

O'Hare Modernization Program and Chicago Airspace Project

Overview

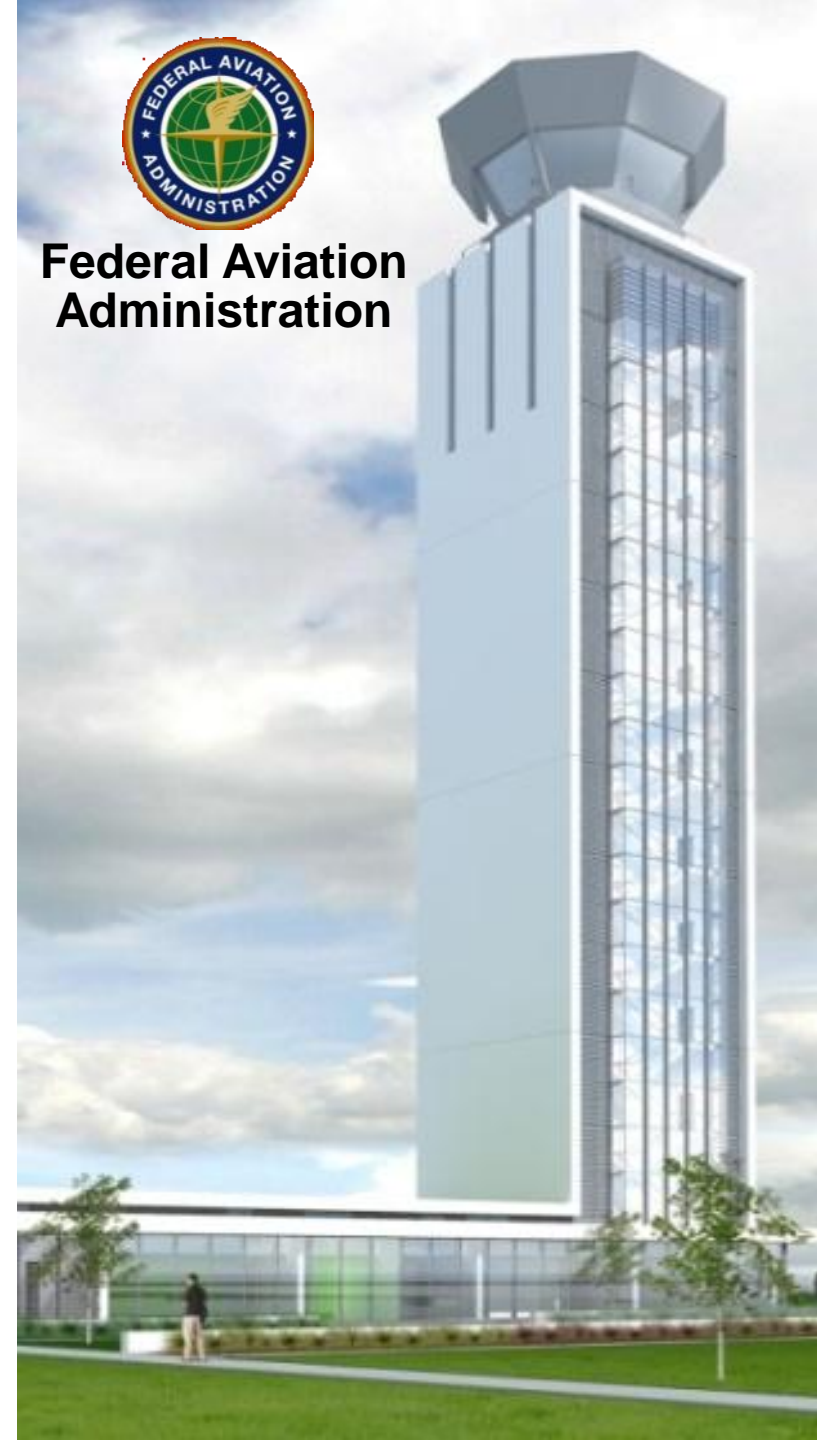
Presented to: Northwestern University
Transportation Center

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Manager, Chicago Modernization Program

Date: April 4, 2014



Federal Aviation
Administration



Briefing Agenda

- Federal Aviation Administration (FAA) Overview
- Chicago/Chicago Department of Aviation (CDA) and the O'Hare Modernization Program (OMP)
- Federal Aviation Administration (FAA) actions and analysis
- Funding and schedule
- Chicago Airspace Project (CAP)
- Enhancing safety and efficiency



Federal Aviation Administration

- Agency within the US Department of Transportation. The Secretary of Transportation is a member of the President's Cabinet.
- Responsibilities include:
 - civil aviation safety
 - air traffic control/management
 - promoting aviation
 - enforcing aviation regulations



FAA Lines of Business

- Four operational organizations
 - Air Traffic Organization
 - Airports
 - Aviation Safety
 - Commercial Space Transport
- Numerous staff offices that provide human resource, legal, financial, communications and other support services to the Agency



FAA relationship with Airport Sponsors

- Regulatory – airport certification for commercial service airports
- Financial
 - federal grants for airport improvements
 - oversight and approval authority to collect airport-specific passenger fees
 - compliance with conditions associated with grants and fees
- Technical – airport planning and design standards
- Collaborative – provide air traffic control and supporting infrastructure





December 2006

Brief Overview of OMP

- In 2001 the City of Chicago proposed a ~\$7 billion reconfiguration of O'Hare, known as the O'Hare Modernization Program (OMP).
- The FAA issued a Record of Decision (ROD) approving the OMP and master plan projects in September 2005.
- The OMP changes the airport from a predominantly intersecting runway configuration to six parallel runways with two crosswind runways.
- Future terminal plans are included.



