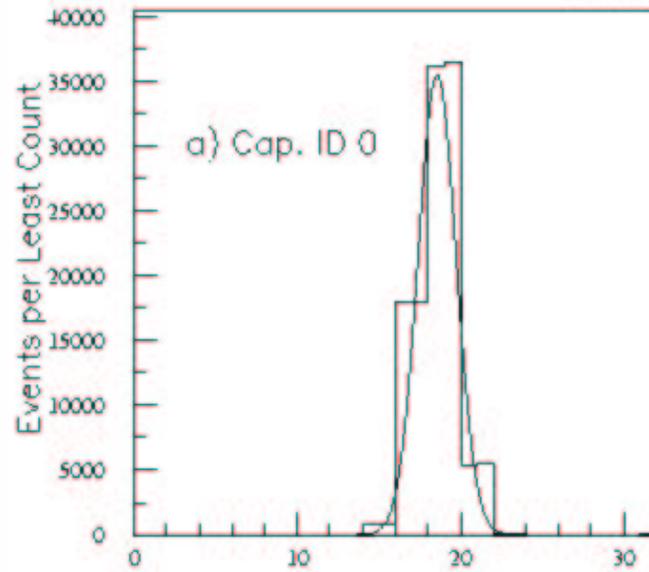
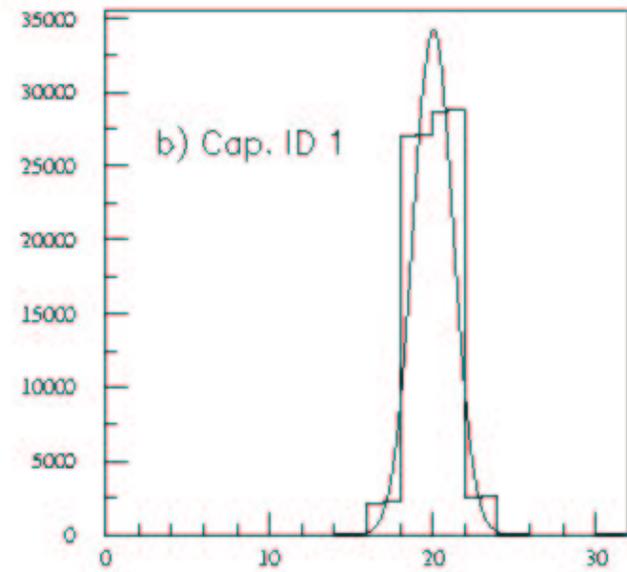


