

Traffic Flow Management (TFM)



By: Mark Libby

ATCSCC



Federal Aviation
Administration



July 21, 2010

TFM Overview - Friends & Partners in
Aviation Weather / Washington, D.C.



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Administration

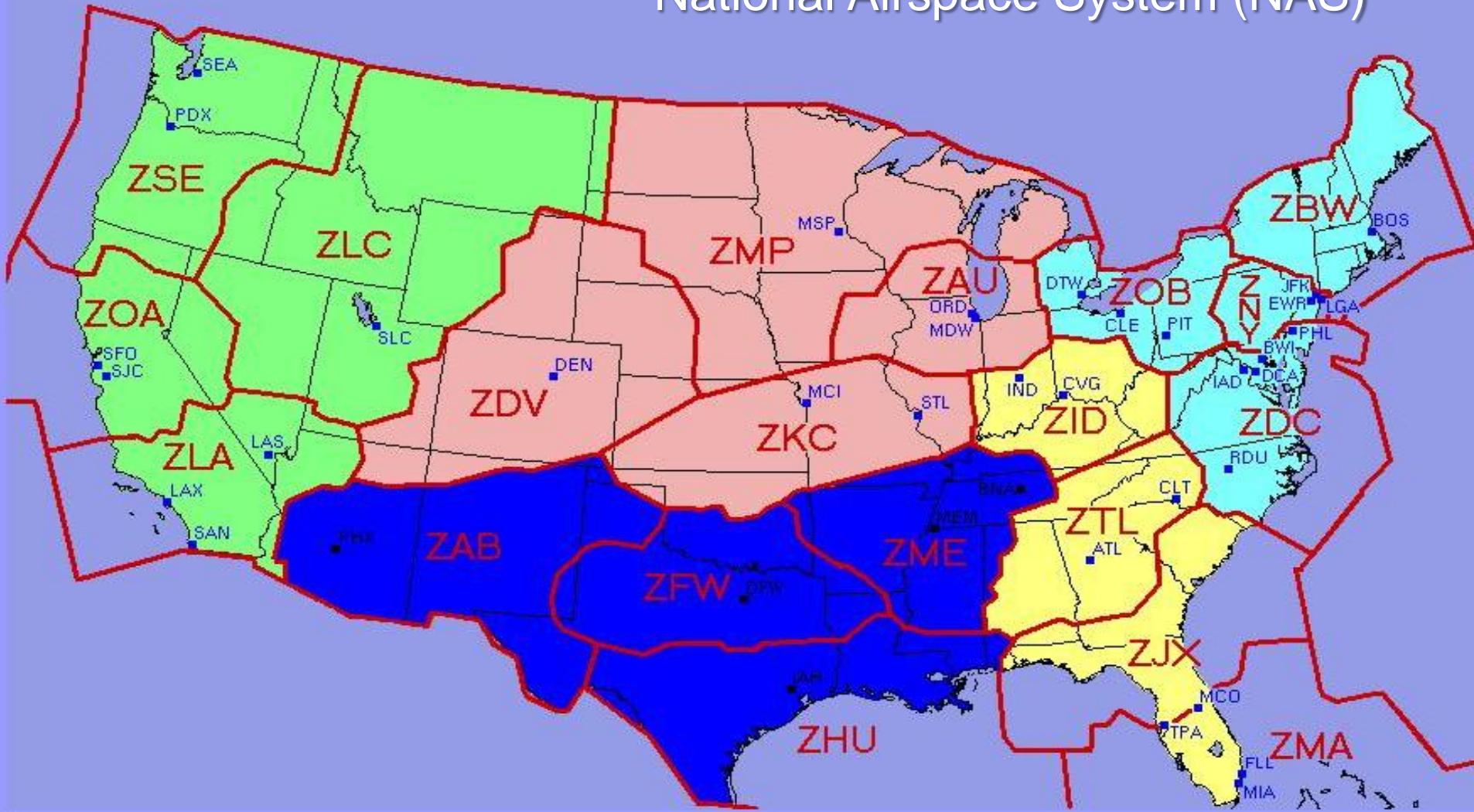


Collaboration





National Airspace System (NAS)



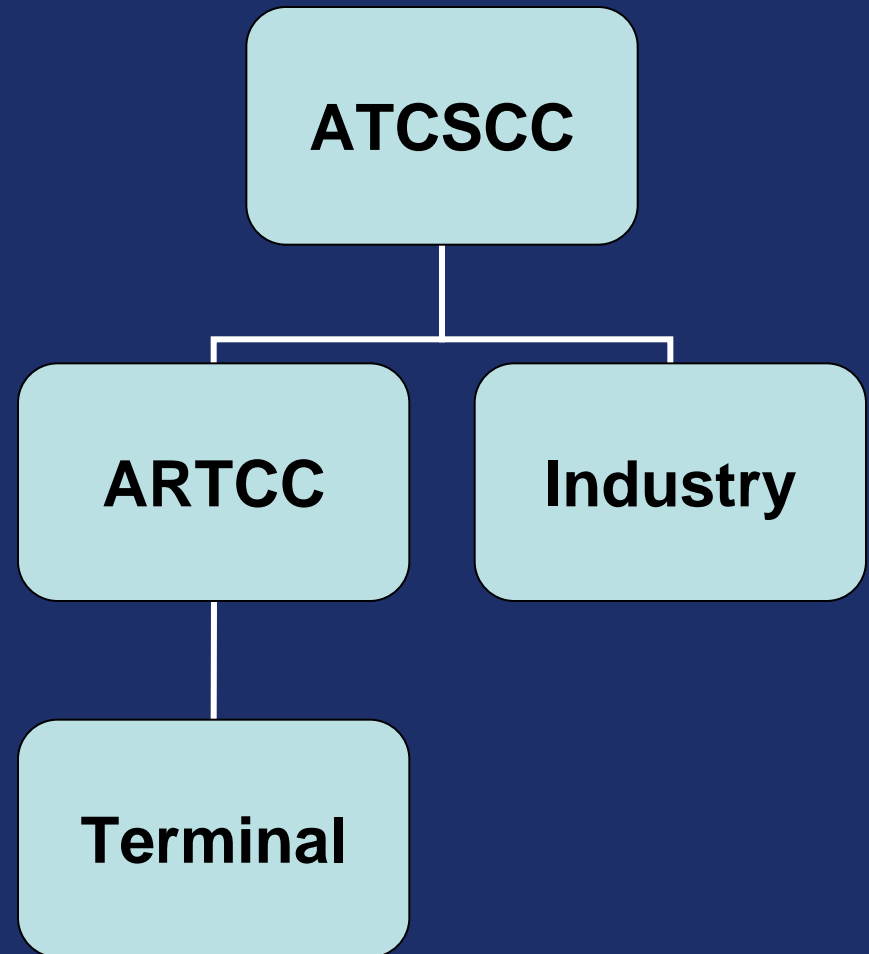
20 Domestic En Route Air Route Traffic Control Centers (ARTCCs)

5 Geographical Regions

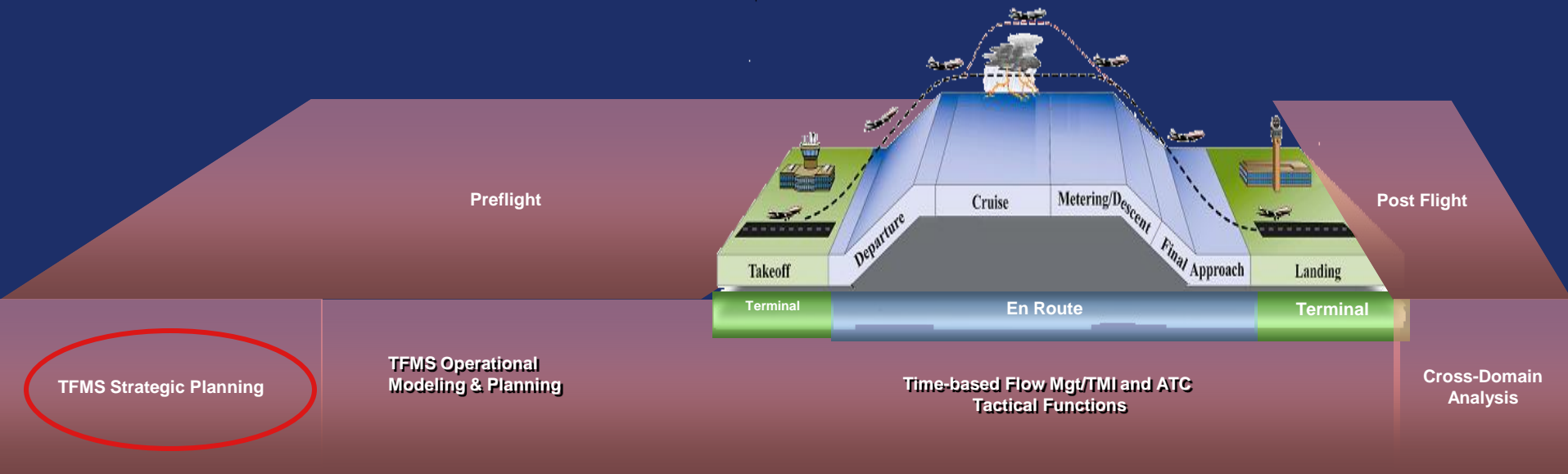
1 Air Traffic Control System Command Center (ATCSCC)

ATCSCC

- National Oversight for all Traffic Flow Management and NAS Operations
- Coordinate and implement all National traffic management initiatives
 - Reroutes
 - AFP
 - Ground Stops
 - Miles-in-Trail (MIT)
 - GDP
- Focal point for stakeholder coordination



