



PART 1 THE BUSINESS PLAN

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That's why the Pacific Marine Expo is now publishing this 10-part guide to help you navigate the choppy waters of moving from entry-level deckhand to commercial-fishing boat owner, moving through the many topics you'll need to understand, and tasks you'll need to accomplish, before you can captain your own vessel.

Here in Part 1 we get you started with the essentials: Putting together a business plan.

THE BUSINESS PLAN

Before you can even think about buying your own boat, you're going to need a plan. A business plan. Because it's not just a boat, it's a business. No loan officer, private funds investor, or government regulator is going to take you seriously without evidence that you have a plan for success and understand not just how to fish and operate a vessel, but also how to operate a business.

It's vital that you gather up a minimum of necessary pieces.

1 – Where will you fish? Any boat is essentially worthless without a product you'll be taking from the water and selling for a profit. As you surely know, it's unlikely you can simply set sail, throw down some nets or lines, and start landing fish.

Rather, you need to identify a fishery and how you're going to get access to it. Are there permits available? How much do they cost? How long of a season does that fishery have? What direction are the guotas headed in for that fishery? Is there a long-term outlook for success, or is there some concern the fishery will be shuttered or curtailed?

Generally, deckhands tend to stay in the fishery in which they're already working. It's familiar and they know how to fish it. But make sure there's room for one more and be able to document it.

2 - Who's going to buy your stock? In order to turn your catch into revenue, you need a buyer. Sometimes, you need a lot of buyers. Will you be working directly with a processor? Will you be selling directly to the consumer, essentially off the back of your boat? Or will you be working with another kind of middle man, such as a fish exchange or wholesaler? How much will you get per pound?

This is not a decision you can make once you've already got the catch in hand. Anyone working with you to finance your new business is going to want to see two essential pieces: revenue and expenses.

Which brings us to:

3 - How much start-up capital will you really need? In short, there's a lot more to starting up a commercial fishing business than buying a boat. Much of this will be fodder for future chapters, but you're also going to need to pay for the fishery permit, for licensing, for insurance, for gear, for employees, and a slew of other expenses.

"Tell me about your bait costs, what are your fuel costs going to be," says Rob Horne, who's been doing commercial fishing loans for Farm Credit East for nearly 25 years. "Do some homework to make sure you're going to make enough money to pay this loan back."

Depending on who you talk to, you might want to have six to 12 months of monthly operating expenses in the bank when you fire up the business, so make sure to work that into the size of any loan you get. If you can't weather a bad catch, a bad storm, or a bad accident — and maybe all three right out of the gate — you're going to find yourself quickly behind the eight ball.

"The most common mistake we see with new fishing businesses is not anticipating the time and startup costs involved with a new vessel or entering a new fishery," reports the State of Alaska's Division of Economic Development. "Planning is crucial: Anticipating the learning curve for a new vessel or fishery when projecting income and budgeting for the first-year startup costs that may involve new gear, fuel, electronics, or safety equipment."

4 - Now do the math. In finance, they call it "the P&L" — the document that shows your revenues against your expenses, short for "profit and loss." While many start-up businesses will project to show a loss in early years, as the business gets going and draws down start-up capital sitting in the bank, most commercial fishing operations don't have that luxury. Most lenders are going to want to see a path to profitability right from year one.

So, you'll need to project your start-up expenses and your monthly expenses, and do that conservatively. What's the most you could see yourself spending in a month? Don't forget your own, personal, take for your own personal expenses, though many first-time vessel operators have to live lean in the early days.

Then you'll need to project your revenues, and, again, you should do that conservatively. What's a not-great catch look like in terms of how much you'll be able to sell it for? Don't fall into the trap of "wish-casting," which is a lot like forecasting, but takes a very rosy picture of potential revenues to "make this thing work."

If the P&L only shows positive cash flow under ideal catch situations, that's probably a bad business plan.

