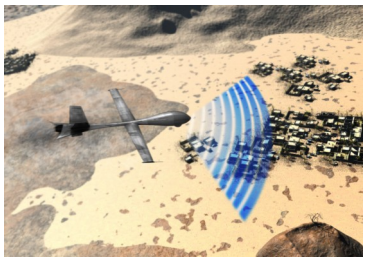
Radar Capability

SEA has significant radar experience, including recently completing a cutting-edge three year research programme to develop a Counter Camouflage Concealment and Deception (CCC&D) Radar using a Low Frequency Synthetic Aperture Radar (LF SAR).

Counter Camouflage Concealment and Deception (CCC&D)

The CCC&D programme culminated in a number of flight trials during which the radar's capability to detect shallow buried objects, objects under foliage and long wires such as trip wires and command wires was successfully demonstrated. Using data recorded from those trials, further refinements of the processing algorithms has now allowed previously undetected objects to be identified, showing that low frequency SAR has significant potential military utility.



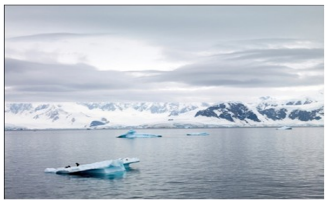
Remote Minefield Detection System (REMIDS)

SEA was responsible for the design and integration of the Remote Minefield Detection System Ultra Wideband Synthetic Aperture Radar (REMIDS UWB SAR) for DERA (now QinetiQ). This high-resolution sensor developed as part of a technology demonstration programme for the MoD investigated new technologies for detecting minefields from an airborne platform.

TME Minder Cap UWB

SEA performed a study for Thales Missile Electronics investigating the potential of a vehicle-mounted forward-looking Ultra Wideband (UWB) radar in order to determine the value of a UWB subsystem to the MINDER programme. This considered the performance of different UWB configurations in detecting surface, flush and buried mines. This involved the analysis of data together with modeling and simulation and a number of different configurations were modeled and the effect of changing the configuration was analysed to optimize the geometry.

Radar for Ice Detection and Characterisation (RADIACT)



The RADIACT concept is one of a highly compact transmitter/ transponder unit consistent with mounting on a small UAV (for ease of deployment and capture) and used for characterising whether approaching ice presents a threat to the platform operation. SEA will produce the preliminary design of the technology demonstrator and scope the operational system.

Cold Regions Hydrology High-Resolution Observatory (CoReH2O)

For this ESA Explorer mission SEA supports the phase of "payload analysis and definition and design" for aspects related to synthetic aperture radar (SAR) calibration