

## Minutes of Collaboration Board meeting held on 7<sup>th</sup> October 2005 at LPNHE Paris in the Salle Bernard Grossetete

The assembly opened with 57 Institutions present plus 40 Institutions represented by procurations (97 total, for a quorum of 76; after the admission of Bologna, point 2.1 in the agenda, there were 98 voting Institutions in total).

### 1) Welcome by the CB Chairperson

Siegfried Bethke welcomed the assembly and announced that the quorum for decisions has been reached, as reported above. Given the tight time constraints, he proposed to proceed immediately with the agenda.

### 2) Collaboration composition matters

Peter Jenni introduced the three agenda sub-items.

#### 2.1 Decision on the admission of a new Institutions

The Expression of Interest (EoI) from a strong team formed by two (former) HERA groups from the **Department of Physics, University of Bologna and INFN Bologna, Italy**, was announced at the last CB meeting. It was recalled that one group is coming from HERA-B (led by A Zoccoli) and one from ZEUS (led by P Giusti). In ATLAS they will be one Institution, with two main detector hardware activities (RPCs and LUCID) besides software, computing and physics activities. It was noted that since the EoI the team has been already very active in ATLAS, in particular with important efforts in RPC chamber and trigger electronics testing and in the design/preparation for the LUCID read-out. In full coherence with the concerned national community as well as the sub-system communities, the ATLAS management invited CB to endorse this request. There were no further points brought up for discussion by the CB. **The CB approved unanimously, without abstention, the admission of Bologna as new ATLAS Collaboration member.** Following this decision, G Iacobucci and A Zoccoli, representing the team, were welcomed with applause to join the CB for the rest of its meeting.

The CB proceeded to the second decision point as announced at the last CB meeting, namely the EoI for **membership** of a group from the **Graduate School of Science, Osaka University, Japan**, along with the **withdrawal** of the **Tokyo University of Agriculture, Japan**. The reason for the withdrawal is that its only member has retired from the University. The small Osaka University group is actively working on the TGC level-1 trigger, and the leader, M Nomachi, has been working on ATLAS for many years as member of the KEK team. This change of Japanese institutional membership in ATLAS is fully supported by the Japanese leadership and FA, as well as by the TGC community. Therefore PJ requested the CB to finalize this change with a formal endorsement. There were no questions raised, and the **CB endorsed** the changes, and welcomed **unanimously, without abstention, the admission of Osaka as new ATLAS Collaboration member.**

#### 2.2 Announcement of Expressions of Interest to join ATLAS

PJ announced six new EoIs that were submitted in time for this CB meeting. As usual, they are brought to the attention of the CB for comments, either immediate or in the



coming months. The CB is not requested to make any decisions at this time. Below are given some details for each EoI as they were presented to the CB.

***Institute of Nuclear and Particle Physics, Technical University Dresden, Germany***

This group is led by Michael Kobel, currently ATLAS collaborator with Bonn, who will take up a professorship at Dresden before the end of the year.

- Current activities: Continue and finalize the BaBar involvement (K Schubert group) and build up the ATLAS group, extending Kobel's current Bonn group.
- Projected activities: ATLAS will become the main research activity:
- Join the LAr system, and fund (TU Dresden funds) spare LAr HV modules and HV calibration units (100 – 150 kE);
  - Online luminosity monitoring using LAr HV currents;
  - Data analysis (continuation of efforts in the Higgs group, Possibly other works related to b-tagging).
- Composition: 1 FTE faculty, 1 FTE post-doc, 5 PhD students (of which: A Ludwig, J Schumacher, M Warsinsky working already at Bonn), several diploma students.
- Infrastructure: - 50% of an electronics lab (1 scientist, 2 engineers, well experienced);  
- Shared computing farm with BaBar, coordinated by one scientist.

***Institute of Physics II, Justus-Liebig-University Giessen, Germany***

This group is led by Michael Duren and Hasko Stenzel (who has been previously in ATLAS for many years), and is in close contact with the German ATLAS groups.

