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Dr. Michael Witherell
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Dear Mike,

Below we briefly summarize a few of the main areas of activity in CDF since the HEPAP presentations.

CDF is completing the final stages of commissioning while at the same time starting to accumulate data for its RunIIa physics program. As with any large, newly commissioned complex detector, we keep improving the performance. In the last several months we have overcome several problems, including the replacement of radiation-soft power supplies with rad-hard components, and the significant reduction of backgrounds in our collision hall. The Beams Division has implemented a new interlock to help protect our silicon detector from RF trips, and we continue to refine procedures with Beams to ensure we protect the silicon vertex detector from "preventable" radiation damage due to beam loss.

The silicon group continues to increase the number of stable and well-understood ladders. This will continue for some time into the future. The CDF Level-2 trigger has completed a change over from PECL to TTL arbitration and all timing delays have been removed, allowing higher rates. The muon interface board remains to be completed, but we expect it to be operational by the end of this year. Then all three levels of the trigger will be completed. The level 1 specifications have been met, the level 2 rate achievable based on measurements is roughly within a factor of two of the design 40-45 KHz, and the level 3 performance is very good. The remaining factor of two lies in the silicon readout and the SVT. More hard work may allow us to achieve the level 2 goal. We continue to understand the performance of the SVT and alignment of the silicon system. The ISL blocked cooling elbows are being unplugged during the June access. We hope to demonstrate the principle on the east end of the detector. We will begin running silicon tracking at level 3 for the first time in CDF history very soon. A COT wire plane (12 wires out of 30,240) with HV problems was successfully removed last month *in situ*, and we anticipate replacing the plane during the fall shutdown. The CMX muon system scintillator is being commissioned and will be included in the level 1 trigger within the next few weeks. The IMU (forward muons) muon system is also being commissioned for the level 1 trigger. Scintillator and chambers have been

studied and will be incorporated into the trigger in the near future. The tape data handling system is operating well and but is still being developed. The central analysis system (CAF) has been opened up to general use here at Fermilab and will grow substantially in the next year. In summary, we are readying for the summer conferences where we hope to present some of our first preliminary physics measurements. We are ready to integrate substantial luminosity.

Regards,

Al Goshaw

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CDF Co-Spokespersons

Mike Lindgren

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