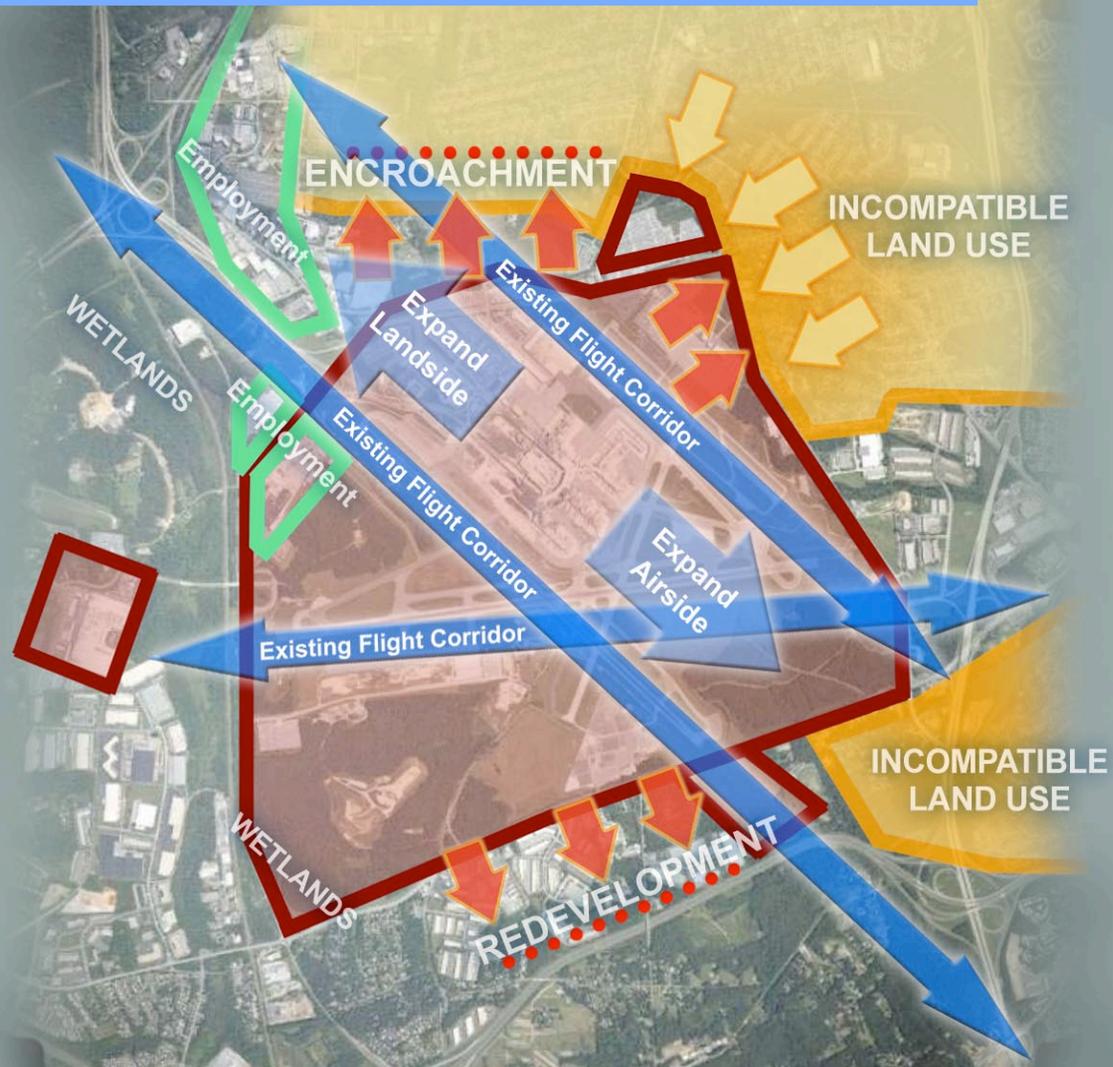


Airport Planning Challenges & Concerns

Airside Capacity Challenges at Major Airports

A too familiar situation ...



