This has been a memorable week for CERN, starting with the award of a Special Fundamental Physics Prize and ending with the handover of the CERN Council Presidency from Michel Spiro to Agnieszka Zalewska. In between, the LHC team demonstrated its expertise with a successful pilot run with 25 nanosecond bunch spacing, a new application for Associate Membership was received, and we had good news on the budget.

The award of the Fundamental Physics Prize, and the manner in which it was divided between ATLAS, CMS and the LHC, is fitting recognition of the efforts of the thousands of people who have contributed over many years to the success of our flagship scientific endeavour. In making the award, the Milner Foundation aims to raise the profile of fundamental physics and its value to society. The Fundamental Physics Prize comes hot on the heels of the European Physical Society’s first Edison Volta Prize, which Sergio Bertolucci, Steve Myers and I were honoured to accept on behalf of the entire LHC community.

Rising to the occasion of these accolades, the LHC demonstrated how much it merits this recognition by successfully running with a record 2,748 bunches per beam and 25 nanoseconds between bunches. This is a vast achievement, allowing the machine’s first three years of proton running to end on a high note, and presaging a strong restart in 2015 after the LHC’s first long shutdown reaches a conclusion.

There were two new appointments. Frederick Bordry will take over from Steve Myers as Director for Accelerators and Technology on 1 January 2014, and Miguel Jimenez will replace Frederick Bordry as TE Department Head.

Finally, at the end of a full Council week, it remains only for me to thank Michel Spiro warmly for his years of service as President of Council through a period marked by a particularly strong relationship between Management and Council, and to welcome Agnieszka Zalewska to the role. I’m sure you will all join me in wishing her well.
The Synchrocyclotron through the years.

The SC gets ready for visitors

Hall 300, which houses the Synchrocyclotron (SC), CERN’s first accelerator, is getting ready to host a brand-new exhibition. The site will be one of the stops on the new visit itineraries that will be inaugurated for the 2013 CERN Open Day.

Just as it did in the late 1950s, when the accelerator was first installed, the gigantic red structure of the Synchrocyclotron’s magnet occupies a large part of the 300-square-metre hall. “We have completed the first phase of the project that will give the SC a new lease of life,” says Marco Silari, the project leader and a member of CERN’s Radiation Protection Group. “We have removed all the equipment that was not an integral part of the accelerator. The hall is now ready for the civil-engineering work that will precede the installation of the exhibition.”

The SC was witness to a big part of the history of CERN. The accelerator produced its first 600 MeV proton beam on 1 August 1957. Ten years later, construction began on an underground hall to house the ISOLDE experiments, which were supplied by the SC for almost 25 years. A large variety of different particles were accelerated by the SC over the years until 1990, when the accelerator was shut down and the hall became a storage area. “The exhibition will take visitors back from the present to the beginning of physics research at CERN,” explains Rolf Landua, Head of CERN’s Education Group, which is in charge of developing the exhibition site. “A sort of time tunnel at the entrance to the hall will take the visitor progressively into the atmosphere of the late 1950s. A sound and light show based on the projection mapping technique will virtually bring the synchrocyclotron back to life. Finally, one corner of the hall will be dedicated to reconstructing life at CERN at that time, with real objects recreating a typical workplace. Researchers who worked on SC-related projects will also virtually recount their stories to the visitor.”

The cleaning of the SC hall took about seven months and, besides an external company, involved many CERN services from the transport group and the magnet group to the civil-engineering team. “Before starting the clean-up of almost 200 tonnes of scrap material, we recovered quite a number of small objects dating back to the beginning of the SC era, such as old telephones, control panels, tools, warning displays and loudspeakers, which we will put back into the hall to form part of the exhibition,” explains Marco Silari. A party was organised on 13 December to celebrate the end of this first phase of work and the hand-over to the civil-engineering team in preparation for the installation of the exhibition. The exhibition is being designed by Atelier Brückner, which also designed the Universe of Particles permanent exhibition that was installed in the Globe in 2010. Together with three other sites, the SC will be open to visitors by September 2013, in time for the CERN Open Day.

Antonella Del Rosso

LHC Report: 25 ns spacing yields record beam intensity

Over the weekend the LHC broke two records: a record 2,748 proton bunches were injected into the accelerator giving a record beam intensity of around $2.7 \times 10^{14}$ protons in both beams. These beams have yet to face the challenge of “ramping” to high energy.

