

The background of the slide is a deep blue gradient. It features a faint world map in the upper half, with a bright light source on the left creating a lens flare effect. In the lower half, there are stylized white and grey waves and several orange lines with circular markers, suggesting data or technology. The overall theme is oceanic and technological.

MetOcean Data Systems

Clifton Flint – 2014 Polar Technology Conference

 **MetOcean**

Company Profile

- **Founded 1983 -- Dartmouth, NS, Canada -- 30+ Years of Expertise !**
- **50+ Employees / 40,000 sq. ft. Facility / ISO 9001 Quality System / NATO Security Clearances**
- **Design and Develop Remote Data Acquisition + Telemetry Systems / Products + Services**
- **Extensive International Design, Development & Manufacturing Experience**



MetOcean

Client Focus

- **Scientists and Researchers (BODC, IOS, WHOI, SCRIPPS)**
- **Navy and Coast Guards (USCG, CCG, DND, RAN, AMSA)**
- **Survey, Oil and Gas, Off-Shore (BP, Exxon, Shell, OSRL)**
- **Meteorologists and Oceanographers (UK Met-O, Meteo-France, EC)**
- **Government Institutions and Commercial Fisheries (NMFS, DFO)**



Traditional MetOcean Polar Products

ICE BEACON



PAWS



IMB



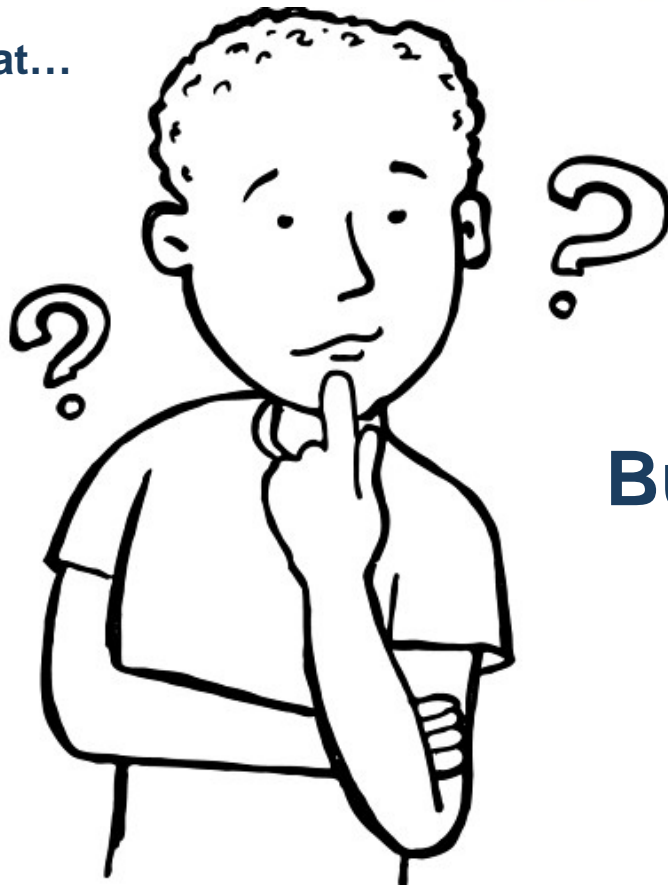
POPS



CALIB



Okay... Great...



But what's NEW at MetOcean?

