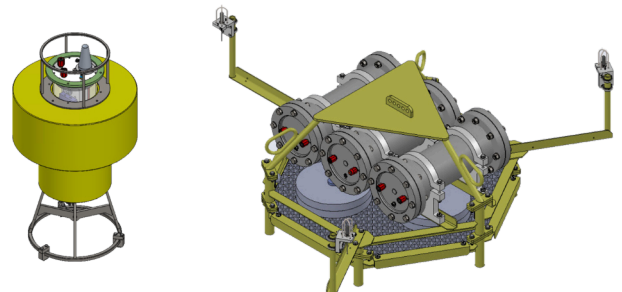# CAB Guardian
>*Coastal Acoustic Buoy*

SMRU Consulting has developed a real-time passive acoustic monitoring buoy system, the CAB Guardian. The Guardian can provide bearings and real-time cetacean detection, classification, localization, and tracking. The system consists of a bottom moored lander connected to a communication surface buoy that will up-link to a base station. The base station can be on shore or on a vessel at sea.

The Guardian system has been successfully field tested in both the Pacific and the Atlantic Ocean environments. Currently there are Guardians actively monitoring for the presence of marine mammals in exclusion zones. With multiple acoustic sensors we can incorporate bearing detection into our readings. This reduces false alarms translating to a reduction of unnecessary shutdowns or delays while providing the required protection for marine mammals.

The system has also been integrated into Unmanned Surface Vehicles (USVs), and several ocean monitoring systems developed by other companies. One of the most comprehensive of those systems is Ocean Perception developed by Oceaneering. This system fuses the data from multiple sensors which include acoustics (CAB Guardian), Radar, AIS, IR Cameras, Visible light Cameras, and weather information.

Wondering how we can work together? Reach out and let's discuss our Scientific approach with Engineering solutions.

SMRU Consulting
understand ♦ assess ♦ mitigate

SMRU Consulting
www.smruconsulting.com
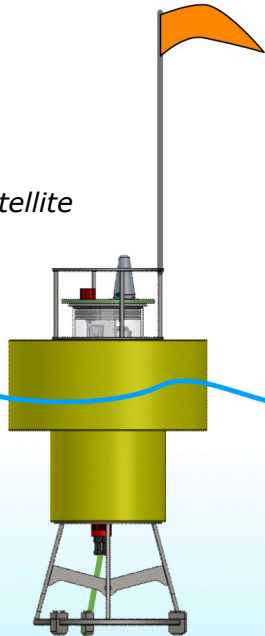cab@smruconsulting.com

USA: +1 (360) 370-5493
Canada: +1 (604) 737-7678
UK: +44 (0)1334 466011

Telebuoy
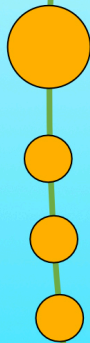*Radio, Cell, or Satellite communications*
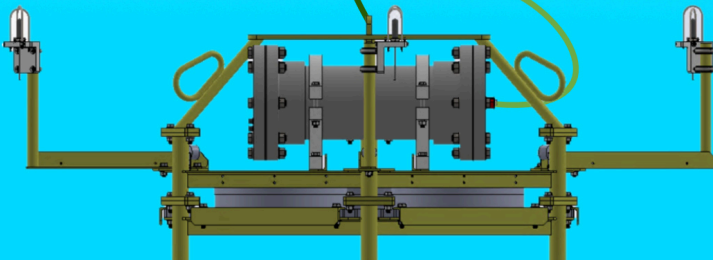
CAB Guardian
>*Coastal Acoustic Buoy*

SPECS

Deployment	Up to 3 months
Max Depth	60m
Radio	Up to 15km
Satellite Range	Unlimited
Software	PAMGuard
Lander Weight	410kg
Lander Size	2m *by* 2m *by* 1m
Tele-Buoy Size	1.10m b*y* 0.56m
Power Supply	Custom battery packs
Detection Range *(species dependent)*	7.3km
Bearing Error *(species dependent)*	1.6°

Cable
Communications and Power with 1,814kg lift

Lander
Hydrophones, Instrumentation, and Power

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Consulting
understand • assess • mitigate