These very good results were made possible by a new beam configuration: the design value of 25 nanosecond spacing between proton bunches replaced - for the first time - the typical 50 nanosecond spacing. This test run was done at 450 GeV with no collisions.

Up to now, the LHC has been running with around 1,380 bunches with 50 nanoseconds between bunches. By going to 25 nanoseconds, the LHC operations team can double the number of bunches to around 2,800.

One of the main limitations for this mode of operation is the so-called electron cloud that is strongly enhanced by the reduced spacing among bunches. The electron cloud has nasty effects on the beam (beam size increase and losses), on cryogenics (heat load on the beam pipe) and on vacuum (pressure rise). A period of beam-pipe conditioning (“scrubbing”) is therefore required before ramping the beams. During this period, the machine is operated, in a controlled way, with beams of increasingly high intensity. This aims at improving the beam pipe surface characteristics and at reducing the density of the electron cloud.

Over the last few days, the LHC operations team has injected and progressively ramped the 25 nanosecond beams from 450 GeV to 4 TeV. These intermediate steps were needed to study the behaviour of the new beam configuration at high energy. A pilot physics run at 4 TeV will be performed to give the LHC experiments some experience of running with 25 nanoseconds between bunches before this configuration is used operationally in 2015.

The LHC team
With renewable energies on the up and up, geothermal heating is becoming increasingly popular. An ardent supporter of sustainable development, CERN welcomes this trend, even though it has certain risks for the Laboratory.

Mind where you bore!

More and more people in Switzerland and France are switching to geothermal heating, with the result that more and more bore holes are being sunk for geothermal probes. Since, on average, such bore holes go down to depths of 100 m they can have an impact on CERN's underground facilities, which are also located at approximately that depth.

In the Canton of Geneva, all bore holes, whatever their depth, are subject to planning permission. Applications for planning permission are granted – or refused – only after consultation with the Ground survey department (GESDEC). In France, only bore holes below a depth of 100 m require planning permission. In theory, bore holes to lesser depths simply need to be declared to the DREAL (Direction régionale de l'environnement, de l'aménagement et du logements) and a DICT (Déclaration d'intention de commencement de travaux) needs to be submitted. In practice, 80% of all bore holes are never actually declared.

The dangers of unauthorised borings

Youri Robert, who is in charge of CERN's geographic information (GS/SE-DOP), warns: "Undeclared geothermal bore holes represent a real hazard for our underground structures. The most obvious risk is that of simply drilling into one of the facilities, but a bore hole that passes within a couple of metres of a structure could have just as dire consequences, because the vibrations could affect the highly sensitive equipment in the accelerators." But how can you be certain of where the LHC passes and whether your house is on top of it or not? Not to mention the fact that - on top of these location uncertainties - a vertical boring of 100 metres can deviate by up to 30 metres!

Bore holes can also trigger geological phenomena that can be damaging for the tunnels, such as rock fractures, breaching and connecting aquifers, and water or mud percolation. Michael Poehler, Head of the Design Office and Patrimony Section (GS/SE-DOP), adds: "We have enlisted the services of university laboratories and research consultancies specialising in geotechnics to assess the direct and indirect risks associated with bore holes. This has enabled us to reasonble no-bore zones around our underground structures. So it is strictly forbidden to bore holes in the zone 50 m either side of the tunnels, and authorisation is required for boring in the zone between 50 and 100 metres either side of the tunnel."

Mapping what lies beneath

A map showing the no-bore zones has finally been drawn up (see image), in collaboration with the Pays de Gex Communauté des communes and GESDEC. The map also shows the groundwater protection zones, which are similarly out of bounds for boring. The map has been sent to all towns and villages in the Pays de Gex, to the DREAL and the BRGM (Bureau de recherches géologiques et minières), to Geneva's local authorities, and to the region's boring contractors, and might just avert any incidents.

Looking further ahead, shale-gas exploration in this region would present problems on a completely different scale. In preparation, studies are currently underway. They will determine the potential impact of hydraulic fracturing techniques, and will define safe distances to be respected. We haven't heard the last of this...

Anaïs Schaeffer

CERN runners on the podium for the Escalade race

For the last race of the season, CERN runners distinguished themselves by notching up third place in the inter-entreprises category of the Escalade, Geneva's famous running race across the city.

