NIOZ and OFEG update

Erica Koning, RVOC 2017
NWO (Dutch organization for scientific research) is in the middle of a reorganization which also affects NIOZ

- Lack of funding continues

- Positive side: the preparation phase for a new research ship is now on the national roadmap for large infrastructure.

- Many interested parties (fundamental, applied, industry).
Last year: I mentioned Pelagia might go around the world.

Coming Saturday Pelagia will return to Texel, after a long trip that started on 6 May 2016.

Original plan when we started out was to go via the Caribbean to Fiji, then to Mauritius for a possible charter and continuing to the Red Sea for a science program and Black Sea and Mediterranean for more science work.

Charter didn’t happen and the Red Sea program had to be cancelled or postponed because arrangements with the Saudis couldn’t be made in time.

Instead we replaced a surface buoy that was drifting near Cape Verde Islands and had been picked up by our German OFEG partners.
- We spent 2 months working near Fiji
- Very long transits
- Return via Panama to avoid Gulf of Aden and Red Sea, not as interesting and a few days longer but we saved on armed protection.
NIOZ 2016-2017

Map showing locations of Pelagia and Vaitahu.
- Next: maintenance on ship and deep-sea winch
- Testing a new cable

### Cousins cable vs. New Cable

<table>
<thead>
<tr>
<th>Cousins cable</th>
<th>New Cable</th>
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<tbody>
<tr>
<td>20mm</td>
<td>20mm?</td>
</tr>
<tr>
<td>aramid</td>
<td>Vectran/Arnitel mantle?</td>
</tr>
<tr>
<td>Copper and optic fiber</td>
<td>Copper and optic fibers</td>
</tr>
<tr>
<td>20Tn / 10Tn</td>
<td>More stable</td>
</tr>
<tr>
<td>8000m</td>
<td>9600 if 20mm</td>
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- Difficult process; limited number of manufacturers, not an off-the-shelf product. Expensive.
- We looked at Dynema, Vectran, Aramid

- More complicated because we use a double traction winch

- 2 options: Cousins again or a new manufacturer

- Cousins twice as expensive during tender!

- Test piece: 300m, long enough to test the cable over the traction as well.

- Test setup:
  - Crane, 35m high, weight 3600kg.
  - Test: haul up and lower the weight 1000 times. Our current cable passed such a test.
After 220 cycles......

Ongoing......
2 main discussions at the moment: insurance
Marine facilities planning programme to be used by OFEG members.

- Insurance of equipment. In OFEG, we agreed that risk stays with the owner.
- When more very expensive equipment gets bartered this may no longer hold up.
OFEG-Marine Facilities Planning

- MFP program is now fully operational in NIOZ and NERC and will be adopted by Norway, Spain, Germany.

- Latest addition: Phone app!
OFEG partners will be able to share programs and we can see where each others ships are in case of problems with equipment.
Because MFP is web-based, master and chief officer on board have direct access to all relevant information related to the cruise. Science party, dangerous goods and safety sheets, diplomatic clearance, work plan.
MFP phone app

- Marine Facilities Planning
  - Scan Barcode
  - Ships and Cruises
  - Deployments
  - Equipment
  - Register Maintenance
  - Your Calendar

- Active Cruises
  - Stuut, Jan-Berend
    - Eastern Mediterranean
    - Jan-Berend Stuut
  - COS/HZG/Univ boxcore cruise 3
    - Lauwers basin western Wadden Sea
    - Henk W. van der Veer
Deployments, moorings, gliders etc.

- Agulhas Mooring C 2016
- Agulhas Mooring D 2016
- Black Sea M1 2015
  Caroline Slomp
- Dust buoy 2017-CB28
  Jan-Berend Stuut
- Dust Buoy Laura 2016
  Jan-Berend Stuut
- Dust Buoy Michelle 2016
  Jan-Berend Stuut
- DustTraffic M1 2016

Contact

Jan-Berend Stuut

Depth
4225

Latitude
21.2708

Longitude
20.983
The crew uses MFP on board and they are very happy with the option to see the schedules.