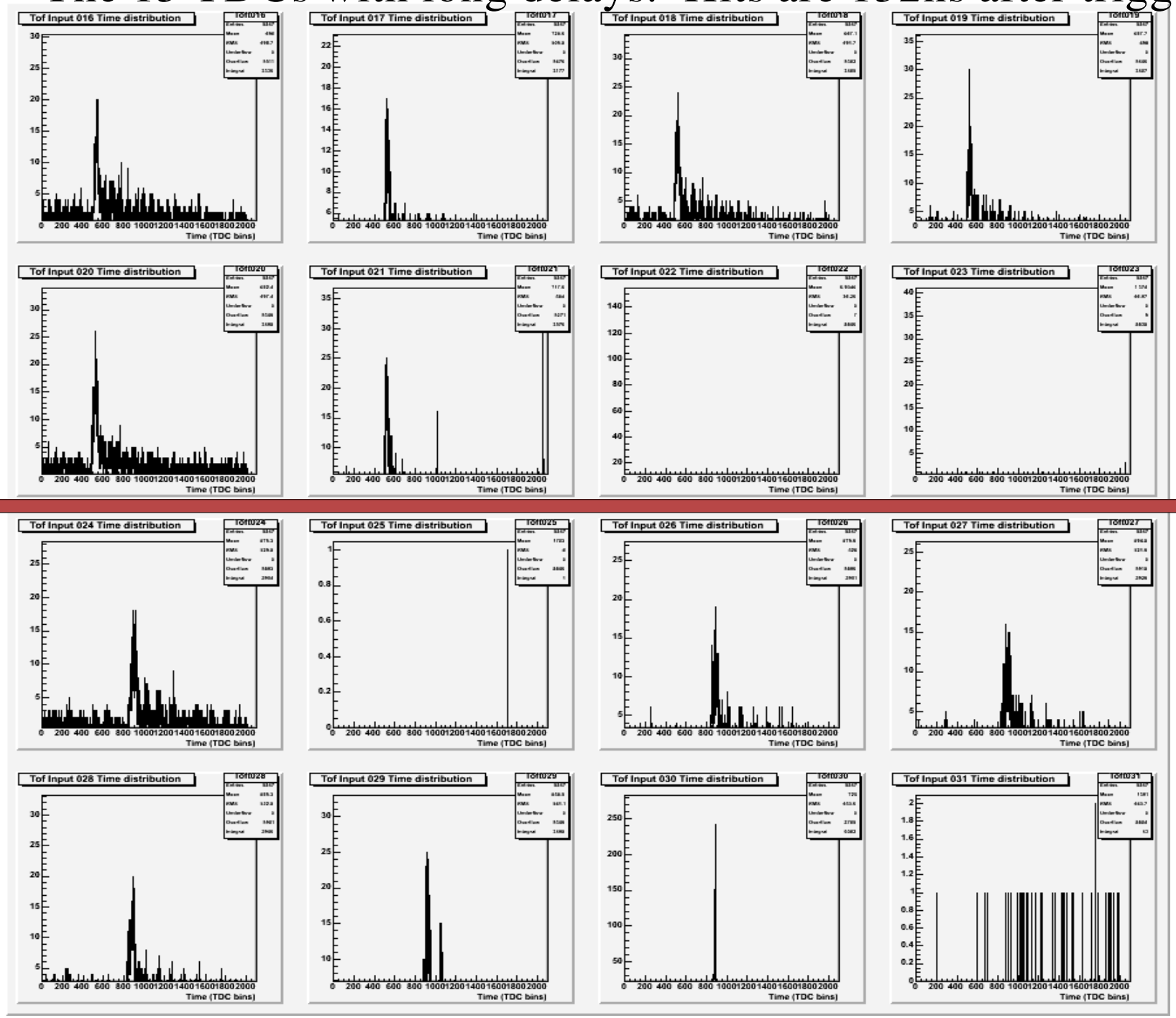
Time of Flight

- 38 Small bars in place
- 12 Large bars in place
- 2 Calibration bars in place
- 2 Large/2Small bars to be brought up and installed:
  easily done once they are brought up.
- ADC's are reading out but not timed in.
- TDC's: 15 are in place with long delay cables
  Others are waiting for final trigger.
- CAMAC Problems came up again in the last week
  with Crate 5 not talking at all.
- Readout times down to about 3ms.
- Event data format Finalized.

