

# Innomar "compact" Sub-Bottom Profiler

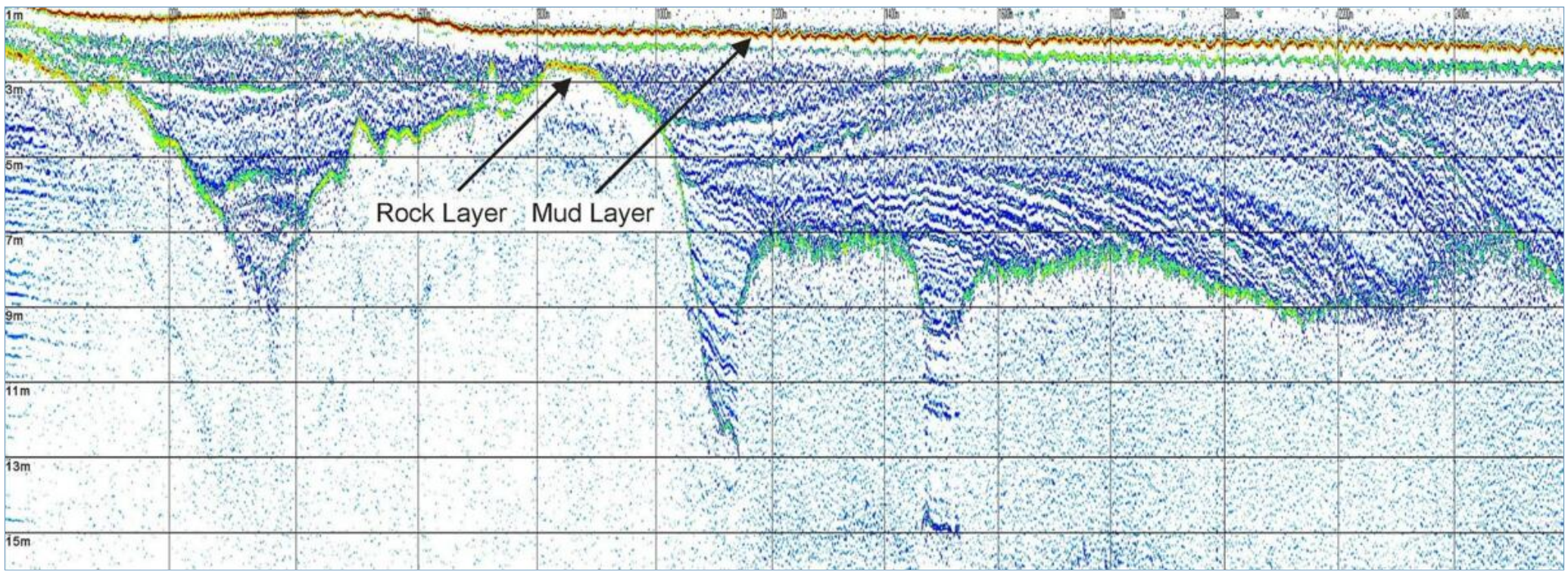
Innomar "compact" SBP

The **Innomar "compact"** model was designed for inshore surveys in shallow-water down to 400 metres water depth, but can also be used in coastal areas.

Because of its small size and weght this system is convenient even on small boats. Controlled via Ethernet using any Windows based PC or laptop it is a user friendly and affordable design, too. For this SBP model there is a **Sidescan Extension** available.

The **Innomar "compact"** model acquires full-waveform data that can be processed with any seismic software (SEG-Y format). **Innomar** also provides the ISE post-processing software specialized on the **Innomar SBP** data.

This model has been first launched as "SES-2000 compact" in 2002, **the latest generation has been introduced in 2021**.



*Innomar "compact" data example from Gambia (pulse 10kHz / 200µs; depth range 1–16m)*

## Technical Specification

| | |
|---|---|
| Water Depth Range | 0.5 – 400 m below transducer |
| Sediment Penetration | up to 40 m (depending on sediment type and noise) |
| Sample / Range Resolution | <1 cm / up to 5 cm (depending on pulse settings) |
| Transmit Beam Width (-3dB) | c. ±2° for all frequencies / footprint c. 7% of water depth |
| Ping Rate | up to 40 Hz (pings/s) |
| Heave / Roll / Pitch Compensation | heave (depending on external sensor data) |
| Primary Frequencies (PHF) | c. 100 kHz (frequency band 85 – 115 kHz) |
| PHF Source Level / Acoustic Power | >238 dB//µPa re 1m / c. 2.3 kW |
| Secondary Low Frequency (SLF) | centre frequency user selectable: 4, 5, 6, 8, 10, 12, 15 kHz |
| SLF Total Frequency Band | 2 – 22 kHz |
| SLF Pulse Type | Ricker, CW |
| Pulse Width | user selectable 0.07 – 1.0 ms (CW) |
| Data Acquisition and Recording | digital 16 bit / c. 70 kHz (SLF full waveform, PHF envelope) |
| Data File Format | Innomar "RAW" (16 bit), "SEGY" (via SESconvert) |
| External Sensor Interfaces | HRP (motion), GNSS position, depth (all RS232 / UDP), trigger (BNC) |
| Bottom Detection | internal (PHF and SLF data) or external depth |
| Depth Accuracy | (2 cm @ 100 kHz / 4 cm @ 10 kHz) + 0.06% of water depth |
| Remote Control / Survey Integration | basic functions via COM or Ethernet (UDP), NMEA |
| Topside Unit (Transceiver) | W 30 cm × D 40 cm × H 20 cm (½ 19'' / 4U) / weight c. 15 kg |
| Transducer | W 34 cm × D 26 cm × H 8 cm / weight c. 22 kg (incl. 20 m cable) |
| Transducer Depth Rating | Surface |
| Power Supply | 100–240 V AC; optional external DC power inverter (12 /24 V) |
| Power Consumption | <150W |
| Control / Data Storage PC | external PC/Laptop (MS Windows 10/11 OS), not included |
| First / Latest Product Generation | 2002 / 2021 |

## Included Features

- 16-bit SLF full waveform data acquisition (sub-bottom data) / Innomar "RAW" data format
- Multi-ping mode for maintaining a high pulse rate in deep waters
- Multi-frequency signals
- SESWIN basic remote-control via COM / UDP (e.g. line start/stop, line name)

## Optional Features

- SESWIN extended remote-control via Ethernet (all survey settings)
- external DC power adapter (12 V or 24 V)
- Pre-configured laptop PC (control unit)
- Transducer bracket for over-side-mounting
- Transducer frame with integrated shock absorbers for hull-mounting

- **Sidescan Extension** (100kHz; interchangable with SBP transducer)

## Software

- **SESWIN** data acquisition software
- **SES Convert** data converter software (RAW to SEG-Y, XTF, ASCII)
- **SES NetView** for online data and system information display on remote computers
- **ISE** post-processing software (optional)

Technical specifications are subject of change without notice.

## Product overview

| | |
|---|---|
| "smart" SBP | "compact" SBP |
| "light" SBP | "standard" SBP |
| "sidescan-100" | |

| | |
|---|---|
| Shallow Water | High Power |
| Remotely Operated | Multi-Transducer |
| Innomar Software | |


Innomar 1997 - 2024

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Innomar's R&D is co-funded by the European Union
( European Regional Development Fund )