



Prototype data analysis

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Outline

- status of
 - hodoscope
 - lead glass
 - scintillator (double rejection counter)
- system stability

Detector layout and modules tested with LED

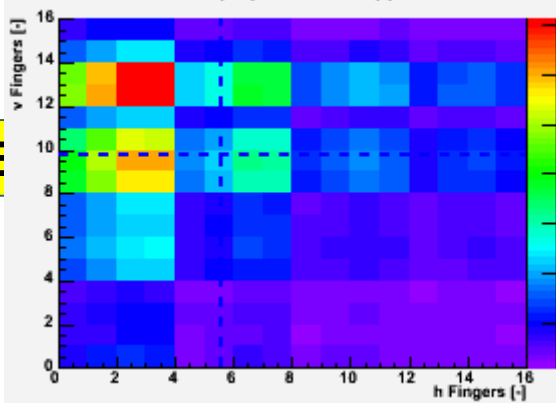
Prototype

Russian MCP

Quartz bar start cnt.

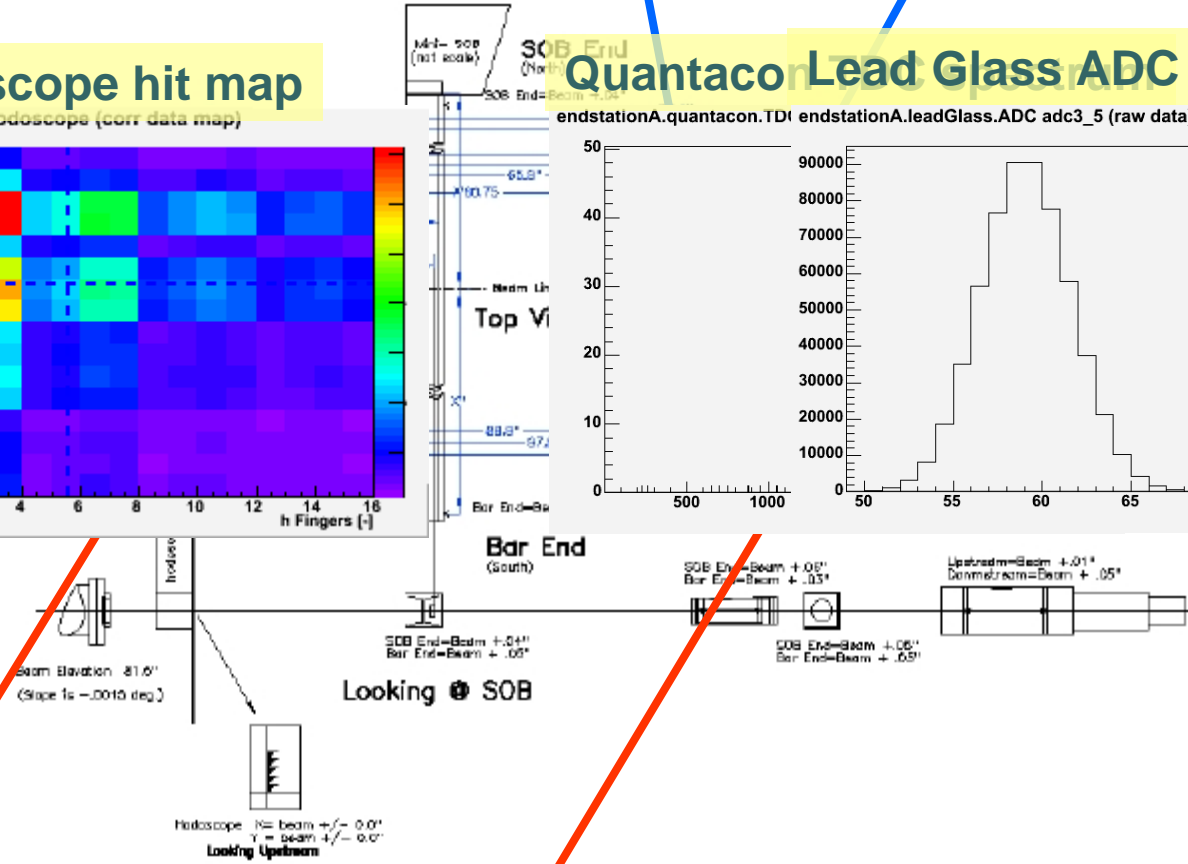
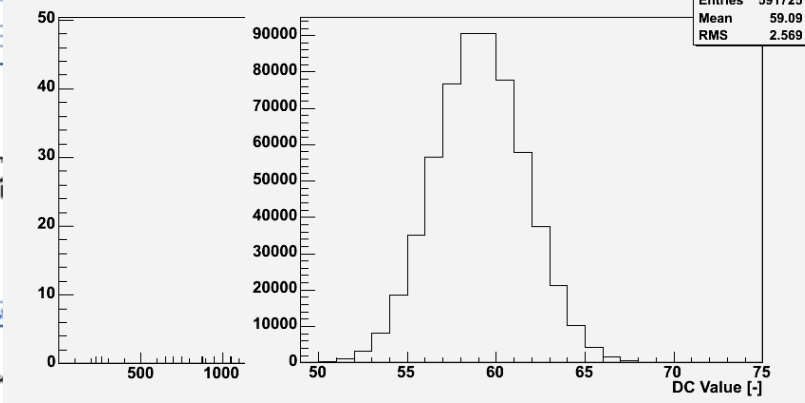
Hodoscope hit map

