We have recommended a new method for prioritizing the opportunities that will arise during our twenty-year plan. However, the program requires immediate guidance on some of the opportunities before us. For those projects that require such guidance, we make recommendations from the perspective of the long-range plan presented in this report. The status of mid-sized projects is indicated in Table 1.

2.5.1 The Current Program

The Tevatron and PEP-II are central pieces of our current program. The CDF and DØ experiments at the Tevatron provide the only opportunities in the world for discovery of the Higgs until the start of the LHC. The BaBar experiment at PEP-II is studying quark mixing and CP violation through bottom quark decays.

We recommend that we capitalize on previous investments by fully utilizing the facilities and experiments in our current program. We also urge that projects under construction, such as LHC, NuMI/MINOS and GLAST, be completed as scheduled.

2.5.2 The Near-Term Future

There are six projects currently under consideration for which immediate guidance is required. They are BTeV, CESR-c, ICECUBE, NUSL, RSVP and SNAP R&D. These projects are discussed in some detail in Appendix A.

Our recommendations are as follows:

- The BTeV experiment is designed to probe for new physics at the electroweak scale by searching for inconsistencies in the CKM description of bottom quark transitions. It will carry out precision studies of CP asymmetries and flavor-changing processes in the B meson system. Through its cutting edge detector technology, BTeV's physics reach exceeds that of other planned experiments in some of the important measurements of the B system.

  BTeV would normally be a candidate for P5 evaluation. With a total project cost of $250M, it has significant impact on the overall HEP budget and programmatic implications for the future of the Tevatron. Its science overlaps but does not duplicate that of LHC-b. If there were time, P5 would rank BTeV in relation to the rest of the program.

  The BTeV collaboration has been waiting over a year for a funding decision. We cannot ask BTeV to wait for the start of the P5 process, so our subpanel must offer guidance. Budget constraints and programmatic concerns made it impossible to fund BTeV as a line item in FY 2002. Our projections show that we cannot fund BTeV as a line item in the near future. Therefore, despite BTeV's attractive physics program, we regret that we cannot recommend funding BTeV as a line item at this time.

- The CLEO collaboration has proposed a program using electron-positron annihilation in the 3 to 5 GeV energy region, optimized for physics studies of charmed particles. The conversion of the CESR ring for low energy running would cost about $5M. The subpanel endorses CESR-c and recommends that it be funded.