

- INTC 67 June 2021 ISOLDE Physics update

- Schedule/INTC
- Access to cern
- Around the hall
- Training






Beam requests and schedule









- ~676 shifts requested
- Low energy Physics 21 June
- HIE ISOLDE: stable July 7; physics in W30
- Lack of ventilation in Class A labs, UC units were “predicted in 2020”
- Combine with some used targets from 2018
- Travel still very difficult for many countries (see access section later)
- Inevitable bias to local groups (or those able to run remotely)

Row Labels	Count of Experiment	Sum of Requested shifts
Actar	2	12
COLLAPS	2	40
Corset/XT03	1	12
CRIS	5	72
IDS	7	44
IDS	5	50,5
IDS fast timing	6	25,001
IDS Vandle	1	15
IDS/TISD	1	2
ISOLTRAP	3	36
ISS	7	117
LA1 Bordeaux	1	12
Magnetic moments	2	8
MIRACLS	1	7
SSP	20	53
TAS	3	19
Thorium clock	2	11
TISD/ISOLTRAP	4	60
VITO	4	17
VITO	1	0
Wisard	1	24
Edinburgh setup	1	21
Gandalph	1	6
TISD	1	6
GLM	2	6
Grand Total	84	675,501

- Published schedule till W35
- 145.5 scheduled shifts

ISOLDE Schedule 2021: weeks 25 - 35

GPS schedule 2021													
	June				July				August				
WK	23	24	25	26	27	28	29	30	31	32	33	34	35
MO	7	14	21	#730 Ti 28	5	12	19	26	#711 UC 2	9	16	23	30
TU	#638 UC Re		IS668/Coll s								#567 Sn-VD5	#709 UC	
WE						colls/TISD							
TH					IS668								
FR				LA1	#XXX UC						IS647		
SA									Stable + physics (if ready)		IS652	LA1	
SU				IS527			TISD			IS529	IS679	IS665	
			Surface	37K	RILIS: Mg	Surface			RILIS: Ca	RILIS: Ca	111Cd	RILIS: Au	RILIS: Au

HRS schedule 2021													
	June				July				August				
WK	23	24	25	26	27	28	29	30	31	32	33	34	35
MO	7	14	21	28	5	12	IS622 19	#717 UC 26	2	9	16	23	30
TU						#653 UC n							
WE		#715 UC											
TH					IS666 (sharing with GPS)		IS666 (nights)	IS680 30Mg @ >7.5MeV/u		#XXX LaC		(tbc) #715	
FR													
SA													
SU			IS660			IS622					IS661		IS660
			RILIS: Ag		26Na	RILIS: Cu	26Na	RILIS: Mg	RILIS: Mg		RILIS: In		RILIS: Ag



Start of protons for physics: 21 June
End of protons for physics 15 November

Target change	CERN holiday	Setting up/proton scan/yield	Physics HPS	Physics GRS	RILIS run
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ISOLDE Week 25 2021		RILIS	GPS	HRS	CA0	MEDICIS	p's	Visits	other
Monday	21/06/2021	continue Ag setup	Stable beam to GLM	Stable setup to CRIS	HRS		NORMGPS	Suspended	HRS window exchange
					HRS		(not during laser exchange)		
			collections for IS668		HRS				
Tuesday	22/06/2021	continue Ag setup		Proton scan (TBC)	HRS		NORMGPS and/or	Suspended	
					HRS		NORMHRS		
			collections for IS668		HRS				
Wednesday	23/06/2021	RILIS: Ag		Yields (TBC)	HRS		NORMHRS	Suspended	INTC Open session
				IS660 (CRIS)	HRS		NORMHRS		
					HRS		NORMHRS		
Thursday	24/06/2021	RILIS: Ag		IS660 (CRIS)	HRS		NORMHRS	Suspended	INTC Closed session
				IS660 (CRIS)	HRS		NORMHRS		
					HRS		NORMHRS		
Friday	25/06/2021	RILIS: Ag		IS660 (CRIS)	HRS		NORMHRS	Suspended	
				IS660 (CRIS)	HRS		NORMHRS		
				IS660 (CRIS)	HRS		NORMHRS		
Saturday	26/06/2021	RILIS: Ag		IS660 (CRIS)	HRS		NORMHRS	Suspended	
				IS660 (CRIS)	HRS		NORMHRS		
				IS660 (CRIS)	HRS		NORMHRS		
Sunday	27/06/2021	RILIS: Ag		IS660 (CRIS)	HRS		NORMHRS	Suspended	
				IS660 (CRIS)	HRS		NORMHRS		
				IS660 (CRIS)	HRS		NORMHRS		
Monday	28/06/2021	RILIS: Ag	#730 Ti Foils	IS660 (CRIS)	HRS		NORMHRS	Suspended	
							NORMHRS		
							NORMHRS		

Summary of week: First week of physics for run3! Short collections on GPS. CRIS continues setting up on HRS. Stable beam till at least Tuesday. If RILIS ready stable setup with Ag, and proton scan perhaps also on Tuesday (to be discussed at start-up meeting). Wednesday onwards CRIS start IS660 and run scanning 107-129Ag till Monday morning. GPS target exchange Monday 28th June. MEDICIS target change also Monday for irradiation in low position.

