



SCUBA TECH PHILIPPINES



Sidemount • Technical • Wreck

ANDY DAVIS - CONSULTANT TECHNICAL DIVING INSTRUCTOR



Andy Davis – Wreck Diving Programme

Ship wrecks have always proven an irresistible fascination to scuba divers. If you have dived upon wrecks, you will understand how the lure of entering and exploring those darkened passageways calls out to you. And yet, entering a ship wreck is known to be one of the most dangerous activities that a scuba diver might choose to undertake.

Effective wreck training mitigates those dangers and allows the diver to expand their capabilities and progressively explore inside ship wrecks of increasing complexity and demands. I offer 3 stages of training – **Basic Wreck**, **Overhead Protocols** and **Technical Wreck Penetration** to allow continual development towards your goals of exploring inside the heart of ship wrecks.

All courses are taught by Andy Davis, a passionate wreck explorer, with experience spanning 22+ years and 6 continents.

Training dives take place on the world-renown wrecks of Subic Bay, Philippines.

Sidemount and Double-Tank training options available.



Basic (PADI) Wreck Diving Course



Have you ever wondered why some divers are fanatical about wreck diving?

Have you ever considered why wreck diving is one of the most popular and sought after diving experiences in the scuba community?

The lure of exploring sunken vessels, airplanes and automobiles is something most divers can't resist once they have experienced it. Andy Davis' exclusive PADI Wreck Diver course in Subic Bay will introduce you to magic and excitement of wreck diving. This Wreck Diving Specialty course is intended as a safe, supervised introduction to recreational wreck diving, with emphasis on fun, challenge and safety.

"I AM ALWAYS MOVED BY THE SIGHT OF A HULL LYING AT THE BOTTOM OF THE SEA. TO ME, IT SEEMS THAT A SHIP IN THAT SITUATION HAS ENTERED THE "GREAT BEYOND", INTO ANOTHER EXISTENCE. A WORLD OF SHADOWS."

Jacques Cousteau

It's important to note: this wreck course ***significantly exceeds*** the minimum requirements of the basic PADI Wreck Diver course! It draws upon many 'best-practice' techniques, procedures and training-methods common with higher-level overhead environment courses, such as; cave and technical wreck training.

Unlike other wreck diver courses, it is intended to form a solid foundation for further wreck diving training progression – and is wreck penetration focused.

This training is not available elsewhere!

Basic Wreck Course - Outline



The PADI Wreck Diver Specialty Course is designed to familiarize you with the skills, knowledge, planning, organization, procedures, techniques, problems, hazards and fun of wreck diving.

The course will serve as a safe, supervised introduction to wreck diving.

During the course you will develop the ability to explain the

historical value of wrecks, the social and moral issues surrounding them and local and national laws regarding wrecks around the coast of your own country.

You will know how to research a wreck to find its history and background, and you will also know how to plan and organize your wreck dives to make them as safe and fun as possible. You will be able to identify the potential hazards and dangers of a wreck so avoiding any chance of injury or accident.

These will include being able to identify the dangers and hazards of a wreck penetration dive and the procedures required to minimize those hazards.

- To demonstrate practical wreck diving knowledge, including recognizing and avoiding potential hazards, and planning procedures that make wreck diving fun.
- To explain the historical value of wrecks, social and legal issues surrounding that value, and describe some implications of wreck diving, including the pros and cons of removing artefacts from wrecks. Plan and organize dives to safely explore wrecks found within depths and conditions as good as or better than those he has been trained in.
- Identify the hazards of wreck penetration diving and demonstrate the techniques and procedures required to minimize those hazards.

Basic Wreck Course - Timescale



The recommended training time for this course is 48hrs. There are 4 open water dives over at least two days.

Pre-study of course materials/completion of knowledge reviews can shorten the course duration. This is highly recommended. You may obtain your

own copy of the PADI Wreck Diver manual in advance, or I can email handouts/reviews.

The course is performance based, not time based. Performance requirements for each section must be satisfied to allow progression and certification.

Basic Wreck Course - Theory

Typically the course would begin with theory training and discussions about wreck diving. You will be expected to read the Wreck Diving manual and complete the knowledge reviews within that. There is no theory exam on this course. Wreck diving topics will include:

- The planning, organization, procedures, techniques, problems and hazards of wreck diving
- The preparation and use of lights, air supplies, special equipment, penetration lines and reels
- Limited-visibility diving techniques and emergency procedures

Basic Wreck Course - Dives

During the training dives, participants are required to prepare their equipment, plan the dives and demonstrate good diving skills appropriate to that environment.