OMP Funding and Schedule

- To date, Chicago Department of Aviation (CDA) has spent over \$3.28B on the OMP.
- The estimated overall program cost through the completion of Phase 2A (October 2015) is \$4.4B.
- Phase 2B is not funded or scheduled. Estimated construction cost is over \$2B.
- Passenger Facility Charge (PFC) authorization to date - \$3.3B
- Through two Letters of Intent and two amendments, the total FAA Airport Improvement Program (AIP) funding commitment for the entire OMP is \$902 million.
- The City of Chicago provides additional funding, through the use of General Airport Revenue Bonds (GARBS)

FAA involvement with the O'Hare Modernization Program

- Special Projects Office established in 2002
 - Staff from appropriate functional areas
- Manager represents the FAA and acts as a single point of communication with Chicago
 - Briefs and advises FAA executive management
 - Conducts the FAA orchestra
- Design and implement major airspace changes for the larger Chicago metropolitan area
- Provide design and installation services for FAA equipment and systems



O'Hare Modernization Program (OMP)

Runway 9L-27R

November 2008

Runway 14L-32R

Decommissioning: NLT Aug 2015

Runway 4L-22R

Temporary Closure TBD

Runway 14R-32L

Temporary and extended closures TBD

Runway 9C-27C

TBD

Runway Ext 9R-27L

TBD

Runway Ext 10L-28R

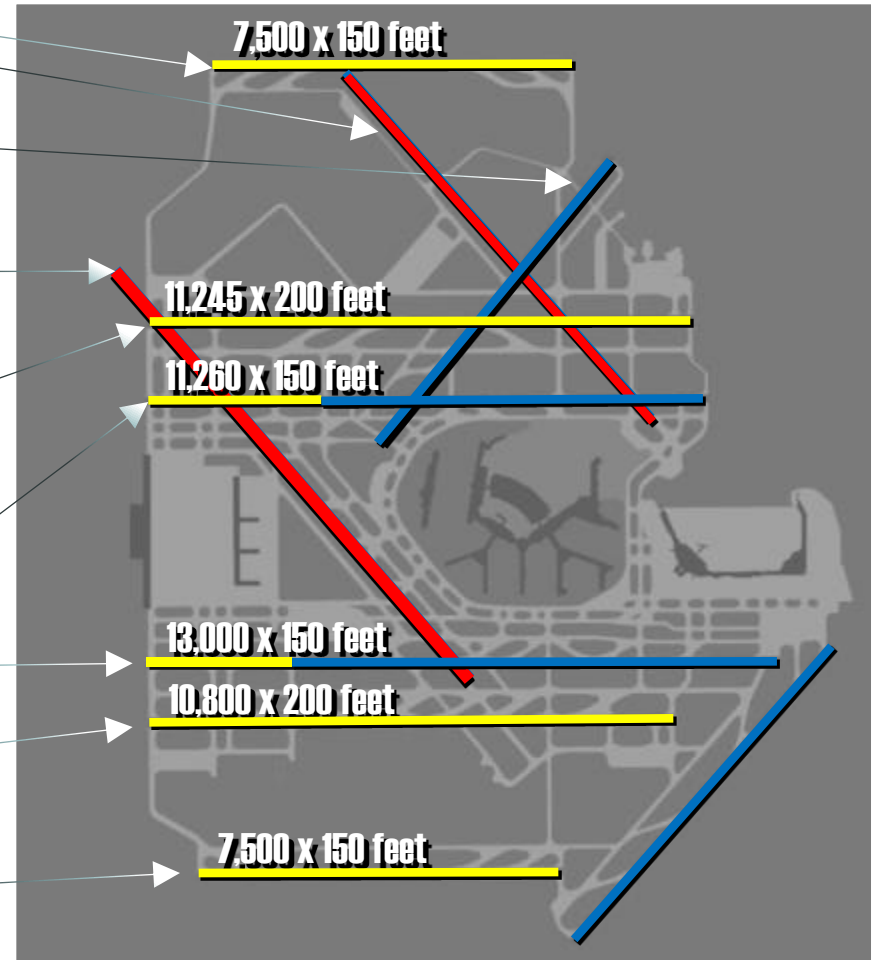
September 2008

Runway 10C-28C

October 2013

Runway 10R-28L

October 2015

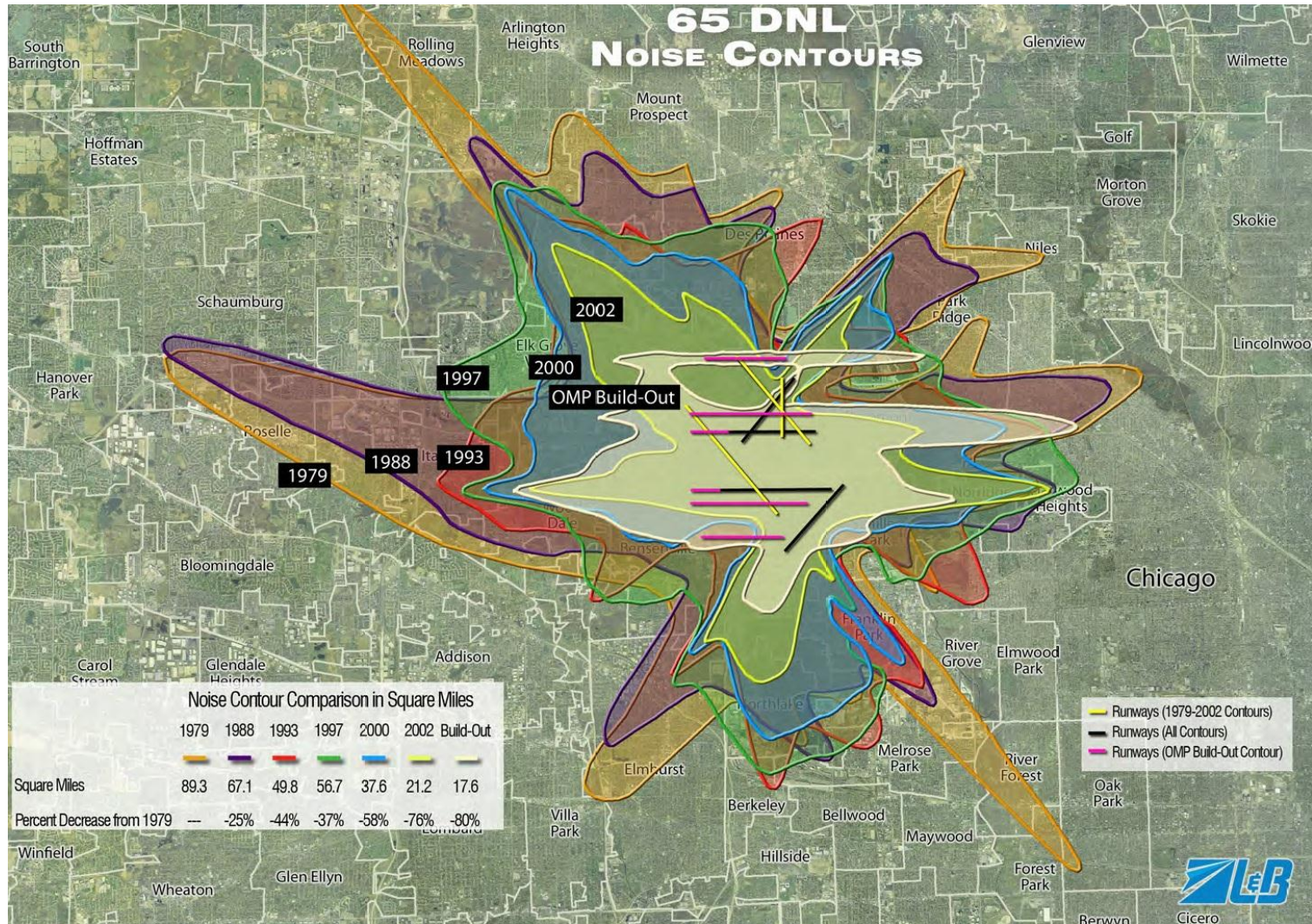


Airspace and Runway Utilization

- How O'Hare runways were used before new OMP runways were completed
- Step through runway construction and corresponding airspace configurations
- Runway utilization after Runway 10C/28C commissioning in October 2013
- Final O'Hare configuration



