The BO TPC

50 cm max drift

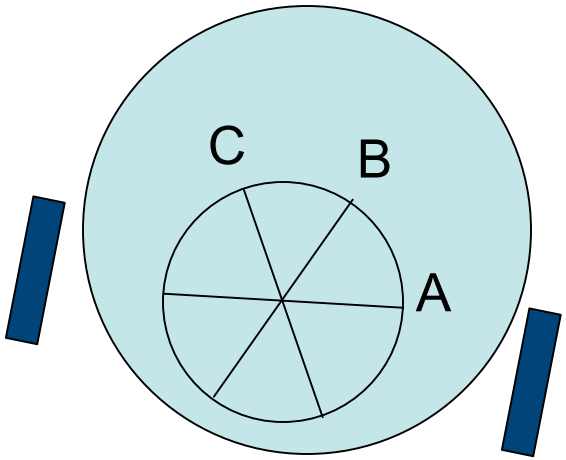
25 kV Cathode (0.5kV/cm)

3 planes at 60 degrees

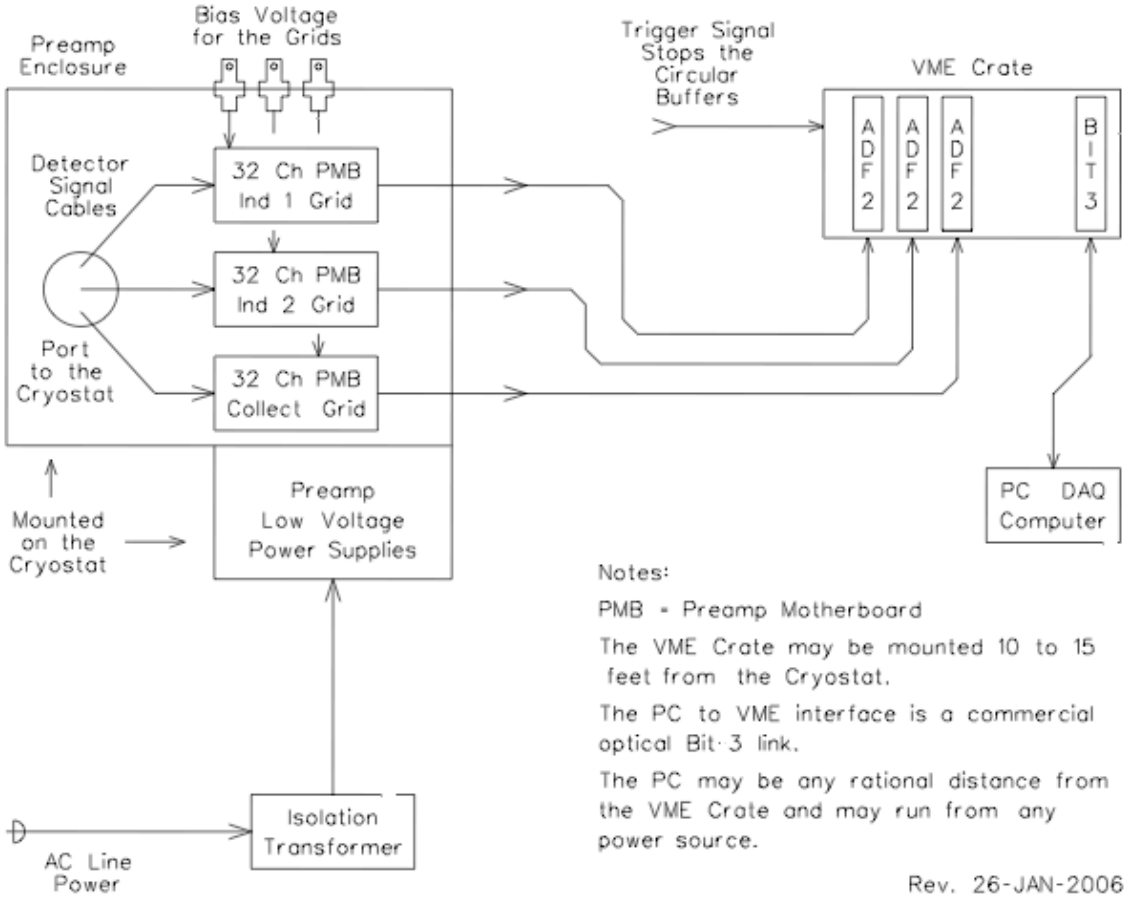
50 wires-32 channels/plane

Approval to fill 8/1/05 (Friday)
Fill 8/4/05 (Monday)
Tracks 8/5/05 (Tuesday)

