetration diving a try, it's a good idea to seek further experience and an orientation with a PADI Instructor before entering the wreck for the first time.

Note to Instructor

Remind student divers that entering a wreck or any overhead environment presents significant hazards not found in open water. By discussing the following information, it will be clear that penetrating a wreck safely (or any overhead environment) requires special equipment, training and procedures. Without these, divers should never enter an overhead environment. Even with the proper equipment, training and procedures, divers should realize that wreck penetrations raise stress and potential risk, which can reduce fun and enjoyment.

C. There are five hazards specific to wreck penetration.

1. Loss of direction – Merely entering a wreck can cause disorientation; a wreck leaning on its side magnifies this. Collapsed passages and debris block logical avenues of travel, opening others. It's easy to lose sense of direction inside a wreck.
2. No direct access to surface – Loss of air (or other problems) requires exiting before beginning ascent. An emergency swimming ascent or a buoyant emergency ascent are no longer options.
3. Restricted passages – Movement may be limited in restricted passages, making turning difficult. There is greater possibility of hitting sharp or abrasive objects. Avoid these types of passages completely.
4. Falling objects – Your movement can knock loose objects that can fall on you or in your way. If there is even a remote possibility of something falling from overhead, stay out of that area.
5. Silt – Most wrecks have a layer of silt or particulate matter spread over them – on the bottom, sides and ceilings. Disturbing this material with fins, hands

or equipment can cause dangerously reduced visibility in moments. Exhaled bubbles often cause silt and particulate matter to dislodge from wreck walls and ceilings.

Note to Instructor

Give student divers a final reminder that proper equipment and procedures, and staying within appropriate limits, make it possible to enter wrecks without significant risk. However, never enter a wreck or other overhead environment without the proper training and equipment, and without following the proper procedures.

V. Wreck Diving Techniques

Learning Objectives

By the end of this section, you should be able to answer the following questions:

1. **What are four aspects of a wreck to evaluate when diving on it?**
2. **What are three ways to navigate on a wreck?**
3. **Why may a compass be inaccurate on a wreck?**
4. **What five dive planning and equipment considerations should be made for wreck dives deeper than 18 metres/60 feet?**
5. **What are the general techniques for wreck diving in a current?**
6. **What are two reasons you should obtain a local orientation for diving an unfamiliar wreck?**

1. What are four aspects of a wreck to evaluate when diving on it?

A. When you dive on a wreck for the first time, it is a good idea to look the wreck over and get to know it. Four main aspects of a wreck's condition should be evaluated each time you visit.

1. Possible hazards – Look for the hazards described previously, and any that may be unique to the wreck.
2. Points of interest – Look for those parts of the wreck that stand out as the most interesting and unique. A ship's wheel, telegraph, anchor or bell may tell you something about the wreck. This is what gives the wreck its personality.
3. General condition – The wreck's condition affects the way you explore it, areas to avoid and your safety – particularly if you plan a penetration dive. Is the wreck strong and intact, or is it weak and likely to have walls or objects break and fall? Has it generally held its structure, or is it scattered over a wide area? Is it made of wood or steel?
4. Entryways – For reasons previously discussed, you may find it more enjoyable to remain outside a wreck. However, if you will be planning to enter on a

future dive, look for large, unobstructed openings that let in a lot of light. You should never have to squeeze through an opening or tie back a hatch or door. The entryway should be large enough to swim through comfortably with all equipment in place. Avoid any openings with sharp edges; be sure there is no immediate blockage or hazard.

2. What are three ways to navigate on a wreck?

B. You'll find wreck navigation influenced by how familiar you are with the wreck, your dive objective and how much of the wreck you plan to explore. Depending on what you find when you evaluate the wreck, there are three basic ways to navigate. Sometimes you may find it advantageous to use different techniques on different parts of the wreck, or to combine the techniques of all three at once.

1. Following the wreck's layout – On a fairly intact wreck in clear water, you can often navigate by following the ship's hull or rail. This is one of the easiest ways to navigate on a wreck. Apply the natural navigational techniques learned in your PADI Advanced Open Water Diver program.
2. Feature reference – On a more broken-up wreck, and sometimes on intact wrecks in limited visibility, it is important to note unique features and their relative positions to help you know where you are. If necessary, note these on a slate as you start the dive, then refer to the notes for your return.
3. Base line – A base line is used on a very scattered, broken-up wreck. It is a straight line through the wreckage used as a base for navigation, commonly through the wreck center.
    a. In clear, currentless water, the base line may be as informal as the general direction the wreckage lies. In less clear water, you may use a compass heading. In poor visibility or with a current, you may lay out a rope as a base line.
    b. You use a base line by swimming along it, leaving it for only short distances to explore the wreck. The base line forms a known general heading back to the boat anchor or exit that you constantly keep track of.

3. Why may a compass be inaccurate on a wreck?

C. Keep in mind that iron and steel objects may affect compass readings by attracting the magnetic needle away from north. Don't expect your compass to read as accurately as usual on wrecks that are made of steel or iron, or which may have a lot of iron or steel objects – shipping containers, anchors, cables, etc. – lying around.

4. What five dive planning and equipment considerations should be made for wreck dives deeper than 18 metres/60 feet?

D. Many wrecks lie in water deeper than 18 metres/60 feet, primarily because large ships cruise oceans and major lakes far away from the shore to avoid striking reefs or shallow ground. If you are diving on a wreck deeper than 18 metres/60 feet:

1. It's recommended that you be trained as a PADI Deep Diver. The PADI Deep Diver course provides hands-on experience with the techniques and equipment of deeper diving. It's also very useful to be certified as a PADI Enriched Air Diver to maximize your no stop dive time.
2. Use a high capacity cylinder or hang an extra cylinder at 5 metres/15 feet to ensure sufficient gas for a safety stop or emergency decompression stop. Be sure to have any other equipment necessary for a deep dive in the local environment, and that you can return to the line for your ascent and safety stop.
3. Take the effects of narcosis into account when planning your wreck dive; keep your dive objectives simple, avoid task loading and give yourself ample time.
4. Plan for reduced bottom time caused by short no decompression limits and rapid gas use. Plan a computer-assisted multilevel dive that begins by descending to the deepest point followed by gradually working your way upward in levels as you explore.
5. Become trained as a PADI Enriched Air Diver. Using enriched air (EANx) with an EANx computer can further increase how much time you get to explore by crediting you both for a multilevel profile and enriched air use.

5. What are the general techniques for wreck diving in a current?

E. Just as you commonly come across wrecks in deeper depths, you also commonly find them in areas with current. Moderate currents are common around many wrecks, calling for special techniques.

1. The dive begins when the dive boat anchors on the wreck or attaches to a permanent mooring; divers use lines to keep from being carried away (trailing float line and swim line) and descend the anchor or mooring line.
2. At the end of the dive, return to the anchor line and ascend along it. Constant contact with the anchor line when not on the wreck keeps you from being carried away from the dive boat, so be sure you know where the line is at all times.