# Channel A

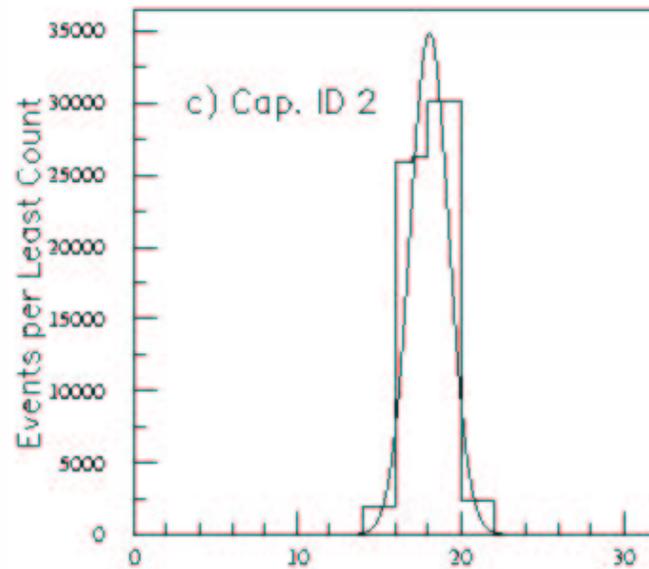
# OLD



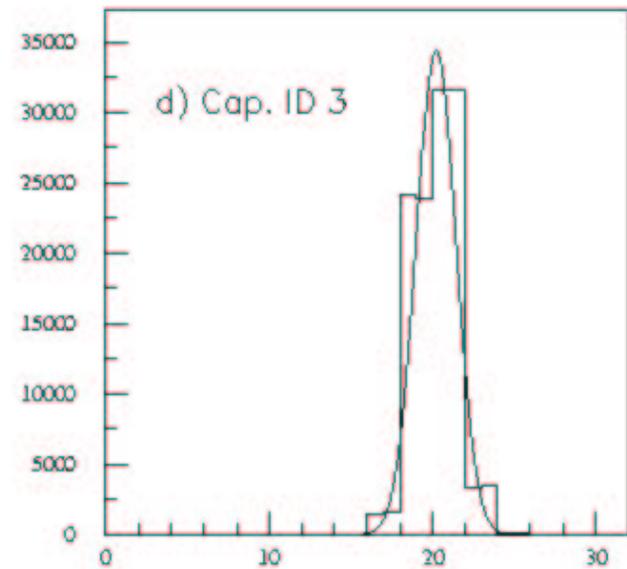
**Ch A Cap ID 0**



**Ch A Cap ID 1**



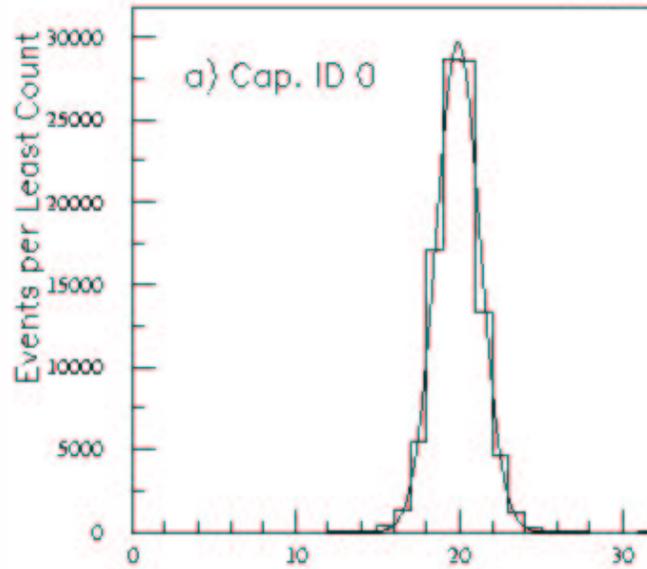
**Ch A Cap ID 2**



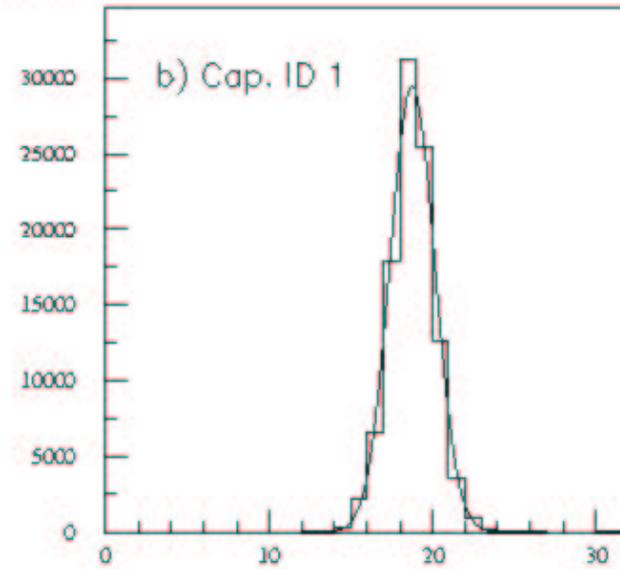
**Ch A Cap ID 3**

# Channel A

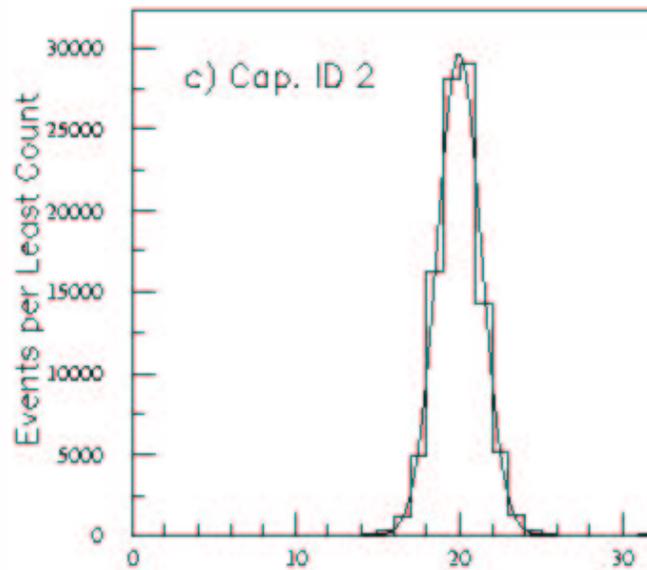
# NEW



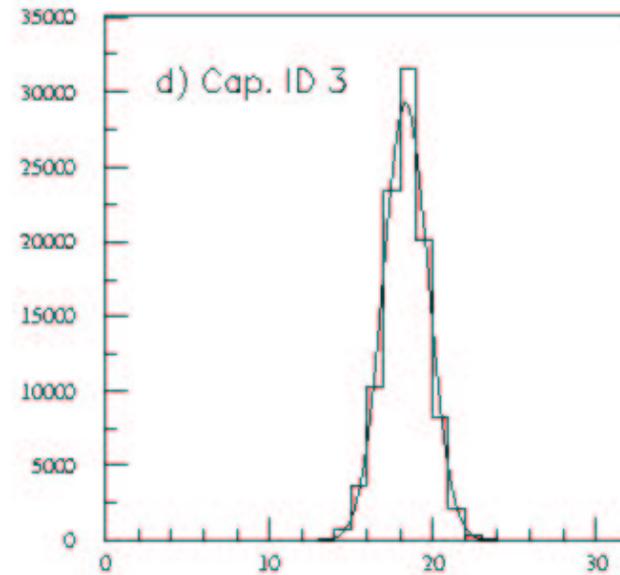
**Ch A Cap ID 0**



**Ch A Cap ID 1**

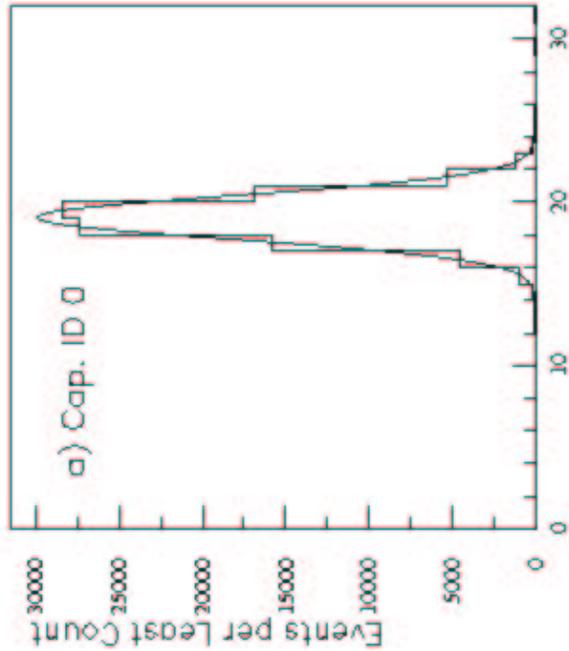


**Ch A Cap ID 2**

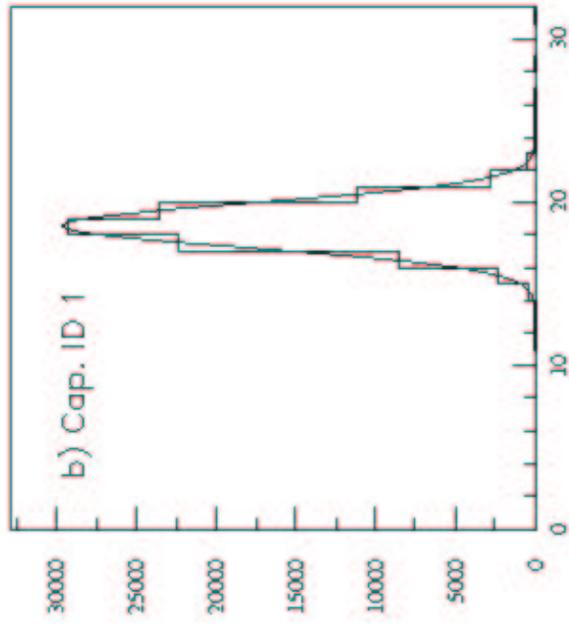


**Ch A Cap ID 3**

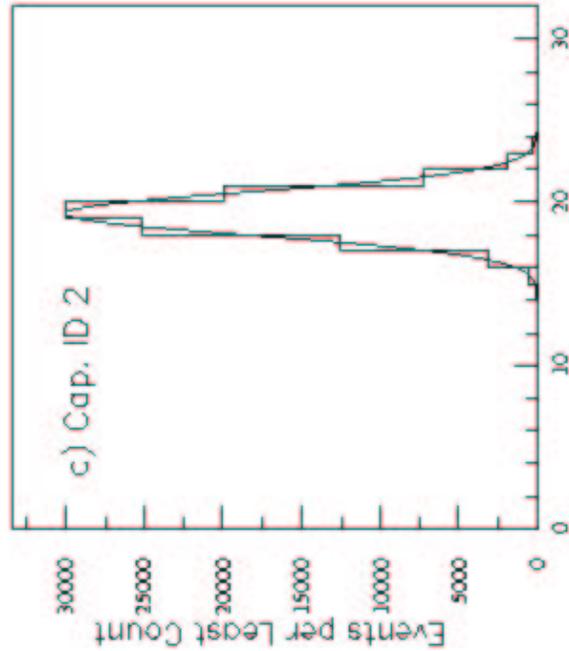
# Channel B



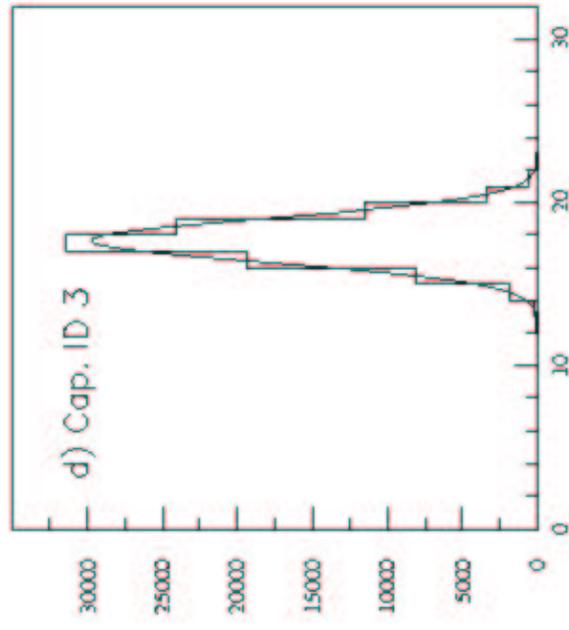
**Ch B Cap ID 0**



**Ch B Cap ID 1**



**Ch B Cap ID 2**



**Ch B Cap ID 3**

Fermilab Source Test, Data Trailer

Mon Apr 8 16:22:58 2002

(East Coast Time)

User comments:

7 kV

Channel A: ave. =18.765 +/- 0.002 sigma = 1.576

Cap ID 0: ave. =19.422 +/- 0.004 sigma = 1.402

Cap ID 1: ave. =18.269 +/- 0.004 sigma = 1.415

Cap ID 2: ave. =19.496 +/- 0.004 sigma = 1.401

Cap ID 3: ave. =17.871 +/- 0.004 sigma = 1.413

Channel B: ave. =18.156 +/- 0.002 sigma = 1.508

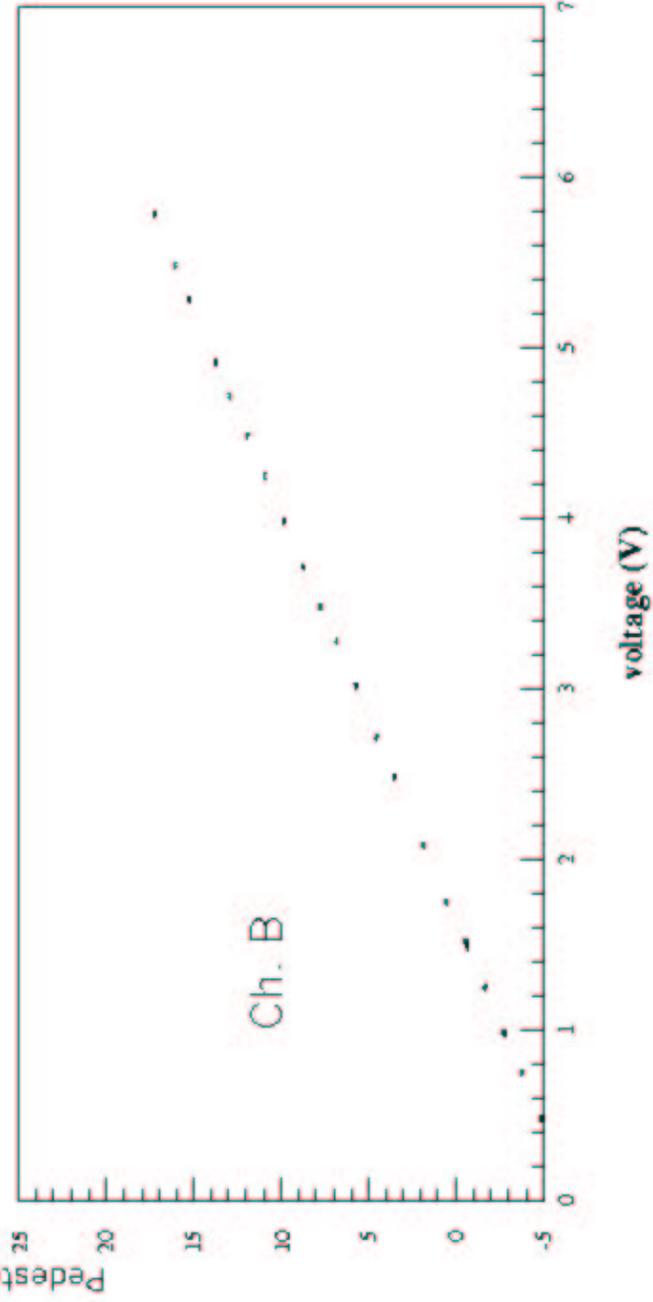
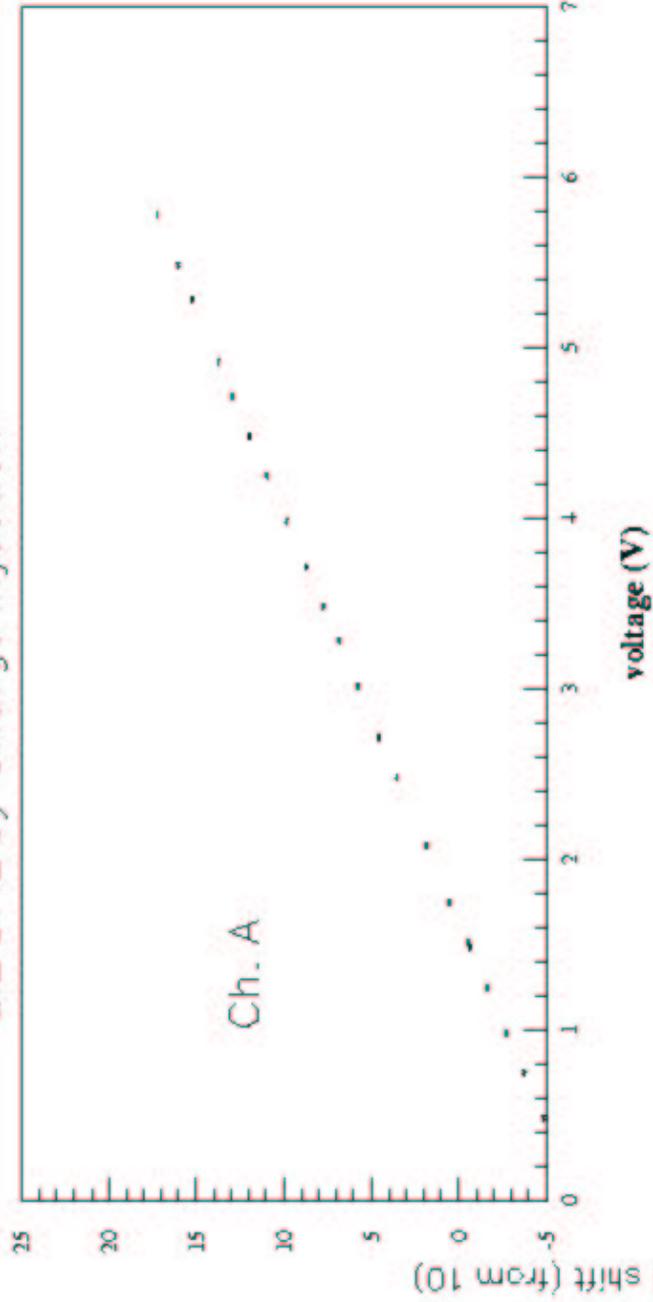
Cap ID 0: ave. =18.556 +/- 0.004 sigma = 1.371

Cap ID 1: ave. =18.091 +/- 0.004 sigma = 1.386

Cap ID 2: ave. =18.795 +/- 0.004 sigma = 1.368

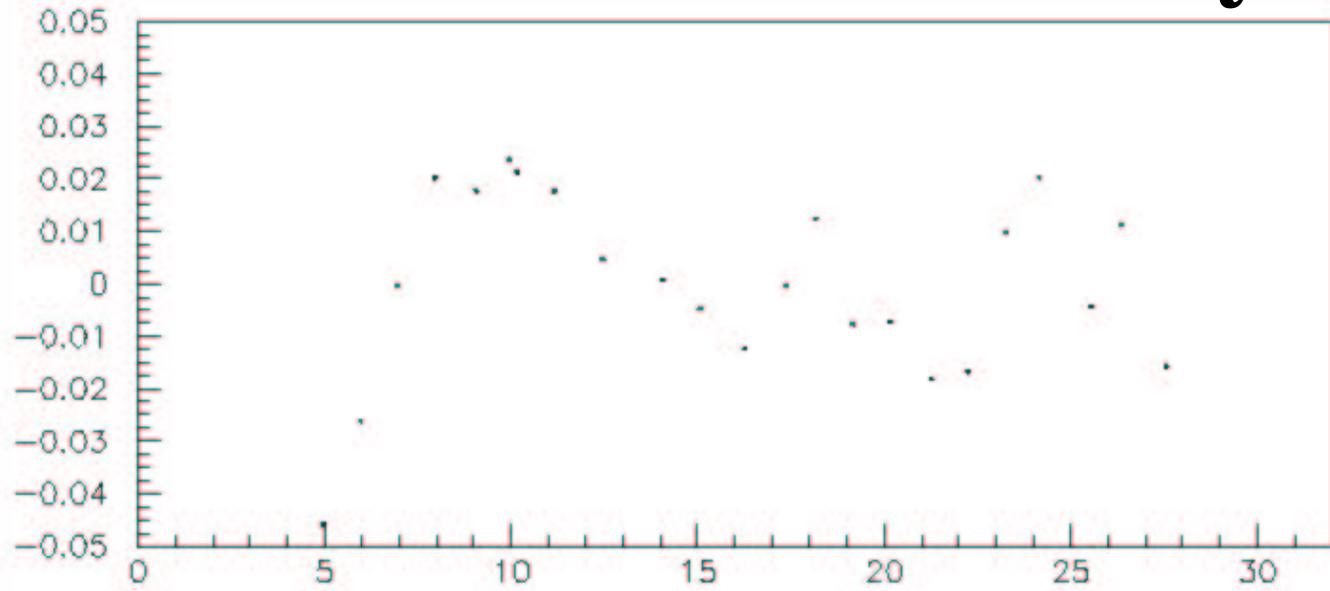
Cap ID 3: ave. =17.185 +/- 0.004 sigma = 1.382