A & B induction planes
C collection plane

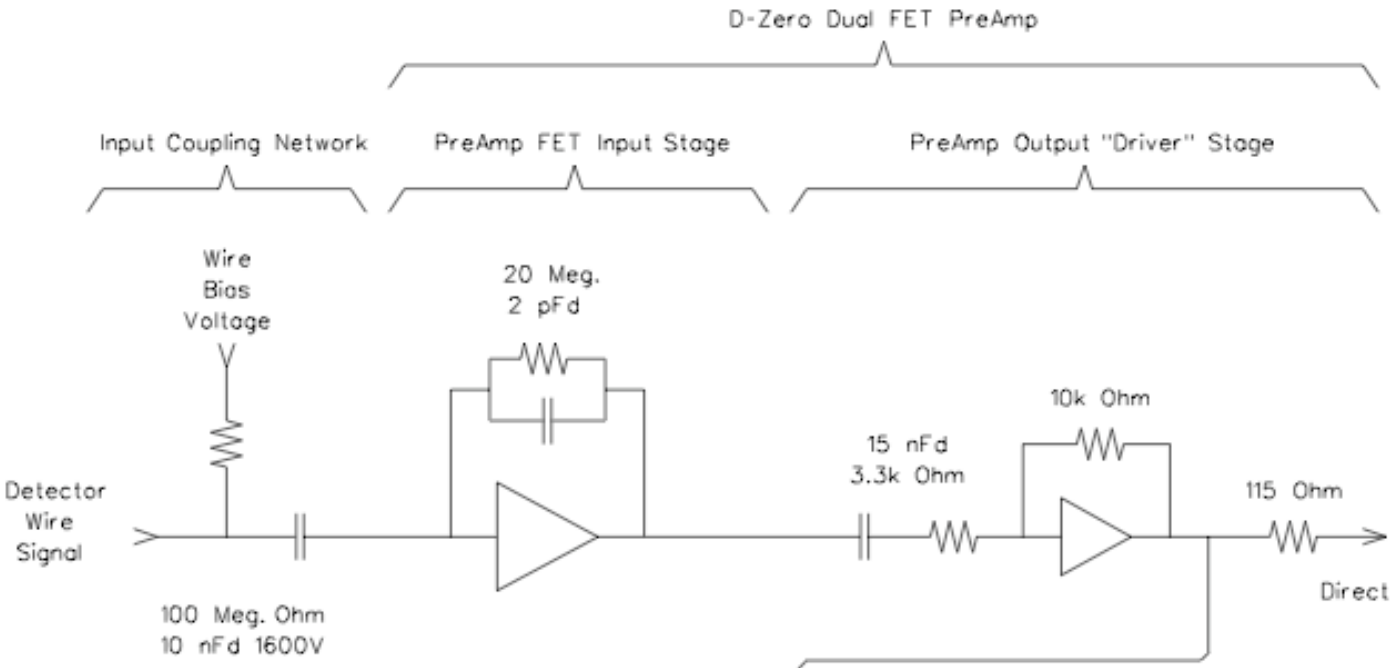


LArTPC Test Cryostat DAQ System



D. Edmunds

Pre-Amplifier and Its Input Circuit



Signal Amplitude at the Output of the FET Input Stage is 0.5 mV per Femto Coulomb.

