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# Seamanship for Divers

Looking for a job in dive and travel? Here's some good advice: embrace boating. Learn the ropes on the water to get paid diving under it... in a nice warm sea somewhere

TEXT AND PHOTOGRAPHY BY BRET C. GILLIAM

If you're a diver, sooner or later you'll find yourself on a boat; maybe as a customer in search of the more exotic and remote sites, or maybe as an employee of a dive store or resort that operates boats as part of their business. If you're in the latter group or you're heading in that direction, read on, this is for you.

What should a diving instructor know about seamanship? Increasingly, your chances of getting hired at all may be predicated on your boating skills. Graduating from an instructor program is a worthy accomplishment but realistically such training is primarily geared to evaluating and refining teaching skills in order to conduct dive-training programs. This may substantially limit your options when it comes to testing the job market since little, if any, practical boat experience is offered. But if you want to make diving a career and give yourself the highest

earning potential, then you're simply going to have to know your way around a boat without looking like one of the Three Stooges.

## Consider the Competition

There are literally tens of thousands of instructors looking for jobs. Without the prerequisite of boating experience most will be overlooked by dive resort and live aboard operators. If you contemplate working for a U.S.-based operation, it's important to know that their watercraft will come under the direct jurisdiction of the U.S. Coast Guard (USCG) with regard to crewing requirements, inspections and licensing. For foreign flag vessels that call on U.S. ports, the USCG's enforcement role may be more closely refined to address only Safety of Life at Sea (SOLAS) requirements. For foreign flag vessels operating in their home waters, regulations can be substantially different.

Top left: 150-foot (46m) motor yacht  
Bottom left: Gilliam's private diving yacht  
Right: Bilikiki operates in the Solomon Islands

In the case of U.S. passenger-carrying vessels, all captains or operators must be properly licensed. In many cases, certain members of the crew may also be required to hold licenses as engineers or mates. Most employers will look for personnel holding multiple credentials, such as a licensed captain who's also a dive instructor. This is especially important in smaller operations where a limited staff must fulfill several functions, very often on short notice. Obviously, the candidate who can teach classes, fill tanks, run a computer, do store sales and handle the dive boat is going to get a longer look by a prospective employer. Licensing is best achieved combining specialized study with practical experience.

## License to...

The U.S. Coast Guard requires two years of 'certified' sea time to qualify an applicant for an entry-level license.

'Certified' just means that someone has attested that the sea time actually took place. However, this time is not directly verified by the USCG.

Boats are expensive and easily damaged in the hands of an inexperienced operator. This sad fact of life brings up the next issue in hiring, where a business owner will express something like, "OK, this guy has got a license but does he really know how to run one of my boats?" This question is etched – forever – in your employer's mind, given the USCG does not require a practical boating test when you take your exam. It's a reality that leaves me bemused and baffled. You can't get a license to drive your grandma's old VW without first demonstrating proficiency that includes daring feats of parallel parking or starting from a stopped position on a steep incline with a stick shift or simply putting on turning signals at the appropriate time. But you can finesse your way into a license to be captain of a vessel of up to 200 tons and that's capable of carrying several hundred passengers, without ever demonstrating how to even tie off a line to a cleat.

Having hired at least one too many of these 'captains' in my time only to be reduced to amazement as they drove my boat into the dock or up on a sandbar, I now cast a rather jaundiced

eye upon the licensing process in the USA. The U.S. Coast Guard argues that actual boat tests are too expensive. I know what they mean, having paid the repair bills following a few 'tests'. But licensing is a necessary evil providing a good theoretical basis of achievement, notwithstanding changes in the process that have given rise to confusion in recent years. In prior years, entry level or 'civilian' licenses in the U.S. were issued up to a maximum of 100 tons and were called Ocean Operator licenses. Holders of these were further restricted to coastal routes and maximum distances offshore. A motorboat operator's license restricted the holder to maximum six passengers. Above this limit and you were into another level: Merchant Marine officer licenses to Masters (captains), Mates, Engineers etc.