Strategic Planning



TFMS Strategic Planning

TFMS Operational Modeling & Planning

Time-based Flow Mgt/TMI and ATC Tactical Functions

Cross-Domain Analysis

Days

4 hours

2 hours

Departure

Arrival

- Weather
- Equipment
- Volume vs. Capacity
- Constraints
- Special Activities
- Stakeholder Preferences

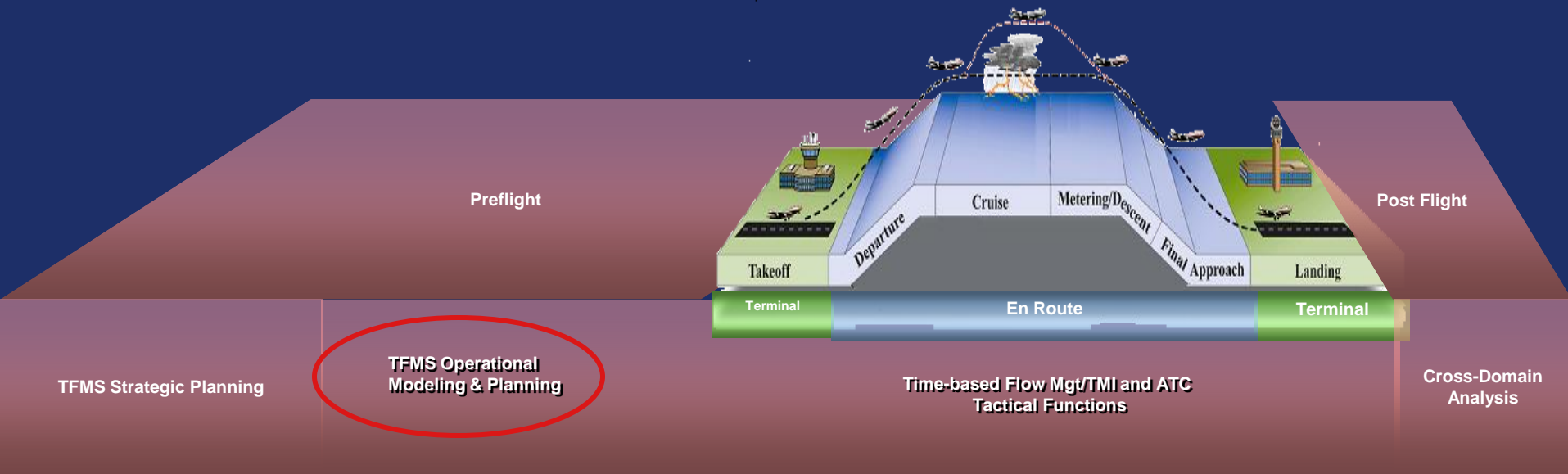
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Operational Modeling & Planning



TFMS Strategic Planning

TFMS Operational Modeling & Planning

Time-based Flow Mgt/TMI and ATC Tactical Functions

Cross-Domain Analysis

Days

4 hours

2 hours

Departure

Arrival

- FSM Flight Schedule Monitor
- IPM Integrated Program Modeling
- CCFP Collaborative Convective Forecast Product
- TSD / CCSD Traffic Situation Display / Common Constraint Situation Display
- FEA / FCA Flow Evaluation Area / Flow Constrained Area
- Playbooks / CDRs (Coded-Departure Routes) / Preferential Routes

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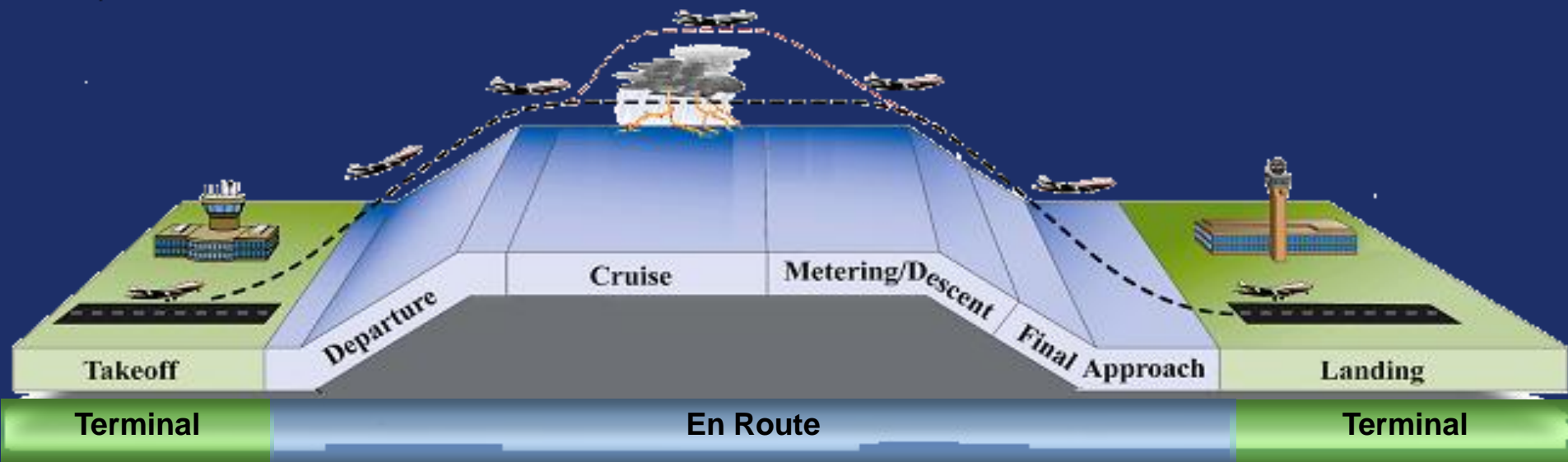
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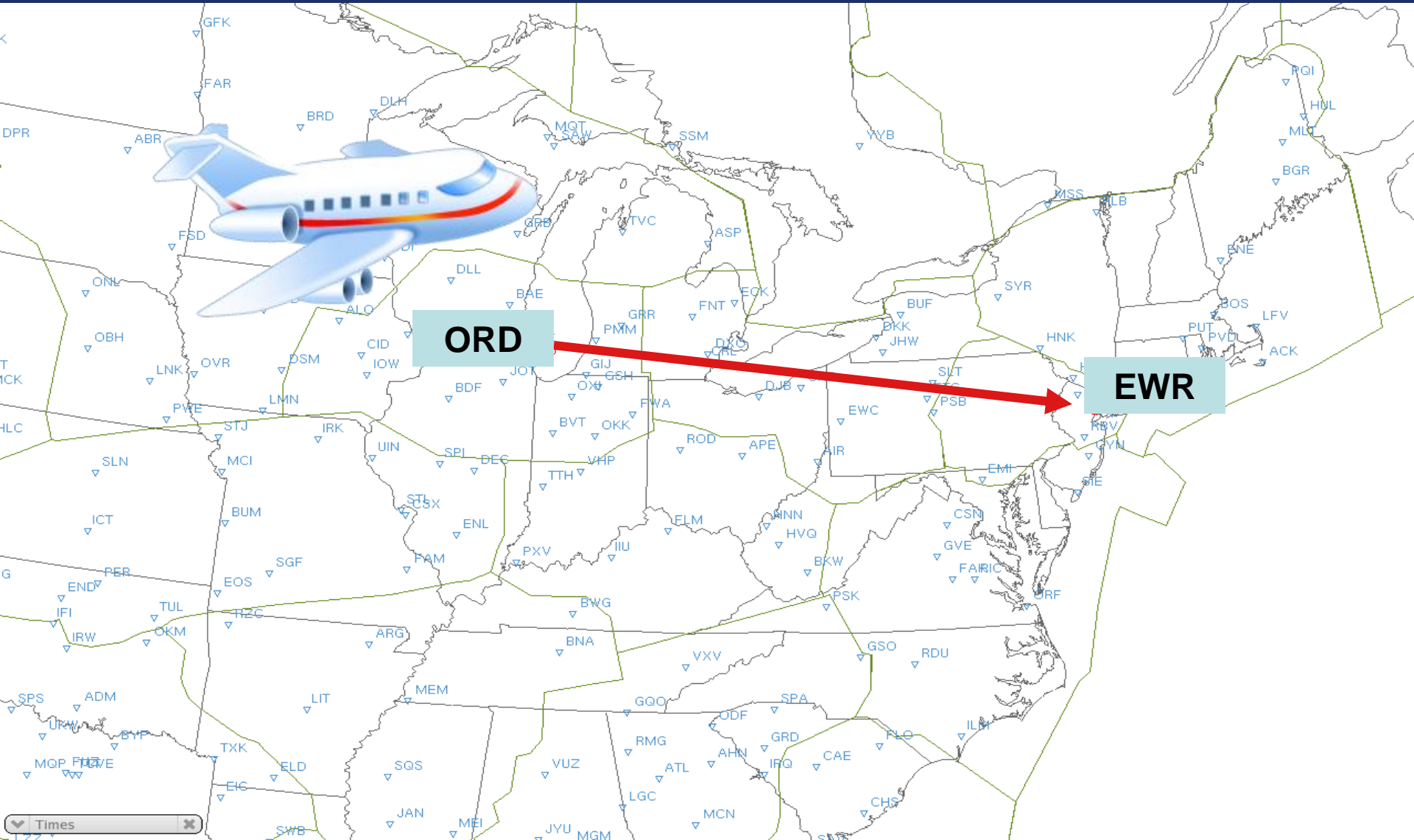
Why did I get delayed?