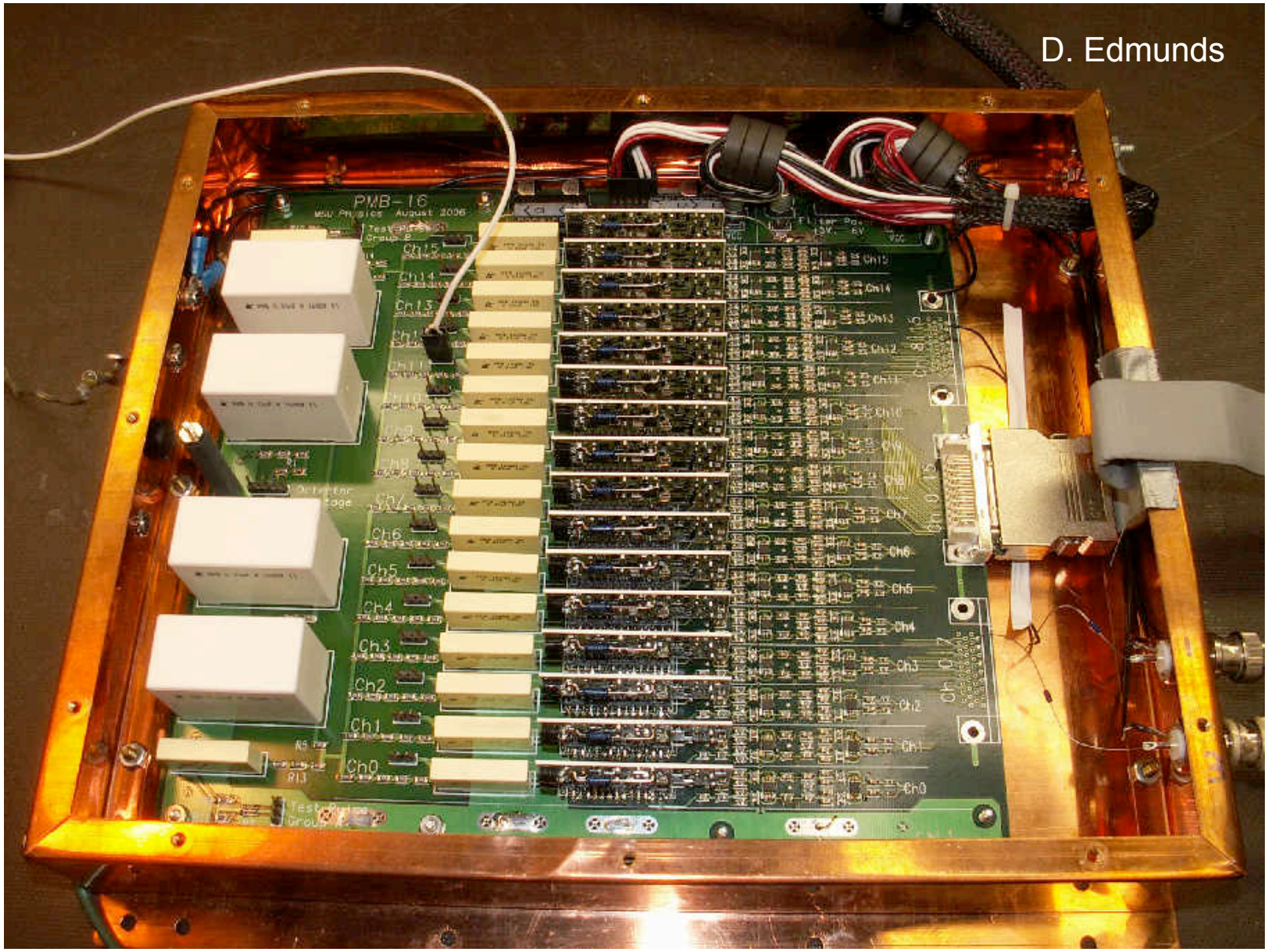
Differential Signal Amplitude at the "Driver" Stage Output is 3.0 mV per Femto Coulomb with no Load.