Note to Instructor

Caution student divers to watch where they put their hands, as permanent mooring lines are generally encrusted with aquatic growth. Suggest wearing gloves for protection.

3. Remember that a wreck often provides a haven or shelter from currents. Continue to explore the wreck on the lee side, where the wreck will shelter you from the current.
4. You may find it easier to pull yourself along hand over hand rather than swim against the current. Wear gloves and be cautious where you grab things or place your hands.

Note to Instructor

Explain to student divers the techniques used in the local area for wreck diving in a current. Remind divers that devices used to gain attention at the surface should be a standard piece of equipment for every diver, regardless of certification level. Audible devices like whistles or air horns – devices that attach to the low-pressure inflator of the BCD – can be easily heard at night or in limited visibility conditions. For daytime use, include a visual signaling device like a signal mirror or surface marker buoy in your equipment.

6. What are two reasons you should obtain a local orientation for diving an unfamiliar wreck?

F. Wreck diving varies from region to region and from wreck to wreck. Whenever possible, get a local orientation when visiting an unfamiliar wreck.
   1. Optimum techniques may differ locally from the ones you've previously used. A local orientation to a specific wreck provides a good way to learn the appropriate techniques for diving that wreck.
   2. All wrecks have their unique points of interest, potential hazards and regulations or community practices that apply. A local orientation helps you know about these in advance.

VI. Researching Underwater Wrecks

Learning Objectives

By the end of this section, you should be able to answer the following questions:

1. **What are the three reasons for researching the history and condition of a wreck?**
2. **What two sources provide quick, basic information about diving a popular wreck?**
3. **Which possible sources can you check when researching more in-depth, detailed wreck information?**

1. What are three reasons for researching the history and condition of a wreck?

A. For many divers, wreck diving encompasses much more than visiting the remains of a ship. It includes visiting the ship's past through research. Researching a wreck's history benefits you in three basic ways:

1. It may explain the wreck's location and condition.
2. It may reveal or confirm a wreck's identity, which plays an important role in determining whether the wreck has historical/archaeological significance, and whether it may have some unusual hazard to avoid, such as munitions.
3. It may help you uncover unique points of interest, the suitability of the wreck as a dive site and potential hazards.

2. What two sources provide quick, basic information about diving a popular wreck?

B. Sources for basic, easy-to-get information about a popular wreck in a local area include:

1. Dive stores and boats can usually give a few facts about wrecks in their area, as well as general conditions and what to look for while diving on a specific wreck.
2. Dive magazines, guidebooks and the internet can be excellent sources for articles and web pages about popular wrecks. These tend to be more detailed and have more background information than what a dive store or dive boat can tell you.

3. What possible sources can you check when researching more in-depth, detailed wreck information?

C. Some divers want to know more than a local dive store or boat can tell them, that a newer wreck may have little known about it, or that local lore may be inaccurate. In this case, a longer time and effort commitment will be required. Although the internet can get you started, for in-depth wreck information you are likely to end up at sources of records that may not be online. These include:

1. Libraries – Look up local papers from the time the wreck sank.
2. Museums – Write or visit war museums or maritime museums for specific information.
3. Archives – Write or visit archives of insurance, lighthouses, harbors or national history for specific information.
4. Historical/archaeological groups – Often know the history of regional events and wrecks in surprising detail.
5. Maritime societies – Usually maintain records of members and their ships.
6. Maritime insurance companies – Keep records on every ship, past or present, floating or sunk, that they insure.
7. Universities – Archeology or history departments have information and can offer research advice.

Note to Instructor

Inform student divers of any other local resources for researching wrecks. Mention to divers that most institutions, as the ones mentioned, operate on tight budgets and that they may be required to cover the cost of photocopying, duplicating microfilm, etc. Be prepared to do the research; most organizations, although very interested in working with you, do not have financial resources to do this work for you.

VII. Mapping Shipwrecks

Learning Objectives

By the end of this section, you should be able to answer the following questions:

1. **What are two benefits of mapping a wreck?**
2. **What four tools can you use when mapping a wreck, and what is each used for?**

1. What are two benefits of mapping a wreck?

A. There are two primary reasons to map a wreck:
   1. To record the general layout of potential hazards and points of interest for future dive planning.
   2. To assist in planning penetration dives. A wreck map points out possible entry areas and helps you judge possible routes within the wreck.

2. What four tools can you use when mapping a wreck, and what is each used for?

B. Divers have come up with dozens of methods for mapping wrecks – from archaeological methods to sketching from memory. Something in between suffices. Four tools used for mapping wrecks include:

1. Large slate – used for drawing a map. As you sketch, try to draw everything to scale.
2. Compass – used to determine the relative angle between different wreck features. Beware of possible compass deviation around steel or iron.
3. Marked rope or measuring tape – used when distance accuracy (more precise than kick cycles or body measurement techniques) is desired.
4. Navigational aids (slates with grids, etc.) – used to assess bearing and distances more accurately. These aids are also used for general navigation on the wreck.

Note to Instructor

Recommend to student divers that they complete the PADI Underwater Navigator course and consult PADI *Underwater Navigator eLearning* or the *Underwater Navigator Manual* and *Underwater Navigation* video for more information about navigation, mapping and the use of navigational aids.

VIII. Wreck Penetration

Learning Objectives

By the end of this section, you should be able to answer the following questions:

1. **What four pieces of equipment should be used for a penetration dive, and what is each piece used for?**
2. **What are the four penetration limits to observe when inside a wreck?**
3. **What are the proper techniques for entering a wreck?**
4. **What are the proper techniques for moving through a wreck?**
5. **What are the proper techniques for using a penetration line in a wreck?**
6. **What are the proper responses and actions for loss of visibility due to silting?**
7. **What are the proper responses and actions for a lost or cut penetration line?**
8. **What are the proper responses and actions for light failure?**
9. **What are the proper responses and actions for gas supply loss?**

Note to Instructor

Remind student divers that there are many hazards related to penetrating a wreck. Because of those hazards, divers are generally encouraged to remain on the outside of wrecks. If, however, you desire to enter a wreck, you must do it properly or you face unacceptable risk. One of the most common causes of fatal dive accidents is entering overhead environments without the proper equipment and without applying the proper techniques. Wreck penetration should: 1) only be done in a wreck that is stable and secure, 2) be restricted

to the light zone, 3) be done only when environmental conditions are excellent, and 4) be done only when all the appropriate equipment and procedures the particular environment calls for can be applied. The following discussion covers wreck penetration equipment, techniques and limits suitable for recreational divers. More involved wreck penetration diving requires training in technical, research or commercial diving and is beyond the scope of this course. Do not exceed the limits of your training.

1. What four pieces of equipment should be used for a penetration dive, and what is each piece used for?

A. Specific equipment is required for all penetration dives. This equipment, as well as special training, is necessary to offset the potential hazards of being inside a wreck safely. Under no circumstances should you try to perform a penetration dive without the necessary equipment.