GPS: #638 UC - Re. (Used target from 2018). Collections in W25 for IS668/tests. Collections possible Monday or Tuesday. Impact 175598.

HRS: #715 (New). Ucx - Ta. Ag and Au mass markers. Setup for 40kV, ISCOOL in bunched mode. Proton scan to be discussed at start-up meeting on Monday morning.

Protons: Mixture of NORMHRS and NORMGPS until Wednesday. NORMHRS (in principle up to 2uA if possible) from Wednesday PM onwards.

Operations responsible: Miguel (169616) till Tuesday 22nd June. Lefteris (166707) until 29th June.

For more details about visits: <https://espace.cern.ch/isolde-visits-info/Lists/Calendar/calendar.aspx>
 ISOLDE Daily meeting: 09-15 Monday, 08-45 Tue-Fri via Zoom: <https://cern.zoom.us/j/98894210347?pwd=WUtSMlFkbnVlcWVkkYtNOGSnMFMFdz09>

Schedule for W25: first week of physics

GPS: collections for solid state

HRS: Laser spectroscopy of Ag isotopes from the CRIS experiment.

Schedule till November almost ready....to be published in the coming weeks

Difficult year for e.g. solid state and groups without local support
 Some groups prefer to be ready in Spring
 Winter physics for LE should be possible.
 Beginning of a Marathon with physics from March 2022

Frist physics of run3 has begun! GPS yesterday and HRS today!

HRS

22-06-2021 12:17:02

Beam type NORMHRS

pps 328e10 (max 100e10)

ppp 3102e10 (max 3300e10)

Position H:0.42 - V:0.00

Focus STANDARD 1.4 GeV

Watchdog Request

Parameter set NORMHRS

Proton current 0.52 uA

Int.beam 0.0173e18 protons

MAG60 25.993 MAG90 25.992

RILIS status: OFFLINE

Target: #715

HT:40.00 kV Target:604 A Line:278 A

Lefteris Fadakis 166707

Physicist in charge 160977

GPS

22-06-2021 12:17:02

Beam type NORMGPS

pps 608e10 (max 625e10)

ppp 3250e10 (max 3300e10)

Position H:0.00 - V:15.56

Focus STANDARD 1.4 GeV

Watchdog Request

Parameter set NORMGPS

Proton current 0.97 uA

Int.beam 0.8478e18 protons

MAG70 44.956 GHM Out GLM In

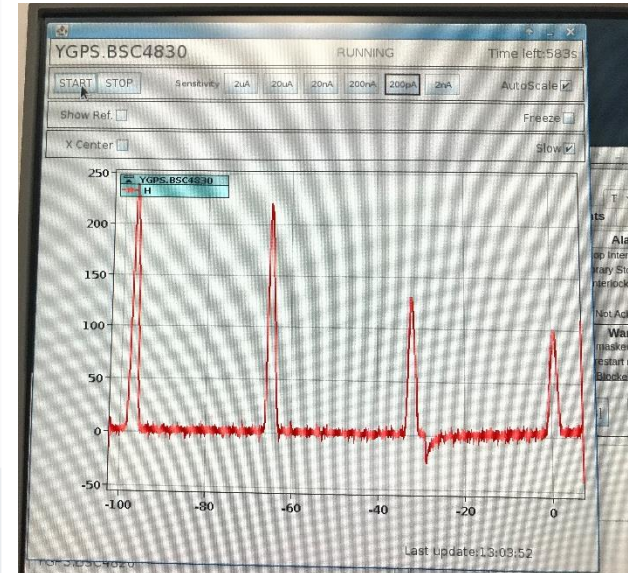
RILIS status: ON

Target: #638

HT:30.00 kV Target:602 A Line:282 A

Lefteris Fadakis 166707

Physicist in charge 160977



PSB

22-Jun-2021 12:17:01

PSB Fixdisplay - W 25

Comments (22-Jun-2021 10:48:11)

Supervisor : F. Antoniou: 162492

Operator : CCC: 76671

Restarting...