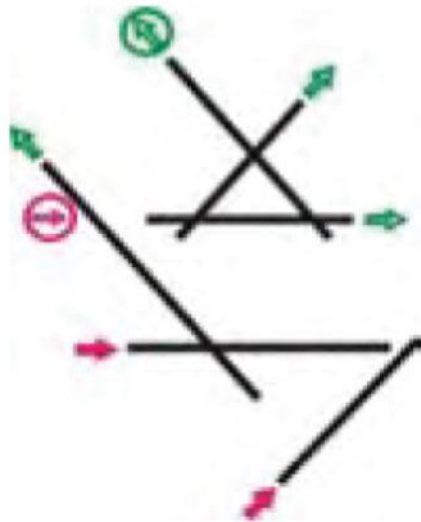
Noise Contours



Runway Utilization Pre-OMP

East Flow

approx 36% with optimal weather



Existing Runways

Proposed Runways

Departure Purposes Only

Closed

Primary Arrivals

Primary Departures

Overflow Departures

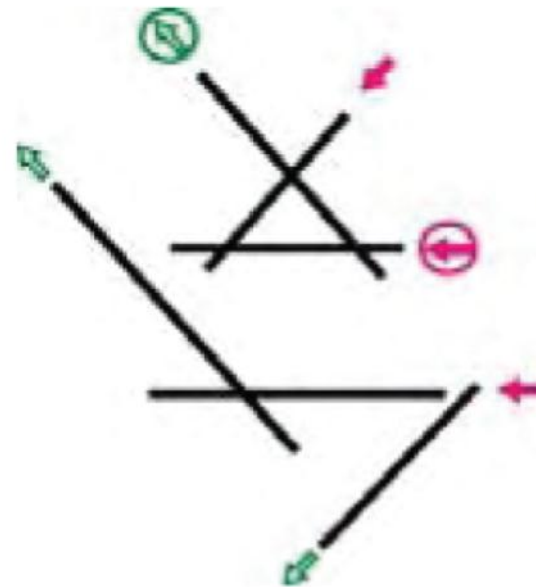
Overflow Arrivals

Overflow Arrivals Dependent on use of Departure Overflow Runway

Overflow Departures Dependent on use of Arrival Overflow Runway

West Flow

approx 42% with optimal weather

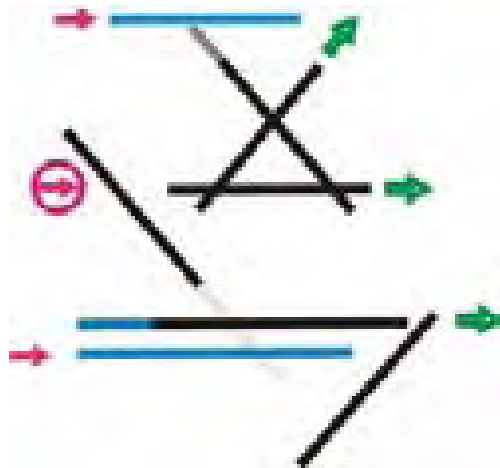


Information from FAA EIS, Exhibit D-1

Runway Utilization with Runway 10C/28C

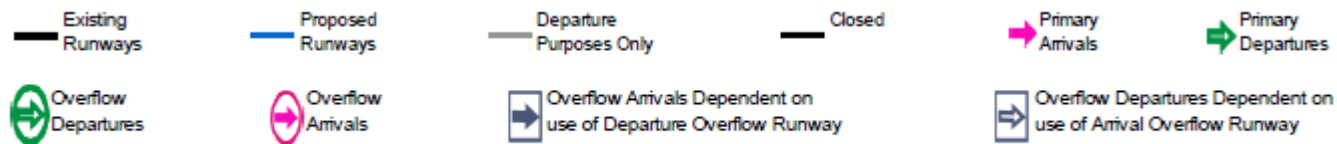
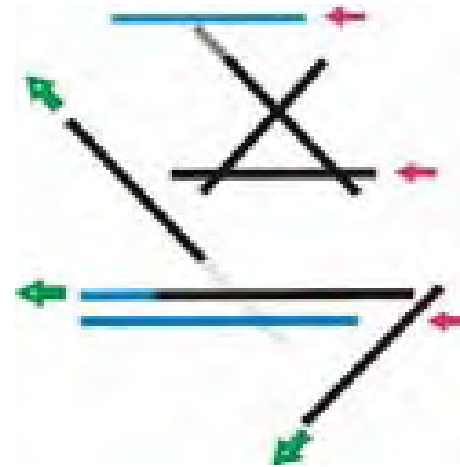
East Flow

approx 18% with optimal weather



West Flow

approx 68% with optimal weather

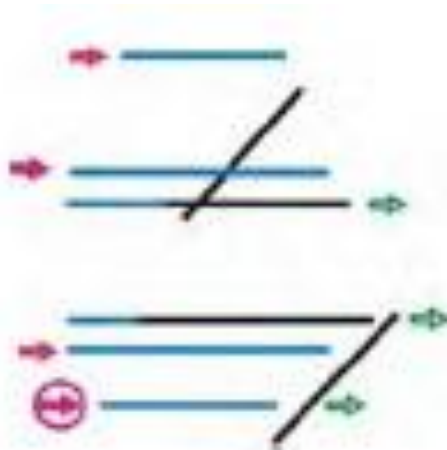


Information from FAA EIS, Exhibit D-3

Runway Utilization Post - OMP

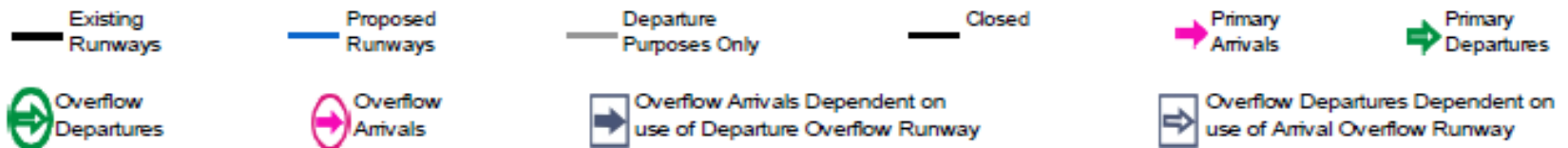
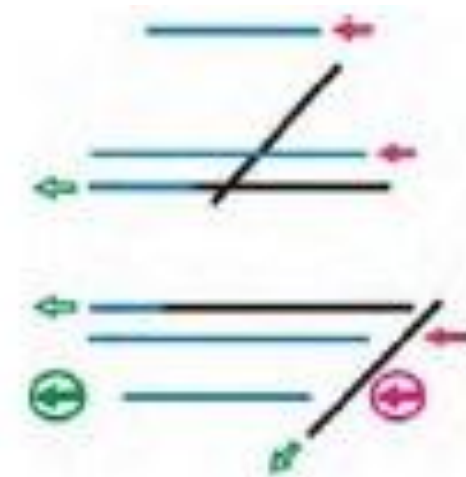
East Flow

