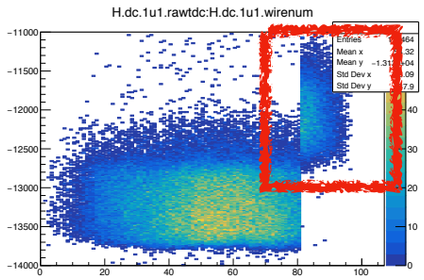
HMS Ref. Time vs. Raw TDC Correlation

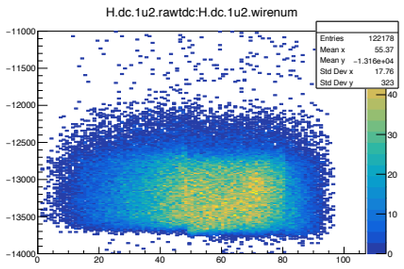
Carlos Yero

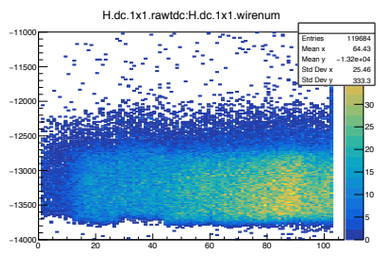
July 5, 2018

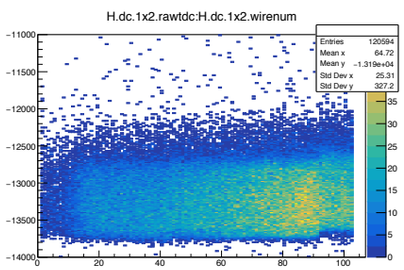
1 PASS (2.2 GeV Beam):
HMS RUN 1267
Raw TDC vs. WireNumber

