



INMARTECH 2018

OCTOBER 16–18, 2018 • WOODS HOLE, MA • USA



Technical Challenges and Solutions

Cable Management

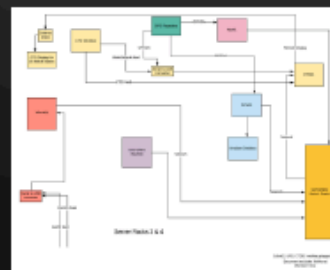
Problem: Unruly and unused cables making it difficult to track down issues

Solution: Color-coded cables, taking out legacy cabling, and creating wiring diagrams for easier troubleshooting

Presenter: Kristin Beem



SERVER RACK DIAGRAM: OCEANUS
MARTTECH 93



R/V Oceanus



Oregon State
University

38kHz ADCP Handling Device

Facts:

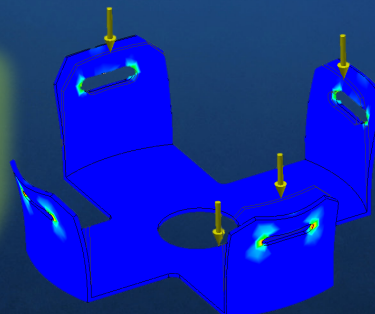
- RDI plans that transducer (~300kg, Ø0.9m) is lifted for installation
- The transmit face of the transducer is really sensitive : **you can't put down the transducer on a lifting table**

Problem:

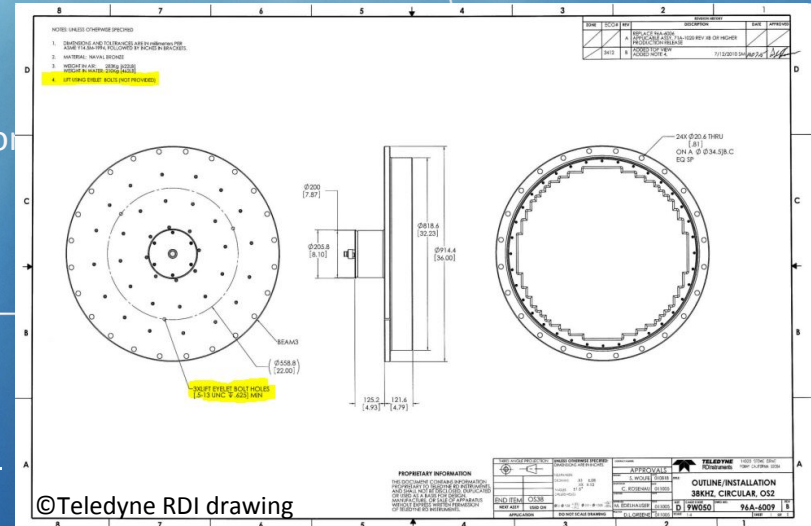
- Thalassa's gondola has no place to install a hook above
- We knew we had to use only a lifting table, but how not to arm the transducer face ?

Solution : design our own handling device !

- ✓ Keep up ~300kg
- ✓ Light enough to be handled by 2 persons



Pressure simulation (300kg) → moving from 0.007mm



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« TVO » Chimney Sweeper

« TVO » is a sub-hull sensor deployment system from KLEY France company.

Description from [KLEY France](#) :

The ship is equipped with one vertical well (or several) ensuring a watertight passage between a dry deck (above water level) and underneath the hull. The principle is to handle and deploy the sensor through this well, and to keep it firmly at the correct height and orientation under the hull, for measurement and data acquisition, whilst the vessel is sailing.

Genavir & NSE Team tried for years to keep them in condition with telescopic pole with sharp brushes on it to avoid fouling or painting asperity that would block the system.

Finally tubes had to get fully sanded and repaint during a drydock with a fear that the painting would be too thick to lift down the structure in the well.

Solution :

« TVO » sander & Painter



then customized to



« TVO » Chimney Sweeper



From the shelf, consist of

- Rotating head driven by compressed air
- Different legs lengths to fit \neq diam
- Different nozzles for blasting & painting