approx 13% with optimal weather



West Flow

approx 41% with optimal weather



Information from FAA EIS, Exhibit D-4

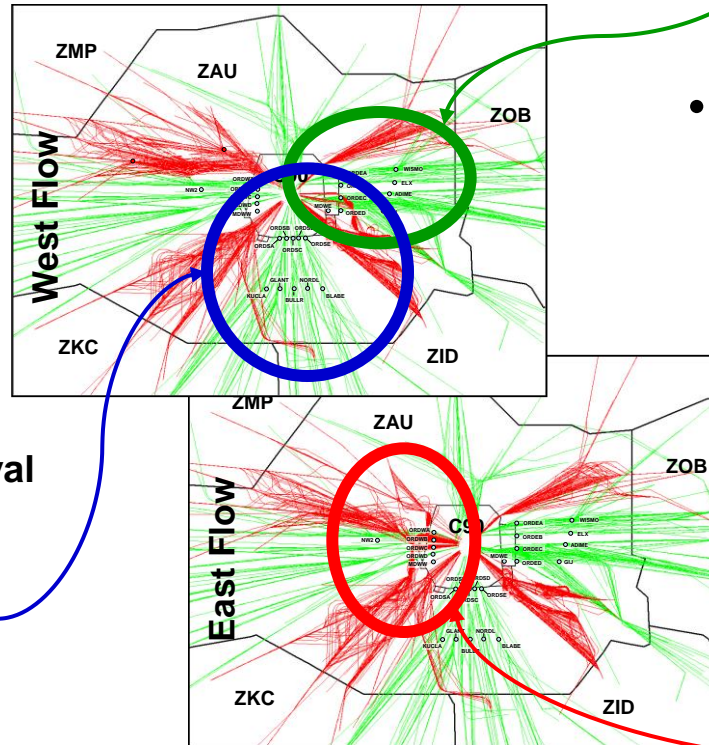
Chicago Airspace Project

- Stage 1: **East Enhancements** Completed March 2007
 - Four eastbound departure routes

- Stage 2: **South Enhancements**

- Five southbound departure routes
- High & Wide arrival procedures for ORD west flow
- Allows triple parallel arrival for west flow at ORD

Completed November 2008

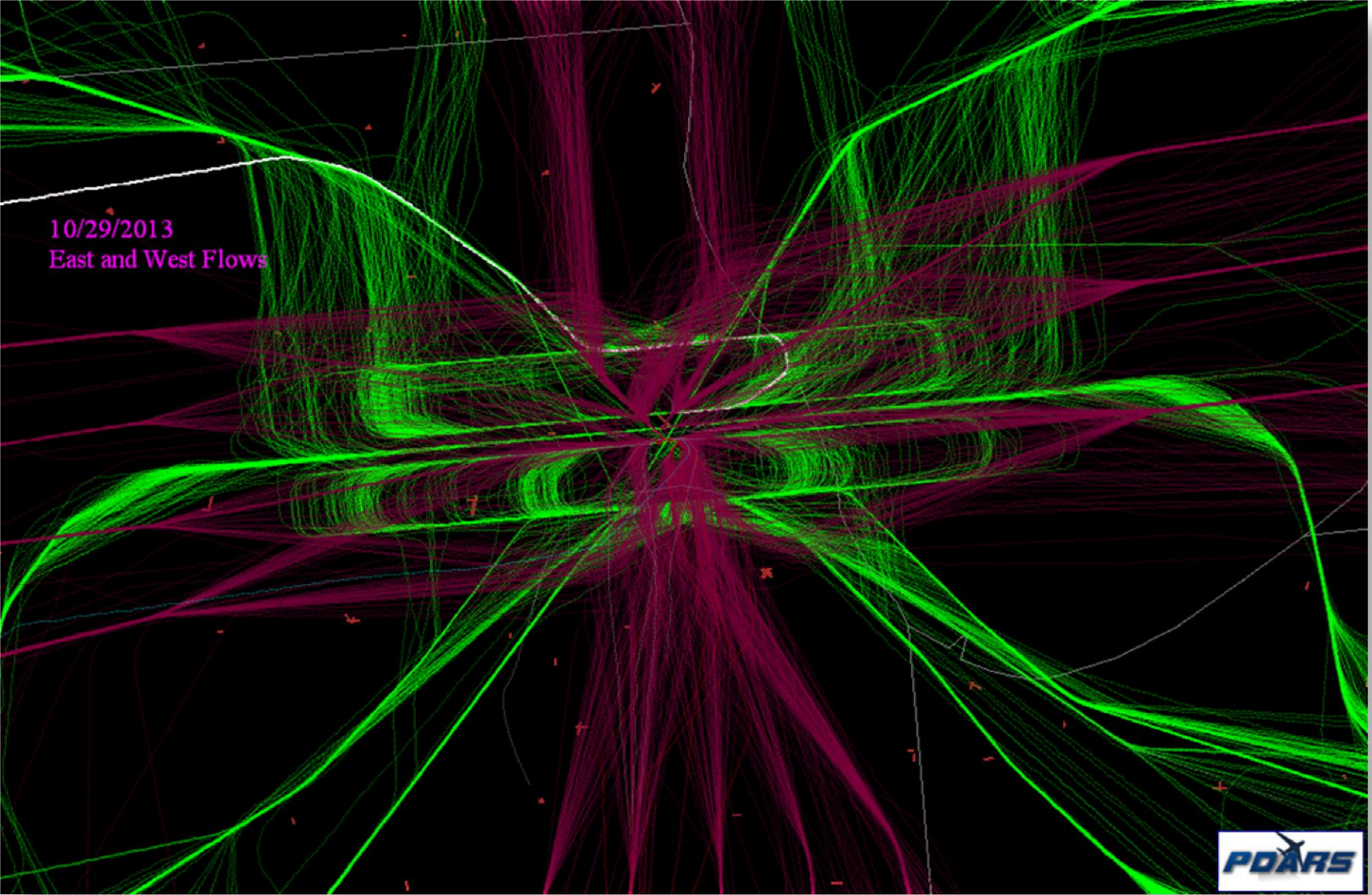


- Stage-3: (Completion Stage) **West and North Enhancements**

- Four westbound departure routes
- High & Wide arrival procedures for ORD east flow
- Enabling Infrastructure
- Allows triple parallel arrival east flow at ORD

