Phase 1 Accomplishments

- Rapidly modeled multiple RPI concepts
- Answered NASA’s question – how percentage of flights vectored off RNAV routes varies with RPI concept and airspace/traffic characteristics

**Percentage of flights vectored off RNAV routes to achieve minimum spacing at merge point**

**Simulation separates RPI and controller models to allow easy substitution**

**Simple merge geometry that maximizes wind impact**

**Aircraft separated at entry fixes by 120, 150, or 180 sec.**
- More vectoring is required when traffic is more dense

**Comparing distance- (blue) and trajectory-based (red) RPI concepts**
- Trajectory-based RPI outperforms distance-based approach

**Vary path length over which speed control may be applied to RNAV arrivals**
- Shorter control horizons result in more flights being vectored