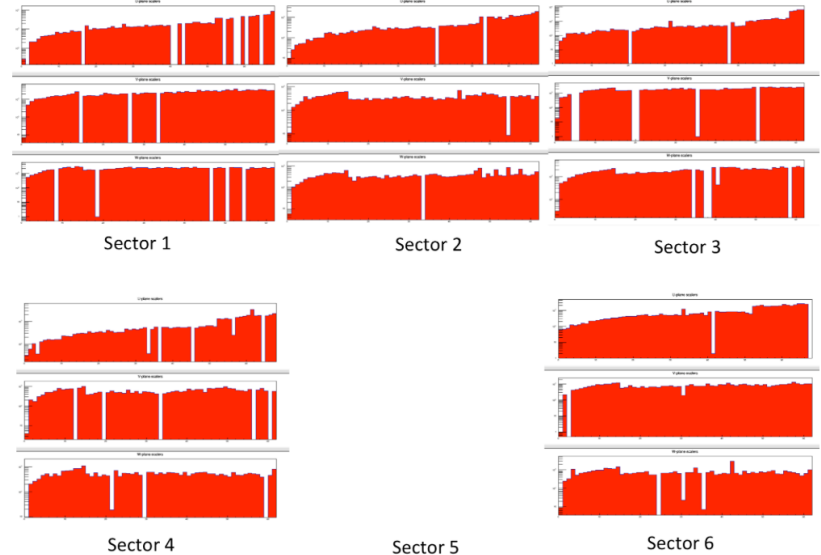


FORWARD CARRIAGE UPDATE

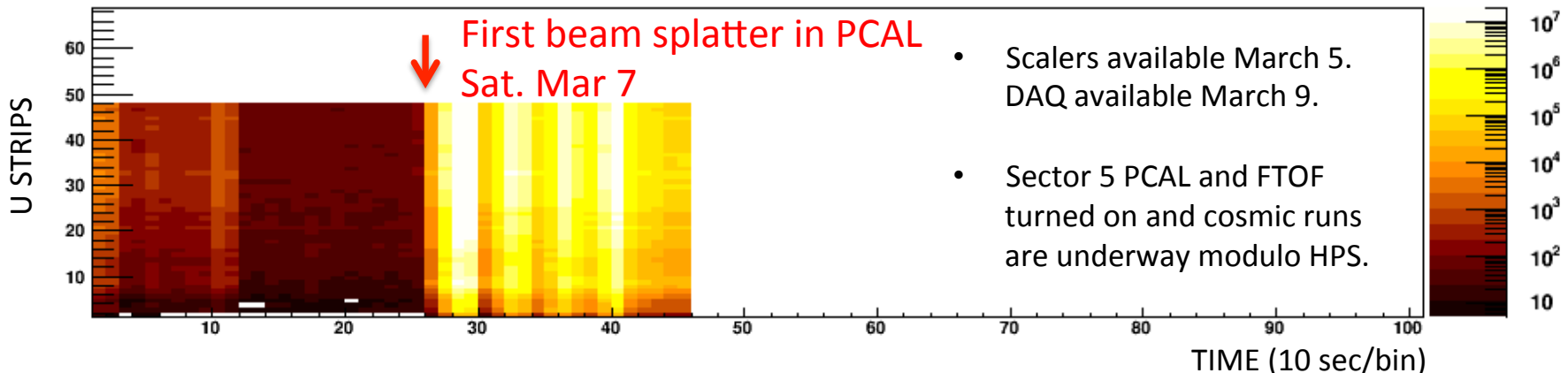
- Spring and summer 2014: Cosmic data from all FTOF and PCAL PMTs except Sector 2 obtained, occupancy checks and FTOF HV gain matching completed.
- FTOF occupancy near 100%. PCAL shows many holes (right) but hopefully these are mostly cable related.
- Last forward carriage DAQ run was July 8 2014. All PMT HV turned off. HPS development followed.
- Feb 2015 – Remaining EC HV mainframes and missing HV cards installed. Some unfinished EC cabling done. All 36 VXS crates get new VME controllers. Sergey updates firmware, builds new libraries, fixes bugs, applies lessons learned from HPS, etc. etc.

Jul 10 2014

Below shows summary of PCAL occupancy.



