

# PSB Availability in the Last 2 Weeks

## Availability

99.8%

## Blocking Faults

11

## Total Faults

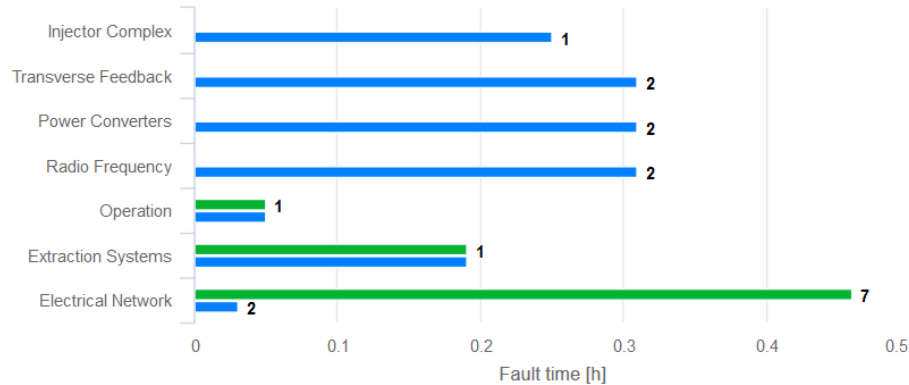
11

## Fault Duration (overlap excluded)

0.7h

## Blocking Faults by Root Cause

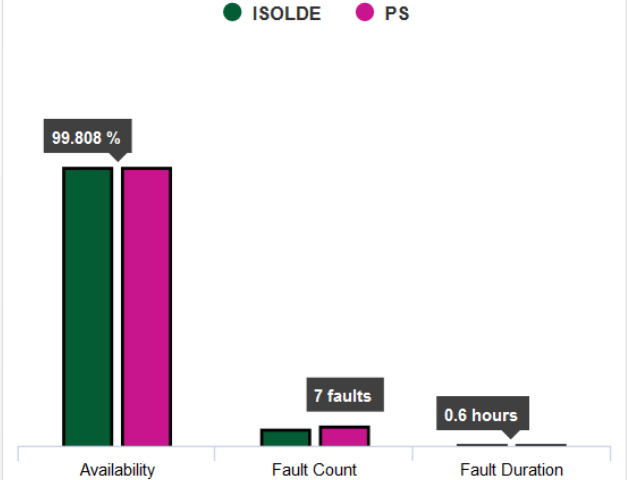
System Downtime Vs Accelerator Impact



● Root Cause Impact on Accelerator (child faults assigned to parent systems, time in shadow r...  
 ● Raw System Fault Times (includes faults in shadows and child faults)

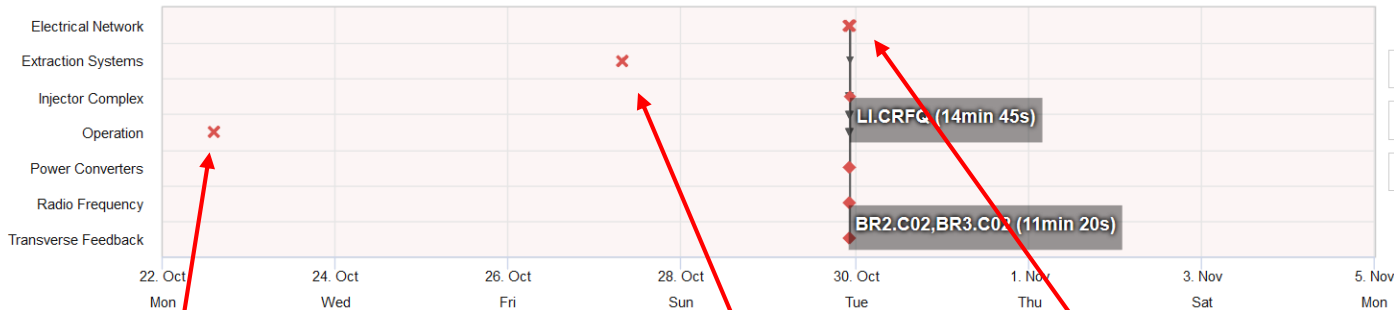
## Destination Availability

PSB Availability by Destination



**Last week availability: 99.9%**  
**This week availability: ~99.7%**

## Faults Timeline



Wrong mapping on an operational user

BE1.KFA14L1

Electrical Glitch

# PSB Operation

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- All operational beam in specs.
- Reference measurement finished.
- On top of standard beam operation the focus of the last two weeks was in supporting the LHC and injector MD programs.
- As a consequence of the current issue with Linac3 and the delay of the ions run, **last minute request by LHC to repeat the low energy, high beta VdM scans in the LHC on Saturday 3<sup>rd</sup> November, either afternoon or night:**
  - VdM type beam
  - Intensity **0.9-1.0E11 ppb** at LHC injection
  - Transverse emittance **1.5-2.5  $\mu\text{m}$**  at LHC injection in both planes
  - **Beam revived and tested in the PSB and PS. Ready for SPS to test it.**
    - PSB USER: LHCINDIV\_VdM\_4r\_2018\_1.5eHV