Particular emphasis is placed upon the use of appropriate non-silting propulsion techniques, effective buoyancy control, diver trim and equipment streamlining.



Like all training courses where certain levels of performance are required to pass it is important to realize that you must reach the required levels of proficiency for each aspect of the course in order for the instructor to certify you, (just like on a driving test). If you fail to achieve the required standards we will endeavour to give you the opportunity for further training, however this would incur additional cost.

Wreck penetration-training dives are limited to within the light zone and within 40 metres/130 feet from the surface, vertical and horizontal distance included. If the wreck used for training is located in deep water (over 18 metres/60 feet), the Deep Diver rating is recommended as a prerequisite for the Wreck Diver program.

Basic Wreck Course - Training Dive Performance Requirements

Wreck Training Dive One

By the end of this dive, the student should be able to:

- Swim on the outside of a wreck, maintaining proper buoyancy control, and identifying and avoiding potential hazards, under the direct supervision of a Teaching Status PADI Instructor.
- Navigate on a wreck so that the ascent point can be located without surfacing, with the assistance of the instructor.
- Maintain neutral buoyancy and body position so that the bottom is avoided.

This is the 'wreck introduction' that many divers will experience on their AOW course as an elective dive. The training focus on this dive is about *hazard identification, buoyancy, trim and non-silting propulsion techniques*. We use this dive to demonstrate zero viz (not inside a wreck), along with issues such as sharp edges, collapse and hazardous marine life etc.

The remainder of the dive is spent as a 'primer'; working on buoyancy and trim, with some tuning of the weighting and distribution to enable a good horizontal

position to be achieved, followed by work on horizontal hovers. We also work on non-silting propulsion, including frog kick, modified flutter kick, helicopter turns and back kick.

Basic Wreck - Dive Two

By the end of this dive, the student should be able to:

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



During this dive, there is more work to fine-tune buoyancy, trim and fin techniques. The student takes a slate and makes notes/maps the wreck with the goal of planning a penetration on subsequent dives. The notes/map enable post-dive discussion of penetration options, including a critical risk assessment. Depths, times, air consumption, planned routes and dive computers/tables are used to formulate a no-deco dive plan and gas management plan for the penetration. If

student doesn't already know their SAC/RMV, then we record it on this dive. We also introduce the concept of team diving, discussing the various team roles and how divers can support each other to achieve objectives.

Basic Wreck - Dive Three

By the end of this dive, the student should be able to:

- Demonstrate the deployment and retrieval of a penetration line, for practice, on the outside of a wreck, while working in buddy teams.
- Swim along the deployed penetration line so as to maintain contact with the line without kicking up silt and holding on to a dive light.
- Navigate on a wreck so that the ascent point can be located without surfacing.

This is the guideline-laying practice dive. At least 1 hour spent deploying and following a guideline. Practice is developed over the session, until the student

can follow the guideline blindfolded (*zero viz simulation*) and can communicate via basic tactile signals. The team have to navigate a guideline that they have laid, 'escaping' from a silted-out wreck scenario whilst maintaining team cohesion. Open-water emergency protocols (i.e. air-sharing) are also developed in the context of confined spaces and limited visibility.



This dive also introduces light signals and places emphasis on team roles. We also like to ensure that students are comfortable applying all their core skills; such as air-sharing, mask clearing, regulator retrieval, whilst following the line, maintaining neutral buoyancy and team cohesion.

Wreck Training Dive Four A or B - There are two final dives to choose from in this specialty course. Dive Four A outlines an actual penetration dive for training on a wreck that can be safely penetrated. Dive Four B outlines a non-penetration wreck dive for training on a wreck that cannot be penetrated. Unless the student has a strong preference not to conduct penetration, then Option A will always be provided. Subic Bay has some magnificent ship wrecks and there are many safe options for penetration dives within the limits of this course.

Basic Wreck - Dive Four A

By the end of this dive, students should be able to:

- Plan and perform an actual wreck penetration:
- Determining air supply and penetration limits.
- Swimming without causing excessive silt disturbance.
- Maintaining contact with the line.
- Using a dive light while following a penetration line.
- Navigate on a wreck so that the ascent point can be located without surfacing.

This dive is the crux of the course. It allows the instructor to enable a comprehensively planned team dive, with pre-designated goals and objectives.

Divers conduct Gas Management and comprehensive dive planning, to determine turn-points based on the rule of thirds, along with pre-calculation of their air consumption requirements.

Previously made maps are used to plan the penetration, bearing in mind calculated turn-points, no-decompression limits and gas contingencies.