On Friday 30 November and Saturday 1 December, 35 runners from CERN braved the chilly Geneva weather to take part in the 35th Escalade race. With 81 teams competing in the race, the group representing the Laboratory took third place in the inter-entreprises category, behind the Hôpitaux Universitaires de Genève and the Panards Migros teams.

CERN's Helenka Przysiezniak, Steffen Doebert and Camille Ruiz Llamas also distinguished themselves individually by finishing eighth, sixth and fourth in their respective categories and Patrick Villeton achieved a very good ranking in the DUC race on Friday evening and in the classic race on Saturday.

Congratulations to everyone who participated and see you next year!

Caroline Duc

Some runners from the CERN team.
Let’s keep in touch

The GS, IT and PH Departments are currently finalising the installation of a new digital radio communication system. Known as TETRA, the system has been specially designed to meet emergency communication needs and will be used by the CERN Fire Brigade from next January.

A blurred image followed by a blank screen. Marc has collapsed while carrying out maintenance work on technical equipment. It’s 6.00 a.m., he’s on his own and there’s little chance of the firemen being alerted in time to save him. This scenario, although already unlikely today, will be impossible with the arrival of the new TETRA communication system.

TETRA is a digital radio communication system already in service in many fire brigades across Europe. It will soon be used by the CERN Fire Brigade, as well as by hundreds of CERN personnel and contractors’ staff working down in the tunnels. “This new redundant radio system is operated and monitored internally at CERN, with round-the-clock support, guaranteeing us maximum reliability,” explains Aurélie Pascal (IT/CS/CS), the TETRA project leader. “This is a great improvement on the VHF* systems we’ve been using up to now.”

TETRA radio systems are designed for emergency communications but also allow users to send messages of the type “Arrived at destination” or “Taking charge of the patient” so that the progress of call-outs can be monitored by the command post in real time. “This feature will be a big help in optimising the firemen’s work in the field,” says Yann Lechevin, the project coordinator for the Fire Brigade. Another interesting feature of TETRA radios is that they are equipped with a “lone worker” alarm, which alerts the fire station if anyone working in isolation is prone and no sign of movement is detectable for an extended period or in the event of a crash or bump or other such impact. This could be supplemented with a geolocation system that works even in the tunnels, as the installation of 5,000 underground position indicators from 2013 onwards is under study.

The system, which entered the test phase a few days ago, is being deployed across the whole CERN site. Three radio antennae were installed: one on the water tower on the Meyrin site, one on the Prévessin site and one at Point 4 of the LHC. The radio coverage stretches as far as the Saint Julien hospital in France and should be extended to include the route to the Geneva University Hospital next year; discussions on the subject are currently underway with the Swiss authorities. These antennae will also benefit the French and Swiss fire brigades, allowing them to use their communication equipment in CERN’s underground infrastructures.

“The CERN Fire Brigade will start using the TETRA network next January. We’ll be deploying almost 500 radios to meet the communication needs of CERN’s different groups, services and experiments,” says Sascha Schmeling, from the PH Department, who is coordinating the project for users other than firefighters and guards. These radios will be reachable by the Fire Brigade 24 hours a day and “visible” on a map (in the event of an accident only). So Marc – and everyone else – can feel reassured.

Anaïs Schaeffer

Do you need a TETRA radio? Go to: http://cern.ch/radio.

New arrivals

On Thursday 6 December 2012, recently-recruited staff members and fellows were welcomed in the framework of the second part of the Induction Programme.
Your ParticleQuest, should you chose to accept it…

The CERN-developed ParticleQuest adventure game was the focus of a special hands-on session at last month’s Mozilla Festival in London. Attended by the best and the brightest of the coding community, the festival was an opportunity for the ParticleQuest developers to throw down the gaming gauntlet…

A team of CERN students developed the ParticleQuest game during this year’s CERN Summer Student Webfest. What started as simple derivative software of BrowserQuest – one of the first entirely browser-based games developed by the Mozilla Foundation – soon revealed new opportunities to educate players about particle physics. By changing the graphics, introducing a Particle Zoo designed by web designer André-Pierre Olivier and enhancing the game engine, the summer students were convinced that ParticleQuest could help to teach particle physics in a much more engaging way.