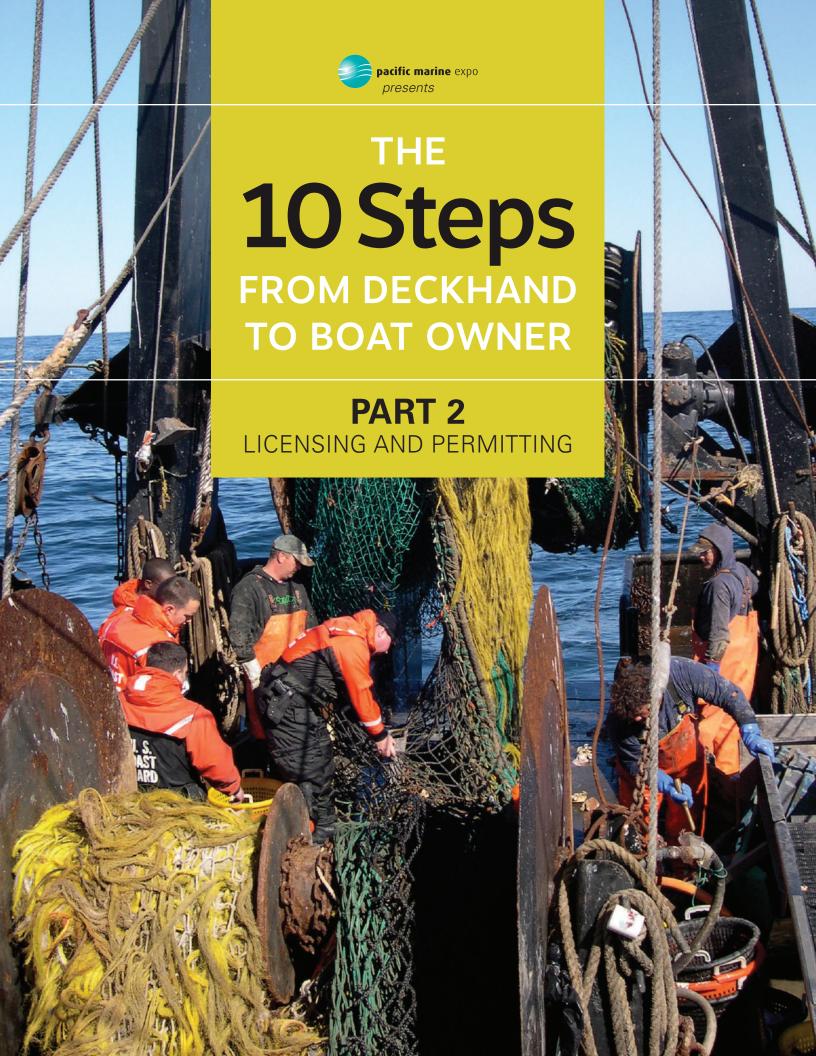
However, if it looks like you'll be nicely cash-flow positive, you're ready to take the next steps. The good news? That business plan is your plan of attack for the rest of the process of getting your own boat and firing up your business. If you've done it right, it should be smooth sailing and calm seas from here.

Additional Resources:

Free commercial fishing business plan software:

https://fishbizplan.org/

Island Institute's tools for creating a sustainable fishing business: http://www.islandinstitute.org/program/marine/sustainable-fishingbusinesses





PART 2 LICENSING AND PERMITTING

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Here in Part 2 we take a look at the licenses and permits you'll need to get started on the water.

PERMITS AND LICENSES

Quite simply, commercial fishing can require a lot of paperwork. Your permitting and licensing requirements can be complex and dizzying, and you'll find quite a lot of chicken-and-the-egg predicaments: Many licenses and permits require you to provide your boat's registration number — but you're trying to get a boat and all you're trying to do is figure out what permits and licenses you'll need!

Rest assured that there are many people working at state and federal agencies ready to assist you. Be ready to spend a good deal of time on the phone figuring it all out. There are seemingly countless variables, so it's impossible to tell you exactly what licenses and permits you'll need, but we can at least go over the types of permits and licenses you can expect to acquire:

Coast Guard (which is sort of federal, but different): In accordance with the Commercial Fishing Industry Vessel Safety Act of 1988, there are many safety regulations any commercial vessel has to follow. We won't enumerate them here, as the Coast Guard has a handy guide for that, but make sure to understand that you won't be going anywhere on your commercial vessel without passing a dockside examination before beginning operation and then once every five years after that.

This applies to any commercial fishing vessel that operates beyond three nautical miles from the territorial sea baseline or the Great Lakes coastline, or operates with more than 16 persons on board, or is a fish tender vessel in the Aleutian trade. It can be complicated as to whether Commercial Fishing Vessel Safety Requirements apply to a vessel, so it's important to contact the Coast Guard and get advice if you're unsure.

Further, all masters, mates, and engineers on vessels more than 200 gross tons and operating beyond the boundary line must have an appropriate Coast Guard license to work in that capacity. It may also be worth noting that the master, chief engineer, radio officer, or officer in charge of a deck watch or engineering watch must be a U.S. citizen.

Should you want to carry passengers, such as for a fishing-for-hire boat, you also need a captain's license from the Coast Guard.

Federal: There are more than 30 different kinds of federal commercial fishing permits and they are generally broken down by management region: Alaska, Caribbean, Gulf of Mexico, Pacific Islands, New England, Mid-Atlantic, South Atlantic, and West Coast. Plus, you might need a permit for "Highly Migratory Species," which travel between regions.

The Alaskan management region, alone, has 10 different permits and licenses for the federal waters off of Alaska, from Chinook Salmon to Scallops.

Generally, the price for a permit is relatively inexpensive — often less than \$100. However, if you are seeking a permit for a fishery that is either Limited Access or Moratorium, you'll need to get a permit transferred to your vessel, which means buying it from someone else. Depending on the fishery, that can be many thousands, even hundreds of thousands, of dollars.