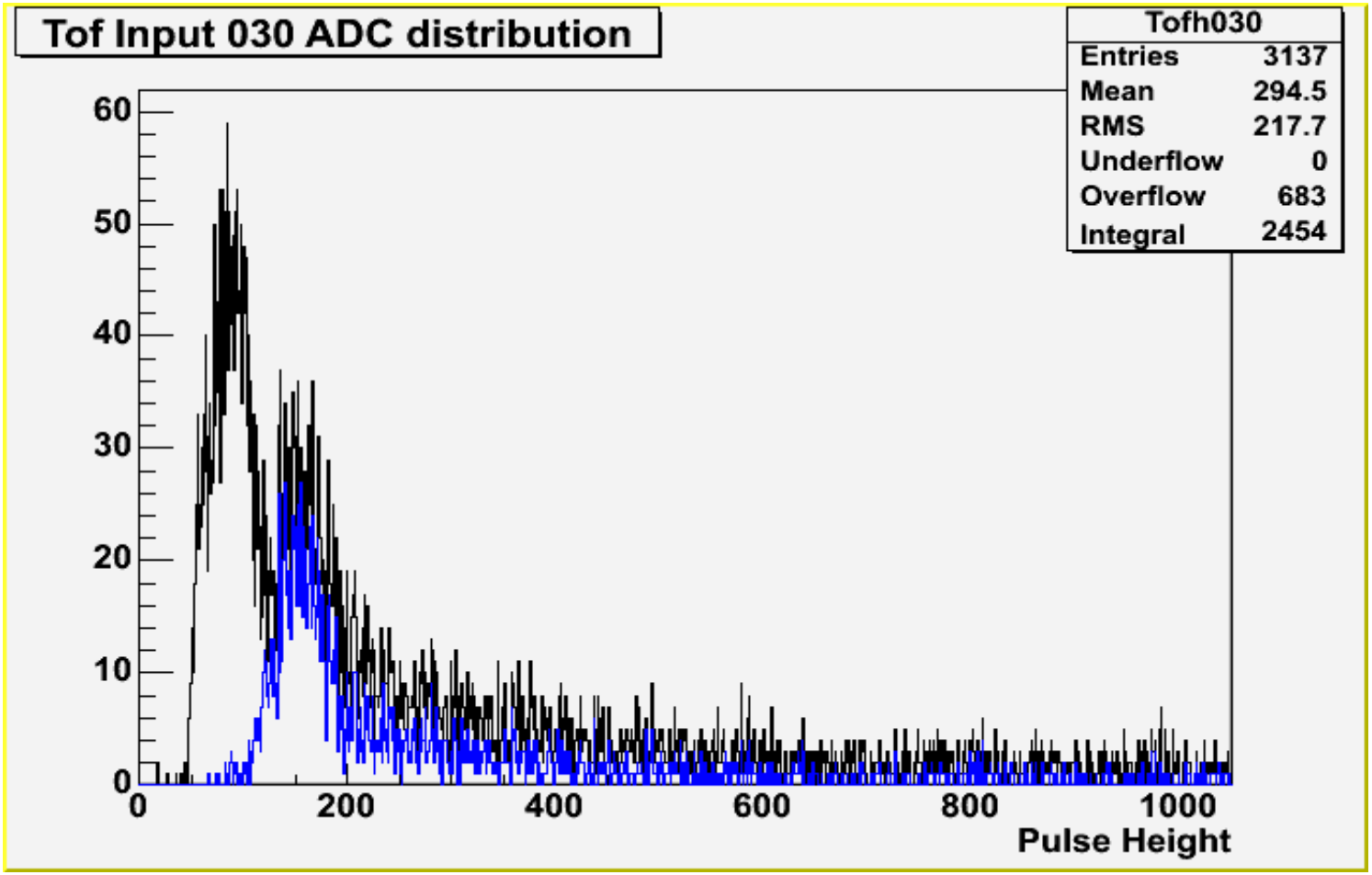
The 15 TDCs with long delays: Hits are 132ns after trigger



