

# Strategic Planning in Traffic Flow Management

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# Elements of the Strategic Plan

- Strategic Planning Team
- Strategic Plan of Operation
- Collaborative Convective Forecast Product (CCFP)
- Coded Departure Routes
- National Playbook
- Diversion Recovery Procedures
- LAADR
- User Hotline
- Post Event Analysis



# Strategic Planning Team (SPT)

# Why Was SPT Developed?

- To provide advanced planning information for system users and air traffic facilities in order to maximize the utilization of the NAS in an organized and equitable manner.
- Reduce impact of severe weather on FAA facilities and system users by developing a collaborative plan.
- Improve transition to normal operations after a severe weather event through better planning.

# Who Is the SPT?

- Airline strategic planners
- FAA field operation managers/designee
- ATCSCC planners
- Airport Authorities
- General aviation organizations
- Military airspace coordinators
- FAA/Airline and AWC/NWS forecasters

# SPO Overview

- A comprehensive plan of action for the NAS developed collaboratively 2 to 4 hours in advance by the members of the SPT.
- The SPO is consistently updated and distributed every two hours based on collaborative TELCONs.



# Strategic Plan of Operation (SPO)

# Plan Production Flow Chart





# Basic SPO Components

- ANTICIPATED CONSTRAINTS
  - ENROUTE
  - TERMINAL
- SHORT TERM PLAN: 2-4 hours in the future
- LONG TERM PLAN: 4+ hours in the future
- NEXT PLANNING TELCON
- NEXT TELCON PARTICIPANTS

# SPO Dissemination

- After collaboration, the strategic plan of operations is:
  - Posted on the ATCSCC WEB page ([www.fly.faa.gov](http://www.fly.faa.gov))
  - Issued as a numbered advisory



# Collaborative Convective Forecast Product (CCFP)

# CCFP Overview

- CCFP was developed to provide a single convective forecast for NAS users to coordinate a system-wide approach to severe weather events.
- Provides all NAS users common situational awareness of forecasted convective activity.
- Improve Traffic Management route coordination during severe weather impact in the development of a strategic plan of operations

# CCFP Overview

- Provide opportunity for forecast input by individual NAS stakeholders through their meteorologists.
- Airline and CWSUs provide input on the forecast for their area of responsibility via Internet.
- The Aviation Weather Center (AWC) takes input and produces final forecast product.
- Forecast is displayed on the Internet (AOC and ATCSCC web sites)

# CCFP Forecast Areas

- End Users:
  - Airline Dispatchers
  - Airline AOC's/ATC Coordinator's
  - Facility TMUs
  - ATCSCC
- Forecast area is the CONUS and coastal waters commonly used during SWAP
- Forecasting prioritized for high impact areas.