Some federal fisheries may also require the installation of a vessel monitoring system, which tracks your whereabouts to make sure you are only fishing in approved areas.

State: In addition to federal fisheries permits, just about every state has its own permitting and licensing office. Again, the type of permit that you need and how

much it costs will depend on the seafood you're looking to land. It may also be that some of these state permits are limited in nature and that you'll have to buy one from another commercial fishing entity, which comes with its own rules and regulations.

This all might seem like putting the cart before the horse — you don't even have a boat yet! — but it's vital that you understand these requirements, plus a variety of other requirements for when your targeted fishery opens and closes, etc., as you develop your business plan.

There are certain brokers who specialize in fishing permits and effectively set the cost of entry to different fisheries. If you're looking for an Area M Drift Salmon license, the current asking price is right around \$150,000. For California Sea Cucumber, you might be looking at a little more than \$20,000. A Puget Sound Crab Lease might run you about \$16,000.

If the permit you want is limited, it could be a very big part of your start-up costs, indeed.

"Commercial fishing is more complex than ever," advises the State of Alaska's Division of Economic Development. "A new entrant should participate in the public process, attend the Board of Fisheries and North Pacific Management Council meetings, and become educated on the topics that will affect your livelihood."

Additional Resources:

Coast Guard Guide for Commercial Fishing Vessels:

https://www.fishsafe.info/FederalRequirementsCFV2009.pdf

NOAA commercial fishing permitting:

https://www.fisheries.noaa.gov/permits-and-forms

Permit Master online broker:

https://www.permitmaster.com/



THE 10 Steps FROM DECKHAND TO BOAT OWNER





PART 3 **GETTING THE LOAN**

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Here in Part 3 we take a look at what you'll need to secure a loan.

GETTING THE LOAN

Boats aren't cheap. Maybe you're someone who's a great saver and you're ready to pay in cash, in full, but most people buying their first boat will need some financial help.

Most sources in the industry would recommend one of two avenues: First, a commercial lending bank that has some specialty in fishing, or, second, a government program like the Alaska Division of Economic Development's Commercial Fishing Revolving Loan Fund. Sure, any bank can lend you money, but those that specialize in fishing will often offer payment plans in line with the fishing season and have a better understanding of the value of the asset that you're looking to acquire.

They'll also be more likely to work with you and consult on the many issues that are unique to commercial fishing. The State of Alaska's Division of Economic Development reports that, "Most applicants have had several conversations with staff before ever submitting an application."

But before you walk into that office, you should definitely have the following things in hand:

- 1 A business plan. We discussed this in Chapter 1 [insert link] of this series, but, in short: You need to show how you're going to have enough money to make the loan payments.
- 2 A financial statement and three years of tax returns. Essentially, what do you have in the bank, what has your income been over the last three years, and have you successfully paid your taxes?
- 3 Good credit. This can be a major sticking point, so it might be something you need to start working on right away. If you're under 650, you're going to have a hard time getting a loan. Period.

Even if you're between 650 and 700, many banks will want you to find a government agency — like the U.S. Small Business Administration or a state agency like the Finance Authority of Maine — or a family member to guarantee or co-sign the loan. This is especially likely if you're younger and don't have much of a credit history established. Being able to demonstrate the ability to pay off a debt, like a credit card or small car loan, can go a long way toward establishing solid credit.

Many deckhands looking to get their own boat have some dings on their credit score, says Rob Horne, who has been overseeing commercial fishing loans at Farm Credit East for nearly 25 years. Cell phone bills, "or medical bills, that's very common," he says. "IRS liens are also very common. Any of those things will ding your credit, but that doesn't mean you can't get financing."

It just means you might need a little help.

4 - Cash and a permit. "We typically finance 70 percent of the appraised value of the hard asset, and by that I mean the boat," says Horne. "The boat has more value if it comes with a federal permit [link to Chapter 2 on permitting]. A federal permit, not a state license, is something that actually has value; it trades back and forth and we can get a good security interest in it."

What this means is that you may be able to put less cash down if you have a federal permit already secured. Of course, you may need the loan to secure the permit in the first place, so that may mean you need more cash on hand.

As a rule of thumb, expect to need about 30 percent of the price of the boat, plus the price of the permit if you're making that part of the deal, in cash to put down.

5 - Collateral. Usually, the collateral is the boat you're purchasing and possibly the permit that comes with it. However, if you're a little short of cash, it is possible to use other assets to secure your loan.

For instance, if you're working a small boat for semi-commercial operations, you could possibly use that as part of the down payment while you wait for it to sell. Or you might have a family home or a commercial truck you could use to secure the loan until you pay some of the principle down.