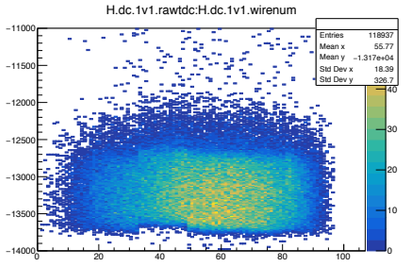
DC1

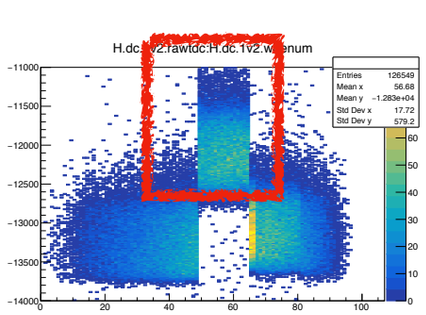




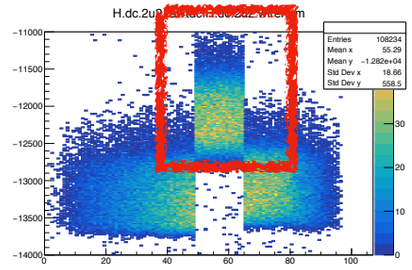


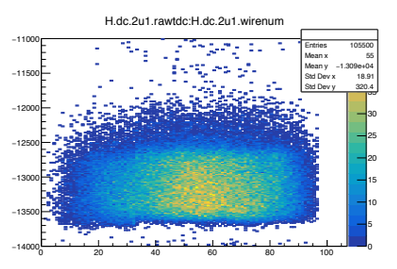


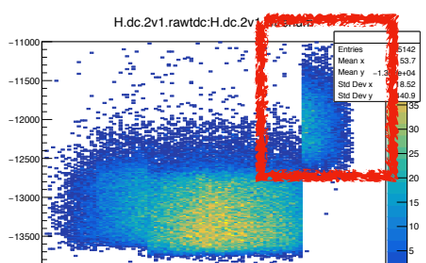


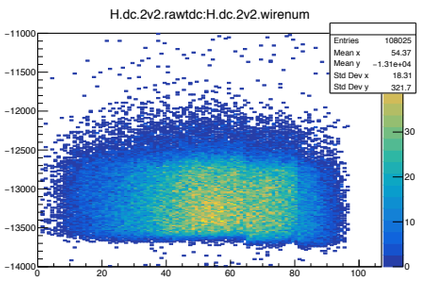


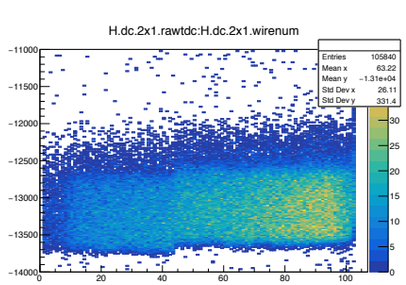
DC2

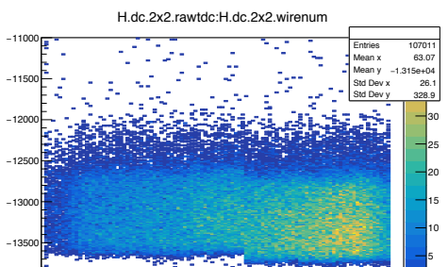






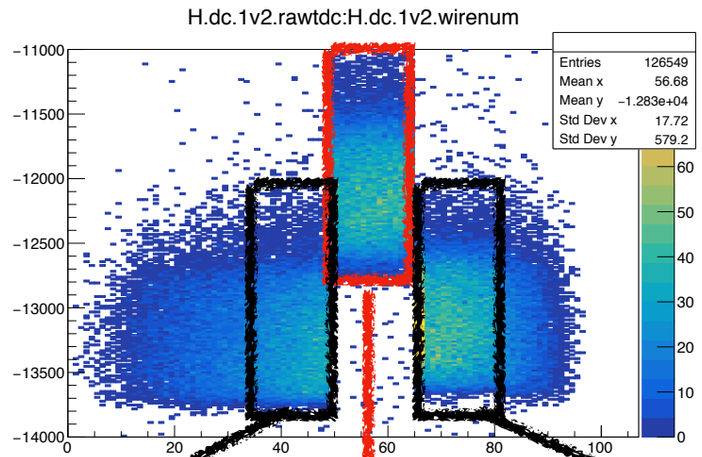






The boxed regions represent the groups of wires that are fed into TDC Slot 2 in the HMS DC Crate.

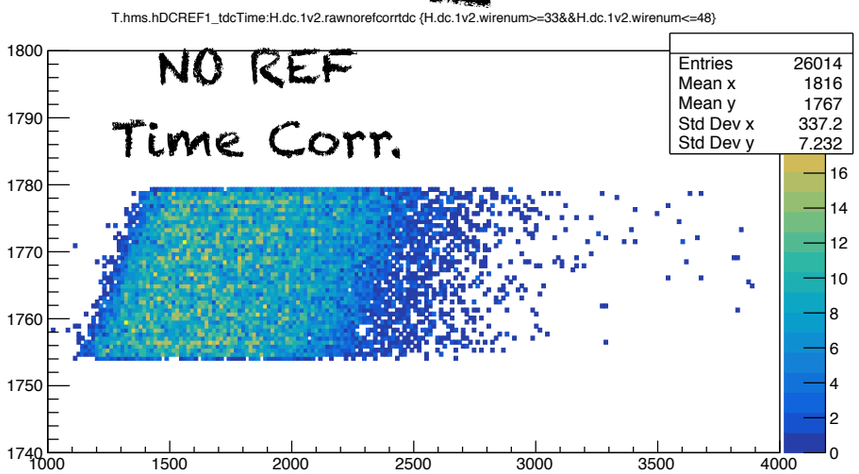
1 PASS (2.2 GeV Beam): HMS RUN 1267

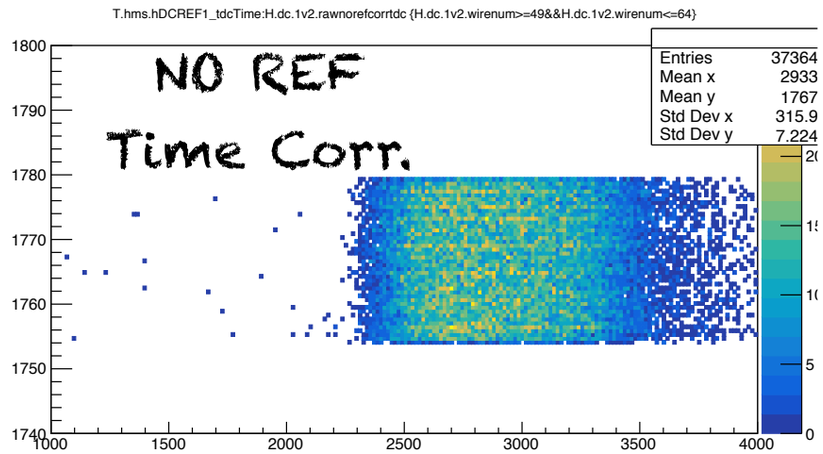


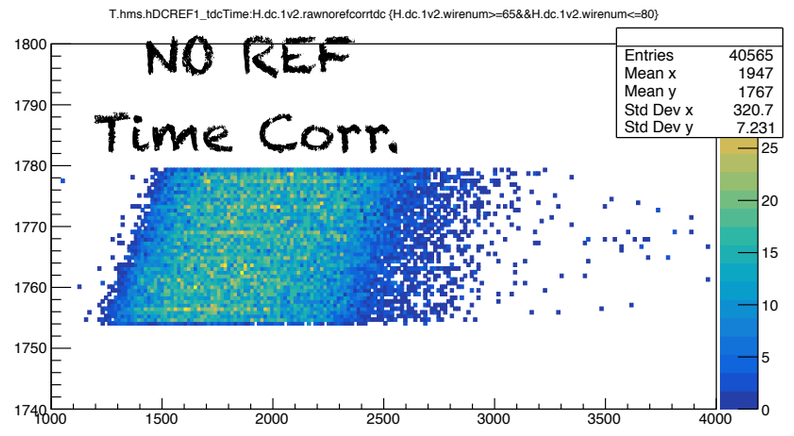
TOP 3 PLOTS: hDCREF1 tdcTime v. 1v2 noREFtimeCorr. tdcTime

