



RESEARCH VESSEL AKADEMIK ALEKSANDR KARPINSKY

VESSEL SPECIFICATIONS

Project	12883M
Built	1984, Nikolaev Shipyard
Year of modernization	2014
Shipowner	"Polar Marine Geosurvey Expedition"
Register class	KM*L2 1 AUT2 specialized
Flag	Russian Federation
Registry number	830588
Port of Registry	Saint-Petersburg
IMO identification N	8227238
MMSI	
Call sign	UIZO

MAIN SPECIFICATIONS

Length, width, draft	104,5 m; 16 m; 6,9m	Engines	2 x 3500 hp(64H40/46)
Reserves:		Endurance:	
heavy oil	1240 t	Fuel	85 days
light oil	88 t	Provisions	70 days
oil	44,6 t	Operational speed/ fuel consumption	
water	89 t	(days) :	
provisions	22,8 t	2 engines	15 knots / 20 t
Deadweight	1756 t	1 engine	10 knots / 10 t
Register tonnage, t:		at anchorage	- / 3 t
gross/nett	4430 / 1329	Cruising range	30 000 miles
Displacement: full	5715 t	Crew / Scientists	33 / 37 persons

MAIN VESSEL EQUIPMENT

AUXILLARY EQUIPMENT

Controllable pitch propeller	
Shaft generator	2 x 1600 kW
Emergency diesel-generator D16MG	3 x 400 kW
Emergency diesel-generator	100 kW
Crane PALFINGER PKM1150-20 S6.5	20mx5t
Derrick booms with winches	4 x 3,2 t
Water distiller	2 x 20 t/days
Freshwater heaters	2 pcs
System of waste disposal	
Separator of bilge-ballast water	10 m3/h
Biological water treatment	4 m3/h

FIRE-EXTINGUISHING SYSTEM

Fire alarm system	Salwico CPP
Fire smothering system	KASKAD

RADIO NAVIGATION AND COMMUNICATION SYSTEMS

Radars	FURUNO FR 2115, FR-2135
GPS/GLONASS Receiver	GPS FURUNO GP 80,GPS/Glonass
	TRANZAS T701
Speed log	IEL-2M
Receiver	NAVTEX PNW-901
Communication Satellite station	Fleet-77, MINI-M
GMDSS system	FURUNO FS-1562-15
Gyrocompasses	SECTOR
Echo sounder	NEL-1M, NAVISOUND 420 DS
Meteo station	LIANA
Telephone station	CCTV

LIFE-SAVING EQUIPMENT

Lifeboats ELMEX OU	2x35 pers
Life rafts	10x10 pers

SEISMIC EQUIPMENT

ENERGY SOURCE:

Type	Sleeve Gun SG-iiB
Sub-arrays	2 lines x 9 guns
Total capacity	2 860 cubic inches
Gun controller	Long Shot
Compressor	3x WP 6442
Compressor Air Capacity	3x500 cu m/h
Subarray length	15 m
Subarray width	10 m

STREAMER:

Type	DigiSTREAMER
Channels	up to 640
Hydrophone Type	Teledyne T-2BXE
Streamer length	up to 8 000 m
Group length	12,5 m
Depth controller	Digibird 5010/5010-2, Digibird 5011E/5011E-2
Streamer Positioning	ION System 3
Winch capacity	8 000 m of 53 mm cable
Tailbuoy	Seatrack 220 Tailbuoy

RECORDING

Type	DigiSTREAMER 2D
Tape format	SEG-D (rev.2) 8058 32-bit
Tape recorders	IBM 3592
Display system	Plotter OyO GS-524-24"

NAVIGATION

Integrated navigation system	Concept Systems Orca 2D (license is required)
ASCD-4 system	Automatic System Control Driver
Receivers GPS/GLONASS	TRANZAS T-701, GP-80
Echo sounder	NAVISOUND 420 /DS

ON-BOARD PROCESSING

Equipment	2x Dell T5500 Workstation
Processing Software	Linux RHEL/ProMax
Thermal plotter	OyO GeoSpase-624,24"

ADDITIONAL EQUIPMENTS FOR SURVEY

Marine difference magnetometer	SEASPY 2
Mobile gravimeter	2x CHEKAN-AM
Multibeam echosounder	HYDROSWEEP MD/30
Ocean seismic station (OBS)	ABSS
Oceanographic winch	5t
Hydraulic A-frame	5t

TYPES OF WORK

- SEISMIC SURVEY 2D
- HYDROMAGNETIC SURVEY
- ON BOARD GRAVIMETRIC SURVEY
- MULTIBEAM ECHOSOUNDER SURVEY
- GEOLOGICAL SAMPLING

Polar Marine Geosurvey Expedition (SE PMGE)

24, Pobedy str., Lomonosov, St-Petersburg, 198412, RUSSIA
Ph.: +7(812) 422 12 82, Fax: +7(812) 422 04 94
E-mail: pmgre@rusgeology.ru, www.pmge.ru