

RV BELGICA ACTIVITY 2016

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Belgian Science Policy Office

1. General



length: 50.9 m beam: 10.0 m draught: 4.6 m

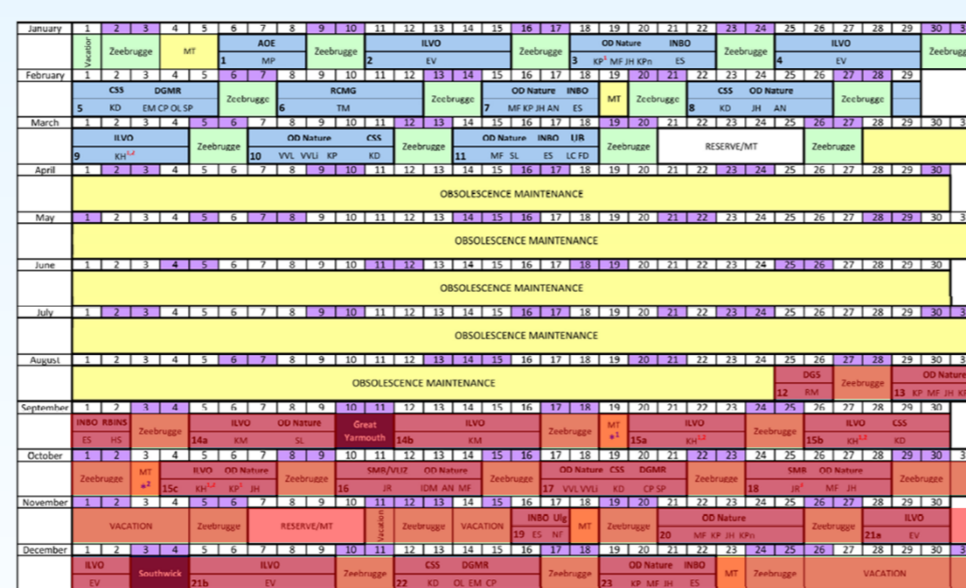
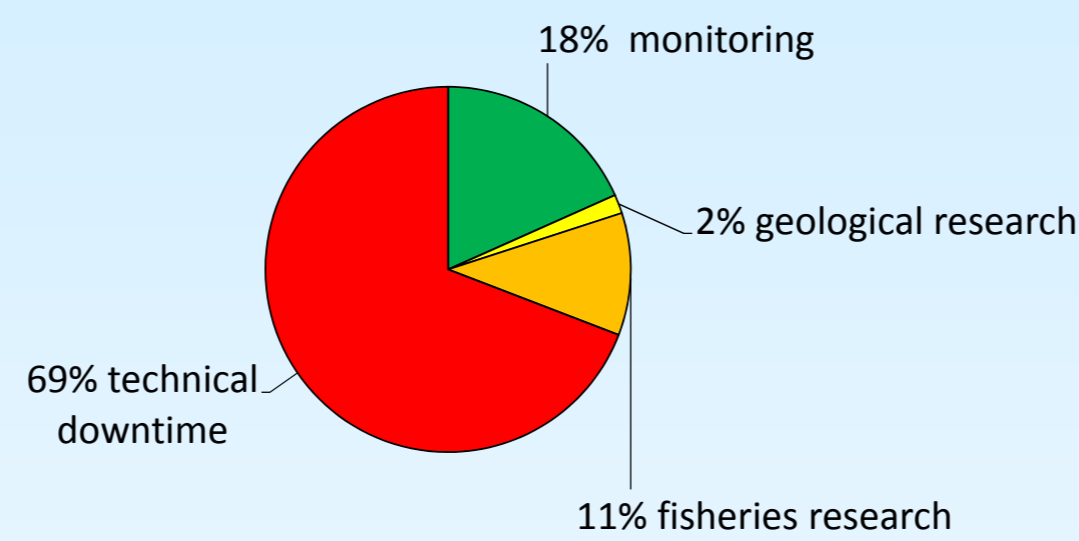
Operated by Belgian Navy since °1984