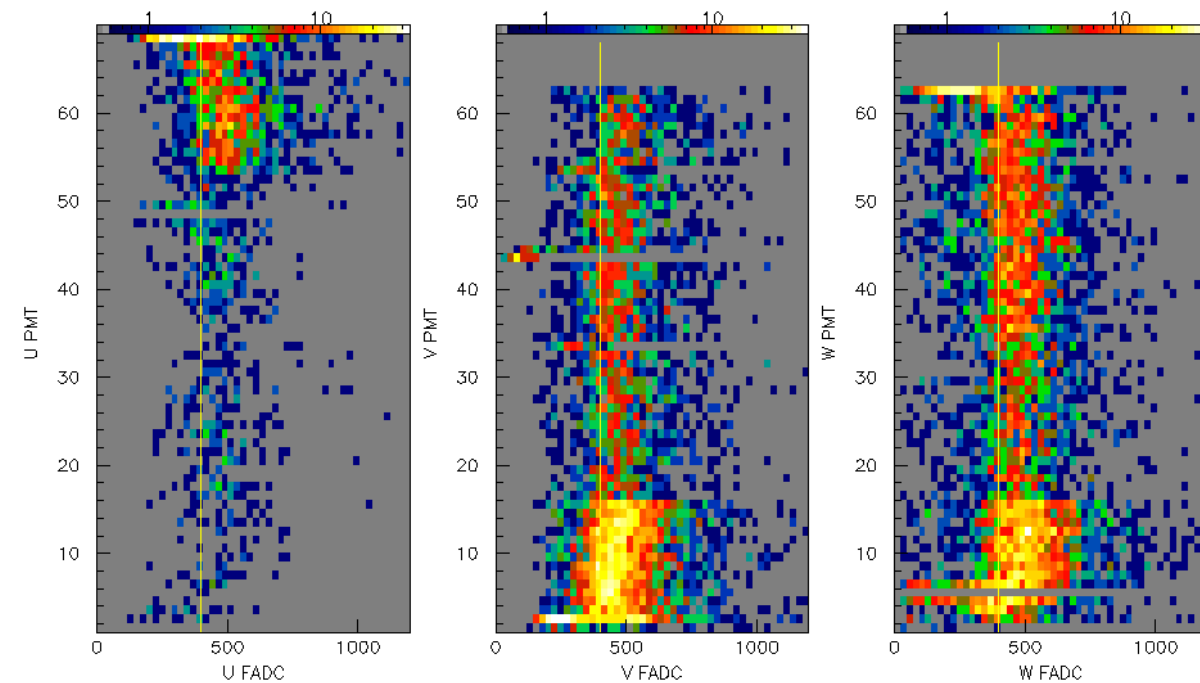
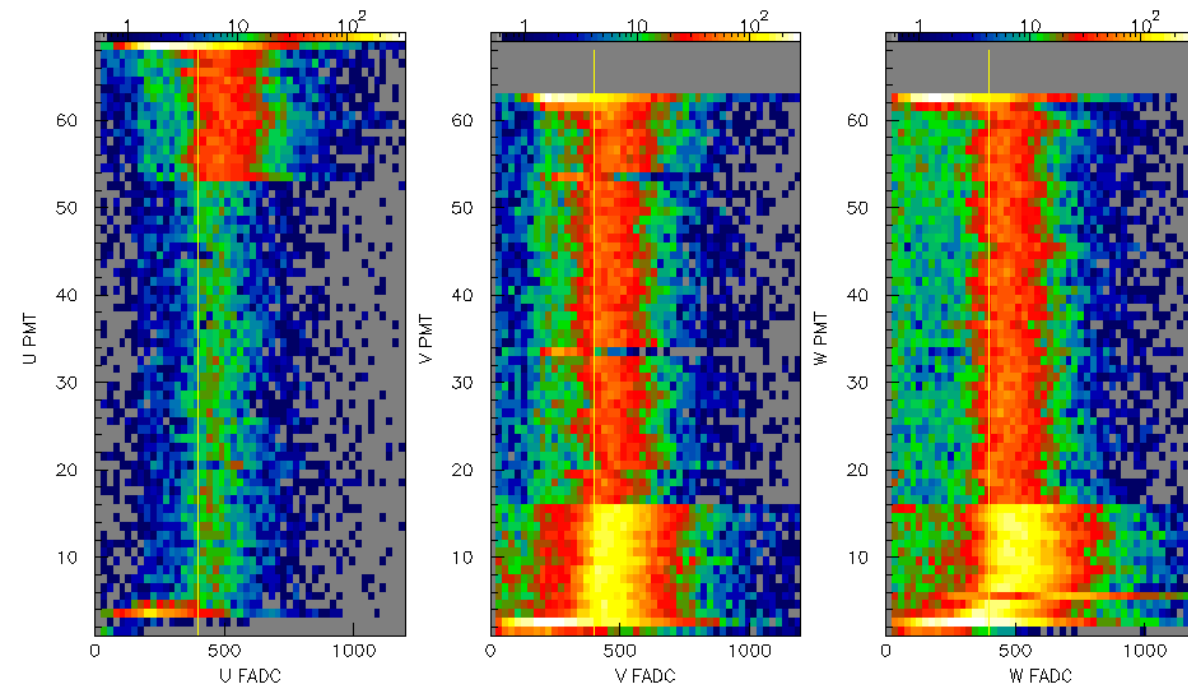
PCAL U SCALERS vs TIME