Airside Capacity Challenges at Major Airports

- Airside development programs at major airports:
 - Are costly
 - Take too long to implement
 - Do not always yield significant capacity gains
 - Often require re-development of existing facilities
 - At times are physically or politically impossible to attain

Airside Capacity Challenges at Major Airports

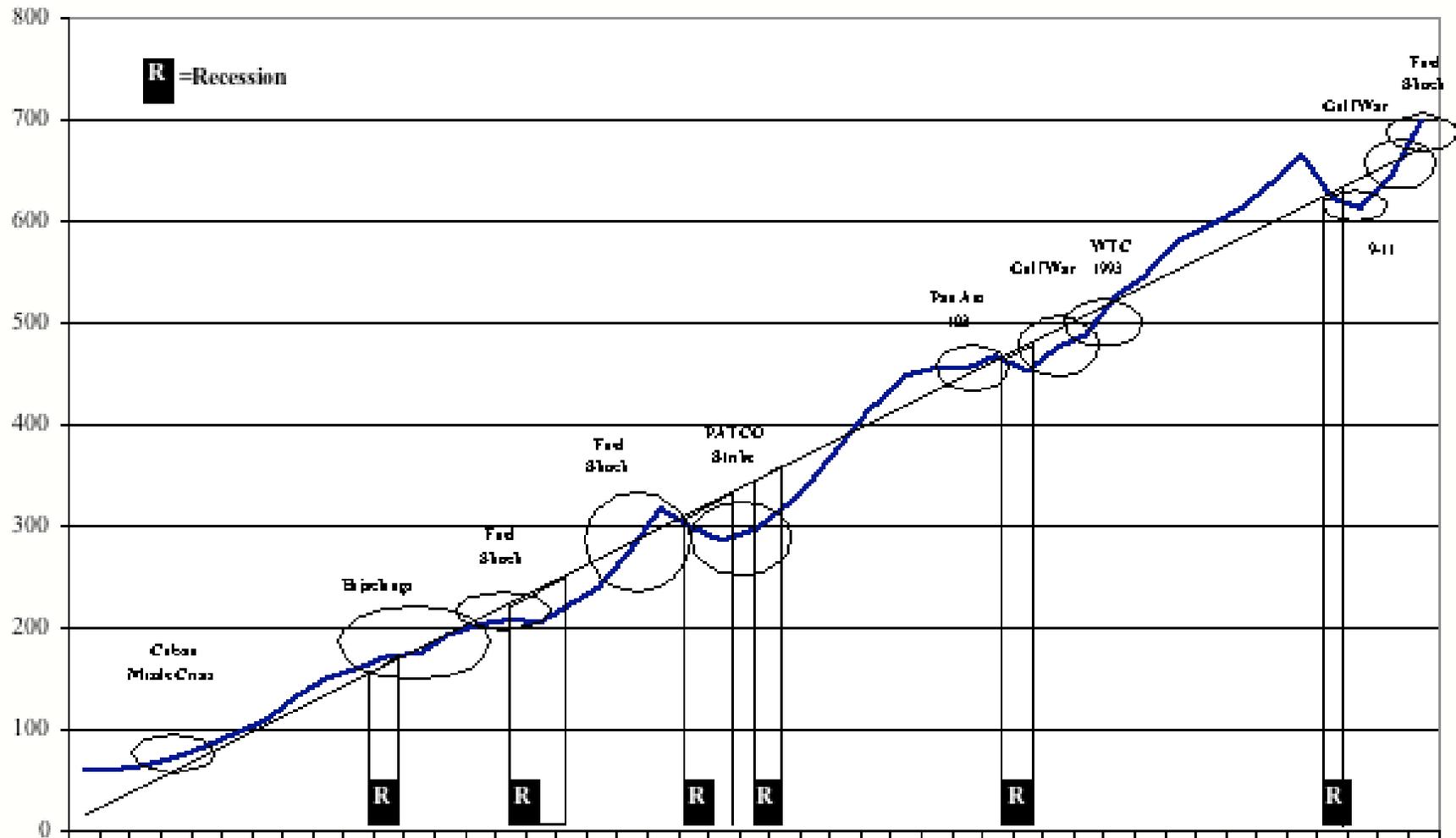
- Encroachment puts pressure to develop within existing airport boundaries
- Where we still have options, the physical challenges are countless:
 - Existing facilities (i.e. hangars, terminals)
 - Major infrastructure (i.e. highways, rail)
 - Private sector development
 - Residential communities
 - Wetlands, historic sites, or other sensitive lands