2 pFd x 20 Meg = 40 usec = 3979 Hz

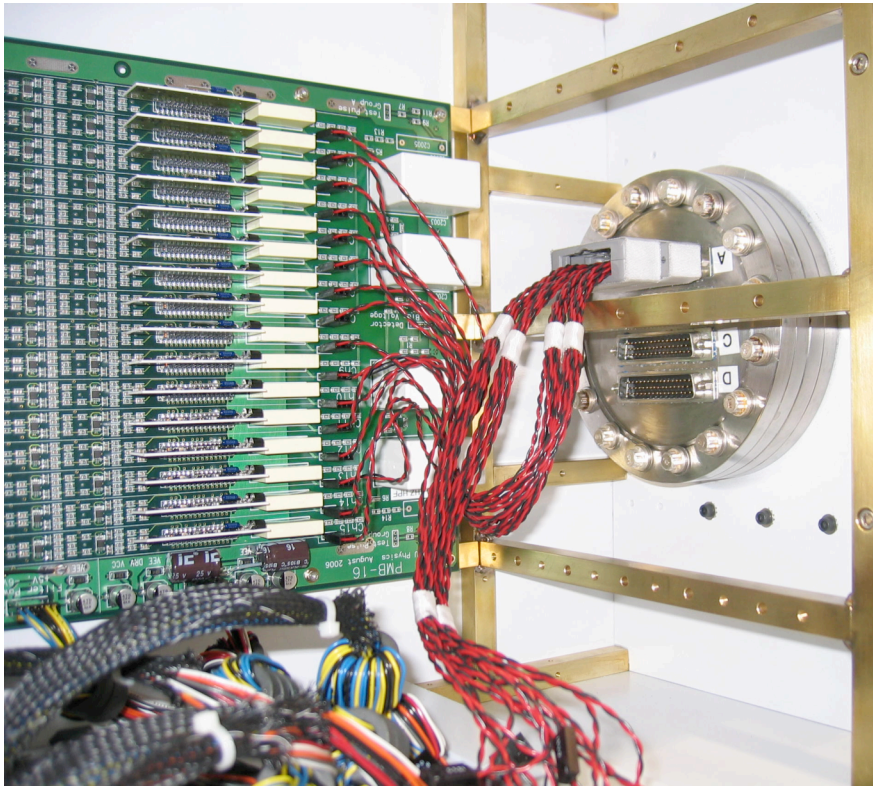
15 nFd x 3.3k = 50 usec = 3215 Hz

