

MicroBooNE Status

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ALL EXPERIMENTER'S MEETING

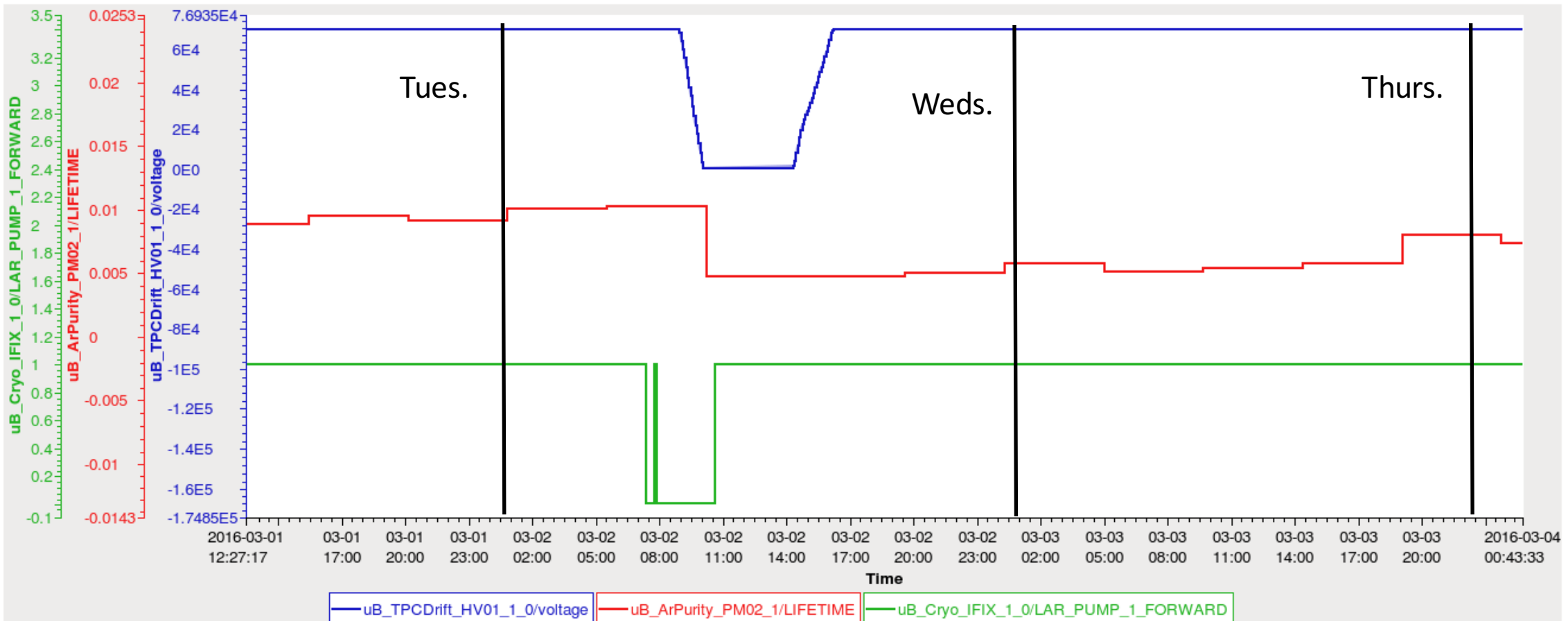
3/7/2016

Pump Trip (03/02/16)

- LAr pump tripped Wednesday morning during a routine inspection and maintenance of the ODH system at LArTF.
- This created a loss of filter circulation due to a pump trip and a drop-off in electron drift lifetime.
- Cathode HV was ramped down while pump was brought back online. After circulation returned, HV was brought back up and electron lifetime recovered quickly.
- Moving forward, ODH inspections will occur during summer shutdown.

Pump Trip (03/02/16)

