

# DEEP OCEAN EXPEDITIONS

## DIVING SUPPORT VESSEL

### ‘DSV NADIR’

DSV NADIR was built at the Auroux Shipyard, France specifically as a heavy lift ship and launch/recovery platform for diving and submersible operations. NADIR was owned and operated by the French ocean research institute IFREMER from 1984 to June of 2004. She functioned as principal support ship and launch/recovery platform for the NAUTILE, one of the world's only submersibles capable of diving to 6,000 meters.



Since Deep Ocean Expeditions acquired NADIR in June of 2004, the vessel has undergone an extensive refit, including completion of the requirements for the 5-year special survey for Bureau Veritas. Deep Ocean Expeditions has also added both a modern sewage treatment plant and waste incinerator system, which enable the vessel to operate in environmentally sensitive areas of the world with minimum impact. Also the latest in technical diving equipment, including a 52-inch twin lock deck decompression chamber and four fully equipped rigid inflatable boats complement the submersible operation.

With the acquisition of NADIR, Deep Ocean Expeditions now has unencumbered access to a dedicated ship, with an established and impressive track record in the industry, from which we will operate our small fleet of deep diving submersibles. IFREMER used NADIR for over 20 years to launch and recovery the NAUTILE in some of the most inhospitable places on earth yet the vessel enjoys an unblemished record of safety. Deep Ocean Expeditions can now support their own diving and submersible operations around the world, with their fully integrated and field tested launch and recovery vessel NADIR.

#### Ship Specifications

- Launched: 1974
- Length overall : 55,75 m
- Breadth overall : 11,91 m
- Maximum draught : 4,68 m
- Load displacement : 1 857 t
- Gross tonnage : 1,142 UMS
- Classification : Bureau Veritas
- Speed : 11.0 knots
- Accommodation : 40 persons (15 crew / 25 technical staff)
- Engines : 4 x main engines Baudoin DVX 12 – 600HP (1 125 rpm)
- Propulsion : 2 x shafts / variable pitch propellers
- Thruster: 1 x Gill jet - 440 kW multidirectional thrust engine (360°)



#### Scientific Equipment

- Sounder : EA500 - 12 kHz – Simrad
- Weather station : POMMAR
- 2 x "wet" laboratories under hangar with 220v power source, fresh/salt water, compressed air
- Sites for 12 laboratories and/or 20ft container workshops

#### Deck Equipment

- Swinging stern A-frame for launch and recovery of submersibles : SWL 22 tonne block-rigged jack
- Lifting jack with soft line : SWL 22 tonne
- Various jib booms and outboard arms for submersible deployment
- Crane : SWL 3 tonne at 15 m / 15 tonne at 3 m

- Traveling bridge under hangar : SWL 3 tonne
- Traveling platform (chain driven winch system for positive control of submersibles) : SWL 30 tonne
- Towing winch : SWL 3 tonne
- Capstan : SWL 8 tonne

### Navigation and Positioning

- Navigational computer and electronic mapping : Sodena
- ARPA equipped RADAR units
- Ultra Short Base Line (USBL) tracking system for simultaneous monitoring of relative position of submersibles or other subsea beacon equipped targets
- Differential GPS receiver : NR 51 – Sercel
- Differential GPS receiver : NR 109 – Sercel
- 2 x gyrocompasses : SGB 1000
- Electromagnetic log : Calypso
- 2 x meteofax receivers : Taiyo TF 733



### Radio Communications

- Dual frequency, high output power underwater telephone (UWT) System for subsea communication with submersibles
- GMDSS compliant
- Fleet 77 Inmarsat for full duplex communications (voice, fax and Internet).

### Submersible Installation

- Two (2) Deep Rover (DR) manned submersibles
- One (1) Dual Deep Worker (DDW) manned submersible
- Rail system imbedded into deck with dedicated trolley for each submersible
- Winch control system for positive control of each submersible dolly on railway
- Covered hanger for submersible maintenance, equipped with door for inclement weather
- Overhead gantry in hanger with SWL of 3 tons
- Fully equipped electronics workshop with all test equipment and power supplies
- Fully equipped mechanical workshop with lathe, milling machine and welding equipment
- Video and photographic post processing lab
- Dedicated battery charging system for each submersible
- Haskell brand oxygen transfer pumps
- High pressure, high volume, breathable quality air compressors
- High volume, low pressure, breathable quality air compressors (for pneumatic tools and chamber operations)
- Fully equipped dive locker
- 52-inch twin lock deck decompression chamber with medical lock
- Large capacity oxygen storage rack
- Large capacity NITROX storage rack
- Large capacity Helium storage rack (for technical diving)



*Please note Nadir is undergoing a refit before going into service for Deep Ocean Expeditions. Equipment additional to that listed above will be installed. The refit is expected to be completed in December 2004.*

*For more information contact [info@deepoceanexpeditions.com](mailto:info@deepoceanexpeditions.com)*

**DEEP  
OCEAN  
EXPEDITIONS**