BP	User	Pls	Inj.	Acc.	b.Ej.E10	Ej.E10	Dest.
21	ISOGPS_2021	18	●●●●●●	●●●●	3187	3177	ISOGPS
22	---ZERO---	1	○●●○	○●●○	0.00	0.12	BDUMP
23	---ZERO---	1	○●●○	○●●○	0.00	0.30	BDUMP
24	ISOGPS_2021	18	●●●●●●	●●●●	3197	3170	ISOGPS
25	---ZERO---	1	○●●○	○●●○	0.00	0.36	BDUMP
26	---ZERO---	1	○●●○	○●●○	0.00	0.32	BDUMP
27	MD ISOGPS_2021	32	○●●○	○●●○	768	757	BDUMP
28	LHC25A_2021_2eV	4	●●●●	●●●●	720	722	BDUMP
29	ISOHRS_2021	19	●●●●●●	●●●●	3035	2985	ISOHRS
30	ISOGPS_2021	18	●●●●●●	●●●●	3193	3141	ISOGPS
1	---ZERO---	1	○●●○	○●●○	0.00	0.23	BDUMP
3	LHC25B_2021_2eV	5	●●●●	●●●●	722	718	LHC25#72b.2

3/30 No Message

Linac 4

22-06-2021 12:17:01

LINAC 4 Fixed Display

Status OK

3 / 30 LMC18 Dest. PSB

L4L	L4D	L4C	L4P	L4T	LT	LTB	BI
1137	3113	4013	0117	0117	0107	0673	1043
1243	1553	30	40	50	60	10	
-34.9	-26.8	-16.3	-16.3	-15.9	-16.2	-16.1	-16.0
-16.0	-16.0	-16.2	-16.0	-16.1	-16.3	-16.3	-16.2
76%	60%	99%	97%	101%	99%	99%	100%
101%	96%	100%	100%	100%	100%	100%	99%