Snow Beacon – 2012 Prototype

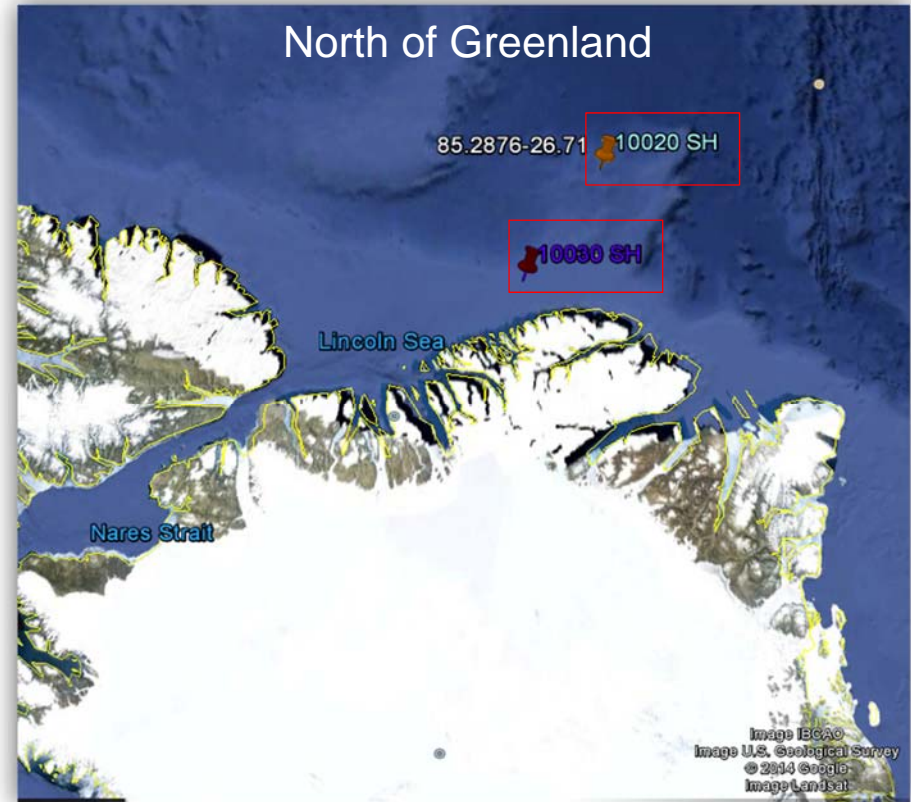


- In 2012 – The Snow Beacon was developed and designed in cooperation with the Alfred Wagner Institute of Germany.
- (13) Prototype units were manufactured and deployed into the field over a one year period.
- Feature a standard met Instrumentation suite (AT,BP,GPS) including Iridium satellite telemetry and Lithium batteries
- (4) Ultra Sonic Sensors to measure Snow Depth.
- What did we learn along the way?

Snow Beacon – The next generation!



- Ruggedized guy wires with longer ice screws
- Reinforced machined parts and tubing
- Enhanced controller, not susceptible to static discharge
- Integrated sensors with temperature compensated algorithms
- (2) Enhanced Snow Beacons presently being deployed!
- **Goal** : 12 months of operation.



Radiation Beacon

Stasis Project – Study of the solar energy through seasonal Arctic ice.

Developed the 'Radiation Beacon' in cooperation with Norwegian Polar Institute.

Rugged platform featuring standard Met instrumentation suite (AT,BP,GPS) Iridium telemetry and lithium batteries.

Three Pyranometers Apogee used:

(2) Are located on the surface arm; one directed towards the sky, one directed towards the ice.

(1) Located on sub surface mechanical arm, directed upwards towards the ice.

Goal :12 months of continuous operation, or until crushing ice takes its toll...Deployment of initial (5) units slated for early 2015!