# QIE DNL by Charge Injection

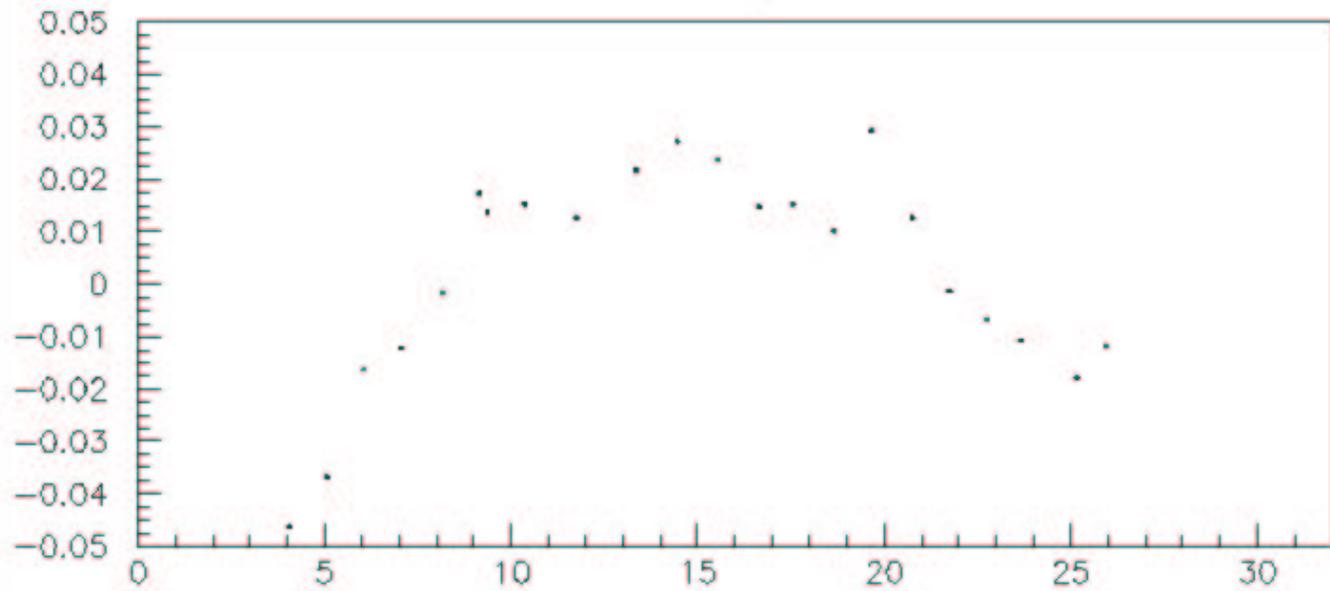


# deviation from linearity

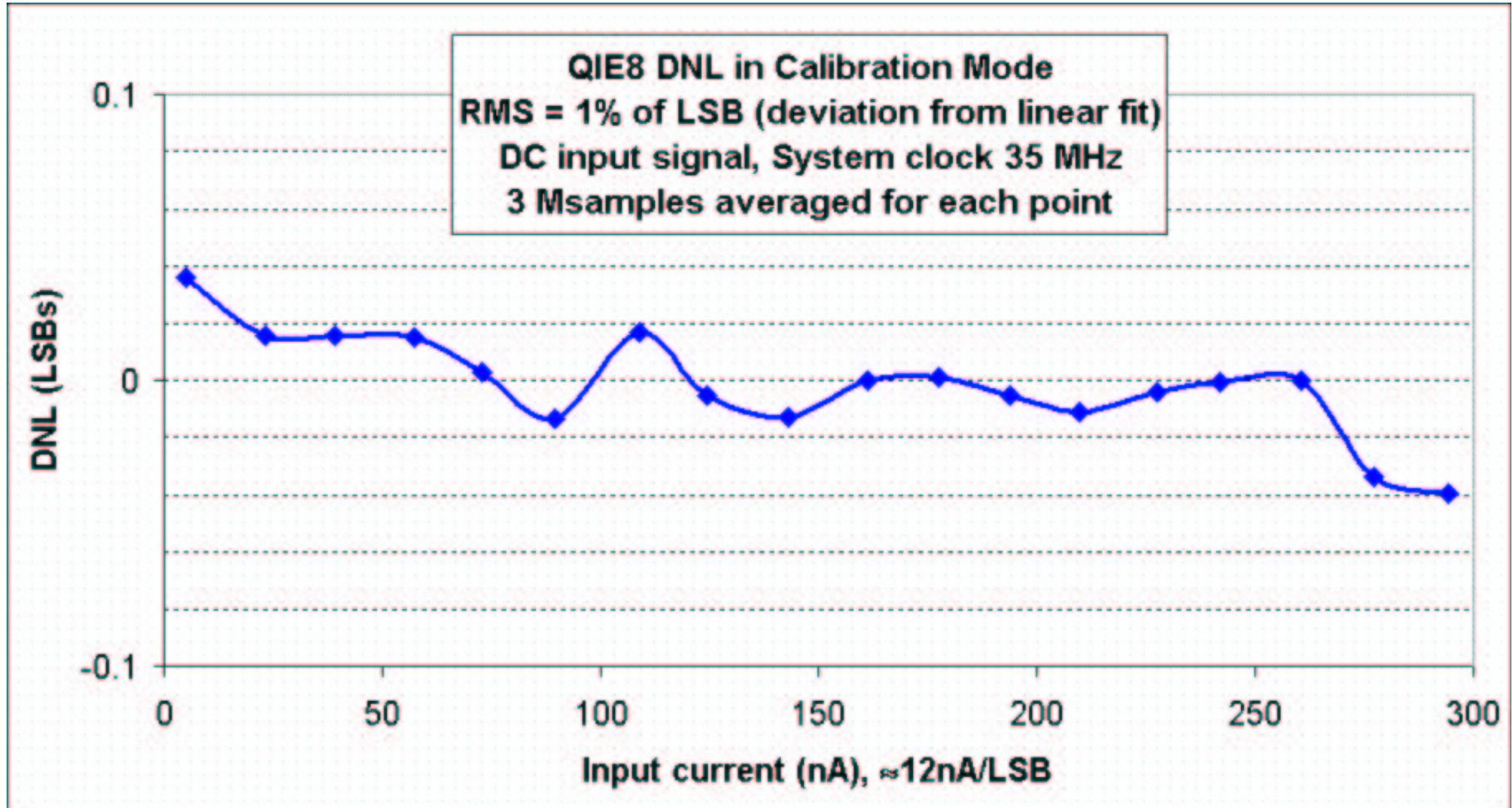
ch. A



ch. B

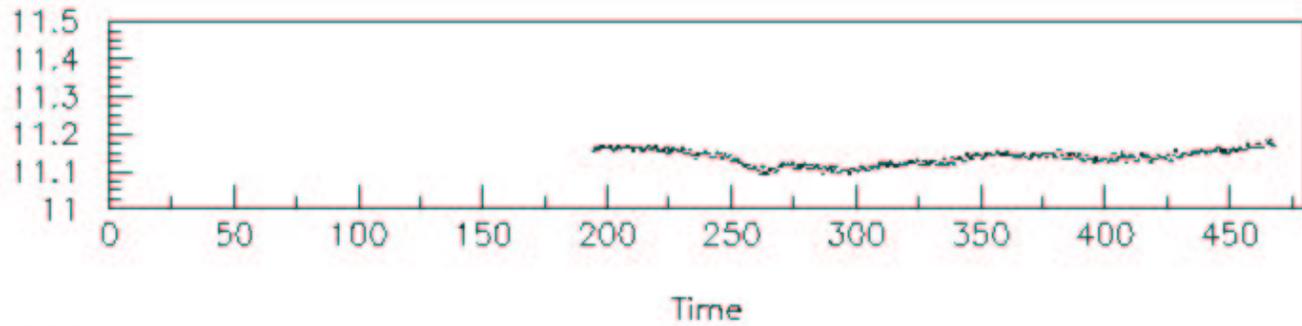


# Sergey (data of Feb. 26)

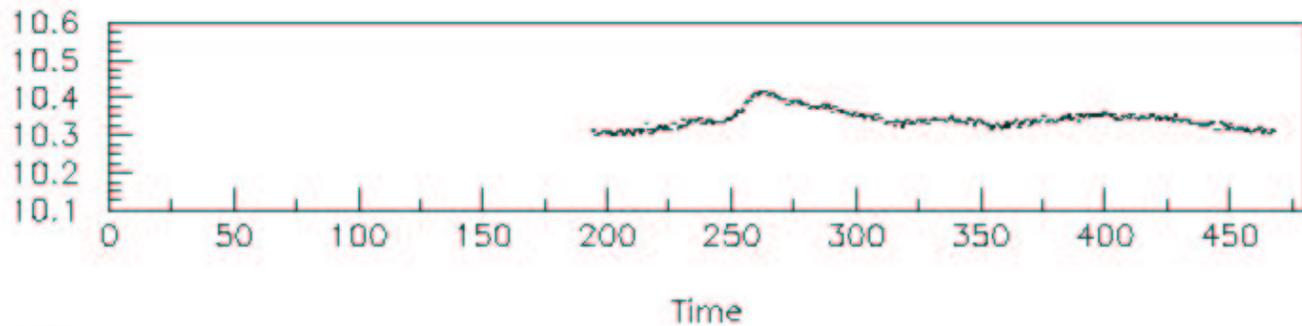


# Ch. A

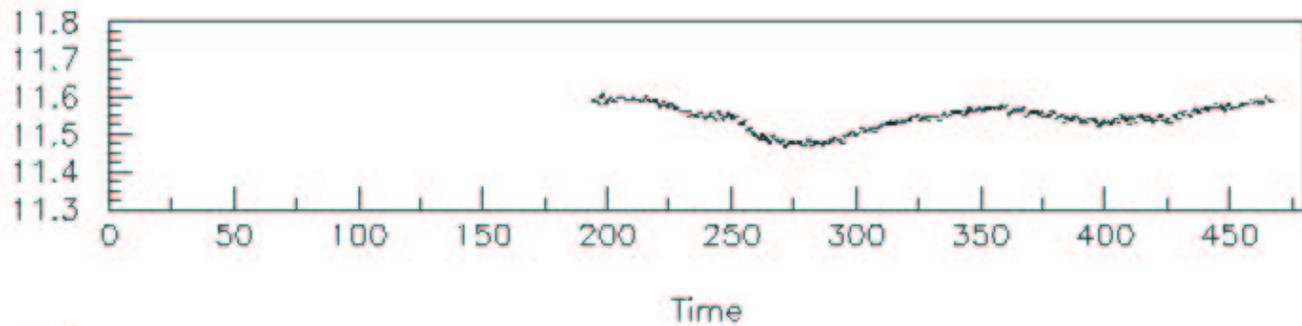
cap 0



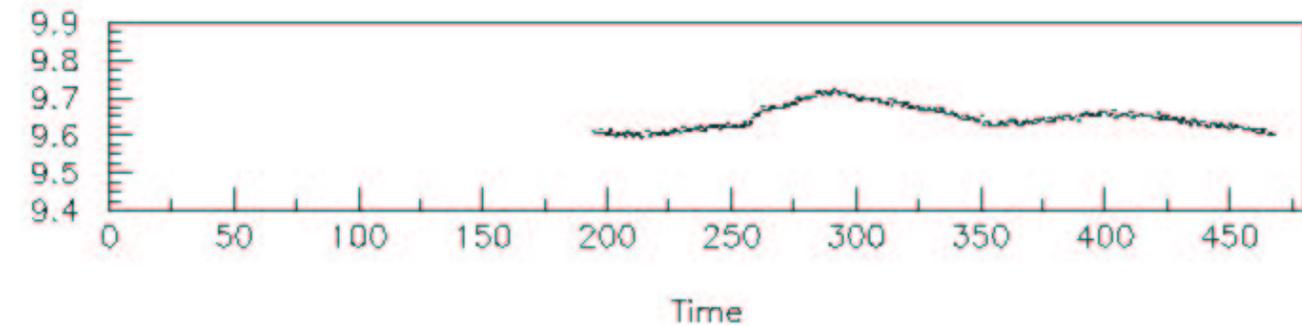