Peaks are at 530 counts (250ps / count)

Peaks are at 875 counts (150ps/count)

TOF Wall ADC Values



Tof wall ADC distributions:

Black is all events

Blue is only those event with a TDC hit.

T0 Counters: T00,T01,T0C

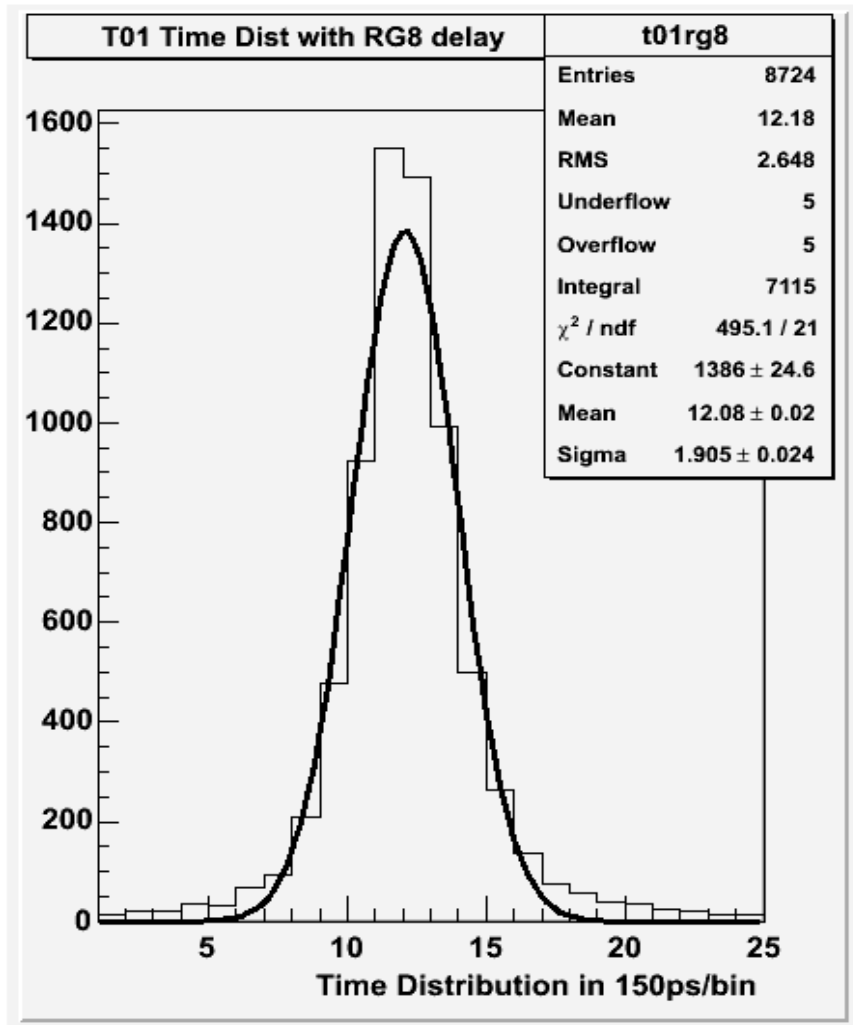
- All three counters are in place and timed in.
- Readout working
- T01 Resolutions shown on table for a few cases. Those in blue are with beam, those in green are from S. C. tests. They vary from run to run ±3ps