SVP – Air Deployed

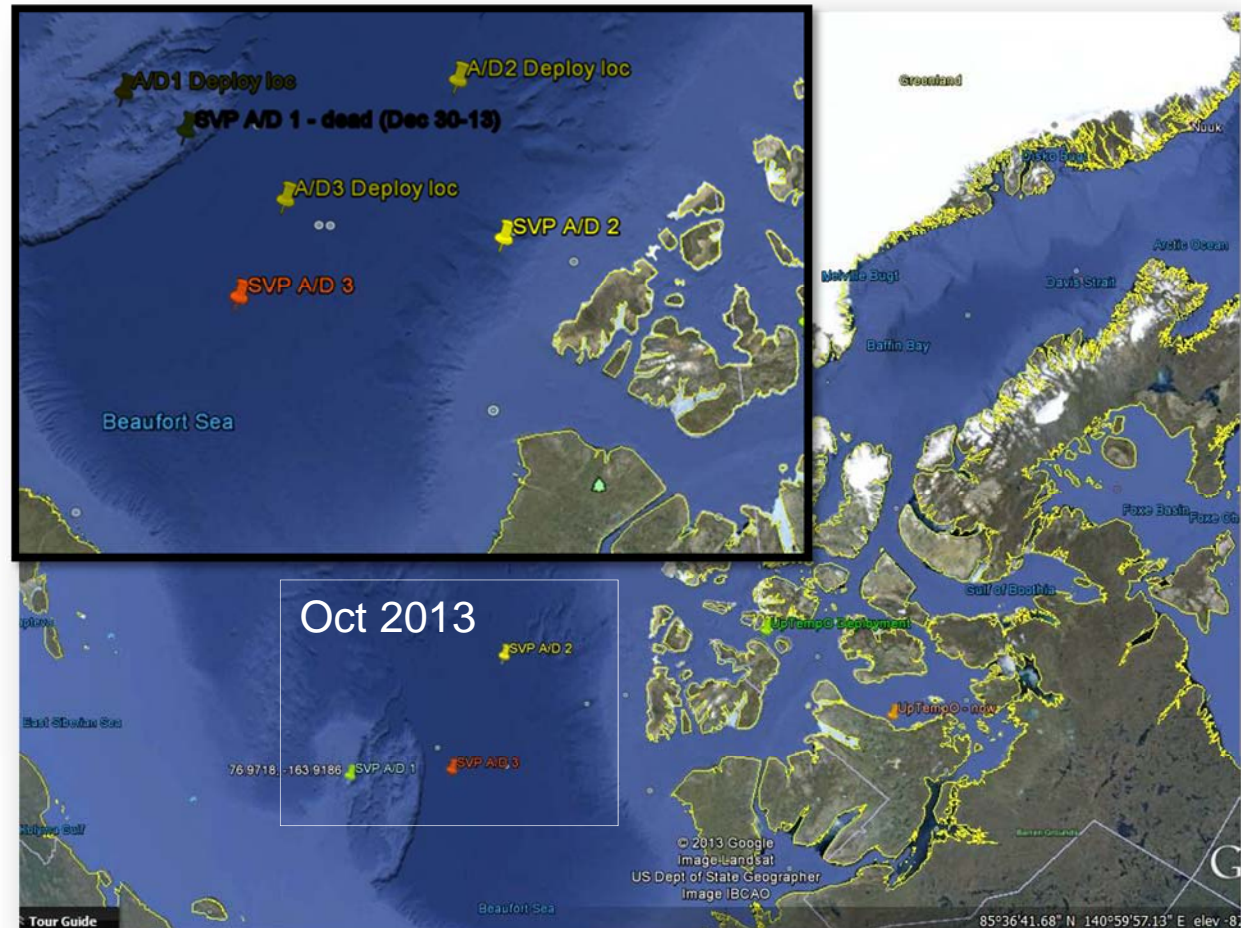


Developed in cooperation with Environment Canada.

The Air Deployable Polar iSVP is a LOW COST buoyant, ruggedized, expendable, bi-directional mini weather station and marker buoy.

Designed to survive multi-year ice, its standard configuration is equipped with GPS, BP, SST, and AT sensors.

Goal : Survive 18 Months

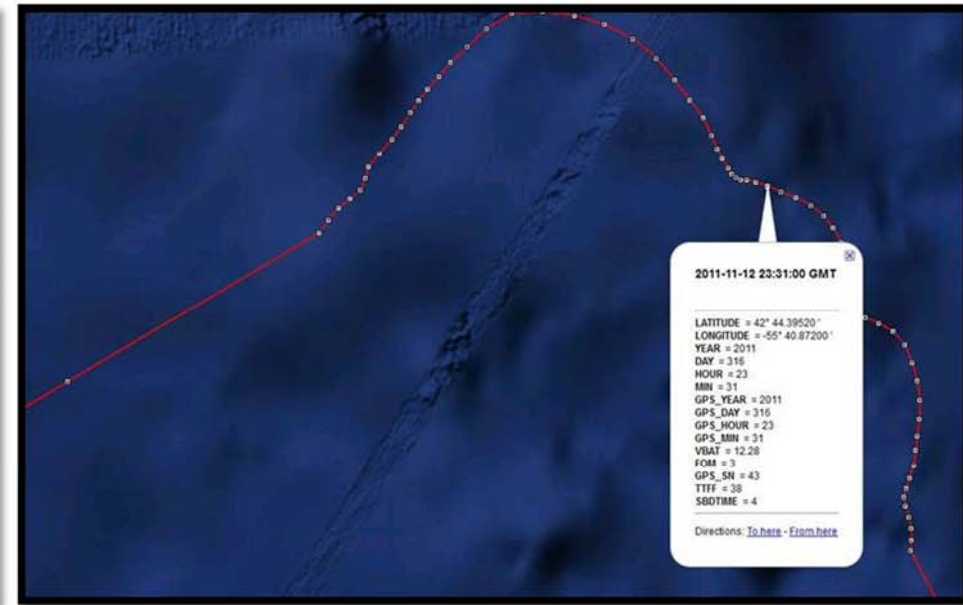


North of Beaufort Sea

Iridium Satellite Telemetry

Enhance the user experience!