ParticleQuest is inspired by The Legend of Zelda game series in which teaching occurs through in-game puzzles. Players will need to understand the mechanics of particle physics presented in the game in order to solve puzzles and progress through the story, which takes place at CERN. Moreover, taking advantage of the engine built for BrowserQuest, ParticleQuest allows players to solve the puzzles cooperatively.

As a member of the CERN Webfest’s winning project team, ParticleQuest developer Alejandro Avilés was sponsored to present the game at the Mozilla Festival in London. His session was well attended, and provided new connections with the gaming industry and game developer communities. As a result, events are already being planned to engage more people in developing the game, in the best tradition of open-source development. The next step for its developers will be entering ParticleQuest in one of the global competitions for new on-line games and open-source projects. The hope is to reach a critical mass of developers so that the game can become an on-line success.

Photon and Gluon ParticleQuest sprites. Source: André-Pierre Olivier.

Ready to head off on your own ParticleQuest? Visit particlequest.com to play the game on-line. Katarina Anthony

A rich harvest of awards for the CERN Pension Fund

The CERN Pension Fund has recently received two prestigious international awards. The governing bodies and the whole Pension Fund team are celebrating this success and looking forward to a busy and bright new year.

On 29 November, Théodore Economou (left) accepted the Best Risk Management Solutions Prize at the 2012 Investments & Pensions Europe Awards.

“The awards go to the entire CERN Pension Fund team, the Pension Fund Governing Board, and the Investment Committee,” says Théodore Economou, the Fund’s Chief Executive Officer. On 29 November, at a ceremony held in Copenhagen, Théodore accepted a first award which the Fund received for the Best Risk Management Solutions at the 2012 Investments & Pensions Europe (IPE) Awards. A few days later, he was informed that the Fund had also won the “2012 Industry Innovation Award” of the Asset International - Chief Investment Officer (aiCIO) magazine, in the category “Public pension plans below $15 billion.”

Over the last three years the CERN Pension Fund has been implementing a capital preservation approach to investments. In parallel to this, a new type of governance was introduced allowing more flexibility for investments in exchange for a marked improvement in transparency and risk control. “We have put in place an independent reporting system in which external consultants monitor the risk profile of the Fund,” explains Théodore Economou. “The Governing Board gets a quarterly independent report on the risks and, as of March 2013, data will be available daily.”

In line with the new approach, several external experts – such as professional investors and pension experts – are directly participating in the fund’s activities in their capacity as members of the Fund’s management bodies. “We seek to have the highest possible efficiency, which means opting for investments that present the lowest possible level of risk consistent with the Fund’s objectives,” says Théodore. “The contribution of specialised consultants and experts is a key element of the success of the CERN Pension Fund.”

Hundreds of nominations were received for both awards, which were judged by international juries. “These prizes are an important recognition for us and a strong encouragement to pursue the path we have taken. I want to take this opportunity to congratulate the Governing Board for its leadership, and to warmly thank all its members for their support!”, said Theodore.  

Antonella Del Rosso
Aspera welcomes its successor

On 30 November, after six and a half years spent developing and coordinating Europe’s astroparticle physics community, the AStroParticle European Research Area (ASPERA) network wrapped up its activities at a final session in Brussels. This was also an opportunity for ASPERA’s organisers to present their project’s successor: the newly founded ApPEC, the Astroparticle Physics European Consortium.

Since 2006, the ASPERA network has been bringing together the national government agencies responsible for coordinating and funding national research efforts in astroparticle physics. Its main achievement has been the development of a common European strategy for astroparticle physics, which defined the priorities for the large infrastructures needed. ASPERA also developed actions to encourage activities in the field, including common calls for research and development, and established closer links with industry and other research fields.

ApPEC will now take over from the ASPERA network, and aims at developing a European common action plan to fund the upcoming large astroparticle physics infrastructures defined in the ASPERA roadmap. Building on ASPERA’s success at establishing close European collaborations, ApPEC plans to broaden the network to involve new agencies. Ten countries have already joined ApPEC, and nine additional countries are following the accession process. ApPEC’s activities will be organised through three centres located at DESY (Germany), the APC laboratory of CNRS/CEA (France) and INFN in Gran Sasso (Italy).

The November event in Brussels was also the venue for ApPEC’s very first General Assembly, during which Stavros Katsanevas from CNRS (France) was elected as its Chairman and Thomas Berghofer from DESY (Germany) was elected as its General Secretary.