1. Dive lights – Even though you will remain in the light zone of the wreck, the ambient light dims as you move away from the entry. Therefore, a light source is necessary during penetration. You should have at least two dive lights: a primary and a backup.

a. Carry your backup dive lights so that they are out of the way and don't dangle, yet remain accessible to grasp with one hand. This makes it possible to switch lights while using the other hand for maintaining buddy contact or penetration line contact.

Note to Instructor

Ensure student divers understand light zone – the area from which you can still see the natural light at the entrance. Discuss and show divers appropriate lights available in the local market. Reinforce the fact that many wreck divers carry no fewer than three dive lights during penetration dives.

2. Penetration line and reel – The penetration line and the visual reference that the light zone provides help you avoid being lost or disoriented inside the wreck. Do not make a penetration dive without a line. The line must be stored on a reel that can be used to easily deploy and retrieve the line while moving through the wreck. Inspect the line for wear before every use.

a. Line – Wrecks frequently have sharp or abrasive surfaces than can sever your line, so use a strong, durable line made from a nonbiodegradable material.

i. Standard line – A braided nylon line (generally #36 line) is more like a string than rope, so it tangles and jams reels if not handled with

care. Place it properly so it doesn't cause entanglement or is cut by abrasion.

ii. Beginner's line – Line 6 millimetres/0.25 inches thick or thicker, made of a nonbiodegradable material such as nylon, stored on a large reel. The beginner's line is very durable and less prone to tangling due to its thickness. However, the reel is bulky and awkward, and requires two-handed use most of the time. Good choice for training and inexperienced wreck divers making very limited penetrations.

b. Reel – A standard reel with standard line is preferred because it only requires one hand (except when reeling the line back up). Most reels clip to your BCD, and lock so they don't unreel when you're not using them.

Note to Instructor

Show student divers different line and reel types available in the local market. Also, have a look at accessory clips for attaching to BCDs and accessory equipment directly. Make available for student divers various brands of clips (brass, plastic and stainless steel) and have divers try sliding gate clips. Discuss pros and cons of clipping accessory equipment to BCD D-rings versus placing the clip directly on accessories.

3. Slate – Sketch a wreck map on your slate for reference during the penetration. You can make an interior map with notes to aid planning future penetration dives, and as a secondary reference to help find your way out if necessary. Slates are also handy for communicating with your buddy.
4. H-valve, Y-valve or pony bottle – Although they're not considered mandatory within recreational wreck penetration limits, you'll find that local divers consider redundant valves or gas supplies standard equipment. Both H- and Y-valves and pony bottles add a safety margin for the overhead environment because, in the event of a gas supply problem, it's easier to exit a wreck using your own regulator than sharing air with your buddy's alternate.
   a. H- and Y-valves are special cylinder valves that allow you to attach two separate regulators. If one were to fail (and freeflow), you or your buddy would close the portion of the valve supplying that regulator, and you would end the dive using the other.
   b. A pony bottle is a totally independent gas source The primary drawback (compared to the H- or Y-valve) is that it's bulkier and not as streamlined.

Note to Instructor

Ask student divers to refer to the sidebar, "Optional Penetration Equipment Configurations," in their PADI *Wreck Diver Manual* for ideas to set up their equipment for penetration dives. As time allows, have student divers review each other's equipment setup and, if practical, provide time in confined water for divers to practice accessing and using their equipment: line, reel, dive lights, two buckle weight belts, head lights, canister HID lights, foldable snorkels and snorkel quick-release clips, H-valves and Y-valves, pony bottles, and single cylinder TecRec configurations.

2. What are the four penetration limits to observe when inside a wreck?

B. The overhead environment poses four limits beyond the normal open water constraints of depth, gas supply and no decompression limits.

Note to Instructor

Remind student divers that limits coupled with equipment and training keep them within reasonably manageable risk limits. Acknowledge that tec divers and other divers with considerably more equipment and training have more liberal limits in penetrating a wreck, but these don't apply until their level of equipment and training is reached.

1. Edge of light zone – You should never penetrate a wreck past the point where you can see the natural light of the entrance. For this reason, you do not make penetration dives at night or in water so deep and murky that there is little or no natural light visible from inside the wreck.
2. Linear distance of 40 metres/130 feet – The maximum total distance you enter a wreck should not exceed 40 metres/130 feet from the surface, even if you're still in the light zone. Example: If the wreck is 30 metres/100 feet deep, the absolute maximum penetration is 10 metres/30 feet. At 40 metres/130 feet, you should not enter a wreck at all. By marking your penetration line in 1.5-metre/5-foot or 3-metre/10-foot intervals, you can track the distance of your penetration to keep from exceeding 40 metres/130 feet linear to the surface.
3. One-third of gas supply – Wreck penetration uses the rule of thirds for gas planning. Use one-third of your gas to penetrate (which starts when you descend), one-third to exit, and keep one-third in reserve. Saving two-thirds of your gas for exiting gives you more of the most important factor you need to handle a problem inside a wreck: time. The rule of thirds gives you about twice as much time to get out of a wreck as it took to get in.

Note to Instructor

Explain to student divers that on many wrecks, if other limits permit, the one-third reserve may be used on the outside of the wreck, and the dive finished with the appropriate reserve.

4. Space too narrow for two divers to pass together – Don't go past any area that is so narrow that you and your buddy couldn't move through it together while sharing air with a conventional alternate air source.

C. You shouldn't find basic wreck penetration techniques difficult, but they do take some practice. This is why you learn them initially outside the wreck.
   1. Tying off the penetration line.
      a. Penetration begins by tying a line to a sturdy piece of wreckage outside the entry point.
      b. The tie-off point must not be movable, weak or have sharp edges. It must provide a firm attachment that will not cut the line. Where possible, thread the line through a hole and then tie the end to the line itself.
         i. In general, use a knot that will release quickly, even after being pulled hard, such as a figure-eight knot.
         ii. Divers using standard reels usually tie a permanent loop in the line end big enough to pass the reel through. The line is passed around an object, and then the reel is pulled through the loop, securing the line without tying any knots.
   2. Immediately inside the wreck, wrap the line around an object to create a secondary anchor point. This is in case the outside tie-off is accidentally cut or comes free. You want to make this secondary tie and all subsequent ties in a way that's quick and secure, yet comes loose easily when you exit. With practice, you'll be able to do this quickly using one hand.
   3. While moving inside the wreck, the line should occasionally be looped around some elevated, nonsharp object (like a round pipe) as necessary, to prevent it from becoming tangled.

3. What are the proper techniques for entering a wreck?

D. There are standard techniques and procedures for entering a wreck.
   1. An opening through a door or hatch that can close is not a suitable entry location. Enter a wreck only where the opening is large, void of closing covers or doors and sharp edges.
   2. The diver with the reel goes first.

3. Sweep your light in a circle as you enter. Check all areas in front, above, below and to the side of you.
4. Check where your bubbles hit the ceiling. If they cause a severe rain of silt that could limit visibility, it may be appropriate to abort the penetration.
5. Wrap the line around nonsharp objects from time to time as necessary to route the line where your buddies can follow it, to avoid slack and to keep the line from blocking passage.