cap 1



cap 2

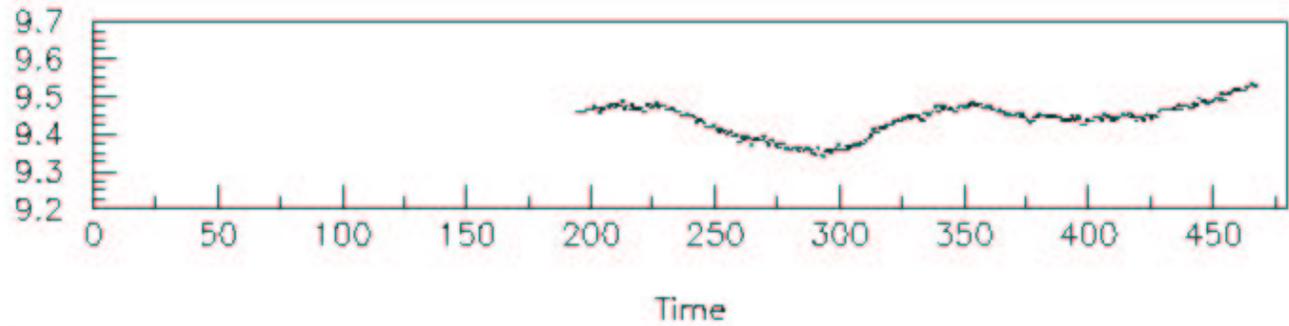


cap 3

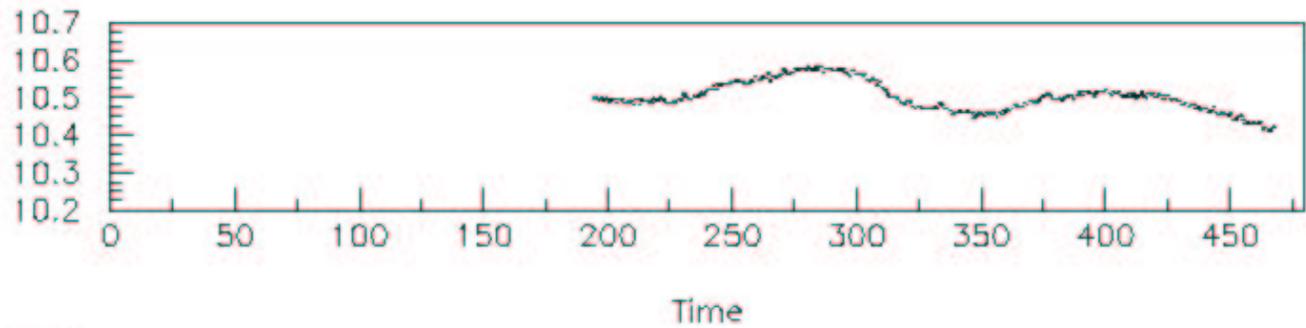


# Ch. B

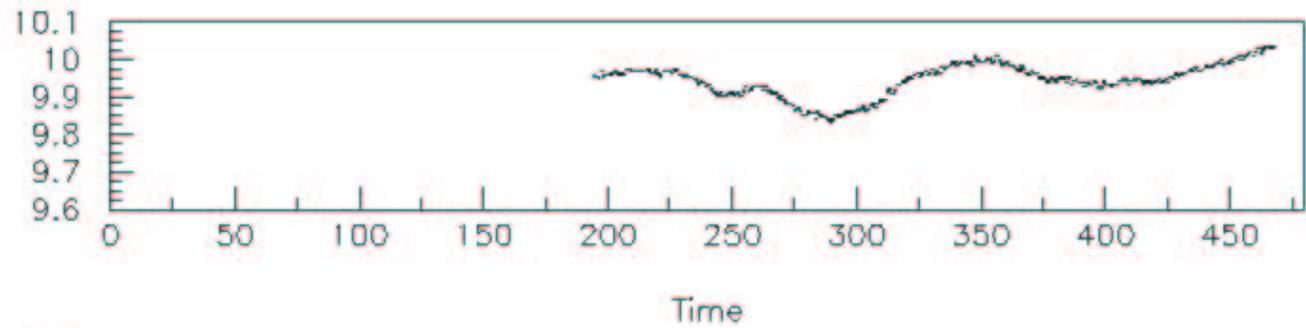
cap 0



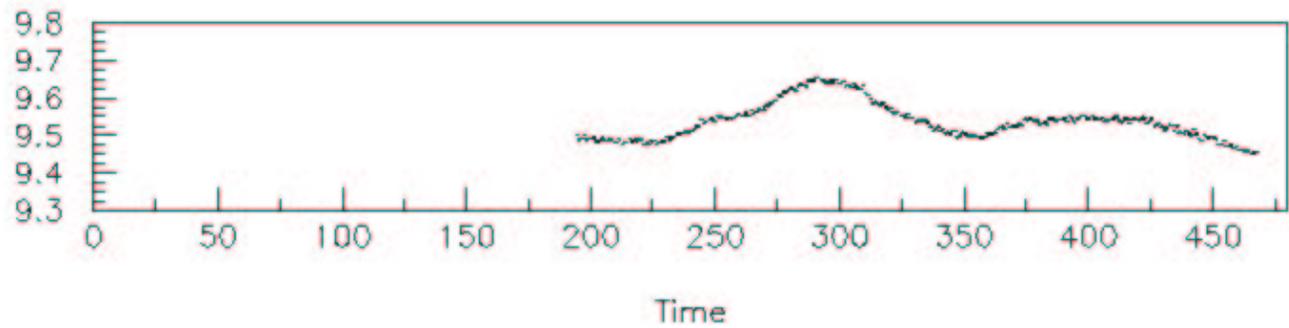
cap 1



cap 2



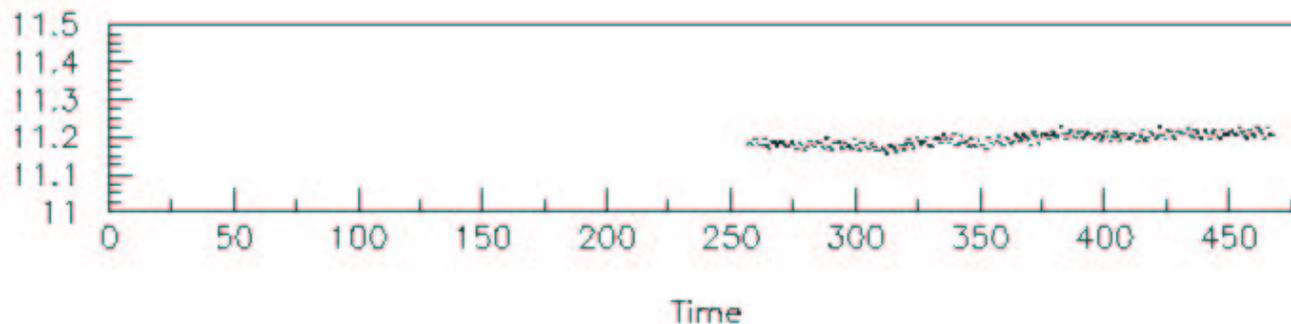
cap 3



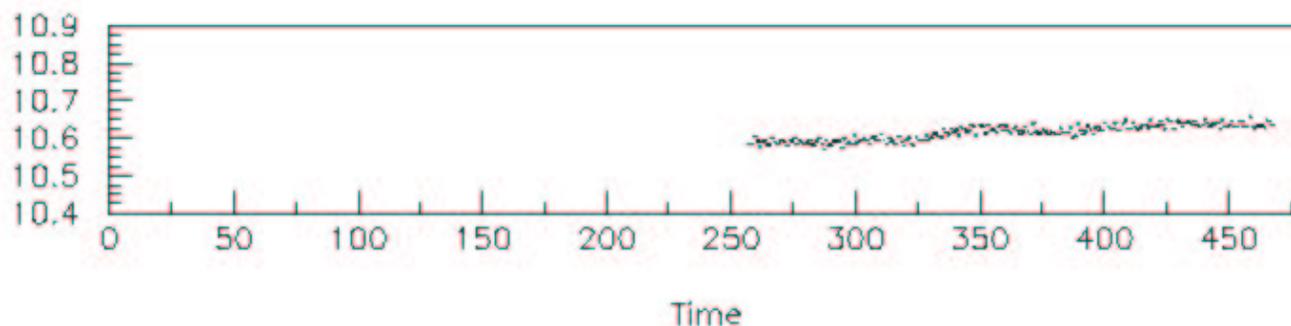