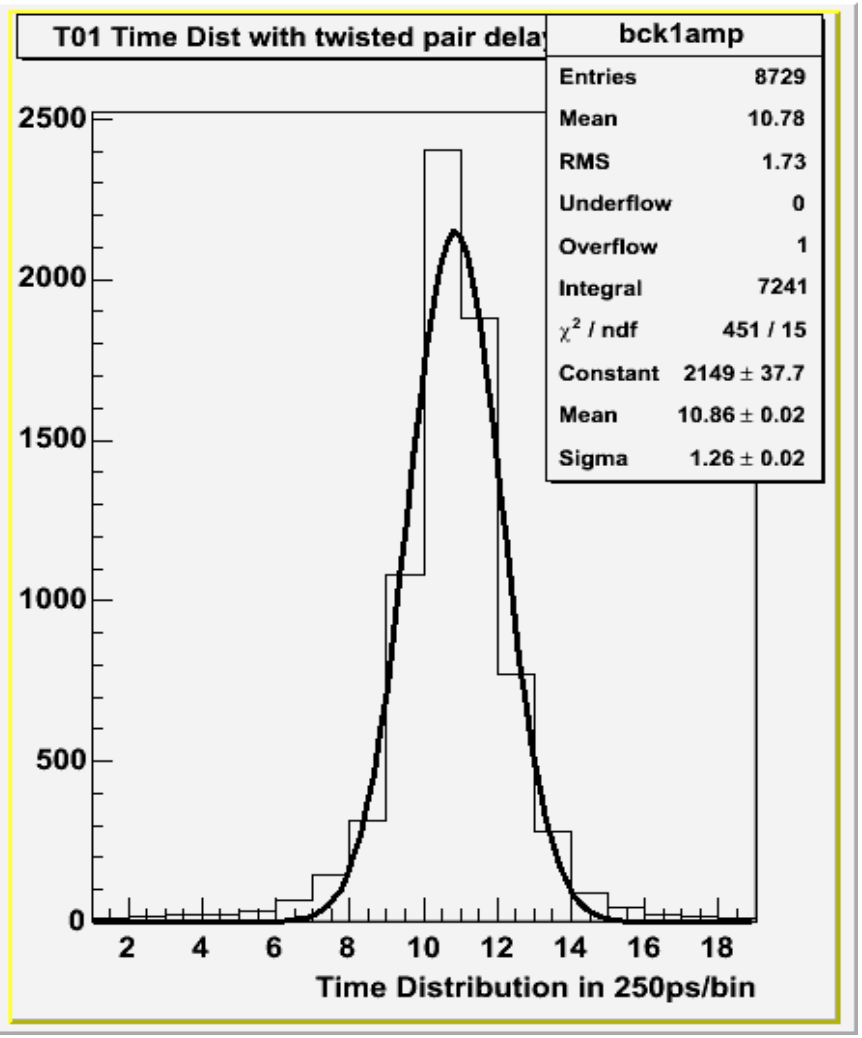
- T0C is a test counter until we see what gives the best resolution. Needs to be tested with beam.
- T00 has high hit rate where it is placed, but only gives 3ns flight difference for 5GeV proton/Kaon

T01 Resolutions

Thresholds:	15mV	25mV	50mV
Delay Length			
35 feet	50ps		
50feet		55ps	60ps
100feet	70ps		
140feet (250ns)		80ps	85ps
250ns of RG8		70ps	75ps

T0 Resolution Plots





Time distribution fit to: (t01a+t01c-t01b-t01d).

Should divide time by four to get resolution on the average instead of the sum.

Yet ToDo for:

T0 Counters

- T01/T0C decision.
- Finalize Trigger delay cables and Thresholds/widths.
- Compare with Beam Chambers for positions.

