



RBR APT

SMART cables systems - JTF 6th Workshop Brest 2017

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Overview

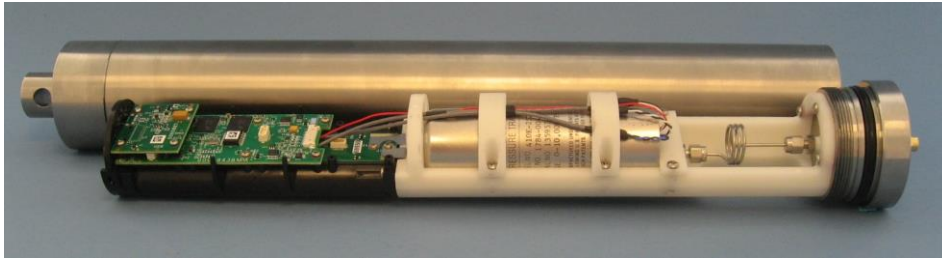
- 1 package for pressure and 3-axis accelerometer at high resolution
- 3 units purchased in January 2017 by Neptune Canada
- Preliminary Results from Neptune deployment

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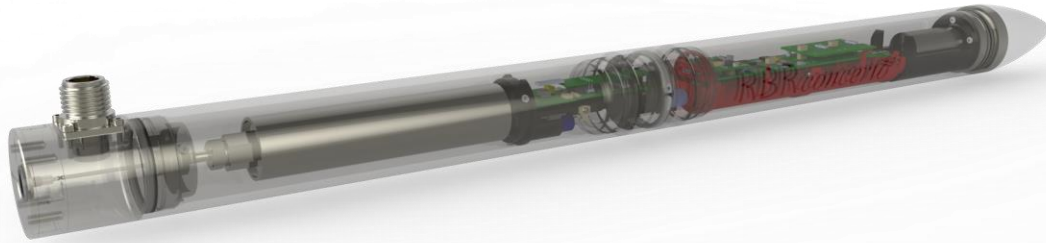
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- Pressure based on Paroscientific Digiquartz transducers
- RBR High resolution period counting
 - 10 ppb depth resolution in less than 1s
- 20Hz sampling
- Ext power 4V-30V or internal batteries
- RS232/RS485
- Down to 10 000m depth
- 60 mm dia., 250 mm length



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- Pressure and acceleration based on Paroscientific sensors
- RBR High resolution period counting
 - 10 ppb depth resolution in less than 1s
 - +/- 3g no clipping
- 20Hz sampling
- Ethernet - TCP/IP communication
- NTP synchronization
- MINK connector
- Autonomous mode
 - Low power
 - Internal batteries
- Down to 10000m depth
- 60 mm dia., 1m length
- 9V - 18V input voltage

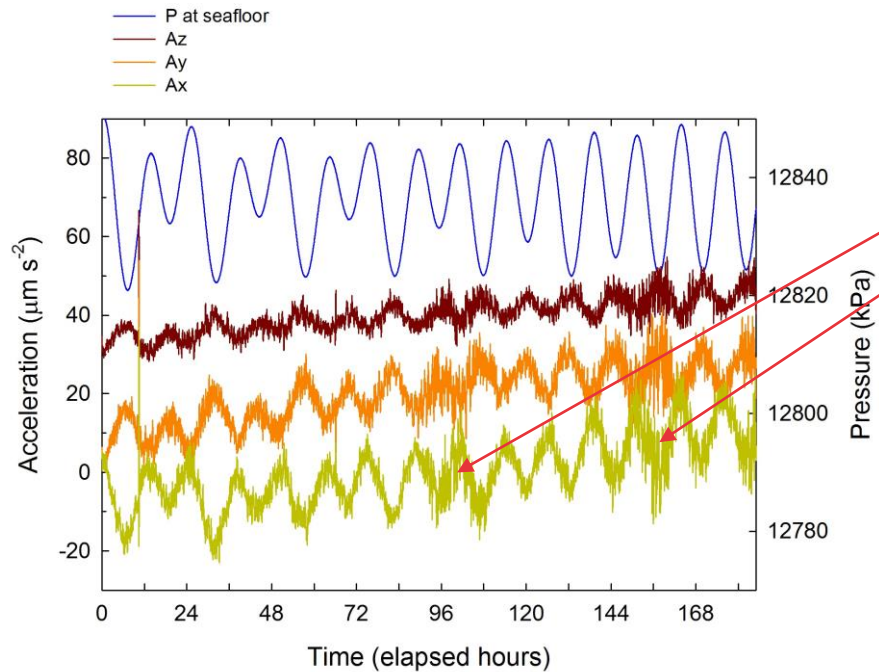
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Deployment on Neptune - Clayoquot Slope – 20Hz data



