



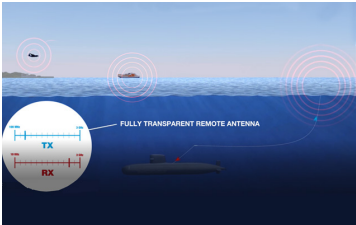
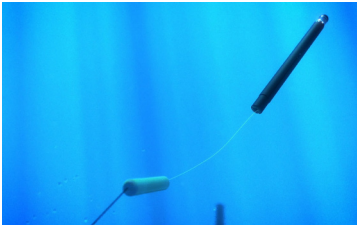
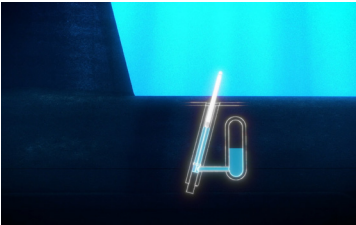
EXPENDABLE COMMUNICATION BUOY

Submarine communication



innovation & services at sea

X-SUB buoys allow submarines at depth and speed to **communicate over the surface** without having to raise a periscopic communication antenna. Once ejected outside the submarine, the buoy **floats towards the surface and remains connected** to the submarine with an optical fiber connection. At the end of the communication, the X-SUB antennas scuttle and sink.



The X-SUB portfolio is made up of three expendable communication buoys:

- The RF WideBand X-SUB, allowing Rx communication
- The RF WideBand X-SUB, allowing Rx and Tx radiocommunication
- The Iridium X-SUB, enabling satellite communication (voice and data)

TECHNICAL CHARACTERISTICS

Description	Diam. (inch)	Range ECB - Sub	Frequency range	Depth	Communication time at 2 knots	Communication time at 4 knots
RF WideBand Rx Only	3"	OF Wire 3 km	RX 10 kHz to 3 GHz	Up to 300 m	50 min	25 min
	4"	OF Wire 7 km			110 min	55 min
RF WideBand Rx & Tx	3"	OF Wire 3 km	RX 10 kHz to 3 GHz Tx 100 MHz to 2 GHz	Up to 300 m	50 min	25 min
	4"	OF Wire 7 km			110 min	55 min
SAT Iridium	3"	OF Wire 3 km	SAT All Iridium Services	Up to 300 m	50 min	25 min
	4"	OF Wire 7 km			110 min	55 min

The services associated with each buoy can be received from the submarine. AIS and ADSB status, GPS position, tactical data link and V/UHF communications can all be managed either from the submarine’s operations center or from a ground control system (GCS).