D. Edmunds

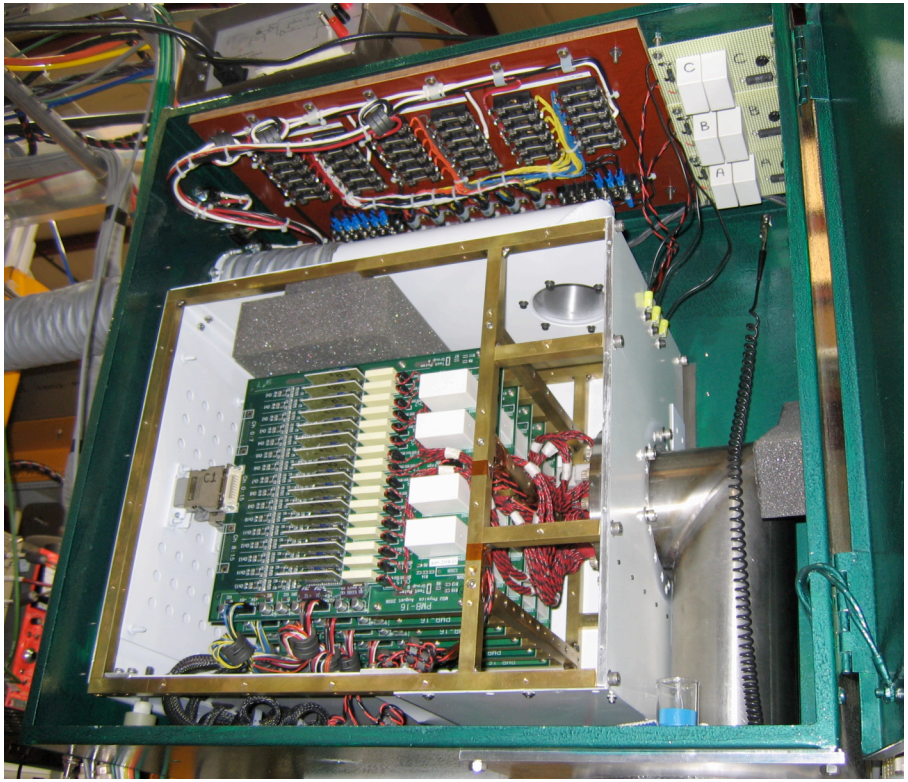
Pre-amp board



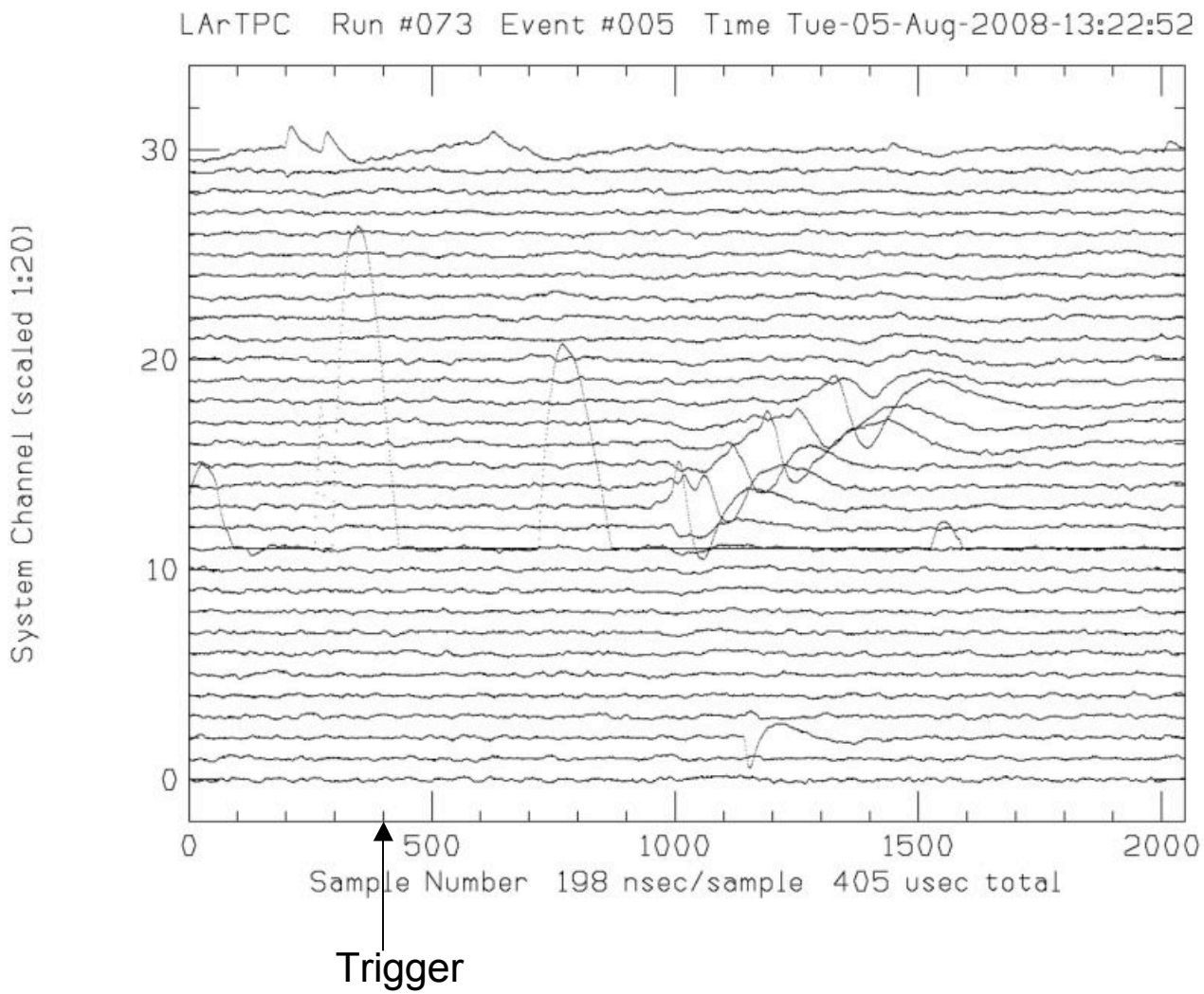
