

# PS status 19 April 2018

Frank Tecker, Denis Cotte, on behalf of PS operations and supervisor team

# Status of beams

Fixed target beams	Status	Comment
EAST Irrad/North with nTOF Parasitic	Operational	Issue on ZT10.QDE01 (T10 momentum reduced from 6 to 5 GeV/c)
MTE	Operational	to SPS $\sim 8 \cdot 10^{12}$ ppp (tested $1.8 \cdot 10^{13}$ )
TOF	Operational	Up to $\sim 8 \cdot 10^{12}$ ppp
AD	Operational	$\sim 1.0 \cdot 10^{13}$ ppp sent to AD (tested $1.4 \cdot 10^{13}$ )
LHC-type beams	Status	Comment
LHC PROBE, LHC INDIV	Operational	
LHC25 (12b, 72b)	Operational	
LHC25 BCMS (12b, 48b)	Operational	



# ZT10.QDE01 issue

- Wednesday evening: T10 users ask to restart it. It did but quickly tripped again  
First Line (called @ 22:44) found a **magnet temperature fault**.  
Magnet piquet and RP piquet were called  
=> Access from 9am Thursday with 3 hours of cool down  
**(7h20 without beam for T10 only)**
- EAST primary zone access until 18:40 (**12h40 without beam for EAST AREA**)
- A thermal scan of the magnet was performed, water filters exchanged
- No solution unless decreasing the water temperature or the CCV current, as there is no spare and the radiation level is too high to fix the magnet on site.
- => **maximum 500A**, run at 445A corresponding to 5 GeV/c (instead of 6 GeV/c)
- Another access yesterday confirmed the present limit.
- Lau Gatignon informed us that T10 will run like this for the rest of 2018

# Other PS Complex Issues

- EAST AREA:

- Radiation monitor PAXP502 around alarm level A (reported by RP)
- mainly due to high intensity beam on EAST1 (around  $6 \cdot 10^{11}$ )
- Intensity was reduced to  $\sim 4.5 \cdot 10^{11}$

- Faults

- Timing repeater failure delayed the startup after dedicated MD on Wednesday by  $\sim 3$  hours
- Difficult to diagnose: Beam loss, consequence of MD suspected, Internal dump found blocking, transition problems, extraction bump not pulsing
- Several problems from the Booster, temperature interlock on quadrupole, now solved

Availability

82.9%

Blocking Faults

33

Total Faults

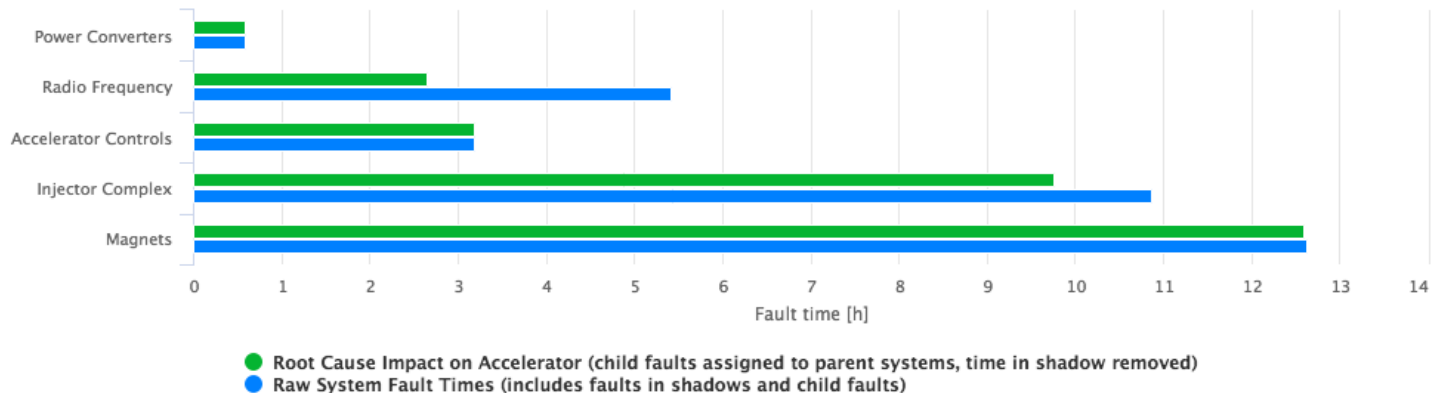
34

Fault Duration (overlap excluded)

