

Reliability Growth Plots Show Improvements Have Occurred And Forecast Future Failures

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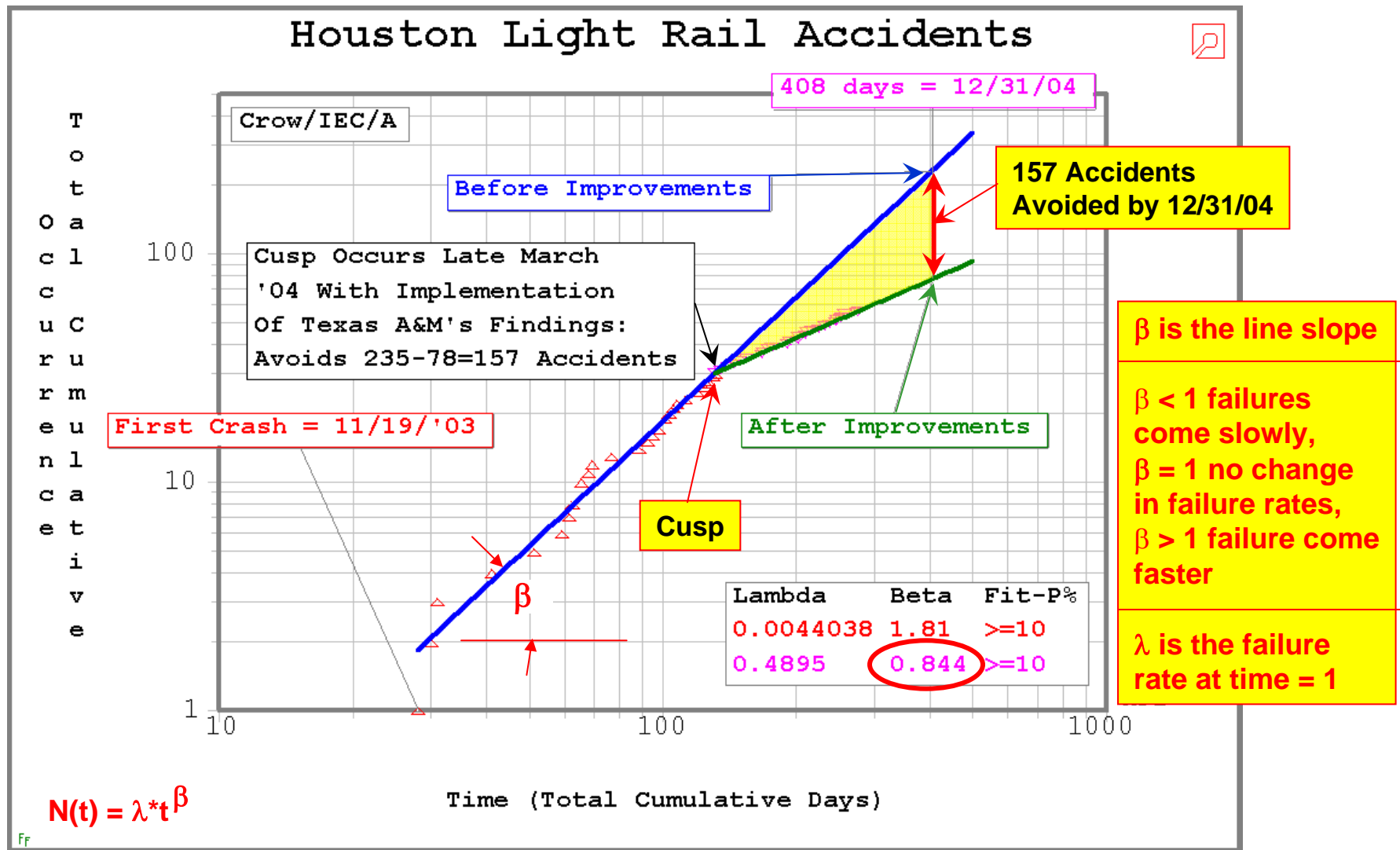
<http://www.barringer1.com>

