Innomar "deep-36" Sub-Bottom Profiler

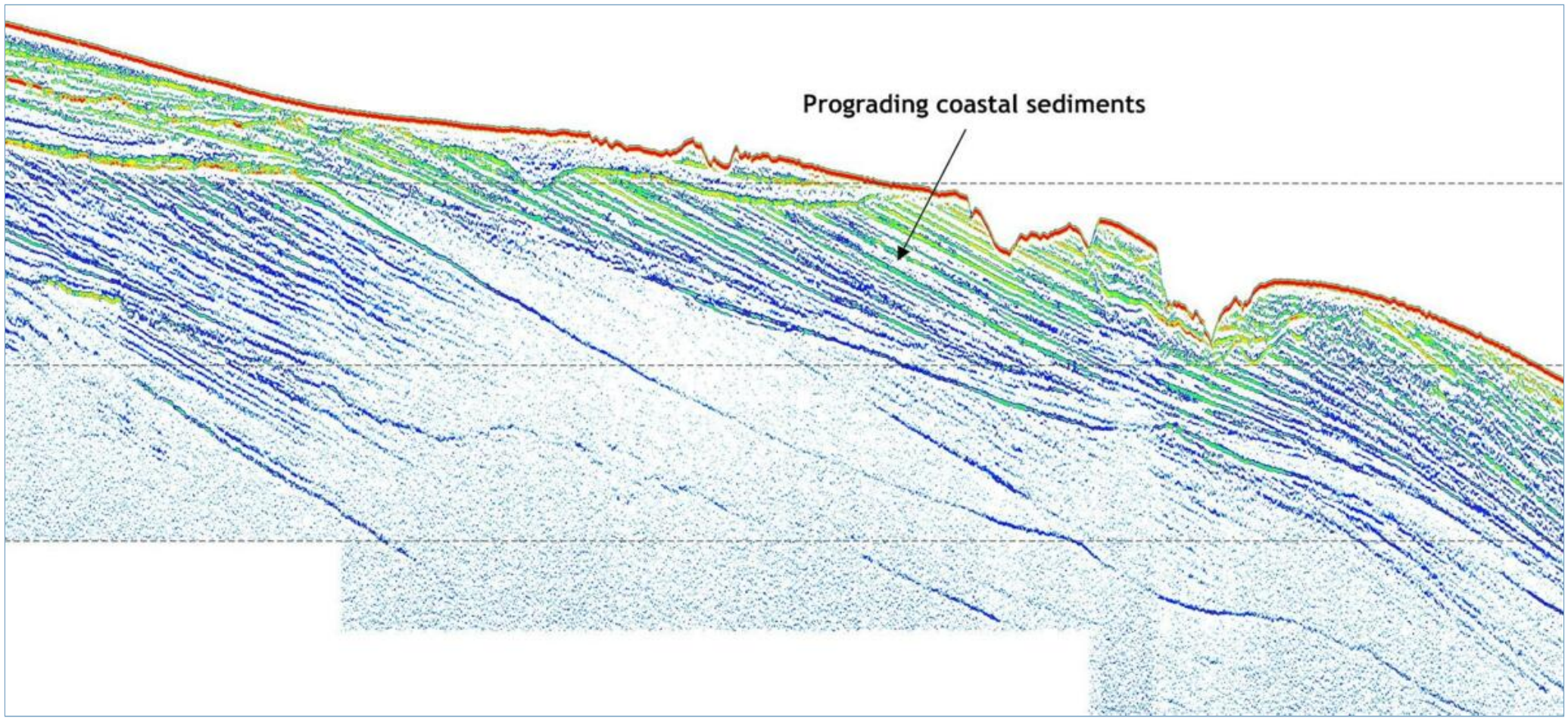
Innomar "deep-36" SBP

The **Innomar "deep-36"** parametric sub-bottom profiler is designed for offshore applications down to 6,000m water depth.

This model is available in two versions. The basic version features heave and roll compensation while the "RP" version offers additional pitch compensation.

The **Innomar "deep-36"** SBP 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.

The first generation of this model has been launched in 2007 as "SES-2000 deep-36", **the latest generation was introduced in 2021.**



Innomar "deep-36" SBP data example from Korea (pulse 4kHz / 750µs; depth range 130–210m)

Technical Specification

Water Depth Range	5 – 6,000 m below transducer
Sediment Penetration	up to 150 m (depending on sediment type and noise)
Sample / Range Resolution	c. 1 cm / up to 15 cm (depending on pulse settings)
Transmit Beam Width (-3dB)	c. ±1.5° for all frequencies / footprint c. 5.5% of water depth
Ping Rate	up to 40 Hz (pings/s)
Heave / Roll / Pitch Compensation	heave + roll + optional pitch (depending on external sensor data)
Primary Frequencies (PHF)	c. 36 kHz (frequency band 30 – 42 kHz)
PHF Source Level / Acoustic Power	>246 dB//µPa re 1m / c. 9 kW
Secondary Low Frequency (SLF)	centre frequency user selectable: 2, 3, 4, 5, 6, 7 kHz
SLF Total Frequency Band	1 – 10 kHz
SLF Pulse Type	Ricker, CW, LFM Chirp
Pulse Width	user selectable 0.15 – 1.5 ms (CW); 5 ms (chirp)
Data Acquisition and Recording	digital 24 bit / 75 kHz (SLF full waveform, PHF envelope)
Data File Format	Innomar "SES3" (24 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	(5 cm @ 36 kHz / 10 cm @ 4 kHz) + 0.04% of water depth
Remote Control / Survey Integration	KVM / basic functions via COM or Ethernet (UDP), NMEA
Topside Unit (Transceiver)	W 52 cm × D 50 cm × H 50/63 cm (19'' / 10/13U) / weight c. 56/66 kg
Transducer	W 88 cm × D 92 cm × H 18 cm / weight c. 245 kg (excl. 30m cables)
Transducer Depth Rating	Surface
Power Supply	100–240 V AC
Power Consumption	<900W

Control / Data Storage PC	integrated PC (MS Windows 10/11 OS)
First / Latest Product Generation	2007 / 2021

Included Features

- Heave / Roll beam stabilization
- 24-bit SLF full waveform data acquisition / Innomar "SES3" data format
- Multi-ping mode for maintaining a high pulse rate in deep waters
- Multi-frequency signals
- LFM chirp (2 – 7 kHz)
- SESWIN basic remote-control via COM / UDP (e.g. line start/stop, line name)
- Transducer frame with integrated shock absorbers for hull-mounting

Optional Features

- KVM extender for remote control
- SESWIN extended remote-control via Ethernet (all survey settings)
- Pitch beam stabilization
- internal 10'' TFT display
- Bottom slope control
- Tranducer ice protection (acoustic window)

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

"medium-100" SBP	"medium-70" SBP
"deep-36" SBP	"deep-15" SBP

Shallow Water	High Power
Remotely Operated	Multi-Transducer
Innomar Software	

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