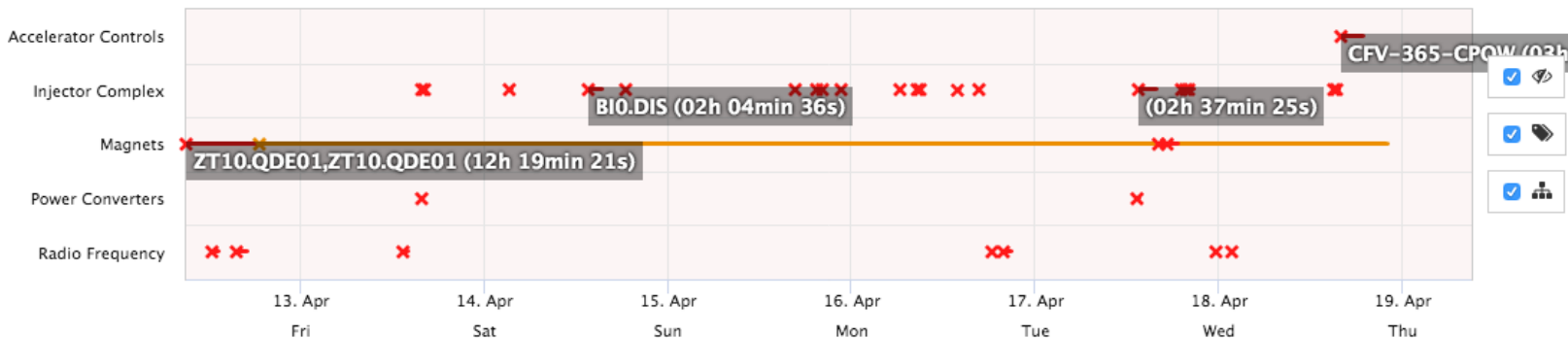
157.5h

Blocking Faults by Root Cause

### System Downtime Vs Accelerator Impact

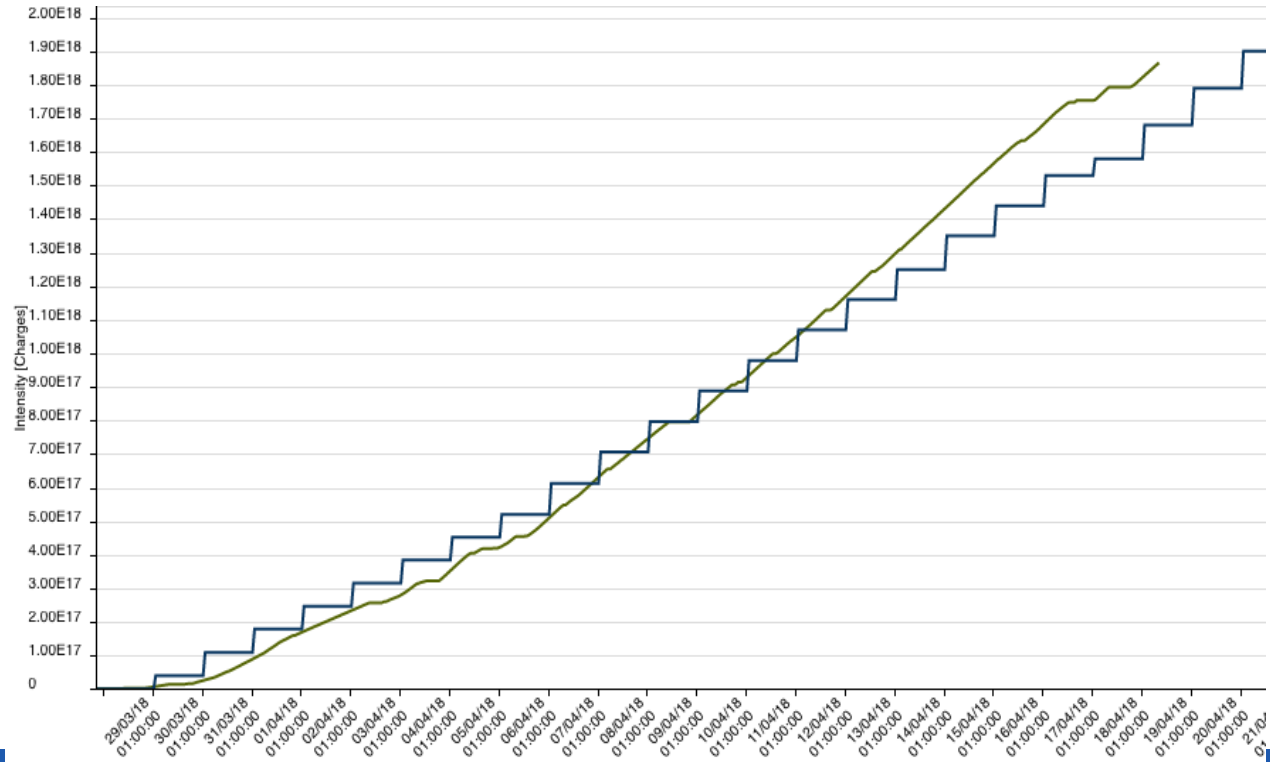


Faults Timeline



# NTOF integrated intensity

- $1.87 \times 10^{18}$  pot delivered up to now
- This is **8.6%** of the total intensity forecasted of  $2.17 \times 10^{19}$  pot
- Beam position on target to be checked





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