Airside Capacity Challenges at Major Airports

- To date, technology hasn't delivered significant gains in airside capacity
- GPS-based technology offers some opportunities but the capacity benefits are marginal
- In some cases requirements have become more stringent (i.e. LAHSO, TERPS)
- The fleet is more demanding (RJ, A-380)

Demand is back up to Pre-9/11 levels

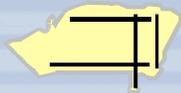
Aviation System Shocks and Recoveries
1960-2004



Airside Capacity Challenges at Major Airports

- Our long term needs are still dependent on:
 - Building new facilities
 - Extending/expanding existing facilities
 - Re-configuring existing facilities
 - Upgrading/modernizing existing facilities
- Overarching issues remain: Time/Cost/Impacts

Airport Comparison



New York Kennedy
 Acres: 4,600
 MAAP: 27.92
 Annual Ops.: 291,000



New York La Guardia
 Acres: 680
 MAAP: 24.4
 Annual Ops.: 395,198



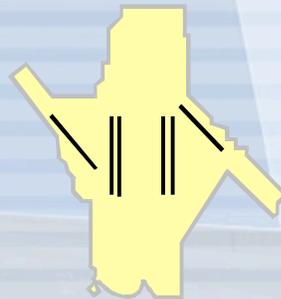
Newark International
 Acres: 2,300
 MAAP: 31.8
 Annual Ops.: 433,296



Los Angeles International
 Acres: 3,500
 MAAP: 60.7
 Annual Ops.: 654,677



Denver International
 Acres: 33,920
 MAAP: 42.4
 Annual Ops.: 558,609



Dallas/Fort Worth International
 Acres: 17,500
 MAAP: 48.84
 Annual Ops.: 762,000

