Status summary for 2021 run

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COMPASS Technical board meeting
Outline

1. Preliminary run schedule
2. Planning
3. Detector status overview
4. Shifts and checklist (preliminary ideas)
5. Communication channels
6. Requests on detector experts
7. Final remarks
Beam schedule

- **NA physics:** from 12 July, about 18 weeks.
- **Beam requests:**
  - **COMPASS:** 15 weeks.
  - **AMBER, MUonE, NA64μ:** 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.
Planning

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 $\rightarrow$ alignment $\rightarrow$ 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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Detector status overview

Silicons Being refurbished, clean area test end of May, installation in June [Last TB].
Polarised target On good track (report today [Indico]).
\[\text{DC04 Repaired, back in place. (report today).}
\]
\[\text{DC05 Y, Y' planes broken, repair depends on travel constraints (report today).}
\]
\[\bullet \text{Impact negligible, if all other detectors OK, but loosing redundancy...}
\[\text{(1 more Y plane off: 2 \% h^{\pm} less, 2 more Y off: 5 \% h^{\pm} less, more at high } x)\]
\[\bullet \text{The redundancy is important for the stability (acceptance cancellation).}
\[\bullet \text{The sitation may also degrade, we do not know what happened...}
\]
RICH Wall Being repaired, tight schedule, but progressing well! (report today)
GEM GM 1, 2 to be tested, LV power supplies replacement planned,
\[\text{New stations being built (the old can be used until they are ready).}
\[\text{GM11 is not planned (report today)}
\]
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.
Shifts and checklist (preliminary ideas)

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 × 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 → 75 points for coordinators + 315 shifts × 2 shifters = 705 points.
- → 4 points per person¹, at most 1/6 shifts can be served remotely.

¹ 178 full members + PhD students (the list on COMPASS page, 22. 3.), will be checked with group leaders.
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Communication channels

- 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.

COMPASS-PT team, Target operation.
Requests on detector experts

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...

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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 youngs 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, silicons, DAQ, DCS etc.)