DATE (GMT)	LATITUDE	LONGITUDE	YEAR	DAY	HOUR	MIN	GPS_YEAR	GPS_DAY	GPS_HOUR	GPS_MIN	VBAT	FOM	GPS_SN	TTFF	SBOTIME	HEX DATA
2011-11-10 20:00:00	0° 2' 43.160"	78° 54' 16.920"	2011	314	20	0	2011	314	20	0	13.16	3	40	40	4	2a7540099d5007a03da9469
2011-11-10 16:01:00	0° 2' 48.400"	78° 54' 39.280"	2011	314	16	1	2011	314	16	1	13.16	2	42	100	4	2a7500489a017a03a9f9403
2011-11-10 12:01:00	0° 2' 49.480"	78° 54' 7.620"	2011	314	12	1	2011	314	12	1	13.16	3	42	72	4	2a74c0489a017a039af9622
2011-11-10 08:01:00	0° 2' 62.440"	78° 54' 8.960"	2011	314	8	1	2011	314	8	1	13.16	2	39	82	4	2a7480489a017a020af9662
2011-11-10 04:01:00	0° 2' 40.280"	78° 54' 8.920"	2011	314	4	1	2011	314	4	1	13.16	3	41	70	4	2a7440489a017a020af9682
2011-11-10 00:01:00	0° 2' 51.640"	78° 55' 1.420"	2011	314	0	1	2011	314	0	1	13.24	3	43	76	4	2a7450489a017a037af973a
2011-11-09 20:01:00	0° 2' 61.960"	78° 55' 0.320"	2011	313	20	1	2011	313	20	1	13.24	3	38	70	4	2a7340489a017a02eaf964a
2011-11-09 16:01:00	0° 2' 48.400"	78° 54' 9.760"	2011	313	16	1	2011	313	16	1	13.24	3	41	72	4	2a7200489a017a03aaf9682
2011-11-09 12:01:00	0° 2' 48.840"	78° 55' 1.420"	2011	313	12	1	2011	313	12	1	13.24	2	42	72	4	2a72c0489a017a041af973a
2011-11-09 08:01:00	0° 2' 55.960"	78° 55' 1.080"	2011	313	8	1	2011	313	8	1	13.24	3	39	70	4	2a7280489a017a033af9722
2011-11-09 04:00:00	0° 2' 50.960"	78° 55' 0.760"	2011	313	4	0	2011	313	4	0	13.24	3	40	40	4	2a7240089a007a030af9709
2011-11-09 00:01:00	0° 2' 35.440"	78° 55' 3.020"	2011	313	0	1	2011	313	0	1	13.24	3	42	70	4	2a7200489a017a046af973a
2011-11-08 20:01:00	0° 2' 37.600"	78° 55' 2.260"	2011	312	20	1	2011	312	20	1	13.24	3	38	48	4	2a7140489a017a044af977a
2011-11-08 16:01:00	0° 2' 17.080"	78° 55' 3.400"	2011	312	16	1	2011	312	16	1	13.24	2	41	70	4	2a7100489a017a057af973a
2011-11-08 12:01:00	0° 2' 12.760"	78° 55' 4.340"	2011	312	12	1	2011	312	12	1	13.24	3	41	52	4	2a70c0489a017a050af9821



- Exceptional support and service available - 24hrs / day!
- Preferred Iridium service plans and telemetry rates
- User friendly software tailored for real time management of MetOcean devices



Questions?

Always interested in partnership opportunities to develop new and enhance existing products...

MetOcean Data Systems

21 Thornhill Drive, Dartmouth
Nova Scotia, Canada
B3B 1R9

Tel: +1 (902) 468-2505
Fax: +1 (902) 468-4442
sales@metocean.com