For More Reliability Tools: See <http://www.barringer1.com/nov07prb.htm>

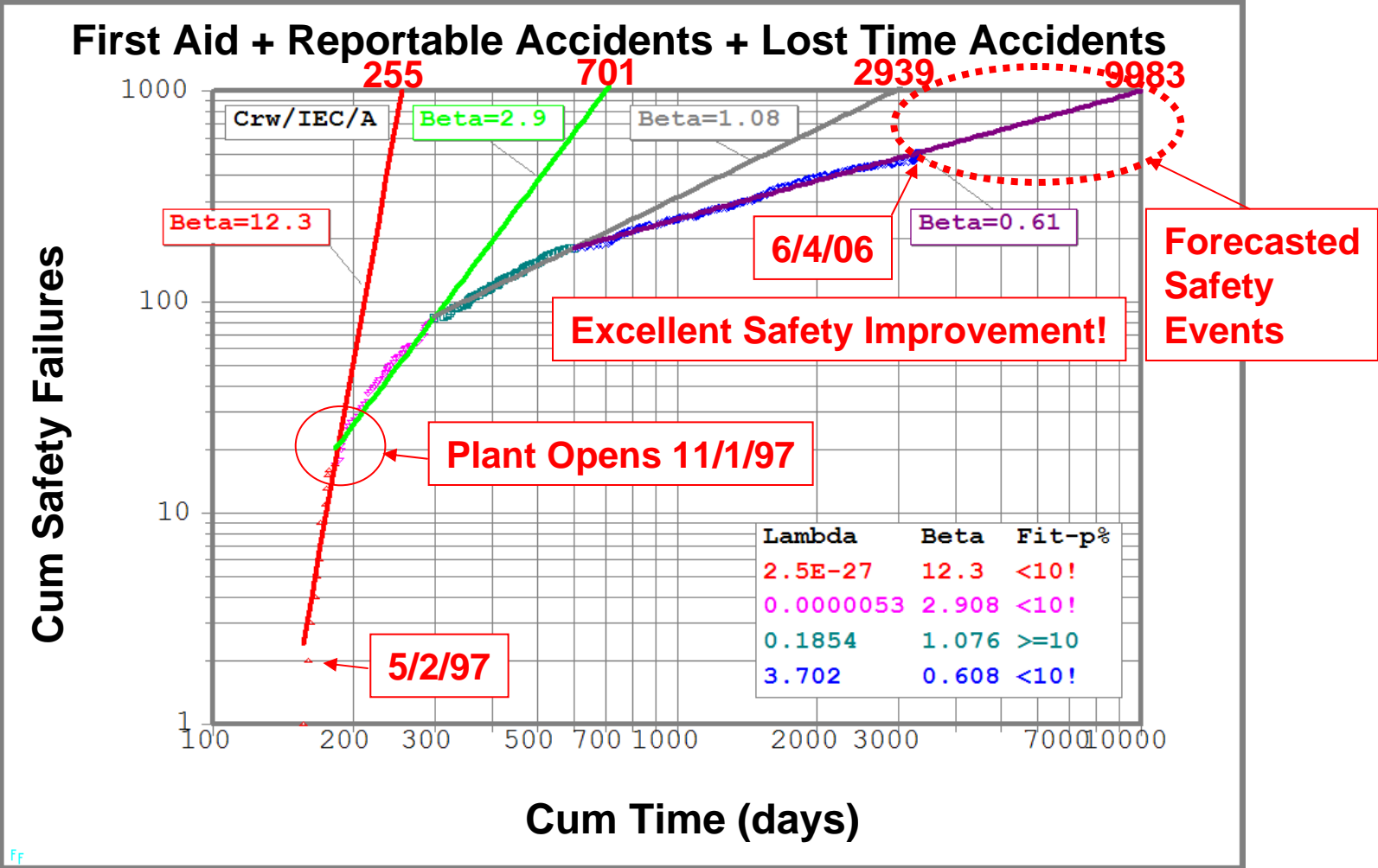
Reliability Growth Plots

- These are simple log-log plots of cumulative failures vs cumulative time.
- Stable processes make straight lines which makes an easy forecast of future failures.
- When improvements have been made, cusps or discontinuities show on the plots.
- Gaps between old extrapolated lines and new improved trend lines clearly show failures avoided by the improvements.

