

Automatic Identification System

by Capt. Geoff

A pretty mundane name for a pretty neat system. Basically, vessels that have AIS send and receive signals on the same VHF channel as DSC. The AIS signal contains the vessel name, dimensions, course and speed, destination and other information. With an AIS receiver, you can see all the vessels around you that have transmitters.

The original AIS receiver displays were pretty limited, looking somewhat like a radar display, displaying the range and bearing, and direction of the vessel. Even this was a huge advantage in areas like Campbell River, allowing you to "see" vessels around a corner (such as the dogleg at Seymour Narrows) that visual or radar would not show.

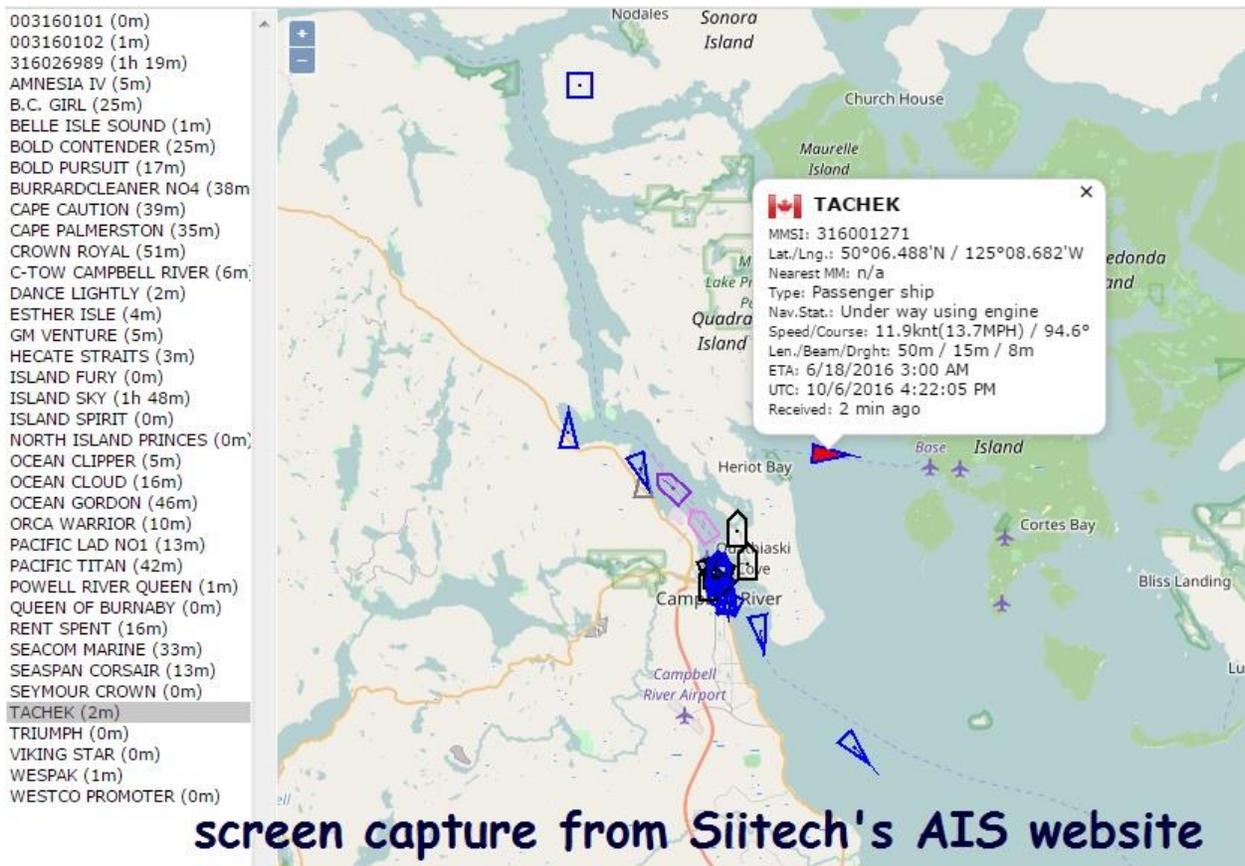
However the technology has advanced with modern Radars and Electronic Charting, so that AIS targets are overlaid on your Radar screen and/or electronic chart. The data is also used to calculate closest point of approach (CPA), alerting you of a potential close quarters situation.

This works great in open waters. Kevin and Cosmos, down at Ocean Pacific were telling me of a trans-Pacific sailor, who outfitted his yacht with AIS. Freighters and tankers in the area would be aware of him much earlier using AIS than they would be using Radar. The AIS aboard the commercial vessel would likely be set to generate an alarm if a close quarters situation was developing. And the sailor likely could set the same alarm on his vessel. He found that large vessels were altering course early on to give him lots of sea room.

In more confined waters, the CPA option is not as effective, as vessels are constantly altering course to stay in the channel, so a vessel could show a large CPA right up to the time it makes the final alteration at the final corner to aim directly at you. Even so, having that information, when you can't "see" around the corner is a huge advantage.

Another advantage to AIS is that you can see the names of all the vessels around you. If there are three tug and tows following each other through the Narrows, trying to figure out which one is which, even when listening to VTS can be difficult. If you have AIS overlaid on your chart or radar, you know which vessel you need to contact if you need to make passing arrangements.

AIS can be handy ashore for ship watchers. There are a number of web based viewers that will allow you to see a map of the area with AIS equipped vessels overlaid in real time. One is Siitech (there is a link to it on our web site, links page). Want to know if there is a cruise ship coming from Vancouver? Scroll down to Comox, if you see one there it is about an hour away (they will adjust speed to get to the narrows around slack, so check against slack water too).



Larger commercial vessels, particularly if going into US waters must have AIS. But it is also becoming more common for smaller vessels, as a safety factor. The big downside to AIS for most boaters is the cost. A class B system, suitable for a pleasure craft, is around \$800-\$1,000. An AIS receiver unit alone is around \$400. You can get AIS data off the internet if you have a data connection, but experienced boaters know that cell coverage gets very spotty north of Seymour Narrows.

If terms such as DSC are unfamiliar to you, particularly if you have a shiny new VHF radio with a big red button on it, you should get in contact with Ripple Rock Squadron (in Campbell River), as you need a radio operator's certificate for your DSC radio. There is a large fine associated with not having one, even if you don't use (or know how to use) the DSC function. And DSC can be a lifesaver in a distress situation.

Like all articles in this series, this was not written to scare people off of boating. This is a beautiful area for boating, with hundreds of miles of channels and many inlets and bays to explore. However, like driving on the road, you must know the rules, and Discovery passage can be akin to a busy road at times. To learn more about Collision Regulations and other subjects, including information on the in-depth courses that Ripple Rock Power & Sail Squadron offers, please visit www.ripplerocksqadron.com