Ramform Tethys

Maritime and Seismic Specification

Maritime Specification

Summary	
IMO Number	9676888
Owner	PGS Titans AS
Flag	Bahamas
Port of Registry	Nassau
Callsign	C6JF3
Builder	MHI, Nagasaki
Built	2016
Classification society and notations to class	DNV +1A1, SPS, ICE C, E0, HELDK, RP, CLEAN DESIGN,TMON, BIS, NAUT-OSV, VIBR, COMF-V(CRN) 3

Vessel Dimensions	
Length	104.2 m
Breadth	70 m
Draft	6.925 m

Vessel Tonnage	
Gross (IMO-69)	20637
Net	8778 tons

Vessel Capacities	
Fuel	5700 VLSFO + 875 MGO
Endurance Days	95
Vessel Cruising Speed Knots	15 Knots
Vessel Speed Knots	5 Knots in production, 15 Knots on transit
Maximum Transit Speed Knots	16 Knots
Power Plant	6 X 4400 Kw = 26400 Kw Wartsila W8L32 / ABB AMG 0900SM 10 LSE
Propulsion Type	Diesel electric, Triple CP propeller plant with nozzle and propeller shaft. (3 X 6000 Kw ABB AMZ 1250WV12 LSF Direct drive)
Pumps	Allweiler
Fresh Water Maker Capacity	2 X 30 m3/Day Alfa laval Aqua 100 HW

Accommodation	80 (60 single and 10 double cabins)
Helideck	14,6 t Super Puma/EH-101) “D” 23 mtr

Communication Systems	
Inmarsat Fleetbroadband	+870 773 925 429 (Bridge) / +88 1631 566 893 (Iridium)
Direct Phones	+47 6752 6501 (Bridge)
Norsat	+47 6752 6501 (Bridge) / +47 6752 6522 (Party Chief) / +47 6752 6526 (Captain)

Navigational Aids	
Radar	Arpa Radar MFD one X-Band and one S-Band, in addition one SeaHawk (SHN X9)
Autopilot	K POS / Ecdis autopilot
Heading Sensor	3 x Sperry Marine Navigat X MK1 Kongsberg Seapath 330/ Model 929060
Echo Sounder	EA 640, Skipper, one forward and two aft
Water Speed Log	Skipper - Electromagnetic speed log

Vessel Fire Fighting Equipment	
Fire detection System	Consilium Nittan, Salwico Monitor
Pumps	Allweiler
Portable Fire Extinguishers	Portable Fire Extinguishers
Hydrants and hoses	2” Storz
Inert gas and other fixed systems	Water fog (HIFOG), Argonite, foam
Foam deluge system	Danfoss Semco

Vessel Safety and Survival	
Firemans Outfits	6 x Draeger fireman outfits
Breathing Apparatus	6 spare composite bottles Additionally 21 EEBD’s situated around the vessel spares
Lifeboats	2 X Fassmer. 40 pax each. 6 persons as Rescue Boat and 20 persons as tender
Life Rafts	8 x 20DKF+S30 life rafts (20 Person each)
MOB Raft	N/A
Life Jackets	164 x lifejackets, adult size8 x lifejacket, children size
Survival Suits	88 x immersion suits, 16 x working suits for FRC
Life buoys	12 with lanyard, 3 with lanyard and light

Seismic Specifications

Streamer Systems	
Manufacturer And Type	TGS GeoStreamer Solid
Skin Material	3.5mm thick transparent polyurethane
Outside Diameter	62mm
Length of each group	12.5 m
Manufacture and type of hydrophones	Hydrophones: Teledyne T-2BX or equivalent, Velocity Sensors: TGS confidential (MarkIII)
Type of array (e.g. linear, binomial)	Linear
Number of hydrophones per group/distance apart	Hydrophones: 12 per 12.5m, Velocity Sensors: TGS confidential
Coupling between phones and pre-amp	Capacitive
Group Sensitivity	Hydrophone sensitivity: 20V/Bar. Group sensitivity: 18.88V/Bar
Bandwidth over which above sensitivities apply	Specified at 100Hz
Availability of shoreside spares if required	Pool system
Manufacturer and type of depth/lateral steering controller	Kongsberg eBird
Manufacturer and type of compass	ION DigiCourse 5011