# Ch. A

# A connected, B discon. at HPD

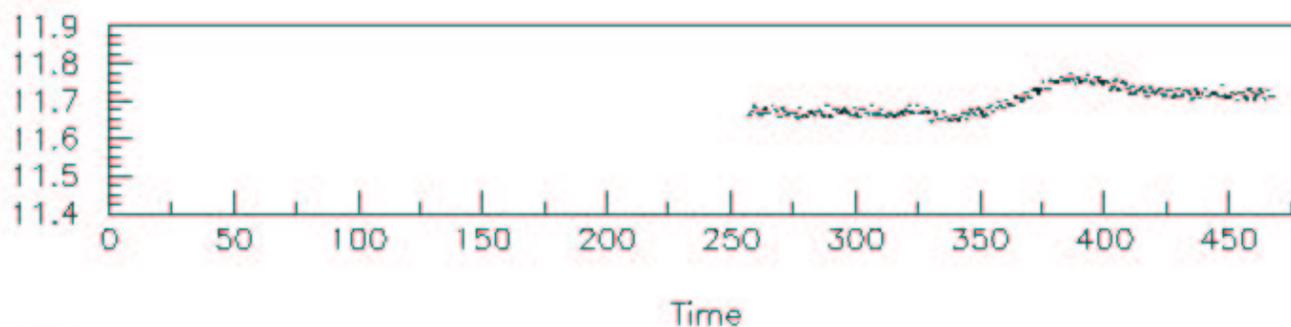
cap 0



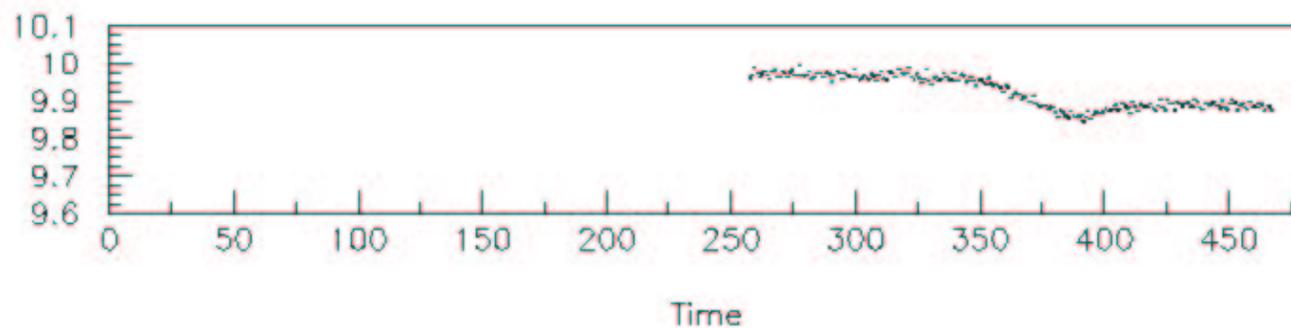
cap 1



cap 2

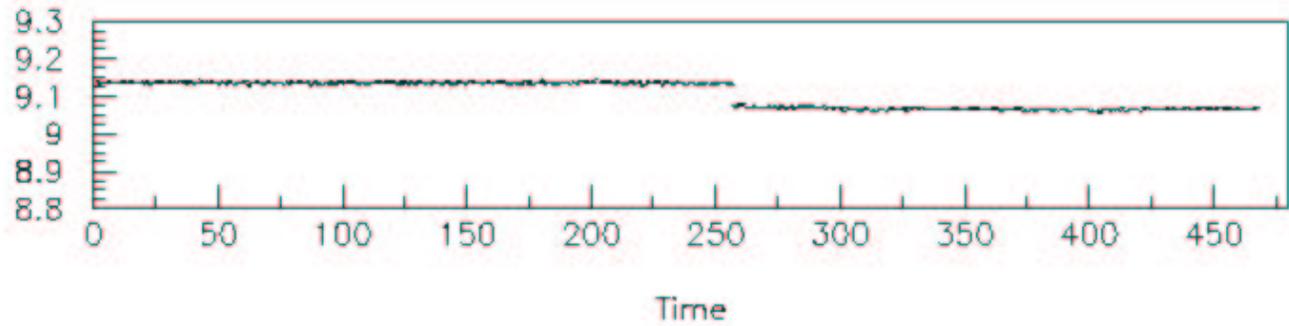


cap 3

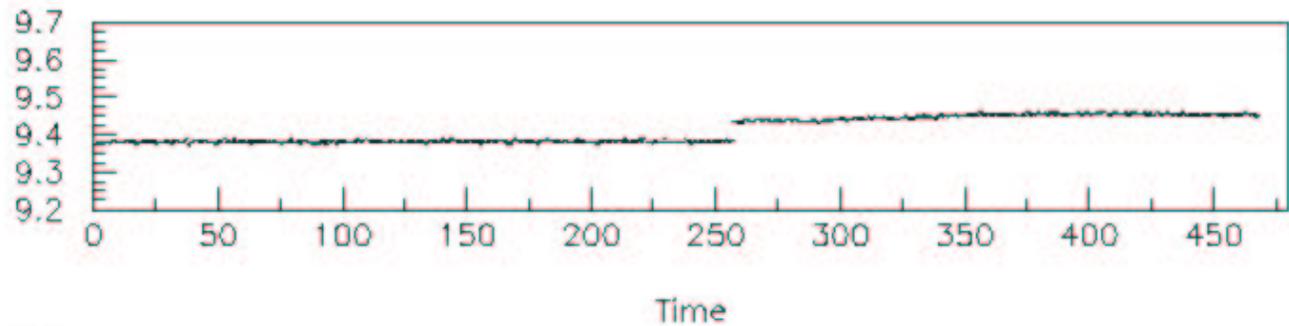


# Ch. B A connected, B discon. at HPD

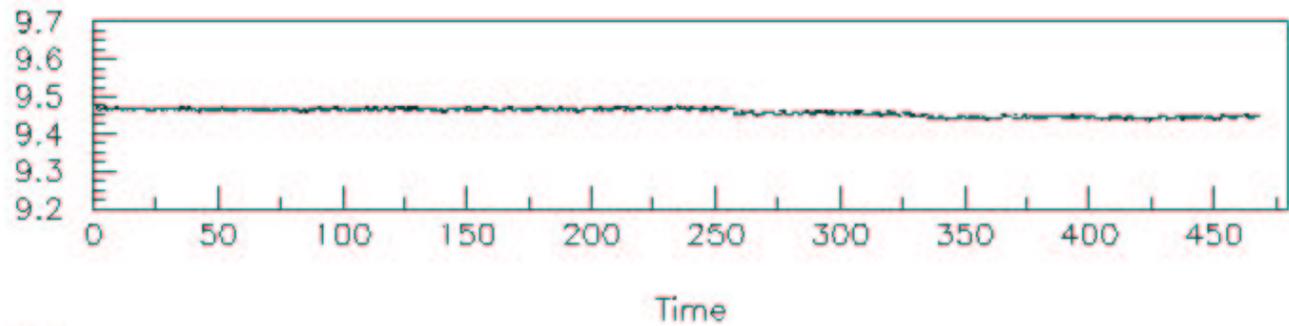
cap 0



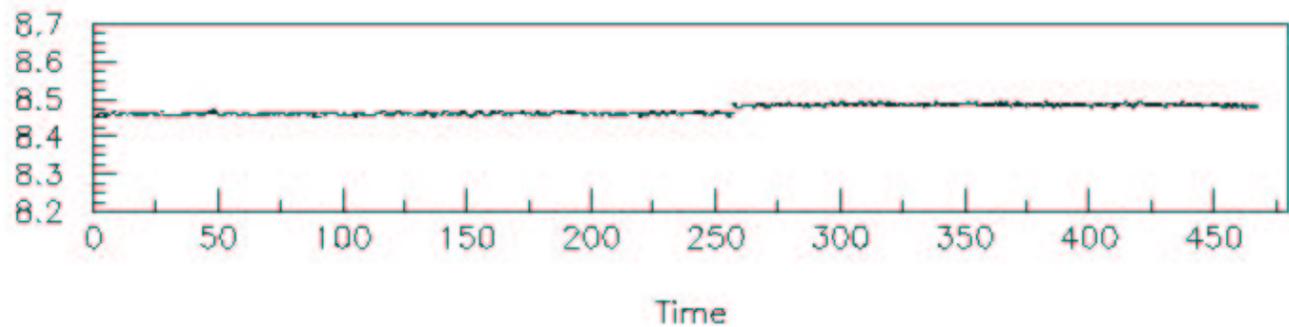
cap 1



cap 2

