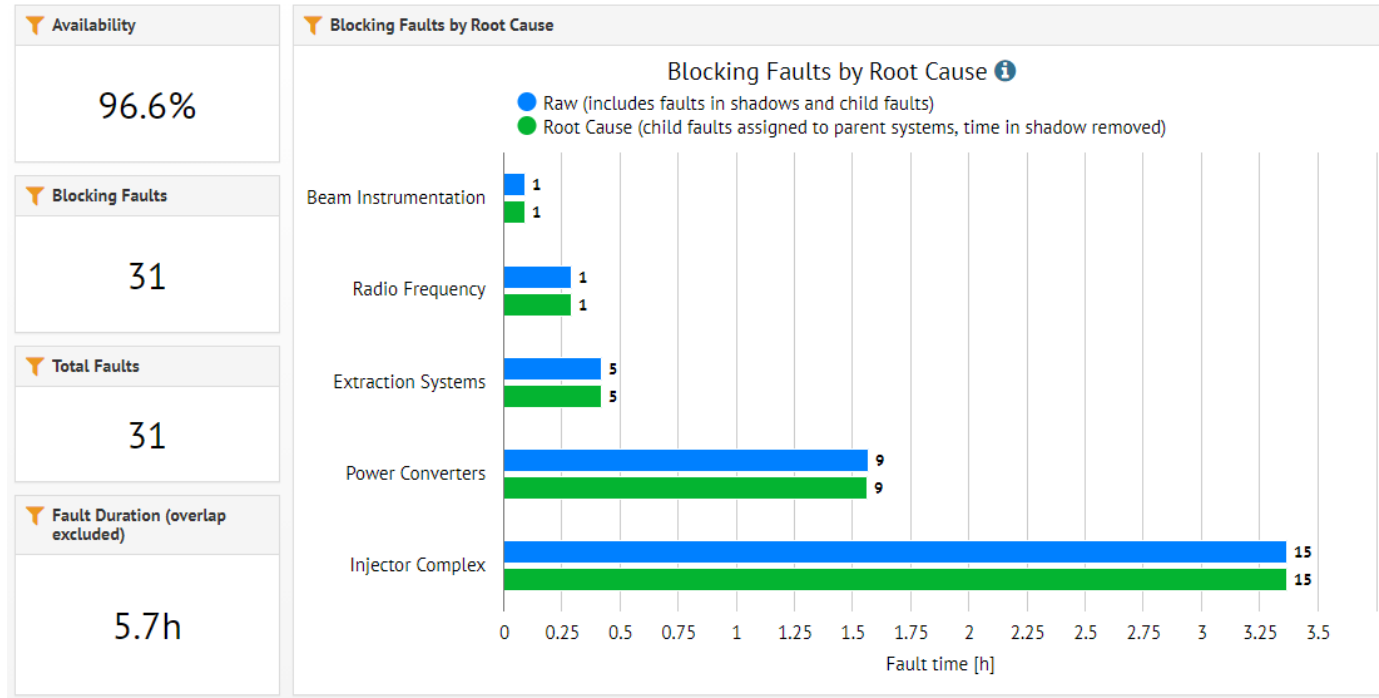


PSB FOM Report

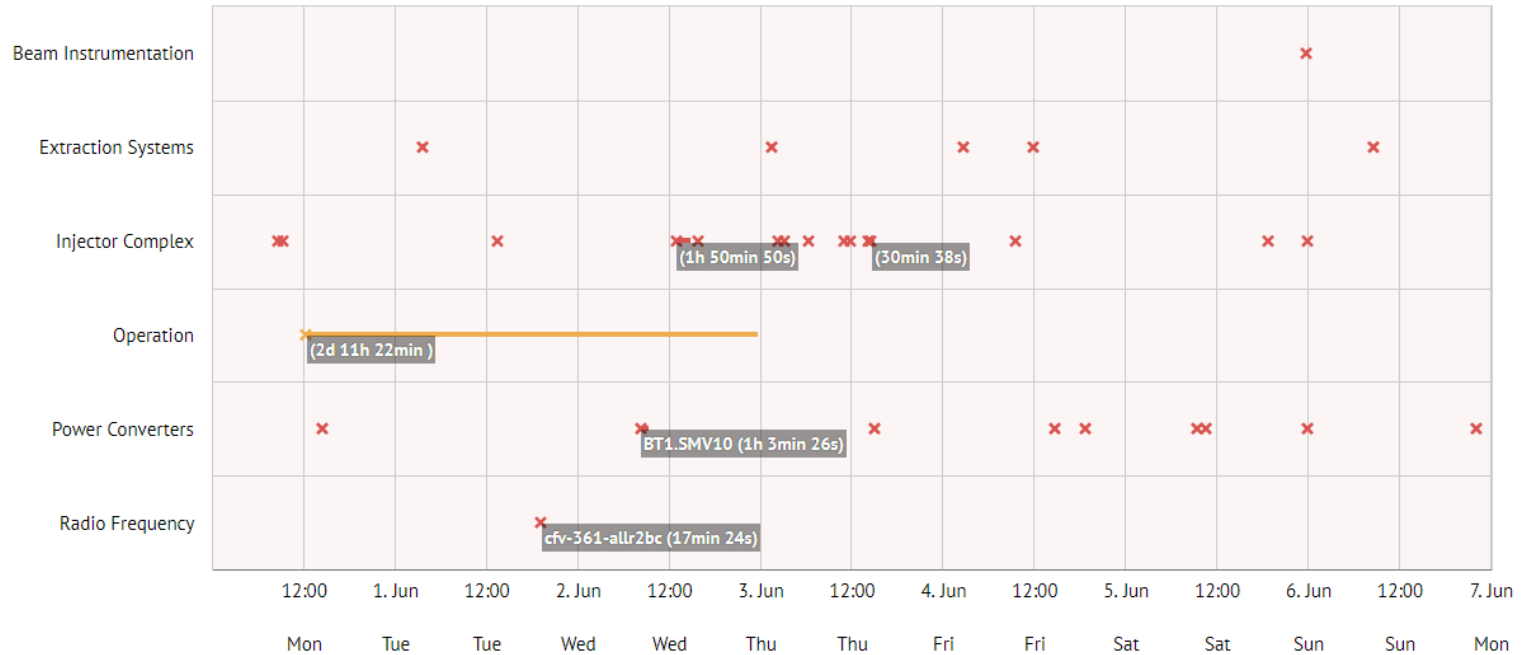
JF Comblin

For the PSB beam commissioning team

- From 31th May 0:00 to 06th June 0:00.



- Booster availability: 96.6 %
- 5.7 hours of downtime.
- Access in the PSB in the shadow of PS access Tuesday morning from 8h30 to 11h30.



- 15 faults from Linac 4.
- Power converter of BT1.SMV10.
- During 2 days, beam was not produced from Linac 4 from time to time. BIS was cutting the beam due to a change of the FGC interlock window of BI.SMV10. This was not reported by the diagnostic application because the bad condition was very short.

Progress

- After the GPS line last week, we set-up the beam to the HRS line.
 - Kick response and dispersion measurements done.
 - Thanks to the new optic model, the steering was simpler.
 - Full set of reference measurements were taken for both ISOHRS and STAGHRS beams.
- Simulated B-train: New firmware in preparation to help the debugging process.
- New calibration curves for the main bends were tested with good results, but further smoothing is needed.
- MTE beam: The longitudinal emittance was further optimized and the stability problem cured.
- Injection studies: On the MTE beam, the injection oscillations were minimized in both planes and transverse painting applied. This gave a better transverse ring-by-ring emittance uniformity.

Outstanding Issues / Next Steps

- **LIU WS**: still some issues pending: baseline, data not received, best PM.
- **B-Train**: problem with simulated B-Train still under investigation.
- **H0/H-**: Still some problems. System updated this Monday.

Beam setup:

- **LHC Pilot**: several iterations needed to accommodate the beam with the PS.
- **LHC pilot small emittance**: $5e9$ protons, 0.01 eVs.
- Setting-up of **EAST beams**.