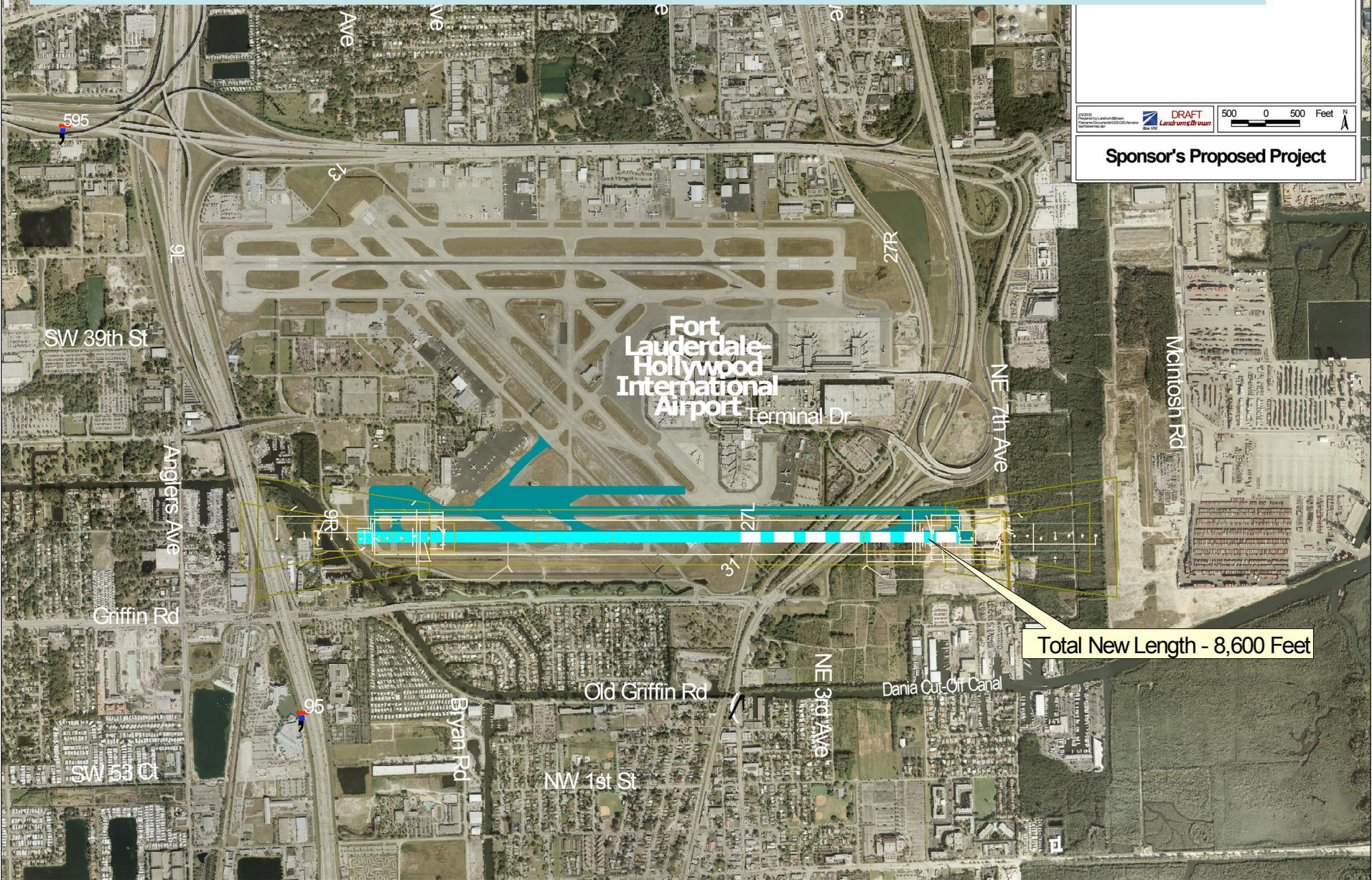


Chicago O'Hare
 Acres: 6,600
 MAAP: 62.08
 Annual Ops.: 902,000



Cincinnati / Northern Kentucky International Airport
 Acres: 5,600
 MAAP: 22.1
 Annual Ops.: 517,520

■ The south runway at FLL is proposed to be extended east over the existing rail and highway