endstationA.hodoscope (corr data map)



Quantaco Lead Glass ADC spectrum

endstationA.quantacon.TDI endstationA.leadGlass.ADC adc_5 (raw data)



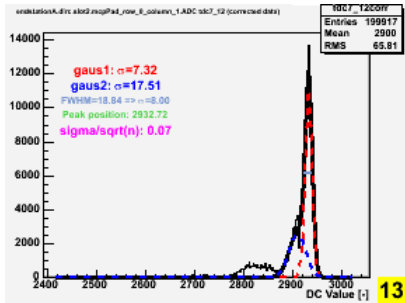
Hodoscope

Scintillator - double rejection
(2 by 2 MCP, quantacon)

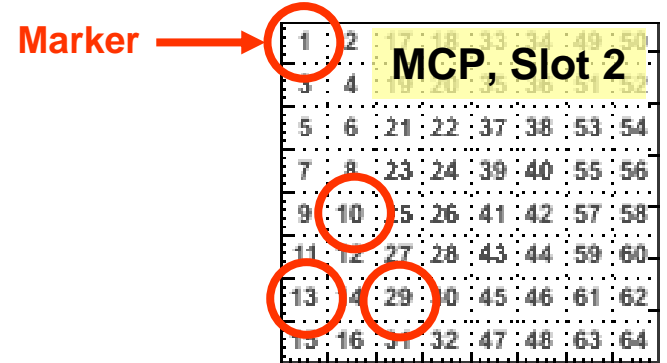
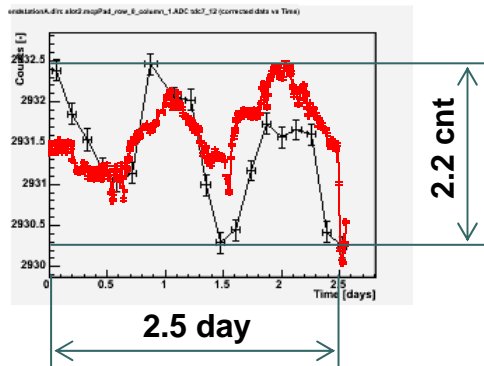
Lead glass

System stability – the prototype

TDC spectrum



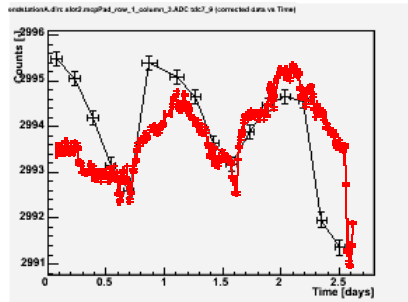
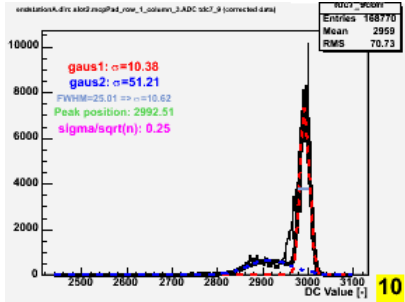
Time dep. of peak position



