

System Operations ATCSCC

Managing the Skies Today and Planning for Tomorrow

Air Traffic Control System Command Center (ATCSCC)

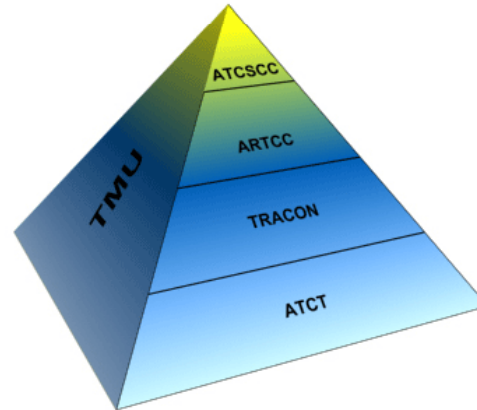


The ATCSCC became operational in May 1994



- The largest and most sophisticated facility of its kind
- Advanced automation tools
- Provide proactive system oversight in traffic management

ATFM Presence



- Air Route Traffic Control Centers
 - ZNY, ZOB, ZBW, ZDC, ZTL, ZID, ZJX, ZMA, ZME, ZFW, ZAB, ZHU, ZDV, ZKC, ZAU, ZMP, ZSE, ZLA, ZLC, ZOA, ZAN,
- Terminals and TRACONs
 - N90, PCT, P50/PHX, I90/IAH, D10/DFW, C90, T75/STL, SCT, NCT, A80, PHL, MSP, DTW, LAX, LAS, ZHN, ZSU