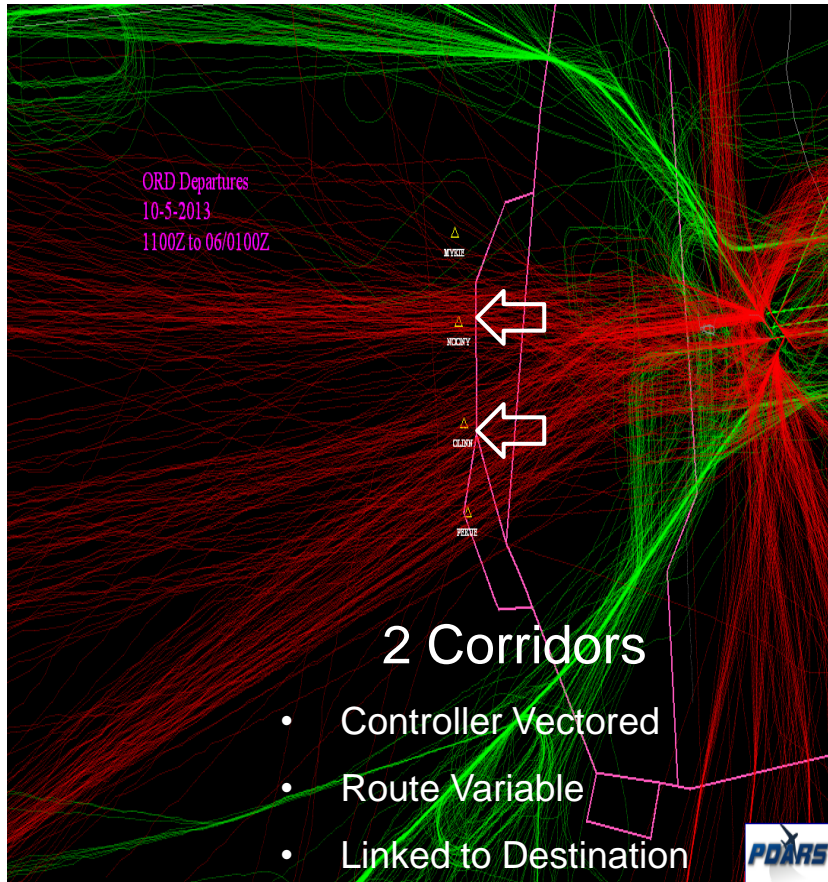
Completed October 2013

10/29/2013
East and West Flows

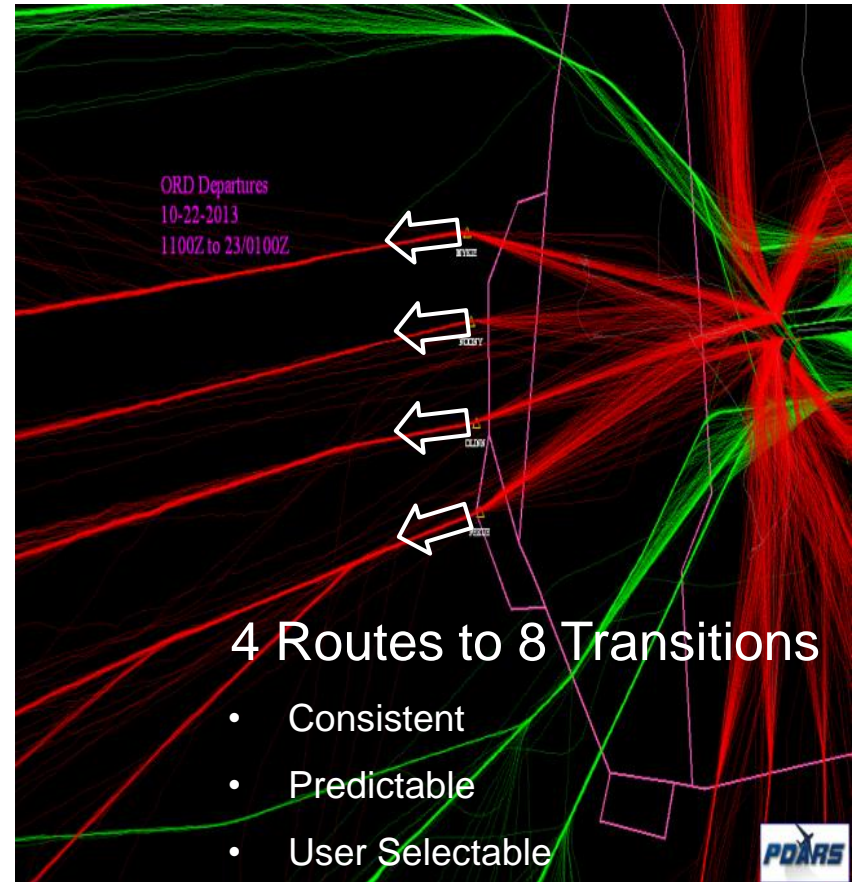


CAP Implementation