“ASPERA was really a great success, leading to the new ApPEC structure,” says Thomas Berghofer. “Implementing our large astroparticle physics infrastructures is a big challenge and it is a very good sign that ten countries have already joined to make a bright future possible.”

The Pension Fund passes important milestones

Since my last report in October, the PFGB has passed several milestones in actuarial, technical and investment matters.

The PFGB has completed an analysis of a request by the European Organisation for Astronomical Research in the Southern Hemisphere (ESO) to reduce the increased cost of pension insurance for new ESO recruits that has been caused by the increased CHF/E exchange ratio. Currently the staff of ESO are admitted to the CERN Pension Fund, pursuant to a co-operation agreement between CERN and ESO dating back to 1968. This analysis assessed the actuarial, financial, administrative and legal implications, and is scheduled to be presented to the CERN Council and the Finance Committee in December.

After an open tendering process the PFGB has selected Buck Consultants Limited to be its new actuary. Buck Consultants is one of the leading benefit consulting and actuarial firms in the world, and counts several intergovernmental organizations as its clients, including the United Nations, the World Bank, and the International Monetary Fund. The Fund looks forward to benefiting from Buck Consultants’ extensive experience and expertise, particularly in view of the full actuarial study to be performed in 2013. I want to take this opportunity to thank the outgoing actuaries, Pittet Associés, for their work and dedication to the Fund over the past three decades.

The Fund has also approved the new Rules of Procedure of the Governing Board and of its subsidiary bodies, which replace those from 2006.

On the investments side, the implementation of the Fund’s capital preservation strategy is progressing according to plan. Approximately 50% of the portfolio has been redeployed to capital preservation strategies, with the objective to reach 80% by the end of 2013. The performance of the Fund year-to-date is on track to meet the annual actuarial return objective of 3% above inflation: as of 30 November 2012, the Fund had returned an estimated 6% year-to-date.

The Fund is further strengthening its performance monitoring process, by introduction of an additional performance indicator: the quality of returns. Measurements of the quality of returns seek to evaluate how efficient the Fund has been in reaching its investment return objective, while optimizing risks. Further enhancements of the Fund’s risk control process by the Investment Committee have also been implemented.

Along with the progress in the implementation of the capital preservation approach, one of the main achievements of 2012 has been the implementation of the full audit cycle, in compliance with the provisions of Section 5 of the Pension Fund Rules, which came into force in 2011. This audit cycle includes (i) a full annual audit of the Fund’s accounts and financial statements by CERN’s External Auditor on behalf of the CERN Council, and (ii) on behalf of the Pension Fund Governing Board a full annual audit of the Fund’s accounts and financial statements by an auditor specializing in pension fund matters, as well as an annual audit of the Fund’s Internal Control System (ICS). The Fund’s ICS documents the activities and procedures performed by the Fund, and the objective of the ICS audit is to ensure compliance with documented procedures.

Let me conclude this report with the welcome news that the CERN Pension Fund recently won two international awards: the 2012 award for “Best Risk Management Solutions” by Investments & Pensions Europe (IPE), and the “2012 Industry Innovation Award” in the category “Public pension plans below $15 Billion,” by Asset International – Chief Investment Officer (aiCIO) magazine. There were a large number of nominations by prominent institutional investors for both awards, which were judged by international juries.

Dan-Olof Riska,
Chairman, Pension Fund Governing Board
Why “Security” is not ME…

Thank you all for your feedback on our latest Bulletin article on “Security is YOU!”. Indeed, I can confirm that at CERN you are, in the first instance, responsible for: the computer security of the laptops, smart phones and PCs you use; the computing accounts and passwords you own; the files and documents you hold; the programs and applications you have installed or, in particular, written; and the computer services and systems you manage. In the free and liberal academic environment of CERN, I, as Computer Security Officer, decline that general responsibility.

How can one take responsibility for something one does not control? Currently, I do not control the operating system you run, the programs and applications you install, the webpages you browse, the software you write, the files and documents you create, and the computing services you deploy. Dictating and restricting you to controlled solutions would contradict that freedom and liberty of academic working. Of course, we can change that, but I love CERN’s academic freedom too. So this is probably not the right way to go.