4. What are the proper techniques for moving through a wreck?

E. Moving through the wreck requires the use of proper technique to prevent stirring up silt, accidental cuts or stings, and damage to the penetration line.
1. Maintain neutral buoyancy to keep off the bottom inside the wreck.
2. When swimming, stay level or with your legs slightly above your head. Use shorter, gentler sculling kicks that don't kick up much silt. Never allow your kicks to stir up silt from the bottom.
3. When practical, gently pull yourself by hand through the wreck. However, to prevent cuts or contact with aquatic life, look closely before you grab anything.
4. Do not use the penetration line to pull yourself along. This can cut or fray the line, or may pull the reel out the hands of the reel diver.
5. All activity should be slow, smooth and deliberate.

5. What are the proper techniques for using a penetration line in a wreck?

F. Proper techniques for using the penetration line ensure that you will maintain contact with the line and that neither you nor your buddies will become entangled.
1. The maximum is three divers penetrating the same area and/or on the same line.
2. The reel diver goes first with his buddy(ies) following single file.
3. Swim near the line in a position where you can easily reach it with one hand, but do not actually hold it (except for turns or during emergencies – discussed shortly). Know where the line is at all times. You should be able to reach out and grasp it at any time. Preferably, swim with the line just below chest level and to one side, wreck configuration allowing.
4. To turn around on the line, grasp with hand closest to line. Turn toward the line, holding it away to prevent entanglement. Grasp with other hand to complete turn.
5. Upon reaching penetration, gas supply, light zone or another limit, divers turn around. The last diver becomes the leader, following the penetration line to exit. The reel diver is last, taking up the line. Note: You will have somewhat reduced visibility during exit because kicking up some silt on the way in is inevitable.

6. What are the proper responses and actions for loss of visibility due to silting?

G. As long as you observe the penetration limits you've learned, you should have adequate time and resources to handle wreck penetration emergencies. During the wreck penetration you may need to handle problems associated with silt-out, a lost or cut penetration line, light failure, or loss of gas supply. It's always important to stop, breathe, think and then act, just as you would handling any problem.

1. Silt-out is caused by kicking up the bottom, or by your bubbles dislodging particles of sediment on the sides and ceiling of the wreck. Because a silt-out makes seeing (with or without a light) impossible, you need to use the penetration line to avoid disorientation. In case silt begins to destroy visibility:
   a. Immediately stop, reach out and loosely grasp the penetration line. Give the silt a moment to settle.
   b. If visibility does not improve quickly (depends on coarseness of sediment), you will have to abort the dive. Make a normal turn, but do not release the line. In silt-out conditions, never release the penetration line. Instead, make a loose "O" around the line with your hand.
   c. Exit the wreck, using the line as a guide. Do not pull on the line.
   d. If you're the reel diver and you can't see whether all divers make line contact and exit, lock the reel, leave it, and follow the line out.

7. What are the proper responses and actions for a lost or cut penetration line?

H. If you lose contact with the line or it is accidentally cut, follow these procedures:

1. Stop and allow any silt to settle.
2. Find the natural light at the entrance. If you must turn to do this, use great care not to stir up silt. You may need to cover your light and let your eyes adjust to the dark.
3. Swim to the exit. If you have been keeping track of your progress on a slate, use it to help you retrace your path.
4. If you're the reel diver and you can't see whether all divers make line contact and exit, lock the reel, leave it, and follow the line out.

Note to Instructor

Caution student divers about trapped air left by previous divers, and trapped fuel, oil, or other chemicals in the wreck. Divers should avoid these pockets, even those thought to contain air. Over time, oxygen dissolves out of trapped air, so if breathed the diver could lose consciousness.

8. What are the proper responses and actions for light failure?

I. If your light fails, follow these procedures:
   1. Stop and make loose contact with the line.
   2. Using your free hand, locate and turn on your backup light.
   3. Signal your buddies and abort the penetration. Under no circumstances should you continue the penetration on your backup light. Use the backup to allow a safe exit. This is another reason why experienced wreck divers carry three or more lights – they can continue the penetration after a single failure.
   4. If your backup light doesn't work or has been lost, signal to borrow your buddy's light. Abort the penetration.

9. What are the proper responses and actions for gas supply loss?

J. Gas supply loss should be unlikely if you follow the rule of thirds. If it does occur, follow these procedures:
   1. If you're using an H-valve or Y-valve system and a regualtor begins to freeflow, shut down the freeflowing regulator and exit the wreck using the other. If you didn't lose much gas, make a normal ascent.
   2. If you're carrying a pony bottle, switch to it and exit the wreck. You may not have enough gas for a normal ascent, so make contact and secure your buddy's alternate air source and ascend together.
   3. In either case, don't cause a silt-out while rushing to make the switch and shut down the freeflowing regulator – move slowly and deliberately.
   4. If you're not using an H-valve or Y-valve, or carrying a pony bottle, secure your buddy's alternate second stage. Calmly and deliberately, but immediately, exit the wreck.
   5. If you're the reel diver, whether you're the donor or the receiver, in an gas-supply emergency leave the line and reel in place and exit.

Note to Instructor

The techniques for exiting the wreck using a buddy's alternate air source depend upon the wreck and the alternate air source hose length. You should be able to swim side-by-side or over-under all the way out. If necessary, with a standard one-metre (39-inch) hose, the donor can go through a tighter area first with the receiver behind, gently holding on to the donor's cylinder to prevent separation. When using the TecRec configuration with the two-metre/seven-foot hose, the protocol is for the receiver to go first with the donor immediately behind. Inform divers they will practice using their buddy's alternate air source (either in confined water or by doing a dry run on the surface) before they attempt a wreck penetration dive.

K. Inside a wreck, the "thumbs up" signal to surface takes on more authority than in open water.
   1. In the overhead environment, the "surface" signal from any diver turns the penetration immediately.
   2. Because there are potentially more hazards in an overhead environment, the rule is that you do not use any time or air questioning or modifying the command to exit. When the thumb goes up, the divers go out, period!

SECTION THREE

Open Water Dives

Conduct

The PADI Wreck Diver Specialty course has four required open water training dives. You also have the option of adding a confined water dive to practice skills, such as knot tying, line and reel use, signaling and navigation along with a general scuba skills review.

You may add training dives for additional experience as needed for student divers to demonstrate mastery. **However, student divers must demonstrate mastery of all performance objectives for each dive prior to progressing to the next training dive.**

On Dive One, student divers mainly use their navigation skills to locate the wreck, practice using their diving equipment, communicating underwater and maintaining neutral buoyancy. On Dive Two, student divers swim along outside the wreck identifying and avoiding potential hazards, map the wreck marking points of interest, and survey the wreck for a future penetration dive. On Dive Three, student divers practice the deployment and retrieval of a penetration line on the outside of the wreck. On Dive Four, student divers plan and perform an actual wreck penetration dive, or they organize and conduct a wreck dive outside the wreck identifying and avoiding potential hazards with their dive buddy.