Comments: 21-Jun-2021 17:26:34CCC: 76671

Coordinator: F. Roncarolo 160747

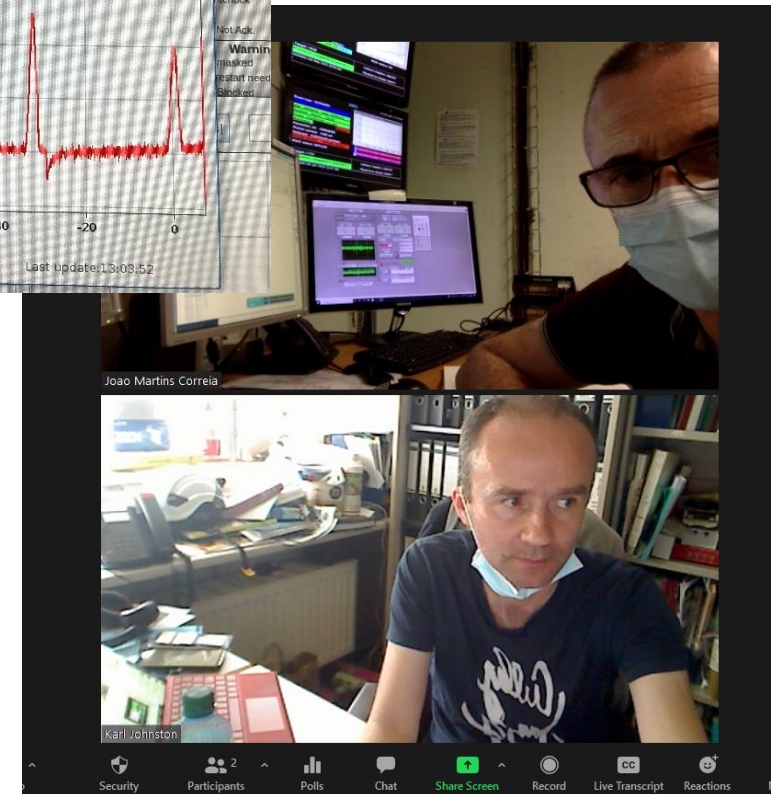
AUTOP: 16:13 16:38

RF MW: 24.50

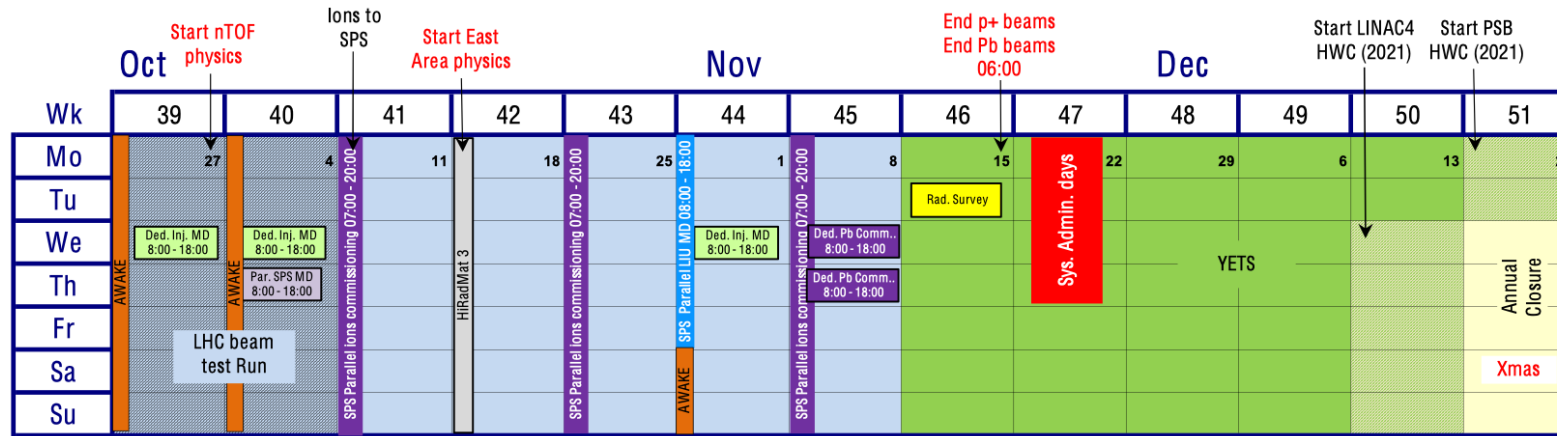
RFQ: 35.22 0.00

eH-[avg]: 4.89

RF: SCOTL PMM ZEBUN NTLA



- The LHC beam test will be delayed by 3 weeks to weeks 42 and 43



- The Closure of the LHC tunnel and Cavern for commissioning will also be delayed by 3 weeks to **21 February**
 - The **YETS 2021-2022** will be extended by 3 weeks for all machines and facilities
- An update of the YETS and injectors schedules has been presented at the IEFC last Friday.

2022

Beam requests for 2022 (probably only low energy) to go out end of September
 Expect protons mid March
 HIE ISOLDE in the Summer: not possible to run cryo plant over winter stop.
 HIE ISOLDE demand expected to be very high in 2022!

	Count of Exp. no.	Sum of Shifts remaining for Run3
CRIS	5	99,5
IDS	10	107
IDS/ISOLTRAP	1	6
TISD	4	20
TISD/IDS	1	9
HIE	26	452
Gandalph/CRIS	1	6
Windmill/IDS	1	22,5
Travelling Setup	2	24
COLLAPS	2	35
ISOLTRAP	4	42
Collections: 163Ho	1	6
biophysics	1	9,5
SSP	9	116
Gandalph	1	8
Travelling Setup; ECSLI	1	11
IDS/VANDLE	1	18
in-source / IDS	1	10
VITO	1	29
TAS	3	39
MIRACLS	1	17
Collections: 108Ag	1	30
PAC nuclear moments	1	12
WISARD	1	24
Medical physics	2	16
Grand Total	82	1168,5

Shift backlog before this INTC

	Count of Exp. no.	Sum of Shifts remaining for Run3
INTC 63	34	485
INTC 64	18	285,5
INTC 65	14	245
INTC 66	16	153
Grand Total	82	1168,5

Documents submitted for INTC 67

Summary of documents discussed at INTC 67	Sum of Shifts requested	Count of Facility
Letter of intent	41	6
COLLAPS	8	1
HIE ISOLDE	30	2
TISD	3	1
(blank)	0	2
Letter of clarification	59	3
HIE ISOLDE	59	3
Proposal	240	15
COLLAPS	17	1
CRIS	16	1
HIE ISOLDE	191	10
Nuclear masses	8	1
Quadrupole moments	8	1
Grand Total	340	24

CERN'S COVID-19 SCALE AND MEASURES



The COVID-19 level in place reflects the prevailing epidemiological situation, and determines corresponding measures across the Laboratory.

TRANSITION BETWEEN LEVELS

Determined via a combination of the incidence rate in the local area and a qualitative assessment by CERN.



Weekly virus circulation in local area
 (c) Qualitative assessment
 Based on number of confirmed cases at CERN, presence of new variants, vaccination, stratified testing campaign, etc.