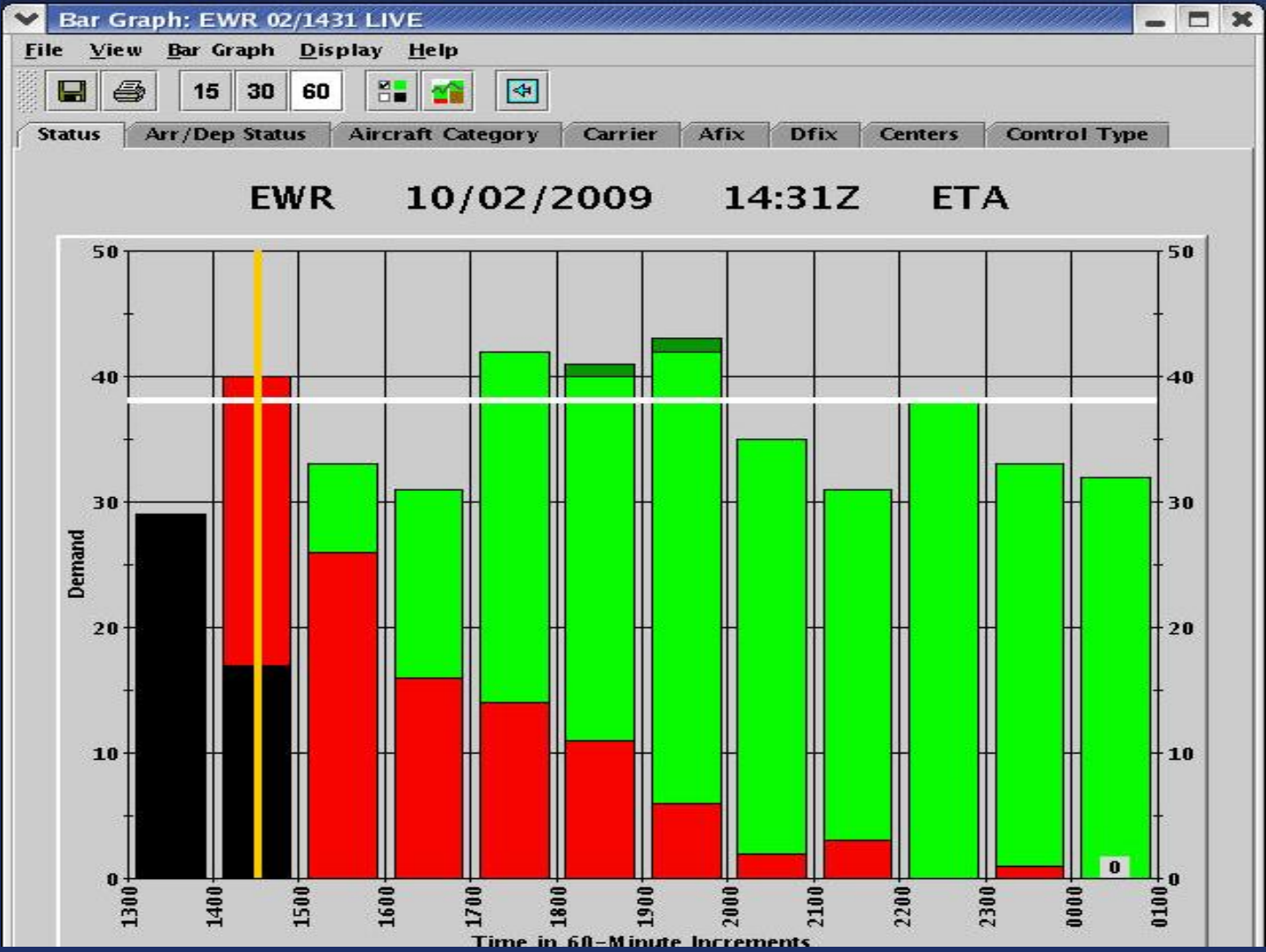
Tactical Operations

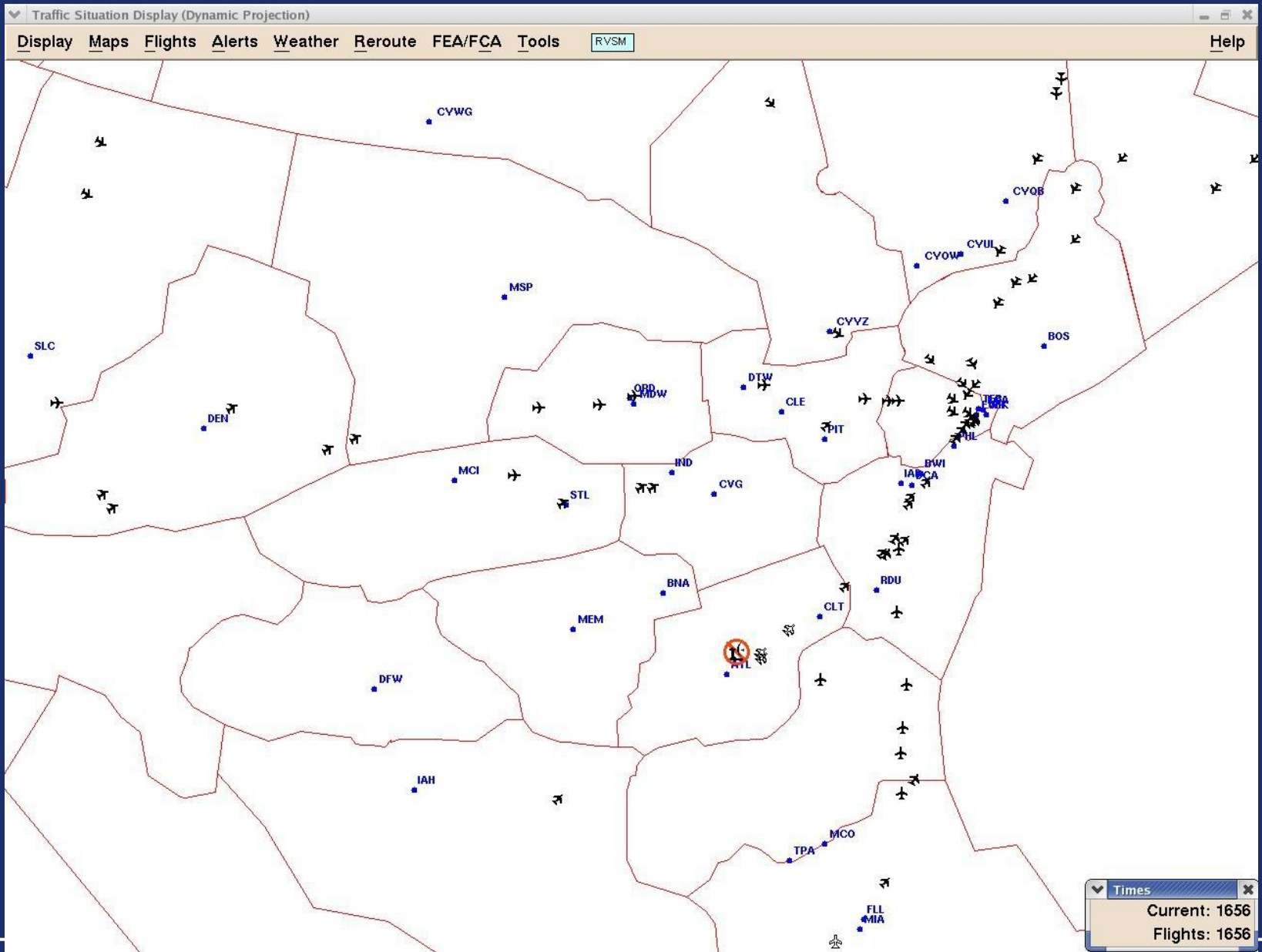
A normal flight from Chicago O'Hare (ORD) to Newark, NJ (EWR)