Prior to certification, student divers must demonstrate mastery of all performance objectives.

Dives, Times, Depths and Gases

1. **The minimum number of dives for certification as a PADI Wreck Diver is four open water dives.**
2. **All dives must be planned as no stop (no decompression) dives.** Divers may use enriched air to extend no stop time or add conservatism if they are certified as PADI Enriched Air Divers (or qualifying certification).
3. The recommended depth for all open water dives is 18 metres/60 feet.

General Considerations

1. Involve student divers in dive-planning activities. Have student divers prepare training buoys and reference lines, penetration lines and emergency decompression breathing equipment as appropriate.

2. Conduct a thorough briefing. The better the briefing, the more smoothly the dive will proceed. Penetration dives may be psychologically stressful to some individuals. Pay close attention to stress levels and behavior. Never force a student diver to make a penetration into a wreck; instead, complete training with Wreck Dive Four B.
3. Use qualified assistants to help keep track of buddy teams and watch student divers waiting to complete an exercise with the instructor. It's useful to have an assistant outside the wreck supervising student divers waiting their turn to penetrate the wreck, if you elect to make the penetration with all student divers in one dive. Note that all groups should be able to complete their dive within the rule of thirds. It may be feasible to have groups of two descending to the wreck in shifts, supervised by assistants.
4. It is recommended that, when feasible, Wreck Dive Two and Wreck Dive Three be conducted on the same wreck. This allows student divers to become familiar with the wreck on Wreck Dive Two (by mapping it) prior to the simulated penetration exercises in Wreck Dive Three. If you will be conducting Wreck Dive Four A, it's recommended that Wreck Dives Two and/or Three be conducted on the same wreck also so student divers can become familiar with the wreck prior to actual penetration exercises.
5. Penetration line use requires practice. Use confined water and/or surface practice sessions to practice using the penetration line. Ensure that all students have the opportunity to practice securing, deploying, following and retrieving the line.
6. Conduct penetration dives so that you (the instructor) never violate the rule of thirds, even when completing multiple penetrations with student diver groups. Doing so increases your own risk, and depletes emergency gas you may need to assist a student diver. It also serves as bad role modeling. High-capacity cylinders or double cylinders may help, but do not exceed your no decompression limits.

Sequence Options and Dives

1. Ideally, student divers should complete Knowledge Review Part I before Wreck Dive One.
2. Student divers should complete Knowledge Review Part II before Wreck Dive Two and Wreck Dive Three.
3. **Training dives must be conducted in order.** You may rearrange skill sequences within a dive.

Wreck Dive One

Performance Objectives

By the end of Wreck Dive One, student divers should be able to:

1. **Swim on the outside of a wreck, maintaining proper buoyancy control, and identifying and avoiding potential hazards.**
2. **Navigate on a wreck so that the ascent point can be located without surfacing, with the assistance of the instructor.**
3. **Maintain neutral buoyancy and body position to avoid touching the bottom and the wreck.**

I. Wreck Dive One Standards

A. Environment: Open water

B. Maximum Depth: 18 metres/60 feet recommended

II. Suggested Sequence

A. Briefing

1. Evaluate dive site conditions.
2. Identify facilities at the dive site.
3. Explain interesting and helpful facts about the dive site, including bottom topography, bottom composition, depth range and points of interest.
4. Describe entry and exit techniques for the dive site.
5. Have buddy teams plan their turn pressure, ascent pressure and reserve pressure for the dive based on gas supply limits.
6. Have buddy teams establish maximum depths and bottom times, and plan contingency profiles for longer and deeper dives than planned.
7. Review the dive sequence and performance requirements.
8. Review communication and other emergency protocols as requested by local regulators.

B. Predive Procedures

1. Have divers prepare all standard and specialized equipment.
2. Confirm that divers list all dive data on a slate: turn-around gas pressure, maximum depth and bottom time.
3. Put on all equipment.
4. Check out with surface support staff (as required).

C. Wreck Dive One

1. Predive check
   a. Buddies conduct a predive safety check.
   b. Watch for and correct errors as appropriate.
2. Entry
3. Navigation
   a. With the instructor leading, use navigation techniques appropriate for the chosen wreck.
   b. Buddy teams follow, using the same navigation techniques.
   c. During this exercise, provide student divers with an overview of the exterior of the wreck.
4. Buoyancy
   a. Have student divers control their buoyancy and remain neutrally buoyant as appropriate.
   b. Student divers should avoid silting problems through buoyancy and fin control, and watch for wreck and aquatic life hazards.
5. Ascent
   a. With student divers following and observing, instructor navigates on the wreck so the entire group reaches the ascent point without surfacing.
   b. Divers ascend at a maximum rate not exceeding 18 metres/60 feet per minute, or according to their dive computer.
   c. Divers complete a safety stop at 5 metres/15 feet for at least three minutes.
6. Exit
   a. Divers establish positive buoyancy at the surface.
   b. Divers exit the water appropriately for the environment, with assistance as necessary.

D. Post-dive Procedures

1. Check in with surface support staff (as required).
2. Remove and safely stow equipment.

E. Debriefing

1. Provide positive reinforcement and assess performance.
2. Have student divers discuss the wreck condition and features, possible structure and/or aquatic life, hazards observed and the navigation of the wreck.
3. Discuss any possible hazards in detail.

4. Guide discussions to address what worked, what didn't work, and how things may be done differently the next time.
5. Log the dive (instructor signs log book/approves digital log).

Wreck Dive Two

Performance Objectives

By the end of Wreck Dive Two, student divers should be able to:

1. **Swim along the outside of a wreck, in a buddy team, identifying and avoiding potential hazards.**
2. **With a buddy, map a wreck (or portion of a wreck), determining approximate size and marking points of interest.**
3. **Survey a wreck for a penetration dive and evaluate possible entrances.**
4. **Navigate on a wreck, returning to the ascent point without surfacing.**

I. Wreck Dive Two Standards

A. Environment: Open water

B. Maximum Depth: 18 metres/60 feet recommended

II. Suggested Sequence

A. Briefing

1. Evaluate dive site conditions.
2. Identify facilities at the dive site.
3. Explain interesting and helpful facts about the dive site, including bottom topography, bottom composition, depth range and points of interest.
4. Describe entry and exit techniques for the dive site.
5. Have buddy teams plan their turn pressure, ascent pressure and reserve pressure for the dive based on gas supply limits.
6. Have buddy teams establish maximum depths and bottom times, and plan contingency profiles for longer and deeper dives than planned.
7. Review the dive sequence and performance requirements.
8. Review communication and other emergency protocols as requested by local regulators.

B. Predive Procedures

1. Prepare all standard and specialized equipment.

2. Confirm that divers list all dive data on a slate: turn-around gas pressure, maximum depth and bottom time.
3. Put on all equipment.
4. Check out with surface support staff (as required).

