

# Defence High Frequency Communications System (DHFCS)

Historically, the Royal Australian Air Force, Australian Army and Royal Australian Navy operated their own independent high frequency (HF) communications systems, with some components of these systems having been in operation for more than 40 years. By the early 1990s, the Australian Defence Force (ADF) determined these systems were not adequate for the voice and data connectivity requirements of modern combat forces.

In 1993, the ADF decided to combine the three HF systems into one, covering continental Australia and significant distances from the coastline. The new system was to replace the existing systems, centralise control into a single command centre and incorporate redundancy to ensure service was uninterrupted in the event of one of more stations or control centres losing operational capacity.

The contract, awarded to Boeing Defence Australia, also involved the development of platform upgrades for the communications equipment on ships, planes and vehicles used by the Australian Air Force, Navy, and Army to increase the reliability and automation of HF communications with Australia's deployed forces.

Originally known as the High Frequency Modernisation Project, renamed the Defence High Frequency Communications System (DHFCS), Boeing delivered the core system in 2004. The final system was introduced into service in September 2009, with Final System Acceptance achieved in April 2010.

DHFCS enhances the ADF's command and control capability by linking command centres and deployed aircraft, ships and land forces. It consists of four radio stations, called nodes, located at North West Cape (Western Australia), Darwin (Northern Territory), Townsville (Queensland) and in the Riverina region (New South Wales). These are connected to two purpose-built control centres in Canberra (Australian Capital Territory). With no call charges and no limitations on the time of operation or data volumes, DHFCS is a cost-effective solution, and the only alternative when satellite communications are not available or have been disabled.

Today's DHFCS is the most advanced tactical HF communications network in the world, the largest in scale, and the most automated. Its exceptional range and clarity, traffic volumes, ability to automatically select the optimal frequency and connect without operator intervention, and speed of connection have provided a new level of communications capability to the ADF.