DRAFT
Landmarks & Survey

500 0 500 Feet

Sponsor's Proposed Project

Total New Length - 8,600 Feet

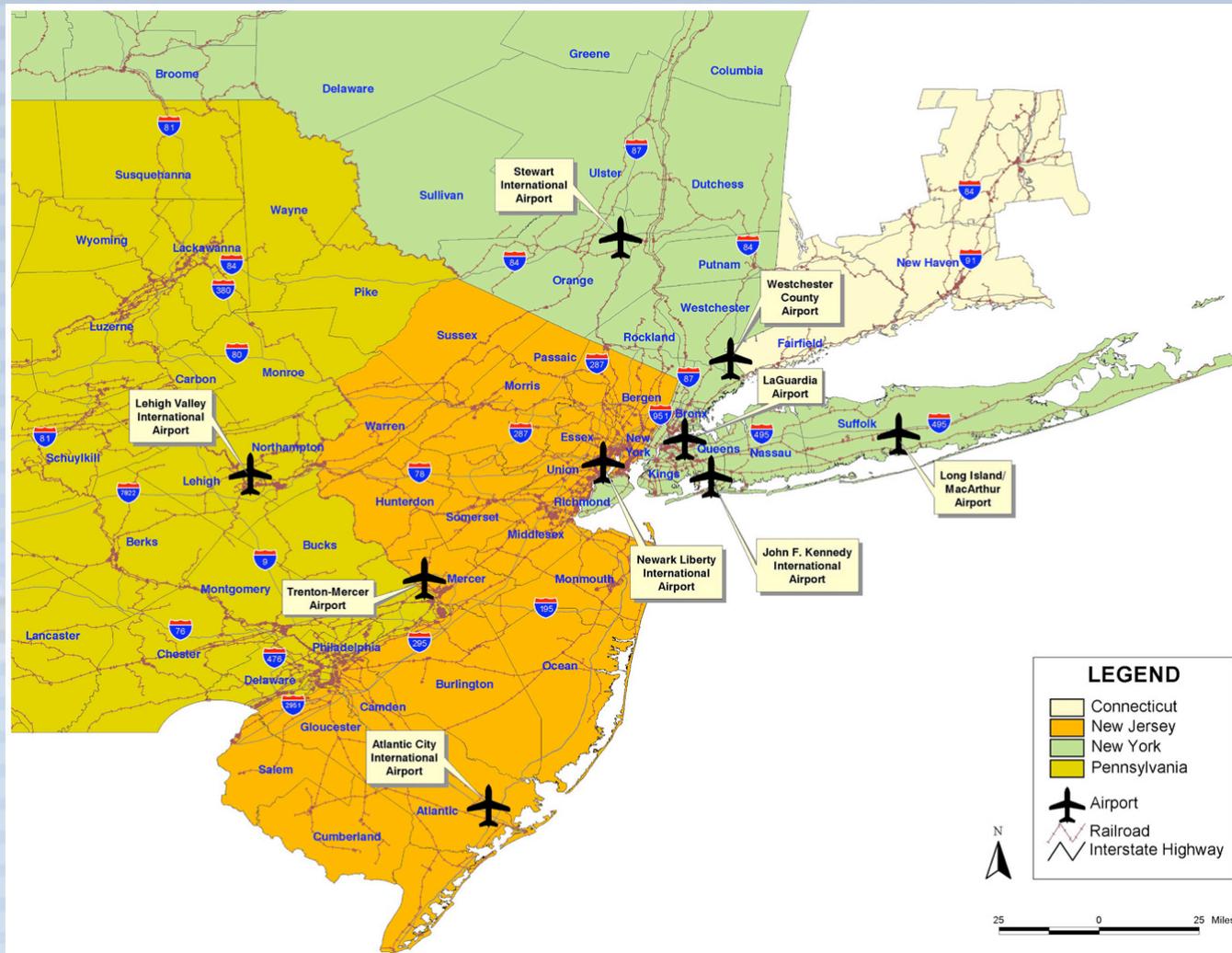
Regional Solutions

- The New York / New Jersey / Eastern Pennsylvania aviation region stands at a crossroads.
 - One of busiest regional aviation markets in the world
 - Facing potential airport-related constraints that could impact region's economic growth and nation's airport capacity plan
 - Explore capacity of region's airports to fulfill current and potential future roles within the communities and larger region that they serve