Feedthrough &
1 pre-amp board



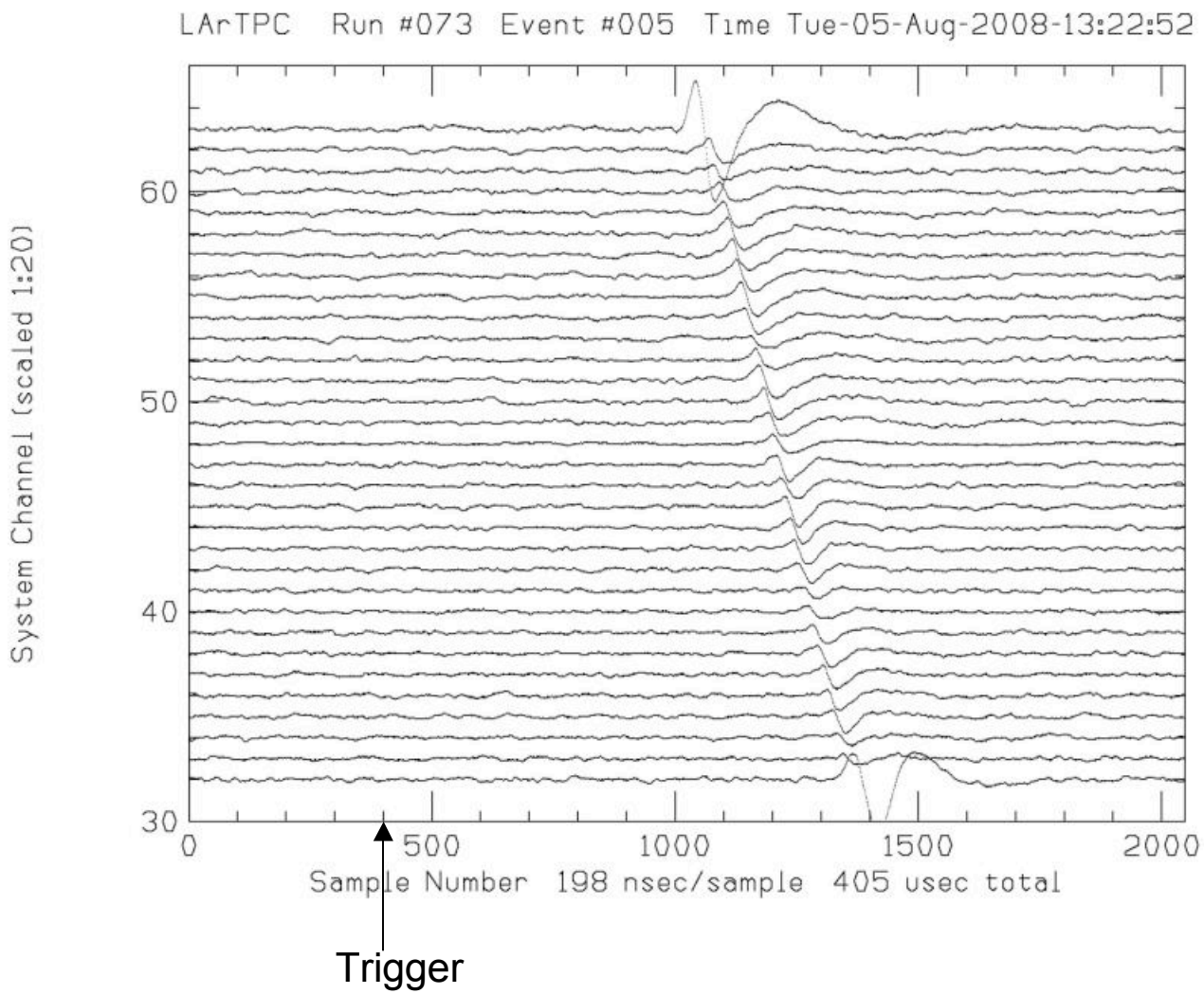
Full complement (96 channels)



