TV At Sea

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Television on boats is no longer only in the domain of megayachts. Everyone can get reception at sea.

Long before that Internet thing smacked us in the societal face, television shocked the world in a similar fashion. And while web access hasn't yet become the norm on boats — though it's growing by leaps and bounds, year after year — TV is now a standard item on just about every boat with a cabin large enough to weekend in. That could mean anything from a small flatscreen on the bulkhead to a 40-inch television that silently rises out of an innocent-looking tabletop at the press of a button. Either way, if your boat has enough interior space for a galley and a berth, chances are there's space for a television aboard as well. No matter where or how the TV is mounted, picture quality and channel choices depend entirely upon one thing: reception. And reception at sea is a bit different than it is on land. If you're getting ready to shove off the dock and head out into open waters, you'll need to make the right choice — or all you'll be seeing is static.

KISS TV

The simplest and least expensive way to get reception aboard a boat is, and always has been, to mount an exterior TV antenna. Naturally, this only gets you broadcast TV, which by today's standards is rather limited. On top of that, picture quality can be expected to be erratic and grow worse the farther you get from metropolitan areas. On the plus side, it will only cost a few hundred dollars to go from watching snow to watching "Snow White."

The most basic version of a marine TV antenna is the omni-directional, non-amplified variety. These look more or less like a Frisbee or pie plate, can be found for as little as $100, and don't need to be pointed in any particular direction. As you might expect, they also don't produce shockingly good results. Omni-directionals with amplifiers and/or gain control are a small step up, as they give the signal a bit of a boost. Directional antennas, which can be pointed to focus reception, are a bit better. Sort of. If your boat is static, focusing on that signal can help. But if it's swinging at anchor or bobbing around in the waves, your "improved" picture may fade in and out as you move back and forth.
Obviously, unless your boating grounds are near metropolitan areas, you do most of your watching from the slip, and you don't care too much about your program menu, a regular old antenna isn't going to be your first choice. In most circumstances range is limited to 20 or 25 miles (of the station, not of land) and conditions can have a big effect on reception quality. Still, it's the easiest option to install, is very economical (even the best antennas don't top $500), and for many boaters out there, it will suffice.

Space Invaders

If you want to see the big game on TV while trolling for big game at the canyon, one of the best options is satellite TV. You'll need an antenna, receiver, and service. Naturally, this can get expensive. Very expensive. But it doesn't necessarily have to be a big-dollar investment, depending on your needs. Some satellite systems incorporate a dual-band (Ka/Ku) antenna with auto-changing low-noise block converters (LNB), which receives the initial signals gathered by the antenna and sends them to your receiver and multi-switch modules. And if you want to watch TV while in the middle of a transatlantic crossing, enjoy TV when you get to the other side of the pond, or watch multiple stations on multiple TVs aboard your boat, you'll need all this stuff. You'll also pay dearly for it, to the tune of at least $20,000-plus for an antenna alone.

For the vast majority of the boaters out there, however, a simpler system will probably do the trick. One satellite reception option that costs quite a bit less has become popular in recent years. The only catch is that you need to have satellite TV at home. If you do, you can get an additional receiver or a mobile receiver and take it with you when you head for the boat. In some cases you may need an inverter to provide the proper power supply, and you'll still need to buy an antenna, of course, but the investment will remain modest because a small, relatively inexpensive antenna paired with that receiver will get the job done and you've already paid for your service. Consider the Intellian i2 (which has a 13-inch dish, weighs under 10 pounds, and costs around $2,000) or the KVH TV1 (a 12.5-inch dish that costs a few hundred dollars more but works in Europe as well as North America). Even these comparatively modest satellite antennas will get you coverage 50 to 60 miles offshore. To reach a signal farther from the beach, however, you'll have to go bigger. As a general rule, when it comes to marine satellite TV antennas and how far from shore they can get reception, size matters.

"The signals are targeted at the mainland," explained Paul Comyns of Intellian. "We're just grabbing the edge of the signal, so when it comes to how far away from shore you get reception, the size of the antenna becomes the limiting factor." What about reception in rough seas? Even these relatively inexpensive antennas are stabilized, so they can track the signal as your boat bobs and weaves. In fact, according to Comyns, if the seas are so rough that it loses its signal, you'll be "a lot more worried about holding on and getting home" than about how good the TV reception might be.