Measure	Level 4 (High)	Level 3 (Medium)	Level 2 (Low)	Level 1 (Negligible)
Telework (TW) measures*	Members of personnel (MP) who can telework should telework, though one day per week on-site is possible.	MP who can telework should telework, though two days per week on-site are possible.	Normal working conditions apply. Telework may be exceptionally requested by the Organization.	Normal working conditions apply.
Access to CERN sites**	<ul style="list-style-type: none"> MP and honorary members are authorised, only for professional reasons and in consultation with their supervisors Retirees can access on-site facilities, such as bank safe deposit boxes, the CHIS office or the pension fund, only if strictly necessary Relatives of CERN Members of Personnel are not authorised CERN club members are not authorised 	<ul style="list-style-type: none"> MP and honorary members are authorised, in consultation with their supervisors Retirees can access on-site facilities Relatives of CERN MP are authorised CERN Club members are authorised, respecting rules for club activities 	<ul style="list-style-type: none"> MP and honorary members are authorised, only for professional reasons and in consultation with their supervisors Retirees can access on-site facilities Relatives of CERN MP are not authorised CERN Club members are not authorised 	<ul style="list-style-type: none"> Standard Access Standard Access Standard Access Standard Access
CERN clubs	<ul style="list-style-type: none"> Club activities outside CERN: Host State regulations apply No club activities are allowed on site 	<ul style="list-style-type: none"> Club activities outside CERN: Host State regulations apply Only activities supervised by the clubs are allowed. 	<ul style="list-style-type: none"> Club activities outside CERN: Host State regulations apply Only activities supervised by the clubs are allowed. 	<ul style="list-style-type: none"> Standard rules Standard rules
Microcosm exhibition, CERN shop, Globe events	<ul style="list-style-type: none"> Resume with measures similar to those valid in Geneva museums, shops and theatres, and following HSE-approved protocols 	<ul style="list-style-type: none"> Resume with measures similar to those valid in Geneva museums, shops and theatres, and following HSE-approved protocols 	<ul style="list-style-type: none"> Resume with measures similar to those valid in Geneva museums, shops and theatres, and following HSE-approved protocols 	<ul style="list-style-type: none"> Distributors of hand sanitizing gel available at entrance Distributors of hand sanitizing gel available at the venue
Public on-site events within the fenced area	<ul style="list-style-type: none"> Not allowed 	<ul style="list-style-type: none"> Allowed with measures similar to those in Geneva public events and within CERN access measures 	<ul style="list-style-type: none"> Allowed with measures similar to those in Geneva public events and within CERN access measures 	<ul style="list-style-type: none"> Distributors of hand sanitizing gel available at the venue

* Measures do not apply to those members of the personnel who cannot telework or whose presence on-site is needed for carrying out the ongoing activities of the Organization.
 ** With the ramping up of Host-State vaccination campaigns, access conditions have been revised and now apply across all age groups.

Vulnerability to COVID-19

It is the responsibility of each person to declare a vulnerability. For people with a declared vulnerability, specific protection plans must be defined, independently of the COVID-19 level in place.

Please note

Measures such as washing hands, wearing masks, keeping distance, self-isolation and quarantine, duty-travel and space-occupancy restrictions remain in place at least until virus circulation is assessed as low.



CERN currently in level orange

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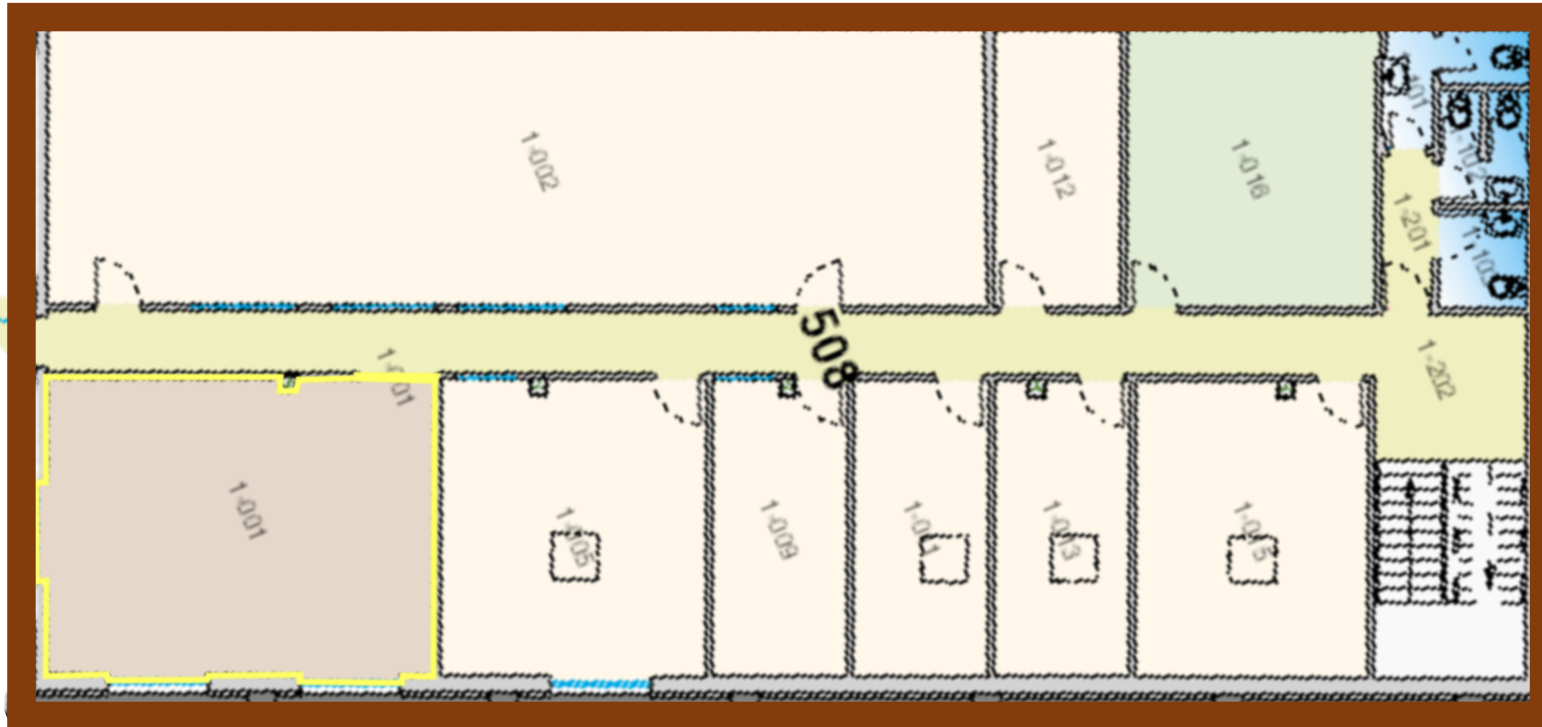
Measures such as washing hands, wearing masks, keeping distance, self-isolation and quarantine, duty-travel and space-occupancy restrictions remain in place at least until virus circulation is assessed as low.



