

CERN/SPSC 2001-032
SPSC 55
7 November 2001

SPS AND PS EXPERIMENTS COMMITTEE

Decisions taken at the 55th meeting
held on 30 October 2001

OPEN SESSION

1. Status Report on NA48 and NA48/1: A. Ceccucci
2. Status Report on NA48/2: V. Kekelidze
3. Status Report on PS214, HARP: P. Zucchelli

CLOSED SESSION

Present: H. Bialkowska, F. Bobisut, I. Brock, S. Dalla Torre, M. De Jong, A. De Roeck, Y. Déclais, J-P. Delahaye, E. Fernandez, S. Forte, R. Forty, P. Grafström, M. Hauschild, J. Knobloch, K. Königsmann (Chairman), W. Kühn, A. Magnon, N. Pavlopoulos, A. Pich, J-P. Riunaud, H. Taureg (Secretary), I. Videau, D. Websdale

Apologies: G. Altarelli, C. Détraz, U. Heinz, C. Wyss

1. INTRODUCTION

The Chairman introduced I. Videau, EP Deputy Division Leader, who will represent EP Division in the SPSC from now on.

2. MINUTES OF THE LAST MEETING AND MATTERS ARISING

Please note the following changes:

N. Pavlopoulos should be listed as absent.

Point 8 (status of CNGS-1, OPERA), add at the end:

The Committee urges the participating institutions to increase the technical support staff for the experiment.

The minutes were **approved** with these amendments.

Under matters arising, the referee reported on two critical items for NA58/COMPASS:

The Committee **stressed** that, in order to exploit fully the physics capabilities of the COMPASS experiment, a working target solenoid is required which fulfils the specifications of the originally planned magnet. The Committee **urges** all parties involved to support a speedy replacement of the failed magnet.

3. REPORT FROM THE 154th MEETING OF THE RESEARCH BOARD

The Chairman reported on the 154th meeting of the Research Board. An increase in the intensity is under consideration for the neutrino beam to Grand Sasso. EP Division does not see how to satisfy the manpower request of OPERA. The Research Board granted HARP 140 days of beam time in 2002. IT Division pointed out that HARP constitutes a significant load on the available resources.

The DG plans to set up a Committee for non-accelerator and recognized experiments.

4. STATUS OF THE SPS

P. Grafström reported on the status of the SPS. Two vacuum problems did cost some beam time and the integrated efficiency reached 84% this year. The Committee **congratulated** the SL Division for the efficient running of the SPS.

5. STATUS OF THE PS

J.-P. Riunaud reviewed the status of the PS and AD. The PS machine reached 95% efficiency this year. The demand on protons was rather modest. A water leak in a special bending magnet stopped the south branch of the East Hall on 14 October. No spare is available. DIRAC and the T7 users lost 18 days of beam. Decreasing resources risk causing long breakdowns in the future.

At the AD the beam parameters have been further improved. Data taking by the experiments has stopped on 26 October.

The Committee **congratulated** the PS Division for the successful running of the PS and AD.

The Committee **expressed** its grave concern about aging equipment and missing resources for maintenance and procurement of spares at all CERN accelerators which may adversely affect the physics programme in the long term.

6. STATUS OF NA48, NA48/1, NA48/2

The referees recalled the physics aim of the different phases of the experiment. There is little competition for the planned measurements on rare decays. A number of improvements are under way for the NA48/1 set up. The new DCH readout is on a tight schedule. A change has been tested in the LKr readout, which allows doubling the event rate. The test data have still to be analyzed. The Collaboration for NA48/1 has changed slightly and a Memorandum of Understanding (MoU) is ready to be signed. The Collaboration is highly motivated but has also a heavy workload for 2002. For NA48/2 the envisaged beam spectrometer will give gains in the available statistics and the addition of the KTeV TRD with the associated US groups is very advantageous. FNAL approved the project and a MoU is under discussion with the DoE. Also for NA48/2 the work schedule is tight. The referees considered the envisaged running time as minimal for the planned programme of NA48/1 and NA48/2.