Recording Systems	
Manufacturer, type	Bolt 1900 LLXT
Format(s) available	Streamer: Navmerged SEG-Y revision 0 and 1; NFH: SEG-D revision 1.0 and 2.1, SEG-Y revision 0 and 1
Tape drives	IBM 3592-E07 (TS1140) and TS1150)
Sample rates	2ms, 4ms
High cut filter	428Hz, 214Hz, 107Hz @ 341dB/Oct
Low cut filter	Hydrophones: 3.04Hz @ 7.5dB/oct, 4.4Hz @ 12dB/oct, Velocity Sensors: TGS confidential
Telemetry systems array forming capabilities	0 dB (Hydrophones), 18 dB (Geophones)

Energy Source	
Effective volume of standard array(s)	2 x 3090/3150 cu.in. 2 x 4130 cu.in. (DS) 3x3280 (TS)
Standard array depth(s)	5-9m
Position of depth transducers	One for each gun position 95cm above center of the gun, 7 per sub array.
Working pressure	2000-2500 psi
Position of firing sensors	In solenoid aft end of the gun
Timing resolution	0.1ms

Timing accuracy	+/- 1.0ms
Position of near field phones	One for each gun position; 75cm behind and 108cm above center gun.
Air compressors capacity	2189 cfm Neumann Esser
Number of air compressors	3

Navigation and Positioning Systems

Differential GPS	
Standard System DGNSS	Starfix.G4+, Starfix.XP3, Starfix.HP
Subcontractor DGNSS	Fugro Survey AS
Processing software DGNSS	Starfix GNSS Software Suite

Relative GPS	
Standard System RGNSS	Fugro StarTrack, Fugro StarTrack 2
Processing Software RGNSS	Fugro StarTrack 2

Vessel Heading Sensors	
GPS heading reference	Kongsberg Seapath 380-R2
Survey gyrocompasses (2 units)	Kongsberg MGC R2

Accoustic Ranging System	
Manufacturer/Model	Kongsberg/GeoStreamer Inline Acoustics (GIA)
Frequency	21-25 kHz
Type of units	GSN, GRN, GGN, GTN, GVN
Sound Velociy Meters	DigiCourse Model 7000

Echosounder	
Manufacturer, type and model number	Kongsberg Simrad EA640
Frequencies	12, 38, 200 KHz
Maximum sounding depth	10,000 m

Integrated Navigation Computer System	
Type	Orca 1.18.1
Supplier	Sercel Concept Systems Ltd

Hardware description	Dell PowerEdge R740

Binning System	
Type	Reflex
Supplier	Sercel Concept Systems Ltd
Hardware description	Incorporated to INS hardware

Navigation Post Processing System	
Type	NRT/Iris
Supplier	Sercel Concept Systems Ltd
Software version	Latest version
Hardware description	Incorporated to INS hardware
Plotter	HP Designjet T950

Operations Geophysics System

Acquisition QC System	
Hardware Description	Viper: 3 x PowerEdge R740 servers; Eonstore Network Attached Storage
Software Version	TGS Viper v7.5.1-1; TGS Nucleus+ 2.14.1

Processing System	
Hardware Description	** Poweroff* 20 x Supermicro SYS-1018GR-PE014 GPU servers; 49 x Supermicro MBI-6128R-T2X CPU servers; Panasas ActiveScale Network Attached Storage
Software Version	TGS SPArk 1.5 #Not in use#

Peripherals	
Tape Drives	Streamer: Navmerged SEG-Y revision 0 and 1; NFH: SEG-D revision 1.0 and 2.1, SEG-Y revision 0 and 1