# CCFP

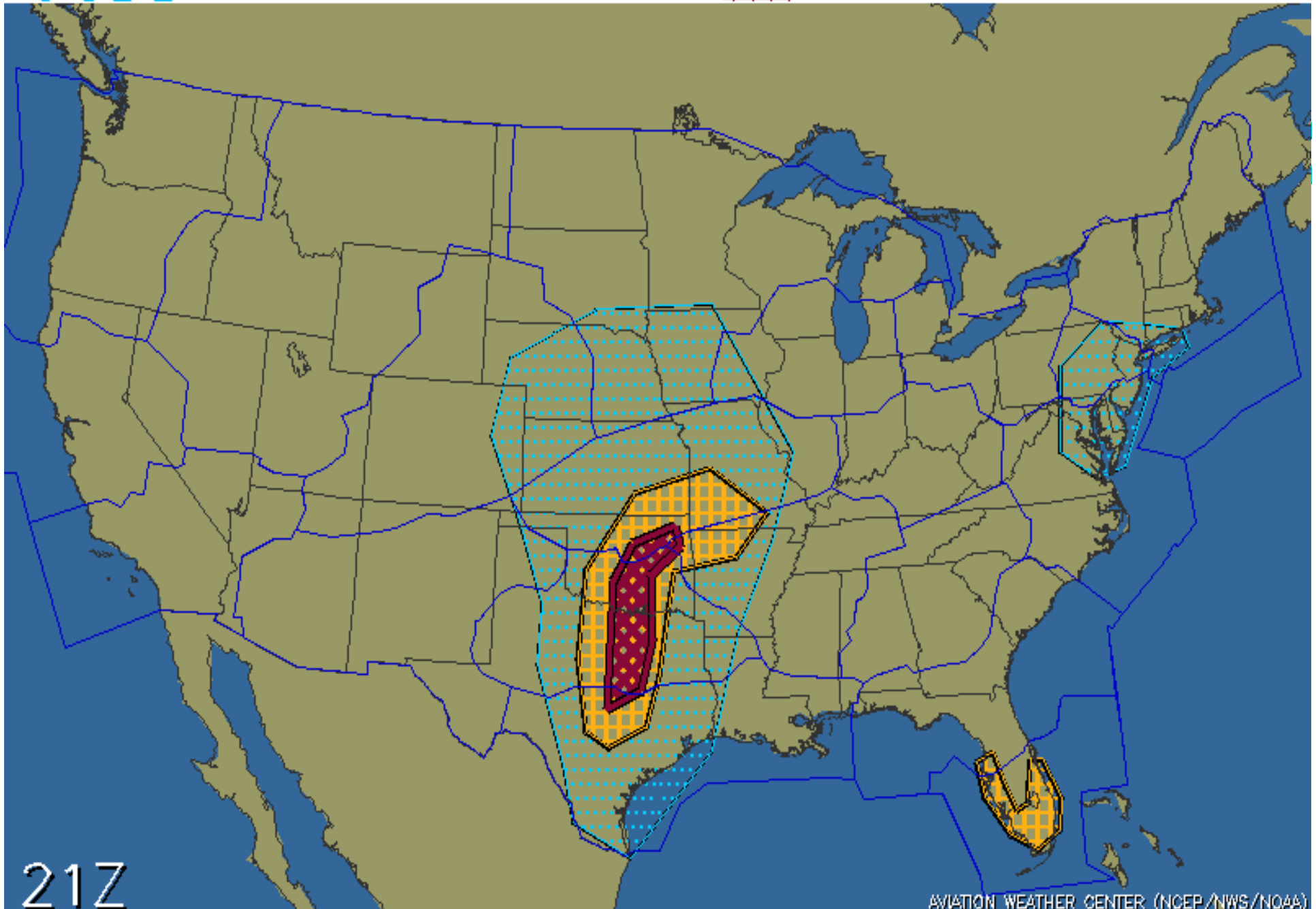
Issued: May 19, 2000 19Z  
Valid: May 19, 2000 21Z

## PROBABILITY OF CONVECTION

 HIGH  
50+%

 MEDIUM  
25-49%

 LOW  
1-24%



21Z

# Route Coordination Improvements

- The objective is to reduce the time it takes to coordinate reroutes through the use of:
  - Coded Departure Routes (CDRs)
  - National Playbook



# Coded Departure Routes (CDRs)

- A system of alternate air traffic routings and refined coordination procedures designed to mitigate potential adverse impact to the FAA and customers.

# CDR Uses

- Original purpose: to provide alternative departure routes to avoid convective weather within 200nm of a terminal.
- Balance departures to mitigate departure delays.
- Utilized to support implementation of specific National Playbook initiatives

**CDR 1.1** [ \_ ] [ □ ] [ × ]

Program Settings View Window Help

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**CDR Tool** [ \_ ] [ □ ] [ × ]

EFFECTIVE 0901Z **05 Oct 2000**  
 TO 0901Z **30 Nov 2000**

**Query Fields: Staging**

| Route Code | Origin/Dep Center | Destination/Arr C... | Departure Fix | Date/Time |
|------------|-------------------|----------------------|---------------|-----------|
|            |                   |                      |               |           |

**Database**

Operational

| Route String | Remarks | ModFlag |
|--------------|---------|---------|
|              |         |         |

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**NFDC Tool** [ \_ ] [ □ ] [ × ]

EFFECTIVE 0901Z **10 Aug 2000**  
 TO 0901Z **05 Oct 2000**

**Query Fields: PrefRoutes**


| Origin | Destination | Type |
|--------|-------------|------|
|        |             |      |

**NFDC Tables**

- PrefRoutes
- LocID

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**CDR Map : 1** [ \_ ] [ □ ] [ × ]



**Status** | Latitude: 31.984482 | Longitude: -149.22662

# National Playbook

- Revised and enhanced for the 2001 season.
- Usable for ATCSCC, FAA field facilities and airline planners.
- Plan is a living document.
- Web-based document readily accessible to National Airspace System users.

