



Koninklijk Nederlands Instituut voor Zeeonderzoek

NIOZ: testing a new deep-sea cable

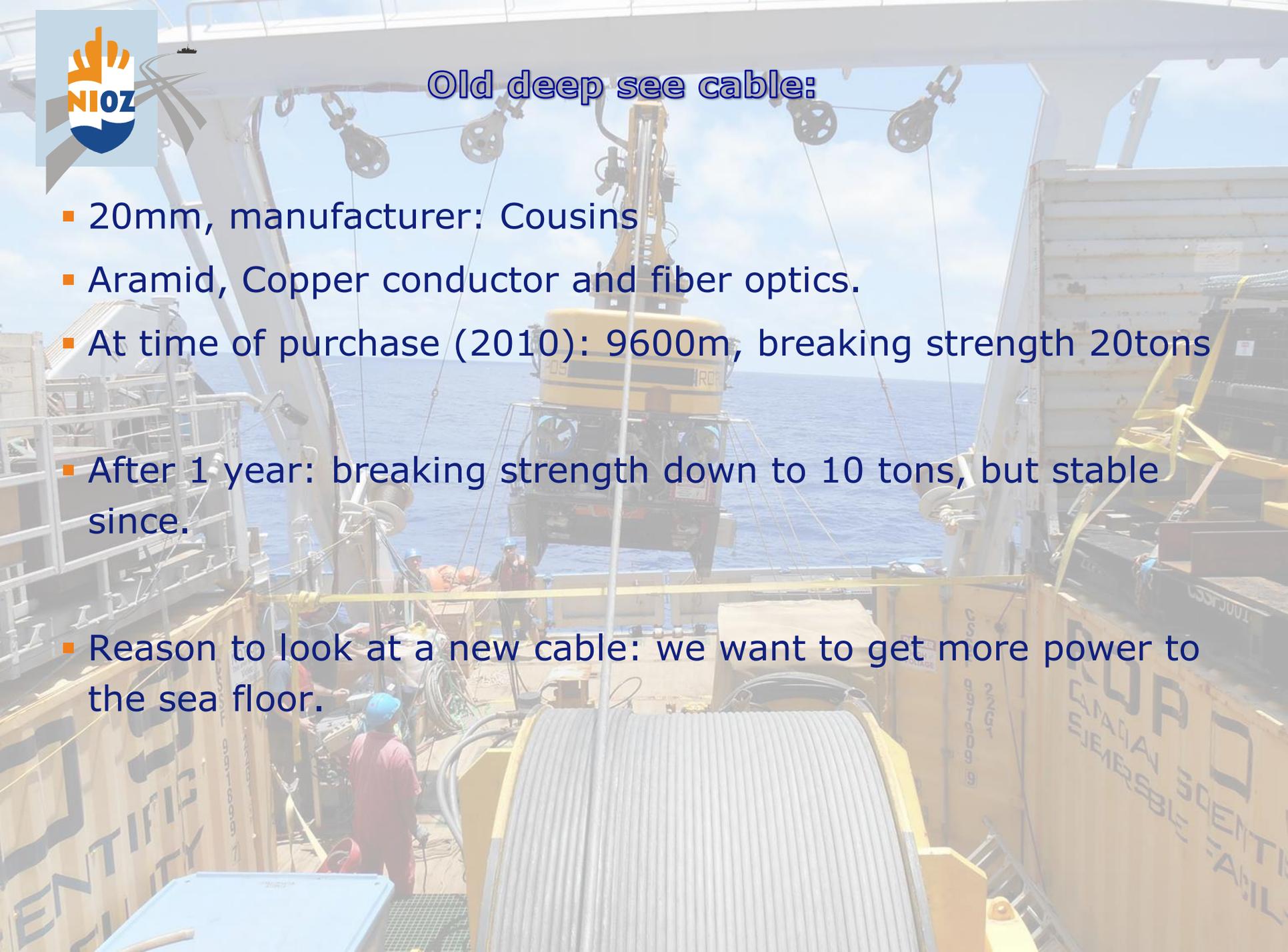


Erica Koning, ERVO 2016



Old deep see cable:

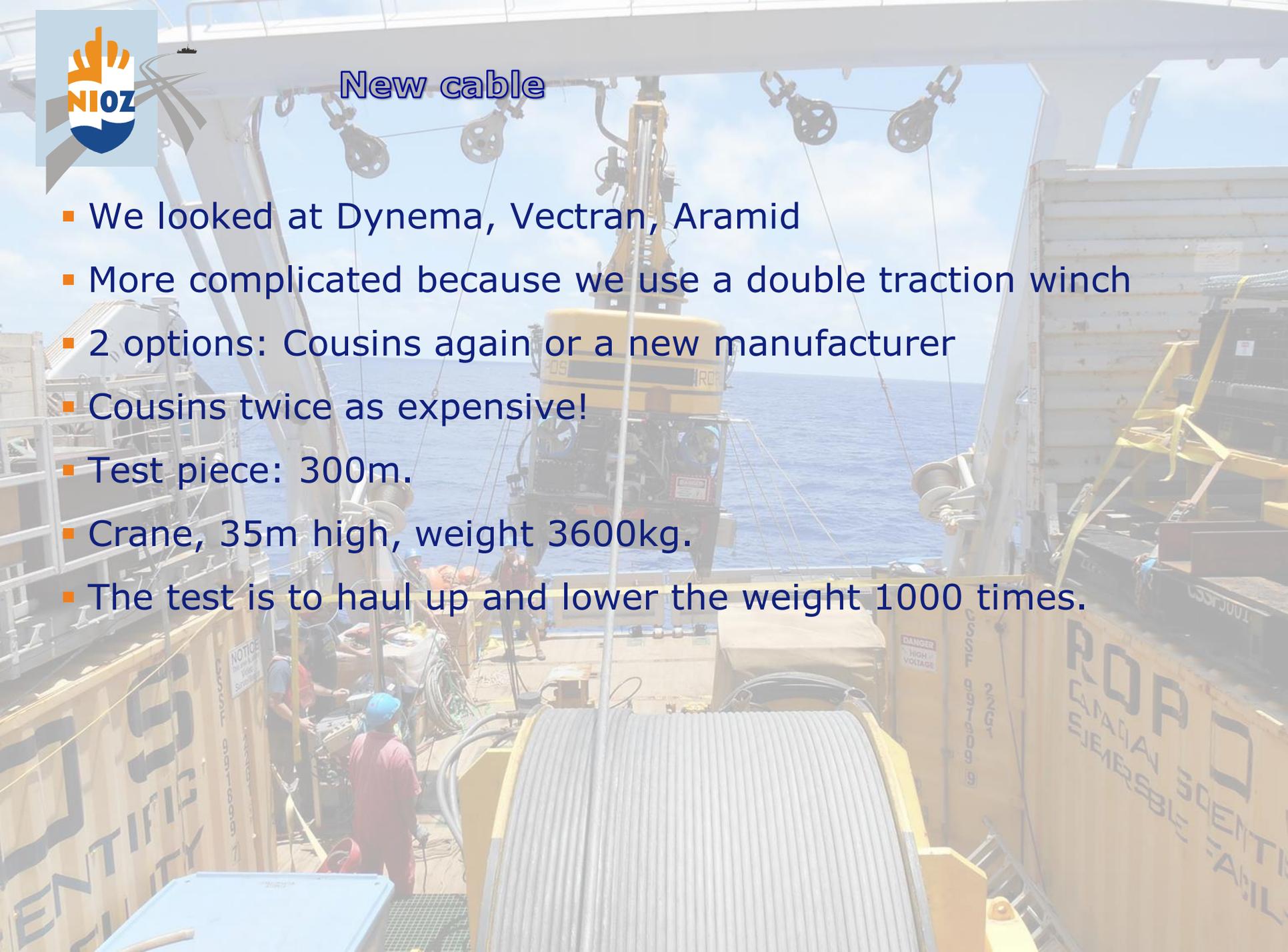
- 20mm, manufacturer: Cousins
- Aramid, Copper conductor and fiber optics.
- At time of purchase (2010): 9600m, breaking strength 20tons
- After 1 year: breaking strength down to 10 tons, but stable since.
- Reason to look at a new cable: we want to get more power to the sea floor.