Belgian Navy crew :15 pax
Scientists :16 pax

Owned by Belgian Federal Science Policy

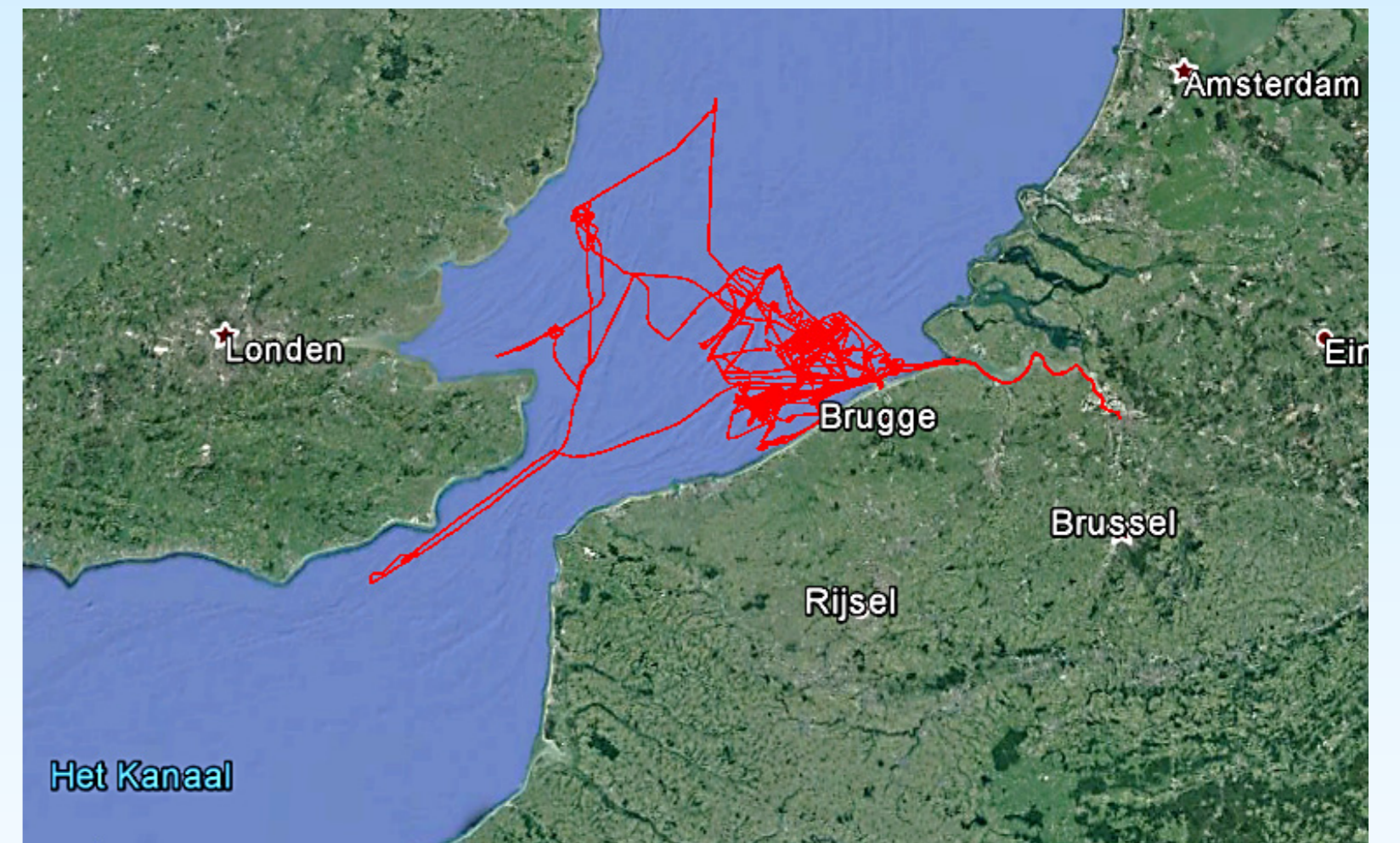
Coordinated by RBINS – OD Nature

RV Belgica 2016:
Evaluation of the 120 planned science days



Program 2016

Ship track 2016



sailed distance 2016:
4 452 nm

2. Refit & bearing problem

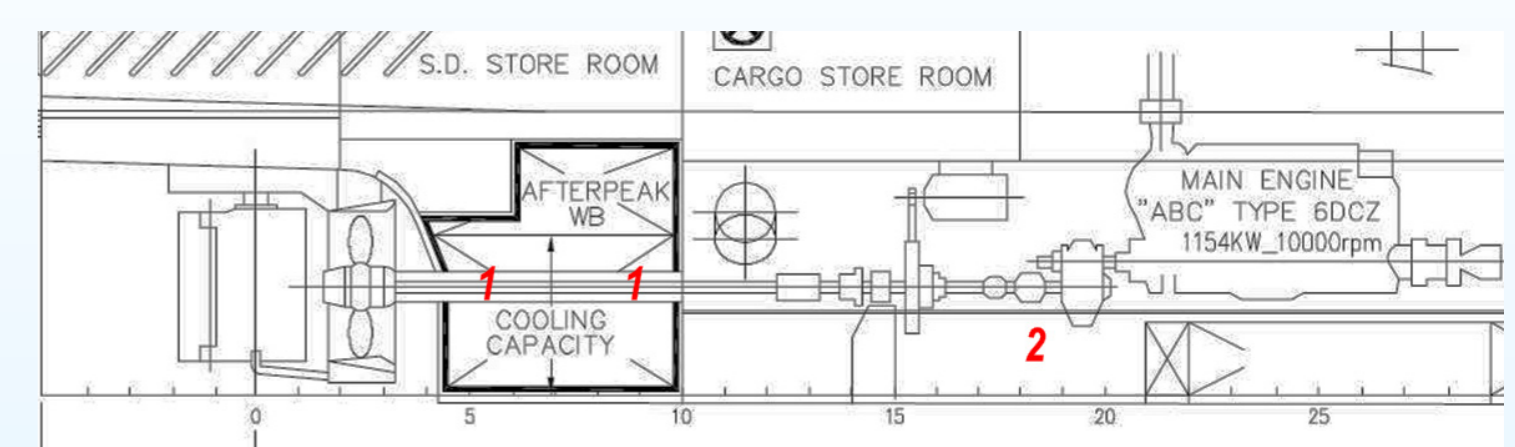
Refit & obsolescence maintenance:

- Replacement & automation of alarm & control systems of the engine room, the main engine and the propeller incl. new fish corner on the bridge and new bridge wing controls
- Extension of fire and bilge alarm systems
- Replacement of CBSS harbor control system
- Replacement of CCTV system
- Replacement of telephone system
- Replacement of navigation lights (LED)
- Replacement flood lights (LED)
- Replacement of kitchen (cfr. HACCP)
- Replacement of living container (4 pax)
- Total budget ca. 2.5 M€ incl. VAT
- An extra maintenance period ca. 5 months was foreseen (DAMEN Shiprepair, Dunkerque)



Bearing problem:

- Propeller shaft needed to be removed and checked (Class)
- Stern tube bearings (1) were run in (April 2016)
- Stern tube incl. bearings /propeller shaft were misaligned
- Realignment of stern tube incl. bearings /propeller shaft resulted in misalignment of propulsion line (June 2016)
- Propulsion line (incl. main engine) was moved to achieve alignment (i.e. 7 mm) (July 2016)
- During SAT the intermediate bearing (2) overheated (> 90 degrees C; cfr. 55 degrees C) (July 2016)