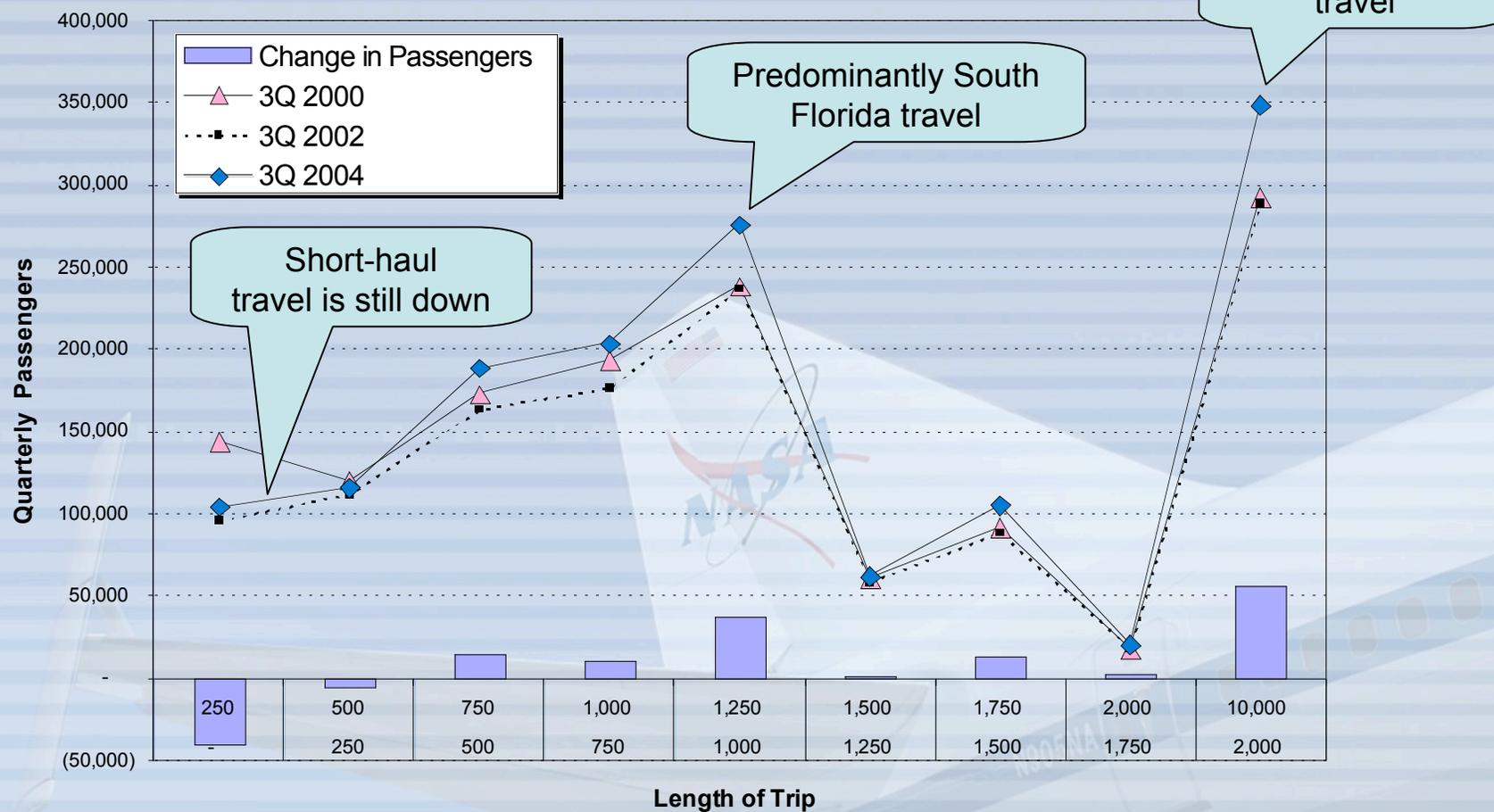
Regional Solutions

- The goal is, within the regional framework, to:
 - Forecast regional demand
 - Determine regional capacity
 - Evaluate solutions to capacity shortfalls
 - Facilitate the *optimum usage* of the nine study airports.

