



Infrastructure name	ROV Isis
Code	
Owner/Institution	NOC, Southampton - United Kingdom
Manager	Dave Turner (dart@noc.soton.ac.uk) Tech lead Simon Dodd (sed@noc.soton.ac.uk)
Equipment type	ROV
System description	6500m
WEB LINK	http://www.noc.soton.ac.uk/nmf/sea_sys_index.php?page=isis
WEB LINK TECH SPECS	
Vessels normally used	RRS James Cook, RRS James Clark Ross
Ship requirements	Dynamic Positioning (DP1)
Technical requirements	
Power	
Frequency	50hz/60 hz
Voltage HPU	380Vac 50Hz or 460Vac 60Hz 220A
Voltage Control Containers	415Vac 3Ph 50Hz 110A + 440Vac 3Ph 60Hz 63A (clean) OR 230Vac 50Hz 63A (clean) + 230Vac 50Hz 63A (dirty)
Max Amps	500A Total
Other power requirements	Workshop Container: 415Vac 50Hz 32A Spares Container: 110Vac 50Hz 32A
Hydraulic	
Pressure	System uses own HPU
Flow rate	N/A
Compressed air requirements	
Cooling water	Normal rate deck seawater supply required for winch power pack
Subsea positioning requirements	
Compatible USBL systems	Sonardyne Fusion USBL/LBL
Vessel GPS Feed or other requirements	
Networking requirements	
No. of System configurations possible	
Configuration 1	Deepwater configuration, using floats, LARS/ winch, Starboard/port deployment
Configuration 2	
Configuration 3	
Configuration 4	
Deck Layout Drawing	
Configuration 1	See attached dwg No. 2010-Euro-01
Configuration 2	
Configuration 3	
Configuration 4	
System weight/COG in each configuration	

Configuration 1	ROV 3.8 Tonnes (in air), Traction Winch 5.2 Tonnes, Storage Drum 16 Tonnes, HPU 5 Tonnes, LARS 18 Tonnes, Ext Skid 0.5 Tonnes, Control Container (1) 6.5 Tonnes, Control Container (2) 5.5 Tonnes, Workshop Container 7 Tonnes, Spares Container 7 Tonnes
Configuration 2	
Configuration 3	
Configuration 4	
Number of containers/Items, Footprint Area required	
Configuration 1	Control Room requires 2 x 20' container slots side by side, Spares Container 1 x 20' slot, Workshop Container 1 x 20' slot, LARS 5m x 4m footprint, Winch/Storage drum 3m x 4.5m footprint
Configuration 2	
Configuration 3	
Configuration 4	
Deck securing arrangements	
Configuration 1	Containers twist locked into standard iso 20' + chain ratcheted down, LARS attached via angled steel bolted to LARS and ships deck matrix, Winch and Storage Drum bolted to deck plate, secured to deck on 1m deck matrix, HPU secured via ratchet straps or wire and bottle screws.
Configuration 2	
Configuration 3	
Configuration 4	
Deck strength/Deck loading	
Configuration 1	James Cook has a deck rating of 5 Tonne/m (vertical)
Configuration 2	
Configuration 3	
Configuration 4	
Transportation requirements (total weight and number of loads)	
Configuration 1	4X 40' Loads, 1 x outsize load (40' low loader for LARS, extension skid and HPU)
Configuration 2	
Configuration 3	
Configuration 4	
V.A.T. + Customs clearance practice	To be confirmed (TBC)
Mobilisation Details	
Typical Mobilisation duration	3 days
Typical Mobilisation cost	£10K Home port
Typical Demobilisation duration	3 days
Typical Demobilisation cost	£10K Home port
Insurance arrangements	
Own use	Self insured
Barter	Self insured
Charter	Self insured
Co-operation	N/A
Transportation insurance	Self insured
Technicians	
Number and type of technicians required to operate system in various scenarios	24 hour operations : 1 supervisor, 1 shift supervisor, 6 x pilot technicians
System payloads	
Total maximum payload	190kg

Existing specific payloads

Toolsled (inc sample draw), 2 x swing arms, 2 x 7 function Predator Manipulators, Suction Sampler, SM2000 swath, Push cores , Box Cores, Fluid Samplers, DVL, Sonardyne USBL, Idronaut CTD, Hyd cutter.