Agenda

• General Communications
  • Approval of the minutes of the last TB
  • Mandate renovation
  • CV status – Flammable gas availability - Cryo
  • Beam Delivery update
  • Request for ECALs calibration → Transversity group/Run coordinator
  • Survey Champaign → Nikos Request → Transversity group/Run Coordinator
  • Electrical safety (status) / MN coils / DSO test
  • SM2 leak repair
  • DC5 intervention
  • W45 Intervention
  • Beam Monitor at the COMPASS beam dump (Dipanwita request)
  • Amber Meeting for Hydrogen gas system LSD - TPC installation (EP Safety + HSE)
  • ALPIDE licensing
  • Agenda → Detector intervention/ planning repair reinstallation
Minutes, and TB membership

Apologies from Daniele Panzieri, Norihiro Doshita \(\rightarrow\) will join later

Approval of the minutes of the last TB

Renewal of the mandate of

1) Norihiro Doshita (I) February 2022 \(\rightarrow\) Extend till End 2022
CV status – Flammable gas availability - Cryo

1) Restart of CV cooling tower and system is in time
   → Stable running operation is expected from beginning of March
There is the possibility to have both raw and chilled water earlier (mid Feb) since CV is well on track.
Switch to chilled water asap since the cooling efficiency of the COMPASS DAQ cooling standalone system is
degraded due to the large amount of dust and dirt → Visit in place with CV-Detector
   1) Intervention for cleaning (waiting for the offer)
   2) Consolidation for the future (asked for a cost evaluation)
2) On 21 we will perform the test of the Flammable gas system operation (908+COMPASS), possible short
electrical interruption affecting the COMPASS ATEX area.
   → Beginning of March ready for the visit with FGSO for the in the 888 hall for final inspection before asking for the
flammable gas usage, feedback from detector experts for the leak rate measurement.

3) Agreed with Cryo a more frequent refilling of the LN DEWAR to improve the filling of the LN of the cold silicon
system, new threshold will be set to warn for the refill.

Liquid Helium for PT operation asked as soon as possible, considering maintenance of the He pump ~ beginning
of March
## BEAM delivery UPDATE (Draft)

### 2022 – Q1

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**Key Events:**
- **FT beam to TDC2/TEC2**
- **Start LHC beam commissioning**
- **Physics start SPS/NA**
- **Start LN2 source**
- **4-day LHC Scrubbing**
- **2-day LHC Scrubbing**
- **2-day LHC Scrubbing**
- **Whitsun**

**Subtracted to NA physics:**
- 2 weeks

**Notes:**
- **Beam to PSB**
- **Beam to PS**
- **Beam to EAST & nTOF/flow**
- **Beam to ISOLDE**
- **LHC end of SPS**
- **LHCdiv & MTE core to SPS**
- **Beam to ISOLDE**
- **Beam to EAST & nTOF**
- **Beam to ADT**
- **Start ISOLDE EAST nTOF**
- **Beam to ADT**
# BEAM delivery UPDATE (Draft)

## 2022 – Q3

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- LHC MD1
- "Nominal" Pb ions to PS
- "Early" Pb ions to PS

## 2022 – Q4

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- Ions to LEIR
- Ions to SPS
- LHC MD2
- LHC MD3
- "Nominal" Pb ions to PS
- 4-week SPS-NA Pb Run
- 4-week LHC Pb-Pb Run

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*Joint COMPASS AMBER Technical Board | CERN February 8 2022 | S. Levorato*
Beam delivery to NA W15 ~ 11 of April → Detector commissioning with beam may start: access to the hall to be agreed with BE NA64_μ is already installed the beamline, ~ 23 days of beam time requested

Week 17 (25 of April) commissioning of NA64_μ. We need to profit as much as possible of this period for our commissioning
Week 18 and 19 NA64_μ data taking
COMPASS can start collecting data starting from week 20/21
Dear All,

As you maybe already know we noticed a vacuum leak upstream of M2 after the T6 target last year following which an intervention was performed separating the vacuum into two sectors:

Vacuum sector 1 from magnet QNR.061005 (vacuum start 3.7 m after the target) to magnet MTN.061035 (vacuum end 37.3 m):
Vacuum sector 2 the big (900 mm diameter) vacuum chamber right before XTAX.061052 (vacuum start 38.5 m – vacuum end 49.33m)

The second vacuum sector unfortunately needs to be replaced as the leak has gotten worse and now the chamber is under atmospheric pressure.

The chamber that is used is a large 90 cm diameter chamber to accommodate the deflection of the 400 GeV proton beam for the maximum current in Bend 1 for both polarities. As this is a high radiation zone we are trying to understand a bit if we can optimise this intervention and will very much appreciate your feedback.

The options we have are:

1) Live with this 11 m air which will have minimal impact on the muon beam but a larger impact on the electron beam. **So the estimated time needed for calibration of the detectors can potentially double.**

2) Replace the leaky larger chamber with a smaller chamber which will give us the option to prepare this externally, test it and then place it in position for a shorter intervention time.

3) **Try to fix the leak in the chamber in situ which will require a ALARA Level 3 intervention due to the time required.**

In order to consider option 2 we wanted to check with you if for this year we can live with only positive polarity beam? This will directly half the required size for the chamber. If you can please let us know if this could be a possibility we will check how much we can optimise the size in this case. Also if you would have any feedback for the point of the electron beam for option 1 for example please let us know. I would like to add as well that this concerns only this year. During this year a larger chamber will be prepared externally and then during the YETS 2022/23 it can be placed in the beamline. We are very sorry for this inconvenience and appreciate very much your feedback to understand more precisely the requirements of beam for this year to be able to plan this intervention. Please let us know soon if you can as we have to make a decision very soon.

