

RRS Discovery Replacement Project

Pictures supplied by E.B. Cooper, Natural Environment Research Council, Project Officer RRS Discovery Replacement, National Oceanography Centre, European Way, Southampton, SO14 3ZH



Launch Day 06/4/2012



06/4/2012



06/4/2012



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18/9/2012



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18/9/2012



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Bullhorn Boom, Parallelogram & Crane 18/9/2012



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WHEELHOUSE FWD
6/9/2012





WINCHES IN ODIM TESTSHOP 08/02/2012



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**CONTROLLED ENVIRONMENT
LABORATORY (3D)**



MAIN LABORATORY (3D)



**SALINOMETER ROOM
(3D)**





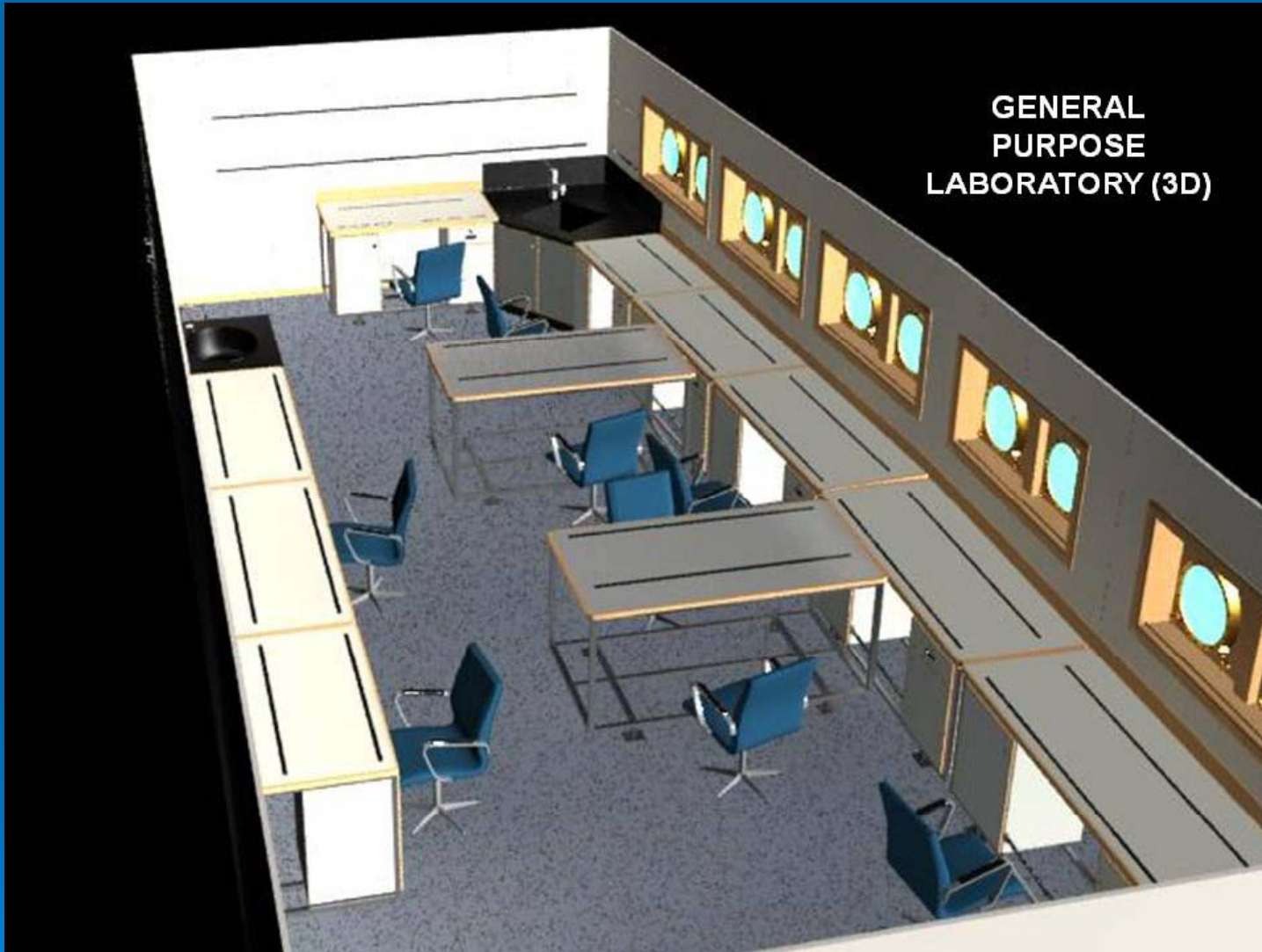
BAR & LOUNGE (3D)