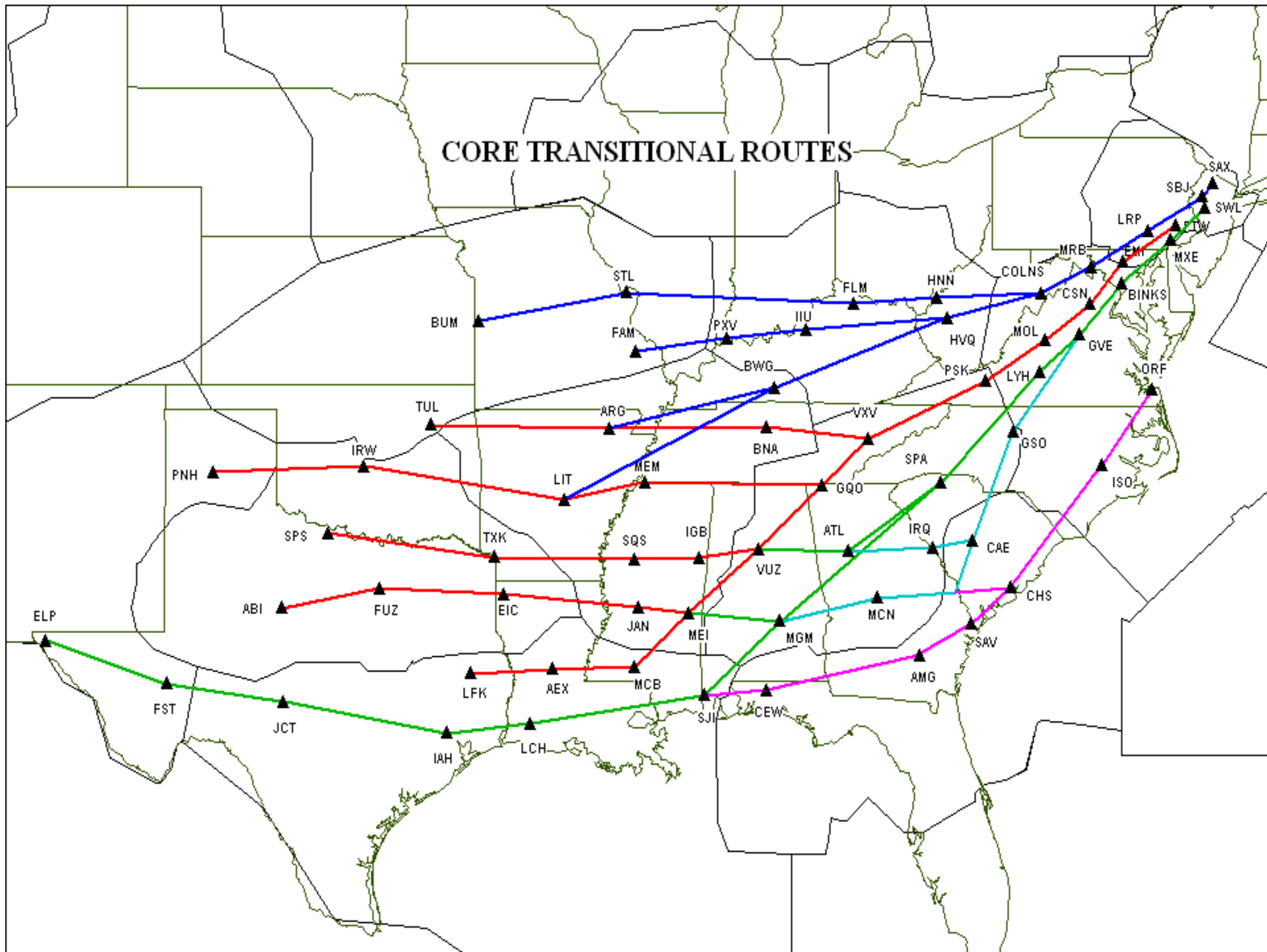
# National Playbook Uses:

- DURING A PLANNING TELCON
  - Both the FAA and NAS users will have a common resource available when discussing options and plans for a severe weather event.
- DURING THE WEATHER EVENT
  - Provides pre-validated solutions to quickly coordinate an alternate route when a resource becomes impacted.

# Playbook System Benefits

- Identifies options to consider when **PLANNING** for a severe weather event (Strategic Use).
- Identifies options in order of preference to consider when **REACTING** to the loss of a resource (Tactical Use).
- Enhances effectiveness of planning **TELCONs** by providing common source of **SWAP** options to **NAS** users and field facilities.

# CORE TRANSITIONAL ROUTES





# Diversion Recovery Procedures (DVRSN)



# Diversion Recovery Procedures (DVRSN)

- Orchestrated by the ATCSCC and system users.
- Utilized during and after periods of significant weather or other phenomena that adversely impacted the system.