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Tidal signals



- Tidal signals seen on all the sensors
- Storm fronts

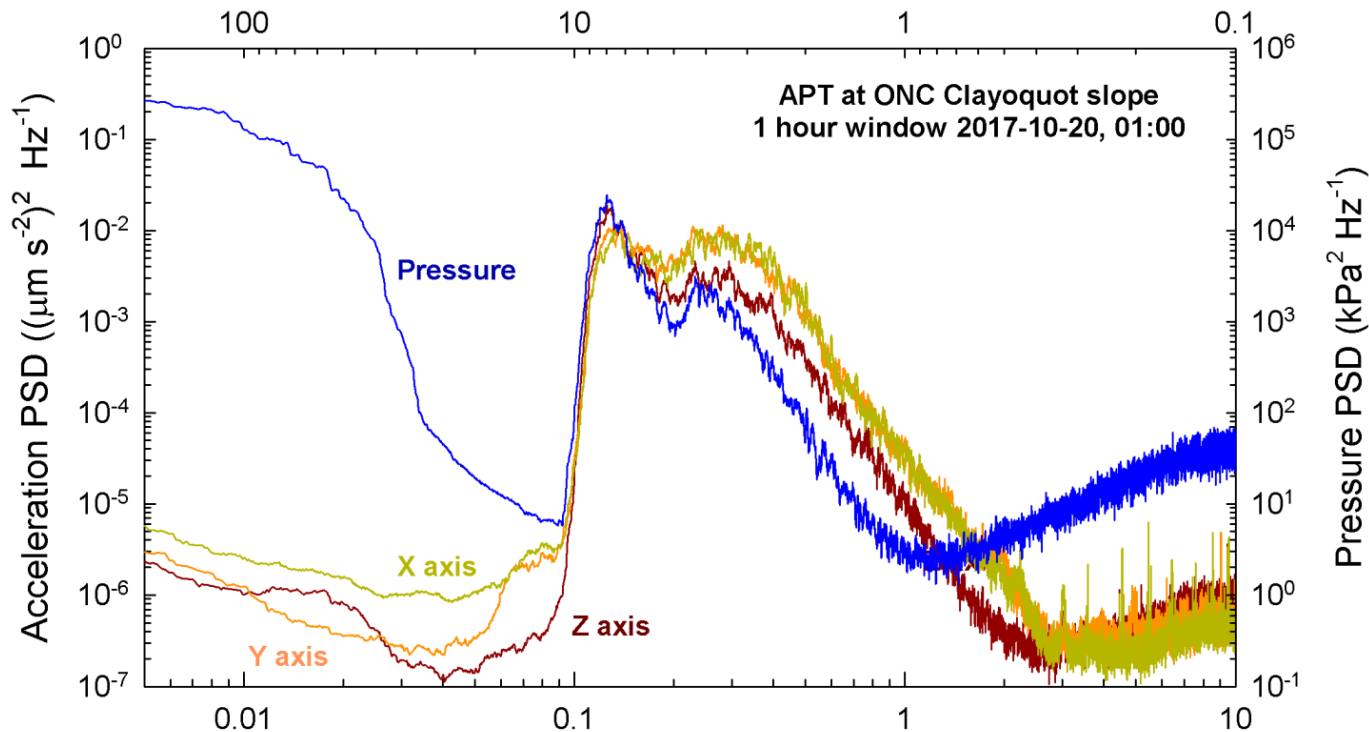
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APT vs Gravity seismometer = Clayoquot