6 - Insurance. Generally, you're going to need insurance that covers the entire value of the boat. And that's just a start. Theoretically, you could find a lender that would allow you to insure just for the value of the loan, but you're putting yourself there in a risky situation where you could have a total loss and not have enough to get back to the starting line.

Further, you should probably have about a million dollars worth of liability insurance, perhaps breach of warranty insurance if you're engaging in any nonstandard practices like lobster-boat racing, and then some insurance for any sternmen you might employ.

While the Jones Act says you don't workers' comp insurance, you should still have something for them should they get injured on the job.

Look for more on the proper insurance approach in later chapters, but, in short, make sure you find an insurer who knows the industry. Just like your bank.

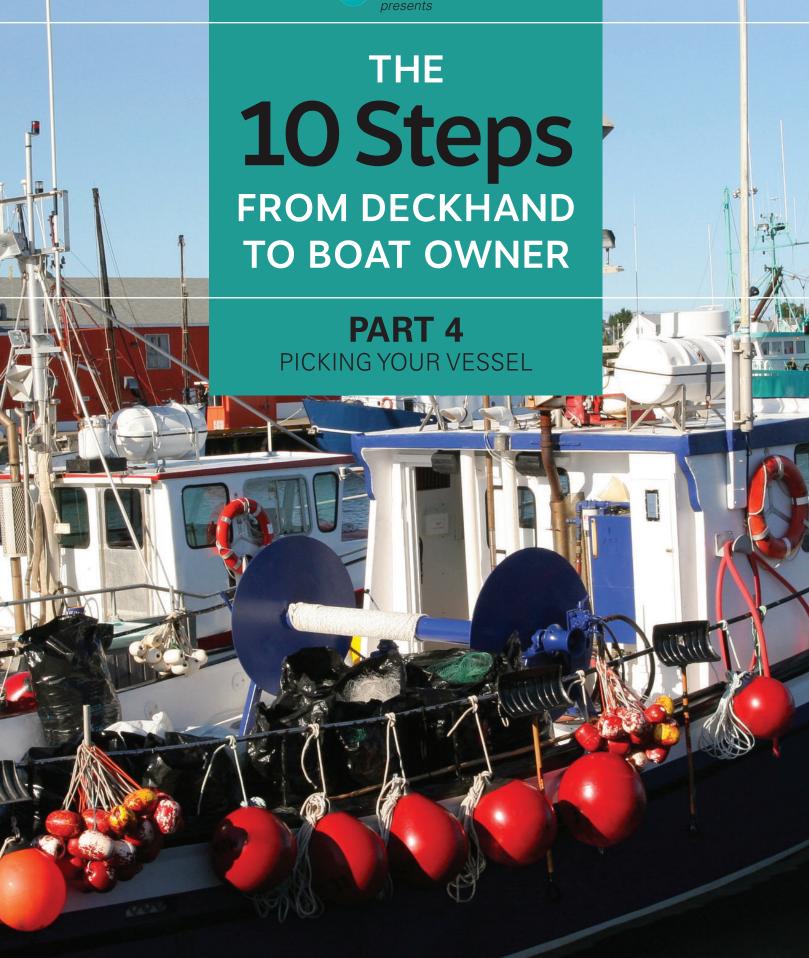
Additional Resources:

Alaska Division of Economic Development Commercial Fishing Loan Program: https://www.commerce.alaska.gov/web/ded/FIN/LoanPrograms/ CommercialFishingLoanProgram.aspx

National Oceanic and Atmospheric Administration Fisheries Finance Program: https://www.fisheries.noaa.gov/national/funding-and-financialservices/fisheries-finance-program

Juneau Economic Development Council Loan Program https://www.jedc.org/business/loanfishing







PART 4 **PICKING YOUR VESSEL**

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Here in Part 4 we explore the factors you should consider in deciding on a vessel to purchase.

CHOOSING YOUR VESSEL

There is an old business adage: Stick with what you know. As you consider purchasing a vessel to further your career in commercial fishing, it's likely your thoughts will first turn to a boat very similar to the one you're currently working.

In fact, many sternmen buy their first boats from a captain they've once worked with who's now exiting the business, or a friend or family member. The seller might even tell you it's a great deal!

"I always get that question," says Rob Horne, who has been overseeing commercial fishing loans at Farm Credit East for nearly 25 years. "'I'm buying

this boat and I'm getting a really good deal. Can I not put money down because the boat is worth 200 thousand, but I'm buying it for 150?' But then we run the model and the boat is worth 150. Good deals might sound like good deals, but typically the sale price is the market value."

Everyone agrees: Shop around. Expand your horizons. Remember that you're looking to start a business and it's important to do the due diligence necessary to make sure the vessel you purchase is the foundation that will set your business up for success in the short and long term.

As you conduct your search, here are some things to consider:

1 - The fish market — and the weather — affects the boat market. One of the reasons forward-thinking is important in planning your commercial fishing business is that the value of vessels rises and falls considerably based on market conditions. Boat manufacturers can only build so many boats in a year and successful fisherman rarely decide to just up and sell a perfectly good boat when they're raking in cash.

