MetOcean Data Systems

Data Collection & Communication Experts

Beacons & Flasher Products – Nov 2011
PROFILE

- Founded in 1983 -- Dartmouth, Nova Scotia, CANADA
- 50+ employees / 24,000 sq. ft. facility / ISO9001 Quality System
- Remote data collection and communication products + services
- Extensive international design, development & manufacturing expertise
PROFILE

- Meteorological and Oceanographic data collection
- **Asset Management** and Vessel Tracking
- Characterization of underwater acoustic signals
- Coastal environment and current monitoring
- Search and Rescue (SAR) operations
- Profiling oceanographic conditions
- Ice flow and iceberg tracking
- Oil detection and tracking
PROFILE

- Global Ocean Science
- Military and Coast Guards (Search & Rescue)
- Survey, Oil and Gas companies
- Meteorologists and Oceanographers
- Government Institutions and Commercial Fisheries
PRODUCT GROUPS

- Ocean Drifters, Polar Products, Profiling Floats, Environmental Solutions, Search and Rescue
- Beacons and Flashers – Radio & Satellite, Surface and Subsurface
- MASS, SILC, Underwater acoustic applications, engineering services and prototype product development
- Tracking Instrumentation and Systems, Vessel Monitoring Systems (VMS)
NOVATECH™ Overview

NOVATECH was acquired by MetOcean in May 2010 from Cobham Tracking & Locating.

Products

• Radio Beacons
  – Shallow and Deep Water
  – 600m & 7300m
  – Remote Head Option

• Xenon Flashers
  – Shallow and Deep Water
  – 600m & 7300m
  – Remote Head Option

• Argos Satellite Beacon
  – 7300m Rated

• Combo Units
  – Radio Beacon and Xenon Flasher
  – 600m only
NOVATECH™ ST-400A Xenon Flasher.

VISUAL LOCATING SYSTEM

⇒ Self-contained submersible xenon strobe
• Submersible to 7,300m
• Adjustable flash rate and intensity
• Visible up to four nautical miles
• Pressure-activated on/off switch with manual override
• Automatic daylight-off feature
NOVATECH™ RF-700A1 RF Beacon
VHF RADIO LOCATING SYSTEM

➜ Self-contained, submersible radio beacon
- Submersible to 7,300m
- Detectable from four to eight nautical miles
- FCC approved
- Pressure-activated on/off switch with manual override
**General Specifications:**
- Fully submersible: 2,000m (6561ft).
- Hull Material: Anodized Aluminium
- Mass in air: 6.20lbs
- Operating life: 24 months standby with 2000 messages
- Storage Life: 24 months

**Satellite Telemetry:**
- IRIDIUM SBD (9602)

**Sensors:**
- GPS Position (+ Battery Life)

**Power Supply:**
- Alkaline (standard)
- Lithium Thionyl Chloride (optional)
**General Specifications:**
- Fully submersible: 6,000m (19,685ft)
- Hull Material: Titanium
- Mass in air: 8.10lbs
- Operating life: 24 months standby with 2000 messages
- Storage Life: 24 months

**Satellite Telemetry:**
- IRIDIUM SBD (9602)

**Sensors:**
- GPS Position (+ Battery Life)

**Power Supply:**
- Alkaline (standard)
- Lithium Thionyl Chloride (optional)
Online Back Office Website

**General Specifications:**
- Secure site (https://...)
- Manage multiple assets
- Asset History
- Latitude / Longitude
- GPS date + time stamp
- Remaining battery voltage
- SBD Time & TTFF
- Bidirectional Communication

**Surface Reporting:**
- 5, 15, 30 minute
- 1, 2, 6, 12 hour

**Subsea CSQ:**
- 5 minute
- 3 hour

**Geo Fence:**
- Radius from known point
- Polygon / Poly line
- Inbound or outbound alerts
CABO Beacon – Position reports exported to Google Earth (.xml) - Moorings
NEW PRODUCT RELEASE

New NOVATECH™ Products

→ MICRO BEACONS
  ▪ Smaller Form-factor
  ▪ Same depth-rating (7300 – 7500m)
  ▪ LED Strobe
  ▪ Digital Frequency Control (RF)
  ▪ Titanium Housing
  ▪ Lithium Batteries
NEW PRODUCT RELEASE

NOVATECH™ Micro LED Flasher

- Titanium housing
- Outside Diameter = 1.125"
- Length = 14.9"
- Mass (in air) = 0.646 Kg
- Power = (7x) CR-123A Lithium cells

- Pure White LED  2.3 - 3.6W
- Intensity = 170 – 235lm
- Flash rate = 1 to 3 bursts every 1, 2, 3, 4, 5, 10, 20, 30 seconds
- Activation = Reed Switch
- Surface sense = Conductivity
NOVATECH™ Micro RF Beacon

- Titanium housing
- Outside Diameter = 1.125”
- Length = 20.9” including antenna
- Mass (in air) = 0.673 Kg
- Power = (7x) CR-123A Lithium cells

- RF Output = Tunable 20 -100mW
- Frequency range = 151-160MHz
- Detectable range = 5-9 N miles
- Activation = Reed Switch
- Surface sense = Conductivity
NOVATECH™ Iridium Beacon

- Iridium Satellite BEACONS
  - 9602 with new MetOcean controller pcb
  - Titanium housing (7300 – 7500m)
  - Designed to retrofit onto any existing deep rated NOVATECH tube (RF, ST, AS)
  - Designed to operate with NOVATECH PS-200 Pressure Switch
  - Fully compatible with Joubeh online back-office.
  - Existing beacon upgrades will gain 2x alkaline ‘C’ cell batteries
MetOcean Iridium Sphere

- CABO OEM Electronics/Antenna
- Glass sphere housing, 16mm thickness
- 7.5” sphere diameter
- Ocean depth rating of 11,000m
- Mk II design includes NOVATECH ST Flash tube + pcb integration.

NEW PRODUCT RELEASE

Data collection and communication experts
www.metocean.com
Questions?

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