Thank you very much in advance.

Best Regards,

Dipanwita
Transversity group – Run coordinator feedback

• ECALs Calibration
  • In view of the planning of the beam delivery schedule it would be important to try to fix, if requested, the electron beam request in terms of energies and dates
  • Has to be coordinated with ECAL expert presence (possible quarantine requests), planning is needed

• Survey

  From: Nikolaos Charitonidis
  Sent: 03 February 2022 18:31:57 (UTC+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna
  Subject: Survey activities for next YETS table -- To be completed asap

  Dear all,

  As discussed in the last EATM, and also as per the e-mail of J-F below, please find attached a table with the survey activities that need to take place in the EATM related experimental areas for the next months and also the next YETS (2022/23). Please feel free to directly edit the document online- it will be then shown / validated in the next EATM of the 22nd of February. Our survey colleagues need it by 12/02, so the sooner you can complete it the better. Here is the direct (editable) link: https://1drv.ms/w/s!Au6iOEKmkwljgggDCnHK-hgvyzbG
Electrical Safety

- **Electrical installations for COMPASS (consolidation)**
  - Intervention requested to EN/EL to fix the electrical non-conformities for what concern the infrastructure
    - New cabling, new Canalis installation, dedicated lines for CAEN Mainframes (25A) target: end of February upon EN/EL availability
  - EP-DT support requested to fix missing grounding and other non-conformities
  - Electrical non-conformities at detector level are not attacked yet → Detector experts (Mail sent with photos and EDMS N 2643017)

- **Electrical installations for AMBER**
  - Intervention requested to EN/EL for the new installations
    - New DAQ power distribution with detachable plugs: target middle March

SPSX-LJ-WD-0002 v.0.5 "MANDATE OF THE NORTH AREA DECLBLING WORKING GROUP" by Michael Jeckel
Link: [https://edms.cern.ch/comment/2611997/0.5](https://edms.cern.ch/comment/2611997/0.5)

YETS 2022/2023 – EHN2 → REQUEST by M.J. of Identify and marking old cables to be removed also in the experimental area → Detector Experts
Electrical Safety II + SM2

- Electrical installations for COMPASS (consolidation)
  - Replacement of defective MN coils → requested to be performed during February

- DSO tests (consolidation)
  - Foreseen for 15 of March, no services interruptions but NO access to the experimental hall ~2 to 4 h

- SM2 Leak Repair
  - Water leak from SM2 piping should be fixed this week (Hans Danielsson)
Dear Vincent, Stefano,

Thank you very much for the information. So for the beam profile monitors and scintillators that we plan to place downstream of COMPASS we will consider three possible positions:

1) Magnets OFF (both SM1 and SM2)
2) 160 GeV beam and SM1 - 1 Tm and SM2 - 4.4 Tm
3) 280 GeV beam and SM1 - 1 Tm and SM2 - 5.2 Tm

Is this ok? If you have any other updates for the high energy run for AMBER - if this will be used or if the magnets will be displaced, or if another power supply will be used etc., please let me know as soon as possible. We have to drill the holes for the support for these positions so if we should consider any other option, it will be very good to know. Otherwise, it will be difficult to provide it during the run.

Thank you very much in advance.
Best Regards,
Dipanwita
COMPASS 2022 detector repair

DC5 repair

University of Champaign and Illinois will travel during next weekend to perform the repair operation of the DC5
Located at the moment in the clean room: Repair Intervention is planned 14 February - 25 February
Team of 5 people (April, Caroline, Eric + 2 technicians) + local support only during the installation in the beam position

W45 repair

Materials for the gas monitoring system (O₂/H₂O contamination) ordered in October last year, not delivered yet.
Repair of the W45 will most likely not happen this year by the LIP group. Manpower issues
**AMBER: LSD + ALPIDE licensing**

LSD discussion for AMBER

https://cern.zoom.us/j/69338740848?pwd=c2V3TlgyZUc4L1JyVFdjK3E0Mk81QT09
Quand : jeudi 10 février 2022 08:45-10:15. (UTC+01:00) Belgrade, Bratislava, Budapest, Ljubljana, Prague
Où : https://cern.zoom.us/j/69338740848?pwd=c2V3TlgyZUc4L1JyVFdjK3E0Mk81QT09

Discussion:
TPC construction / certification / requirements → Kiselev O.
GAS system construction requirements → Dziuba A.
Mechanical support system → Kiselev O., Vasilyev A.

**Time should be mature enough to start the full integration of the Detector Systems and Infrastructural needs**
**Engineering support**

**ALPIDE Licensing**

Good progress in the last months, (huge amount of work from colleagues). ALPIDE chips available for users in 1 month from now (latest info).

**UTS**

Update by Martin L.
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<td>09:00</td>
<td>Report From TC</td>
<td>Stefano Levorato</td>
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<td>09:30</td>
<td>AMBER TPC Gas System</td>
<td>Alexander von Platen (IHEP)</td>
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<td>PT preparation 2022</td>
<td>Michael Hamel (Charles University)</td>
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<td>Oleg Savchuk (Joint Institute for Nuclear Research)</td>
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<td>Plans for the DC detectors</td>
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<td>Silicon preparation 2022</td>
<td>Christian Christoph (Technische Universität München)</td>
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<td>MWPC Report Plan</td>
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<td>Status of GUM production for 2022</td>
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<td>Fiber detectors and tracking stations</td>
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**Agenda**