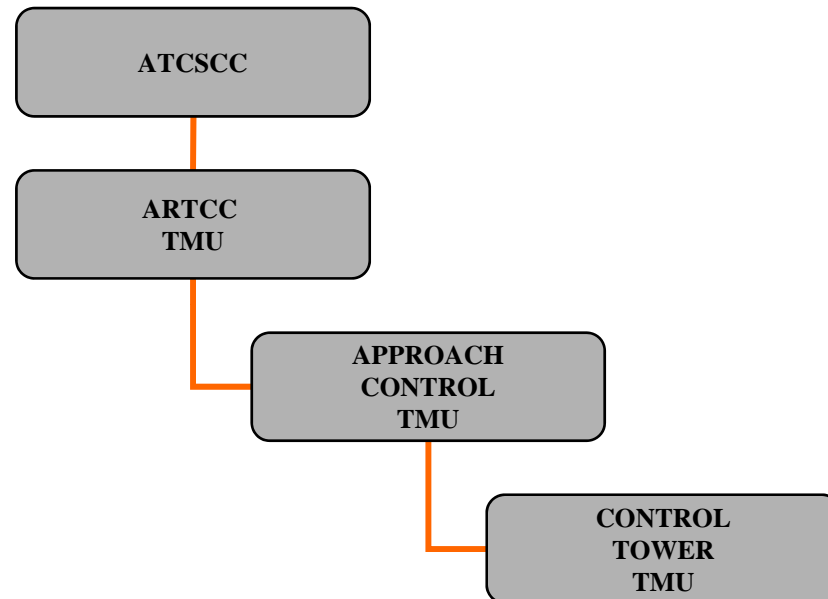
Who's Involved with TFM



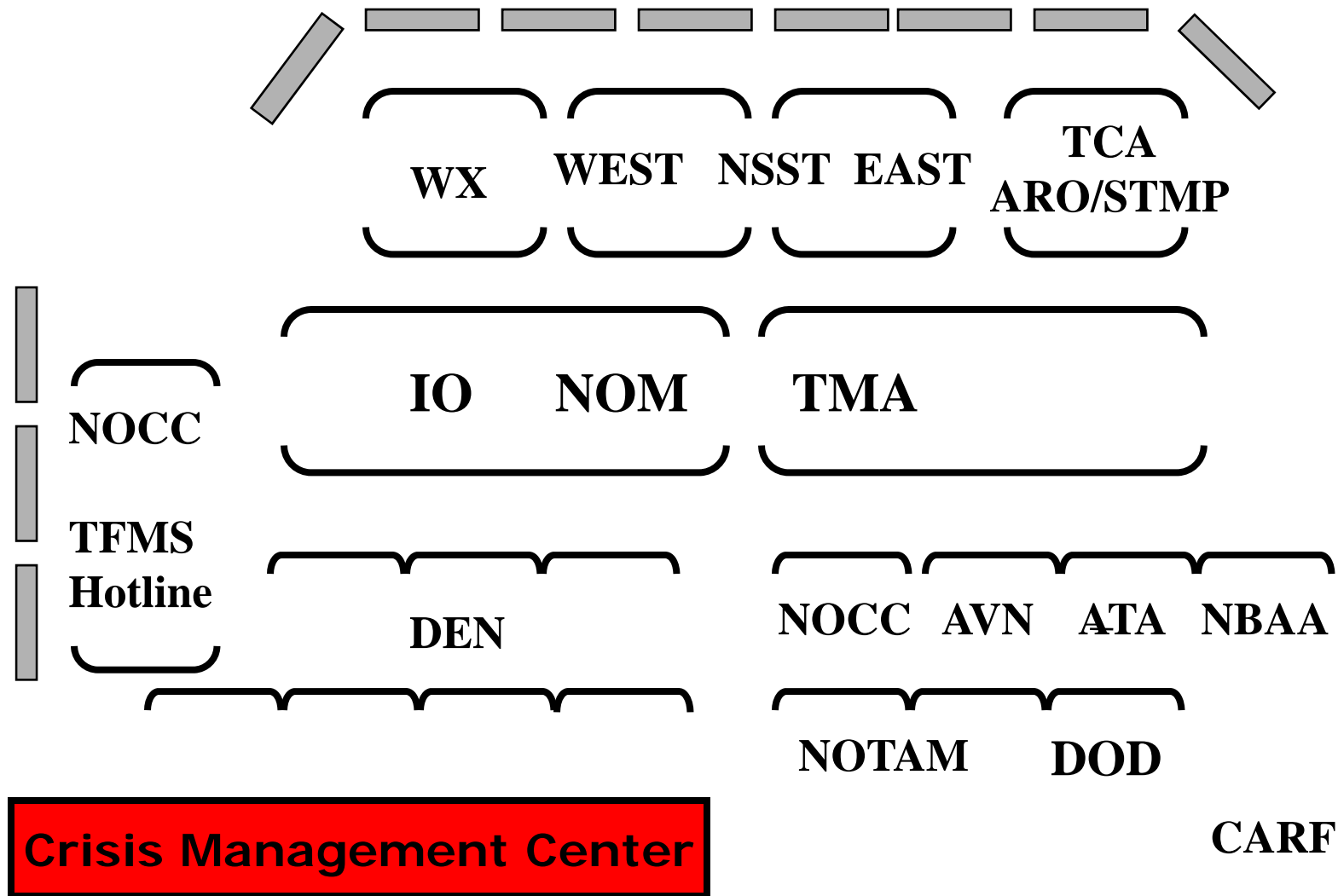
- Command Center
- ARTCC
- TRACON
- Terminal



- Stakeholders
 - Civil
 - Military



ATCSCC Operational Floor



Airline Transport Association



FedEx

ASTAR
AIR CARGO

Continental
Airlines

jetBlue
AIRWAYS

BX AIR

aloha



AIR CANADA

Alaska Airlines



airJamaica

Delta

nwa
NORTHWEST AIRLINES

MEXICANA

AA
American Airlines

EVERGREEN

SOUTHWEST
AIRLINES

MIDWEST
AIRLINES



U.S. AIRWAYS

ATLAS AIR



HAWAIIAN
AIRLINES

UNITED

Regional Airline Association



Founded in 1975, Washington, DC-based RAA The association's 43 member airlines and 305 associate members represent the key decision makers of this vital sector of the commercial aviation.