The Committee **congratulated** the Collaboration for the accurate result on ϵ'/ϵ and the very thorough systematic studies. The Committee **extends** the congratulations for the successful repair of the magnetic spectrometer after the accident in 1999. The Committee **appreciated** the progress in the preparations for the 2002 and 2003 runs but **recognizes** the very tight time schedule for the upgrade of the DCH readout and the beam spectrometer.

7. STATUS OF PS214/HARP

The referees recalled the history of the experiment. An enormous amount of work has been accomplished in commissioning the experiment. Problems with the TPC and the Cherenkov counter delayed the start of physics data taking till mid August. The Committee would appreciate a clearer picture of the amount of data collected and their quality in order to access the capabilities for accurate cross section measurements.

The Committee **appreciated** the impressive setting up of the experiment including the software preparations for the first run in 2001. In view of the reduced data-taking period in 2001 the Committee **asks** for its March 2002 meeting for an update on the data collected in 2001 and the data taking strategy for the 2002 run.

The Committee **took note** of HARP's problems with fast data access and **recognized** the importance for all experiments to have fast data turnaround.

8. STATUS OF PS212/DIRAC

The referee summarized the physics goal of the experiment and the allocated beam time. The data collected in the year 2000 allowed a first significant measurement of the $\pi\pi$ atom lifetime with an error of about 20%. This year's data should allow an improvement of the error to 14% and there should be no problem to reach the goal of 10% with the data of 2002.

The Committee **appreciated** the progress in 2001 in spite of the early stop of data taking due to failing PS equipment and **acknowledges** the first significant result for the lifetime of $\pi\pi$ atoms.

9. PROGRESS OF NA60

The referee reported on the progress of NA60. The pixel telescope is now on track and should be operational for next year's run.

The Committee recommended in March 2000 ion and proton running for P316 /NA60 in the years 2002 and 2003, although not explicitly mentioning the proton running. The Research Board had followed this recommendation in its 150th meeting.

10. PS AND SPS SCHEDULES

M. Hauschild presented the draft schedules for 2002. The beam time at the PS has been cut by three weeks and at the SPS by one week as compared to the September version. However, there is no longer a break in August. These cuts have been introduced in order to reduce the energy costs. The beam requests seem to fit reasonably well in the available beam time. The request for a 25 nsec run stems from CMS and the LHC luminosity monitor and is limited to one week. All other users have only restricted use of this time.

The Committee **recommends** a shift of the 25 nsec running from 2002 to the beginning of the 2003 run.

The Committee **is concerned** about possible further cuts in accelerator operations and reductions in beam energy with the consequent loss in physics output.

11. A.O.B.

From the review of the experiments it seems that an appreciable amount of test beam time is cancelled at the last moment. The Committee **encourages** a better use of test beam time.

The Chairman recalled that the Research Board on 23rd November 2000 had declared the heavy ion programme at the SPS as completed apart from the extension for NA49 at 20 AGeV and 30 AGeV and NA60 at 160 AGeV. Any additional initiative requires a new proposal or addendum and the full approval procedure for experiments.

The Secretary mentioned that from next year onwards all documents should be submitted in electronic form to the Committee.

The dates of the SPSC meetings in 2002 have been fixed as follows:

Tuesday 15 and Wednesday 16 January

Tuesday 26 and Wednesday 27 March

Tuesday 21 and Wednesday 22 May

Tuesday 3 and Wednesday 4 September

Tuesday 5 November.

12. DOCUMENTS RECEIVED:

- Status Reports of NA48 and NA48/1; SPSC 2001-029/M670.
- Status Report of NA48/2; SPSC 2001-030/M671.
- Status Report of PS214 / HARP; SPSC 2001-031/M672.
- Memorandum: CERES Participation in the 2002 Low Energy Pb Run; SPSC 2001-033/M673.

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