

To: John Huth, US ATLAS Associate Project Manager for Software and Computing
Lothar Bauerdick, US CMS Project Manager for Software and Computing

Date: 10/31/01

Re: Review of the U.S. LHC Software and Computing Projects

An independent peer review of the U.S. LHC Software and Computing (S&C) Projects will be conducted at Fermi National Accelerator Laboratory on November 27-30, 2001. This review will continue systematic oversight of the U.S. LHC Research Program.

The scope of this review is to include both the individual U.S. ATLAS and U.S. CMS S&C Projects and the common projects, which provide software resources to both efforts. The goal of this review is to assess the scope, cost and schedule baselines for the U.S. LHC Software and Computing Projects, and their proposed management structures. Both US ATLAS and US CMS should present self-consistent baseline plans targeted to the funding guidance received from DOE and NSF, and separately address how they would use incremental funds. Due to the dynamic nature of the software and computing fields, we do not expect that complete long-term (5-year) baselines could or should be set at this time. Thus, we are requesting a detailed technical, cost, schedule and management review of only the near-term project efforts, up through Fiscal Year 2003. However, the review committee will make its best effort to gauge whether these near-term efforts can reasonably be extrapolated to the long-term requirements of the Research Program.

The charge for this review will be to assess:

- The overall scope of the U.S. LHC S&C efforts, and their connections to both the international LHC S&C efforts and the CERN LHC Computing Project ;
- The risk to U.S. LHC S&C schedule or scope given current funding profiles and overall LHC project schedules;
- The contributions of each of the U.S. collaborations in providing and supporting “core” and detector-specific software deliverables to the international ATLAS and CMS computing efforts;
- The function, scope and structure of the national (“Tier 1”) U.S. LHC computing facilities, and their relationship to any smaller regional and university facilities;
- The integration of computing infrastructure efforts (such as networking and Grid computing) into the planning and execution of the US LHC S&C projects ;
- The plans of the U.S. collaborations to provide computing resources to users and their success in integrating them into the software development process;
- Existing and possible common computing projects which could benefit both ATLAS and CMS; and
- The Project Management Plans, organizational structures, and adequacy of personnel for each of the U.S. LHC S&C Projects.

We appreciate your assistance in this matter. These reviews are an important element of the Department of Energy/National Science Foundation joint oversight of the U.S. LHC Project and help ensure that the U.S. meets our commitments on cost and schedule.

October 31, 2001
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Signed: US LHC Program Manager

CC: Tom Kirk, Bill Willis, Jim Siegrist, Peter Jenni, Norman McCubbin, Hans Hoffmann, Ken Stanfield
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