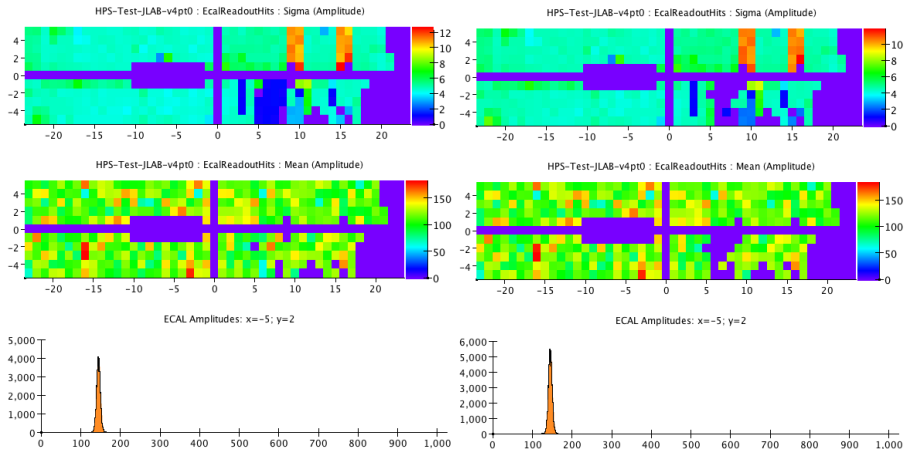


ECal performance

Sho Uemura

Pedestals

- Raw mode runs from 5/3 (779) and 5/14 (1171): histogram the first 5 samples in the window

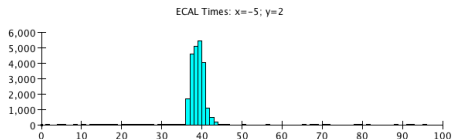
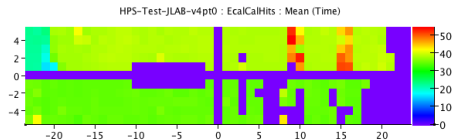
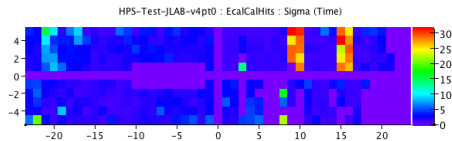
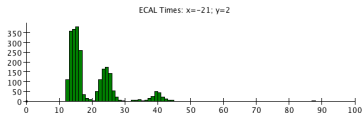


Problem areas

- Big blocks on top and bottom right: no FADCs yet
- Two blocks of channels in top right: bad HV groups
- Handful of channels in bottom right (and two in top right) without hits: noisy, masked out in the FADC to reduce trigger rates
- Handful of channels in bottom right ($x=10,11$): noisy but do get hits — might possibly be usable
- One FADC slot on bottom right had its signal connector unplugged for a while; plugged back in since 5/9 but most channels are masked out anyway
- Counts of good channels:
 - ▶ 106 top left, bottom left (all good)
 - ▶ 82 top right (20 bad, 13 FADC-less) , 55 bottom right (31 bad, 29 FADC-less)

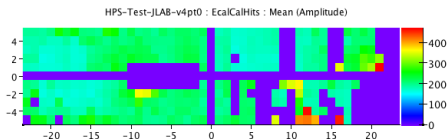
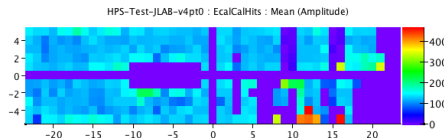
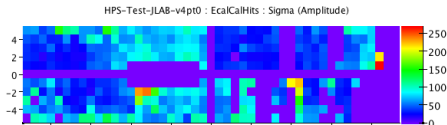
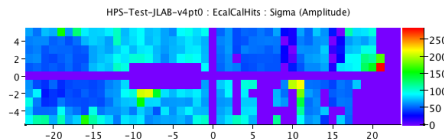
Hit time distributions

- Signal hits fall in a small range of times (crystals are timed in); one FADC seems to be mistimed (this is recent — looked normal Monday morning), and top vs. bottom is a little off
- RMS of hit times is a good diagnostic of crystals with lots of noise hits (or few signal hits)

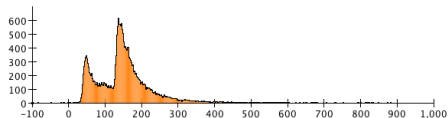


Hit energy distributions

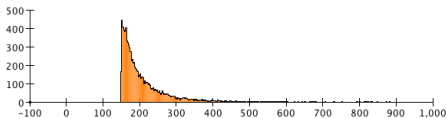
- FADC readout threshold and cluster energy threshold are visible; cut at 150 MeV to clean things up



