

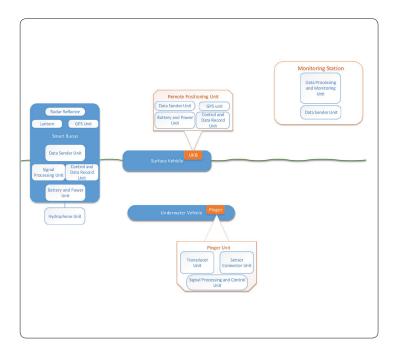


Under water detection and positioning system is a mobile system used to accurately detect, monitor and track the positions of surface and underwater platforms for qualification purposes. It also can measure the acoustic fingerprints of the platforms.

Under water detection and positioning system is a one hundred percent domestic design system used to accurately detect and monitor the positions of underwater platforms being tested in this area with buoys placed in the underwater test site and to monitor floating platforms with Remote Positioning Unit.

Precise monitoring of the position of platforms that can move at high speeds under water is achieved by placing the pinger system on the platforms that emits reference acoustic signals.

The reference acoustic pulse signal that is periodically broadcast by pinger on the underwater platforms, is detected by buoy. The detection time is sent by wireless connection to the Monitoring Station with its precise D-GPS position information of the buoy. Pinger detection information sent by the buoys and they are monitored together. The location of the underwater platforms is precisely detected and monitored continuously.



Underwater Detection and Positioning System consists of the following units:

#### **Pinger Unit:**

It is the unit that sends acoustic signals via transducers that it has, by coding the depth information under water simultaneously and periodically with GPS integrated into the platform to be determined and positioned.

#### **Smart Buoys:**

Identifies and records acoustic signals sent by Pinger Unit with the hydrophone (s) it owns and it is the unit that sends its coordinate information from its sensitive D-GPS unit to the Monitoring and Control Unit via wireless communication method.

### **Remote Positioning Unit:**

It is the unit that allows the monitoring of over water vehicles thanks to the Monitoring and Control Unit with the precise GPS they host.

## **Monitoring and Control Unit:**

It is the central unit in which the information received from Smart Buoys are filtered, tracked and processed to monitor and record the underwater platform in real time. Remote Positioning Unit and the Smart Buoys can monitored and managed.

# The basic functions of the system can be summarized as follows:

- Precise positioning function
- Acoustic signalling on underwater platform with Pinger
- Record Function
- Communication function without cable
- Remote positioning function
- Monitoring and evaluation function

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