Restrictions on number of people remain

- 1-002 → Control room (291 m³)
- 170 m³/h
- 6 people

- 1-016 → Kitchen (77 m³)
- Vent?
- 4 people



- 1-001 → Visitors room (130 m³)
- 310 m³/h
- 6 people

- 1-015 → RILIS DAQ (76 m³)
- 196 m³/h
- 4 people

- 1-005 → ISOLDE DAQ (87 m³)
- 232 m³/h
- 4 people

- 1-009 → ISOLTRAP DAQ (44 m³)
- 176 m³/h
- 2 people

- 1-011 → xx (44 m³)
- Vent?
- 4 people

- 1-013 → xx (42 m³)
- Vent?
- 2 people

Use old control room, DAQ and visitors space more optimally to allow for more distancing/zoom conferencing



With OP, additional control terminals...OP working on means to allow monitoring e.g. for advanced users at home/office

Removal of NICOLE: finally some progress





Many thanks for Simon Mataguez for a lot of help



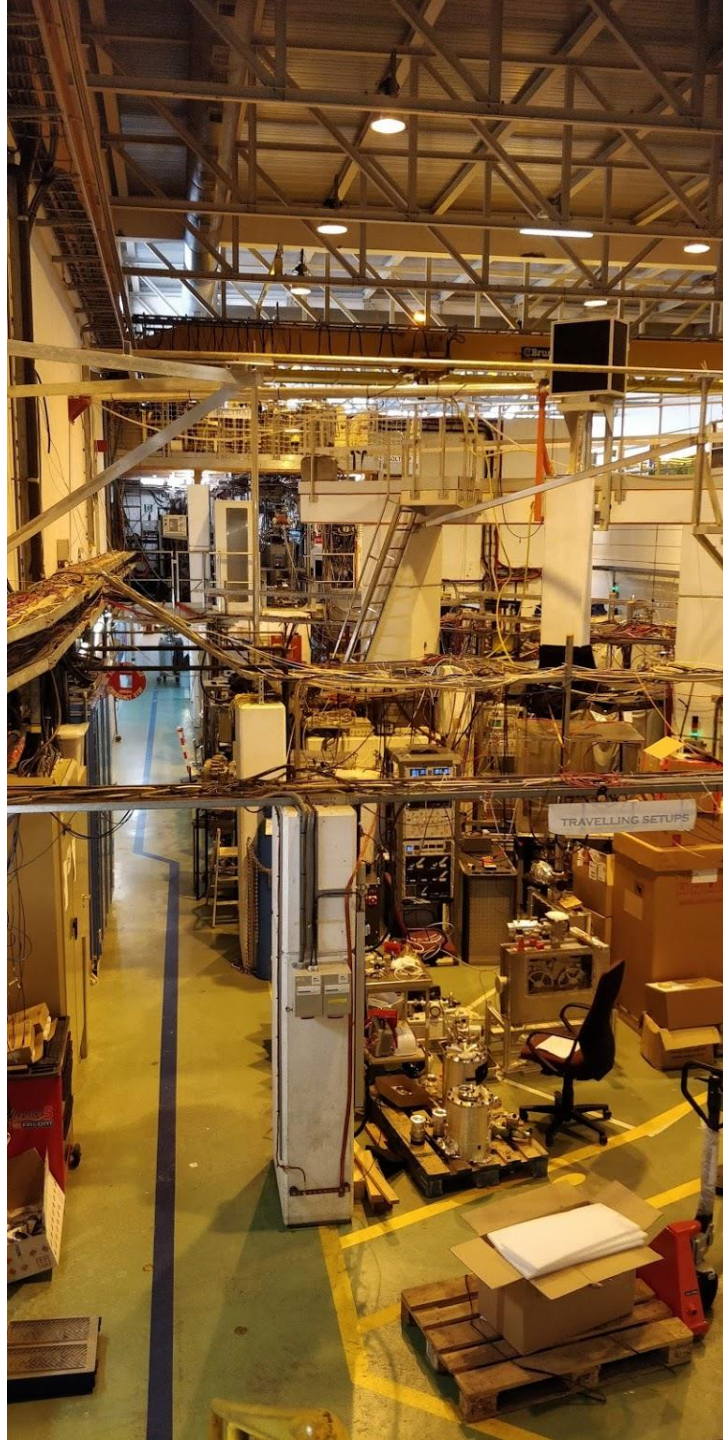
ISS closed up and ready for stable beam from July 7



