

## GIB-PLUS

*High accuracy, easy to use, GPS driven underwater tracking system*



Thanks to 4 buoys, and to a deck unit which can be installed either on small boats or on large vessels, ACSA has designed a system that is very easy to deploy and perfectly adapted for underwater positioning even with rough sea conditions.

### Key features & benefits

- 3D real-time tracking in **longitude and latitude** in D-GPS mode with a **metric accuracy**
- Very wide tracking area: up to 2Nm x 2Nm**
- Real-time multi-mobiles capabilities (up to 5)
- Fast installation (< 1h)
- No calibration**
- High repetition rate and real-time Quality Control
- Fully configurable
- Data storage for post processing (replay & recalculation)
- Tracking area extendable by using additional buoys
- Long autonomy (many days)

### Applications

Oil & Gas offshore survey  
AUV tracking & supervision  
Search and Rescue

### General Principles

Moor 4 buoys around the tracking area. Buoys detect acoustic signals coming from the pingers and date their time of arrival. They then send by local radio link these times and their GPS position to a Control & Display Unit (cf picture on left) installed onboard the mother ship. The Control & Display Unit process and display underwater tracks & buoys positions.



## System hardware

- 4 Buoys
- 4 hydrophone with 10 m cables
- 1 Deck Unit composed of:
  - ✓ 1 Junction Box (Jbox)
  - ✓ 1 Aerial box
  - ✓ 1 PC with AQUATIC software
- 1 pinger (10 kHz , 25 kHz, 32 kHz, 37 kHz)



## Performances

Positioning accuracy:	1 m @ 1 $\sigma$
Radio range:	5 km – 8 km (optional)
Acoustic range:	Typical: 3 km @ 32 kHz
Coverage area:	2 NMiles x 2 NMiles x 600 m depth
Number of mobiles	up to 5

## Buoys Technical Data

Radio modem	380 - 450 MHz – 1 W – option: 10 W
Battery life:	20 hours – option 40 hours
Size	2.5 m height – diameter: 1 m (1.3 m height when folded)
Weight	29 kg
Number of acoustic channels	5 max.
GPS unit	Compatible with WAAS/EGNOS
Sea state	$\leq 4$

## Pingers Technical Data

Frequency:	10 kHz , 25 kHz, 32 kHz, 37 kHz
Battery life:	8 hours
Size:	50 cm long – 10 cm diameter
Weight	4 to 6 kg in air – 2 to 3 kg in water
Depth rating:	300 m – option : up to 2500 m

## Options

Long autonomy	Up to 40 hours (in operation)
Long radio range	8 km minimum
Additional buoys	Up to 4 additional buoys



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**ACSA Underwater GPS**

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