Cathode HV
e⁻ lifetime (s)
Pump status

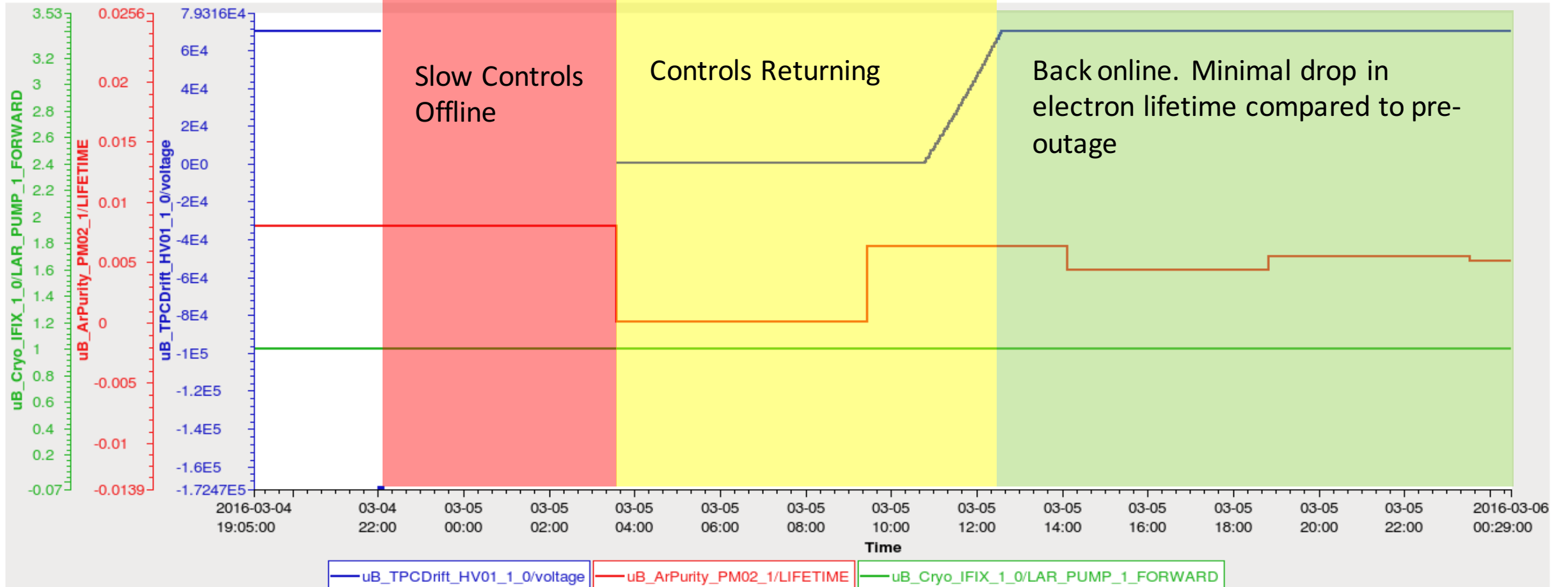


Power Outage

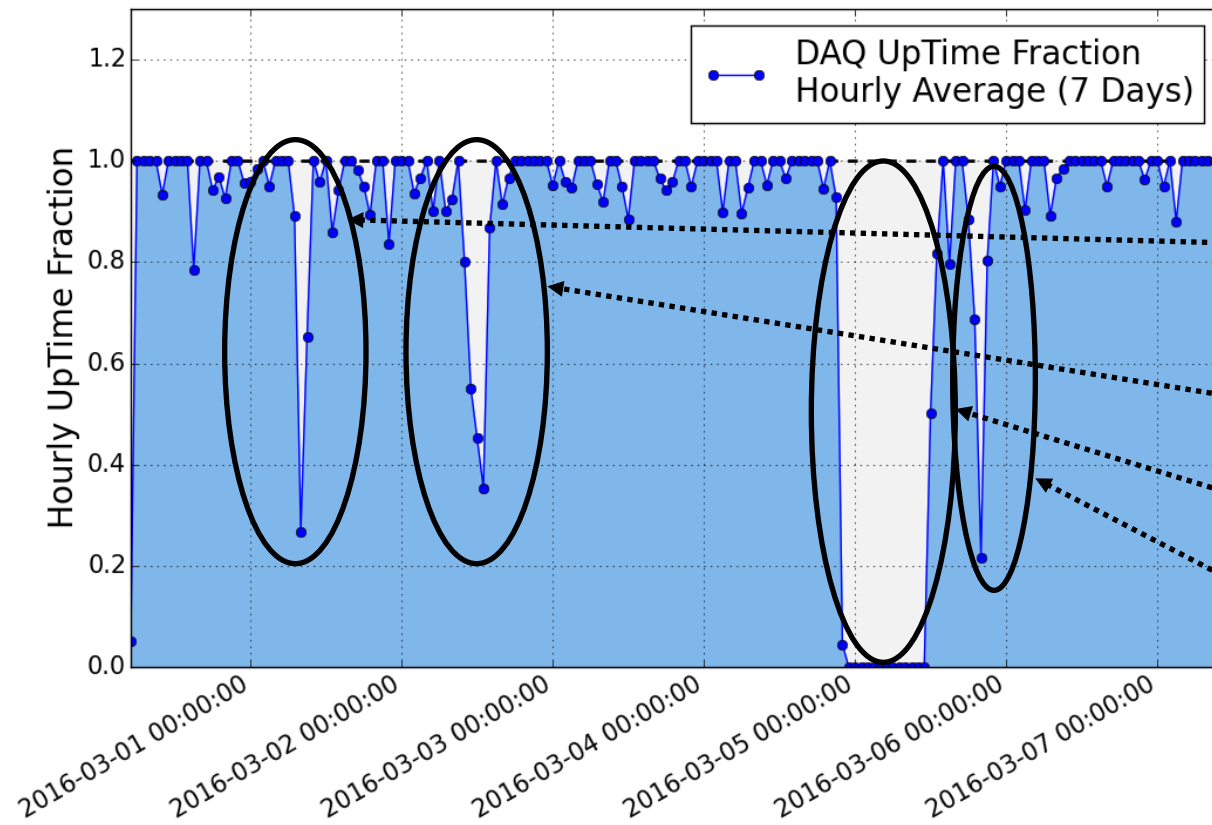
- Site-wide power outage occurred approximately 22:00 CST on Friday, March 4th.
- Power was restored to LArTF at about 0:00 CST March 5th
- The LAr circulation pump was brought up within an hour of power returning as expected.
- Morning of March 5th experts were contacted to ramp up TPC drift HV, as well as bring up monitoring and electronics systems.
 - Everything was brought back up within the expected time frame.
- Up and running shortly after beam returning early Saturday afternoon.