- Scalers available March 5. DAQ available March 9.
- Sector 5 PCAL and FTOF turned on and cosmic runs are underway modulo HPS.

PCAL Sector 5

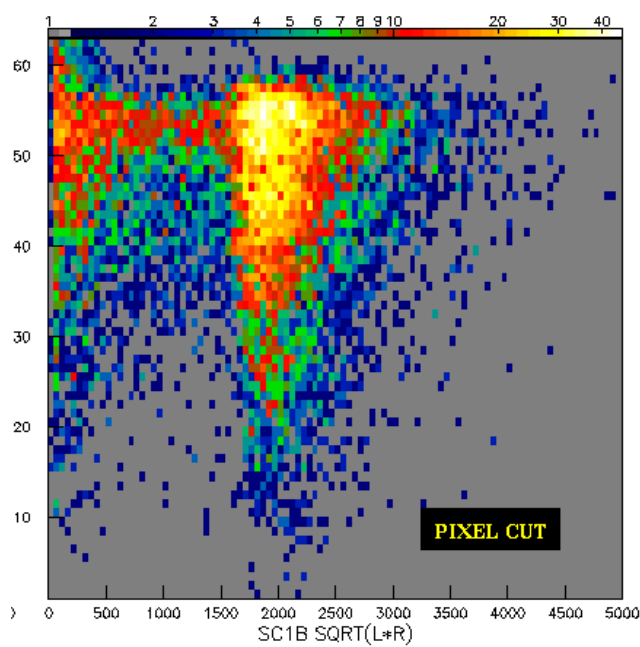
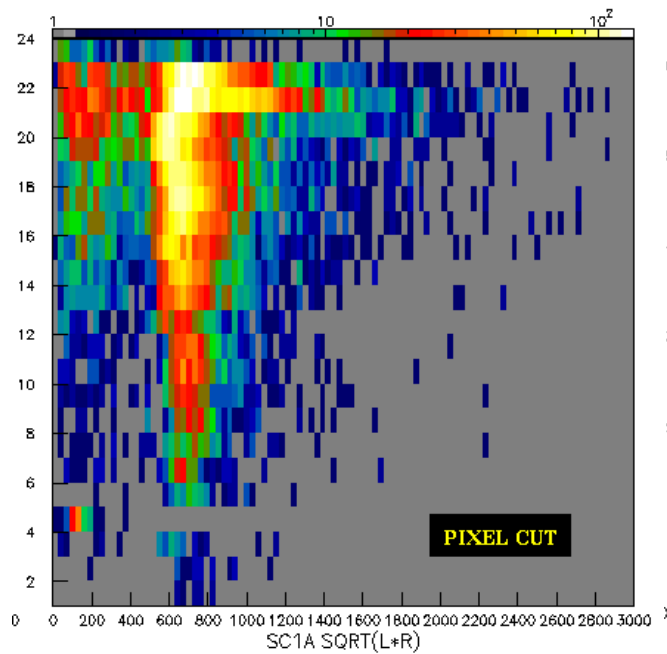
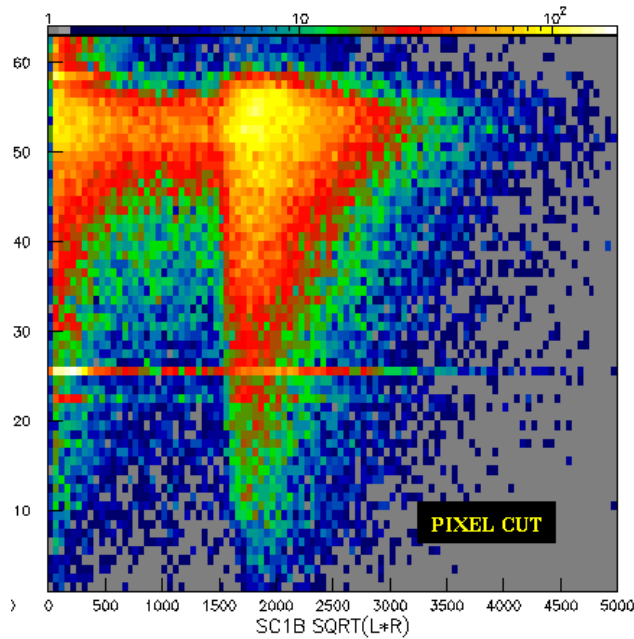
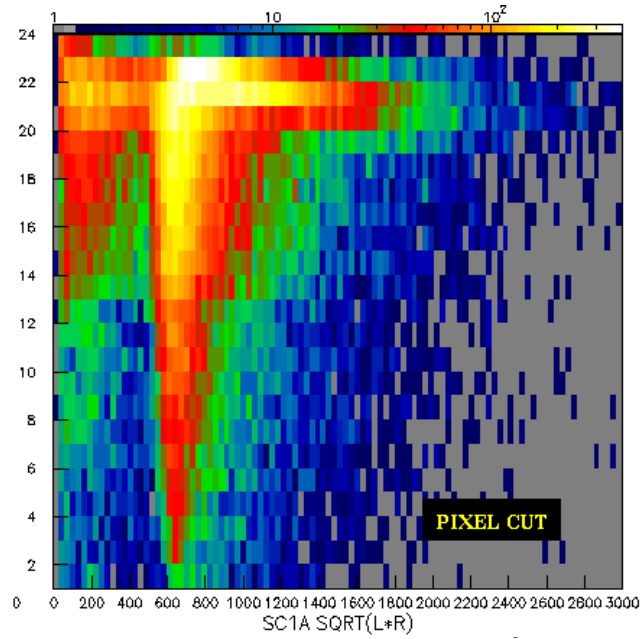
April 2014



