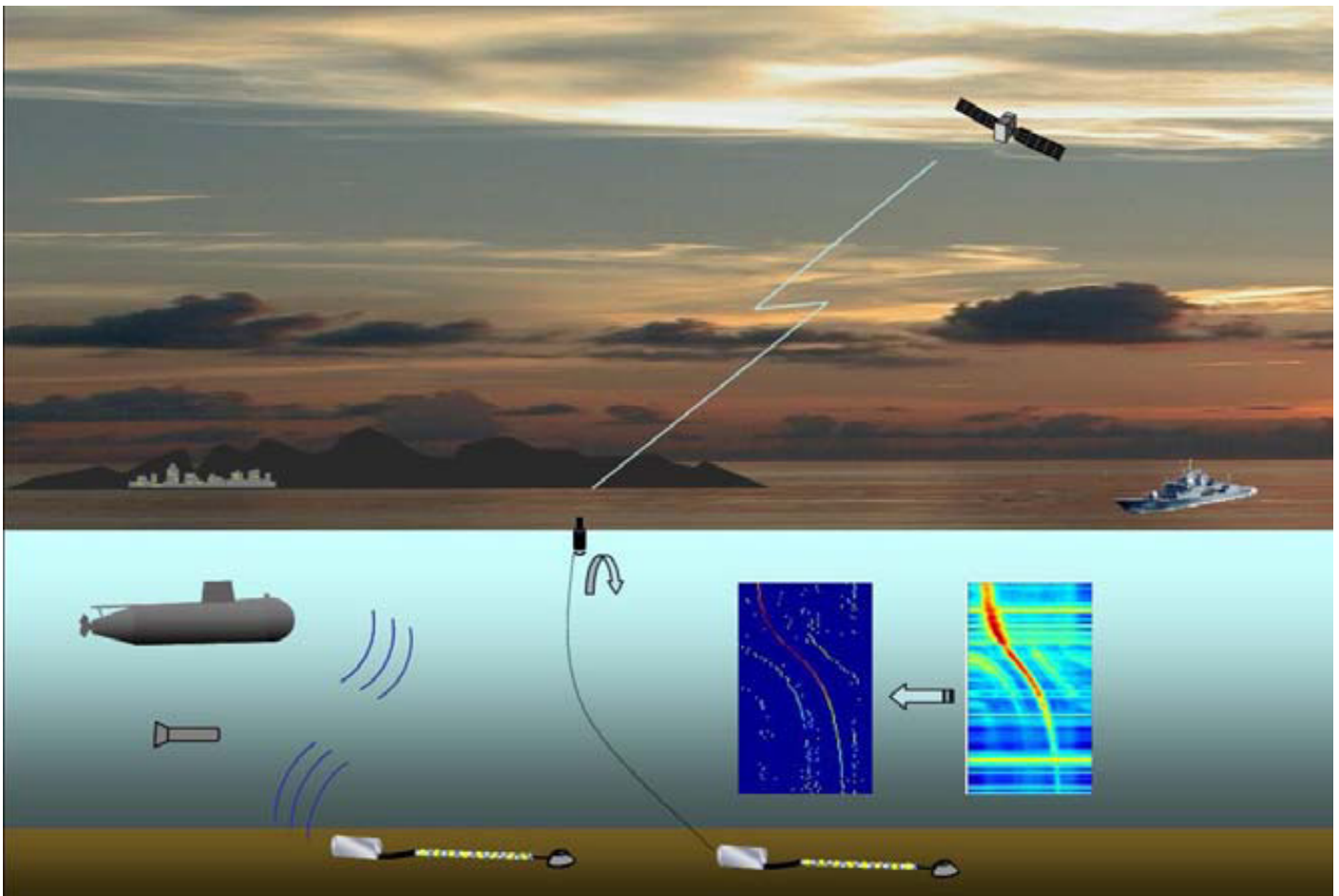


FACT SHEET - AUSSNet Autonomous Underwater Surveillance Sensor Network



Features

AUSSNet would be able to be used in littoral operations such as:

- Forward deployed Intelligence, Surveillance and Reconnaissance (ISR)
- Surveillance of Choke Points
- Harbour Defence
- Support of Amphibious Landing Operations (ALO)
- Border Surveillance
- Support of Breakout Operations
- Littoral Anti Submarine Warfare (ASW)
- Undersea Force Protection, Home and Foreign Environments; and
- Critical Infrastructure

L-3 Nautronix has designed an Autonomous Underwater Surveillance Sensor Network (AUSSNet) to address the need for a re-locatable, long-endurance capability for remote undersea surveillance.

AUSSNet is a self-contained sensor network, designed for forward deployment in undersea areas of operational significance. The sub-sea sensor network would be recoverable, reconfigurable and reusable.

A Capability and Technology Demonstrator (CTD) of AUSSNet has been designed to gather, process, store and discreetly transfer surveillance data to Land, Air, Space or Sea assets through a combination of Satellite, RF and hydro-acoustic telemetry links. It would be easily and quickly deployed to provide a persistent undersea surveillance capability for extended periods in any targeted area of operation.

AUSSNet CTD Demonstrator System

The subsea communications network consists of hydroacoustic communication system nodes, linked to a single access node connected via a pop-up gateway buoy to a shore based control and monitoring station. The demonstrator system shown below includes:

- two System Nodes: deployable electronics packages that interface to a hydrophone array and includes subsea communications;
- one Access Node: a System Node configured for use with a Pop-Up Gateway Buoy;
- a shore based Control and Monitoring Station: providing remote operation of the subsea network via the Access Node

History

AUSSNet builds on earlier collaborative programs in the areas of through water communications and navigation, relocatable undersea acoustic sensors and undersea acoustic data networks between L-3 Nautronix and the Australian Defence Force (ADF), in particular the Defence Science and Technology Organisation (DSTO) and the Defence Materiel Organisation (DMO).

It brings together specific elements of past programs into one coherent system that will provide the ADF with a new capability that could be easily transitioned into full production systems.

