



Newsletter – *August 2012*

ASB Systems Pvt. Ltd.

Maintenance–In a surveyor’s parlance.

Greetings!

This issue focuses on servicability and maintenance.

Maintenance is a generic term, but has a very multi-faceted aspect. For an automobile mechanic, maintenance could involve changing the engine oil, checking the brakes among other parts and, at the most, tuning up the engine. A surveyor’s take on survey equipment maintenance is much more broader, and his approach should thus be more holistic.

A surveyor should try and read tell-tale signs of trouble. Bad data, frequent breakdowns, obsolete spares, outdated technology and incompatibility issues are the factors which should decide if an equipment has lived its life. A surveyor should make a resolute decision on this, and take a call.

In this issue...

Taking the call !	Maintenance, upgrades and replacement.
Coda Octopus	Coda DA4G. Coda Echoscope.
Tech Tips	Ingress Protection Standards.

Customer satisfaction is our prime objective

Taking the call !

Well, begin with asking yourself: Is my equipment at par with the latest technology available in the market ? If not, is there a way to do this without having to replace it? Manufacturers like Hemisphere GPS always have options to upgrade the unit's firmware to L1 + L2, Glonass and RTK. An OEM could have an exchange scheme, where a user can return his old instrument in exchange for a brand new one at a marginal cost. One such offer from Coda Octopus is currently ongoing, which we will discuss in the following sections.

Operation and storage: An instrument which is stored onshore will have a longer life than the equipment which is perennially out at sea. A peek inside on the latter's boards will reveal the amount of salt deposit it has withstood.

Degraded performance: Compare your current data quality against the data quality delivered by the instrument when it was newly installed. If it has deteriorated, you can be sure about this problem. Degraded cable insulations, degraded transducer parameters, and ageing are the causes for this. This may call for a complete system overhaul.

Obsolete spares: If you are facing this one, you can be sure that the equipment is obsolete too. It is now time to upgrade.

Periodic Maintenance: Every equipment needs proper maintenance. This is a major contributing factor, and is best left to the professionals. OEM authorized agents will not only have the requisite means to carry out such activities periodically, but also provide the user with an option to enroll into "Comprehensive maintenance contracts". Such contracts provide the user with a trouble-free operation for their equipment, without having to worry about the breakdowns and repair expenses.

As we see, there are no fixed rules which define when the survey equipment is to be "decommissioned". A surveyor has to take a call based on his judgement and experience to decide if the instrument is no longer maintainable.

In the following section, we will discuss a trade in offer by Coda Octopus for their existing clients, to upgrade to the latest DA4G, the 4th generation of Geophysical acquisition systems.



The DA4G™ series of acquisition systems from the CodaOctopus:GEO family provides high quality, robust and reliable data acquisition from the latest digital and analogue sidescan sonar and sub-bottom profiler sensors.

DA4G is the 4th generation of the successful DA series® and is built on twenty years of knowledge, experience and innovation in supplying unparalleled products and service to the worldwide geophysical survey sector. These purpose-built, turn-key, systems incorporate the very latest hardware specifications and are designed and delivered to meet the demanding nature of offshore survey work.

With a series of options within the DA4G range and backed up with unrivalled global service and support, CodaOctopus:GEO remains the family of choice for advanced geophysical solutions.

Features:

- Compatible with all leading sidescan sonars and sub-bottom profilers in digital or analogue formats.
- State of the art, workstation-class hardware platform
- Windows 7, 64 bit Operating System
- Up to 4 analogue input channels
- Dual independent simultaneous triggering
- Triple monitor support (2x HDMI or DVI-D, 1x VGA)
- Dual printers via network or parallel ports
- Magnetometer input
- Includes GeoSurvey software and fully compatible with the new Survey Engine range of processing software

Do contact us to know more details on the “Trade-in” offer !

