

A New Year for BaBar and PEP-II

January 19 2007



Upgrades on the BaBar detector and PEP-II accelerator continued into the first week of 2007. Collaborators turned them on again this week after a four-month shutdown.

With electrons and positrons flowing, BaBar and PEP-II are celebrating a new year with a new run.

With its upgrade complete, the BaBar detector began collecting cosmic rays on Jan. 6 while waiting for beam to arrive. The newly improved PEP-II accelerator began storing beams on Jan. 15. Collisions that produce physics data will start soon.

"All the technicians, physicists and maintenance crews did a superb job installing many important upgrades in PEP-II during the last four months. We now have the pieces in place to deliver the next level of

luminosity to BaBar," said John Seeman, head of the Accelerator Systems Division.

The BaBar collaboration did extensive work during the down time, especially installing a better muon identification system, to take full advantage of the enhanced luminosity, or number of events the detector will see.

"We're looking forward to superb physics performance in Run 6, thanks to the upgraded muon identification system and to the higher luminosity expected from PEP-II," said BaBar Technical Coordinator Bill Wisniewski.

Over the next two years, BaBar expects to more than double its already vast data set, giving physicists a fantastic shot at tracking down extremely rare processes and finding signs of new behavior in the way nature works at the most fundamental level.

"It's an exciting new year for us. We're really pushing the limits of physics and the limits of the accelerator and detector. This is only possible because of the significant improvements made by hundreds of extremely hard-working, talented people," said BaBar Spokesperson Hassan Jawahery.

"It's great to see PEP-II and BaBar back online again," said Director of Particle and Particle Astrophysics Persis Drell.

Source: by Heather Rock Woods, Stanford Linear Accelerator Center

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