

## MARKET NOTES



*A pioneer in the NMEA 2000 game, Maretron ([www.maretron.com](http://www.maretron.com)) supplies a range of sensors, cabling, and displays (left) for NMEA networks.*

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## NMEA 2000 Standard Creeping into Mainstream

**W**hat about the National Marine Electronics Association's highly touted communication standard NMEA 2000? Basically a variation of the Society of Automotive Engineers Standard J1939 (itself an evolution of the Controller Area Network protocol developed by the German corporation Robert Bosch), NMEA 2000 is a true serial data communications network. It allows for much, much faster data transmission speeds (250 kilobytes per second), but even this isn't enough to handle high-bandwidth applications such as video. For these, makers of marine electronics use typically use Ethernet, an open-communication standard.

One of NMEA 2000's most appealing elements is its true plug-and-play capabilities. So long as you have the NMEA 2000 cabling "backbone" (which also supplies power) on your boat, you can use rugged watertight T-connections to add devices. These "plug-and-play" devices should be immediately welcomed into the network.

Most major marine electronics manufacturers are producing a range of NMEA 2000-compliant devices (finally including the necessary wire adapters as well). Nevertheless, few builders are incorporating NMEA 2000 cabling into their boats, so full adoption will take years.

Will NMEA 2000 finally mean an end to the proprietary network protocols (SimNet, SeaTalkHS, etc.) that confound the mixing and matching of different brands of marine electronics? Don't bet on it. While networking NMEA 2000 devices from different makers has become easier, all the major players in the recreational market—Raymarine, Navico, Furuno, and Garmin—continue to release sophisticated software and devices that rely on proprietary data. While some of these capabilities are impressive, they are hardly essential to safe navigation. Do sailors really need a 3D rendering of Miami's Government Cut?

NMEA 2000 has so much going for it—plug and play, reliable rugged connectors and built-in redundancy that we hope that more sailboat makers sign on. One of the biggest drawbacks is the premium you pay for NMEA 2000 equipment.

**Bottom line:** If you are re-wiring your boat and plan to significantly upgrade your electronics, an NMEA 2000 backbone opens up your options and will simplify additions down the road. However, if you're merely fascinated by those high definition chartplotters, be sure to include all the hidden costs of a full upgrade (wires and transducers are just a start) before taking the plunge.