

**LHC EXPERIMENT-ACCELERATOR DATA EXCHANGE WORKING GROUP
(LEADE)**

Minutes of the 10th Meeting held on 12 May 2003

Present: R. Assmann, N. Ellis, D. Evans, K. Gill, P. Graftstrom, R. Jones,
W. Heinze, A. Moersch, J.-J. Savioz, A. Smith, E. Tsesmelis

1. INTRODUCTION

The minutes of the 9th Meeting were approved without modification.

2. DISCUSSION ON EXPERIMENT-ACCELERATOR INTERFACE ISSUES FOR THE TTC SYSTEM

The specification for the Trigger and Timing Control (TTC) system has been updated and the up-to-date list of data to be provided is now available. The specification will be readable from the LEADE Web pages. Comments to the specification are solicited from the experiments.

Action: LHC experiment representatives

Complementary to the TTC system is the Beam Synchronous Timing (BST) system, which delivers both timing and machine status information. Data to be available from the BST are the bunch crossing and revolution frequencies as well as information from machine detectors such as the Beam Loss Monitors.

The experiments requested that the accelerator RF signals should be kept running and delivered to the experiments even during shutdown periods, as certain detectors depend on the stable provision of such signals.

The space requirements for racks for the TTC, GPS and General Machine Timing (GMT) systems in the underground experimental caverns will be presented at a future meeting of LEADE.

Action: G. Beetham

3. UPDATE ON ACCELERATOR → EXPERIMENT DATA EXCHANGE

R. Jones presented the updated list of data to be communicated from the LHC machine to the experiments. The primary changes are the following:

- Given the additional costs for extra hardware in the form of a separate communication channel and the fact that the uncertainties related to transporting the information to the IP would outweigh the accuracy needed for the 2D bunch size, measurement of the individual 2D bunch size has been dropped from the list of data to be provided. The average 2D beam size will, however, be provided.
- The provision of data on beam losses, as measured with several machine Beam Loss Monitors around the IP, will be available as an average quantity rather than bunch-by-bunch.

4. PROPOSAL FOR UPDATING THE EXPERIMENT → ACCELERATOR DATA EXCHANGE

Nick Ellis presented a preliminary proposal of data relating to beam conditions to be provided by the ATLAS and CMS experiments to the LHC machine. The list is not exhaustive and it is essential to retain flexibility in the data-exchange system, e.g. in the number and choice of quantities to be exchanged, the production interval and hence the data rate. Feedback to this preliminary proposal is requested, particularly from the LHC operations group. In the meantime, further consultations to firm up the proposal will be made within the experimental collaborations.

Action: LHC operations group

5. A.O.B.

The experiments are requested to submit to the LEADE chairman their cable requirements for the BPTX. As the next cabling campaign is imminent, information on the cable start and end points as well as the budget code for which the cables and their installation is to be charged against, should be sent as soon as possible.

Meetings of the WG will be held on the following Mondays starting at **16:00** in the **Conference Room Bat. 14-4-030**.

Remaining Provisional Dates for 2003 Meetings:

7 July
 18 August
 13 October
 10 November
 15 December