March 2015

FTOF Sector 5

April 2014



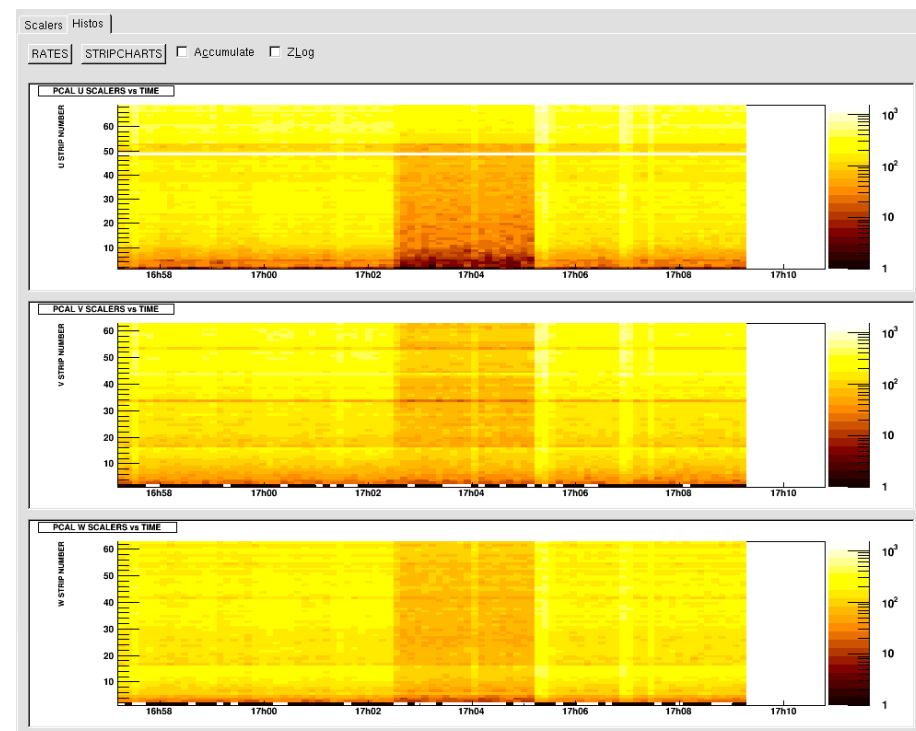
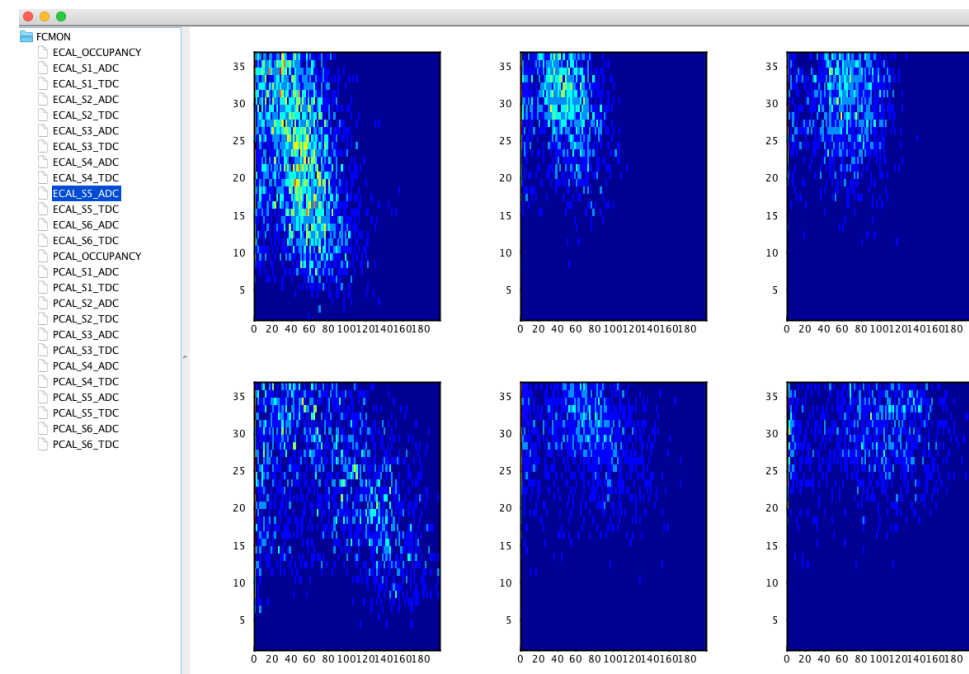
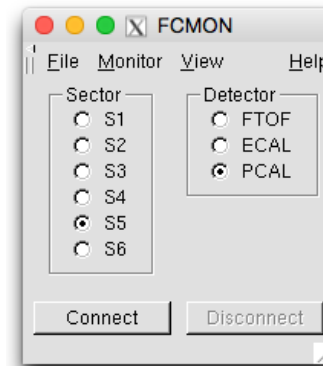
March 2015

