Islander October 2008
Technology Update

Technical Editorial

The New Navigation Nemesis

Information overload is a serious threat in every arena, surprisingly the bridge of a yacht is no different.

As many as 80% of incidents at sea can be attributed to poor situational awareness. Thus it is critical that the Navigation Stations are configurable for the task at hand, sorting information such as Radar, ECDIS, Conning, Central Alarm Management, CCTV and Monitoring into a clear concise picture to enhance ship safety. Navigation systems have come a long way since we started business in 1996. We thought we were right on the button then providing electronic British Admiralty ARCS charts with Navmaster software. We introduced a number of yachts in '96 and '97 to their first electronic chart plotters. Today they are that common they have become a regular feature on mobile phones!

A huge amount has been learnt over the last decade from both the yachting and commercial world. Multiple stages of development has taken place to get to today's' all encompassing system, where the passage planning and chart plotting functions are just one small part.

It's all a little more sophisticated than it was ten years ago.

When looking for a new Navigation System today you should look for the following features

- Multi Function Workstations which bring together information from radars, electronic chart display and information systems for display on a single high-resolution flat-screen display.
- It should meet or exceed all existing and proposed standards
- It should have task-orientated scalability so that it can meet each yacht's individual requirements.
- It is IP based to enable efficient distribution and access to data around the yacht to provide functions such as multiple workstations, distribution of navigation data around the yacht and automatic chart updates.
- Look for shore based connectivity to enhance operational efficiency, again so you can automatically update charts, or receive weather and routing information.
- Make sure the systems have a common user interface which will improve efficiency, safety and reduce the training required.
- Finally look for unlimited upgradeability and built in redundancy

A new system that fulfils all these criteria is the Sperry VisonMaster FT TotalWatch.

HEAD OFFICE
Palma de Mallorca, Spain
TEL +34 971 404 208
FAX +34 971 404 431
www.e3s.com
info@e3s.com

Conventionally Sperry has been the system of choice for commercial ships and yachts of over 40m in length. This system is modular and can be installed on 30m plus sailing yachts.

Total Watch System: The Sperry Total Watch multi function work station can be configured easily. The Captain or Watch Officer can create a selection of bridge layouts to suit different navigational situations. This maximises situational awareness for each bridge watch keeper, increasing safety, and enhancing navigation performance. It also provides for enhanced redundancy.
As mentioned in my editorial last month on Security this system has an optional module that will automatically monitor potential security threats called ShipSentry.

Integrated Bridge System (IBS): Information from all navigation sensors is brought together and merged into a functional workstation. The Sperry IBS provides centralised access to the sensor information providing for safe and efficient navigation. The IBS meets the specifications of all major international organisations, standards and notations.

Performance Based Navigation (PBN): Systems such as the Sperry VisionMaster FT Gateway provide shore based connectivity to shipboard systems enhancing operational efficiency. PBN functions include real-time chart updates, fuel management systems, live weather, and ship telematics for online diagnostics, software upgrades and technical support from shore based service centres.

Scalability: The Sperry VisionMaster FT is scalable in two ways. It is scalable in that any or all of the functions needed to meet your yacht's unique requirement can be configured to suit and secondly the system can be designed to suit the size of the vessel.

Upgradeable and ease of use: All these systems are easily upgradeable as the products evolve. All VisionMaster FT products are designed with common hardware platforms, and provide a common user interface for radar, ECDIS, Chart Radar and Conning. The result is that the watch officer can move easily from one function to another, such as the radar to the chart plotter, and know which buttons to press. This provides for more efficient bridge management, enhanced safety at sea and reduced training requirements for crew.

For your navigation requirements you should never take shortcuts, you should always select a system that is proven, reliable and of high quality. Also always look at the support from the manufacturer. Choosing a system that has communication facilities, as mentioned above, will enhance the manufacturer support by allowing remote support.

So as you can see, due to advances in technology, what was simply a chart plotter and passage planning tool has become a sophisticated integrated bridge system that does everything, but to make it easier to use you press the same buttons to operate everything and to control information overload you can choose to limit the functions to what you want. Then to cap it all if you connect to the outside world, weather, charts, software updates etc will be sent to you automatically. The wonders of technology!

Roger Horner of E3 Systems
For further information on any of the above, please contact us.
email on info@e3s.com and website www.e3s.com
Tel: +34 971 404208/400738/702975