

# ISRAEL OCEANOGRAPHIC & LIMNOLOGICAL RESEARCH R/V BAT-GALIM

## SHIP DATA

|                   |                               |
|-------------------|-------------------------------|
| Type of vessel    | Marine Research & Engineering |
| MMSI              | 428067000                     |
| Built:            | Lurssen werft, Bremen 1990    |
| Converted:        | Israel Naval Shipyard, 2015   |
| Port of registry: | HAIFA (ISRAEL)                |

## MAIN DIMENSIONS

|                      |         |
|----------------------|---------|
| Length O.A.          | 38.92 m |
| Beam                 | 9.25 m  |
| Draft                | 3.21 m  |
| Gross tonnage        | 387     |
| Displacement tonnage | 404     |

## CAPACITIES

|                |   |
|----------------|---|
| Free deck area | 120 m <sup>2</sup>  |
| Dry lab        | 15 m <sup>2</sup>   |
| Wet lab        | 18 m <sup>2</sup>   |
| Deck Cargo     | 40 t.   |
| Bunkers        | 20 m <sup>3</sup>   |
| Fresh water    | 10 m <sup>3</sup>   |
| Evaporator     | 3 t. / 24 hrs.  |
| Max speed      | 13 knots  |
| Economy speed  | 11 knots  |
| Cruising range | 1,000 nm  |
| Accommodations | 24 Beds in Double Cabins for Crew, Scientists & Technicians |

## MACHINERY

|             |                            |
|-------------|----------------------------|
| Propulsion  | 1 x 890kW Deutz engine     |
| Maneuvering | 2 x 208HP jet nozzles 360° |
| Power       | 2 x 124kW Deutz generators |

## CRANES / A-FRAME

|          |   |
|----------|---|
| Cranes   | Port: 11 ton-meter, Boom Length 10.5m<br>Stbd: 4 ton-meter, Boom Length 12.5m |
| A- Frame | Telescopic, SWL 3t at 5m, 1t at 7m (4m width)                                 |
| Winches  | Main: 1.5t, 4000m<br>CTD: 800kg, 6000m<br>Hydrographic: 200kg, 1000m          |

## NAVIGATION EQUIPMENT

|                     |  |
|---------------------|--|
| Dynamic Positioning | L3/Wartsila Platinum Class 0 DP  |
| Autopilot           | Raytheon Anschutz NP5000   |
| Echosounder         | SI-TEX CVS-833C  |
| Radar               | Sperry Marine Bridgemaster E 180mm X-Band<br>Furuno NavNet2 4kW X-Band |
| NAVTEX              | JRC NCR-300A   |
| AIS                 | ComNav Voyager X3 Class A  |

## COMMUNICATION EQUIPMENT

|                          |   |
|--------------------------|---|
| Satellite Communications | Iridium Pilot   |
| Radio                    | Samyung SRG-3150DN<br>Sailor RT-4800 A1 VHF<br>Sailor RT-5020 VHF DSC<br>Icom M-302 VHF DSC |

## PERMANENT INSTALLED EQUIPMENT

|                                   |   |
|-----------------------------------|---|
| Positioning                       | Kongsberg Seapath 330<br>Trimble BX982  |
| Navigation & Acquisition Software | Hypack & Hysweep<br>Kongsberg SIS   |
| Gyro                              | Anschutz Gyro 22  |
| Motion Sensor                     | Kongsberg Seapath 330<br>MRU 5  |
| USBL                              | Kongsberg uPAP 200  |
| MBES deep water                   | Kongsberg EM302 (2°x2°) 30kHz watercolumn   |
| MBES shallow water                | Kongsberg EM2040 (0.7°x0.7°) 200-400kHz watercolumn   |
| Monitoring Hydrophones            | 2 x Teledyne Reson TC-4032 5Hz-120kHz Omnidir.  |
| Sub Bottom Profiler               | Knudsen 3x3 chirp 3260 ver. 5<br>Dual Channel 3.5 kHz & 12/200 kHz  |
| ADCP                              | Teledyne RDI Ocean Surveyor 75kHz   |
| Meteorological Station            | Aanderaa Smartguard:<br>Air temp, Wind speed and direction, Relative Humidity,<br>Solar Radiation                                   |
| Processing Room                   | 2x Lenovo P500 Workstations<br>CARIS HIPS&SIPS<br>Fledermaus PRO with Midwater<br>ArcGIS 10.3<br>Global Mapper<br>GeoSuite AllWorks |

## TOWED / DEPLOYED EQUIPMENT

|                  |   |
|------------------|---|
| Coring Equipment | Piston Corer 1,3,6,9 meter<br>Box Corer<br>Van Vind Grab Corer 50kg |
| CTD              | Seabird SBE 9+  |
| Rosette          | Seabird SB32 Carousel<br>12 x 8L General Oceanics                   |
| SVP              | Valeport miniSVS  |
| Side Scan Sonar  | Klein 3900 w/300m cable   |
| Magnetometer     | Geometrics G-882  |

|                         |  |
|-------------------------|--|
| Single Channel Seismic* | Geo source 400 Sparker<br>Geo Spark 2000X Power supply<br>Geosense single channel streamer (8 elements)<br>Mini-Trace 2 recording system |
| Multichannel Seismic*   | Geo Source 400<br>Geo Spark 2000Xpower supply<br>Geo Sense UHR 48 Channel streamer<br>Multi-Trace Recording system (48 channels)         |
| ROV**                   | SAAB Seaeye Leopard, 3000m tether  |
| AUV**                   | ECA A18-D  |

\*Towed seismic equipment jointly operated with Charney School of Marine Sciences,  
University of Haifa

\*\*Joint operation with MERCI – Mediterranean Sea Research Center of Israel