Overhead Environment Protocols Clinic



The *Overhead Environment Protocols Clinic* (OEPC) is an advanced-level diving course, that aims to develop the skills, knowledge and procedures required for recreational divers to operate safely in the overhead environment; such as wrecks and caverns.

The clinic focuses on penetration skills and guidelines protocols; along with a team approach for safe and controlled exploration of overhead environments within the limits of their qualifications.

Overhead Environment Protocols Clinic – Outline

This advanced diving clinic explains the dangers, risk mitigating procedures and necessary techniques involved while recreational diving in the overhead (wreck/cavern/cave) environment, within the daylight zone, within 40m/130ft linear distance from the surface, in restricted spaces and when there is a risk of silt-out.

This is not (yet) a certification course - it is a specialist development clinic designed to increase diver competence for operating in the limited overhead environment.

It provides a continuation and progression of the basic introduction to guideline procedures provided by entry-level overhead environment courses (*i.e. PADI Wreck and Cavern diver classes*) and bridges the gap between basic recreational and advanced technical overhead environment diving.



It also adds critical practice of teamwork skills, precision buoyancy control, non-silting fin techniques, gas management and zero-viz contingency drills.

The clinic is taught by a fully qualified technical, sidemount and tech-wreck instructor, with 20+ years of overhead environment diving. This training is absolutely exclusive and not available elsewhere. Be prepared to be challenged and have a lot of fun!

Perfect for -

- Recreational divers who enter overhead environments
- Guideline and Overhead Environment protocols
- Refinement of advanced level diving skills
- Developing teamwork and self-confidence

Overhead Environment Clinic - Content

- Knowledge Development
- Practical Applications
- 6x Open Water Dives (1-2 cylinders, *depending on qualification*)
- Can be combined with Intro-to-Doubles, Tech Basic or Sidemount

Overhead Environment Clinic - Prerequisites

- Advanced Open Water Diver
- Wreck or Cavern Diver
- 25 Logged Dives
- 18 years or over



Student divers are expected to display a good standard of core diving skills, including; precision buoyancy, trim, weighting, non-silting fin kicks, situational awareness, gas management and dive planning.

This course will improve all of those aspects of your diving, but it is more beneficial for the student if the course focuses upon advanced diving skills, rather than remedial basic skills.

Overhead Environment Protocols Clinic - Duration

4 days* with classroom, practical workshops and 6 dives

Day 1 - Classroom theory, equipment workshop, surface practice of penetration protocols.

Day 2 - Core skills dives 1 - 2

Day 3 - Guideline protocols dives 3 - 4

Day 4 - Overhead environment dives 5 - 6

** A 5 day program is recommended if you prefer a more relaxed training program or more time to refine skills.*

Overhead Environment Protocols Clinic - Topics

- Equipment configuration for overhead diving
- Gas redundancy options - pony, doubles, sidemount
- Equipment matching and Pre-Dive check protocol (on surface).
- Team/buddy descent check and safety drill (S-Drill).
- Gas planning and management
- Effective Team Communication, hand signal, light and touch contact
- Guideline deployment, following and retrieval, maintaining team contact.
- Mask remove/replace in contact with a guideline (horizontal and vertical)
- Non-Silting Fin Techniques
- Valve shutdowns exercise (if in doubles) whilst maintaining contact with the guideline.
- Partial and full cylinder removal techniques (if in sidemount) for entering restrictions.
- Air Share and Exit to Out-of-Air diver within confined space.
- Guideline following as a team whilst air sharing (touch contact).
- Guideline following as a team in simulated zero visibility (touch contact).
- Guideline following as a team Air Sharing in Simulated Zero Vis (touch contact).
- Lost Guideline Search Protocol in simulated zero visibility
- Primary light failure and back up light deployment.

Overhead Environment Protocols Clinic - Training Dives

Training Dive One

Environment: Shallow Open Water
Depths: Minimum: 2.4 metres/8 feet
Maximum 12 metres/30 feet
Gases: Air or EANx
Ratios: 2:1

Training Dive Three

Environment: Open Water
Depths: Minimum: 12 metres/40 feet
Maximum: 30 metres/100 feet
Gases: Air or EANx
Ratios: 2:1

Training Dive Five

Environment: Overhead
Depths: Minimum: 12 metres/40 feet
Maximum: 30 metres/100 feet
Gases: Air or EANx
Ratios: 2:1

Training Dive Two

Environment: Open water
Depths: Minimum: 12 metres/40 feet
Maximum: 24 metres/80 feet
Gases: Air or EANx
Ratios: 2:1

Training Dive Four

Environment: Overhead
Depths: Minimum: 12 metres/40 feet
Maximum: 30 metres/100 feet
Gases: Air or EANx
Ratios: 2:1

Training Dive Six

Environment: Overhead
Depths: Minimum: 12 metres/100 feet
Maximum: 30 metres/100 feet
Gases: Air or EANx
Ratios: 2:1



STOP

**Prevent your death!
Go no farther.**

FACT: Many divers, including open water scuba instructors have died in wrecks just like this one.