- Current activities: Strong commitment in the HERMES experiment at DESY, which will stop data taking in summer 2007, R&D for GSI.
- Projected activities: Scintillating fibre tracking for the luminosity measurement and forward physics:
- Currently coordinator of the Roman Pot and LUCID test beam run at DESY;
  - Pending a positive decision of the German FA, they propose to produce the scintillating fibre tracker for the Roman pots, and support its installation, commissioning and operation.
- Composition: 2 Staff physicists, 2 post-docs and 7 PhD students (plan new for one fully dedicated to ATLAS).
- Infrastructure: Mechanical workshop (plan 1 technician dedicated to ATLAS).

***Physics Department, Oklahoma State University, U.S.A.***

This group is led by Flera Rizatdinova, who was a member of the ATLAS Collaboration from 1994-2001 as physicist in the MSU Moscow group. The group has extensively discussed their application and planned activities with the U.S. ATLAS management and the U.S. Pixel community, and proposes activities coherent with ongoing efforts, in particular with the Oklahoma University group with which they would work very closely.

- Current activities: Involved in D0, in particular tracking software.
- Projected activities: - Work on the alignment of the current Pixel detector, and development of b-tagging algorithms;

- Development of opto-links for Pixel upgrades;
  - Top quark physics and H searches (b-tagging).
- Composition: 2 Staff physicists (50% on ATLAS): Flera Rizatdinova, Alexander Khanov (former CMS), 2 graduate students in 2006.
- Infrastructure: Clean room for PIN diode developments in OSU (paid by start-up grant).

***Physics Department and Center for HEP, University of Oregon, Eugene, U.S.A.***

This group is led by Jim Brau, and has a strong track-record in the U.S. HEP community. The group has discussed their application and planned activities with the U.S. ATLAS management.

- Past activities: SLD, OPAL, NuTeV, LIGO, (EMPACT and GEM studies for SSC).
- Current activities: Main activities are currently BaBar and ILC studies and R&D, with BaBar being the main focus (muon system and online computing,  $B \rightarrow \tau \tau$ ).
- Projected activities:
  - Work on the HLT, level-2 algorithms;
  - Contribute at pit-1 on HLT commissioning (plan to have a post-doc at CERN as soon as possible);
  - Later physics, but concentrate on trigger first.
- Composition: 4 Faculty (J Brau, R Frey, D Strom, E Torrence), 1 senior researcher (N Sinev), 1 post-doc (O Igonkina), graduate students. They plan to move 1 post-doc to CERN from early 2006 on. In terms of ATLAS FTEs: now 1 FTE faculty plus 1.3 post-doc, ramping up to 2 FTE faculty plus 2.5 post-doc plus 2-3 grad students.
- Infrastructure: Access to small electronics and machine shop shared by science faculty, small farm of Linux machines for L2 code testing.

***Two groups from Argentina: Universidad Nacional de La Plata (UNLP)  
Universidad de Buenos Aires (UBA)***

These two groups work together in a coherent way, and have submitted a common funding request to their Funding Agency ANPCyT, which has encouraged them to submit this EoI. They are led by Maria Teresa Dova (UNLP) and Ricardo Piegaia (UBA), both are known to some of us for a long time, as they have worked at CERN previously.

***National University of La Plata***

- Past activities:
  - University has long history in HEP, at CERN with L3 (tau studies);
  - Electronics engineering involvements at FNAL and SLAC.
- Current activities: Pierre Auger Observatory (PAO), hardware and software (shower simulations), several responsibilities, PAO CB Chair, 4 faculty + 5 PhD students.
- Projected activities: HLT (algorithms and physics), hardware contribution: requested funding for 4 complete HLT (LVL2 or EF) racks.
- Composition: For ATLAS initially 4 faculty/researchers, including 2 electronics engineers (Dova, Mayosky, Martinez, Veiga) plus 2 PhD students, funding requested for 2 post-docs.

Infrastructure: Dedicated Tier-3 facility with computer centre of UNLP.

University Buenos Aires

Past activities: R Piegaia was in SMC at CERN.

Current activities: D0 and PAO, jet energy scale and SVX b-tagging in D0, with a group of 1 faculty, 1 post-doc and 2 PhD students.

Projected activities: HLT (algorithms and physics) in full coherence with UNLP.

Composition: For ATLAS initially ramp-up of the D0 group (see above) plus expect 2 new post-doc positions end 2006 for 2 former PhD-students (V Sorin and S Grinstein) presently on first post-doc positions in the US with CDF.

Infrastructure: Share computing with UNLP.