C. Wreck Dive Two

1. Predive check
   a. Buddies conduct a predive safety check.
   b. Watch for and correct errors as appropriate.
2. Entry
3. Navigation along the wreck
   a. In buddy teams, student divers explore the wreck site, using navigation techniques appropriate for the site.
   b. Divers should identify and avoid potential hazards.
4. Mapping of the wreck
   a. Each buddy team maps the wreck (or a portion of the wreck).
   b. Make sure the divers note points of interest, potential hazards and potential penetration entries on a slate or wetbook.
5. Assessment of limited penetration
   a. Each team examines potential penetration entries for size and safety. Student divers should be prepared to discuss later whether there are appropriate openings on the wreck for limited penetration.
   b. If possible, and appropriate openings are found, have student divers use underwater lights to examine the immediate interior of the openings, looking for obstructions, sharp edges and other possible hazards.
   c. Student divers are not to enter the wreck.
6. Ascent
   a. With student divers following and observing, instructor navigates on the wreck so the entire group reaches the ascent point without surfacing.
   b. Divers ascend at a maximum rate not exceeding 18 metres/60 feet per minute, or according to their dive computer.
   c. Divers complete a safety stop at 5 metres/15 feet for at least three minutes.
7. Exit
   a. Divers establish positive buoyancy at the surface.
   b. Divers exit the water appropriately for the environment, with assistance as necessary.

D. Post-dive Procedures

1. Check in with surface support staff (as required).
2. Remove and safely stow equipment.

E. Debriefing

1. Provide positive reinforcement and assess performance.
2. Have student divers discuss and review their mapping of the wreck.
3. Discuss with student divers possible penetration locations and the suitability of penetrating the wreck.
4. Guide discussions to address what worked, what didn't work and how navigating the wreck may be done differently the next time.
5. Log the dive (instructor signs log book/approves digital log).

Wreck Dive Three

Performance Objectives

By the end of Wreck Dive Three, student divers should be able to:

1. **Demonstrate the deployment and retrieval of a penetration line, on the outside of a wreck, while working in buddy teams.**
2. **Swim along the deployed penetration line so as to maintain contact with the line, without kicking up silt and while holding a dive light.**
3. **Navigate on a wreck, returning to the ascent point without surfacing.**

I. Wreck Dive Three Standards

A. Environment: Open water

B. Maximum Depth: 18 metres/60 feet recommended

II. Suggested Sequence

A. Briefing

1. Evaluate dive site conditions.
2. Identify facilities at the dive site.
3. Explain interesting and helpful facts about the dive site, including bottom topography, bottom composition, depth range and points of interest.
4. Describe entry and exit techniques for the dive site.
5. Have buddy teams plan their turn pressure, ascent pressure and reserve pressure for the dive based on gas supply limits.

6. Have buddy teams establish maximum depths and bottom times, and plan contingency profiles for longer and deeper dives than planned.
7. Review the dive sequence and performance requirements.
8. Review communication and other emergency protocols as requested by local regulators.

B. Predive Procedures

1. Prepare all standard and specialized equipment.
2. Confirm that divers list all dive data on a slate: turn-around gas pressure, maximum depth and bottom time.
3. Put on all equipment.
4. Check out with surface support staff (as required).

C. Wreck Dive Three

1. Predive check
   a. Buddies conduct a predive safety check.
   b. Watch for and correct errors as appropriate.
2. Entry
3. Divers practice securing, properly deploying and retrieving the penetration line.
4. Divers swim along the penetration line while holding on to a dive light, moving in such a manner as to not kick up silt.
5. Ascent
   a. With student divers following and observing, instructor navigates on the wreck so the entire group reaches the ascent point without surfacing.
   b. Divers ascend at a maximum rate not exceeding 18 metres/60 feet per minute, or according to their dive computer.
   c. Divers complete a safety stop at 5 metres/15 feet for at least three minutes.
6. Exit
   a. Divers establish positive buoyancy at the surface.
   b. Divers exit water appropriately for the environment, with assistance as necessary.

D. Post-dive Procedures

1. Check in with surface support staff (as required).
2. Remove and safely stow equipment.

E. Debriefing

1. Provide positive reinforcement and assess performance.
2. Have student divers discuss how they dealt with the simulated penetration on the outside of the wreck.

3. Ask student divers to comment on swimming along the penetration line while holding a dive light.
4. Discuss with student divers possible penetration locations and the suitability of penetrating the wreck.
5. Guide discussions to address what worked, what didn't work and how they may conduct their simulated penetration dive differently the next time.
6. Log the dive (instructor signs log book/approves digital log).

Wreck Dive Four A

Performance Objectives

By the end of Wreck Dive Four A, student divers should be able to:

1. **Plan and perform an actual wreck penetration under the direct supervision of a Teaching status PADI Instructor:**
   - **Determining air supply and penetration lines;**
   - **Swimming without causing excessive silt disturbance;**
   - **Maintaining contact with the line;**
   - **Using a dive light while following a penetration line.**
2. **Navigate on a wreck, returning to the ascent point without surfacing.**

I. Wreck Dive Four A Standards

A. Environment: Open water

B. Maximum Depth: 18 metres/60 feet recommended

II. Suggested Sequence

A. Briefing

1. Evaluate dive site conditions.
2. Identify facilities at the dive site.
3. Explain interesting and helpful facts about the dive site, including bottom topography, bottom composition, depth range and points of interest.
4. Describe entry and exit techniques for the dive site.
5. Have buddy teams plan their turn pressure, ascent pressure and reserve pressure for the dive based on gas supply limits.
6. Have buddy teams establish maximum depths and bottom times, and plan contingency profiles for longer and deeper dives than planned.

7. Review the dive sequence and performance requirements.
8. Review communication and other emergency protocols as requested by local regulators.

B. Predive Procedures

1. Prepare all standard and specialized equipment.
2. Confirm that divers list all dive data on a slate: turn-around gas pressure, maximum depth and bottom time.
3. Put on all equipment.
4. Check out with surface support staff (as required).

C. Wreck Dive Four A

1. Predive check
   a. Buddies conduct a predive safety check.
   b. Watch for and correct errors as appropriate.
2. Entry
3. Under instructor supervision, student divers make a wreck penetration using the proper techniques. During the penetration, student divers:
   a. Use the penetration line as a guide
   b. Swim in a manner as to avoid kicking up silt.
4. Ascent
   a. With student divers following and observing, instructor navigates on the wreck so the entire group reaches the ascent point without surfacing.
   b. Divers ascend at a maximum rate not exceeding 18 metres/60 feet per minute, or according to their dive computer.
   c. Divers complete a safety stop at 5 metres/15 feet for at least three minutes.
5. Exit
   a. Divers establish positive buoyancy at the surface.
   b. Divers exit water appropriately for the environment, with assistance as necessary.

D. Post-dive Procedures

1. Check in with surface support staff (as required).
2. Remove and safely stow equipment.

E. Debriefing

1. Provide positive reinforcement and assess performance.
2. Have student divers discuss techniques used and how they felt making an actual wreck penetration.