# Operational and MD Beams Status

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## List of MDs in the last 2 week (apart from reference measurements):

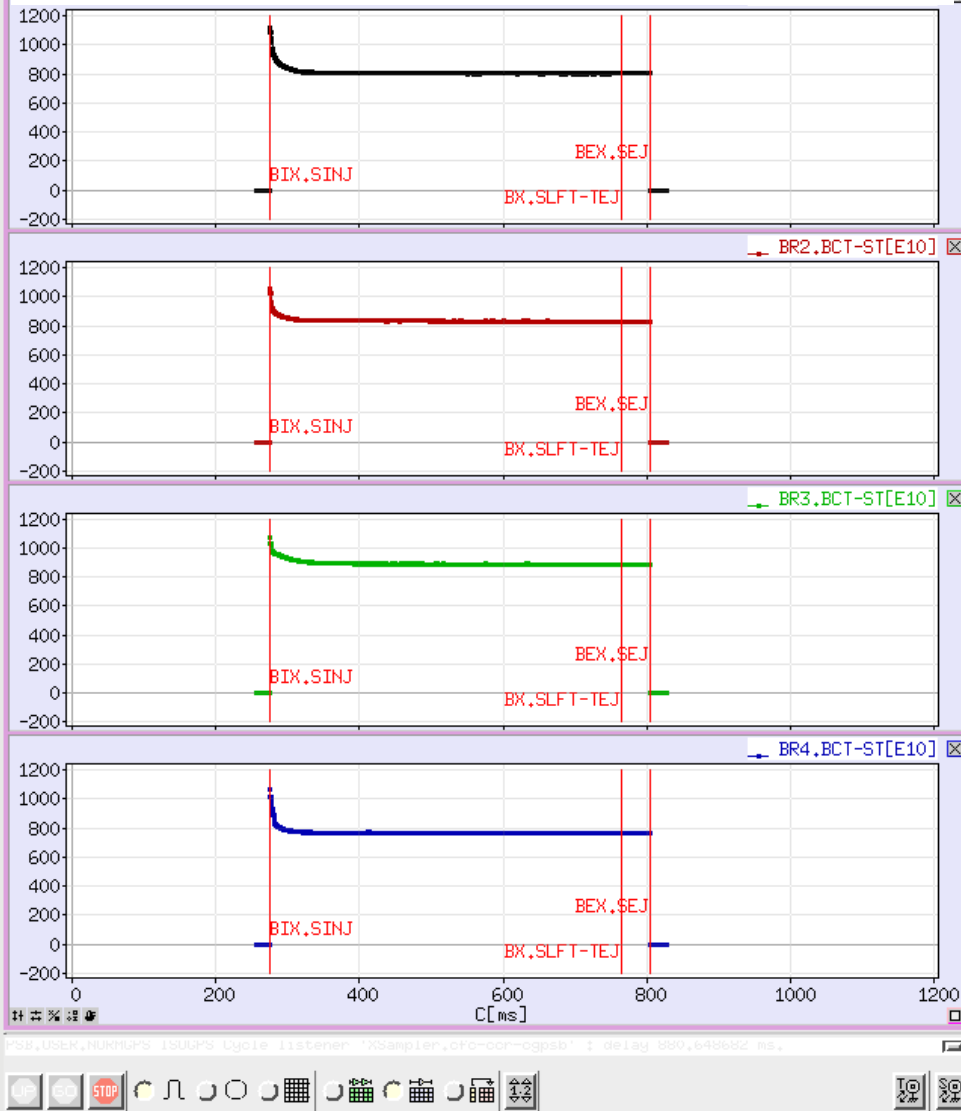
- **Resonance compensation:** ABP (Foteini) mapped resonances at 160 MeV and proposed corrections
- Tune scans → **Andrea will present results today on tune scans and resonance compensation**
- Emittance measurement along the cycle
- BCMS brightness measurements, **also using the new prototype WS in R3H**
- Optics Measurements
- Instability studies
- TFB commissioning
- **Successful test to implement 8 servo loops for Finemet** (for multi-harmonic operation).
- Finemet reliability run tried **with updated WR B-Train firmware**.
  - This was a follow up to the issues found in April when starting the B-Train reliability run.
  - Some issue with the extraction synchronization in R4. System reverted to Ferrite for operations. Being followed up by RF experts.
- **BT2.KFA20 scans at flat-top**
- **Kick response for the new wideband BPM, BTP.BPM15**
- **PPM-matched optics for ring3 at PS injection for LHC brightness measurements**

# Operational and MD Beams Status

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Encouraging results from yesterday: First time ISOLDE clone accelerated > 800E10 ppb in all rings. Several details still to be worked out.



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