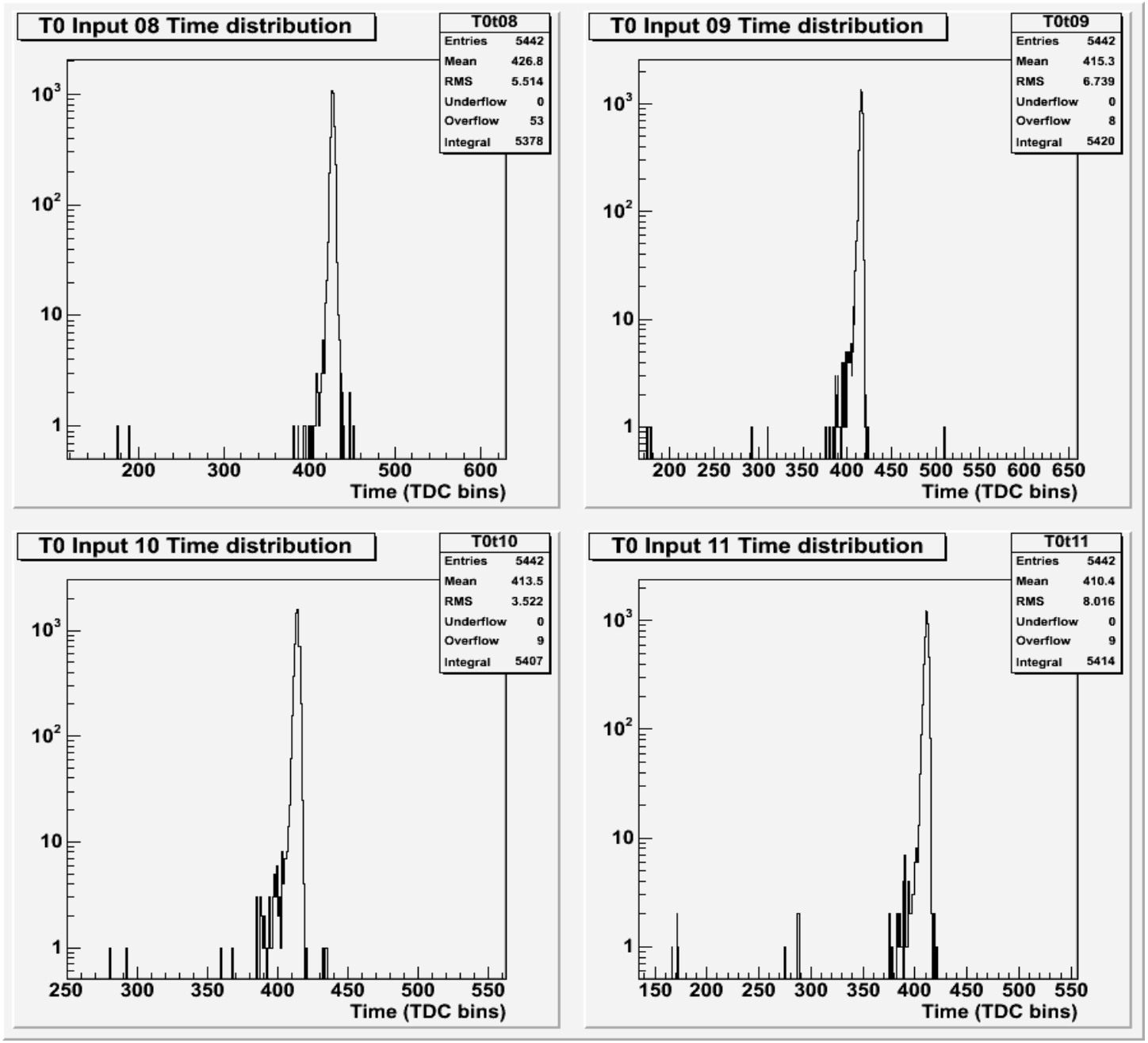
TOF

- Finalize Trigger delay cables
- Verify ADC timing
- Get 4 bars up there
- Stabilize HV (maybe done)
- Make interaction trigger
- SOLVE CAMAC PROBLEMS
- Find/Fix Bad Channels

Get Reconstruction Software working (need tracking first)
Insert Connection Map into Database

Obtain Survey Data to update Monte Carlo positions.

T01 TDC Values

150ps/bin

T01 RG8 delay cable TDC distributions