

# 'Fly Explorer'

Shiptech's latest vessel for Papua New Guinea



Singapore-based naval architects Shiptech have unveiled the second of their three vessel order to Papua New Guinea (PNG).

The 'Fly Explorer' is a specialist environmental research vessel designed and built for the Ok Tedi Development Foundation (OTDF) for operation on PNG's Fly River and its associated coastal regions. It was designed in Singapore by Shiptech and built in Malaysia by Sarawak Slipways.

The 'Fly Explorer' is the sequel to Shiptech's first craft for OTDF, the 34 metre passenger ferry 'Fly Hope', which has been delivered and is now in active service. The remaining vessel, a 65 metre container/bulk fuel carrier, is due for delivery at the end of 2012.

The OTDF is an independent company founded to serve communities affected by PNG's massive Ok Tedi mine. The foundation has a mandate to provide resources and infrastructure to the local communities, in hopes of improving their livelihoods.

With a steel hull and an aluminium superstructure, the 'Fly Explorer' has an overall length of 29.9 metres with 7.6 metres across her beam. Built to Lloyds Register G3 classification and in compliance with the Australian NSCV regulations for a Class 2C vessel, the vessel is powered by twin

Caterpillar C12 engines, each rated 253kW at 1,800rpm for continuous operation. These engines provide the vessel with a speed of ten knots.

The vessel's fuel capacity of nearly 18 tonnes, together with substantial storage spaces and fresh water-making capability, will allow the 'Fly Explorer' to stay on station for extended periods. An onboard waste treatment plant also ensures the vessel attains and maintains environmentally friendly credentials.

The below deck spaces provide air-conditioned accommodation for ten, with an additional two berth crew cabin forward. The main deck superstructure houses a galley, crew lounge and mess area, as well as a fully equipped laboratory and separate workshop aft opening onto the aft work deck.

Stowage is provided on this deck for three smaller workboats, which are launched and retrieved by the ship's crane. A hinged platform at the vessel's stern, accessible via port and starboard stairways at the transom, provides a boarding / loading area for these workboats when deployed.

The upper deck layout comprises additional air-conditioned cabins for four persons plus an open plan office area aft and the wheelhouse forward. Designed for a crew of six, the vessel can house up to ten research personnel.

The 'Fly Explorer's primary role is to undertake environmental research, monitoring and river sampling, research as required by Ok Tedi Environment Department. The vessel's operational area is across the wide entirety of the Fly River, its tributaries and near-coastal areas. The vessel will also be used to disseminate information to the river-based, mine impacted communities.

The 'Fly Explorer' will be based at the Fly River port of Kiunga and will undertake year round field operations. Careful design and the use of lightweight materials in the construction of the superstructure has provided a shallow draught capability. This will allow the vessel to access many of the remote river areas and ensure the ecology of the rivers, wetlands, and surrounding environment remain closely monitored.

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## 'MV Fly Explorer'

### SPECIFICATIONS

Type of vessel:	Environment research vessel
In survey to:	Lloyds Register, SSC G3 and NSCV Class 2C
Home port:	Port Moresby, Papua New Guinea
Owner:	Ok Tedi Development Foundation, Papua New Guinea
Designer:	Shiptech, Singapore
Builder:	Sarawak Slipways, Malaysia
CAD software:	Maxsurf & Autocad
Hull construction material:	Steel
Deckhouse construction material:	Aluminium
Length overall:	29.90 metres
Beam:	7.60 metres
Draught:	1.80 metres
Tonnage:	223GRT
Main engines:	2 x CAT C12 each 253kW @ 1,800rpm
Gearboxes:	2 x ZF 32S-1A
Propellers:	2 x FPP
Generators:	2 x Marine Genset C4.4 each 69kW @ 1,500rpm
Steering system:	Palmarine PEH0502
Service speed:	10 knots
Range:	2,000nm
Depth sounder:	Furuno FCV 620, Thrane & Thrane, RT-5022 (VHF/DSC) Thrane & Thrane, 40510A (MH/HF)
Compasses:	Globemaster YB-500, Furuno GP 32
Anchor windlass:	Palmarine, PEAW165 Palfinger, PK4501MC
Paints/coatings:	International Paints
Workboats:	2 x 8-person
Fuel capacity:	21m <sup>3</sup>
Freshwater capacity:	9m <sup>3</sup>
Crew:	6
Personnel:	10