But revisions to the rules have muddied the American waters, so to speak. Many of the smaller licenses are now referred to as Near Coastal Master or Mate tickets. Qualifying as a ship's officer in one capacity or another involves considerably more training, knowledge and experience and, of course, a far more rigorous licensing process. With this in mind, if you want to work on a U.S. passenger-carrying vessel, I suggest you seek out one of the excellent training centers around the country that specialize in preparing you to pass

Top left: *Paradise Dancer* in Raja Ampat Islands, Indonesia  
Bottom left: Yacht line-up in St. Barts, Caribbean  
Right: 680-foot (207m) Oceania cruise ship off Croatia

the demanding written examination for your first license. In this phase, practical experience may not help you. You'll be tested on the rules of the road, USCG inspection requirements, fire fighting, first aid, general seamanship, navigation, pollution ordinances, etc. Take my advice: go to an exam prep center and they'll get you over that first hurdle. Your local Power Squadron will probably offer boating courses but these will not get you through a licensing exam.

Acquiring experience is another matter. It requires initiative and a bit of creativity. Volunteering to work on dive boats may well be the best entry-level ticket to free training. Most often it's a reasonable bargain for both parties. You'll get experience in a practical setting and the boat skipper gets some cheap labour, and only a low-grade ulcer. But jokes aside, many boat owners prefer training a crew member or deckhand from scratch, which can lead to a job offer once you learn your way around. Boat crews are notoriously transient and most captains are willing to work with a motivated newcomer who can pitch in and work his or her way up the ladder. Meanwhile you're getting real time towards a license.

## Logging Experience

It'll be a while before you can expect to get any serious 'wheel time' (actually



handling the vessel in tight quarters or making dock approaches), but most skippers will be happy to start you off standing watch, steering a compass course and basic navigation. At this time you should absorb as many general seamanship skills as possible. These include proper handling of lines, anchoring, safety drills, procedures for moving the boat on and off the dock or mooring, passenger relations and even such seemingly mundane tasks as painting and varnishing. Welcome practical experience at every opportunity. You will almost always learn something. Starting with smaller, outboard motor craft in the 20 to 25-foot (6-7.5m) range will give you a chance to see for yourself how a boat reacts to her helm. Practice leaving and approaching the slip or dock until these various maneuvers are second nature.

When you're comfortable with smaller boats, seek out opportunities on larger single engine vessels. A boat with a conventional shaft and propeller and a spade rudder will react far differently than an articulating outboard or stern drive system. If you can master a 35- to 40-foot (10.5-12m) single engine boat while backing up in a strong crosswind or current, you're close to earning your stripes. Twin-engine craft are more easily maneuvered since the boat can be pivoted on her engines but these boats are usually larger as well presenting more mass and inertia to deal with. Keep in mind that different operations will require different crew requirements. On dive boats operating 'day trips' there may be just a captain

and deckhand. Typically, they'll both be involved in the dive operation. This provides an ideal learning experience since the deckhand/crew will handle many of the regular seamanship duties while the captain mans the wheel. On larger vessels, more staff may be added. Some day boats in the 65-foot (20m) plus range will have a captain, mate and several deckhands or crew. Try to learn as much about each member's duties as possible so you can quickly and confidently fill in as needed. Larger vessels are also less forgiving of mistakes so remember the captain is counting on you to get your line over on time and properly made fast on maneuvers.

Liveaboard dive vessel staff perform many functions as a result of the limited crew berthing available. The candidate whose experience includes working in the galley or tending bar is an asset. Similarly, a person with mechanical skills will always be given priority. Nothing ever goes right for long when you're out on a boat. It's not necessary to be an engineer to make yourself valuable. Almost anyone can become proficient in basic maintenance and trouble-shooting with a little effort. One sure way to endear yourself to the skipper is to volunteer to learn the routine of engine check-outs: dipping the oil, checking belt tensions and coolant levels, battery fluids, and other routine engine room duties. On vessels less than 100 tons, the captain will handle much of the maintenance schedule himself so any knowledge you can pick up from a versatile operator is invaluable. Once you are comfortable

Left: 380-foot (116m) sailing cruise ship *Wind Spirit*, Turkey  
Top right: 130-foot sailing yacht in *Monte Carlo*  
Bottom right: *Nautilus Explorer* off Guadalupe Island, Mexico

and familiar with engine and generator check lists, ask for more technical instruction in changing water pump impellers, hoses, zincs and hands-on experience with electrical repairs, etc. A crew member who's handy with a wrench and knows his way around a toolbox will be a valuable addition to any operation.