FACT: You needed training to dive. You need wreck training and wreck equipment to wreck dive.

FACT: Without wreck training and wreck equipment divers can die here.

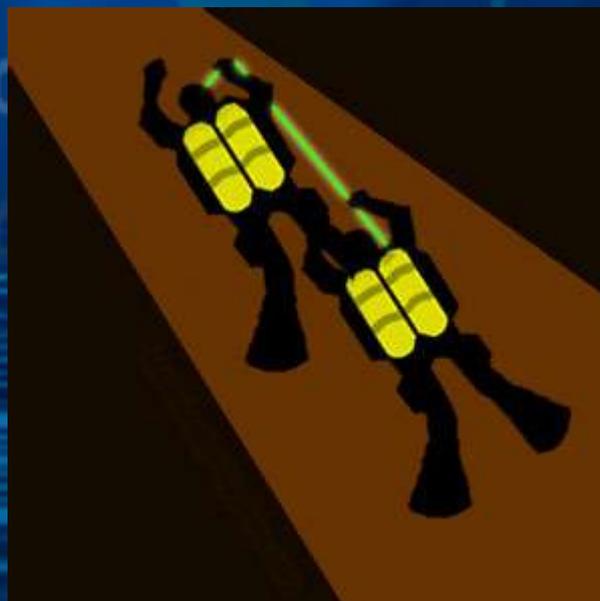
FACT: IT CAN happen to YOU.

There is nothing in this wreck worth dying for!

Do not go beyond this point!

Overhead Environment Protocols Clinic - Equipment Requirements

- Double cylinders of at least 12 l/70 cf each
- OR.. sidemount independents of at least 12 l/70 cf each
- OR.. large capacity single cylinder at least 14l/100cf, plus a 4l/30cf pony cylinder
- Primary regulator with two metre/seven foot hose for air sharing. Short hose AAS in bungee necklace.
- Pony cylinder (if used) configured as per technical stage cylinder with regulator, short-hose SPG and bungees
- BCD(s) and harness (backmount single/double or sidemount)
- Dive computer and dive planning tables/software.
- Exposure suit appropriate for environment and dive duration
- Weight system (if needed).
- Inflatable signal tube, whistle and/or other visual and audible surface signaling devices. Note: a sausage type DSMB may double for the inflatable signal tube.
- Knife/cutting device and back up
- Slate / Wetnotes
- Back up mask
- Compass
- Primary Penetration Light
- 2x Back-Up Lights
- Primary Penetration Reel
- 2x Safety/Jump Spool



Technical Wreck Course



The Technical Wreck course aims to develop the skills, knowledge and procedures required for technical level divers to operate safely in the overhead wreck environment.

The course focuses on penetration and guidelines skills, along with a team approach for safe and controlled exploration inside areas of shipwrecks that pose significant hazards.

The course explains the dangers, risks, mitigating procedures and necessary techniques involved while technical diving in the overhead wreck environment, going beyond the daylight zone, beyond 40m/130ft linear distance from the surface, through restrictions and in confined spaces.

Qualification is available via [ANDI](#) or [TecRec](#).

The Technical Wreck course places a high emphasis on the refinement of core (technical) diving skills: buoyancy, trim, weighting and situational awareness. In addition, it focuses on the management of high tolerance task loading, stress control and the development of effective team diving skills in limited/zero visibility.

Put simply; *this is one of the most challenging, highly demanding courses that you could ever take...* but also, without doubt, one of the most personally satisfying and rewarding!

Perfect for -

- Technical divers who penetrate shipwrecks
- Guideline and Overhead Environment protocols
- Apex level technical level diving skills

Technical Wreck Course Content -

- Knowledge Development
 - Practical Applications
 - 6x Open Water Dives (3-4 cylinders, *depending on qualification*)
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Prerequisites

TecRec Technical Wreck

Rescue Diver, with CPR/First Aid

Tec 45 Diver, or equivalent

50 Logged Dives

18 years or over

ANDI Technical Wreck

Technical SafeAir Diver

SafeAir Wreck Diver or equiv

Complete SafeAir Diver

50 Logged Dives

18 years or over

Note: This is an advanced level, equipment intensive training program that represents an apex in diver ability and training. The certification awarded indicates the highest level of diving expertise and experience. In order to maintain the calibre of course graduates, additional practice dives under instructor supervision, *may* be required before certification will be awarded.