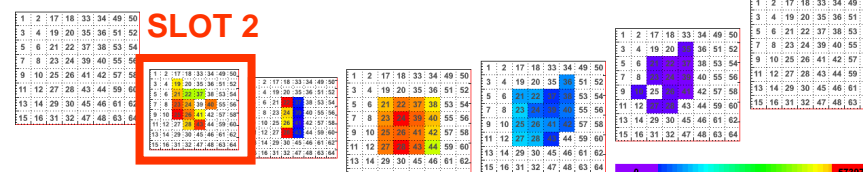
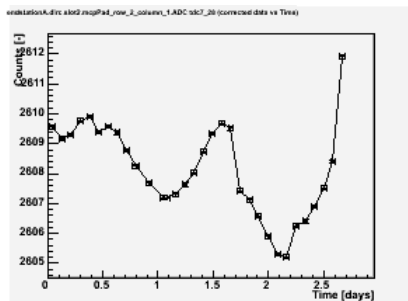
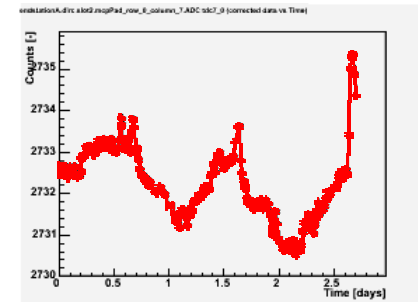
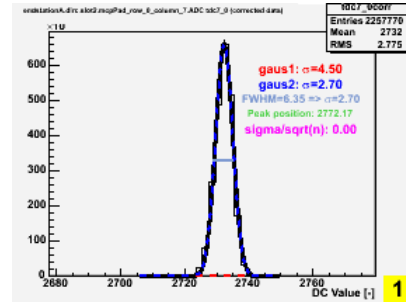
pad 13, SLAC ADC

pad 10, SLAC ADC

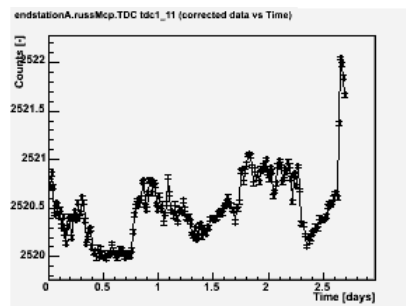
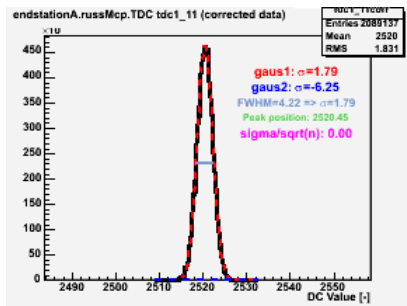
pad 29, SLAC ADC



Marker, Slot 2, pad 1, SLAC ADC

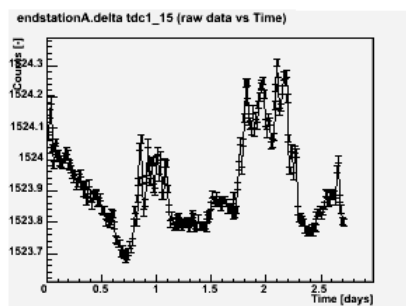
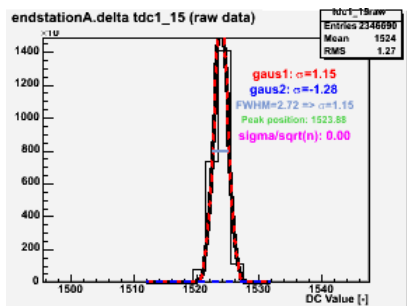


System stability



Marker in the Russian MCP

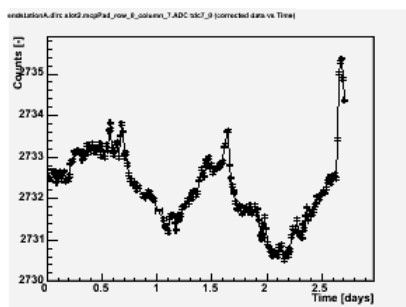
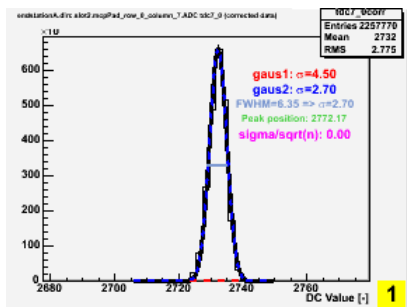
$\Delta \sim 2$ counts



“Delta function”

(start and stop provided by the same, but delayed signal)

$\Delta \sim 0.6$ count



Marker in the prototype

$\Delta \sim 5$ counts



Conclusion

- All beam electronics was tested and is functioning
 - hodoscope
 - quartzbar start counter
 - Russian MCP
 - scintillator (quantacon + 4 pad MCP)
 - lead glass
- The timing markers will be usefull for the time corrections, further study is needed.