PRINCIPAL LHCC DELIBERATIONS

24TH MEETING OF THE LHCb RESOURCES REVIEW BOARD

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This document summarises the principal LHCC deliberations concerning LHCb at the Committee's session in February 2010.

The LHCC considers that LHCb has made excellent progress in all aspects of the experiment and the Committee congratulates the LHCb Collaboration on its achievements.

CONCERNS FROM THE PREVIOUS LHCB RESOURCES REVIEW BOARD

SUB-SYSTEM	CONCERN	STATUS
Ring Image Cherenkov (RICH)	Failure of some Hybrid Photon Detectors (HPDs).	The repair procedure for the HPDs is ongoing and the problematic HPDs are being replaced.

The LHCb experiment is in a very good state. All sub-detectors are operating with essentially all channels active and the last remaining detector issues have been resolved: the Hybrid Photon Detector (HPD) refurbishing plan with Photonis is working well; the ISEG power supply problems has been fixed on all units; and there are no new broken bonds in the silicon detectors since last June.

The LHCb operating model with only two people on shift (plus one expert in handling the Vertex Locator (VELO) movements) has been very successful. The experiment has also shown efficient data taking, calibration turn-around and data processing schemes.

The data collected so far with proton-proton collisions has already allowed for a good understanding of the detector performance and its calibration. More statistics are needed to reach the design goals, especially in the alignment of the tracking detectors and of the Ring Image Cherenkov (RICH) mirrors.

The experiment has also shown the capability to reconstruct the most basic physics objects with very good quality and in general excellent agreement with the Monte Carlo predictions. The LHCb experiment is progressing well towards its physics goals, even if the lack of a sufficient amount of data makes it difficult to make a clear extrapolation from the current results.