3. Ask student divers to comment on the use of a penetration line as a guide and how they avoided kicking up silt.
4. Guide discussions to address what worked, what didn't work and how they may conduct their penetration dive differently the next time.
5. Log dive (instructor signs log).

Wreck Dive Four B

Performance Objectives

By the end of Wreck Dive Four B, student divers should be able to:

1. **Organize and conduct a wreck dive with a buddy, but with only minimal instructor assistance.**
2. **Swim on the outside of a wreck, identifying and avoiding possible hazards.**
3. **Navigate on a wreck, returning to the ascent point without surfacing.**

I. Wreck Dive Four B Standards

A. Environment: Open water

B. Maximum Depth: 18 metres/60 feet recommended

II. Suggested Sequence

A. Briefing

1. Evaluate dive site conditions.
2. Identify facilities at the dive site.
3. Explain interesting and helpful facts about the dive site, including bottom topography, bottom composition, depth range and points of interest.
4. Describe entry and exit techniques for the dive site.
5. Have buddy teams plan their turn pressure, ascent pressure and reserve pressure for the dive based on gas supply limits.
6. Have buddy teams establish maximum depths and bottom times, and plan contingency profiles for longer and deeper dives than planned.
7. Review the dive sequence and performance requirements.
8. Review communication and other emergency protocols as requested by local regulators.

B. Predive Procedures

1. Prepare all standard and specialized equipment.

2. Confirm that divers have all dive data: turn-around gas pressure, maximum depth and bottom time on a slate.
3. Put on all equipment.
4. Check out with surface support staff (as required).

C. Wreck Dive Four B

1. Predive check
   a. Buddies conduct a predive safety check.
   b. Watch for and correct errors as appropriate.
2. Entry
3. Instructor accompanies student divers on their planned dive.
4. Student divers navigate on the wreck to reach the ascent point without surfacing.
   a. Divers ascend at a maximum rate not exceeding 18 metres/60 feet per minute, or according to their dive computer.
   b. Divers complete a safety stop at 5 metres/15 feet for at least three minutes.
5. Exit
   a. Divers establish positive buoyancy at the surface.
   b. Divers exit water appropriately for the environment, with assistance as necessary.

D. Post-dive Procedures

1. Check in with surface support staff (as required).
2. Remove and safely stow equipment.

E. Debriefing

1. Provide positive reinforcement and assess performance.
2. Have student divers discuss the wreck condition and features, possible structure and/or aquatic life, hazards observed and the navigation of the wreck.
3. Guide discussions to address what worked, what didn't work and how they may conduct their dive differently the next time.
4. Discuss any possible hazards in detail and review how the planning of the dive may be done differently next time.
5. Log dive (instructor signs log).

APPENDIX

Wreck Diver

Knowledge Review Part I

Complete this knowledge review to hand in to your instructor for review. If there's something you don't understand, review the related material. If you still don't understand, have your instructor explain it to you.

1. List two reasons why artifact recovery is discouraged when wreck diving.
    1. _____
    2. _____

2. Explain why divers must pay close attention to local laws before planning a wreck dive.

3. Describe how to avoid the following potential hazards common to wrecks:

4. List five dive planning and equipment considerations for wreck diving deeper than 18 metres/60 feet.
    1. _____
    2. _____
    3. _____
    4. _____
    5. _____

5. List two reasons for obtaining a local orientation to an unfamiliar wreck before diving on it.
    1. _____
    2. _____

6. Explain why special training and equipment are necessary for shipwreck penetration. In your explanation, include the five hazards of entering a wreck.

7. List three aspects of a wreck that should be evaluated when diving on it.
   1. _____
   2. _____
   3. _____

8. Describe the three methods of navigating on a shipwreck.
   1. _____
   2. _____
   3. _____

Student Diver Statement:

I've reviewed the questions and answers, and any I answered incorrectly or incompletely I have had explained to me and/or reviewed the material, so that I now understand what I missed.

Student Name _____

Student Signature _____ Date _____

Wreck Diver

Knowledge Review Part II

Complete this knowledge review to hand in to your instructor for review. If there's something you don't understand, review the related material. If you still don't understand, have your instructor explain it to you.

9. Describe the general techniques for wreck diving in a current.

10. List three reasons for researching the history and condition of a wreck.
    1. _____
    2. _____
    3. _____

11. List two sources that provide quick, basic information about diving on a popular wreck.
    1. _____
    2. _____

12. List two benefits of mapping a shipwreck.
    1. _____
    2. _____

13. List four pieces of equipment for wreck penetration and state what each is used for.
    1. _____
    2. _____
    3. _____
    4. _____

14. List the four limits for wreck penetration.
    1. _____
    2. _____
    3. _____
    4. _____

15. Describe the proper techniques for entering, moving through and using a penetration line in a wreck.

16. Describe the proper responses and actions for each of the following during wreck penetration:
    a. Loss of visibility due to silting

    _____

    _____

    b. A lost or cut penetration line

    _____

    _____

    c. Light failure

    _____

    _____

    d. Gas supply loss

    _____

    _____

Student Diver Statement:

I've reviewed the questions and answers, and any I answered incorrectly or incompletely I have had explained to me and/or reviewed the material, so that I now understand what I missed.

Student Name _____

Student Signature _____ Date _____

Wreck Diver

Knowledge Review Part I Answer Key

Note to Instructor

To assess knowledge, review the Knowledge Review that was given to the student at the start of the course. (Preferably do this prior to participating in inwater skills practice.) Prescriptively teach answers to questions student divers may have missed, or have answered incorrectly or incompletely. Ensure student divers understand what they have missed.

1. List two reasons why artifact recovery is discouraged when wreck diving.
   1. **Wrecks that are stripped are much less interesting.**
   2. **Historical wrecks must be left undisturbed for research purposes.**

2. Explain why divers must pay close attention to local laws before planning a wreck dive.

   A permit may be required, and it may be illegal to either dive on the wreck or remove artifacts.

3. Describe how to avoid the following potential hazards common to wrecks:

   Sharp objects: Wear protective coverings and use good buoyancy control.

   Entanglement: Watch where you go, avoid swimming into or under potential entanglement. Carry a knife.

4. List five dive planning and equipment considerations for wreck diving deeper than 18 metres/60 feet.
   1. **PADI Deep Diver training**
   2. **Extra tank at 5 metres/15 feet**
   3. **Gas narcosis**
   4. **Short time limits**
   5. **Become trained as a PADI Enriched Air Diver**

5. List two reasons for obtaining a local orientation to an unfamiliar wreck before diving on it.
   1. **Dive techniques vary on wrecks**
   2. **Unique hazards or points of interest**

6. Explain why special training and equipment are necessary for shipwreck penetration. In your explanation, include the five hazards of entering a wreck.

   Special training is necessary because it is extremely hazardous. You can lose direction, there's no direct access to surface, restricted passages, falling objects and silt.