Departure Routes



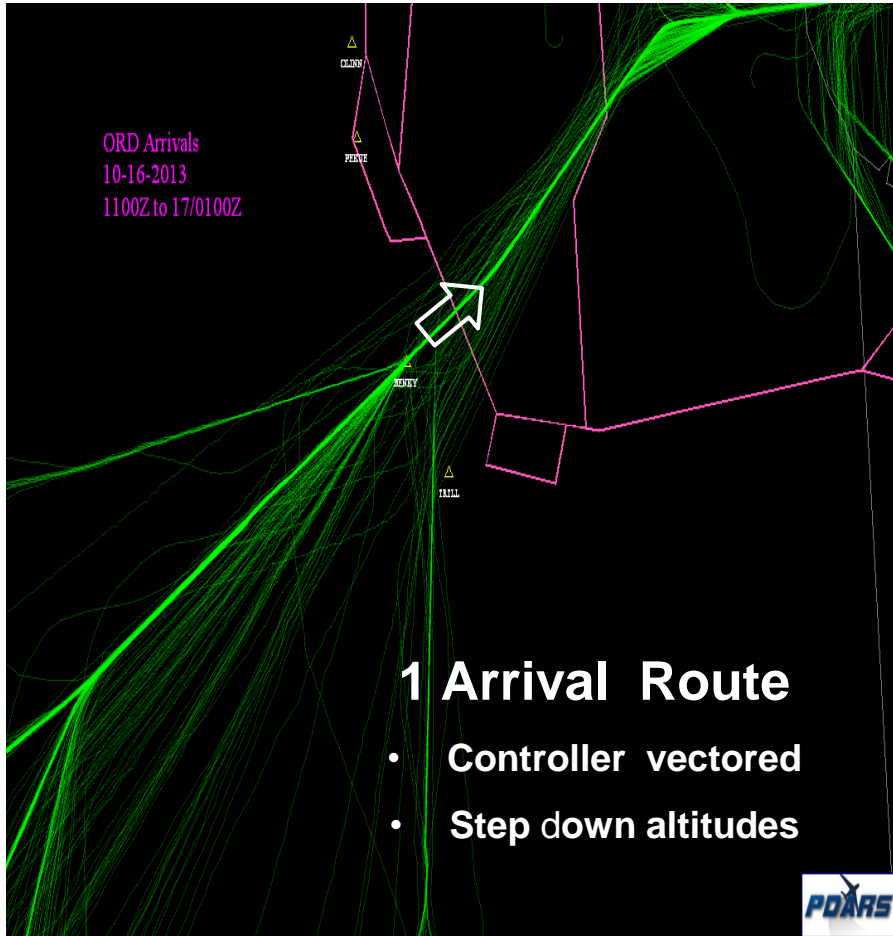
Before CAP



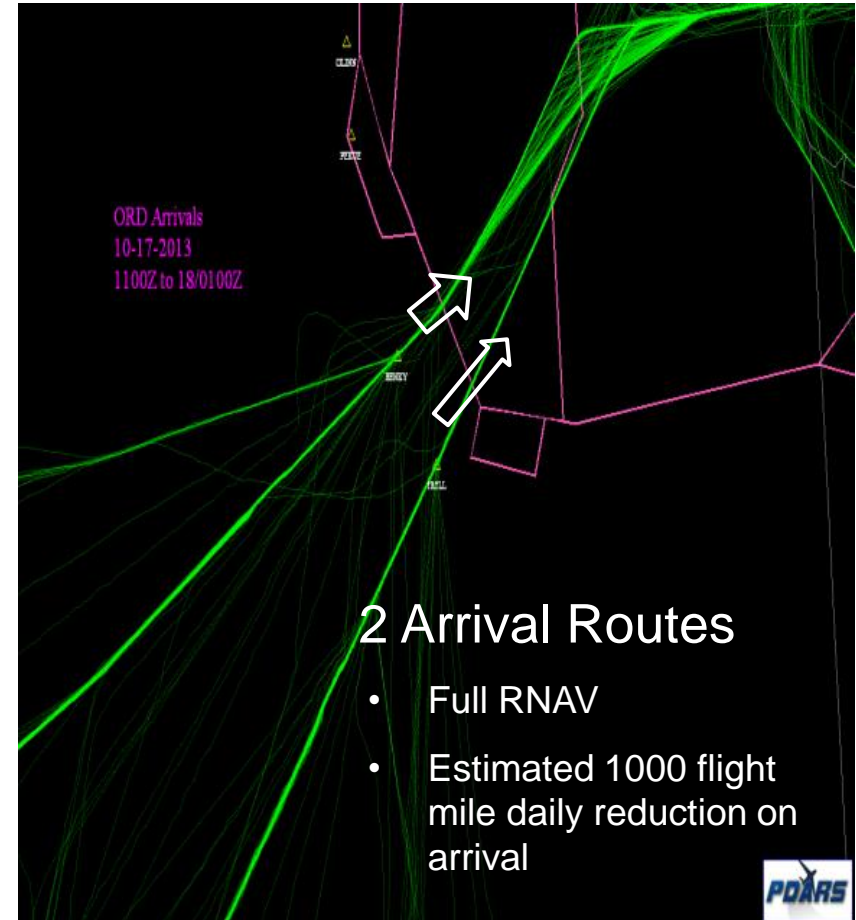
After CAP

CAP Implementation