- After adjustments bearing and tooth gear coupling overheated
- New measurement indicated again misalignment of propulsion line (i.e. 1.5 mm); propulsion line moved
- After several adjustments & SATs intermediate bearing still overheats (October 2016)
- Bearing and intermediate shaft have been removed and have been renewed/maintained, but bearing still overheats (Nov-Dec 2016)
- Due to this problem 71 planned scientific days were lost in 2016



3. Replacement process: NewRV

- Working group with Cabinet Science policy
- Cooperation agreement Belgian Defence – Belspo – RBINS-OD Nature
 - Steering committee
 - Project team technical and scientific specifications (NewRV@belspo.be)
 - Working group operational aspects – convention
- Final input by scientists cfr. scientific needs
- New support letters rectors/directors of universities, institutes & private companies
- Contacts were made with neighboring countries for cooperation (FR, UK, NL, DK, LUX, etc.)
 - Only with FR (IFREMER) cooperation seems feasible cfr. ship time & infrastructure exchange

Timeline

- 2016: specifications NewRV discussed with 10 ship yards (ESP, FR, NED, UK)
- March 2017: final agreement on replacement including budget (Council of Ministers)
- June 2017: launch of tender
- End 2017: agreement on selection (Council of Ministers) & signed contract
- 2018-2020: Design & build NewRV
- 2018-2019: New convention and business plan (Council of Ministers)
- Mid 2020: Delivery NewRV



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