When the market in Alaska was poor, notes Lea Klingert, president of Commercial Fishing and Agriculture Bank, "the boat market was more of a seller's market, and a lot of the boat builders shifted to leisure-type boats." After a while, the market improved, commercial fishermen started to re-enter the market, and boats became scarce. That got manufacturers interested again, especially for the waters of Prince William Sound: "So that market is a little flooded right now."

A flooded market means a good time to buy — if you've got the capital. "For new entrants," Klingert admits, "it's generally going to be a used boat. The new boat isn't in their price range."

Think long-term, however. Did a fishery just get severely limited so the stock can recover? Look for someone trying to unload a boat fast and get that deal. Is a new vessel design now all the rage? Look for still-new vessels in the old design that might be good enough to get started.

Conversely, if a major storm just ripped through the boats working a fishery you're interested in, you can be sure that any lost vessels will need to be replaced, and that those who lost vessels likely have insurance cash they can use to keep the builders occupied. That's probably not the right time to be looking at a new build or a used boat.

And remember that other old business adage: Buy low, sell high.

2 - The age of the boat affects the terms of the loan. One factor that might pull a new build into your price range is the fact that lenders might let you spread the payments out over a longer period.

"If it's an older boat, like earlier than 2000, even if its' a fiberglass boat, we'd typically do a five-to-seven year term on the repayment," says Horne. "If it's newer than 2000, I'd do seven-to-10 years on the term. A brand new construction, I'd do 15 years."

Not every lender will have the exact same thinking, but it's definitely true that a new build will instill a lot more confidence in a lender you're asking to give you more time to pay back a loan.

Klingert notes that a good loan officer, too, will understand that an older boat will have more maintenance costs and upkeep costs along the way, which will affect your ability to make payments. Since Klingert's CFAB is mission-driven to help fishermen succeed, they look at much more than things like credit score and payment history when deciding on a loan. They want to make sure the business plan works; you should too.

If a boat is likely to need an engine rebuild or a re-hulling in the near future, that's going to affect the business plan.

3 - The fishing industry is changing; will your boat help you keep up? Going forward, it's unlikely that quotas will get larger, or that seasons will get longer. That means many forward-thinking captains are looking at diversification. Does the boat you're eyeing allow you to fish multiple fisheries?

"We're seeing lobstermen looking at the future of the business," says Ben Martens, executive director of the Maine Coast Fisherman's Association, "and they're buying some small permits to do some gill netting so they can diversify."

The MCFA is working with fishermen to re-rig boats to go trawling, but only certain boats will allow for that. Similarly, the Nature Conservancy is offering good deals on electronic jigging machines allowing fishermen to avoid cod or turn their lobster boat into a groundfishing boat. Diversification is becoming key to survival in many areas of the United States.

"Relying on one stock is really dangerous," says Martens. If the boat you're eyeing will only allow for one approach, you may want to build retrofitting into your business plan's start-up costs — or avoid that boat altogether.

- 4 Don't neglect the small details. These may seem like obvious things to look out for, but they're worth mentioning:
- Make sure the fuel capacity is appropriate for the fishery you'd like to access.
- Make sure the storage capacity is appropriate for the haul you'd like to bring back.
- Make sure you and your crew will be comfortable on the boat, with appropriate accommodations, like a sun canopy, washdown system that's easy to operate, and a decent head.
- Make sure you get a fully detailed history, including any damage the vessel has taken, all safety inspections, and anything else that might affect the value or operation of the boat.

This is the foundation you're building your business on. You can't do too much due diligence on a used vessel

Additional Resources:

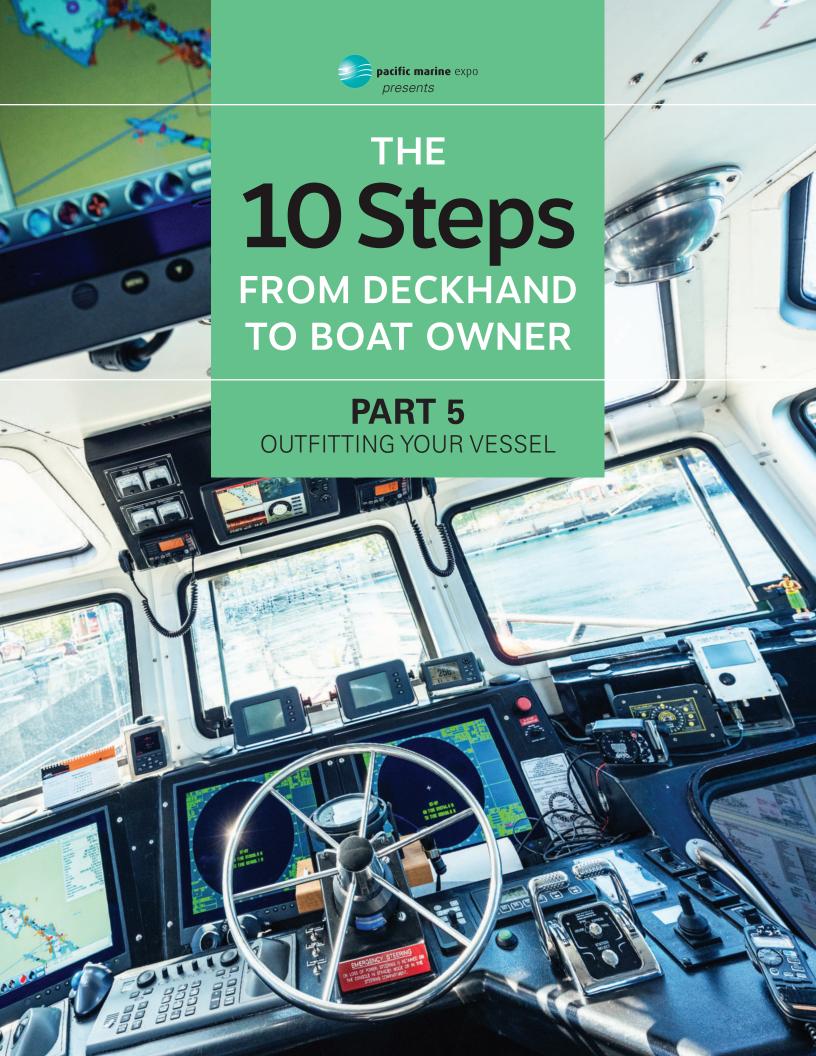
Sea Grant Alaska, "Climate Change and Alaska Fisheries": https://alaskaseagrant.org/wp-content/uploads/2018/02/Climate-Changeand-Fisheries_Johnson_WEB.pdf

Proceedings of the National Academy of Sciences, "Benefits and risks of diversification for individual fishers":

https://www.pnas.org/content/114/40/10797

Maritime Law Center, "The Tax Man Cometh":

https://www.maritimelawcenter.com/html/the_tax_man_commeth.html





PART 5 **OUTFITTING YOUR VESSEL**

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Here in Part 5 we look at what you'll need for outfitting your boat for the long haul.

OUTFITTING YOUR VESSEL

There's a reason that commercial fishing expos have as many as a thousand booths: Commercial fishing requires a lot of gear, and some of it can be expensive. If you're not incorporating the cost of outfitting, and maintaining, your vessel in your business plan, you're likely over-estimating the profit you'll be able to take from the business.

Sure, much of the gear you'll need from the get-go might come with the used vessel you're purchasing, but gear doesn't last forever. It depreciates rapidly and needs to be replaced on a regular basis. Most important is to plan for that depreciation and not simply hope nothing breaks as you look at your likely costs for year one and beyond.

Experts say it's useful to think of your gear in a set of broad categories and look at your costs and planning for each of them. As the Alaska Division of Economic Development notes, "The most common mistake we see with new fishing businesses is not anticipating the time and startup costs involved with a new vessel or entering a new fishery. Planning is crucial. ... First-year startup costs that may involve new gear, fuel, electronics, or safety equipment."

1 - Actual fishing gear. This is the gear you use to land product — lines, nets, lobster traps, whatever it might be that allows you to land stock from a fishery. Obviously, you can't do without it, but it's important not to think of it as a onetime cost, but rather have a plan to think about your annual spend.

No gear is so durable it won't sustain some damage or loss during a season.

Some industry veterans recommend wrapping new gear into the initial loan, regardless of whether old gear is coming with the used boat. That first loan is when you've got the buying power and the gear should be a relatively small portion of the loan. Even if you don't immediately need it, store it until you do. Then, you're ready for the first round of wear and damage. When you've got equity built up in the boat a few years down the road, you'll be ready to get a line of credit that will allow you to purchase gear as needed, rather than waiting for the end of a season, when you've got the most cash on hand.

Also remember that most insurance companies won't insure the gear, as it's too easily lost and damaged. The premium will essentially just be the cost of replacing the gear, so why bother? So, if your business plan doesn't include either a line of credit or some storehouse of cash on hand, it's a bad plan — one bad storm could put you on shore for good with nothing to fish with.

Some banks will do straight gear loans, but the terms will be short: one or two years at most, likely with monthly interest payments and then a principle that comes due quarterly or annually. They know the life-spans don't support anything longer and they don't want you to get upside down.

The best and most practical plan is to refresh nets, pots, and lines proportionally at the end of each season before profit-taking. It's not really profit if you're just pushing expenses off until next season.