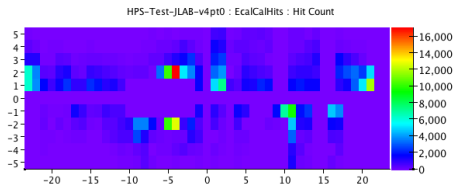
ECAL Amplitudes: $x=-5$; $y=2$



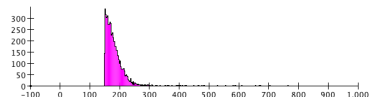
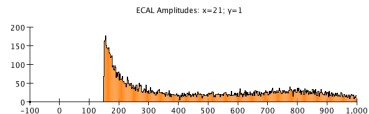
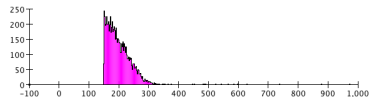
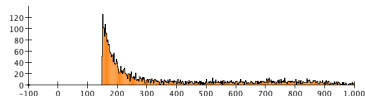
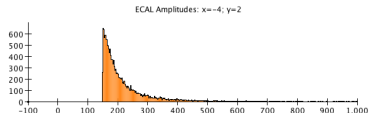
ECAL Amplitudes: $x=-5$; $y=2$



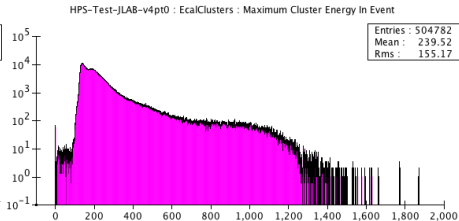
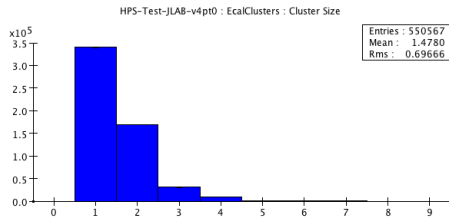
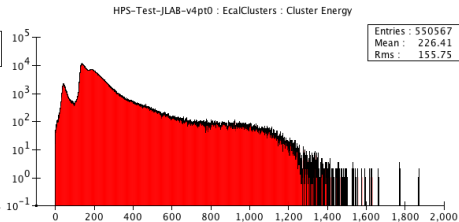
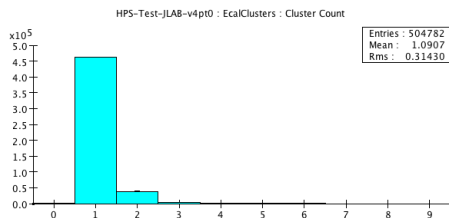
Regions with high occupancy



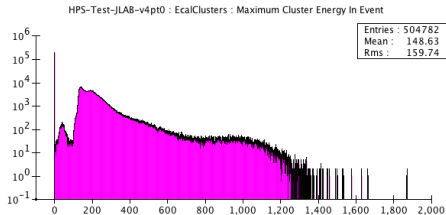
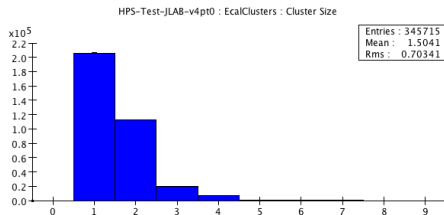
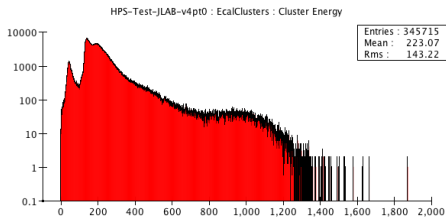
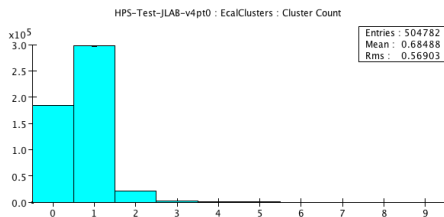
- Around the electron gap (center around $x=-4$)
- Left and below the electron gap
- Center top
- Far right
- Far left



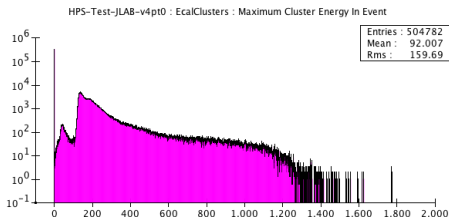
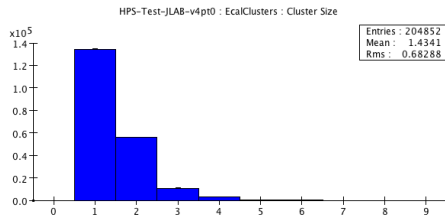
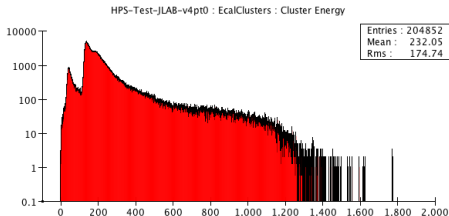
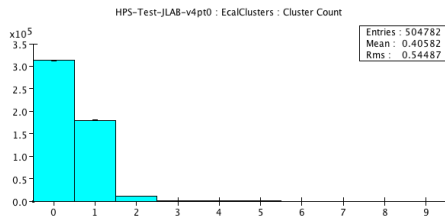
Cluster energy distributions



Clusters — top only



Clusters — bottom only



Other stuff

- Clusters with $E > 250$ MeV: 120 Hz
- Clusters with $E > 500$ MeV: 25 Hz