**Rank Yourself**

In the last two decades we've seen a trend toward larger vessels, including those designed specifically for diving. As well, the more traditional cruise ships are adding diving staff to their activities department. Because these larger vessels are generally more formal with respect to uniforms and protocol, it's helpful to have at least a passing familiarity with rank and department insignia. A ship is usually staffed by deck officers, sometimes called the navigation officers, and by engineers and hotel staff. The Captain, or Master, is the senior deck officer and responsible for overall ship operation. His second in command is the First Officer or Staff Captain, who deals with everyday shipboard routine. The Chief Engineer oversees the mechanical sections while the Hotel Manager handles the primary passenger facilities.

A close examination of their shoulder-board or sleeve insignia will reveal their department. In the U.S. merchant marine, deck officers typically wear an 'anchor' while engineering staff wear a 'propeller', and so on. The ship captain and chief engineer will both display four gold stripes with other staff displaying fewer: three stripes to a first

The references, rules and protocols described in this article are for U.S.-based passenger carrying vessels, as stated. These requirements can be very different in other parts of the world. If you are serious about working on a dive boat, DIVER encourages you to check the requirements with the home port.

officer, two to a second and on down. In some foreign systems, the insignia is eliminated and an accent colour is added near the gold bars to distinguish departments. Take the time to learn the system and you will be spared the embarrassment of addressing the hotel manager as 'captain'. My theory has always been that the grander and whiter the uniform...the less chance I had of getting dirty! Rarely is a cruise ship captain called on to turn a wrench in the engine room.

**Crew Wanted**

There is a definite need for good crew in this industry. But it's a very competitive market and experience is a definite plus. Combined with a license, diving instructor credentials can be parlayed into appreciable career earnings if you hook up with the right operation. The time spent 'learning the ropes' on a dive boat can be used to upgrade training and license grades. Many ex-dive boat skippers have gone on to pursue careers in yachting and shipping. Mates on luxury yachts can easily earn up to \$75,000 with top captains commanding well into six figures.

Along the way, while acquiring the skills of the deck and of the

*Combined with a boating license, diving instructor credentials can be parlayed into appreciable career earnings*

engine operation, also be sure to get acquainted with the fundamentals of navigation. Again, most captains or mates are receptive to training crew that shows a willing interest. A working knowledge of practical piloting, dead reckoning, and chart work are a must for advancement. From that starting point a natural progression to electronic navigational aids will follow. The modern crewmember will be functional with radar, plotters and GPS. You may even find a patient skipper willing to introduce you to the fascinations of celestial sights with a sextant, pretty much a lost art in today's push-button marine industry.

You must also be able to speak the professional mariner's language. Bow, stern, draft, bulkhead, and many other terms are part of a seagoing lexicon that you must know like your mother tongue. Know the difference between 'weighing anchor' and 'making way'. Seamanship isn't just handling lines

and learning not to spit into the wind. It's a combination of many skills that make you a working partner on a boat or ship. Attitude and a willingness to learn new responsibilities mark the entry-level deckhand bound for promotion.

I remember being taught to tie a bowline and how to plot a course for the first time. My marine career has given me a profound sense of satisfaction through the years and I welcome the opportunity to share my knowledge with others eager to learn. After some forty years at sea and commands from tugboats to cruise ships, I can't imagine a more exciting and fulfilling vocation. But then again, it's been said that I'll do anything to avoid getting a real job... [ ]



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Is a licensed USCG Merchant Marine Master and President of OCEAN TECH, a marine and diving consulting firm. His work includes design, construction and operation of diving vessels and luxury yachts. A 41-year veteran of the diving and shipping industry, he has commanded everything from naval research vessels to 550-foot (168m) cruise ships throughout the Atlantic, Caribbean and Pacific.

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