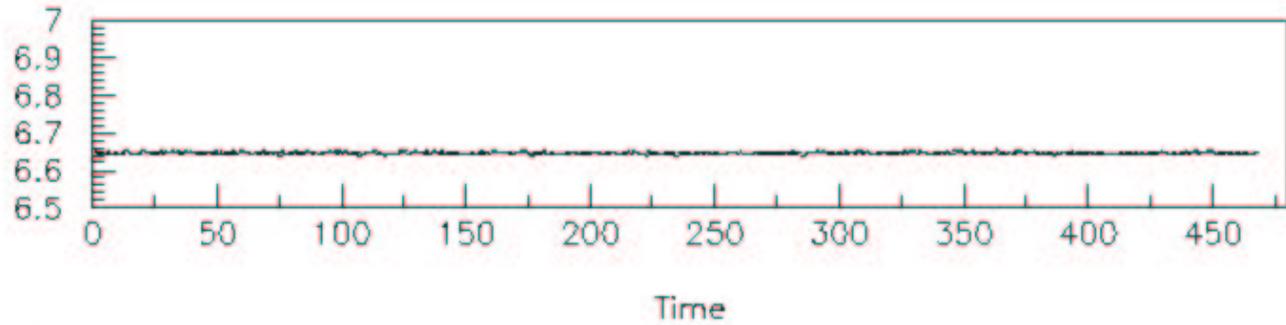


cap 3

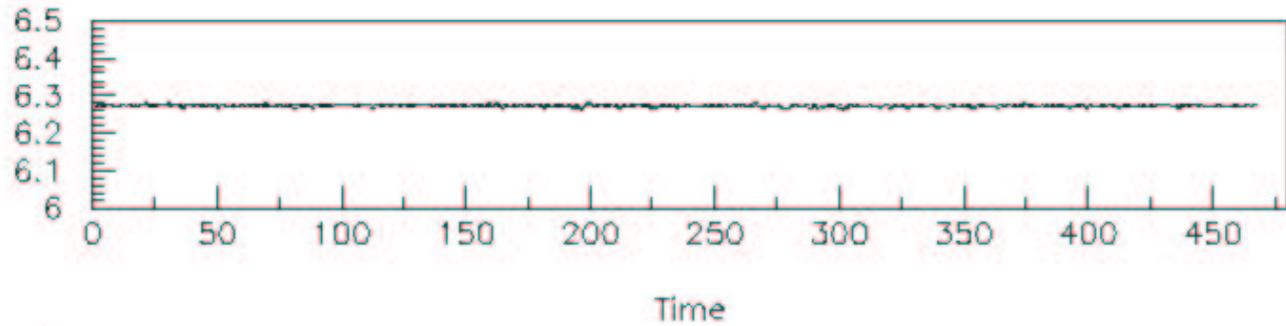


# Ch. A **B connected, A discon. at QIE**

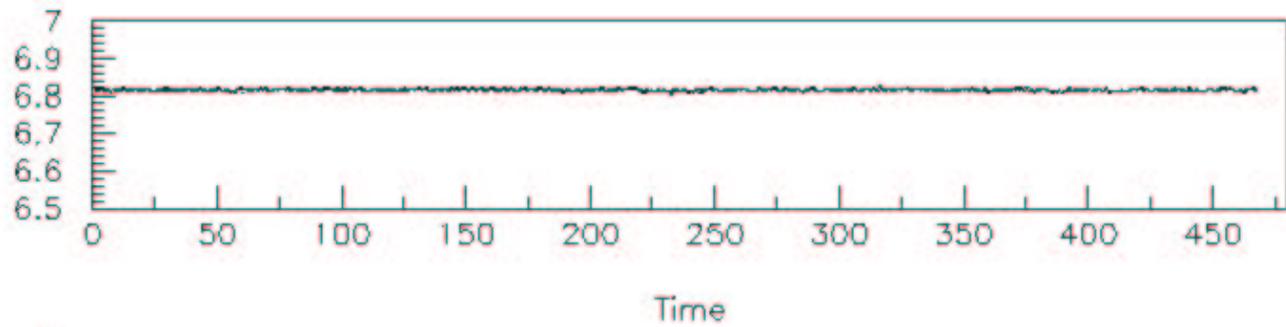
cap 0



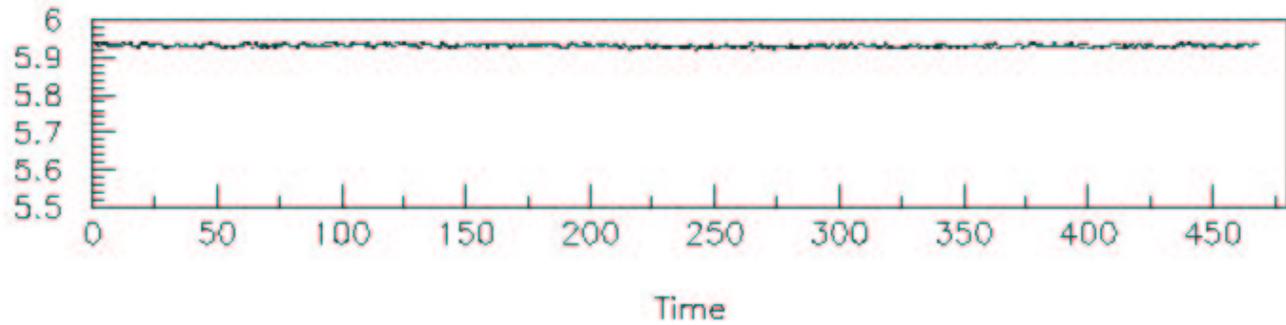
cap 1



cap 2



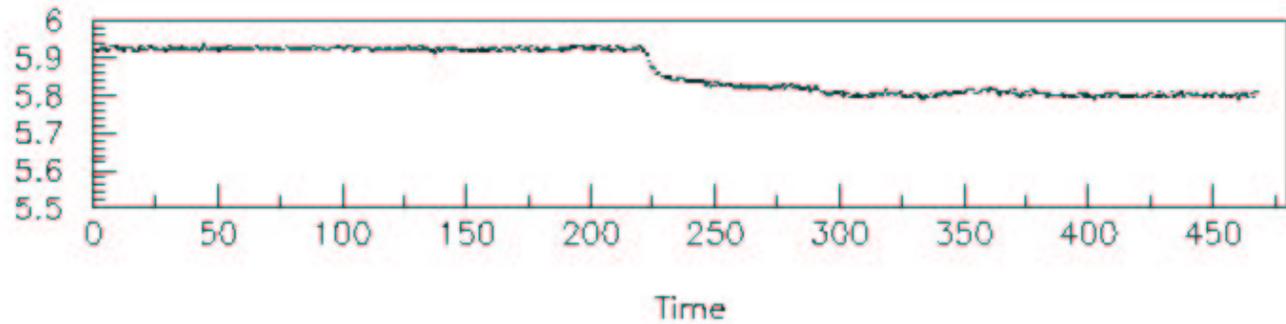
cap 3



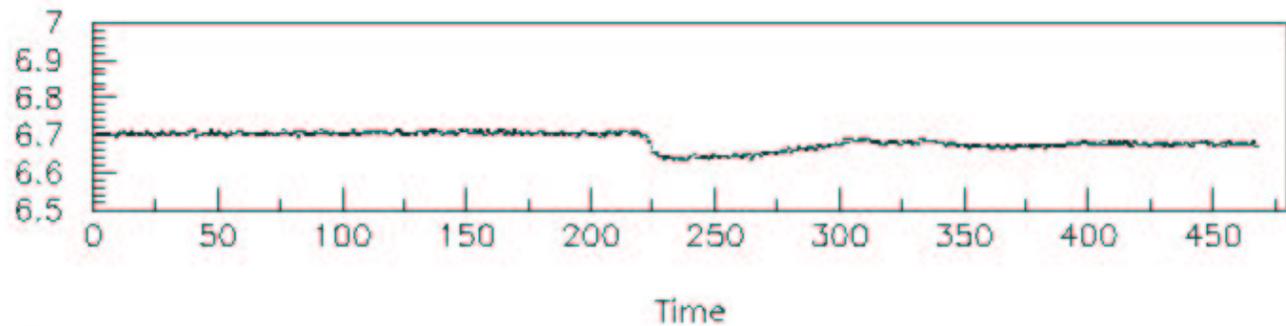
**Ch. B**

**B connected, A discon. at QIE**

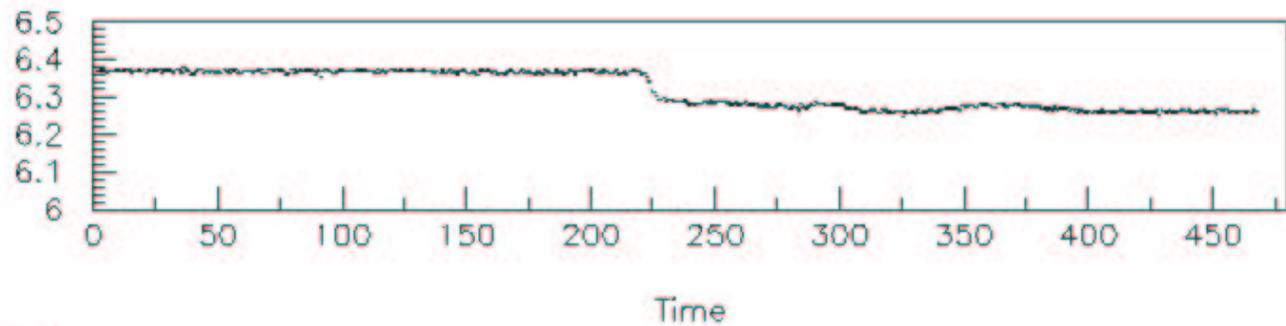
