



Infrastructure name	MULTICHANNEL SEISMIC SYSTEM
Code	
Owner/Institution	IH / FCT - to be operated by LNEG
Manager	Rui Quartau rui.quartau@lneg.pt
Equipment type	SEISMIC
System description	Multichannel full operation seismic system
WEB LINK	http://www.lneg.pt
WEB LINK TECH SPECS	
Vessels normally used	NRP "Almirante Gago Coutinho"
Ship requirements	Main deck space to install containerized equipment, 440 VAC for container and streamer winch and stern crane/A-frame for deployment
Technical requirements	
Power	
Frequency	60 Hz
Voltage	440 VAC 3 Phase
Other power requirements	225 KW
Hydraulic	
Pressure	N/A
Flow rate	N/A
Compressed air requirements	
High air compressor	Hamworthy® 425E
Input pressure	N/A
Output pressure	207 Bar - 3000 psi
Air volume	680/510 m ³ /h - 400/300 cfm
R.P.M.	1200/900
Cooling sea water	507 l/m , max pressure 7 Bar
Vessel GPS Feed or other requirements	GPS (GGA and ZDA messages)+ Gyro + Nadir Depth desired input data from vessel equipment 20 squared meters laboratory to install acquisition room
Source definition	
Source structure	N/A
Guns types	2 x GI-Gun SERCEL in array of several configurations; 1 x Watergun SERCEL 15 cu. in.
Bolt chamber volumes	N/A
Sleeve chamber volumes	N/A
GGUN-II chamber volumes (Generator/Injector)	2 x GI-Gun with the following configurations: 45/45, 75/75, 105/105, 250/105
Streamer	
Multichannel streamer	Geometrics® up to 96 channels, 600 meters active sections length.
Streamer winch	Electro-hydraulic winch DT10010EH

Fairlead	N/A
Acquisition System	
Data acquisition	Geometrics® CNT2 Unit
Positioning system	Navipac by EIVA®
Birds/Levellers	3x Geometrics® depth/compass birds
Compass & Retrievers	3x Geometrics® depth/compass birds with retrievers (CO ₂ bottle)
Tailbuoy	Geometrics® Tailbuoy
Number of containers/Items, Footprint Area required	
Hamworthy® compressors	1 x 20' ISO container
Source structure	N/A
Streamer Winches	1 x 20' ISO platform
Acquisition Lab	N/A
Workshop	N/A
Deck securing arrangements	
Deck requirements	Containers twist locked into standard ISO 20'; stern quad hydraulic crane to launch guns array
Transportation requirements (total weight and number of loads)	
Hamworthy® compressors	20' ISO container = 12 tones
Source structure	N/A
Streamer Winch	10' ISO footprint with up to 96 active streamer sections = 5 Tones
ACquisition Lab	N/A
Workshop	N/A
Mobilisation Details	
Typical Mobilisation duration	5 days mobilisation and configuration
Typical Mobilisation cost	
Typical Demobilisation duration	3 days
Typical Demobilisation cost	
Insurance arrangements	
Own use	A global insurance for ship and hull and deck equipment. No insurance for deployed equipment
Barter	A global insurance for ship and hull and deck equipment. No insurance for deployed equipment
Charter	A global insurance for ship and hull and deck equipment. No insurance for deployed equipment
Co-operation	A global insurance for ship and hull and deck equipment. No insurance for deployed equipment
Transportation insurance	Standard commercial insurance policy.
Technicians	
Number and type of technicians required to operate system in various scenarios	24 hour operations basis (12 hours shift); minimum 4 technicians comprising: 2 seismic observers, 1 chief mechanic engineer and 1 mechanic engineer