

# SETEL POWERLINE INSTALLATION CASE STUDY ARTEMIS - ROTTERDAM

DEC 2015



## Remote Diagnosis Wearable Camera over WiFi Trial



### Requirement

To deliver an IP Remote Diagnosis Camera over WiFi Solution using the PowerLine Communications (PLC) Network including Alphatron's "Alpha-Eye" wearable Camera System and monitoring software platform.

### Method

1 Setel Engineer provisioned the IP Network with a PLC Master Unit on the Main Electrical Distribution Board within 40 minutes. Setel PowerLine then installed the "plug and play" PLC WAP Units with no interruption to vessel daily operations. A laptop was set up in The Ship's Office and the Alpha Eye wearer roamed the vessel. The video feed from the Alpha Eye was carried over the PLC network in live feed and distributed back to the laptop on both the vessel's VSAT as well as a local 4G connection.

### Location

The Van Oord Shipyard in Rotterdam, where the vessel was alongside performing daily maintenance tasks.

### Hardware

The Alpha Eye System was provided along with a laptop to perform on-shore transmission trial over both VSAT connection and 4G WiFi system. PLC Hardware travelled with the install team.

### Alpha Eye WiFi Camera

With the Alpha Eye, the crew on-board can call through a dedicated (satellite from 128kb, 3G or 4G) communication link directly with the expert in the Alphatron Marine office and really let them experience through live audio and visual contact the issues they are facing. Even in such a specialized and customized environment on-board, error analysis and problem solving can now be achieved in a matter of minutes. This unique remote support makes adjusting or replacing Components just that easy and with the fault Finding completed, missing parts can be arranged to be ready in the next port of call.



### Software

The Alpha Eye camera is hosted on a web-based monitoring platform. This allows viewing of live and recorded images either on board or from any on-shore location via the vessel's satellite connection, 3G or 4G.

### Results

The Trial was a resounding success with excellent connectivity being provided to the Alpha Eye via the PLC WiFi Network in different areas of the vessel. Two communication channels were used. Comms over 4G worked well for sound and vision. The on Board VSAT connection provided excellent sound quality, but the bandwidth allocation will require some adjustment to ensure optimal visual success.



### Resources Employed

Team	1 Pax
Vessel Master Unit	1
Deck Connection Unit	1
Vessel WAP Unit	2
Cameras	1
Network Established	40 mins
Install Complete	1 Hour

### Summary

This was a successful trial of a full Remote Diagnosis Camera capability over WiFi with a recording and monitoring solution. This incorporated Alphatron's new Alpha-Eye high grade equipment provisioned onto the Setel PowerLine IP network. Another example of Setel PowerLine and Alphatron enabling the Smart Ships of tomorrow...today!