Brief overview of the NERC additions to National Marine Equipment Pool

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National Marine facilities, Sea Systems, NOC
NMF receives around £1M every financial year to maintain / improve the National Marine Equipment Pool (NMEP).

This money is allocated to capital projects revolving around the programmed cruises of NMF research ships.

This money can be also be used to purchase additional items for NMF to improve working facilities at base to increase equipment reliability.
Main items of equipment purchased in the last year

5T General Purpose deck winch

5T GP winch:
• Romica Engineering Limited won the tender process to provide a General purpose deck winch.

• This winch has plc scrolling to adjust scroll movement for cables between 6mm and 18mm to allow increased flexibility of this winch.

• Winch can be used for various operations from: steel wire plankton nets to camera deployments using FO wire and slipring
Main items of equipment purchased in the last year

Sercel GI Gun

- NMF are still increasing their seismic pool and the addition of another GI gun brings the total up to 5. Together with this gun a range of ancillaries were purchased to allow 2 – 4 gun deployment at a time.

- (Note: NMF also operate 20 Bolt 1500LL airguns)

- Use of these GI guns seem to be increasing due to ease of deployment and reliability.
Main items of equipment purchased in the last year

Cables

- NMF replace around £250K of cables each year
- New cables purchased this FY included:
  - 2 x Rochester 11.4mm x 8000m coax CTD cables
  - 22000m of Rochester triple armoured, triple fibre ROV cable
  - 2000m of 8mm synthetic rope for free fall CTD system (MVP)
Main items of equipment purchased in the last year

‘Cinema’ Piston Corer modelling and monitoring instrument system

• Working with IFREMER and NIOZ on the development and improvement of Piston Coring operations, NMF have purchased an IFREMER ‘cinema’ system and 2 Licences to operate the Cinema system aboard James Cook and Discovery for Coring Operations

• This system will be commissioned in 2014 due to delays with the RS Discovery trials programme (Patrice)
Main items of equipment purchased in the last year

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- These sensors were purchased to assist NMF in the safe working practices for cable streaming.
- We are hoping to confirm cable ‘depth’, ‘shape’ versus wire out and ships speed to improve the confidence in carrying out these operations on passages.
- These trials were planned for the 2013 RRS Discovery trials but will now be carried out during the January 2014 trials.
Main items of equipment purchased in the last year

Nortek Current Meters

- 20 current meters were purchased to sustain the 2014 mooring programme
- This is part of the rolling programme of mooring equipment replacement
Main items of equipment purchased in the last year

Big Shot gun controller

- The addition of the RTS Big Shot gun controller is part of a £0.8M geophysics capital budget for 2014 in support of the NERC/CSIC seismic collaboration.
- This system will become part of the NERC National Marine Equipment Pool, and support the joint NERC/CSIC seismic programme.
Main items of equipment purchased in the last year

Gliders

As part of the development of the NMF Marine Autonomous Robotics group NMF have purchased 14 Gliders in the past 12 months
Additional purchases planned for this year:

- 2 new Double Barrelled capstan mooring winches (direct replacement for old systems)
- 4 additional 5t General Purpose deck winches
- Additional Sercel solid state sections for seismic systems
- 4 x 75kHz lowered ADCP for mooring operations
- 2 new liquid scintillation counters
- NIOZ Piston Corer