ORD

EWR





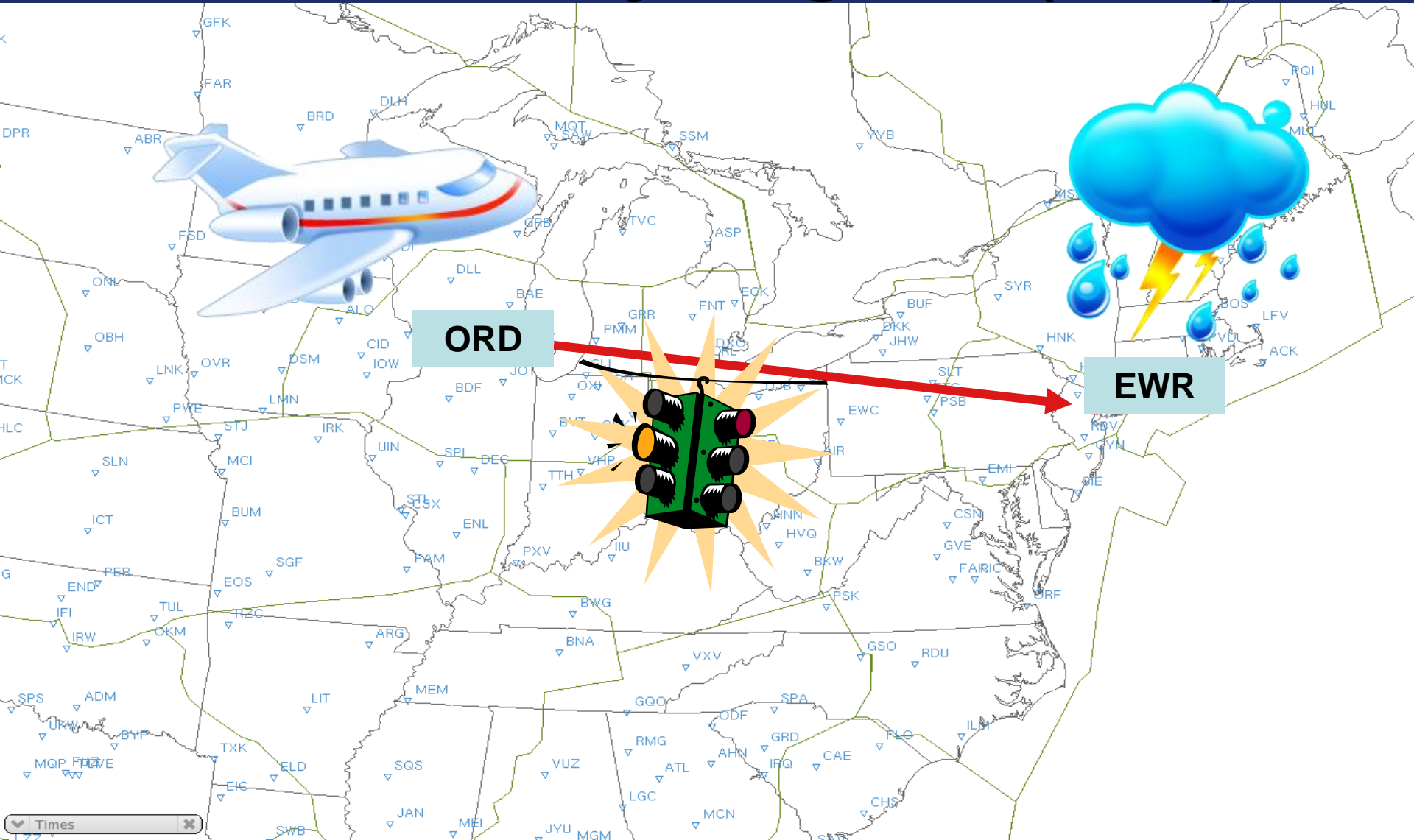
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Ground Delay Programs (GDP)



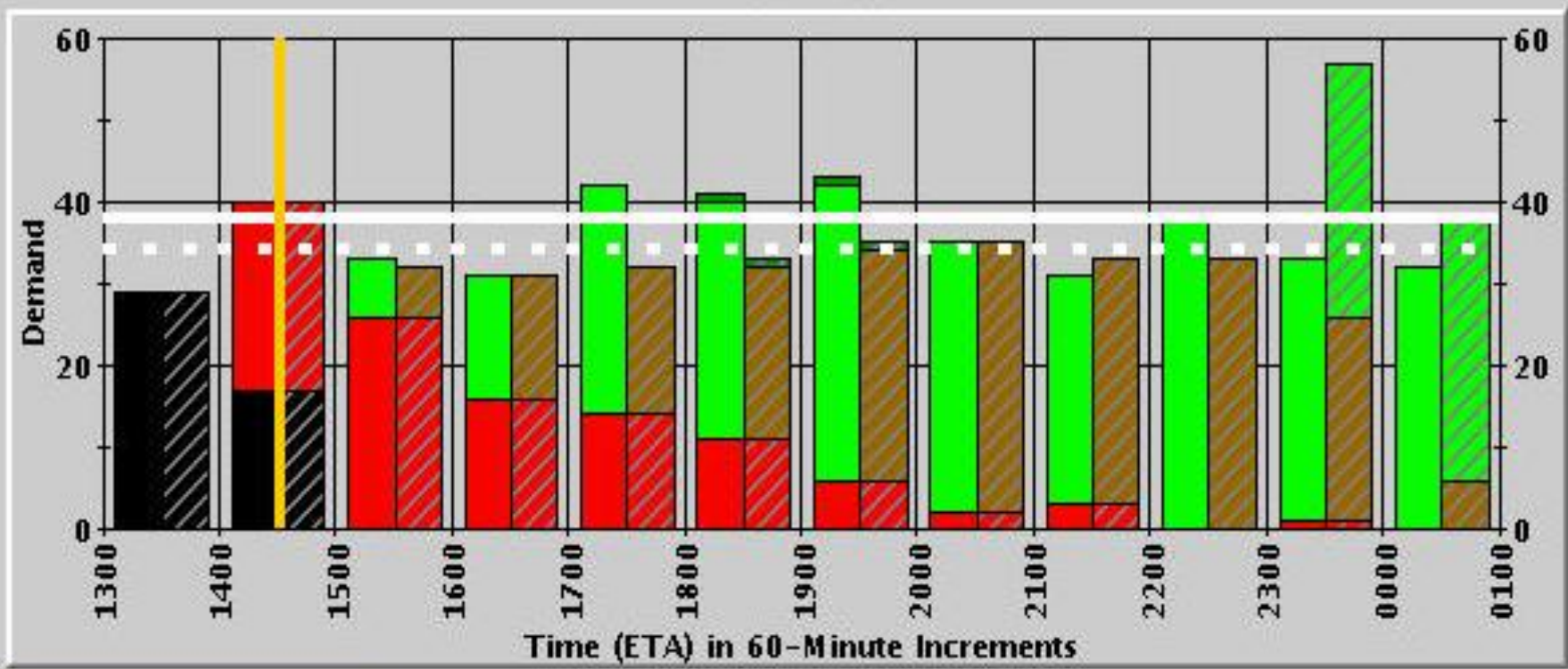
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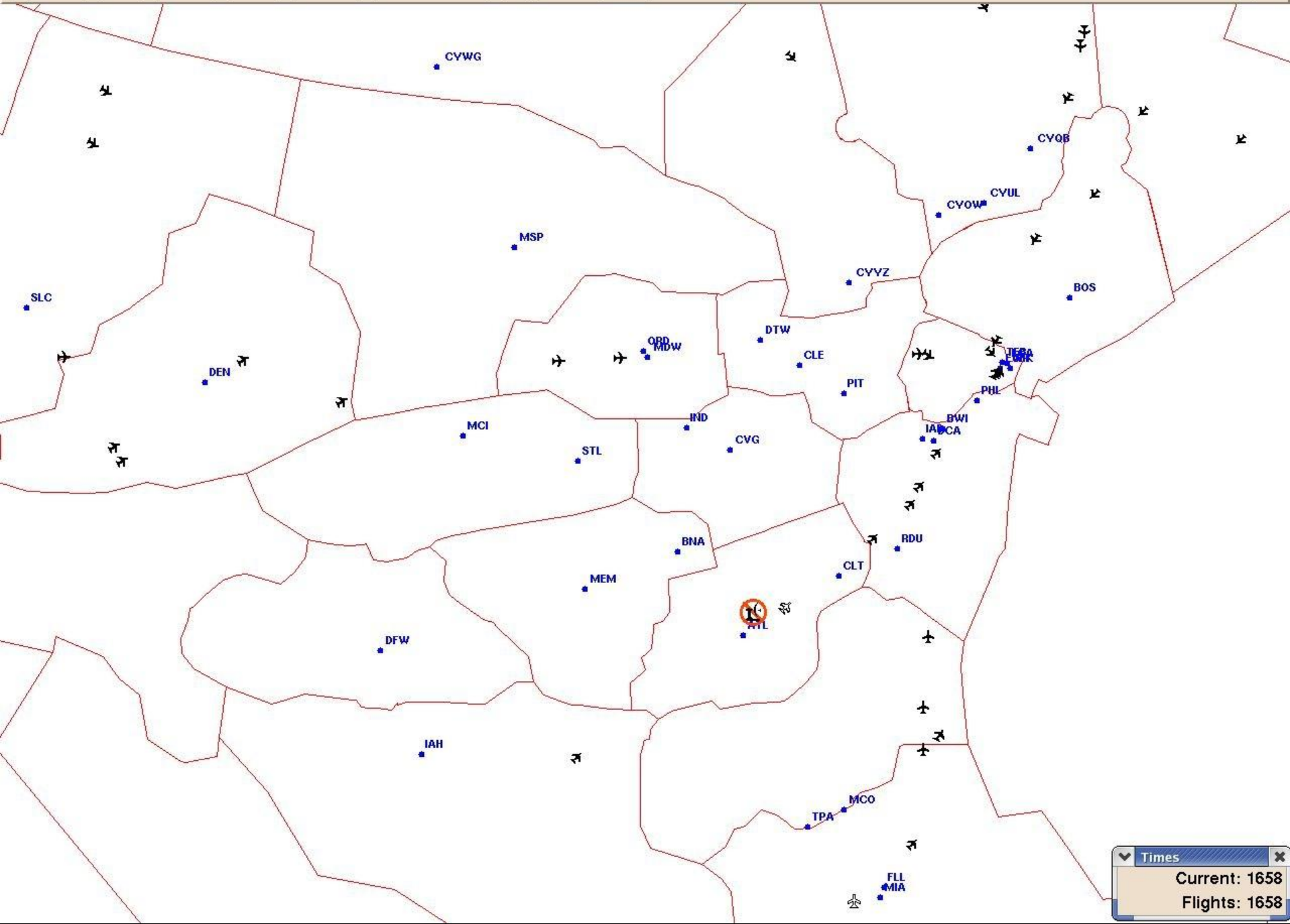
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GDT EWR Model 10/02/2009 14:31Z ETA

