



Newsletter – *January 2016*

# ASB Systems Pvt. Ltd.



*Happy New Year!*

A very happy new year to all our readers!

Looking back, 2015 presented quite a number of value additions in terms of the Survey instruments & OEMs that we represent, and our Clientelle. We started representing Innomar Technologie GmbH, Germany. Innomar is known for its parametric sub-bottom profilers for different applications and a wide range of water depths including shallow-water (1 to 500 m) and deepwater operation (down to full ocean depth).

The months of May and June 2015 witnessed significant developments from the Hemisphere GNSS stable, in the form of Athena GPS engine and Atlas Global corrections service. The Athena GPS engine offers huge improvements in initialization time, stability and accuracy. Atlas is a paid corrections service, and delivers its signals via L-Band satellites at accuracies ranging from meter to sub-decimeter levels. Atlas also supports third-party GNSS receivers via Hemisphere's innovative "SmartLink" and "BaseLink" capabilities. The user can choose from three scalable service levels depending on the desired level of accuracy: H100: 1 m 95% (50 cm RMS), H30: 30 cm 95% (15 cm RMS) and H10: 8 cm 95% (4 cm RMS).

We thank you for your association, and this New Year we wish you prosperity and health, and look forward to continue serving you.

## In this issue...



Happy New Year!



OEM News:  
nke SAMBAT  
and MPx



Deep sea  
Graviprobe



Teledyne  
Odom  
Multibeam  
success stories



Nke Instrumentation's SAMBAT Probe –  
**The brand new SAMBAT deployed in La Réunion (New coastal highway project)**

**After the deployment of 4 SAMBATs in Cordemais for the emissions monitoring of the EDF mill ; nke Instrumentation provides these multiparameter probes to Bouygues-Vinci, to monitor the turbidity of the sea, during the construction of the new coastal highway in La Réunion.**

SAMBAT is an Autonomous Multiparameter Probe with Brush and Teletransmission.

This equipment is used to measure and record the main physical water parameters (temperature, depth, conductivity for the calculation of salinity, turbidity, fluorescence, dissolved oxygen and pH) on a period of time up to several months.

SAMBAT uses a Brush to protect the Fluorescence, Turbidity and dissolved oxygen sensors from biofouling.

An operational probe :

- Suitable for any type of support (very light buoy, ladder, stake, pontoon...).
- Set up with the WinMemo II software thanks to a radio connection (Radio Data Pencil) with arange of around 25 meters.
- Possibility of transferring measured data by Email, thanks to the integrated GSM modem.

### French reportage about ocean warming

As part of ocean warming, the Ifremer – a French institute - takes surface temperature thanks to the nke MPx probe ; deeper (down to 2000m), nke profiling floats (ARGO program) measure salinity and temperature parameters.

The nke MPx probe can measure and record up to 7 physicochemical parameters:

Temperature, Pressure (depth), Conductivity (salinity), Turbidity, Dissolved oxygen, Fluorescence (Chlorophyll-a, Phycocyanine, Phycoerythrin), pH.

An Argo float is an autonomous subsurface instrument that is programmed ahead of time and deployed from a ship. Every 10 days, it dives to a depth of 2000 m and then slowly rises to the surface, recording temperature and salinity profiles at various depths. The data are then sent by satellite to land-based receiving stations. The float then dives again and starts a new cycle of measurements.



RDI - Teledyne RD Instruments are pleased to announce that they now supply Lithium Battery packs designed by Doppler Ltd. for the WorkHorse (WH) Sentinel, QuarterMaster, and Long Ranger ADCPs, as well as the Doppler Volume Sampler (DVS) and Sentinel V ADCP.

Doppler Ltd. has been supplying lithium packs for WorkHorse ADCPs since 2004. These lithium packs typically triple deployment duration, compared with alkaline packs.



