

New monitors for the Air Defence and Command Frigates

The Dutch Royal Navy is an ultra-modern, dynamic business in which innovation plays an essential role. Every modernisation in the Navy has huge consequences, both financial and organisational, due to the unprecedented quantity of material in this action-oriented organisation.

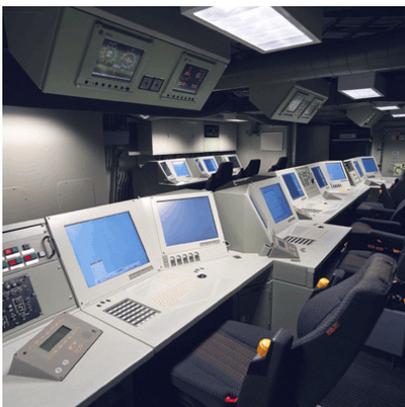
The Challenge

The monitors on board the Air Defence and Command frigates need replacing. They are 18" and 20" TFT monitors, both with a SXGA resolution of 1280 x 1024 pixels. The number of monitors to be replaced and the ratio between the two formats was not known at the start of the project.

If the application was successful, the replacement will be carried out in a substantial part of the fleet. The cost aspect therefore also plays an important role in the development of this very extensive project.

The Solution

M-H found a concept in the very earliest stage in which a chassis as universal as possible is combined with various front plates. With this concept the consoles can remain intact and the stock of monitors required on board and ashore can stay limited.



A second cost-saving element is achieved by using a current, acceptable type of 19" TFT panel made by various manufacturers. 18" panels are on the other hand no longer standardly supplied. Sticking to this format will incur considerable extra cost.

This application results in the operators of the 20" con-



soles having a slightly smaller screen size at their disposal. It emerged after an assessment test instigated by Mulder-Hardenberg by those involved that this consequence met with not one single objection. Sanctioning by the operators meant a 'go' for the operation.

The Implementation

To be able to build-in the monitor, it is imperative that the 19" chassis will fit in the space where up until now the 18" monitors were installed.

In addition this chassis must also be made suitable for the 20" recess in the console. The designers, with clever design work and the elimination of several remaining points, have been completely successful in this.

The universal replacement monitor that has been developed also removes the necessity for various power sources as was the case with the original monitors (12V DC and 24V DC). A 230V connection has also been provided to rule out a possible DC power failure.

The use of Corian in the front plates is the clear-cut wish of the customer in view of the fact that the outsides of the consoles in the Command Centre (CC) are completely clad in this synthetic material from Dupont. The fragile structure of Corian is overcome by the use of aluminium as the basic load-bearer in the various front plates.

The result

While other parties have presented proposals on the strength of various formats - resulting in high costs - M-H had a sig-

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nificantly more efficient solution in mind right from the very beginning. M-H has provided the Dutch Royal Navy an economic and practical solution with continuity of design, the application of an universally usable 19" diagonal, the consoles remaining intact and no need to keep spare parts for the various monitors in stock. At the moment 276 monitors have been delivered. However they have not yet all been replaced. Which implies another order on the horizon.

Our Websites



- mulder-hardenberg.com
- mh-hminterfaces.com
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