**cap 0**



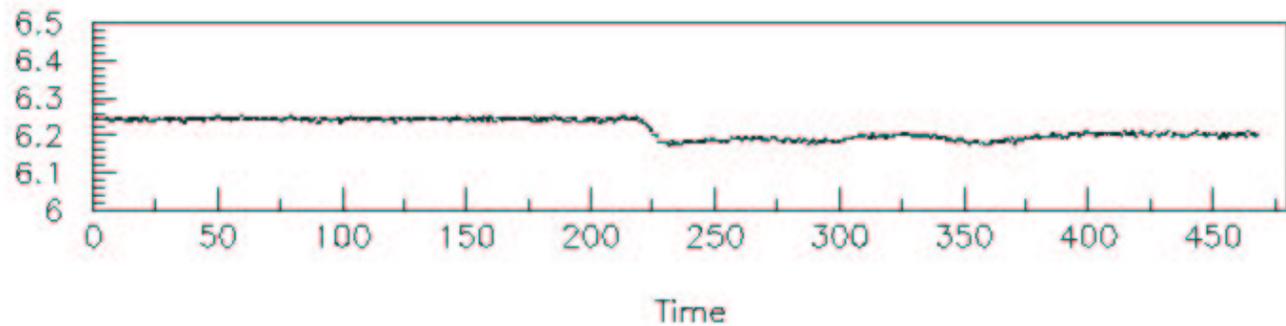
**cap 1**



**cap 2**



**cap 3**



# **Summary**

**Channel A has been fixed.**

**DNL looks good, ch. A and B  
we should plan calibration with ped-7  
(around ch. 20)**

**Wandering caps:  
disconnecting input at QIE or HPD  
removes effect in disconnected ch.**