2 - Communications gear. If you don't plan on going more than 20 miles from shore, and if there's a Coast Guard station you can reach throughout your fishing area, a cell phone might be all you need. However, if you don't have coverage at any point in your territory, or if you go beyond 20 miles, you're going to need a

satellite-converter sleeve for your phone, which generally run \$500 plus a data plan, or some kind of on-board radio.

The on-board radio will probably run you somewhere between \$500 and \$1,500, depending on just how far out to sea you're going.

3 - Navigation gear. While, technically, all you need are maps on board, that's hardly practical nowadays. A digital GPS and mapping computer are now relatively standard for most commercial fishing vessels. These can sometimes be combined with sonar and other fishfinder devices, which are also becoming relatively standard.

While there is a wide range of options here, you'll likely spend somewhere between \$2,000 and as much as \$15,000, depending on your feature requirements.

4 - Safety gear. We're going to look at this more fully in future installations of this series, but rest assured there is a great deal of safety equipment mandated for commercial fishing vessels and that safety gear is not free. Further, it must be periodically inspected and refreshed when it is out of date.

Nor is it likely you'll want to rely on a bunch of used safety gear when you purchased a used vessel — at least not without thoroughly inspecting it. If the boat you're purchasing is very old, you'll also want to make sure you have proper deck rails, lifelines, and hand grabs, as they may not have been required when the boat was built (this is unlikely, but it's still worth thinking about).

5 - The latest and greatest. All of the above is just the bare minimum. Nowadays, any number of technological advances are coming into commercial fishing. You might decide you need a video recorder to monitor your trawl net. Or maybe a little submersible camera you can use to inspect below your vessel for various reasons.

There are also catch sensors; specially designed on-board computers, servers and displays; special lighting fixtures; all sorts of back-up power options.

One manufacturer even makes a headset you can wear to let them see and hear what you see to provide you with remote troubleshooting support. But you probably won't need that for your first vessel.

The point is that some of these pieces of equipment may very well provide a return on investment, but it's vital that you do that analysis as part of the overall business plan and don't get wowed by shiny features.

Additional Resources:

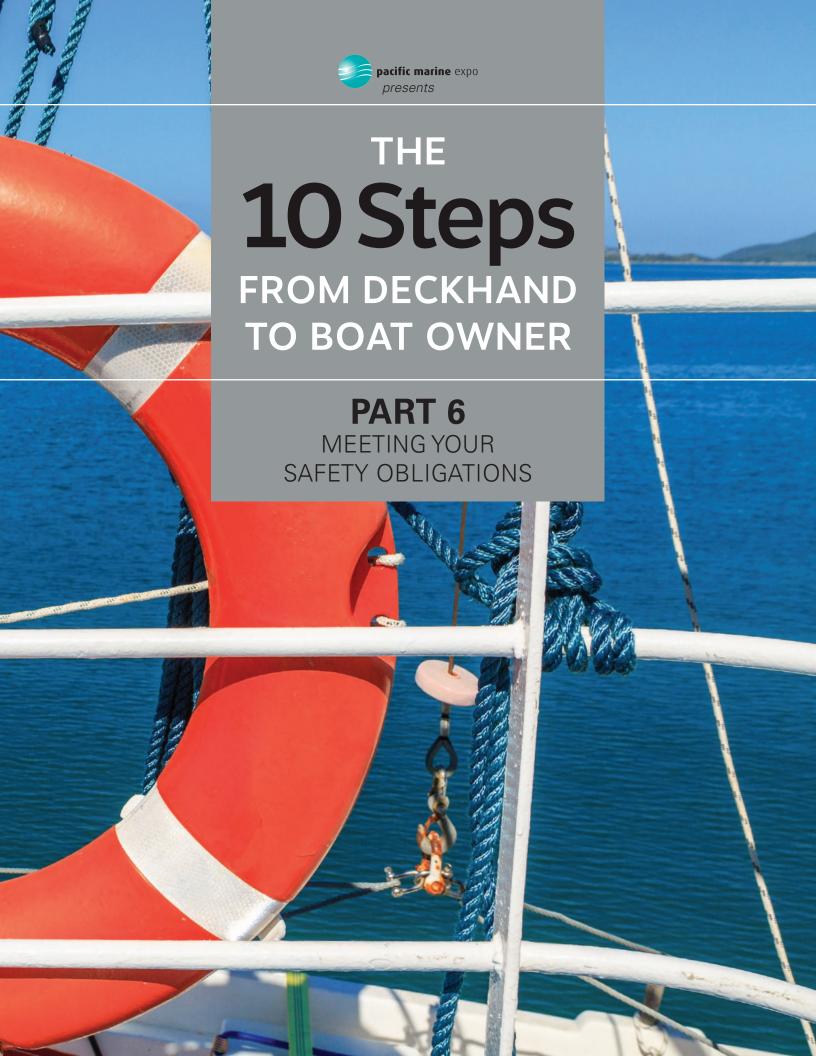
U.S. Code of Federal Regulations: Requirements for Commercial Fishing Industry Vessels:

https://www.govinfo.gov/content/pkg/CFR-2018-title46-vol1/xml/CFR-2018title46-vol1-part28.xml

Marine Stewardship Council, "Fishing Methods and Gear Types": https://www.msc.org/what-we-are-doing/our-approach/fishing-methodsand-gear-types

NOAA, "Fixed Gear Guide":

https://www.westcoast.fisheries.noaa.gov/publications/protected_species/ marine_mammals/fixed_gear_guide_final_12.14.11.pdf





PART 6 **MEETING YOUR SAFETY OBLIGATIONS**

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Here in Part 6 we offer an overview of the safety regulations you'll need to understand and comply with.