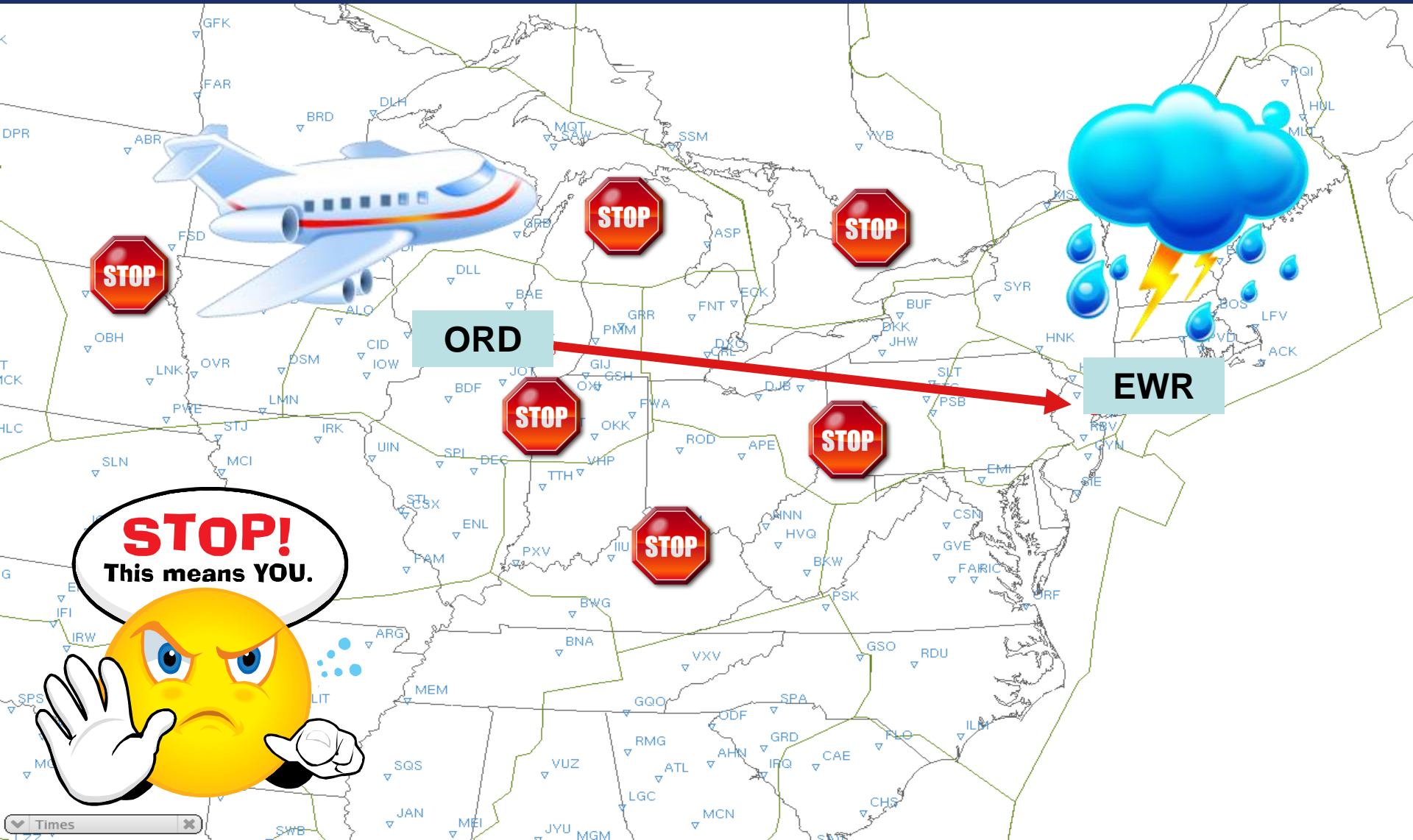




Times

Current: 1658
Flights: 1658

Ground Stop (GS)



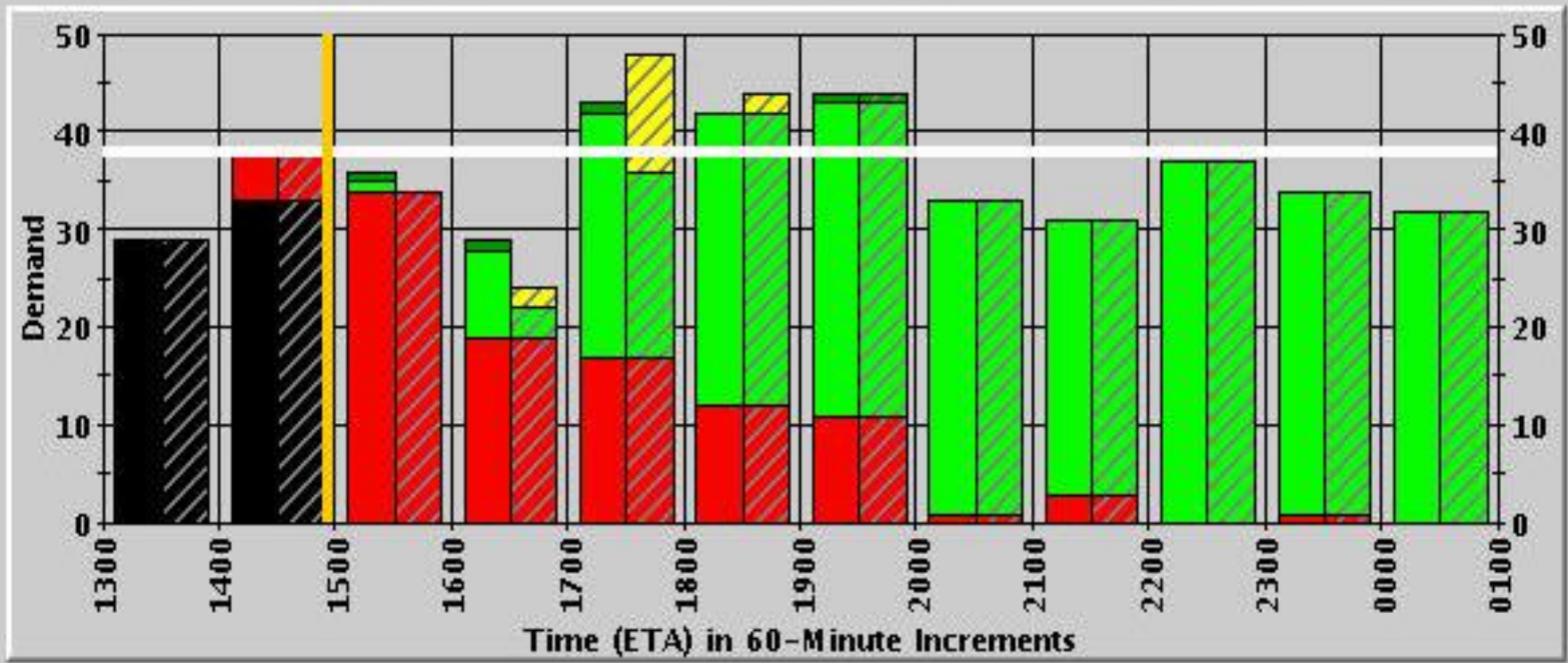
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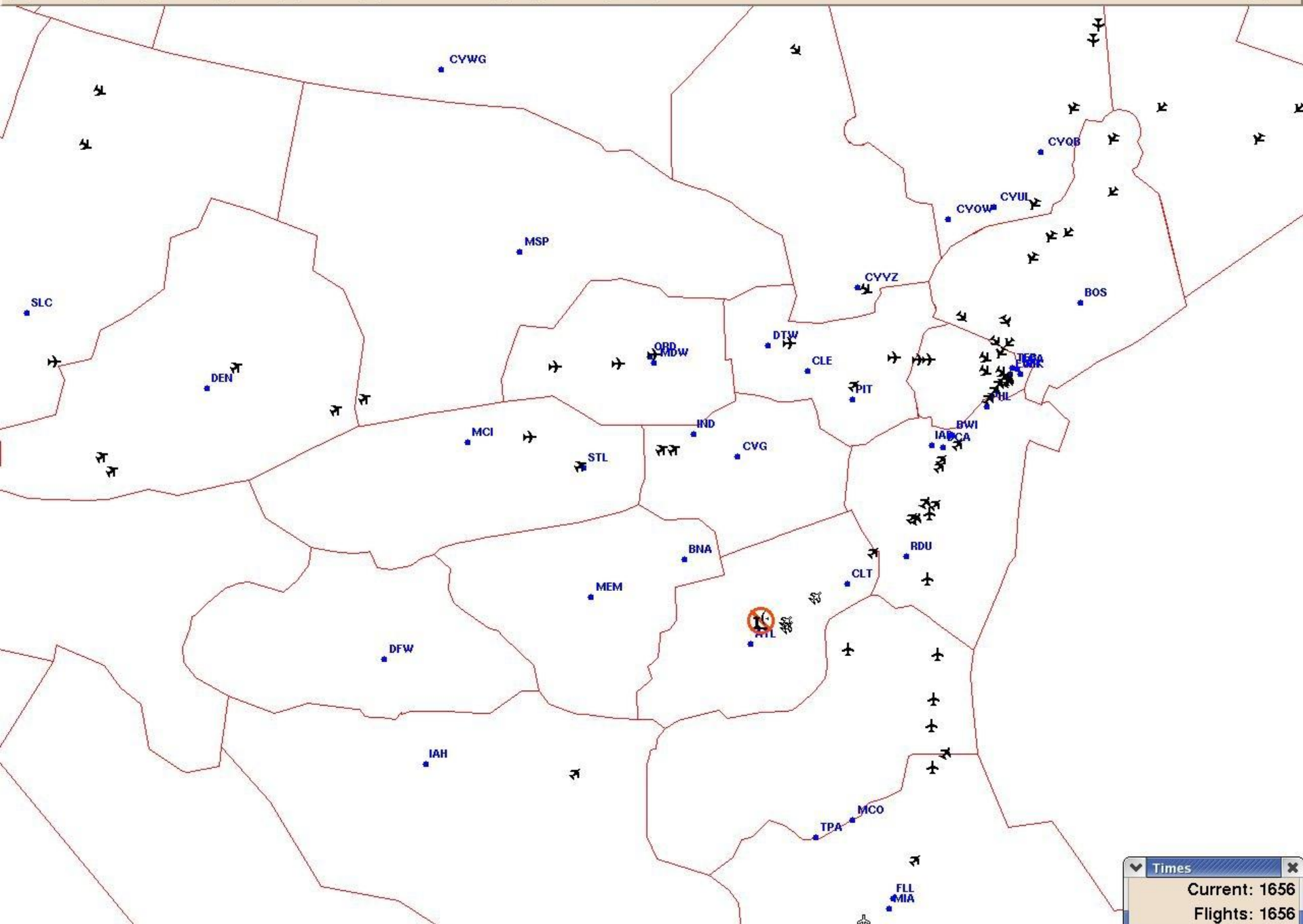
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GDT EWR Model 10/02/2009 14:56Z ETA