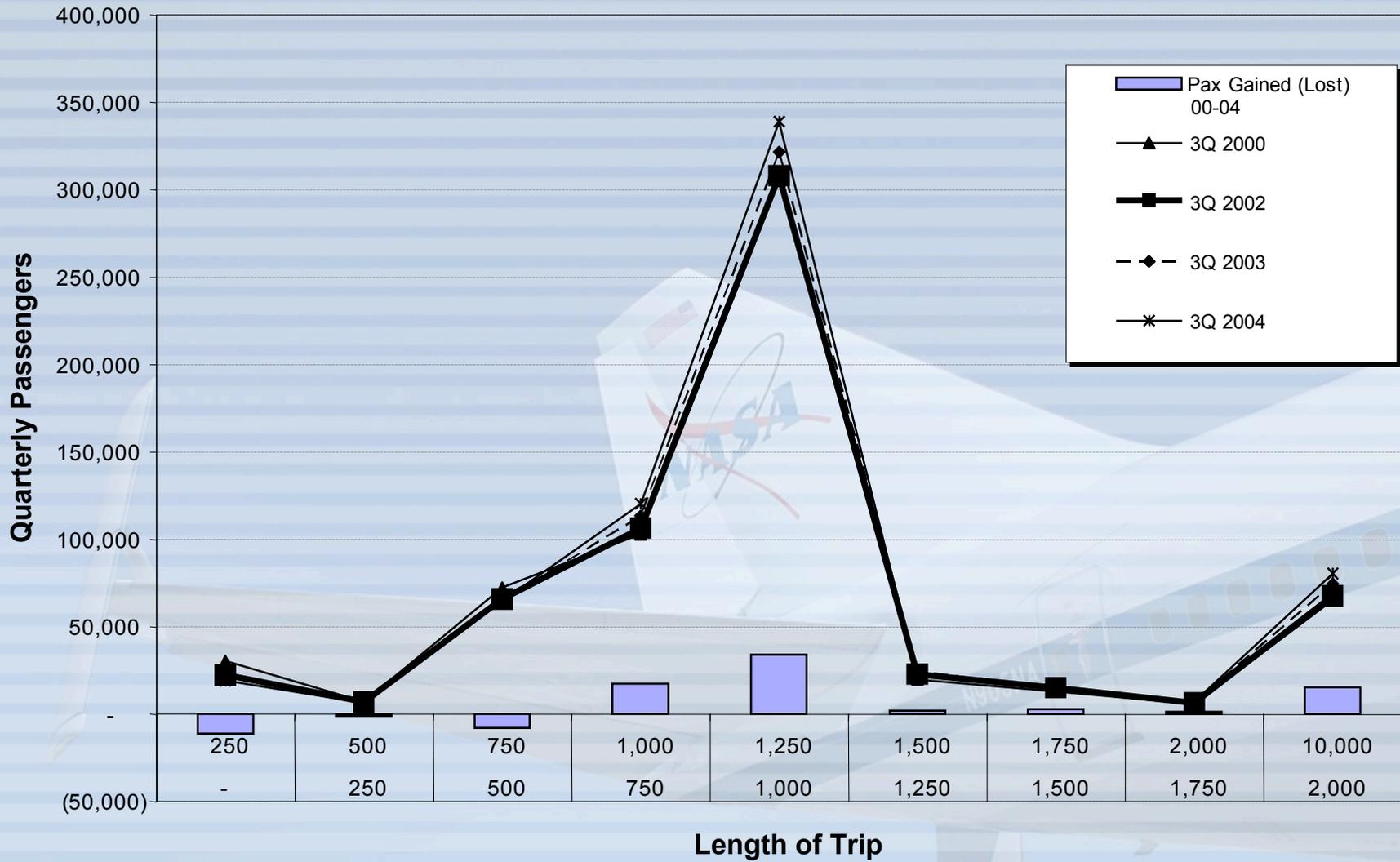
Regional Study Area



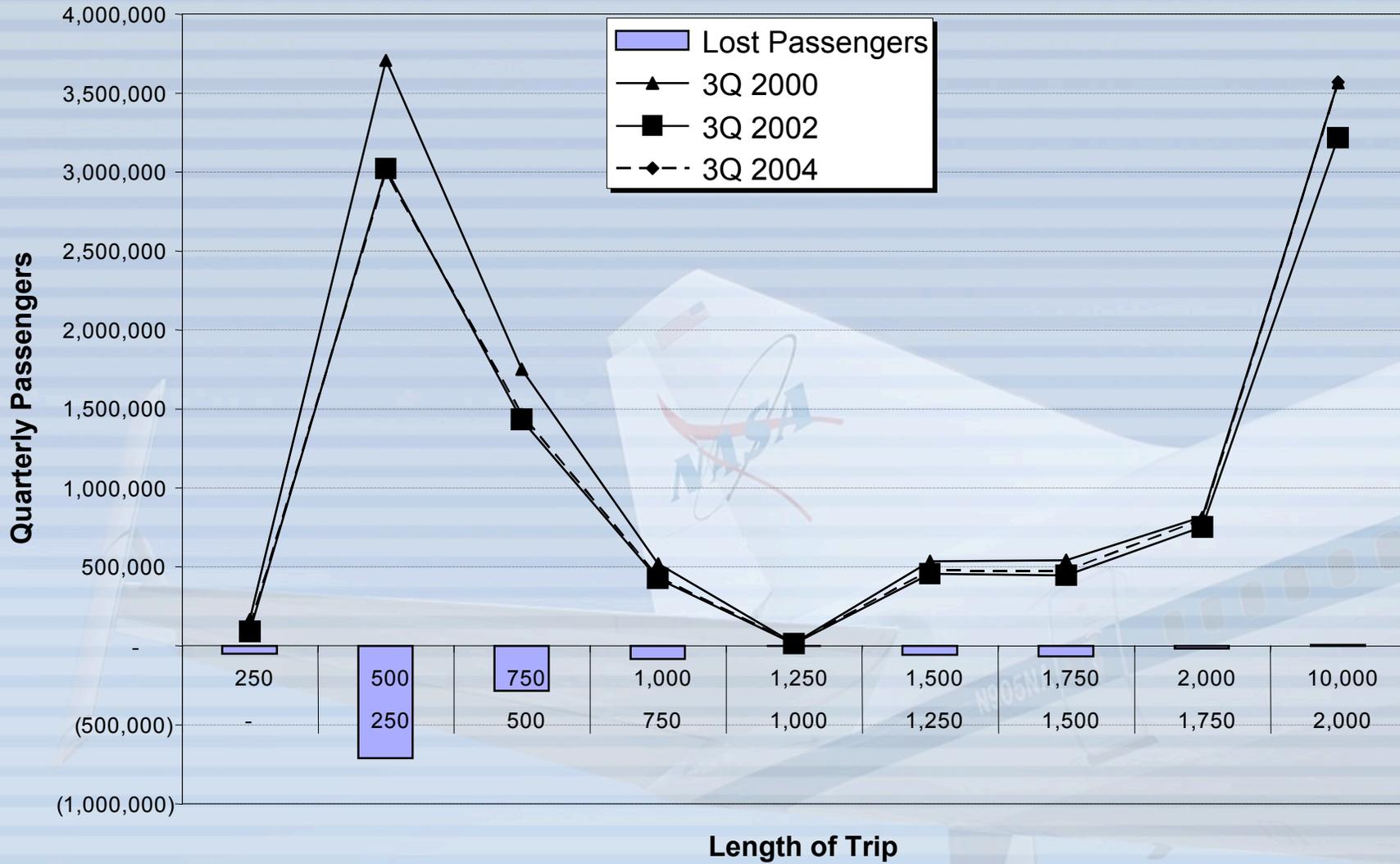
Change in Quarterly Passenger Volume New York Area Airports (EWR + JFK + LGA)



Change in Quarterly Passenger Volume Miami Area Airports (MIA+FLL+PBI)



Change in Quarterly Passenger Volume San Francisco Bay Area Airports (OAK+SFO+SJC)



Airside Capacity Challenges at Major Airports

- Must not lose sight of our long term needs
- Continue with expansion and modernization where possible
- Where expansion is not viable we need to look at regional solutions
- Advance technology to reduce aircraft noise and emissions
- Decision support systems for air traffic control
- Technologies to reduce separations and increase efficiency