There were no immediate comments from the floor, and **CB took note of these EoIs.**

2.3 New contacts and evolution of previous contacts

PJ reported briefly on the following contacts:

Germany Major efforts were made in contacts with DESY, both from the side of the German ATLAS community and from the ATLAS management. After the first very positive step (DESY decided to be a German Tier-2 for both ATLAS and CMS), the selection of an experiment is still pending.

South America After the very constructive evolution with the two groups from Argentina, contacts are continuing now with Chile (Pontificia Universidad Catolica de Chile and Universidad Tecnica Federico Santa Maria). PJ will visit the FAs and Universities in Argentina and Chile early December. ATLAS is also an active partner in the EU HELEN project, which sponsors visits mainly from Latin America to Europe and CERN.

US Very good working relations with physicist colleagues as well as fruitful contacts at the level of the Research Director are consolidating with SLAC. An EoI of SLAC to join ATLAS can be expected for the February CB meeting.

No new information was to be reported from other contacts mentioned at the previous CBs, namely Universities from Japan, Singapore, Turkey and Uzbekistan.

**3) Short-term association with ATLAS**

C Oram introduced the proposal of how to deal with, and approve, cases of ‘short-term association with ATLAS’. He made clear that this procedure only applies to exceptional cases when the Collaboration may wish to cooperate for a specific scientific or technical topic with an individual or a group that are not members of ATLAS, and which could lead to a dedicated paper. CO characterized the chosen approach as on the one hand providing ATLAS management with maximum flexibility in forming associations, and on the other hand instituting a safeguard that the final decision rests with the CB. The proposed guidelines state that short-term associations shall normally be limited to the cases where an external person or group brings expertise to the Collaboration that is not resident within ATLAS, and that

resources shall be provided well in excess of what an ATLAS group would normally contribute, over a similar period of time, to an ATLAS study leading to a given publication. In short, the process laid down in the proposed text that was distributed beforehand to the CB, stipulates:

1. A written proposal shall be prepared.
2. The proposal shall be discussed and approved at an Executive Board meeting.
3. The Collaboration Board shall be informed of the proposal by Email and timely feedback requested.
4. The ATLAS Spokesperson and Collaboration Board Chair must review the response to this mail and decide if there is the required agreement within the community.
5. The ATLAS Spokesperson shall inform the Collaboration Board of the outcome of this process, and must request a final endorsement from the Collaboration Board within a short period.

One point that came up in the discussion was if such an associate would be allowed to work in parallel with another LHC experiment. It was clarified that one would expect this not to be the case for example for a theorist, but that it cannot be excluded for example for a machine study. Therefore this consideration should be included in formulating the proposal (points 1-3 above).

After this clarification the **CB unanimously, without abstentions, endorsed the proposed guidelines**, and they will be added on the ATLAS CB Web pages.

#### **4) Resources Coordination matters**

Markus Nordberg reported on the Resources Coordination matters. He first covered the feedback from the M&O RRB Scrutiny Group (SG), with which ATLAS had quite some extended and intense interactions over the summer, in particular on the new core computing services and infrastructure M&O A part, but also on collaborative tools and outreach, whereas the large technical services part was accepted smoothly, as were the changes in M&O B. (Note added after the RRB meeting on 17<sup>th</sup> October: The SG report was finally positive, and the ATLAS requests were approved.) Then MNo gave quite some details on the construction, Cost to Completion and M&O budgets for the RRB (they are all documented in detail on the RRB Web). A major remaining issue is the potential cash-flow deficit, which has shifted into 2006, and which could reach as much as – 12 MCHF if outstanding baseline Common Fund contributions, deferral payments, and promised CtC funds will not arrive in time. MNo urged once more all CB members to act on their FAs to help solving this problem.

Two main points came up in the discussion. It was noted that ATLAS may have not such good arguments in the RRB when now since few years a cash-flow crisis has been predicted, and every year it shifts then to the next year. MNo explained the reason for this (delays in construction, delays in paying bills, but also positively due to getting some of the outstanding funds), but the point is well taken. The second major issue raised was whether not all M&O B should be moved to category A, thereby having a fairer share carried also by new groups. This will indeed be a major discussion to be held in the Collaboration in the future, the initial ATLAS M&O

Working Group (which was chaired by S Bethke) did recommend at that time to review the issue of splitting between A and B, and the way B is shared among Institutes, once the detector is in operation. CB will therefore come back later to this matter. After the discussion, **CB took note of the resources report** by MNo.