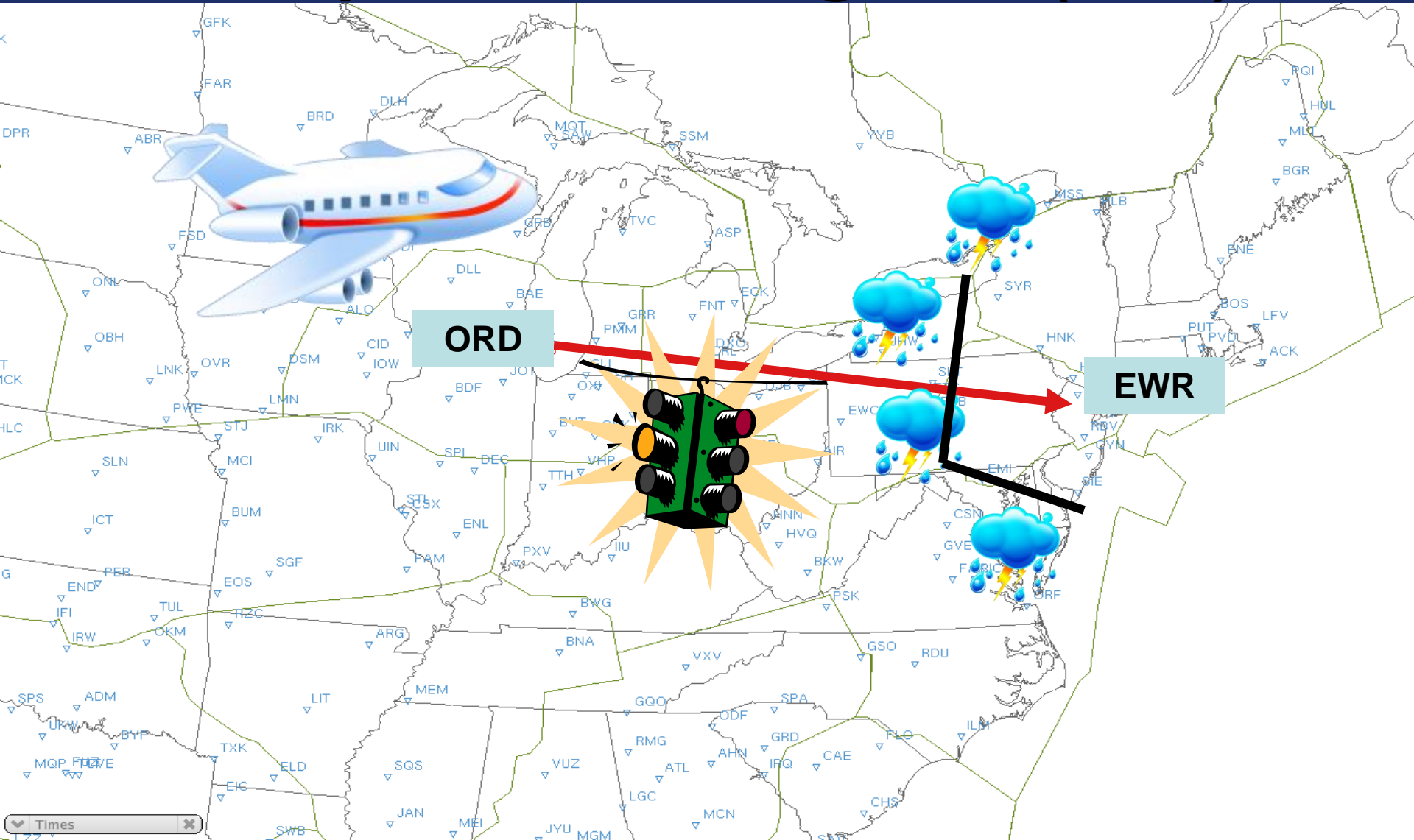




Times

Current: 1656
Flights: 1656

Airspace Flow Programs (AFP)

