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ACMA's HF Monitoring and Investigation facility eliminates interference to SES flood relief in Queensland

During the recent floods in far north Queensland, Field Operations staff at ACMA's world class Quoin Ridge High Frequency (HF) Monitoring and Investigation facility successfully identified and eliminated severe interference to the frequency used by Queensland's State Emergency Service (SES) flood co-ordination.

The Queensland SES contacted the Brisbane office of ACMA's Field Operations Section, lodging a complaint of radiocommunications interference to their main HF (14MHz) state disaster coordination frequency. The frequency 14.745 MHz was being used for daytime communications throughout Queensland for coordinating relief efforts during the floods.

Staff in the Brisbane office started investigating the complaint by monitoring the frequency to confirm the interference and try to identify the source. The Brisbane office then asked for assistance from ACMA's HF Monitoring and Investigation facility located at Quoin Ridge, approximately thirty-five kilometres north of Hobart, Tasmania.

At Quoin Ridge, field staff were able to monitor, measure and decode the interfering signal and trace its source to an emission originating in the vicinity of Fukushima, Japan. After confirming that this particular frequency was both registered with the International Telecommunications Union (ITU) and not assigned to any other country, in particular Japan, ACMA contacted the Japanese Administration (Ministry of Internal Affairs and Communications), advising the details of the harmful interference and asking for their assistance in eliminating its source.

Within just a few days and with further assistance from the Quoin Ridge facility, the Japanese Administration had located and eliminated the source of the interfering signal.

The Quoin Ridge HF Monitoring and Investigation facility, which also comprises the Field Operations Hobart office, is accredited by the ITU and also operates ACMA's HF radio direction–finding network of sites 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 UK and Maryland in the US—making it a key linchpin internationally for tracking HF interference.

Radiocommunications interference to HF radiocommunications users within Australia can involve numerous ACMA resources and field staff time in the work of identifying and locating the source of the interfering signal, which, due to the nature of HF radiocommunications, may be emanating from any part of the globe. In the majority of HF interference complaints, the investigation process will involve the use of the Quoin Ridge HF Monitoring and Investigation facility to help identify, locate and ultimately eliminate the interfering signal.

