

ATLAS- Overview

HEP Division Strategic Planning Meeting, Dec 15, 2003

- **Budget and effort summary (Jimmy)**
- **Mechanical Work (Installation, TC, M&O) (Jimmy)**
- **Trigger DAQ (Bob)**
- **Grid (Tom)**
- **Physics (Tom)**

ATLAS Group

FTE Physicist (Total = 3.2)

Larry Price (0.2)
Bob Blair (0.5)
Tom Lecompte (0.5)
E. May (0.5)
L. Nodulman (0)
Jimmy Proudfoot (0.4)
Bob Stanek (0.9)
Dave Underwood (0.2)
Ed Berger (Special case here)

FTE Computing (Total = 5.0)

Jerry Gieraltowski
Kris Karr
David Malon
Jim Schlereth
Sasha Vaniachine

Mechanical Support: Vic, Jim, + techs and EAs

I can give a good level of detail for FY04, some ideas for 05 and much less details on expected work from FY06 onwards)

Electronics Support: Gary, John, Bill, Leon

Bob Blair will provide the details

LEP Funding Request to US Atlas and General Scenario

1. Finish Tile calorimeter and commission/operate it. Funds to some degree in the pipeline are (\$K): *(BUT only for technical staff and software)*

FY	04	05	06	07	08	09	10
Install	306	226	38				
M&O	250	380	470	687	428	427	426
TC	140	140	140	140			

This funding profile represents about the upper limit of what we might expect to receive. Actual funding will depend on the real scope of work

2. Ramp up involvement in physics. FTE's on physics (twice as many individuals?)

0.5 1.5 2.5 3.0 4.0 4.5 4.5

Hire one postdoc in 2005 and a second in 2007

3. Participate in upgrade R&D. US ATLAS budget for upgrade R&D (*not actual upgrades*) in present ATLAS planning (\$K):

	159	485	1,945	1,998	?	?	?
For Argonne, go after (?):	0	50	150	200	300	500	500

4. Participate in upgrades. Put in some technical effort for assumed upgrade work starting 2012?

LHC Upgrade R&D

I can't get too enthused by this prospect – I want to do physics with Atlas after spending over a decade building the tile calorimeter

BUT

TRT will need to be replaced

DAQ system (Trigger + Front-End) will need to be replaced (this will include all of the TileCal electronics)

We will probably have to re-write software (have had to do this on every other experiment after all)

This is a good opportunity for a new Assistant Physicist

FY04

TileCal Installation:

- 0.70FTE engineer (Vic - long list of tasks)
- 0.30FTE EA (M36 bolts, mounting of the EBA saddles, member of EBA pre-assembly team)
- 0.30FTE tech (14 wks Tim: 6 wks for module repairs, 8 wks for EBA preparation)

TC

- 0.7 FTE engineer (Jim)
- 0.2 FTE tech (most I can imagine being needed for the movement test)

M&O

- 0.17 FTE EA (Leon for special tasks associated with installation of services)
- 0.17 FTE tech (Caroline for making cables in principal)
- 0.20 FTE EA (Frank - for installation of services)

These funds are in the Division NOW

Engineering tasks are all high priority

We plan on completing all cylinder pre-assembly by Sept 30th 3004

**Coordination of the installation in the cavern has been taken over
by ATLAS TC**

FY05

TileCal Installation - only work is in the cavern

- 0.3FTE Vic (Continued monitoring of cylinder geometry)
- + CASH contribution to cavern assembly team

TC - complete all work on moving systems, plus a system test

0.70 FTE

M&O - continue our contribution of specialists to the installation of services

0.35 FTE EA (Leon for special tasks associated with installation of services)

0.35 FTE EA (Frank - for installation of barrel services)

We can possibly utilise 1FTE for software development, but this depends on having a clear plan as well as a physicist to work with the developer (i.e. a postdoc)

+ CASH contribution to the technician pool involved in mounting services

This scope represents about \$380K with the addition of travel.

we either need less money or if unexpected problems arise, then maybe we have a cushion.

FY06

Installation

- no meaningful work unless schedule is blown

TC

- work we are engaged in today will be complete. There will be TC tasks in 2006 & we intend to continue to collaborate in them at the same level as in 2005 (0.7 FTE – Jim)

M&O

- continue our contribution of specialists to the installation of services
 - 0.35 FTE EA (Leon)
 - 0.35 FTE (Frank)
 - 1.00 FTE software developer (assuming we have plan and physicist)
 - + CASH contribution to the technician pool

This scope represents about \$340K with the addition of travel.

we either need less money or if unexpected problems arise or more work is identified , then maybe we have a cushion.

Installation, TC & Mechanics M&O

- **FY04, 05, 06 some reasonable detail was possible**
- **Out years (FY07 onwards) assumes**

Software Engineer 0.5

Mech. Engineer 0.2

Technician 0.8

~\$200K M&S/Equipment funds

Some CASH contribution to CERN technician pool