MESS ROOM (3D)



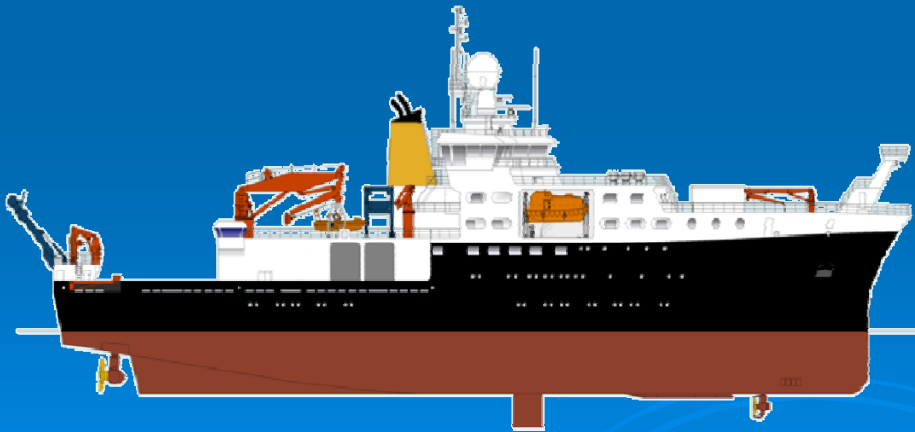
**GENERAL
PURPOSE
LABORATORY (3D)**



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James Cook & new Discovery Compared

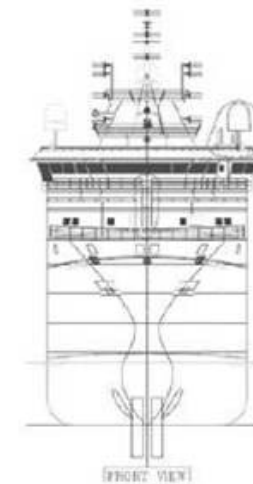


	Cook	Discovery
Length Overall:	89.50 m	99.70m
Breadth:	18.60 m	18.0m
Draft:	5.50-5.70 m	6.50m
Displacement:	5368t GRT	6075T GRT
Class:	Lloyds +100A1, Ice 1C, FS, +LMC, UMS, DP(AM) Research Vessel	Lloyds +100A1, Ice 1D, +LMC, UMS, IWS, EP, DP(AM), NAV1, IBS, Research Vessel
Maximum Speed:	15 kts SS4	15kts SS2
Cruising Speed:	12 kts SS4	12kts SS4
Maximum Endurance:	50 days	50 days
Science & Stores DW:	385T	380T
Scientific Berths:	32 singles	28 singles
Officers:	9 singles	12 singles
Crew & Technicians:	13 singles	12 singles
Open Deck Spaces (Afterdeck & Stbd Amidships) :	446 m ²	432 m ²
Total Lab Areas:	277.5 m ²	388.8 m ²

RRS James Cook / Discovery Replacement Comparison

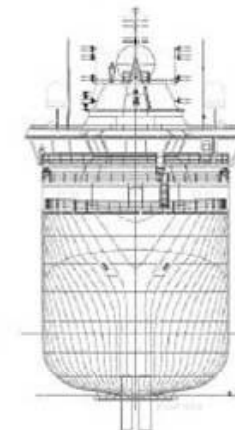
James Cook:

**L 89.5m; B 18.6m; D 5.5 – 5.7m;
Displacement 5800 T**

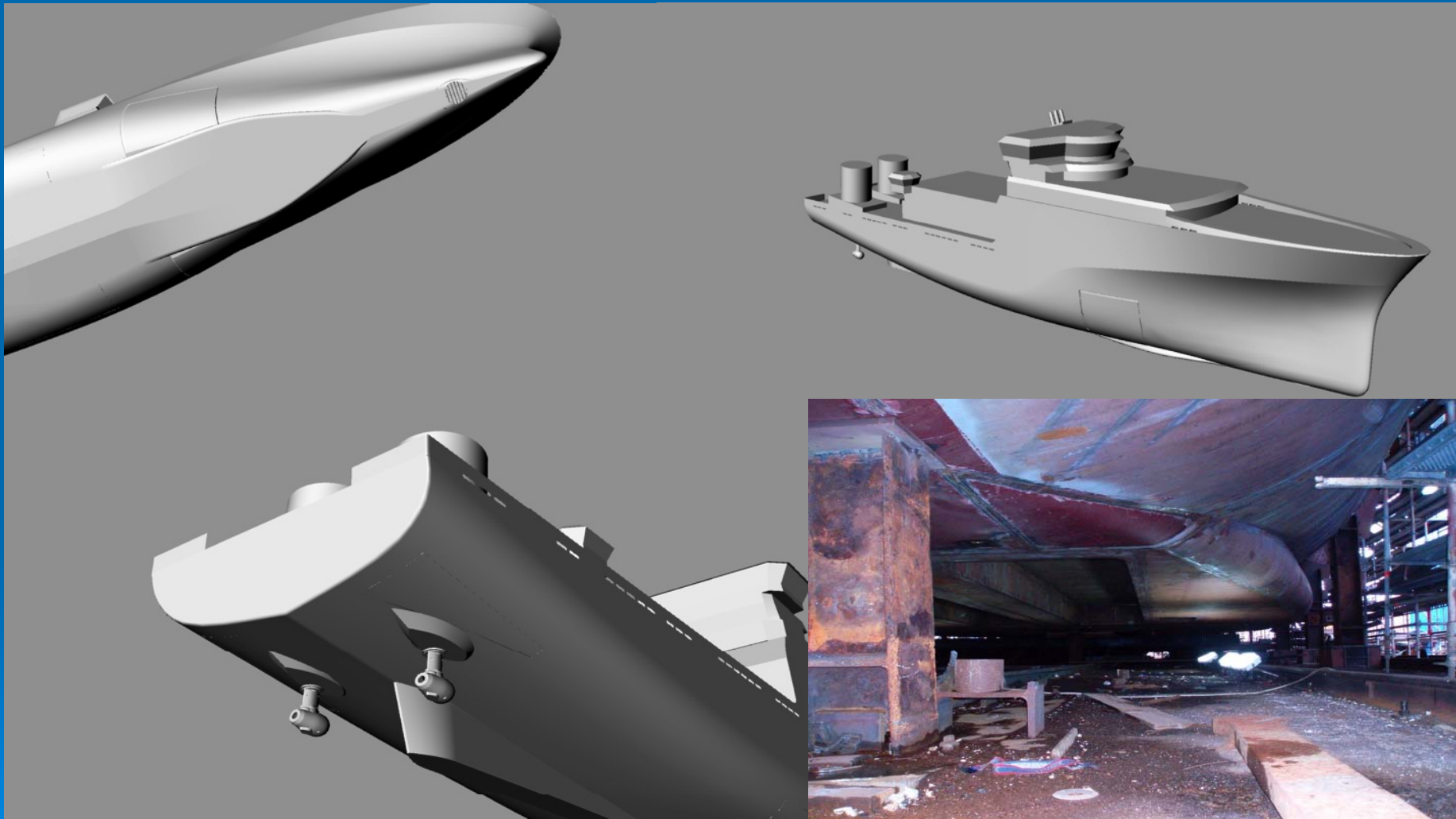


Discovery:

**L 99.7m; B 18.0m; 6.5m;
Displacement 6075 T**

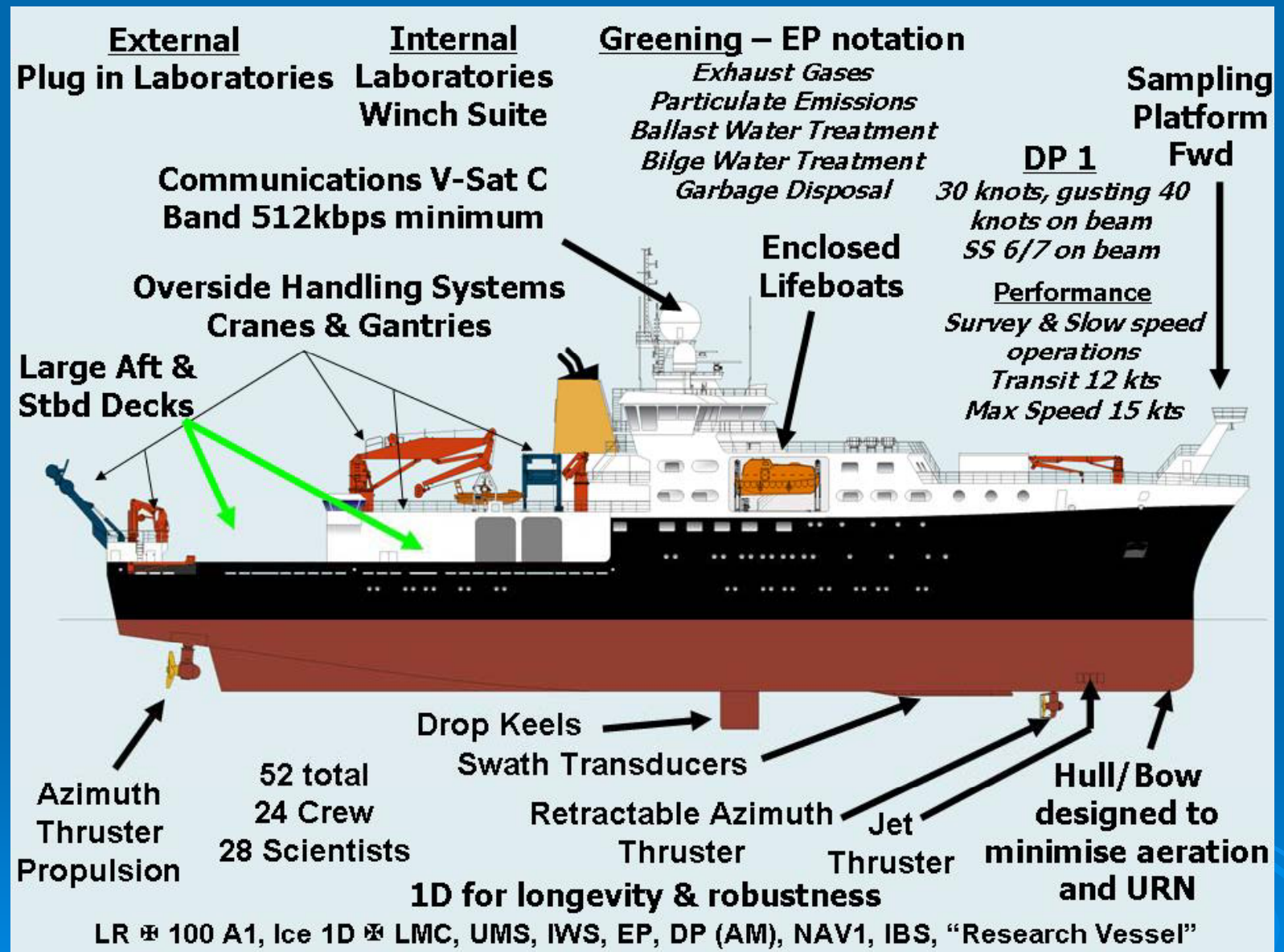


James Cook & new Discovery Compared



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Expected Outcome

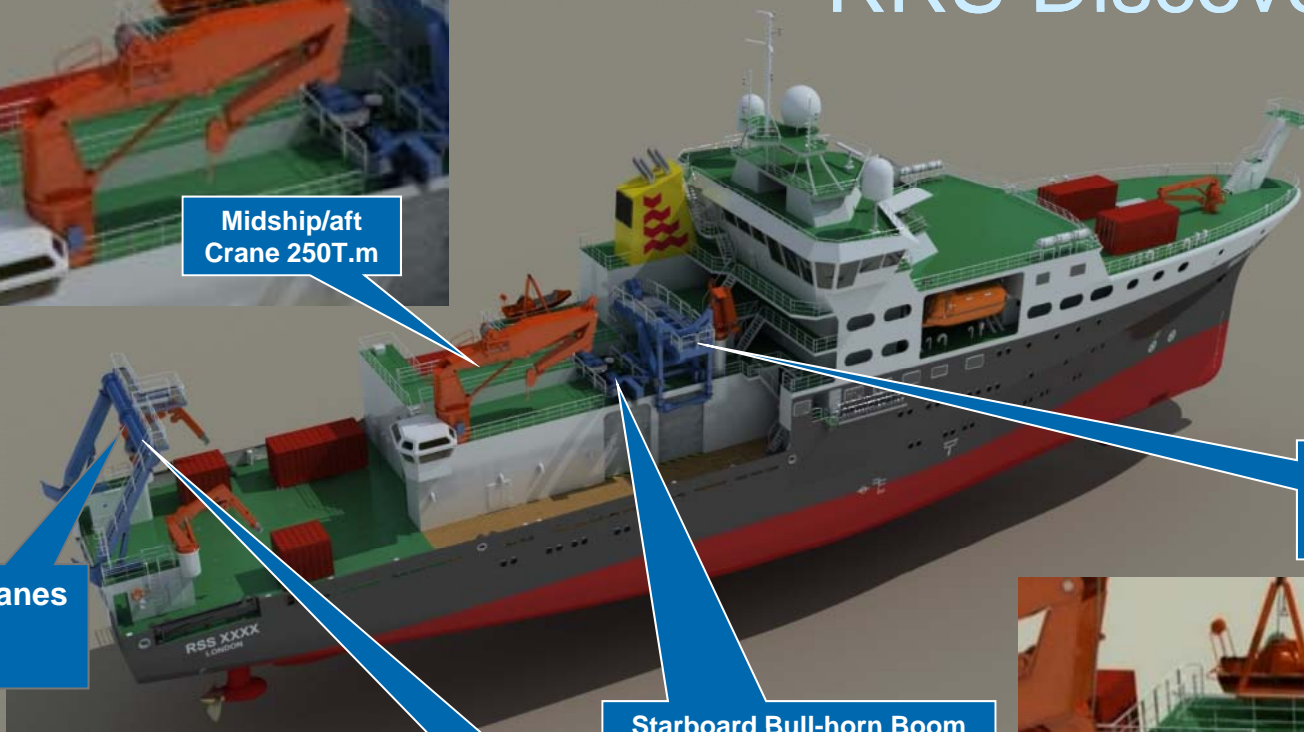
- 50 days endurance (L 99.7m, B 18m, D 6.5m)
- Scientific Transit Speed – 12 knots maximum
- 24 Officers & Crew (includes 1 Training Berth)
- 28 Scientists & Technicians
- DP Capable (DP1) SS6/7
- Multidisciplinary
- Seismic capability
- Multibeam(s) & Sub Bottom profiler
- Minimal Ice Class – for hull life (Lloyds 1D)
- Overside/overstern lifting – 20 tonnes (JC 30 tonnes)
- Drop Keels
- Low URN but not ICES209
- Propulsion – 2 x Azimuthing Units Aft
Azimuthing Thruster Fwd, Manoeuvring Thruster Fwd
- Oceanographic Winch Suite including Metal Free CTD
Winch



Over side handling RRS Discovery



Midship/aft
Crane 250T.m



Aft Cranes
40T.m

Starboard 'A' Frame
Capacity – 20t
Max. Height – 5m

Starboard Bull-horn Boom
Capacity – 20T
Max. Height – 4.5m

Stern 'A' Frame
Capacity – 30t
Max. Height – 8m



Milestones

Contract Award

Start Steel Cutting

January February March April May June July August September October November December

2010

Keel Lay

1200T Steel pre-fabricated

Main Generators Delivered

January February March April May June July August September October November December

2011

Launch

Thrusters Delivered

Winch Suite Delivered

Start Main Generators

January February March April May June July August September October November December

2012

First Sea Trials

Interim Delivery

Deep Sea Trials Complete

January February March April May June July August September October November December

2013