# LONGER TERM PROSPECTS

(quoted from Steve Holmes, Accel. Div., Fall 1999)

The initial Run II goal is achievement of a luminosity of $\sim 1 \times 10^{32}$ $cm^{-2}sec^{-1}$, with 2 $fb^{-1}$delivered to each detector by the end of 2002.

Further performance enhancements would be based upon:

- Improved antiproton availability
- Electron cooling
- Slip-stacking
- Liquid lithium lens
- Aperture improvements
- Controlling the antiproton (long-range) beam-beam interaction.
- Electron beam compensation

Possible Accumulation of Luminosity in the pre-LHC Era:

| Year | Project/Goal | Accumulated Luminosity |
|---|---|---|
| 2001 | Main Injector and Recycler | 0.6 $fb^{-1}$ |
| 2002 | Initiate antiproton recycling | 1.2 $fb^{-1}$ |
| 2003 | 6 month shutdown to install e-cool, 132 nsec, and other intensity improvements | 0.8 $fb^{-1}$ |
| 2004 | Achieve $2 \times 10^{32}$ | 2.0 $fb^{-1}$ |
| 2005 | Achieve $3 \times 10^{32}$ | 3.5 $fb^{-1}$ |
| 2006 | Achieve $5 \times 10^{32}$ | 2.3 $fb^{-1}$ |
| | 6 month shutdown to install C-0. | |
| 2007 | Achieve $5 \times 10^{32}$ | 3.8 $fb^{-1}$ |
| TOTAL | | 15 $fb^{-1}$ |