LACSI Review Charge

The last review of the Los Alamos Computer Science Institute (LACSI) was conducted October 15, 2001. At that time, the review covered only the LACSI academic contract. Since then, LACSI has taken steps to unify its planning activities and better integrate its LANL activities with the academic portion of the project.

We are now faced with budgetary pressures which have led naturally to questions about the continuing relevance of LACSI research activities, particularly to the weapons program that provides its funding.

Thus, the current review, scheduled for November 15 and 16, comes at a fortuitous moment; it will permit an assessment of the entire portfolio of LACSI activities and the importance and relevance of those activities to the current efforts and future plans for Los Alamos National Laboratory.

With these considerations in mind, we would charge the review committee with four critical questions:

1. Is the research supported by LACSI appropriately relevant to the short-term and foreseeable long-term needs of the LANL weapons program and the Laboratory as a whole? Is this program, within the entire portfolio of ASC activities, achieving the right balance between long-term, high-leverage research and short-term product development for the weapons program and LANL?

2. Is the research funded by LACSI of the highest quality? Is the project engaging the best minds in the nation on problems of relevance to LANL's overall goals in computer and computational science? Are the most significant high performance computing issues being addressed by LACSI?

3. Is LACSI meeting its original goals as laid out in the original statement of work? Do these goals remain appropriate metrics of success for LACSI? Succinctly stated, those four original goals were:
   • To build a presence in computer science research at LANL that is commensurate with the strength of the physics community at LANL.
   • To achieve a level of prestige in the computer science community that is on a par with the best computer science departments in the nation.
   • To pursue computer science research that is relevant to the goals of High Performance Computing (HPC) programs at LANL.
   • To ensure that there remains a strong focus on high-performance computing in the academic computer science community.

4. Have the LACSI management structures and planning process been effective in ensuring the quality and relevance of LACSI activities and in supporting the original LACSI goals? In particular, have they been appropriate vehicles for change since the last review, in October 2001? Succinctly put, the findings and recommendations at that time were:
   - Quality of individuals and research is excellent
   - Projects appropriate, relevant now
   - LACSI should re-examine research priorities and alter as necessary
   - Connections among individual projects often unclear
   - More communication, more tech transfer between LACSI researchers and LANL users
   - Better integration of internal and external LACSI activities

   October 2001 Review Committee Members:

   Paul Messina, Chair
   Fred Johnson
   Doug Kothe
   Stephen Lee
   Madhav Marathe
   Merrell Patrick