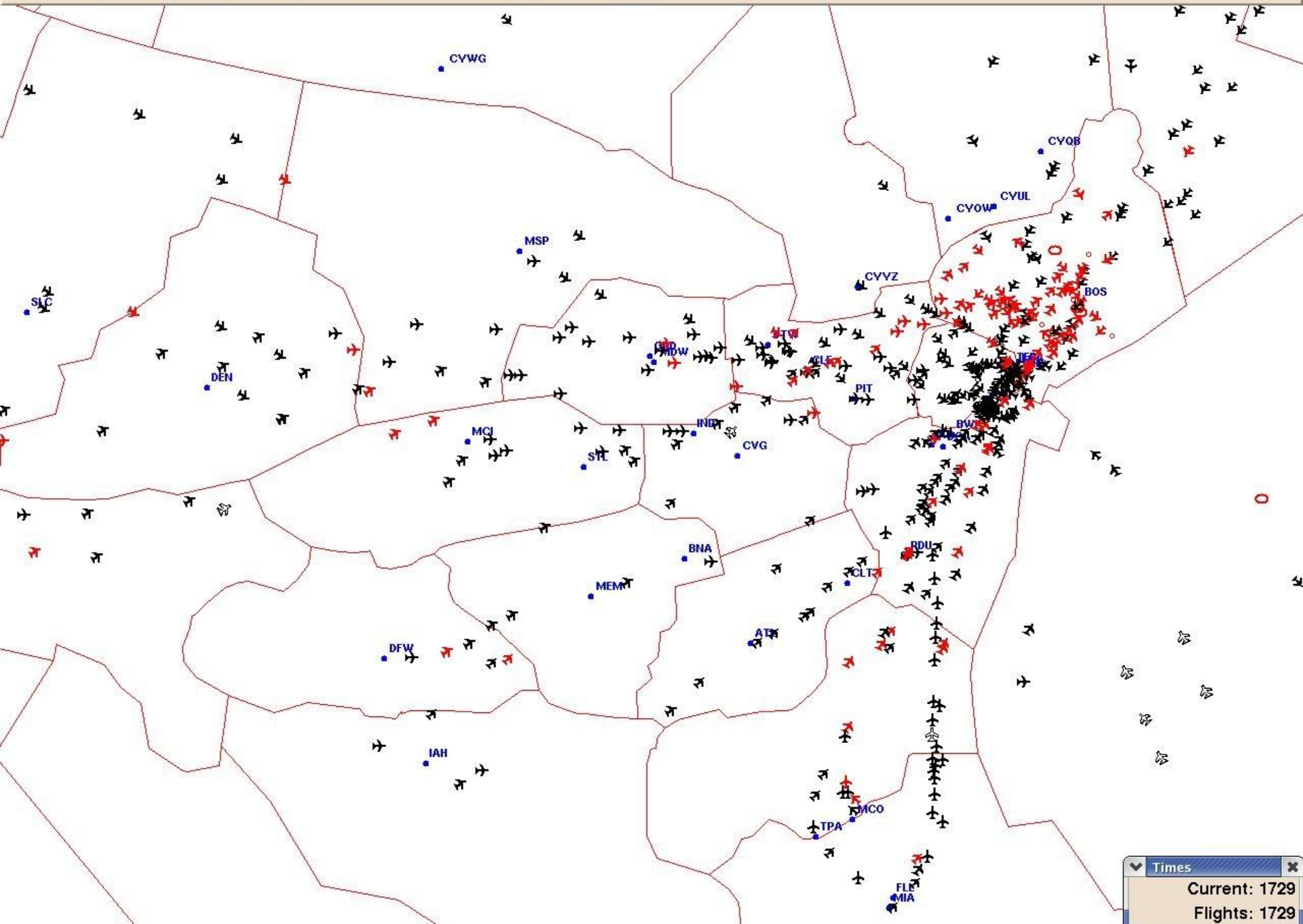


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Times

Current: 1729
Flights: 1729

Bar Graph: FCA005 2005/May/17 1415 GDT

File View Bar Graph Display Help

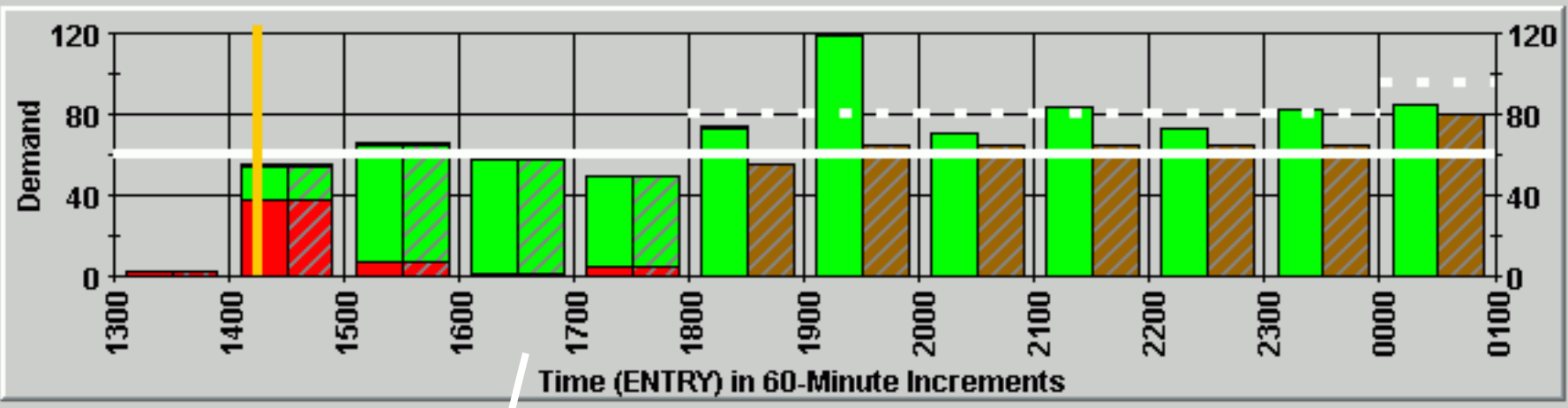


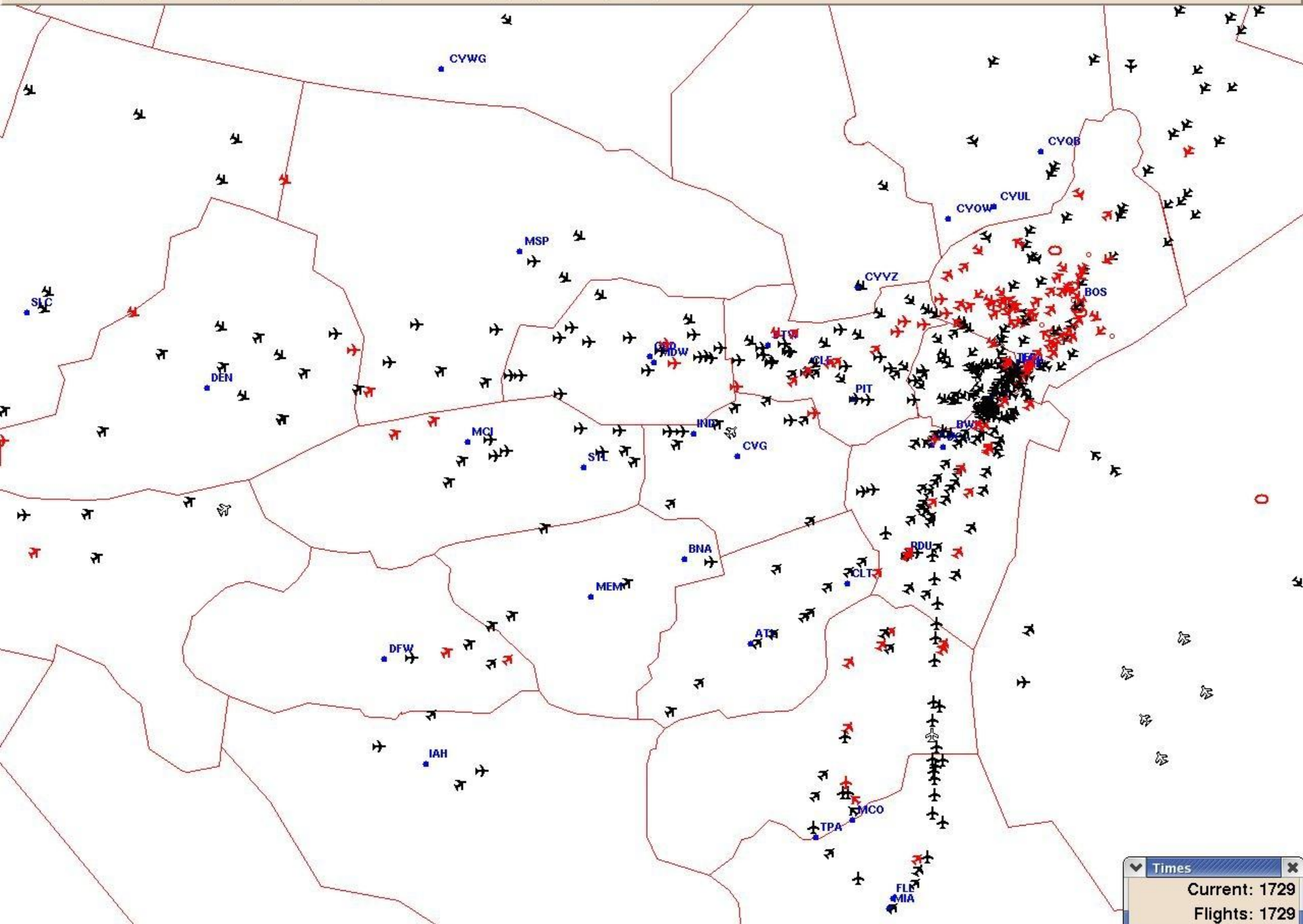
15 30 60




Status Arr/Dpt Status Aircraft Category Carrier Afix Dfix Centers Control Type

FCA005 05/17/2005 14:15Z

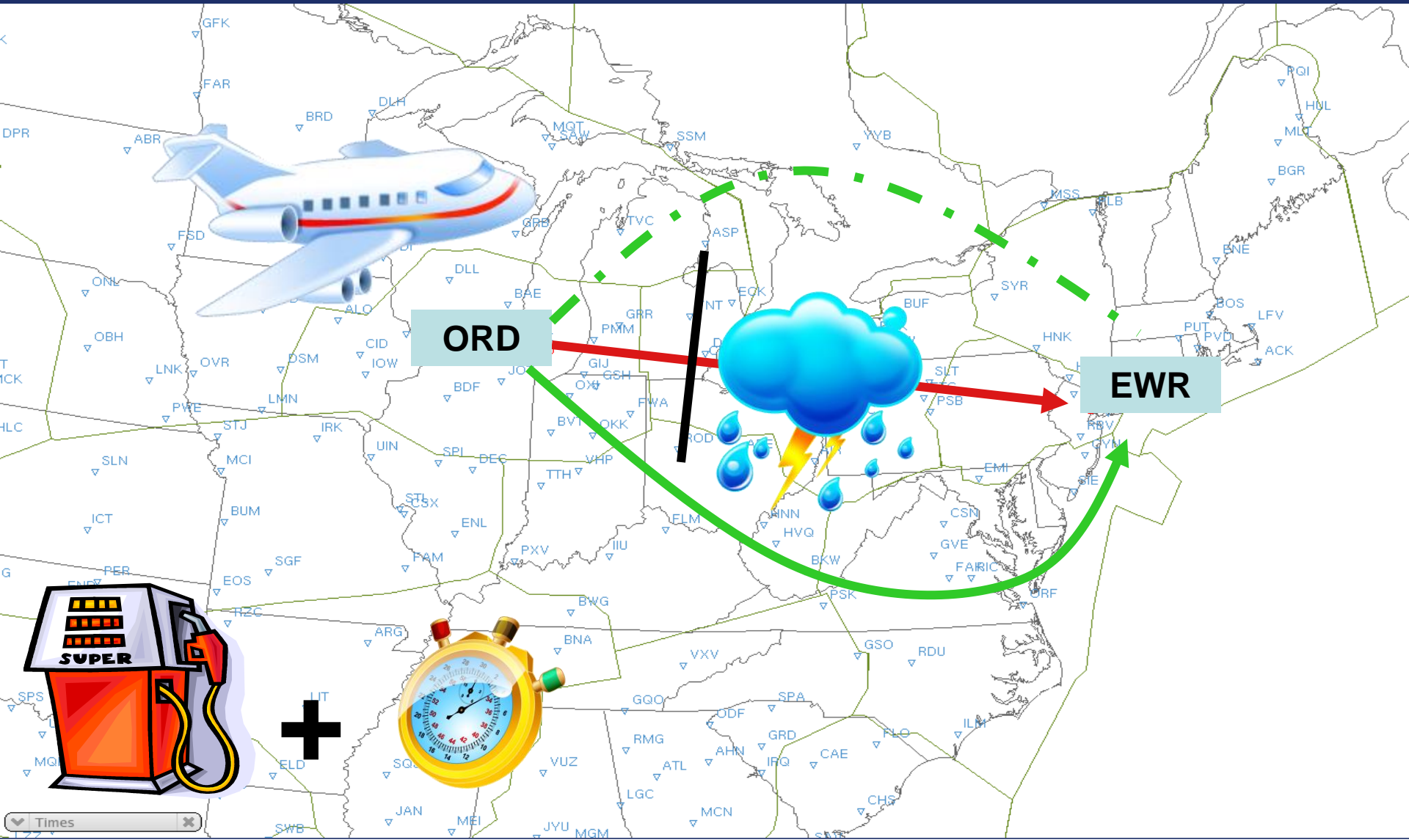




Times

Current: 1729
Flights: 1729

Reroutes or Integrated Collaborative Routing (ICR)



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File

Reroute Definition Flight List Advisory

Import Routes From:

Preview Reroute Show Nav aids

Identify Flights based on:

ETD ETA Public FEA/FCA Flight List

*Start Time:

*End Time: Entry Time: From: To:

Flight Status: All Airborne Not Airborne

Characteristics

*Name: Color:

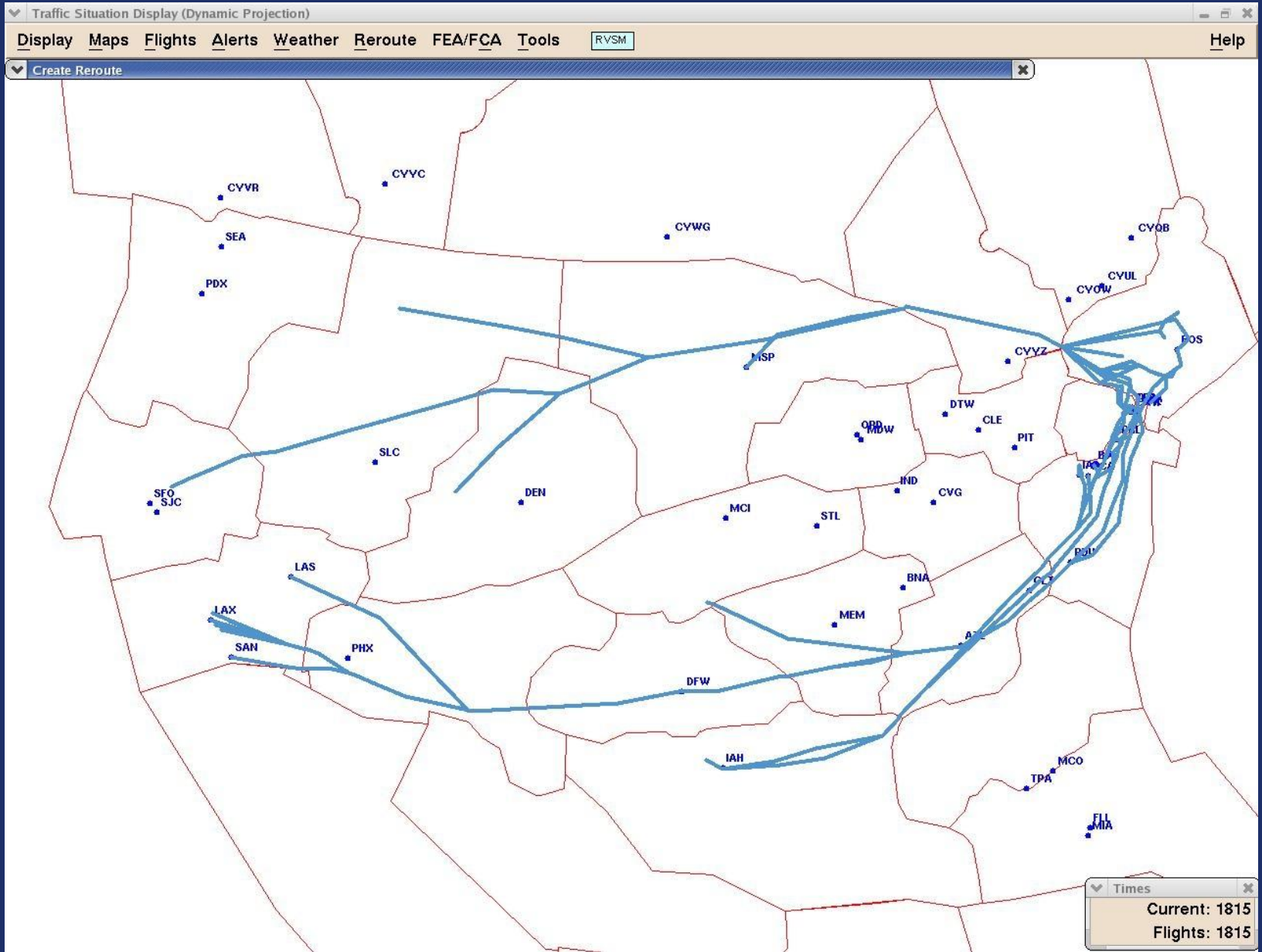
Domain: Private Local Public

Status: Active Planned

	Origin(s)	Filter	Type	Route	Full	Destination(s)
10	<input checked="" type="checkbox"/> ZLA	<input checked="" type="checkbox"/> -LAS		PGS RSK TXC HCT J60 JOT	<input type="checkbox"/>	
11	<input checked="" type="checkbox"/> ZLC	<input type="checkbox"/>		EKR DVV J60 JOT	<input type="checkbox"/>	
12	<input checked="" type="checkbox"/> ZLC	<input type="checkbox"/>		OCS AKO HCT J60 JOT	<input type="checkbox"/>	
13	<input checked="" type="checkbox"/> ZMP	<input type="checkbox"/>		LNK J60 JOT	<input type="checkbox"/>	
14	<input checked="" type="checkbox"/> ZDA	<input type="checkbox"/>		LIN J84 DTA AKO HCT J60 JOT	<input type="checkbox"/>	
15	<input checked="" type="checkbox"/> ZSE	<input type="checkbox"/>		OCS AKO HCT J60 JOT	<input type="checkbox"/>	
16	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	

Destination Segments for Split Routes:

	Destination(s)	Route
10	<input checked="" type="checkbox"/> JFK	JOT ELX SVM J70 LVZ LENDY5
11	<input checked="" type="checkbox"/> LGA	JOT J146 ETG MIP3
12	<input checked="" type="checkbox"/> PHL	JOT J146 WOOST J34 DJB EUC JST BUNTS1
13	<input checked="" type="checkbox"/> PHL	JOT J30 TRAKK J152 JST BUNTS1
14	<input checked="" type="checkbox"/> PIT	JOT J146 WOOST J34 DJB ACO CUTTA2
15	<input checked="" type="checkbox"/> TEB	JOT ELX SVM J70 LVZ LVZ3
16	<input type="checkbox"/>	



Next Gen

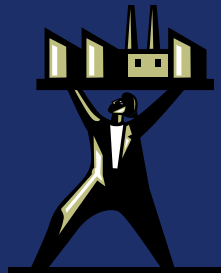
- **RRIA → Reroute Impact Assessment**
- **CTOP → Collaborative Trajectory Option Program
(Formerly known as SEVEN)**
- **ADS-B → Automatic Dependent Surveillance
Broadcast**
- **Data Comm**
- **TBO → Trajectory Based Operations**
- **Surface**
- **Collaborative I-ATM
(Integrated Air Traffic Management)**

Collaborative I-ATM

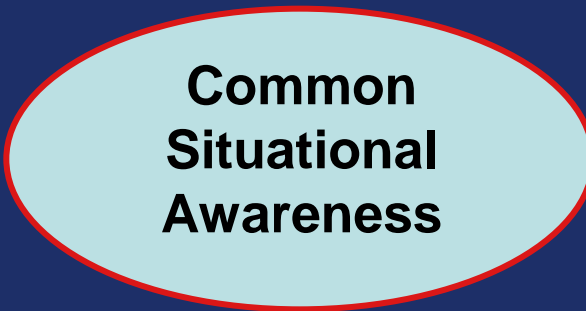
Controller



Pilot



Traffic
Manager

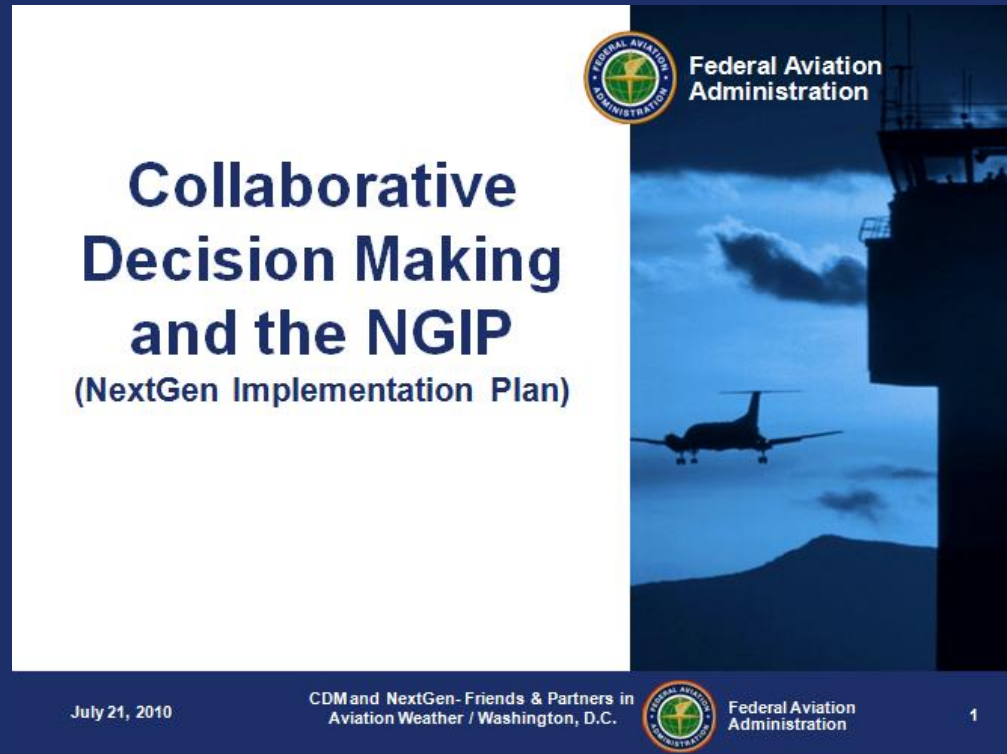


Dispatcher

Questions?



CDM Road Show - Friends & Partners in Aviation Weather / Washington, D.C.



**Collaborative
Decision Making
and the NGIP**
(NextGen Implementation Plan)

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CDM and NextGen - Friends & Partners in
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[Link to "CDM and NGIP"](#)