Power Outage

Cathode HV
e⁻ lifetime (s)
Pump status



DAQ Uptime



DAQ uptime has been very high past seven days.

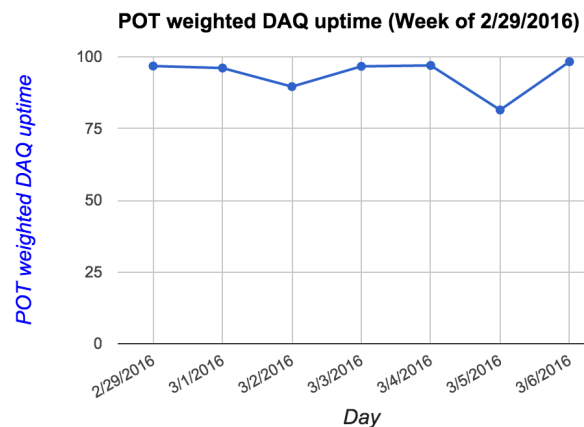
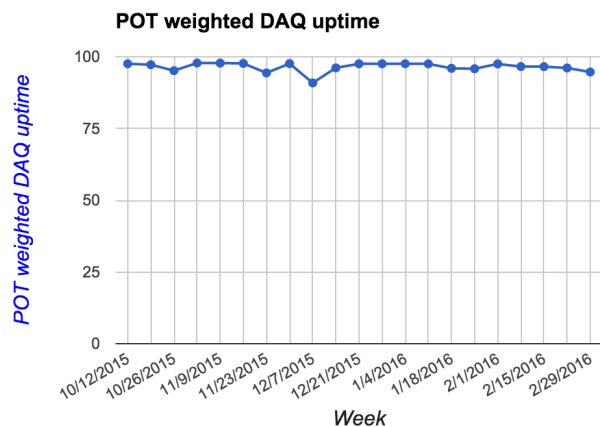
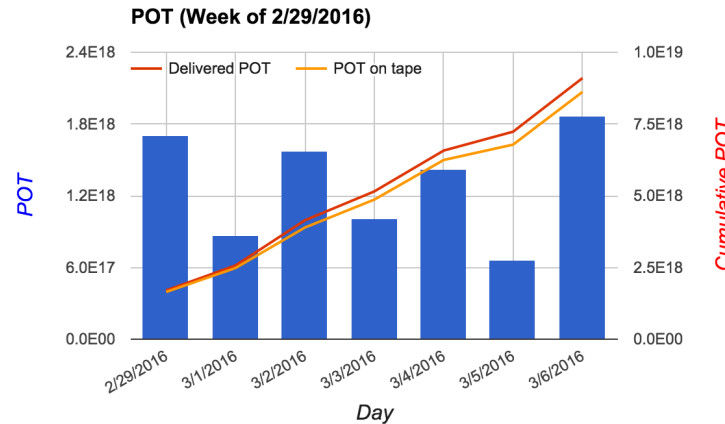
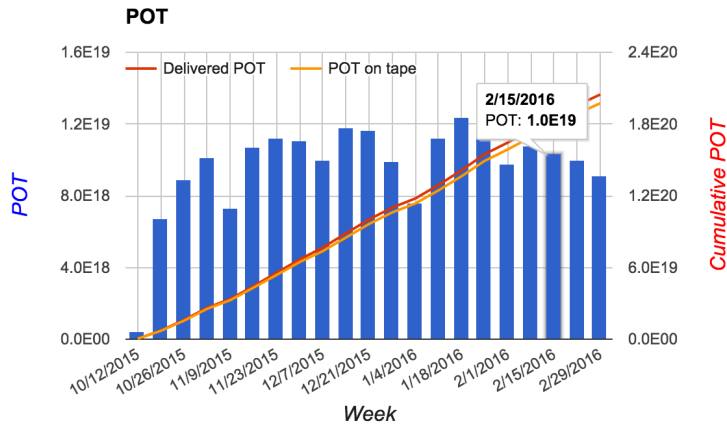
Reconfiguration of ASICs during beam downtime

Pump Trip on Weds.

Power outage Friday night / Saturday morning

Debugging GPS timing issues (ongoing)

POT Delivered / Recorded



- Weekly POT delivered: 910.25×10^{16}
- Weekly POT recorded: 862.04×10^{16}
- 94.7% POT weighted uptime this week.

Summary

- Pump trip on Wednesday resulted in about 6 hours of downtime.
- Detector and all subsystems recovered within expected time-frame, within 6 hours after experts arrived in the morning, after the power outage.
 - LAr circulation was restored within an hour of power being restored.
- Stable operations otherwise.
- Electron lifetime currently about 7 ms and increasing.