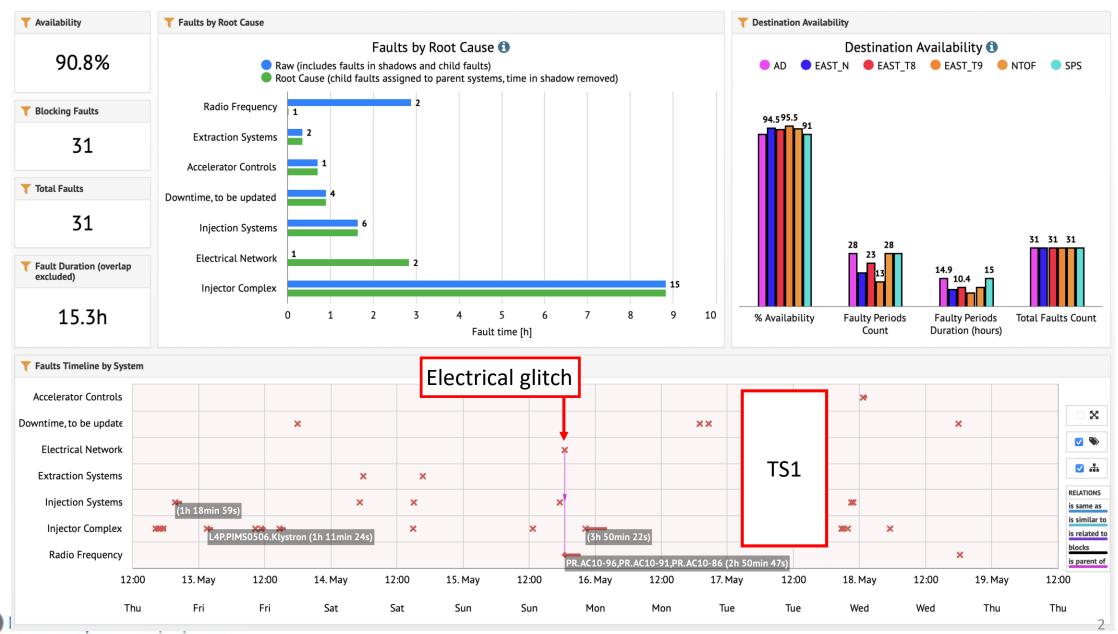
# PS Report week 20



Many thanks

to the PS OP and coordination teams as well as all equipment experts and support teams!

### **Beam availability**





BE

#### **PS** status:

- Thursday evening: KFA45 issue causing **1h15 downtime**
- Following the electrical glitch on Sunday evening intervention of the HL-RF piquet required for PS cavities (~3h of downtime).
- Beam degraded on Sunday night due to PSB R1 issues. Decided to temporarily remove R2 on (2h for AD with only 3 bunches).
- Difficult restart after TS1:
  - Beam back around 18h30 Tuesday evening
  - needed about 5 hours to recover performance for TOF (started up with only parasitic beams)
  - Constant tuning on SFTPRO beam required
  - Other beams less impacted, 3h of half-intensity for AD target commissioning
  - Situation back to normal at around 23h30 not clear if related to thermal variations
- Very promising results from FTN RP survey
  - Modification of the line and new optics paid off, can continue to provide large beam sizes on the target
- Current activities:
  - SFTPRO intensity ramp-up
    - extracting ~1.5E13 per PS extraction, targeting 1.8E13 over the coming days
    - Regular tuning of the TT2/TT10 trajectories required in collaboration with the SPS while increasing the intensity
    - Vertical emittance increased in PSB to 4.5 um at 1.8E13 p
  - **HiRadMat beams sent as requested** (emittances ~2.5 um achieved)

## **Status of operational beams**

Fixed target beams	Status	Comment
SFTPRO (core only)	Operational	Available up to $2 \cdot 10^{12}$ p/p
SFTPRO (5 turn extraction)	Operational	Available <b>up to 1.8 · 10<sup>13</sup> p/p</b> , SPS intensity ramp-up ongoing
AD	Operational	Nominal beam (5 bunches)
TOF	Operational	Nominal and parasitic beams
EAST	Operational	
LHC-type beams	Status	Comment
LHCPILOT, LHCINDIV	Operational	
LHC25 (72b)	Operational	Operational at 2.2 · 10 <sup>11</sup> p/b; 2.6 · 10 <sup>11</sup> p/b with 3+3 injections from PSB prepared 1.9 · 10 <sup>11</sup> p/b 3 eVs optimized
LHC25 (12b or 24b)	Operational	
LHC25 BCMS (48b)	Operational	Operational at $1.8 \cdot 10^{11}  p/b$ ; setting up higher intensities and improving beam quality
AWAKE	Operational	Available up to 3 · 10 <sup>11</sup> p/p
HiRadMat	Operational	

### **Questions and Comments**

PS Coordinator for week 20 – **Alex Huschauer** PS Coordinator for week 21 – **Bettina Mikulec** 



9:00 Daily Zoom meeting (except for Mondays)

Web address: <a href="https://cern.zoom.us/j/9372114100?pwd=L29BcmlHUENCdFBRSytXYVcrM1B4Zz09">https://cern.zoom.us/j/9372114100?pwd=L29BcmlHUENCdFBRSytXYVcrM1B4Zz09</a>

Meeting ID: 937 211 4100

Passcode: 525463