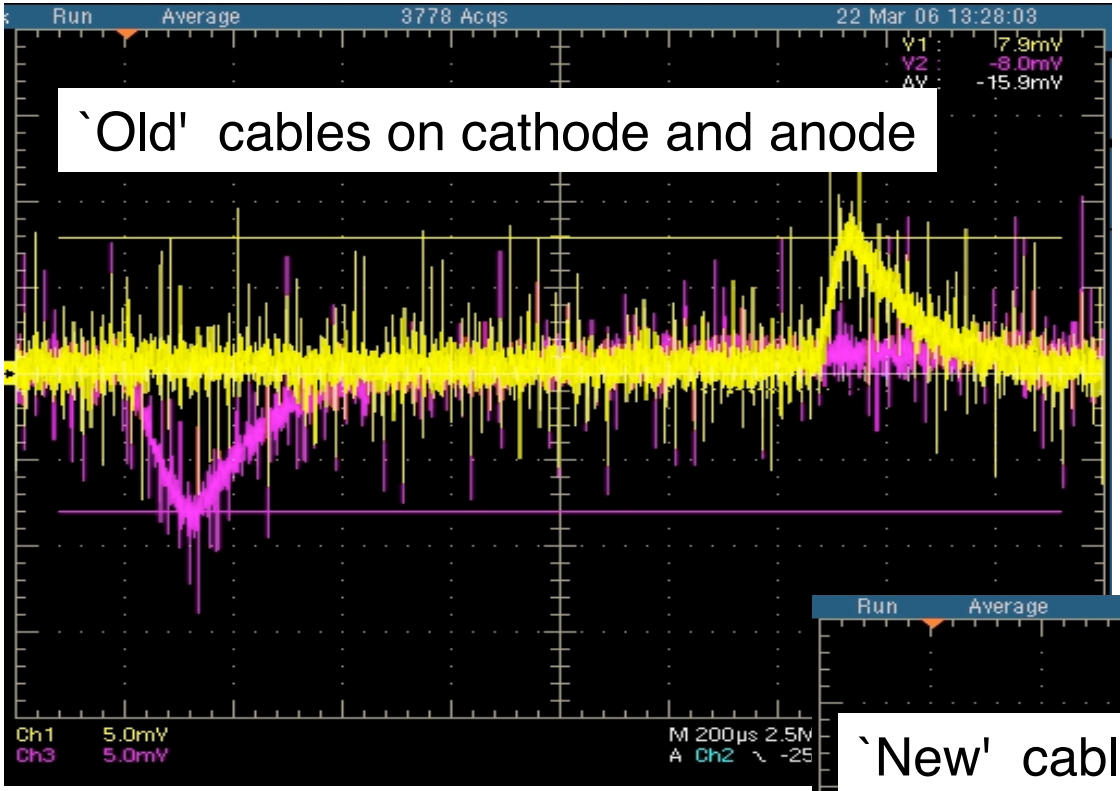
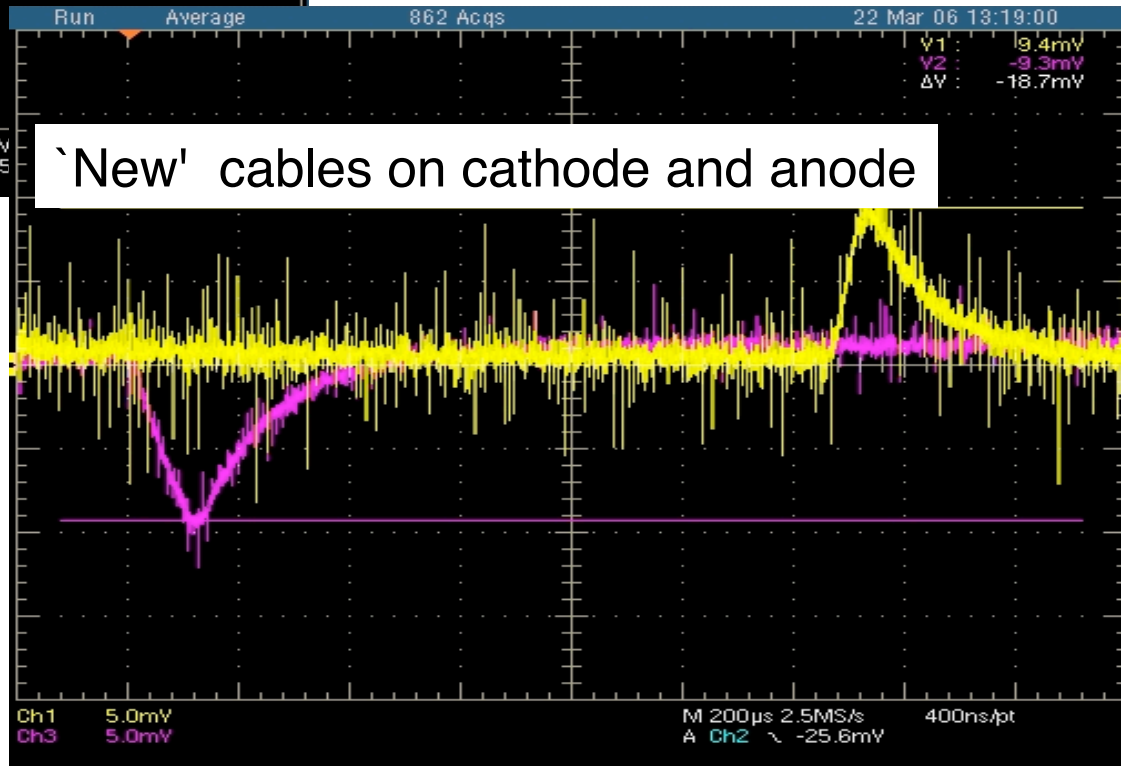
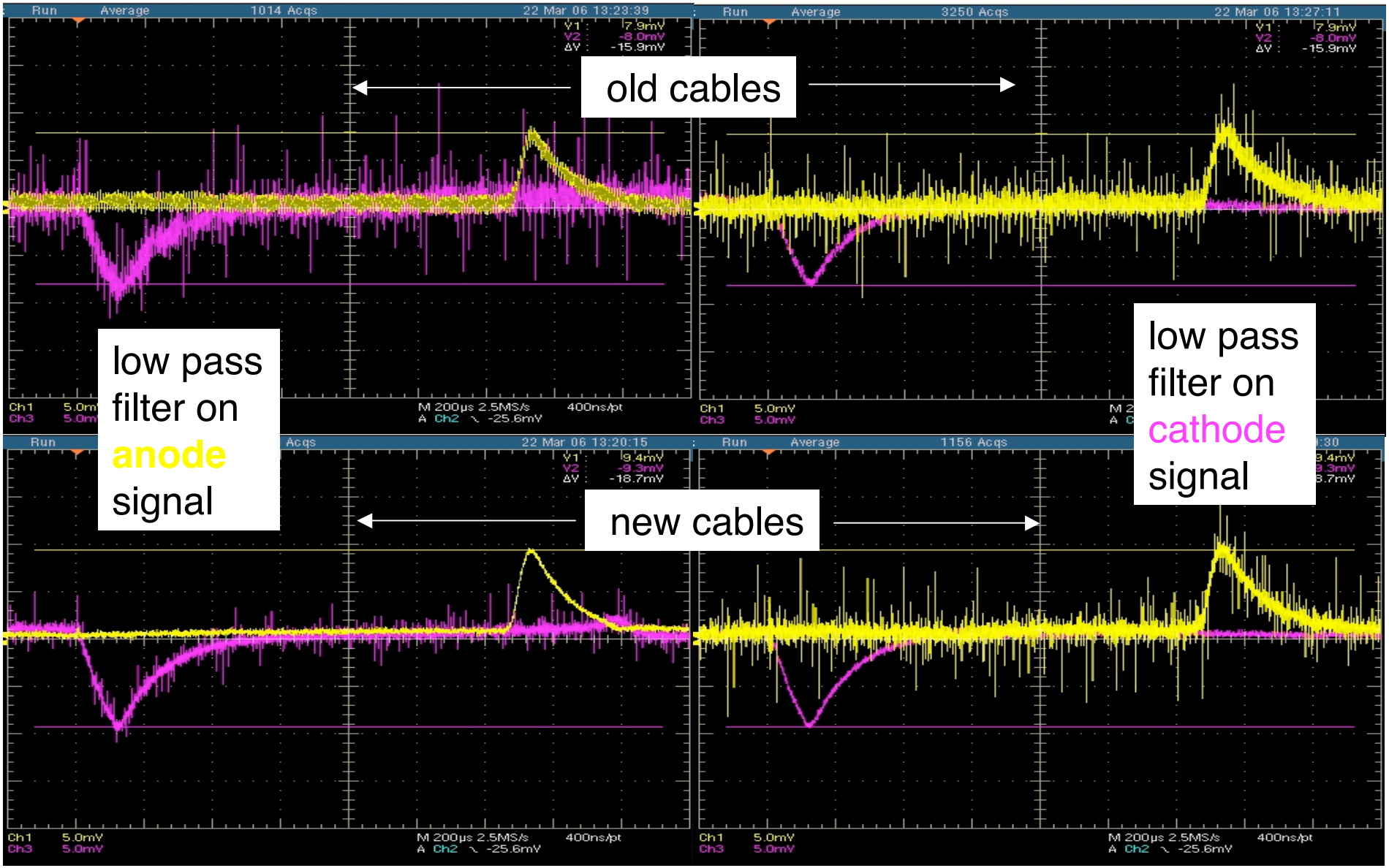


Test of new cathode cable proposed by Walter..3/22/06 (lower capacitance) gives larger signal (by 15%) and less noise.



I take noise as the width of the full band (ignoring the high frequency spikes). The signals are averaged 2 times only and there is no low-pass filter so this high frequency noise is visible - this disappears on averaging more times.

showing a) effect of simple low-pass filter and b) the effect of new cables; the effect of the new cables adds to the effect of the filter



The `old' cathode cable was RG58C/U MIL 17C 17/28 Type IIA; the new cable is RG180 MIL-C-17G M17/95 and carries the name Surprenant Cable & Wire;

The `old' anode cable was Reynolds 167-2669;

John Krider measured the lifetime in rapid succession with:
new cables: 4.2 milliseconds
new anode, old cathode: 4.3 milliseconds
old cables: 4. 2 milliseconds

These values have an uncertainty larger than their spread and we conclude that the new cables give less noise but do not affect the lifetime measurement in a systematic way.