Online Monitoring

```
public void processEvent(EvioDataEvent event) {
    String[]viewpc = new String[]{"UI","VI","WI"};
    String[]viewec = new String[]{"UI","VI","WI","UO","VO","WO"};
    String group,name;
    double x,y,w;

    if(event.hasBank("PCAL::dgtz")==true){
        EvioDataBank bank = (EvioDataBank) event.getBank("PCAL::dgtz");
        for(int i = 0; i < bank.rows(); i++){
            Integer Sector=bank.getInt("sector",i);
            Integer Stack=bank.getInt("stack", i);
            Integer View=bank.getInt("view",i);
            Integer Strip=bank.getInt("strip",i);
            Integer Adc=bank.getInt("ADC",i);
            Integer Tdc=bank.getInt("TDC",i);
            Integer layer=(Stack-1)*3+View;
            Integer slayer=(Sector-1)*3+layer;
            x=(double)Strip ; y =(double)(slayer) ;           ; this.fill("PCAL_OCCUPANCY","PCAL_EVENT",x,y);
            x=(double)Strip ; y =(double)(slayer) ; w=(double) Adc ; this.fill("PCAL_OCCUPANCY","PCAL_ADC",x,y,w);
            x=(double)Strip ; y =(double)(slayer) ; w=(double) Tdc ; this.fill("PCAL_OCCUPANCY","PCAL_TDC",x,y,w);

            group="PCAL_S"+Sector.toString()+"_ADC" ; name = group+"_"+viewpc[View-1];
            x=(double)Adc ; y=(double)Strip ; this.fill(group,name,x,y);
            group="PCAL_S"+Sector.toString()+"_TDC" ; name = group+"_"+viewpc[View-1];
            x=(double)Tdc ; y=(double)Strip ; this.fill(group,name,x,y);
        }
    }
}
```



CoatJava / JRoot – Browser for GEMC dgtz banks

C++/Root – Scaler stripcharts

To Do

Detector Commissioning

- Sector 2: FTOF cosmics
- Sector 2: EC FADC/DSC cabling
- Sector 1: PCAL/FADC cabling
- Sector 5: EC outer patch cables to splitter
- Fix holes in PCAL and tweak gain matching
- EC checkout with cosmics

Online Monitoring

- Continue development of JAVA/C++ tools.
- Near term: Forward carriages scalers in EPICS?