SPS AND PS EXPERIMENTS COMMITTEE

Decisions taken at the 57th meeting
held on 26 March 2002

OPEN SESSION

1. Status Report of PS214, HARP: A. de Min
5. Status Report of NA57: F. Antinori

CLOSED SESSION


Apologies: J.P. Delahaye, C. Détraz, E. Fernandez, J. May, C. Wyss

1 INTRODUCTION

The Chairman welcomed the four new members of the Committee.

2 MINUTES OF THE LAST MEETING

Under point 12 “Scientific activities at CERN in the next years” add at the end of the second paragraph:

The Committee reiterated its grave concern about the cuts in accelerator operations and the consequent loss in physics output from the Laboratory.
3 MATTERS ARISING

The Committee **appreciated** to have received finally a written status report from AD2/ATRAP. The report will be discussed in the next meeting.

The Committee **expressed** its disappointment with the often late delivery of status reports or information from experiments for agenda points which had been scheduled and communicated well in advance. This renders the work of the Committee difficult to impossible. Status reports **should be made available** at least one week before the scheduled meeting to the referees and the Committee.

4. REPORT FROM THE MEETINGS OF THE RESEARCH BOARD

The Chairman reported on the 156th and 157th meeting of the Research Board.

During the 156th meeting the Research Board heard the report on the previous meeting of the SPSC and took note.

In its 157th meeting the Research Board dealt with the consequences of the financial situation for the medium term scientific programme. The LHC machine will receive first beams in April 2007. Non-LHC activities will be reduced. The SPS machine will not run in 2005. Therefore the CNGS beam will start up only in 2006. CERN terminates with immediate effect its participation in the CNGS-1, OPERA experiment. The Chairman outlined the cost savings in various areas. The Committee **took note**.

5. STATUS OF THE SPS

P. Grafström reported briefly on the status of the SPS machine. An extensive report will be given at the next meeting. The shutdown work is progressing according to the schedule. No funds have been made available for the NA48/2 beam line and the TAX replacement. Funds have to be committed in April of this year if one wants to be ready for the scheduled run of NA48/2 in 2003.

6. STATUS OF THE PS

J.P. Riunaud reported on the status of the PS complex. The machine has been closed to prepare for beams to ISOLDE. A just received spare has replaced a failed bending magnet, which had cut short the running time of DIRAC last year. However, there are still two questionable quadrupoles, for which no spares exist or are at the horizon, in the East Hall putting the running of HARP, DIRAC and LHC test beams at risk.

7 STATUS OF THE PS AND SPS EXPERIMENTS

M. Hauschild will give a detailed overview at the next meeting.
8. STATUS OF AD3/ASACUSA

The referee reviewed the physics goals of the experiment and its achievements in the past year. The Collaboration has published several papers on dE/dx measurements with low momenta \(^{1}\), \(^{1}\)-He spectroscopy and the mass and charge difference of proton and antiproton. The Collaboration has been very productive in its physics output. Antiprotons have been trapped with the help of the RFQD but the efficiency needs to be improved. The experiment is approved for running till 2005 but the programme seems unclear in the long term.

The Committee congratulated the Collaboration to its achievements in the past year and asks for a detailed addendum to the proposal by the end of this year outlining the long-term physics programme of the experiment.

9. STATUS OF PS214/HARP

The referee recalled the various hardware problems, which had delayed the data taking last year. Noise and cross-talk in the TPC and trigger problems have further reduced the data rate compared to expectations. Data samples have been taken at about 35 settings corresponding to roughly a third of the programme. So far the Collaboration has concentrated its efforts on the analysis of the TPC data. However, no physics results have been presented and it is difficult to judge the quality of the data taken. The schedule for 2002 is tight.

The Committee took note of the status of the hardware and the progress in the reconstruction and analysis of the data from the 2001 run. The Committee asks for a progress report on the data quality and analysis by its May meeting. The Committee urges the Collaboration to ascertain good data quality in 2002.

10. STATUS OF NA45

The referee summarized the physics results from the experiment and the request to participate in the low energy ion runs this year. IT Division will consider the request for additional computing resources in order to conclude the analysis for the Quarkmatter conference in July 2002.

The Committee congratulated the Collaboration to the quality of the data analysis and the physics results delivered. The Committee reconfirmed by its decision of the last meeting not to recommend the experiment for further running.

11. STATUS OF NA49

The referee presented a brief description of the experiment, the data sets taken and the status of the analysis. He reviewed the physics results from the heavy ion data and their comparison to pp and pA data. The reduction to 8 days of the low energy Lead ion run may allow data taking only at one energy depending on the setting-up time needed. The Collaboration requests to collect more data from pp and AA collisions to further study \(\Omega\) production and isospin effects.
The Committee **appreciated** the status report on the ion data. It **is worried** about the missing set-up time for the low energy ion run. The Committee **recommends** for approval 23 days of p beam in 2002 for a first measurement of Ω production and **strongly recommends** the d-running to gain understanding of the neutron induced reactions.

12. STATUS OF NA50
The status report will be discussed in the next meeting.

13. STATUS OF NA57
The referee recalled the enhancement of strange particle production measured by the experiment. Differences between results from WA97 and NA57 have found a partial explanation. The Collaboration would like to pursue its studies with data from the Indium ion run in 2003.

The Committee **appreciated** the better understanding of the differences between the WA97 and NA57 results. The Committee **looks forward** to the final results from the 40 AGeV and 160 AGeV data later this year. The Committee **will consider** the beam request for the Indium ion run at that time.

14. STATUS OF NA60
The referee reviewed the status of the detector, especially of the Silicon detectors in the target region, which constitute the main improvement of the experiment over the NA50 set-up. The schedule is very tight as are funding and manpower. The Collaboration is encouraged to freeze its design choices.

The Committee **appreciated** the large amount of work done since the last report. The Committee **is concerned** about the availability of the pixel detector, which is crucial for the success of the ion run, and **urges** CERN to lend its full support. The Committee **asks** for a progress report on the silicon detectors for its next meeting.

15. PS AND SPS SCHEDULES
M. Hauschild gave a quick overview of the schedule. Some beam time is still available at the T11 line of the PS. This beam line is not very much in demand because of the low beam energy. At the SPS the CMS experiment gave up some beam time in the H2 line at the beginning of the running period.

The Committee asked which committee approves and reviews the test beam time for recognized experiments.
16. A.O.B.

The Committee discussed the approval procedure for the minutes and when the minutes are made public. The approval procedure will not change but the possibilities to comment will be improved before the minutes are made public.

The Committee took note of the memorandum on a magnetized liquid Argon detector from C.Cerri and F.Sergiampietri.

The Committee discussed the approval status of the ICARUS experiment.

17. DOCUMENTS RECEIVED:

- Minutes of fifty-sixth meeting on 15 January 2002 (SPSC 2002-006/SPSC56)
- Magnetized liquid Argon detector for electron charge sign discrimination (SPSC 2002-007/M678)
- NA49 Progress Report and Beam Request for 2002 (SPSC 2002-008/P264 Add.10)
- NA60 Status Report (SPSC 2002-009/M679)
- NA57 Status Report and Future Plans (SPSC 2002-012/M680)
- Status report of HARP/PS214 (SPSC 2002-01/M681)
- Status of NA45/CERES (SPSC 2002-014/M682)

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