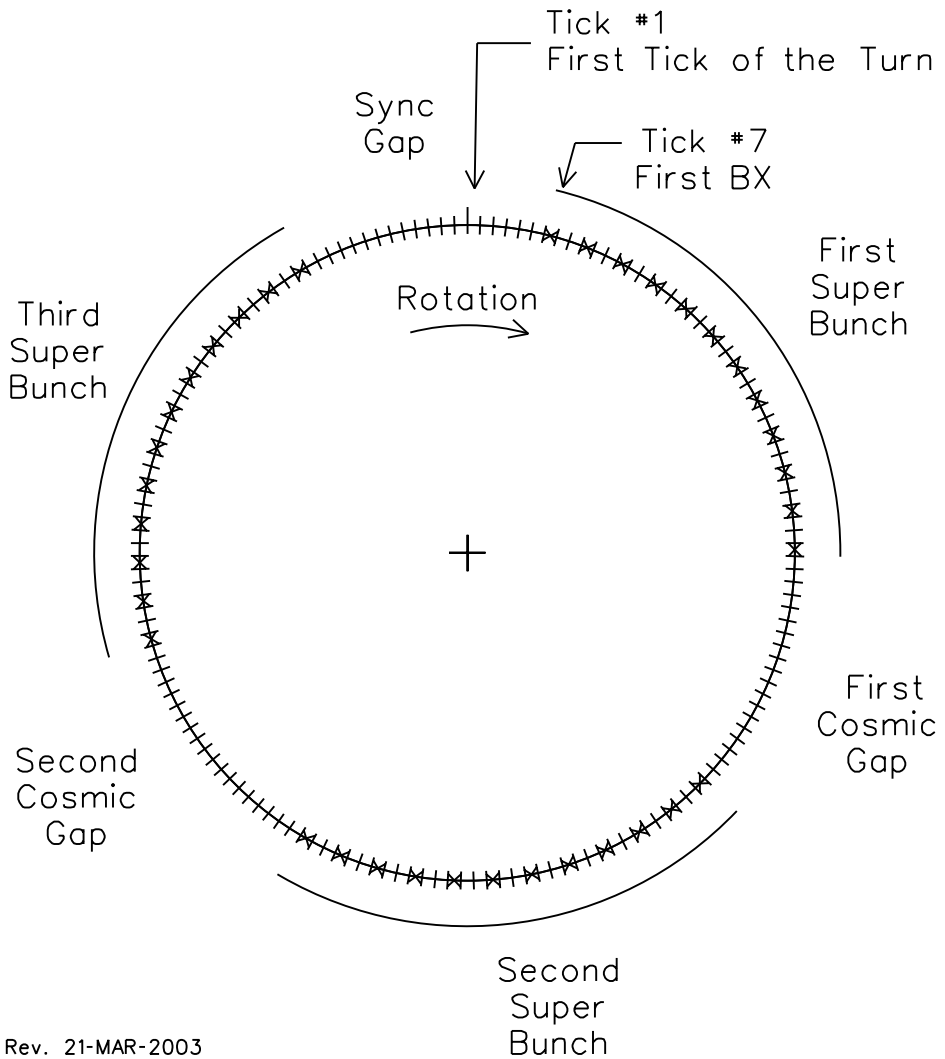
Run IIA Tevatron Beam Structure



TeV RF = 53.104 MHz

Period = 18.83 nsec

1113 Cycles of TeV RF per Turn

RF Cycle == RF Bucket

BX == TeV Beam Crossing

Accelerator BX's can be no closer than once every 7 RF Buckets. Accelerator BX's spaced an integer number of 7 RF Bucket periods.

7 RF Buckets == 1 Tick

7 x 18.8 nsec = 132 nsec = 1 Tick

Ticks in a Turn are numbered 1:159

Tick rate = 7.59 MHz

In Run IIA there are 36 BX's per Turn

3 Super Bunches of 12 BX's each

During a Super Bunch there is a BX every 3 Ticks.

3 fold symmetry:

B0 = CDF, D0, F0 = TeV RF

Rev. 21-MAR-2003