Can you get by with an even less expensive, non-stabilized antenna? Nope. On land you point the dish and it stays put, but on a boat, the first time you get rocked by a wave, you'll lose the signal. If you only plan on watching the tube in the slip, of course, you can get around this issue by mounting a static dish on a piling and running a cable into the boat through a window or opening port. One word to the wise: Check with your marina manager first as many don't appreciate extra holes in their pilings. If you don't have satellite service at home, you'll have to start a subscription just for the boat. Prices vary quite a bit, and note that while most antennas can handle HD, if you want to see it...
on the screen, you may have to pay a higher subscription fee and/or get an upgraded receiver. The receivers themselves cost a couple of hundred dollars and can come from the provider, or (in some cases) you can purchase a bundled package when you get the antenna.
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Riding The Stream

Another option available to boaters in the modern era is streaming TV. Naturally, this requires connectivity at sea or, at least, connectivity at the marina, many of which have hot spots these days. Even if your marina doesn't, you may still be able to ride a free signal coming from nearby coffee shops, Internet cafes, or libraries. Of course, just because there's a signal, it doesn't mean there's enough bandwidth to stream effectively. If you're getting jerking instead of streaming, an external Wi-Fi antenna (Google "boat WiFi antenna") may increase bandwidth enough to help.

Another option is to go cellular. And, of course, accept the limitations that come with it. 4G service is largely centered in urban areas, and you'll be stuck with regular cell range, though you can extend it with boosters sold by the likes of Wilson Electronics, SureCall, or Digital Antenna. The DA4500, for example, is a $350, five-watt direct-connection cellular amplifier. It will work with most cell phones or air cards and advertises a maximum range extension of 50 miles from the nearest cell tower, though the manufacturer cautions that exact range will depend on antenna height, cabling, and other factors. In real-world applications, a 20-mile extension over normal cell coverage is considered good for most of these units.

Most cell boosters, however, are designed for use in homes, cars, and RVs. And we all know what usually happens when you use a land-based product in the ever-harsh marine environment. One company, Shakespeare (yup, the same name you know for VHF antennas), builds cell-booster kits like the Shakespeare Halo and Aura cell boosters by SureCall, which are marinized specifically for boats. These kits are a bit higher in price — you can expect to spend between $500 and $1,000 — but they include everything you need including the amplifier, indoor and outdoor antennas, and coaxial cabling. Better yet, they come with a salt-encrusted two-year warranty. (Dedicated cellular web access can also be had via Shakespeare's CruiseNet system, which is priced similarly and has about the same range.)

To get beyond cell range and enjoy streamed TV, you have to go back to satellite service — and, of course, the cost associated with those stabilized antennas and the additional hardware. Except that in this case, you'll also be hit with data.

Shakespeare's Halo cell booster can help you get cellular service to use TV streaming far from shore.
charges, which can cost over $10 per megabyte of data when you include monthly fees and subscriptions (though price varies radically depending on the plan you sign up for). Considering that an hour of Netflix will eat through a gigabyte of data at standard definition, this is a cost-prohibitive option for most of us ... unless you sign up for a new service called IP-MobileCast, which is KVH's dedicated content-delivery service. It isn't exactly Internet streaming; the Netflix comparison is probably the easiest way to think of IP-MobileCast, though KVH says its breadth of content is broader. It includes both movies and TV programming, and represents the latest way to keep your tube fed and glowing for hours on end no matter where you float your boat. Data arrives "over the top" of the mini-VSAT Broadband network while utilizing unused network capacity, so it doesn't affect airtime plans or data rates.

The system makes it happen by pulling down data when the network isn't otherwise occupied, and storing it on a KVH onboard server that can later stream the programming to your TV or, for that matter, your smartphone, laptop, or tablet. And by utilizing the airtime that is essentially the network's downtime, cost falls dramatically. It's still not cheap, though. Service packages start at $295 per month. And what about hardware costs? Yes, it's significant, too. The media server retails at $3,995, though for a limited time KVH is offering several promotional programs that range from a free server to half off when you sign up. That, naturally, also requires a TracPhone antenna, service, and the other associated costs, for which you'll need to be prepared to shell out at least another $20,000 or so (note that full web and phone capabilities are also part of the deal). "It makes sense for boats that require the TracPhone's Internet connectivity on its own merits, so that the only extra hardware outlay is for the media server," says Jill Connors, media and communications manager at KVH. For cruisers who already have the TracPhone hardware aboard, this could be an alternative to land-based satellite subscriptions.

Obviously, these days you have a slew of choices when it comes to getting TV reception onboard your boat. But we hope you understand them better now and that reading through all of these different options, prices, and potential problems hasn't made your eyes glaze over. There will be plenty of time for that later, when you're sitting on the settee and staring at the tube, enjoying your must-sea TV.

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