

CMX PRR

12 May 2014

introduction
who
support
agenda

Chip Brock for CMX Team:



CMX personnel

1. @ Michigan State

EE: Dan Edmunds, Philippe Laurens; physicist: Chip Brock. Jim Linnemann, Andrew Chegwidde* (student)*

2. @CERN

EE: Yuri Ermoline, physicist: Duc Bao Ta

3. @University of British Columbia

physicist: Wojtek Fedorko

4. @Stockholm University

physicist: Pawel Plucinski

*Simulation studies, led by Linnemann

CMX Hardware History

1. **May, 2008**

meeting at CERN that confirmed that CMM crate backplanes could go x4 nominal speed

2. **ensuing years - 2010**

MSU joins L1Calo to build “CMM++” - now CMX

June 2010, real design starts, meeting at Stockholm

3. **ATLAS Reviews**

June 2011, CMX PDR

February 2013, Prototype Review

October 2013, CMX mail review prior to committing prototypes

May 2014, PRR

4. **Production**

January 2014, 4 prototype boards arrive at MSU

February 2014, 2 prototype boards arrive at CERN

April 2014, bare pcb production commences, anticipating M4 schedule

Support

Managed by US ATLAS Operations

CMX appeared before US “Phase 1” upgrade organization

we call it “Phase 0,” although that’s not an official ATLAS designation

Funded:

US ATLAS Operations by NSF: EE’s and equipment

no contingency

MSU grant: physicists + engineering support

3 engineers plus equipment: approximately \$1.5M

agenda for today

1. **CMX Board design, production, schedule**

Philippe Laurens, 20 minutes

2. **Prototype tests @ MSU and CERN including LVDS and High speed link tests**

Wojtek Fedorko, 20 minutes

3. **Backplane tests @CERN, building 104 and USA15**

Duc Bao Ta, 30 minutes

4. **Optical Link testing and GLink emulation @CERN**

Pawel Plucinski, 20 minutes

5. **Firmware status**

Wojtek Fedorko, 10 minutes