

Field Operations assists New Zealand neighbours

The ACMA's High Frequency (HF) Monitoring and Investigation facility is located at Quoin Ridge, Tasmania and is a world class facility. It houses the organisation's Field Operations Hobart office, is an International Telecommunications Union (ITU) accredited facility and operates the ACMA's HF direction finding network of sites which are located throughout Australia.

The quiet conditions at Quoin Ridge are ideal for HF monitoring. Tasmania has very low-density radiocommunications traffic and background noise levels due to its relatively small technology industry base and low population. This facility is one of only three such stations in the world—the others are in Baldock in the United Kingdom and Maryland in the United States—making it a key linchpin internationally for tracking HF interference.

Radiocommunications interference to HF radiocommunications users within Australia can involve numerous

Field Operations staff based at the Quoin Ridge facility began investigating the complaint by monitoring the frequency (7848 kHz) and checking if the assignment was ITU listed and/or used by other administrations. It was soon confirmed the assignment was ITU listed and other administrations also had listings for this frequency, however these were not thought to be causing the reported interference.

With further monitoring, signal analysis and utilising the ACMA's HF direction finding (HFDF) network, Hobart field staff were soon able to identify and

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ACMA resources and field staff time trying to identify and locate the source of the interfering signal. Due to the nature of HF radiocommunications, the interference may be emanating from any part of the globe. In the majority of HF interference complaints, the investigation process will involve the use of ACMA's Quoin Ridge HF monitoring station and HF direction finding (HFDF) facilities to assist in the identification, location and ultimately elimination of the interfering signal.

From time to time, Quoin Ridge receives requests from administrations around the world to assist with locating interference sources. In June this year, the New Zealand communications regulator requested assistance in identifying and locating interference to a licensed HF service in Christchurch.

locate the source of the interfering emission, as a transmission on an adjacent frequency which was not ITU listed.

The identity and location of this transmission was confirmed as a station transmitting a universal time signal from Ottawa, Canada. The station had changed one of its transmissions to a new frequency earlier this year.

This information was then passed on to the New Zealand regulator to follow up with the Canadian administration. This is a positive example of one of the many practical activities undertaken at the ACMA's Quoin Ridge facility. ☎