#### **5) Policy for handling late M&O contributors**

Markus Nordberg explained the background for having drafted a policy for handling late payers to M&O, which was requested at the last RRB by the UK delegate, and the absence of which has already led to partial holding back of M&O payments. The proposed guidelines (ARN 2-05/rev1, 20<sup>th</sup> September 2005) have been distributed previously. In short they foresee:

- 1) First and foremost: The Spokesperson, when appropriate together with the RRB Chairperson, will negotiate with the National Contact Physicist and the Funding Authorities (FA) concerned a back-payment plan;
- 2) The defaulting FA will be signaled to the RRB, and Finance Department will remind the FA about the unpaid invoices;
- 3) If no payments are received, or if no back-payment plan is established that is agreed to by the Collaboration and by the RRB Chairperson, then this will be brought to the attention of the RRB and the number of Scientific Authors holding a PhD will be reduced to one-half after the first year, and to zero after the second year, followed by negotiations of withdrawal.

This is for category A, directly under control of the RRB, and the guidelines also foresee steps 1-2 for category B. MNo and PJ made it clear that ATLAS management is fully aware that this procedure ‘punishes’ ultimately the wrong people, namely the physicists and not the FAs. It will make its utmost to avoid ever reaching the last step (point 3). It was also clarified that the detailed note is not for distribution in the RRB, but only a summary (as above) will be orally presented, if requested.

Several CB members expressed concerns about such a strict procedure, while also recognizing that the issue needs to be addressed. It was in particular also noted that in practice it would be an almost impossible task for a National Contact Physicist to reduced ‘his/her’ authors by half. After further reassurance by ATLAS management that it will make only very carefully use of the formal procedure, and of course duly involve CB as stated in the guidelines, **CB endorsed the guidelines with one abstention and no votes against.** The guidelines will be made available on the CB Web.

#### **6) Follow-up matters from the Plenary**

P Jenni noted that he is not aware of any direct follow-up matters from the Plenary meetings. There was also no topic raised by the CB.

#### **7) Status of the Common Projects and Technical Coordination issues**

Marzio Nessi and the Technical Coordination team made substantial presentations, followed by good discussions, during the Overview Week Plenary, and also the magnet status was covered in detail. He had no further points to add, inviting however the CB to come forward with further questions or comments. None were raised.

### **8) Grid access policy**

Roger Jones recalled that the policy document for accessing ATLAS grid computing resources was already presented at the last CB. The final proposal (Version 1.4, 19<sup>th</sup> September 2005), which was available to the CB well before the meeting, includes some minor changes after feedback, and in particular also extends more on the important management of disk resources. RJ characterized the 'Virtual Organization' (VO) policy as a high-level plan to control access to common resources based on ATLAS activities and working groups, and it sets the framework also for merging local and global policies. It can be recalled that the global policy will be set by the computing and ATLAS managements, with an important role played by the computing resources coordinator, and endorsed by the CB.

In the discussion questions came up mainly about the role Tier-2s, and how they fit into this policy framework. Are the Tier-2s only governed by a local policy, or is there an ATLAS policy for them? It was clarified that at least their (recognized) contributions to the overall ATLAS computing will fall under this policy. The wish was expressed that more clear statements concerning this issue should be made, a task that can be deferred certainly to the ICB.

After this discussion the CB proceeded to the request for endorsement. The result was that **CB endorsed the Policy for Accessing ATLAS Grid Computing Resources with 2 abstentions and no vote against.** The document will be made available on the Web.

### **9) Selection of the outside ATLAS Week 2006**

Peter Jenni recalled that three proposals were submitted offering to host an outside ATLAS Week in 2006, with details made available to the CB well ahead of the meeting:

- Ann Arbor, University of Michigan, U.S., proposed by the University of Michigan ATLAS group;
- Eilat, Israel, proposed jointly by the Technion, Tel-Aviv and Weizmann ATLAS groups;
- Stockholm, Sweden, proposed jointly by the University and KTH Stockholm ATLAS groups.

