Operating a research vessel & cruise planning

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Operating a Research Vessel

Ship operations

- Crew : master, navigator, sailor, engineer
- Maintenance & Repair
- Insurances, harbor&pilot taxes, certification/inspection, shore staff, food, telecommunication,…..

Science operations

- Calibrations, Insurances, M&R
- Technicians

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Operating a Research Vessel

- Safe Manning

  Master, 1st Mate, Boatswain, 4 deckhands, 1 chief engineer, 1 motorist, 1 engine help

- Maintenance & Repair
  - Continued & Regular maintenance
  - Dry docking (certification, hull cleaning, major m&r)
- Insurances : Hull & Machinery, P&I, casco, accident coverage
- Other costs : Food & fresh water, Communication, crew related costs

- Dedicated crew with ownership
- Good relationship with the crew is paramount

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Operating a Research Vessel

- Crew : 50-60% FIXED
- Fuel : 20% VARIABLE
- Maintenance & Repair 20-30% VARIABLE
- Other costs : 10% FIXED & VARIABLE

- Use Daily rate or Cruise rate for budgetting

- Science Operations Simon Stevin only a bit lower than ship costs

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Operating a Research Vessel

Be a member of a global community

International Research Ship Operators IRSO

International Marine Technicians InMarTech

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Setting up a Cruise Schedule

Send out a call for shiptime on a regular/yearly basis

- Who?
- What & Why?
- Tools needed?
- Where?
- How many days? What period?
- How many people?
- Any special conditions?
  - Seasonal/Tidal requirements?
  - Day – Night?
  - Foreign waters ? > Dipclear requests

Keep track of requests : is demand above or below available shiptime? Is operational budget sufficient?

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Setting up a Cruise Schedule

- Offer time at sea at certain locations and ask for participation
- Allow downtime for regular maintenance
- Look for partnership in using costly shiptime
- Carefully select the Principal Investigator / Chief Scientist

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Cruise Planning

- Does the Research Proposal include shipcosts?
- Is my idea feasible; technical & operation wise?
  - Know the area
  - Know the ship (draught, cruise speed, winch capacity)
- What & where
  - determines time at sea
  - Transit times & fuel consumption
- Aim for multidisciplinary campaigns

Cruise Planning

- Send a detailed day-to-day planning to the RV operator beforehand so that a carefull planning is possible and the crew is very much informed on what is expected
- A detailed planning includes mobilisation, transit times, work at stations, sailing survey lines, demobilisation.
- Have a competent science party
- Have a technician onboard if possible
- Plan as if the cruise will encounter no issues
- Don’t plan too much, have clear priorities and take technical failures & foul weather as certainties
- But also for unexpected observations

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Cruise Reporting

- Not later than one month after the cruise
- Includes track, stations visited, samples obtained, observations made, data collected, problems encountered, achievements made.
- Will be used to
    - archive ship activities
    - reporting in case of dipclear
    - Documenting for future cruises
    - Situational description for analysis of results

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