

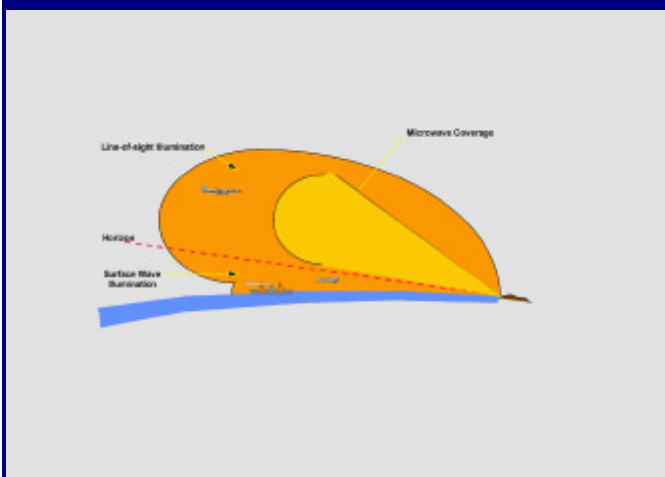
SECAR

Surface-wave Extended Coastal Area Radar

Australia's strategic policy places high priority on achieving continuous, effective, real-time surveillance of aircraft and ships in Australia's maritime approaches. An integrated all-weather detection and identification system to achieve this objective will rely on a range of sensors, platforms and capabilities. High Frequency surface wave radar offers a low risk, low cost solution for Exclusive Economic Zone Surveillance.

The Daronmont radar, identified as Surface-wave Extended Coastal Area Radar (SECAR), is an indigenous capability for off-shore surveillance.

Engineering technologies such as surface wave radar offer significant potential for new surveillance options. A series of scientific trials have determined the radar's ability to detect and track small ships and low altitude aircraft over water. Integration of SECAR with other sensors enables new, cost-effective, surveillance multipliers.



Microwave radars of the types commonly fitted to ocean-going vessels are limited to line of sight and cannot see beyond their horizon. The signals of surface wave radar 'stick' to the surface of the sea and bend around the curvature of the earth. Surface wave radar is a superior capability for coastal surveillance of shipping and air traffic, capable of over-the-horizon detection and alerting. Early warning of potential targets of interest is a significant advantage in the deployment of other assets.

SECAR is designed to achieve optimum surveillance. Applications include:

- around-the-clock coastal surveillance
- protection of fisheries resources
- protection of off-shore assets
- smuggling deterrence
- sea-state monitoring
- early storm warning
- search and rescue
- ship traffic control
- marine research