Rather, I see my role as finding a good balance between that academic freedom, the operational needs of the Organization and computer security - and in enabling YOU to assume your share of this balance. “Computer Security” has been delegated to you, but you are not alone. The Computer Security Team is ready to help you. We provide training and awareness, consulting and audits, general protection and detection services, as well as a central Computer Emergency Response Team (CERT). And there is the IT Department! You can delegate your responsibility to the IT Department, which provides a multitude of secured computing services.

In this respect, take this as an offer for 2013. Enjoy the end of the year and have a safe new year!

For further information, please check our web site or contact us at: Computer.Security@cern.ch.

Computer Security Team

Landolt-Börnstein book series is now accessible online!

News from the Library

H. Landolt and R. Börnstein founded the Landolt-Börnstein physical data collection more than 125 years ago in 1883. They recognized the need for selected and easily retrievable data on the scientists’ desk. This standard work of reference occupied two volumes and 1,695 pages in 1923. Today it has grown to include around 400 paper volumes.

This raises the question: how can one search effectively for physical properties and keywords across the full text of 400 volumes, 250,000 substances and 1,200,000 citations?

SpringerMaterials is the answer. It includes the content of the L-B book series and - like its print counterpart - is a fully evaluated data collection in all areas of physical sciences and engineering. It also comprises 44,000 Chemical Safety Documents (including the RoHS Restriction of use of Hazardous Substances and WEEE Waste from Electrical and Electronic Equipment).

Finally, a subset of the Dortmund Data Bank Software & Separation Technology, the Thermophysical Properties database, is also accessible through the SpringerMaterials portal.

Particularly noteworthy are 4 tomes of Group 1, Volume 21 of the book series:
- “Elementary Particles: Theory and Experiments” (tome 21 a),
- “Detectors for Particles and Radiation: Part 1: Principles and Methods” (tome 21 b1),
- “Detectors for Particles and Radiation: Part 2: Systems and Applications” (tome 21 b2),

Please note that tome 21 c, “Nuclei and Atoms: Accelerators and Colliders”, edited by S. Myers, will be accessible online in January 2013.

CERN Library
A new logo for the CERN Staff Association - Numerous prizes to be won

The Staff Association needs a new logo because the new graphic charter of the CERN does not allow the inclusion of CERN logo.

A competition open to all is organized by the Staff Association from 3rd December 2012 to 30th January 2013 inclusive to choose this new logo.

Numerous prizes to be won such as an Ezee Suisse electric bike, vouchers or presents offered by our commercial partnerships such as Go Sport, Aquaparc, BCGE, L'Occitane, Sephora, theater La Comédie de Genève.

All submissions will be on display in the Main Building from 4th to 15th February 2013. Six finalists will be selected: three by the jury, and three by CERN employed members of the personnel.

Members of the CERN Staff Association will make the final choice of the winner amongst these finalists by electronic voting.

For more information, please contact Sonia Casenove, tel. +41 22 767 28 19, e-mail: sonia.casenove@cern.ch.

Computing Services

Most of the services provided by the IT Department - including WLCG production services - will remain available during the CERN annual closure. No interruptions are scheduled but in case of failure, the restoration of services cannot be guaranteed.

Problems will be dealt with on a best effort basis only. However, please note:

- Experts should be reachable to start investigations on the following services within about half a day except around Christmas Eve and Christmas Day (24 and 25 December) and New Year’s Eve and New Year’s Day (31 December and 1 January) - Databases, Linux, Ixplus, Ixbatch, Mail, Printing, Network & Telecoms, Vidyo, Windows & Windows Terminal Services, account activations, password resets, Castor, EOS, AFS, CDs, Indico, Inspire, Twiki, SVN, CVS, issue tracking, Grid (SAM, Nagios, messaging), CERN Grid Services, and the room booking system. Incidents will be documented at http://cern.ch/itsbb.

- All network and telecom services will run as usual, the first-line support will operate normally, but no change requiring a human intervention will be possible.

- The backup service will remain operational, but backups cannot be guaranteed and file restores may not be possible.

- For the Castor service, damaged tapes will not be processed.

Please note that the operator service where urgent problems may be addressed will be maintained throughout and can be reached at 75011 or Email: computer.operations@cern.ch.

Potential computer security incidents should be reported to Computer.Security@cern.ch or 70500 as usual.

Please also note that this year, unlike previous years, the heater will not be cut but idle. This reduction is equal to regime weekend and should be relatively comfortable.