Course Duration (TecRec/ANDI)

4 days* with classroom, practical workshops and 6 dives

Day 1 - Classroom theory, equipment workshop, surface practice of penetration protocols.

Day 2 - Skills training dives 1 - 2

Day 3 - Wreck penetration dives 3 - 4

Day 4 - Wreck penetration dives 5 - 6

** A 5 day program is recommended if you prefer a more relaxed training program or more time to refine skills.*

The course qualification is *performance* based, not *time* based.

Technical Wreck Training Dives (TecRec)

Training Dive One

Environment: Limited Open Water
Depths: Minimum: 2.4 metres/8 feet
Maximum 12 metres/30 feet
Decompression: No stop only
Penetration: Open Water only
Restrictions: None
Gases: Air or EANx
Ratios: 2:1

Training Dive Three

Environment: Open Water
Depths: Minimum: 12 m/140 feet
Maximum: 30 metres/100 feet
Deco: Simulated deco with 1 deco gas
Penetration: Light zone, w/restrictions
Restrictions: Yes / Moderate
Gases: Air, Air, EANx or oxygen
Ratios: 2:1

Training Dive Five

Environment: Open Water
Depths: Minimum: 30 metres/100 feet
Maximum: 50 metres/165 feet
Decompression: 1-2 deco gases
Penetration: Beyond light zone
Restrictions: Yes / Confined Area
Gases: Air, Air, EANx or oxygen
Ratios: 2:1

Training Dive Two

Environment: Open water
Depths: Minimum: 12 metres/40 feet
Maximum: 24 metres/80 feet
Decompression: No stop only
Penetration: Open Water only
Restrictions: Simulated
Gases: Air or EANx
Ratios: 2:1

Training Dive Four

Environment: Open water
Depths: Minimum: 12 metres/140 feet
Maximum: 30 metres/100 feet
Deco: Simulated Deco with 1-2 deco gases
Penetration: Light zone, w/restrictions
Restrictions: Yes / Confined Area
Gases: Air, EANx or oxygen
Ratios: 2:1

Training Dive Six

Environment: Open water
Depths: Minimum: 30 metres/100 feet
Maximum: 50 metres/165 feet
Decompression: 1-2 deco gases
Penetration: Beyond light zone
Restrictions: Yes / Confined Area
Gases: Air, EANx or oxygen.
Ratios: 2:1



Technical Wreck Equipment Requirements

- Double cylinders of at least 12 l/70 cf each, with isolator manifold or sidemount independents.
- The isolator manifold is not required for divers using sidemount configuration.
- Primary and secondary regulators for back mounted double manifolds, one
- with two metre/seven foot hose for air sharing and one with SPG. Note: In sidemount configuration, one regulator must have the two metre/seven foot hose, and both regulators must have an SPG.
- 1-2 Stage/decompression cylinder with regulator and SPG, properly labeled/marked, depending on qualification
- Tec diving BCD(s) and harness (backmount or sidemount)
- Two multigas enriched air capable dive computers, or one multigas enriched air computer and a back up single gas computer with dive tables, or one single gas enriched air computer and a backup timer and depth gauge with dive tables.
- Exposure suit appropriate for environment and dive duration
- Weight system (if needed). Note: Students and staff should weight for the contingency of decompressing with near-empty primary cylinders and empty or absent stage/deco cylinders.
- Jon line (as needed for environment)
- Inflatable signal tube, whistle and/or other visual and audible surface signaling devices. Note that a sausage type DSMB may double for the inflatable signal tube.
- Lift bag (bright yellow preferred) or DSMB. A suitable DSMB has sufficient buoyancy to help steady a diver during a drifting decompression, and is unlikely to spill when deployed from the underwater.
- Knife/cutting device and back up
- Slate / Wetnotes
- Back up mask
- Compass
- Primary Penetration Light
- Back-Up Lights
- Primary Penetration Reel
- 2x Safety/Jump Spool

Assessment of Technical Dive Training Readiness

In preparation for the course and before beginning open water dive training, there will be an informal assessment of the potential student's skills and comfort level in water, along with a general assessment dive knowledge. If the potential student appears to lack dive readiness appropriate for the training level, remedial training will be offered before training progresses.

Contact me to discuss your training requirements:

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