PJ pointed out that, as specified in the call for proposals, holding all 2006 ATLAS Weeks at CERN would also be an option. The three proponent groups were invited to make short presentations of their proposals. These presentations were made by Homer Neal for Ann Arbor, Siggi Bethke stepping-in for the Israeli groups, which could not be present directly at this CB due to an important Israeli VIP visit on the same day at CERN, and Kerstin Jon-And and Bengt Lund-Jensen for Stockholm. There was little discussion after the presentations, it was noted positively that Ann Arbor offers to waive the fees for students, and the Stockholm proponents promised to make a special effort to find resources for helping to sponsor students.

It was recalled that the decision would be taken following the standard ATLAS election rules, using ballots in order to avoid counting problems. The following votes

were cast: Ann Arbor 16, CERN 10, Eilat 12, and Stockholm 60, for a total of 98 votes. Therefore the **CB selected the Stockholm proposal for hosting the outside ATLAS Week in 2006**, with the dates from 10-14 July 2006.

### **10) Operation Model**

Siggi Bethke introduced the discussion on the ‘ATLAS Operation Model for the Data-Taking Phase at the LHC’. There was a detailed discussion during the Plenary the day before, and the Collaboration had been involved at many levels since the February ATLAS Week in the evolution of the model and its documentation (see for example CB minutes from the 18<sup>th</sup> February 2005 meeting). Therefore SB proposed not to have yet another presentation, but to go forward with a resolution that was prepared by Chris Oram, and projected at the CB. This proposed resolution reads: *‘The Collaboration Board encourages ATLAS management to continue to carefully and pragmatically evolve towards the broad aspects of the proposed operation model, modifying the approach as its strengths and weaknesses become apparent’*.

An interesting and animated discussion followed, after which the resolution was simplified. While it is impossible to record all details of this discussion, the spirit can be characterized by saying that there was a spread of opinions spanning from acceptance of the document as it is to adopting a much more pragmatic approach, accepting it as broad guidelines, but not with all details. What was felt important, and there were no comments against this, is that an evolution toward the 5 activities specified in figure 2 should be implemented as soon as appropriate. It has to be understood that the model must be considered as evolutionary. ATLAS has in the past successfully adapted its structures to its needs, so the approach described in the document should be given the same chance. One strong message that was given to ATLAS management that the world-wide character of ATLAS must be reflected in the operation mode, maybe even more strongly than already foreseen in the Operation Model. Another message was that various comments made in the Plenary and at this CB should be reflected when now proceeding. One area where clearly further discussions and work are required is the planning of the evolution towards the global Trigger activity area. Another priority must be the setting up and planning for the Data Preparation activity area.

During the discussion, a simplified **resolution** was drafted that reads as follows:

*The Collaboration Board approves the guidelines as laid out in the current document, with the recognition that the model needs to evolve through interaction with the community.*

Finally the CB Chairman invited the CB to vote on this resolution. **CB approved the above resolution with one vote against and no abstentions.**

### **11) Publications Committee matters**

Christine Kourkoumelis recalled that Chapter 4 (Style of ATLAS papers ) was presented in its final version already at the last CB meeting, and that no further comments were received. Also the more substantial Chapter 3 and Appendix 8



(Refereeing and Approval Procedures) was already introduced at the last CB. Since then it had been refined with discussions in the Publications Committee and with feedback following the request for such at the last CB. However the main lines have not changed. CK presented in her slides nice pictorial representations of the 'road map for physics publications', for the standard case as well as for fast-track (discovery) papers. The only new element to be added is taking into account the remark made during the Plenary that it would be useful to keep one of the Analysis Reviewers (mentioned in the context of approving physics analyses as foreseen in the Operation Model) also as a member of the Editorial Board of that paper. Furthermore, to avoid misunderstandings, the 'Public Paper Presentation' will be called 'Open Paper Presentation'. At the meeting it was promised that both will be implemented (as already done so for Version 5.2).

After these clarifications there were no further comments, and the **CB endorsed unanimously, without abstentions, chapters 3 and 4 and their related appendices** of the ATLAS Publication Policy.

### **12) AoB**

There were no specific points in the agenda, nor any added from the assembly. The CB took the opportunity to thank the LPNHE Paris group, and in particular its Team Leader and CB member Philippe Schwemling, for the warm and friendly hospitality offered to ATLAS during this Overview Week.

(24<sup>th</sup> October 2005, PJ)