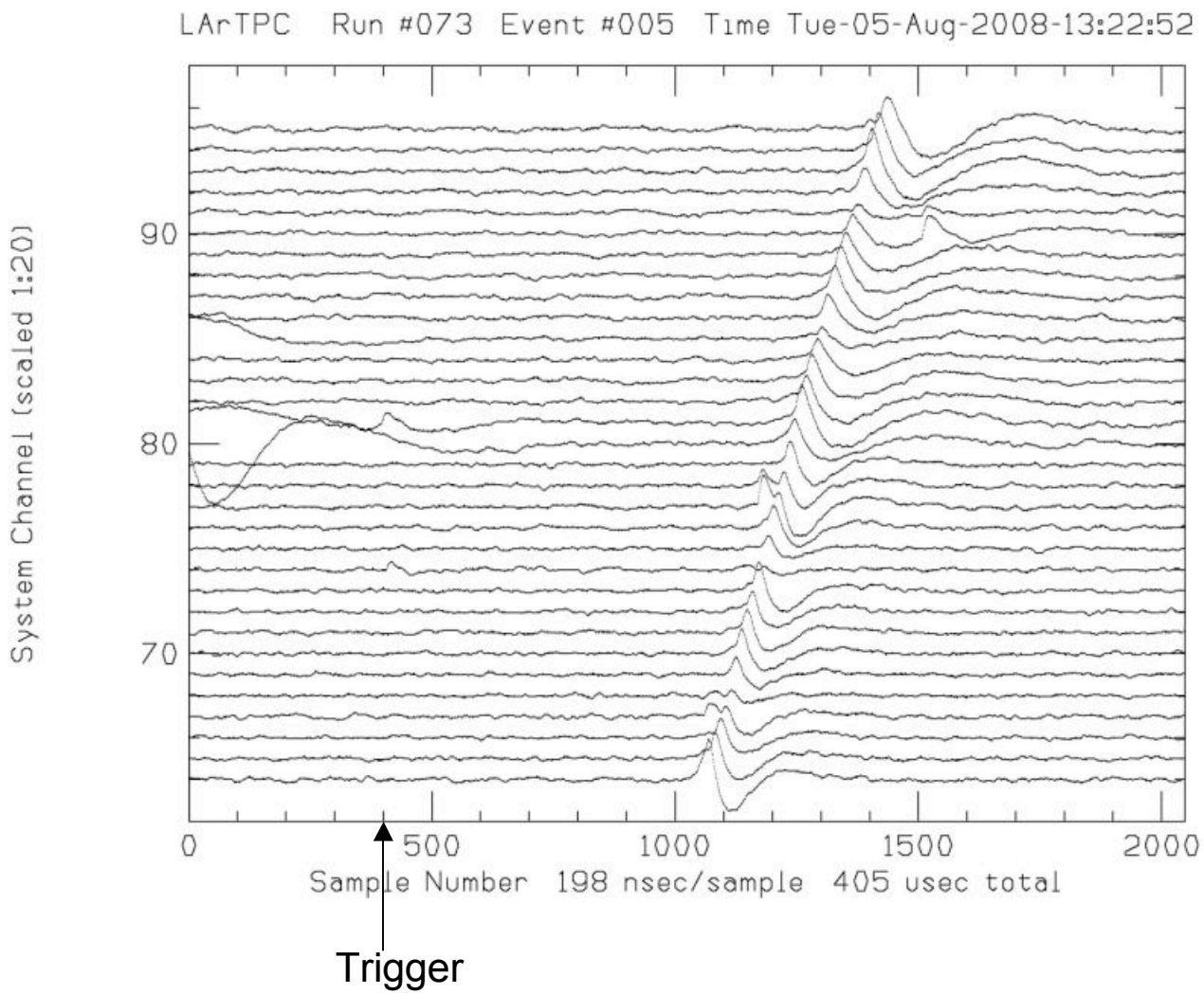
Plane A


LArTPC Run #073 Event #005 Time Tue-05-Aug-2008-13:22:52
System Channel (scaled 1:20)
30
20
10
0
0
500
1000
1500
2000
Sample Number 198 nsec/sample 405 usec total
Trigger

Plane B


LArTPC Run #073 Event #005 Time Tue-05-Aug-2008-13:22:52
System Channel (scaled 1:20)
60
50
40
30
0
500
1000
1500
2000
Sample Number 198 nsec/sample 405 usec total
Trigger

Plane C


LArTPC Run #073 Event #005 Time Tue-05-Aug-2008-13:22:52
System Channel (scaled 1:20)
90
80
70
0
500
1000
1500
2000
Sample Number 198 nsec/sample 405 usec total
Trigger

Plans:

Run at different bias and main voltages

Run at different angles

Run at different drift-distances

- compare with simulations