# DVRSN: Objectives

- Improve recovery service to diverted flights.
- Provide priority release to diverted flights.
- Minimize additional penalties on diverted flights.

# Diversion Recovery Tool

- Streamlines electronic coordination of diversion recovery priority requests from:
  - Users to ATCSCC and
  - ATCSCC to ARTCCs.
- Posts flights with “DVRSN” in remarks.
- Enables users to enter flights, comments and prioritization.

# Diversion Recovery Tool

- Available to ATCSCC and CDM members as a Web-based prototype.
- Allows each airline to see only its own data.
- Used when announced by ATCSCC advisory.



Bookmarks Location: <http://wsd4.cdm.volpe.dot.gov/diversion/> What's Related

Members WebMail Connections BizJournal SmartUpdate Mktplace

### Diversion Recovery Flights

Version 1.4  
Page Updated: Monday, December 11, 2000 1446z

| ACID                    | Type | ORIG | ETD  | DEST | ETE | DCENTR | ACENTR | Priority | Special Handling | Comment |
|-------------------------|------|------|------|------|-----|--------|--------|----------|------------------|---------|
| <a href="#">AAL710</a>  | test | JFK  | 2226 | LGA  | 4   | ZNY    | ZNY    | -        | Yes              | -       |
| <a href="#">AAL1322</a> | test | BWI  | 2349 | PHL  | 23  | ZDC    | ZNY    | -        | Yes              | -       |
| <a href="#">COA167</a>  | test | CYUL | 2030 | CYYZ | 66  | CZU    | CZY    | -        | No               | -       |
| <a href="#">CDN51</a>   | test | CYOW | 2111 | CYYZ | 43  | CZU    | CZY    | -        | No               | -       |
| <a href="#">COA106</a>  | test | SEA  | 2003 | EWR  | 242 | ZSE    | ZNY    | -        | Yes              | -       |
| <a href="#">COA162</a>  | test | RIC  | 2100 | EWR  | 41  | ZDC    | ZNY    | -        | Yes              | -       |
| <a href="#">COA1486</a> | test | DTW  | 2032 | CLE  | 37  | ZOB    | ZOB    | -        | Yes              | -       |
| <a href="#">DAL512</a>  | test | IAD  | 2033 | LGA  | 45  | ZDC    | ZNY    | -        | Yes              | -       |
| <a href="#">DAL532</a>  | test | RIC  | 2216 | EWR  | 46  | ZDC    | ZNY    | -        | Yes              | -       |
| <a href="#">EGF872</a>  | TEST | ALB  | 2240 | SYR  | 34  | ZBW    | ZBW    | High     | Yes              | Y       |
| <a href="#">N201QA</a>  | test | JXN  | 2340 | DET  | 36  | ZOB    | ZOB    | -        | No               | -       |
| <a href="#">N44M</a>    | test | AGC  | 2335 | LBE  | 15  | ZOB    | ZOB    | -        | No               | -       |
| <a href="#">N55169</a>  | test | FOK  | 2350 | ISP  | 13  | ZBW    | ZNY    | -        | No               | -       |
| <a href="#">N68CT</a>   | test | NEW  | 2335 | MLU  | 72  | ZHU    | ZFW    | -        | No               | -       |
| <a href="#">NKS157</a>  | test | MYR  | 2310 | PBI  | 82  | ZJX    | ZMA    | -        | No               | -       |
| <a href="#">NWA57</a>   | test | JFK  | 2227 | EWR  | 23  | ZNY    | ZNY    | -        | Yes              | -       |
| <a href="#">NWA158</a>  | test | ALB  | 2312 | SYR  | 29  | ZBW    | ZBW    | -        | No               | -       |
| <a href="#">NWA556</a>  | test | DEN  | 1942 | MSP  | 91  | ZDV    | ZMP    | -        | No               | -       |
| <a href="#">TWA278</a>  | test | RIC  | 2318 | PIT  | 58  | ZDC    | ZOB    | -        | Yes              | -       |
| <a href="#">UAL82</a>   | test | RIC  | 1825 | EWR  | 50  | ZDC    | ZNY    | -        | Yes              | -       |

**Sort Order**

|                      |                      |                      |                      |
|----------------------|----------------------|----------------------|----------------------|
| AIRLINE              | DEST                 | ACENTR               | AIRLINE FILTER       |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| ETD                  | PRIORITY             | ORIG                 | DCENTR               |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

**SHOW**

COMMENTS

AUTO FLIGHTS

GEN AVIATION

PURE INTL

**Controls**



# Low Altitude Arrival/Departure Routes (LAADR)

# LAADR Objectives

- Increase system capacity
- Access under-utilized airspace in the lower altitudes
- Reduce volume in high altitude sectors associated with rerouted and deviating traffic

# LAADR Goals

- Increase Throughput
  - Reduce Frequency Congestion.
  - Reduce complexity.
- Reduce departure and/or airborne delays.
- Increase safety..