New cable

- 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!
- Test piece: 300m.
- Crane, 35m high, weight 3600kg.
- The test is to haul up and lower the weight 1000 times.



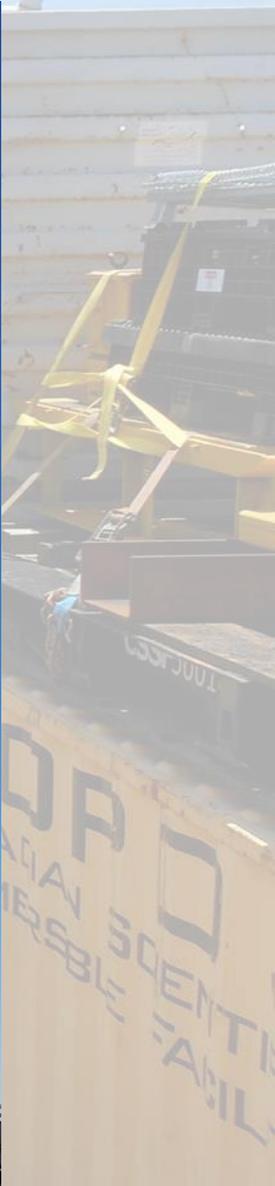


winch





Test set up





Test set up

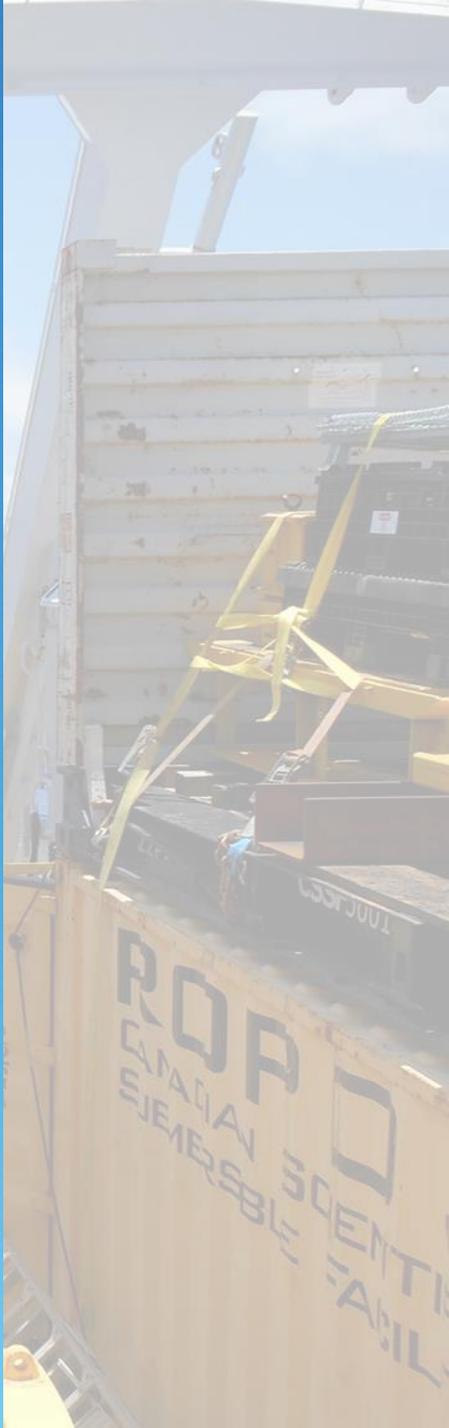




After 220 cycles.....









Next step.....

- Wait for the report from the manufacturers.
- Go for the safe (expensive option), but maybe not Aramid
- Definitely: test again!