Services Availability during the CERN Annual Closure 2012/2013

General Services

As every year all services provided by the GS Department requiring human presence (like the CERN hotel, car sharing service, shuttle service, etc.) will be stopped during the annual closure. Services that do not depend on continuous human presence will remain available.

Support levels are reduced during this period, in general the target reaction time for problems will be ½ day (without guarantee).

In case of failure, the reaction time for restoration of services depends on the arrangements that have been made on a service by service level.

Service outages will be documented on the status board.

For more detailed information please consult the service-portal.

Printshop closure

Please note that the CERN Printshop will be closed to replace the printers with new models and enhance the functions from: Monday 17 December 2012 until at least Friday 11 January 2013.

Please take this into consideration for your forthcoming print needs and check our website for any updates.

Thank you in advance for your understanding.

Latest from TPG - annual tickets for sale at CERN

Starting in early 2013, TPG's annual tickets will be for sale at CERN for 650 CHF, instead of the typical 700 CHF. Further details on their sale will be communicated as soon as possible.
**BULLETIN PUBLICATION SCHEDULE FOR 2013**

The table below lists the 2013 publication dates for the paper version of the Bulletin and the corresponding deadlines for the submission of announcements. Please note that all announcements must be submitted by 12.00 noon on Tuesdays at the latest.

<table>
<thead>
<tr>
<th>Bulletin Web version</th>
<th>Bulletin Printed version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week number</td>
<td>Submission of announcements (before 12.00 midday)</td>
</tr>
<tr>
<td>4-5</td>
<td>Tuesday 15 January</td>
</tr>
<tr>
<td>6-7</td>
<td>Tuesday 29 January</td>
</tr>
<tr>
<td>8-9</td>
<td>Tuesday 12 February</td>
</tr>
<tr>
<td>10-11-12</td>
<td>Tuesday 26 February</td>
</tr>
<tr>
<td>13-14</td>
<td>Tuesday 19 March</td>
</tr>
<tr>
<td>15-16</td>
<td>Tuesday 2 April</td>
</tr>
<tr>
<td>17-18</td>
<td>Tuesday 16 April</td>
</tr>
<tr>
<td>19-20</td>
<td>Tuesday 30 April</td>
</tr>
<tr>
<td>21-22</td>
<td>Tuesday 14 May</td>
</tr>
<tr>
<td>23-24</td>
<td>Tuesday 28 May</td>
</tr>
<tr>
<td>25-26</td>
<td>Tuesday 11 June</td>
</tr>
<tr>
<td>27-28</td>
<td>Tuesday 25 June</td>
</tr>
<tr>
<td>29-30</td>
<td>Tuesday 9 July</td>
</tr>
<tr>
<td>31-32</td>
<td>Tuesday 23 July</td>
</tr>
<tr>
<td>33-34-35</td>
<td>Tuesday 6 August</td>
</tr>
<tr>
<td>36-37</td>
<td>Tuesday 27 August</td>
</tr>
<tr>
<td>38-39</td>
<td>Tuesday 10 September</td>
</tr>
<tr>
<td>40-41</td>
<td>Tuesday 24 September</td>
</tr>
<tr>
<td>42-43</td>
<td>Tuesday 8 October</td>
</tr>
<tr>
<td>44-45</td>
<td>Tuesday 22 October</td>
</tr>
<tr>
<td>46-47</td>
<td>Tuesday 5 November</td>
</tr>
<tr>
<td>48-49</td>
<td>Tuesday 19 November</td>
</tr>
<tr>
<td>50-51</td>
<td>Tuesday 3 December</td>
</tr>
<tr>
<td>52/1-2-3</td>
<td>Tuesday 17 December</td>
</tr>
</tbody>
</table>

If you wish to publish a news article or an item in the General Information or Official News sections, please contact: Bulletin-Editors@cern.ch

If you wish to publish an announcement in the Staff Association section, please contact: Staff.Bulletin@cern.ch

**Language training**

**Oral Expression**

This course is aimed for students with a good knowledge of French who want to enhance their speaking skills. Speaking activities will include discussions, meeting simulations, role-plays etc.

The next session will take place from 28th January to 5th April 2013.

**Writing professional documents in French**

These courses are designed for non-French speakers with a very good standard of spoken French.

The next session will take place from 28th January to 5th April 2013.

**General and Professional French Courses**

These courses are open to all persons working on the CERN site, and to their spouses.

The next session will take place from 28th January to 5th April 2013.