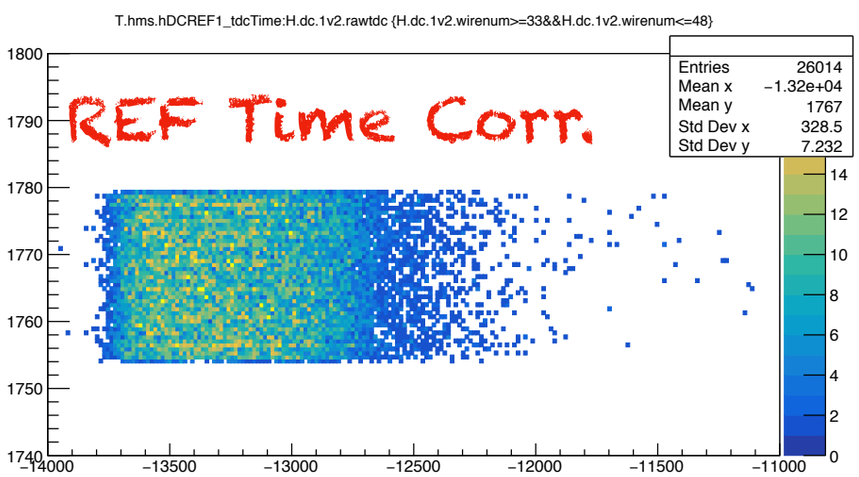
BOTTOM 3 PLOTS: hDCREF1 tdcTime v. 1v2 tdcTime

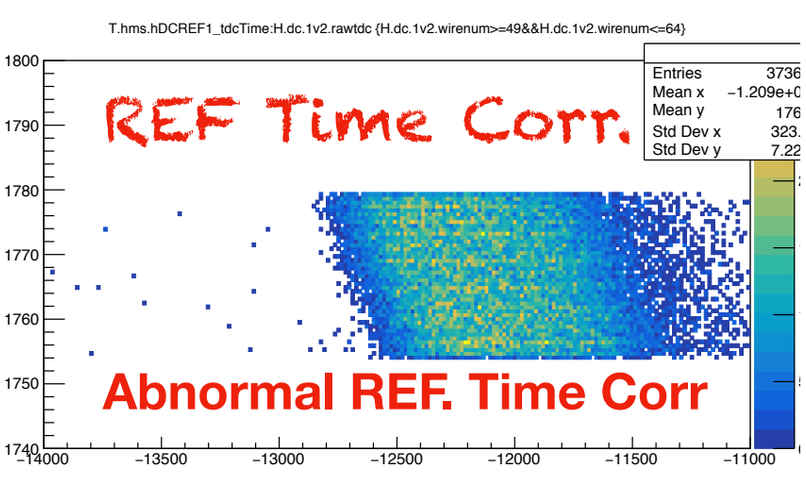
TDC SLOT2

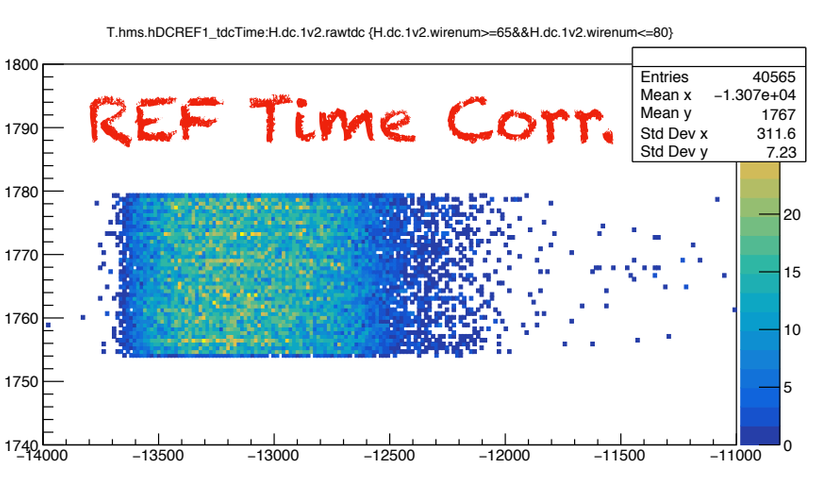












In the previous slide, is just one example of the reference time subtracted tdcTime In TDC SLOT2 as compared to other TDC slots in which the adjacent Group of wires were in.

There is a problem with how this TDC SLOT2 processed the injected reference time. It is as if its reference time was out of SYNC, and the subtraction was NOT done properly.

A similar behavior was observed in the other groups highlighted in RED in SLIDE 2. This is observed also in other runs.