Summary of the ATLAS User Workshop
July 31 – August 1, 2004.

The workshop was held at Argonne on July 31 and August 1, 2004. The objectives of the meeting, as announced in the invitation to participate mailed to the Users (see http://www.phy.anl.gov/atlas/User_Meeting_frame.html), were as follows:

- To discuss new research avenues,
- To provide input on various issues affecting the preparation and conduct of experiments by Users at ATLAS,
- To claim a stake in the future of ATLAS, specifically in the long-term strategic plan for the scientific program of the ATLAS facility.

The program of the meeting can be found in Appendix A. It was subdivided in three main parts: (1) presentation of the results of the December 2003 DOE facility operations review and discussion of the resulting draft strategic plan for the facility, including presentations on planned facility and instrumentation upgrades; (2) discussions of issues related to the strategic plan and the proposed upgrades in three groups focusing on different aspects of the scientific program at the facility; (3) summary of the results of the discussion groups and general discussion about the facility and its future.

The main outcomes of the meeting, as summarized in the concluding remarks, can be summarized in the following way.

1. ***Issues related to performing experiments at ATLAS:***
    - The scheduling of ATLAS on a two-months basis, as is presently the case, can be difficult, especially for Users from overseas. A new approach including longer term scheduling is highly desirable. A formula including firm scheduling of two months with an additional 1-2 months on a preliminary basis seemed adequate to most and will be put in place on a trial basis.
    - Site access issues (such as those related to visas, paperwork for gate passes, etc.) continue to be a source of concern for the Users; the need to share relevant information between the Users and between the Users and the facility was highlighted.

- The ATLAS web site needs improvement with the aim of providing as much up-to-date information as possible.
- There is a need to continue to explore the installation of more radiation shielding at ATLAS so that lighter, heavy-ion beams of higher intensity can be used. This issue should receive a high priority.
- The facility should investigate the possibility of installing a wireless network in the ATLAS data room.
- Suggestions by the Users for the purchase of new modules for the ATLAS electronics pool are encouraged and better documentation (web based) for the pool is in preparation.
- The availability of better, more attractive offices for students is highly desirable.
- More generally, the availability of more office space during the summer months should be investigated.
- The 203 Library is an important research tool for the ATLAS Users. Continued access to this library is a matter of great concern to be taken up with the ANL management by the Users Executive Committee.
- An electronic newsletter informing the Users about matters related to the facility would be useful. It should appear twice a year.

2. ***The Strategic Plan for the ATLAS Facility:***
   - There is general agreement with the strategic plan as proposed in the response to the DOE facility operations review (http://www.phy.anl.gov/atlas/User_Meeting/ATLAS_OPS_Response.pdf).
   - The Users view proper maintenance and potential upgrades of the facility and the associated instruments as a top priority that must not be compromised. In this light, 7 days/week operation at all cost is unacceptable if it comes at the expense of failing equipment or foregoing upgrades. Instead, the Users support operating at less than 7 days/week until budget considerations allow otherwise.
   - Additional support for the target making facility remains an area of major concern and a top priority. In particular, the need for a second target maker was emphasized again.
   - There are ideas/suggestions for new equipment in addition to what is discussed in the strategic plan. The development of

these ideas (gas filled spectrometer, large solid angle spectrometer with ray-tracing, etc.) requires that working groups be set-up, and dedicated workshops be organized for further validation.

- The Users emphasized that stable beams continue to be an important tool for low-energy nuclear physics research.
- The Users subscribe to the approach where ATLAS remains "the" stable beam user facility for low-energy nuclear physics, but in which radioactive beams are developed when the science case warrants it and the facility offers unique capabilities to make it happen.
- The construction of a low-energy beam line should be an integral part of the Cf upgrade proposal.
- More information about the Cf upgrade, in particular about the available beam species and associated intensities, should be made available to the community as soon as practical so that discussions about first experiments can start.
- Gammasphere will share detectors with the CLARION array at HRIBF when this makes sense from a scientific point of view.

3. ***General Remarks:***

- The importance of an active Users Executive Committee was emphasized and the positive role of the present committee was acknowledged by the Users.
- The frequency of this type of workshop should be the subject of discussions between the Users Executive Committee and the ANL management.
- The role that ATLAS, ANL and the Physics Division can play in helping with the education of students is an issue where all suggestions by the users community are welcome.

Appendix A

Program for ATLAS User Group Meeting

Argonne National Laboratory
Building 203, Auditorium
July 31-August 1, 2004

Saturday, July 31, 2004:

Morning session I: 8:30 a.m. – 9:50 a.m.

- Welcome (10 minutes) (A. Wuosmaa)
- Facility Status (30+5 minutes) (R. Pardo)
- General User Issues (30+5 minutes)
  - PAC report (E. F. Moore)
  - User Satisfaction Survey (S. Fischer)
  - Other issues (e.g. Laboratory access) (W. Reviol)

Break

Morning session II: 10:20 a. m. – 12:00 p. m.

- Response to DOE report on ATLAS Operations Review, User input to future scientific program and discussion of DOE milestones (30+10 minutes) (R. Janssens)
- New Equipment/Experimental Initiatives/Opportunities I
  - Californium Source Upgrade (25+5 minutes) (G. Savard)
  - Radioactive Beams at ATLAS (25+5 minutes) (K. E. Rehm)

Lunch

Afternoon session I: 1:30 p.m. – 3:00 p.m.

- New Equipment/Experimental Initiatives/Opportunities II
  - Advanced Penning Trap (25+5 minutes) (N. Scielzo)
  - Gammasphere Status and plans (25+5 minutes) (M. Carpenter/P. Fallon)
  - Data Acquisition Upgrade (25+5 minutes) (K. Teh representative)

Parallel working group sessions: 3:15 p.m. – 5:00 p.m.

- Nuclear Reactions and Nuclear Structure (P. Fallon/C. J. Lister):
  - Including detailed Gammasphere issues not covered in the first session

- Nuclear Astrophysics and Nuclear Structure (K. E. Rehm/A. Wuosmaa):
  - Astrophysics measurements, and experiments with radioactive beams

- Weak Interactions/Mass measurements/Fundamental Interactions (K. Sharma/G. Savard):

Sunday, August 01, 2004:

(Morning only)

- Summary reports from Working Groups (20+5 minutes each) (S. Fischer and session leaders)
  - Nuclear Structure
  - Astrophysics
  - Traps

Break

- Open Panel Discussion of Issues and Long Range Strategic Plan (R. Janssens, D. Geesaman, UEC members)

- **Close**