Arrival Routes



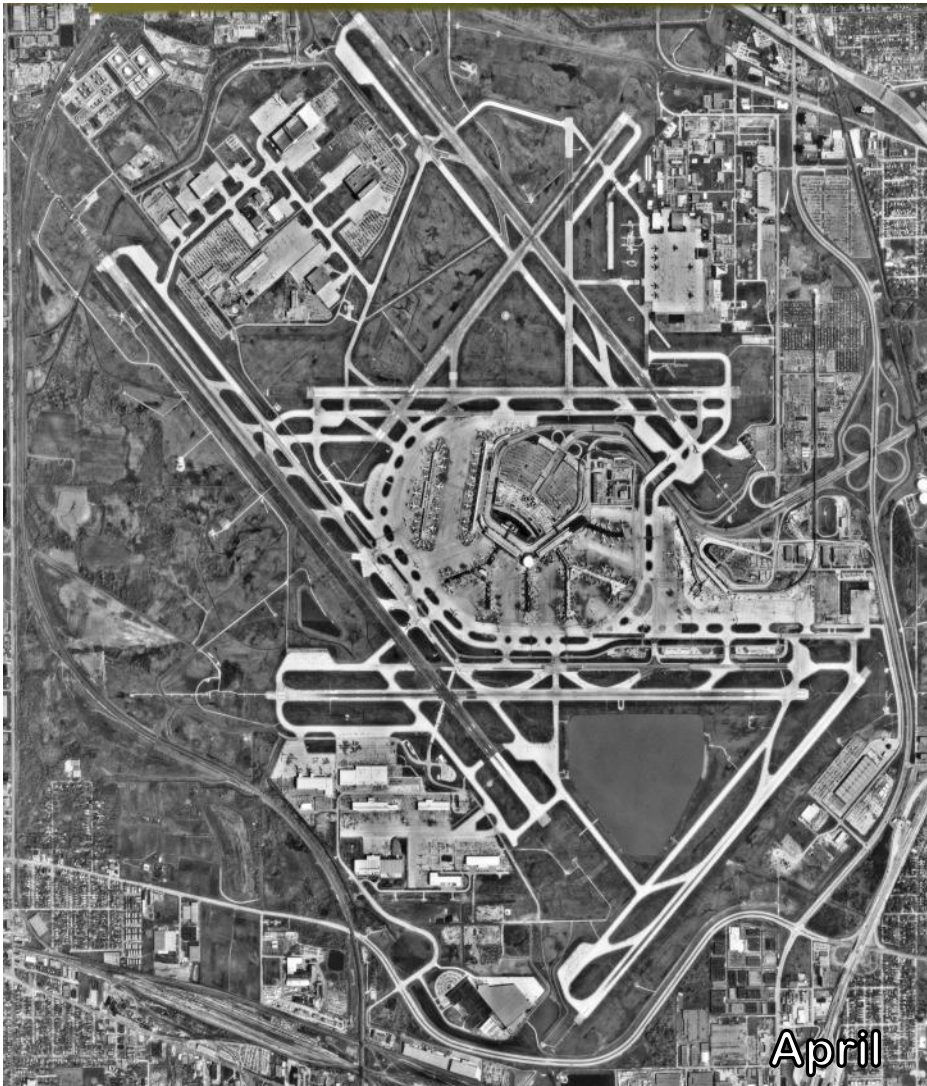
Before CAP



After CAP

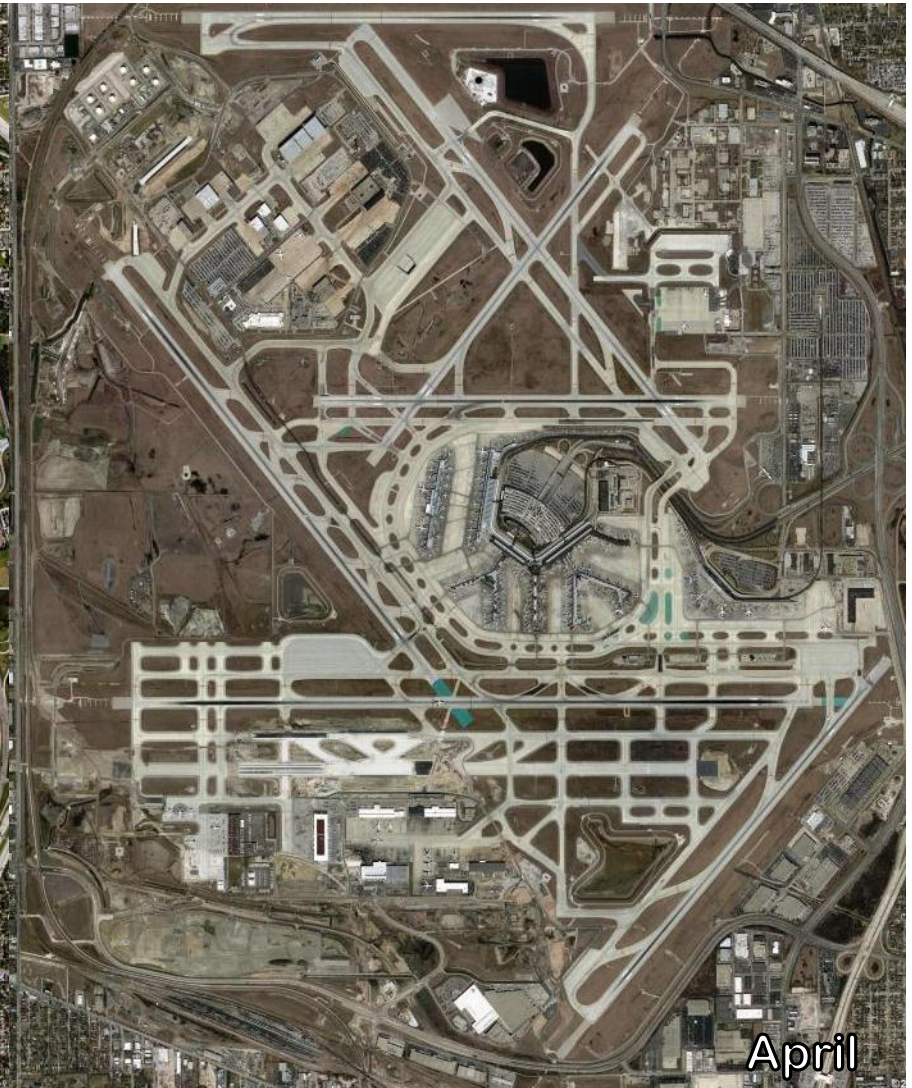
1993

2005



2008

2013





October 2013