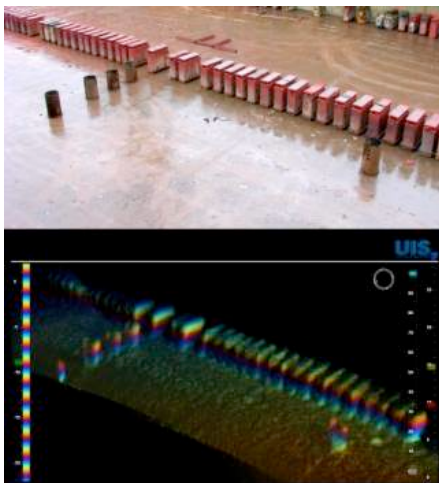
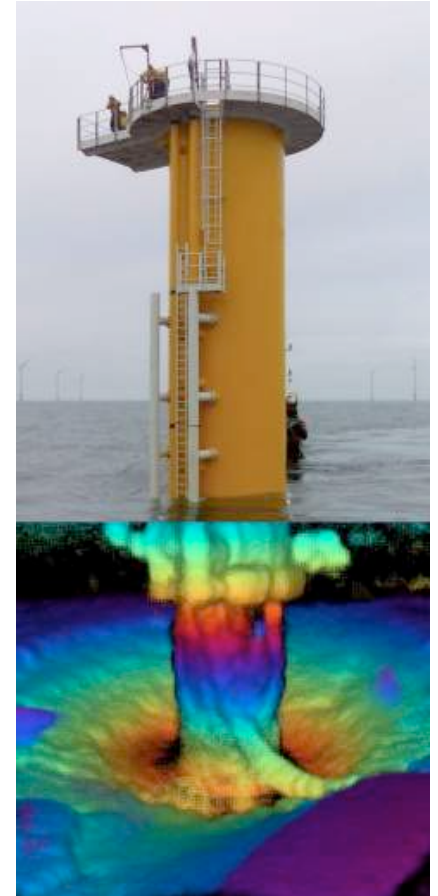


Coda Echoscope: Go 3D !

This revolutionary product from the Coda family is getting immensely popular in the industry. And not without reason: This small device can do the job of a Multibeam echosounder, Sector scanner, and an Underwater camera !!

With over 16,000 simultaneous beams, the Echoscope acquires all the data required for an inspection task from a single ping. This removes the need to co-register the data using survey positioning and motion sensing equipment and the system can therefore be operated without specialist survey knowledge. A data density 100 times greater than a traditional multibeam echo sounder, combined with the ability to view the same data from multiple angles, allows real time robust filtering of spurious echoes normally associated with multibeam system. This results in far greater detail without the need for post processing.

With a distinct advantage of simultaneous high resolution vertical and horizontal imagery, the Echoscope wins hands-down over traditional sector scanners.



The Echoscope generates high quality data sets even in turbid water, allowing visualisation of the seabed and the subsea workplace in real time. Replacing video cameras and even divers in applications such as underwater construction ensures continued good visualisation of the work environment along with reduced health and safety risks. Check the picture of a flooded dry-dock as tracked with the Echoscope.

Do visit www.codaoctopus.com/news/ to check-out the growing popularity of this amazing device!

Tech Tips

We often see “Depth ratings” on a survey instrument labelled as IP64, IP65 and wonder what it is about. Often we also have doubts if the said instrument can be mounted out on the deck, is weatherproof, or is submersible.

The IP Code or **Ingress Protection Rating**, consists of the letters IP followed by two digits and an optional letter.

Thus, the first digit defines “Solid particle protection” and the second defines “Liquid ingress protection”.

1. Degrees of Protection - First Digit

- 0** - No special protection
- 1** - Protection from a large part of the body such as a hand (but no protection from deliberate access); from solid objects greater than 50mm in diameter
- 2** - Protection against fingers or other objects not greater than 80mm in length and 12mm in diameter.
- 3** - Protection from entry by tools, wires, etc., with a diameter or thickness greater than 2.5mm.
- 4** - Protection from entry by solid objects with a diameter or thickness greater than 1 mm.
- 5** - Protection from the amount of dust that would interfere with the operation of the equipment.
- 6** - Dust-tight.

2. Degrees of Protection - Second Digit

- 0** - No special protection.
- 1** - Protection from dripping water.
- 2** - Protection from vertically dripping water.
- 3** - Protection from sprayed water.
- 4** - Protection from splashed water.
- 5** - Protected against low-pressure jets from all directions - limited ingress permitted.
- 6** - Protected against direct sprays from all directions - limited ingress permitted.
- 7** - Protection against effects of immersion from 15cm to 1m.
- 8** - Protection against complete, continuous submersion in water till 15 meters.

Good luck!