# Where is LAADR Used

## ■ Departures

- Low altitude for entire route (shorter leg lengths, normally less than 500 NM)
- Low altitude for departure;
  - » *cleared to higher altitude at specific point in flight plan.*

# LAADR Applications

- Defined by Local MOUs
- Strategically Implemented (part of a plan to deal with a predicted system constraint)
- Dynamic application
  - Historically, to keep the system moving or reduce departure delays, “capping” or “tunneling” aircraft have been used as tactical applications on limited basis during periods of severe weather or sector volume. This process will continue to be utilized as a traffic management tool in accordance with FAAO 7210.3.



# User Hotline

## User Hotline: Goal

- Provide operational information to NAS System Users on a real time basis.
- Provide advance notification and two-way communication of rapidly changing situations in the NAS.

# User Hotline: Responsibilities

- Users should reserve comments to:
  - Flight specific questions or issues.
  - Event specific situations or updates.
- The ATCSCC
  - Provides status of NAS Operations.
  - Answers questions in order received.
  - Publishes numbered advisories when hotline is activated or terminated.



# Post Event Analysis

# Post Event Analysis

- Review the operation every two weeks.
- Data collection from:
  - Critique form on ATCSCC Web page.
  - Facility / ATCSCC Logs.
  - Airline data, logs, and analysis.
- Users / Field personnel participate.

# COMMUNICATION IS THE KEY TO SUCCESS

- No longer can passengers be “held hostage” while waiting on a taxi-way for a release.
- Delay reporting must be accurate and complete.
- EDCT compliance is essential. Any variance from issued EDCTs must be coordinated through the ATCSCC.
- Keep everyone informed. Good traffic management decisions can’t be made in a vacuum.



# ATCSCC Web Site



## Data Available

- Advisories Database
- AADC
- OIS
- General Info
- CCFP
- eSTMP

## Internet

<http://www.fly.faa.gov>



**ATCSCC  
 OIS  
 SYSTEM**  
**3/9/2001**

- OIS Main Menu**
- [+ NAS Status](#)
  - [+ East Directory](#)
  - [+ West Directory](#)
  - [+ Planning Team](#)
  - [+ Severe Weather Tier Info](#)

## NATIONAL AIRSPACE SYSTEM STATUS

(Note: This page will refresh every 5 minutes. Last updated Fri, 9 Mar 2001 18:31:50 UTC.) Provided by the FAA's Air Traffic Control System Command Center

### GROUND DELAY PROGRAMS Help

| ARPT | START | END  | FACILITIES | REASON            | MAX | AVG | AAR | PR |
|------|-------|------|------------|-------------------|-----|-----|-----|----|
| BOS  | 1800  | 0159 | ALL/CANADA | LOW CIGS/VIS/SNOW | 112 | 32  | 36  | 38 |

### GROUND STOPS Help

| ARPT | TIME | FACILITIES | REASON        |
|------|------|------------|---------------|
| ORD  | 1845 | ZAU1       | DEBRIS ON RWY |

### DELAY INFO Help

| ARPT | AD | DD | TIME | REASON |
|------|----|----|------|--------|
|      |    |    |      |        |

### AIRPORT CLOSURES Help

| ARPT | TIME     | REASON                   | REOPEN   |
|------|----------|--------------------------|----------|
| BDR  | 03091827 | DISABLED AIRCRAFT ON RWY | 03091930 |

### DEICING Help

| ARPT | AAR/ADR | TIME | PLAN? |
|------|---------|------|-------|
| PIT  | 80/80   | 1425 | Y     |

### Runway/Equipment Info Help

*This is not a complete list of Runway/Equipment Status. Please consult the current NOTAMs for complete information.*

| Facility | Description                                   |
|----------|---|
| ORF      | RWY 5/23 CLSD 0145-0545L UFA FOR CONSTRUCTION |
| PHX      | LAST 6000 RWY 8 CLSD/CONSTRCTN TIL 3/15/01    |

### MISCELLANEOUS

NEXT PLANNING TELCON AT 2015Z

# Questions??