Vito beamline almost ready
Since March new SC magnet is in place



- A lot of work has taken place at ISOLTRAP, including the new HV cage which now been approved by safety.
- First successful run with the MR-TOF last week for LISA tests.



MIRACLS:

Work ongoing at LA2 for the reduced setup.
HV cage in 508 will be moved to the old NICOLE area
Assembly of Paul trap starting soon

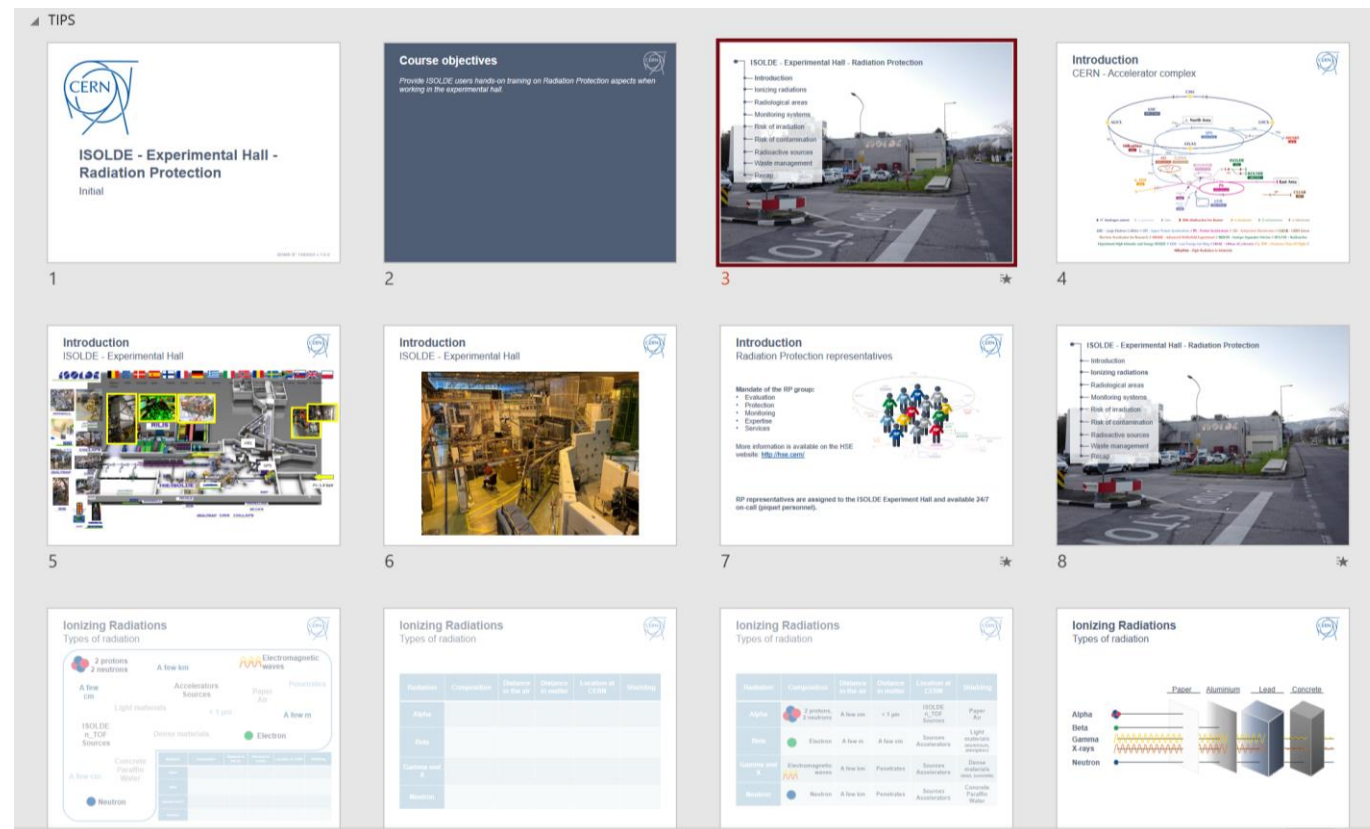
Training

In addition to the (ever-growing) number of online courses...

Hands-on RP and Electrical training

New from next week:

- dedicated weekly sessions of RP hands-on course. Local trainer (!) so scheduling should be easier for this course.
- New EP-wide electrical course for all users/staff who need to work in an experimental area.
- Both will take place on Tuesday but time has increased:
 - EP course 0830 till 1230
 - RP course 1400 till 1630



In LMS:

ISOLDE - Experimental Hall - Radiation Protection - Handling (Covid-19)

Electrical Safety - Working in EP experiments



MEMORANDUM

Date : 2 June 2021

To : Department Heads, Technical Coordinators of Large Experiments

Cc : HSE-TMB, DSOs / LEXGLIMOSes + deputies

From : Safety Training section (HSE-TS-ST)

Via : Angela GOEHRING-CRINON (HSE-TS, Group Leader)

Subject : Safety Training programme "Electrical Safety - Working in EP experiments"

CERN Safety Training, in collaboration with CERN experts in electrical safety and representatives from the EP Department, has designed a new training course for physicists, engineers and technicians who will carry out a limited number of electrical tasks in CERN experimental areas, workshops and laboratories.

The aim of the course, titled "**Electrical Safety - Working in EP experiments**", is to raise awareness of the persons concerned regarding the specific risks that are present in the above-mentioned installations and the associated mitigation measures and procedures.

The course only covers electrical and mechanical tasks listed below. Any task exceeding the scope of those mentioned below require specific electrical training and authorisations according to Safety Code C1¹.

Electrical tasks

- Connection, disconnection and operation of equipment at plug sockets up to 63A.
- Install and operate standardised rack mounted electrical equipment in relation to experimental apparatus at CERN within existing racks and the connection of modules and modular power supplies with standardised connectors.
- Performance of localised lock-out/tag-out for your own work and for equipment under your responsibility, where the point of isolation is a plug and socket outlet.