Reliability Growth Example

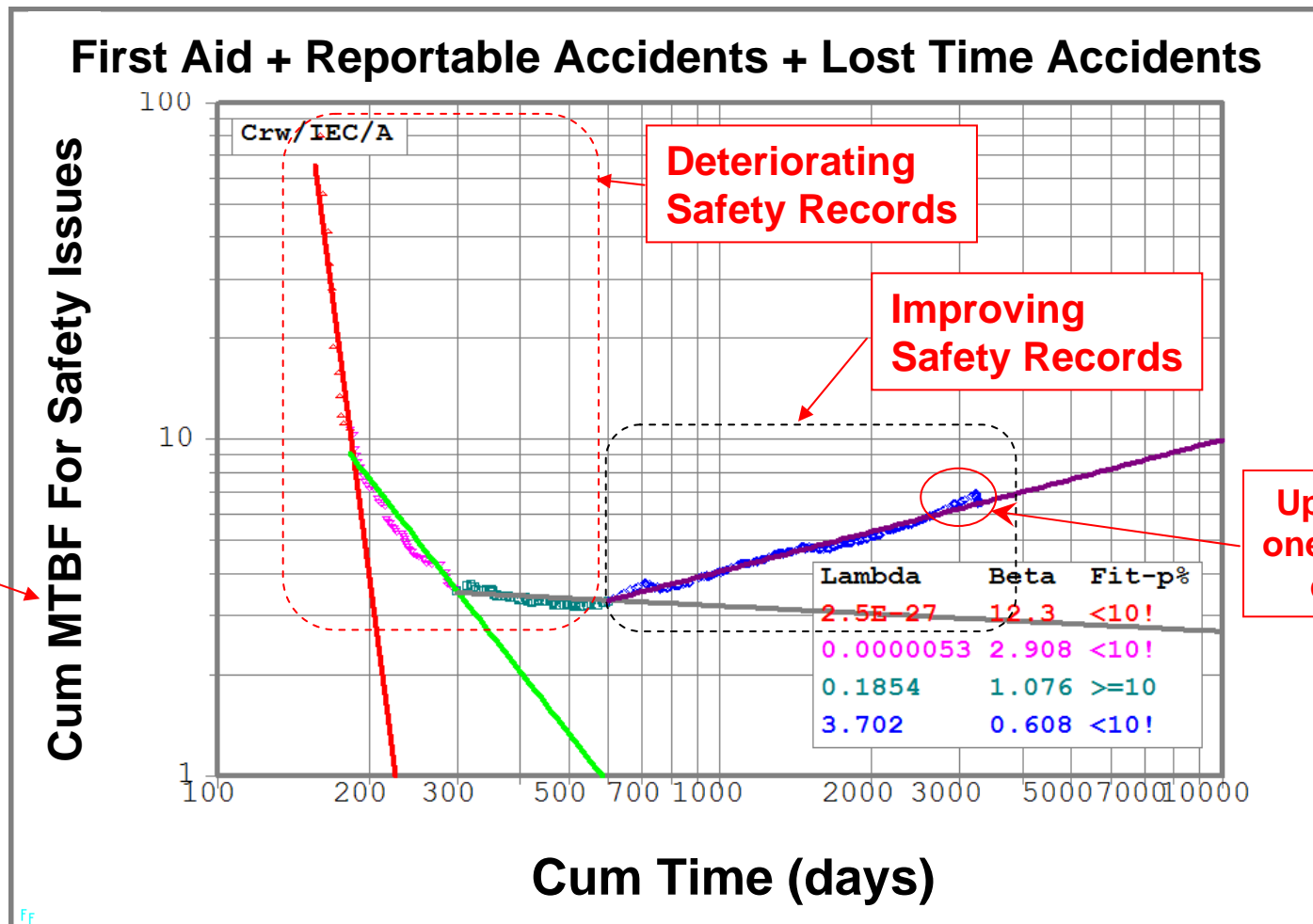


Chemical Plant Safety Data



Injury accepting with $\beta=12.3$ changed to injury prevention with $\beta=0.61$

Cum MTBF-Safety Data



Mean time between safety event is growing from a reliability-focus

Make Reliability Growth Plots

- Reliability growth plots show cum failures vs cum time to monitor progress What
- Engineers and management need to see problems to fix them Why
- Define your failures and your time to make simple straight line log-log plots When
- Use for management reviews to show how you're doing: **show don't tell** Where