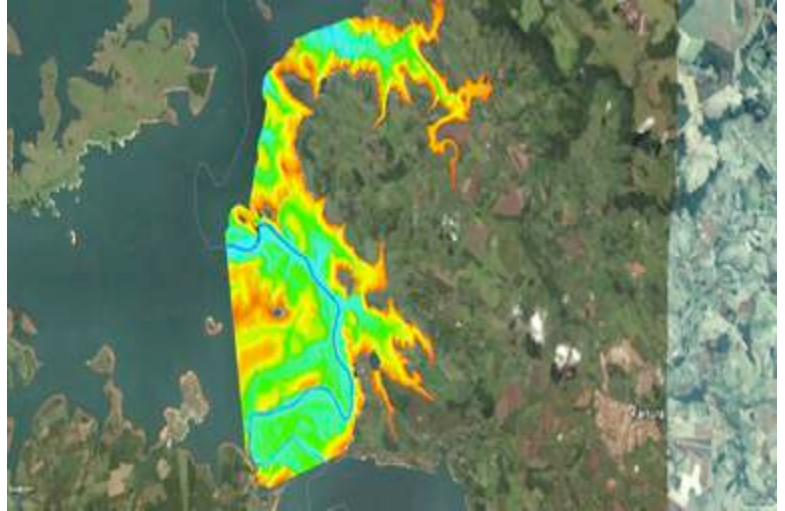
**SevenCs has launched updates for several products in its ENC Tools Suite.** The update package includes fresh features, bug fixes and extensions due to new standards and specifications which are relevant to digital chart production. By integrating the latest version of the SevenCs ECDIS Kernel (EC2007 v.5.20) the ENC Tools Suite benefits from many Kernel features, such as supporting IHO's Presentation Library 4.0. and performance. This version further assists the Inland navigation community. The product specifications for Inland ENCs (IENC 2.4) can be handled with the SevenCs renewed tool package: ENC Designer (production), S-57 Writer for FME (translation), SeeMyENC (visualisation), and ENC Optimizer (processing), fully support all features and attributes defined in the new standard.



**New development to capture high quality geotechnical profiles of fluid and consolidated mud layers up to 5500 meter.**

dotOcean designed an innovative geotechnical profiling system for deep sea waters, the Deep Sea GraviProbe. The system's cone is lowered in the underwater sediment layer, analyzing those layers during intrusion. The system is capable of collecting data at 5500 m depths and has a measurement resolution of 100 Pa. The instrument is considered a game changing development because of its simplicity in use. This new approach results in a rapid deployment and in a high data collection rate. These factors increase the cost effectiveness of a deep sea operation tremendously. The profiler can gather valuable information on the deep sea seabed to support offshore construction, anchoring, manifold and cable installation.





### **A large survey assignment of the Chavantes reservoir in Brazil – Teledyne Odom MB2 Multibeam Echosounder**

The image represents a survey (not ended yet) of a reservoir named Chavantes, located on the border of two Brazilian States: São Paulo and Paraná, in the southern Brazil. The main objective of the survey is the reservoir volume computation. The area of the image is around 34.5 Km<sup>2</sup>, with approximately 10 km length and 4 km width, and it just represents around 9% of the entire reservoir (365 Km<sup>2</sup>). The main challenges were the presence of aquatic vegetation, submersed trees that pre-exist on the region before the filling of the reservoir and the wind, which causes waves up to 1 meter easily. However, practically all of the challenges were overcome, and the proof is the high quality data.

The MB2 Multibeam Echosounder provides high resolution data with consistency. Associated to this, the compact apparatus of the system makes it extremely versatile and portable, enabling the surveyor to carry out surveys in difficult environments.



### **Odom - Dual Head Multibeam bathymetry mapping riverbed structures and morphologies of Tapajós River (Amazon) – MB1**

One of the five biggest Brazilian hydropower dam is proposed to be built at the location. Current studies, already at an advanced level, include a multibeam survey of about 30 square kilometers.

Mapping with a Teledyne Odom MB1 Dual Head (phase and amplitude bottom detection bathymetry), all the riverbed structures and morphologies were well defined, allowing a great amount of information to be extracted, extremely important for that involved on the hydropower construction study. On the other hand, the contractors could plan their projects with the best benefit-cost ratio, taking advantage of the natural features mapped with the bathymetry.