MEETING YOUR SAFETY OBLIGATIONS

Intellectually, no one really objects to safety regulations. They exist, after all, to protect you when you're out on the water. They may not, however, be your first consideration as you look at your commercial fishing business, and their complexity and the extensive list of necessary items for even a small vessel can come as a shock.

While the initial buy up of all the necessary equipment can be a bit expensive, especially for larger boats, the expense is clearly not as large as the alternative: Finding yourself stuck at the dock because you've failed a Coast Guard examination.

In fact, a Coast Guard Boarding Officer can order a fishing vessel to return to its mooring if they find an "especially hazardous condition," including:

- A lack of sufficient personal flotation devices, immersion suits, or survival craft.
- A lack of distress communication equipment.
- A lack of firefighting equipment.
- Excessive fuel vapor in bilges.
- General instability.
- Intoxication by the master.
- A lack of navigation lights.

And that's just a start.

The most helpful tool for figuring out what you need on your vessel, so that you can estimate costs and time needed to factor into your business plan, is operated by FishSafeWest.info, created by the U.S. Coast Guard. The web app, which you can find here, allows you to answer questions about your prospective vessel and then generate a checklist of all the items you'll need to pass a dockside safety exam conducted by a Coast Guard Safety Examiner.

An exam is mandatory for any vessel operating on the ocean, Great Lakes, or Puget Sound three miles or more from shore. Further, considering that even small vessel operators are being encouraged to diversify their catch as much as possible, you may want to have the proper safety equipment so that you can pass an examination at any time, should you want to diversify into a fishery that takes you more than three miles out to sea.

It's generally easier to outfit your vessel all at once with your initial loan, rather than try to ramp up midstream.

While every vessel will make different safety choices, considering there are number of options for solving certain safety concerns, here is a quick overview of pieces you might not think of right away:

 A fishing agreement with any crew member. Part of the Coast Guard's safety regulations involves every crew member having a document, on board the vessel, that details the compensation agreement, the term of the contract's effectiveness, and another arrangements you've made with the crew member as a term of service on the vessel.

- An alcohol testing kit. These are mandatory for any vessel likely to travel more than two hours from a testing location, since every crew member must be tested for alcohol within two hours of any marine accident.
- Some kind of analog distress signal. Just having a radio or beacon isn't enough - you'll need flares, smoke signals, or a flag of some kind.
- If your boat is going to be longer than 36 feet and carry at least three crew, you're going to need a survival craft that you can deploy. Everyone needs PFDs or immersion suits for everyone on board.
- A system for dealing with fuel oil discharge.
- · A firefighting system of some kind.

Luckily, the investment should be relatively insubstantial for smaller craft, which are most likely to be a deckhand's first vessel. As the vessels increase in size, and in distance traveled from shore, the requirements increase. Pay close attention to the Coast Guard requirements.

Just having the equipment, however, isn't enough. The master will also need some training before hitting the water. The Coast Guard offers free Stability Training online, which is useful information for avoiding finding yourself or your crew in the water, though it's not required.

If you're operating beyond the boundary line, though, you will need to conduct emergency drills that are supervised by a qualified drill conductor. Look for a local organization providing this kind of service before you plan to begin operations. This will run you through what to do if the boat begins taking on water, becomes unstable, or suffers some other issue on the water.

It's clearly better to practice this once before encountering it in the real-world especially if you're a solo operator.

There's also nothing that says you can't carry extra lifesaving equipment, even if it's not required by the Coast Guard. As long as you have the required PFDs on board, for example, you can still have or wear other lifesaving equipment that might not meet the letter of the regulations.

While it may be industry gospel that PFDs are a waste, since you'll just die from the cold if you fall in, that belief is demonstrably false. Take precautions and save a life — maybe even your own.

Additional Resources:

Commercial Fishing Checklist Generator: http://fishsafewest.info/checklist/generator.html

U.S. Coast Guard Safety Training: http://fishsafewest.info/Training.asp

U.S. Code of Federal Regulations: Requirements for Commercial Fishing Industry Vessels:

https://www.govinfo.gov/content/pkg/CFR-2018-title46-vol1/xml/CFR-2018title46-vol1-part28.xml