

UTAS Mark5 issue September 2018 to June 2019

A minor issue affected all data recorded at Hobart from around the 5th of September 2018 and all Ceduna data from November 2018 until June 2019 (both cases).

In high resolution spectra (~1 kHz channels) very small amplitude spikes can be seen every ~10 KHz in the autocorrelation data. These are small enough in amplitude that they are unlikely to be of serious consequence in data analysis, but may be noticeable in some autocorrelation spectra. No particular action is recommended for analysing data acquired during the affected period, but care should be taken to verify any calibration that depends on autocorrelation spectra.

The issue of the small spikes in the autocorrelation data of Hobart and Ceduna appears to be due to the recording mode being set to pudp which doesn't account for the sequence numbers being included in every packet. This was required for the mark5C recorder (where the configuration scripts were taken from) but basically introduces 16 bytes of nonsense every frame (10000 bytes + the 16 byte header) at the cost of real data. The repeated header blocks create the spikes - the spacing of which will be dependent on the frame duration and hence the recording data rate.

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