7. List three aspects of a wreck that should be evaluated when diving on it.
   1. **Possible hazards**
   2. **Points of interest**
   3. **General condition**

8. Describe the three methods of navigating on a shipwreck.
   1. **Following the wreck's layout**
   2. **Feature reference**
   3. **Using a base line**

Wreck Diver

Knowledge Review Part II Answer Key

Note to Instructor

To assess knowledge, review the Knowledge Review that was given to the student at the start of the course. (Preferably do this prior to participating in inwater skills practice.) Prescriptively teach answers to questions student divers may have missed, or have answered incorrectly or incompletely. Ensure student divers understand what they have missed.

9. Describe the general techniques for wreck diving in a current.

   Anchor the dive vessel by the wreck or to the mooring line, secure trail and swim line, enter water and pull yourself along swim line, descend hand over hand down to wreck, stay close to the lee side or bottom of wreck, and ascend up anchor/ mooring line at end of dive.

10. List three reasons for researching the history and condition of a wreck.
    1. **To determine the wreck's historical significance.**
    2. **To determine the wreck's identity.**
    3. **To determine points of interest and potential hazards before the dive.**

11. List two sources that provide quick, basic information about diving on a popular wreck.
    1. **Dive stores/boats**
    2. **Dive magazines/guidebooks**

12. List two benefits of mapping a shipwreck.
    1. **To note points of interest and potential hazards.**
    2. **To assist in planning penetration dives.**

13. List four pieces of equipment for wreck penetration and state what each is used for.
    1. **Light and backup light – provides additional light as the ambient light dims when moving away from the entry point.**
    2. **Penetration line and reel – provides a visual/tactile reference to the exit point.**
    3. **Slate – mapping the wreck, write notes on for future reference, communication.**
    4. **Pony bottle – provides an alternative air source and an extra margin of safety.**

14. List the four limits for wreck penetration.
    1. **The edge of the light zone.**
    2. **Linear distance of 40 metres/130 feet.**
    3. **One-third of your gas supply (use Rule of Thirds).**
    4. **Space too narrow for two divers to pass together sharing an alternate air source.**

15. Describe the proper techniques for entering, moving through and using a penetration line in a wreck.

    Tie off penetration line outside the wreck. The diver with the reel enters first, stopping, looking up and around for hazards before proceeding. Secure line to a second point. Maintain neutral buoyancy with gentle kicks and/or by holding on to nonsharp parts of the wreck and pulling yourself around. Maintain light tension on the line and wrap it around nonsharp objects as necessary to route it. Follow the line single file, keeping the line at chest level and off to one side. Don't use line to pull yourself along. Reel diver is last to start exiting and removes line along the way.

16. Describe the proper responses and actions for each of the following during wreck penetration:

    a. Loss of visibility due to silting

    Stop, maintain or make contact with penetration line by making a loose "O" around it with your hand. Follow the penetration line to the exit point without pulling on the line.

    b. A lost or cut penetration line

    Stop, allow the silt to settle, cover flashlight, look for natural light. Head slowly toward the natural light.

    c. Light failure

    Stop, maintain loose contact with the penetration line, turn backup light on, abort dive and head for the exit.

    d. Gas supply loss

    Immediately switch to pony bottle or buddy's alternate air source, abort dive and head for exit point. Make a normal ascent, if possible.

PADI Specialty Training Record

Wreck Diver

Instructor Statement

I verify that this student diver has satisfactorily completed all academic and/or any confined water training sessions as outlined in the PADI Specialty Course Instructor Guide for Wreck Diver. I am a renewed, Teaching status PADI Instructor in this specialty.

Instructor Name _____ PADI # _____

Instructor Signature _____ Completion Date _____

Open Water Dives

Dive One

I verify that this student diver has satisfactorily completed Wreck Dive One as outlined in the PADI standardized guide for Wreck Diver, including:

- Navigate wreck
- Control buoyancy and avoid stirring bottom silt
- Return to ascent point
- Perform safety stop for 3 minutes at 5 metres/15 feet

I am a renewed, Teaching status PADI Instructor in this specialty.

Instructor Name _____ PADI # _____

Instructor Signature _____ Completion Date _____

Dive Two

I verify that this student diver has satisfactorily completed Wreck Dive Two as outlined in the PADI standardized guide for Wreck Diver, including:

- Explore wreck
- Map wreck
- Penetration assessment – locating potential entry points
- Return to ascent point
- Perform safety stop for 3 minutes at 5 metres/15 feet

I am a renewed, Teaching status PADI Instructor in this specialty.

Instructor Name _____ PADI # _____

Instructor Signature _____ Completion Date _____

Dive Three

I verify that this student diver has satisfactorily completed Wreck Dive Three as outlined in the PADI standardized guide for Wreck Diver, including:

- Deploy penetration line on outside of wreck
- Swim along penetration line with light without kicking up silt
- Retrieve penetration line from outside of wreck
- Perform safety stop for 3 minutes at 5 metres/15 feet

I am a renewed, Teaching status PADI Instructor in this specialty.

Instructor Name _____ PADI # _____

Instructor Signature _____ Completion Date _____

Dive Four A or B

I verify that this student diver has satisfactorily completed Wreck Dive Four as outlined in the PADI standardized guide for Wreck Diver, including:

Four A

- Find penetration entry point
- Deploy penetration line into wreck
- Penetrate wreck to safe limits
- Retrieve penetration line and exit wreck
- Navigate to ascent point
- Perform safety stop for 3 minutes at 5 metres/15 feet

Four B

- Plan wreck dive
- Navigate the wreck
- Navigate to ascent point
- Perform safety stop for 3 minutes at 5 metres/15 feet

I am a renewed, Teaching status PADI Instructor in this specialty.

Instructor Name _____ PADI # _____

Instructor Signature _____ Completion Date _____

Student Diver Statement

I verify that I have completed all performance requirements for this Wreck Diver specialty. I am adequately prepared to dive in areas and under conditions similar to those in which I was trained. I agree to abide by PADI Standard Safe Diving Practices.

Student Name _____

Student Signature _____ Date _____

PADI Adventure Dive Training Record

Wreck Diver

Skills Overview

- Knowledge Review
- Briefing
- Gearing Up
- Predive Safety Check (BWRAF)
- Entry
- Navigating the Wreck
- Returning to Ascent Point
- Ascent – Safety Stop
- Exit
- Debrief
- Log Dive – Complete Training Record

Instructor Statement

I verify that this student diver has satisfactorily completed the Knowledge Review and Performance Requirements (as described in PADI's Advanced Open Water Diver Instructor Guide) for this PADI Adventure Dive. I am a renewed, Teaching status PADI Instructor for the current year.

Instructor Name _____ PADI # _____

Instructor Signature _____ Completion Date _____

Instructor Contact Information (Please Print)

Instructor Mailing Address _____

City _____ State/Province _____

Country _____ Zip/Postal Code _____

Phone _____ Email _____

Student Diver Statement:

I verify that I have completed all of the Performance Requirements for this Adventure Dive. I realize that there is more to learn about wreck diving and that completion of a PADI Wreck Diver course is highly recommended. I also agree to abide by PADI Standard Safe Diving Practices.

Student Name _____

Student Signature _____ Date _____