

Status summary for 2021 run

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COMPASS Technical board meeting



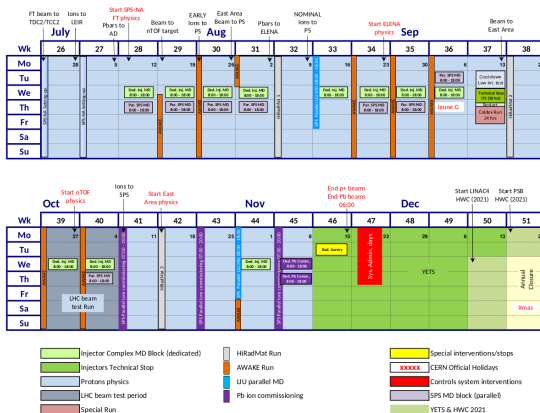
CHARLES UNIVERSITY
Faculty of mathematics
and physics





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- 3 Detector status overview
- 4 Shifts and checklist (preliminary ideas)
- 5 Communication channels
- 6 Requests on detector experts
- 7 Final remarks

Preliminary run schedule



Injector Accelerator Schedule 2021 (preliminary, version 1.0, 2. 12. 2020)

Beam schedule

- NA physics: from 12 July, about 18 weeks.
- Beam requests:
 - COMPASS: 15 weeks.
 - AMBER, MUonE, NA64 μ : 7 weeks.
- Preliminary decision from CERN: 13 April.

COMPASS schedule

- 31. 5. – 11. 7. Dry run.
- 12. 7. – 31. 7. Commissioning with beam.
- 1. 8. – ? Physics data taking.



Week 11 Bi-weekly meetings started (last week).

Apr.–June Detector surveying – to be scheduled, **input from the detector experts needed.**

- Stefano asked for availabilities of the detectors last month.
- Thanks to RICH and W45 experts, who replied.
- It is important. Surveying → alignment → express analysis. Otherwise we are blind!

Week 15 Cold silicon test.

Week 17 Target material loading (end of April).

Mid-May Flammable gasses available.

Week 21? H1 re-installation.

Week 22 Cold silicon installation.

Week 22 **Dry run starts.**

- Switch on all front-ends.
- Test DAQ, including new start-of-run scripts.
- DCS: finish and test integration of new/upgraded detector components.
- **A list of tests on the detectors to be prepared.** Suggestions are welcome.
- We should start setting up a timeline.

Week 28 **Commissioning with beam starts.**

- Only 3 weeks. We should do as much as possible during the dry run.
- A list of tasks to be defined for detectors and systems.



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Silicons Being refurbished, clean area test end of May, installation in June [Last TB].

Polarised target On good track (report today [Indico]).

DC04 Repaired, back in place. (report today).

DC05 Y, Y' planes broken, repair depends on travel constraints (report today).

- Impact negligible, **if all other detectors OK**, but loosing redundancy...
(1 more Y plane off: 2% h^\pm less, 2 more Y off: 5% h^\pm less, **more at high x**)
- The **redundancy is important** for the stability (acceptance cancellation).
- The situation may also degrade, we do not know what happened...

RICH Wall Being repaired, tight schedule, but progressing well! (report today)

GEM GM 1, 2 to be tested, LV power supplies replacement planned,
New stations being built (the old can be used until they are ready).
GM11 is not planned (report today)

Hodoscopes H1 being repaired, on good track [Last TB].

No issues identified for other detectors, DAQ or DCS at the bi-weekly meeting last week.



Checklist

- To be started soon (once per day, weekly rotation of the responsible).
- People on site will be asked to communicate availabilities for March and April to me.
- **Experts, please communicate the things to be checked to me.**

Dry run (31. 5. – 11. 7.)

- A proposal inspired by the 2020 dry run:
 - 2 shifts/day: 9–13 and 13–17 (2×4 h), or 1×8 h?
 - 1 local and 1 remote shifter, weekly coordinator (on site). Or just 1 shifter?
 - No weekends.
- **Fair sharing (can be discussed): shift = 1 point, weekly coordination 5 points.**
- 6 weekly coordinators = 30 points and 60 shifts \times 2 shifters = 120 points.
- **0.85 points per person¹ to be covered by each institute.**
- System to sign up will be launched in 1-2 weeks time.

Run (12. 7. – ?)

- **Standard 3×8 h shifts/day.** 1 remote shifter during the days only (8–16).
- 15 weeks \rightarrow 75 points for coordinators + 315 shifts \times 2 shifters = 705 points.
- \rightarrow **4 points per person¹, at most 1/6 shifts can be served remotely.**

¹178 full members + PhD students (the list on COMPASS page, 22.3.), will be checked with group leaders.



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- Bi-weekly meetings (started last week), later weekly and daily meetings. [COMPASS meetings]
- Run web page – in construction, available soon.
- Mattermost [COMPASS Mattermost team]
 - Has a big potential, better than mail conferences or group mails in my opinion.
 - COMPASS channels:
 - General,
 - Shift: communication between remote shifters, DAQ chat is reposted there.
 - Logbook: Logbook comments are reposted there.
 - DAQ: DAQ group chat.
 - **Dedicated channels for detectors could be added.**
- Polarised target group has its own Mattermost team [COMPASS-PT team].
 - Software development communicated.
 - Automatic monitoring checklists pasted.
- Direct chats with one or more people.
- Web, desktop and mobile versions.

COMPASS team, Shift channel.

Target Operation	DISQ	211.41	211.48	211.38	180708	HIGH
DVCL1	06:06:16	1.00e-02	1.00e-02	2.00e-02	04:07:51	
DVCL2	06:06:16	-4.00e-02	-4.00e-02	-5.00e-02	02:17:48	
FDOWN	no data					
FD001	06:04:27	3.14e-02	3.14e-02	3.14e-02	05:54:33	LOW STABLE
FD002	06:04:27	4.75e-04	4.75e-04	4.75e-04	05:54:33	LOW STABLE

COMPASS-PT team, Target operation.



Please, communicate to me:

- Detector availability for **surveying** (dates or things it depends upon).
- Requests for **DCS integration** and registration for **alarms** (communicate to **Christophe**).
- Names and contacts of **detector experts on site and on call**
 - Who can be contacted when (starting from now).
 - Preferred ways of communication (Mattermost, mail, phone...)
 - Planned presence at CERN (even conditional).
- Items for the **checklist**
 - Are there changes with respect to 2018?
 - Since when it should be watched?
- Can the detector stay on during the dry run nights?
 - We can arrange for switching e.g. the HV on-off.
- A roadmap of **tasks and tests to get the detector operational for the run**
 - Things to be done during the dry run,
 - Things that need the beam (and which beam and triggers).
- Assistance needed?
 - We can arrange things to be done by shifters or on-site people.
 - COVID information, quarantine exceptions (at least 2 weeks in advance).
 - In principle, long stays are advantageous nowadays...

All the information does not have to be provided at once. It is better to tell what you know earliest possible and postpone the rest.



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- The preparations are gaining momentum.
 - Follow the bi-weekly meetings.
- We need to set up a roadmap to an operational spectrometer.
- Inputs from detector experts needed:
 - Surveying,
 - contacts,
 - planned presence on site,
 - dry run and commissioning plans.
- Groups should start planning the travels
 - For detector experts, shifters and coordinators.
 - Longer stays are advantageous due to travel restrictions.
 - A risk of remote shifts is the lack of training – let's send the young ones to CERN.
- Big thanks to the few people who are on site now!
- Big thanks to all that are working hard to make their hardware operational for the run.
(Target, RICH Wall, H1, silicones, DAQ, DCS etc.)