Slope

10ppb \approx 27bit, $\pm 3g$ range

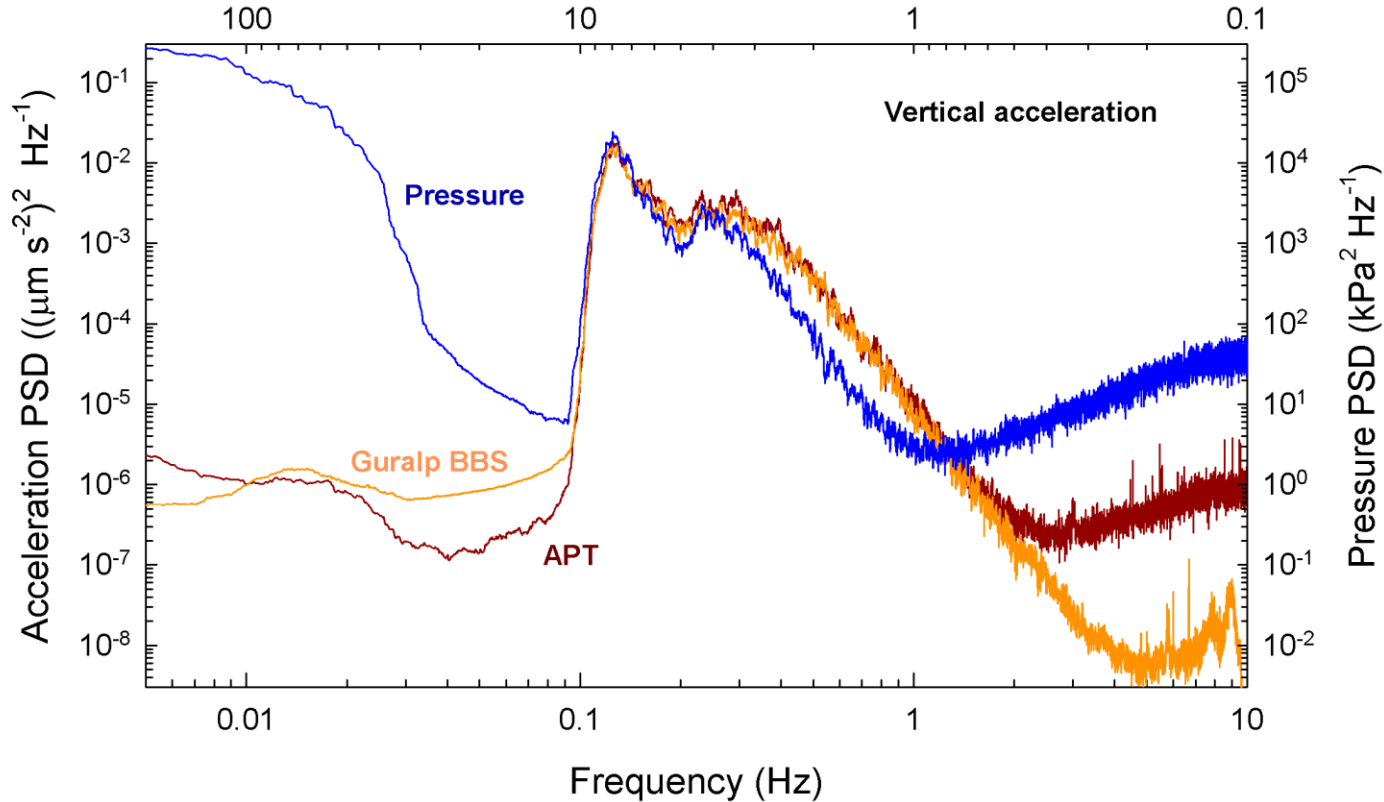
Period (s)



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APT vs Guralp seismometer – Clayoquot Slope

10ppb \sim 27bit, $\pm 3g$ range



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RBR and SMART cables systems



1 electronic does all:
APT, CTDs, Argo floats,
glider



Small form factor, low
power and modular
electronic, down to
10000m



Long experience working
with different industry
partners

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Thank You

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