- Cable installation and termination in an electrical environment, up to 6 mm² for signal cabling and power distribution, and up to 16 mm² for earthing.
- Repair and removal operations on experimental apparatus, when the equipment is disconnected and unplugged. If the operation requires the removal of any housing or protective screens these must be replaced before the equipment is re-powered.
- Measurements on live equipment, which may only be taken in the course of normal operation as part of a written and verified operational procedure and risk assessment.

¹ [Link](#)



MEMORANDUM

Annex 1

Authorisation to carry out specific activities in CERN experimental areas

This authorisation is prerequisite for Associated Members of the Personnel (MPAs¹) with status USER to carry out certain electrical and mechanical tasks in experimental areas at CERN. It must be signed by the authorized representative of the home institution².

I, the undersigned, herewith certify that the MPA identified hereafter

Cern ID of MPA (if already attributed): _____

Name (as in passport): _____

First name(s): _____

Date of birth (dd/mm/yyyy): _____

Name of home institution: _____

Country: _____

is employed by us and that, subject to the successful completion of the CERN Safety Training course "Electrical Safety - Working at EP Experiments"³ by said MPA, he/she is authorised to carry out the following electrical and/or mechanical tasks at CERN.⁴

Electrical tasks

- Connection, disconnection and operation of equipment at plug sockets up to 63 A.
- Install and operate standardised rack mounted electrical equipment in relation to experimental apparatus at CERN within existing racks and the connection of modules and modular power supplies with standardised connectors.
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- Repair and removal operations on experimental apparatus, when the equipment is disconnected and unplugged. If the operation requires the removal of any housing or protective screens these must be replaced before the equipment is re-powered.

¹ The Associated Members of the Personnel are defined in CERNs Staff Rules and Regulations and the corresponding Administrative Circulars and include users, cooperation associates and visiting scientists.

² Normally the team leader should sign the form as authorized representative.

³ [Link](#) to Safety Training catalogue, Electrical Safety domain.

⁴ Please indicate the tasks concerned.