National Business Aviation Association



Coordinates the concerns of specific customer groups to the ATCSCC

Provides information to the customers on planned or current traffic initiatives

Provides information to ATCSCC on significant unscheduled or unanticipated GA movement

Collaborations



Customers participate in the daily management of the NAS through:

- –Participating in daily weather assessment
- –Utilizing common situation display so capacity and constraint data is automatically shared
- –Planning Telcons – conducted every two hours
- –Representatives located at the System Command Center [ATA, NBAA, Military Cell]
- –Direct access to the Tactical Customer Advocate
- –Access to FAA management through daily customer telecons
- –Participate in regular system improvement meetings

Common Situational Awareness



FAA - FAA Facilities (Towers, TRACONS, Centers)

Collaborative Decision Making (CDM) members

Shared information and awareness w/ General traveling public

Tools we use:

Collaborative: TFM – Traffic Situation Display
 FSM – Flight Schedule Manager
 NTML- National TM Log
 OIS – Operational Information System
 Telcons

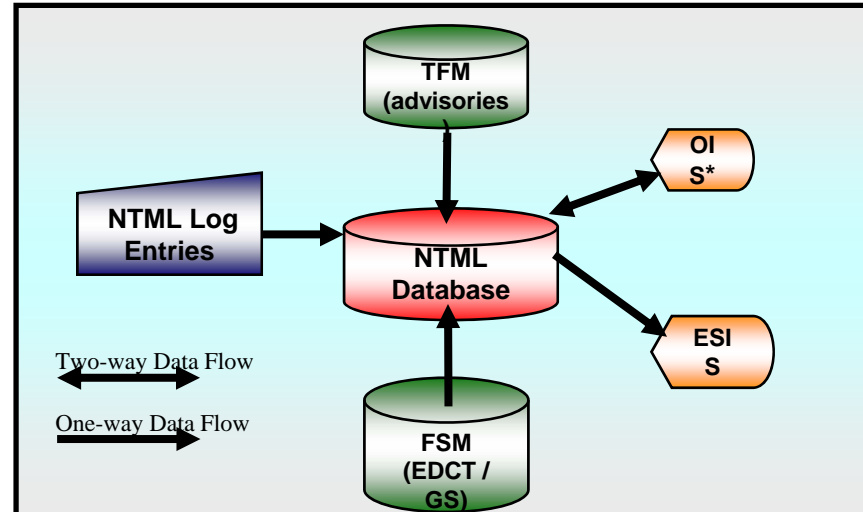
Advisories

WWW.Fly.Faa.gov – Public Web site

National Traffic Management Log

- Provides real-time distribution of National Airspace System (NAS) operational data across the TFMS network

Current NTML Data Flows



*Two-way for Traffic Counts
All others one-way

National Traffic Management Log (NTML)



- Standardizes log tool across all facilities
- Provides a “Single Point of Entry” for NAS data (e.g., restrictions, delays, ground stops, runway changes, airport counts, etc.)
- Automates data collection
- Archived log data for post-analysis of NAS data and reporting



NTML: CCW1 TMU 08 Aug 2006 1613

Options Edit View Tools Information Print Reports Link Search Help

Misc
RSTN
MRSTN
GStop
APREQ
Delay
RWY
Sum
EQ
Log
MyEntry
SISO
SWAP
PIREP
SUA
Pending

Jim Champagne Request Type: ☒ Initiate ☐ Edit ☐ Cancel ☐ Delete

Entry Time: 1612 ☐ Clear on Submit

Type of Delay:
☐ Enroute ☐ Arrival ☐ Departure

Causal Factor...

Facility Holding: CCW1 Arriving:

	Length	DelayTime	Number of AC		Length	DelayTime	Number of AC
<input checked="" type="radio"/> + <input type="radio"/> -				<input checked="" type="radio"/> + <input type="radio"/> -			
<input checked="" type="radio"/> + <input type="radio"/> -				<input checked="" type="radio"/> + <input type="radio"/> -			
<input checked="" type="radio"/> + <input type="radio"/> -				<input checked="" type="radio"/> + <input type="radio"/> -			
<input checked="" type="radio"/> + <input type="radio"/> -				<input checked="" type="radio"/> + <input type="radio"/> -			
<input checked="" type="radio"/> + <input type="radio"/> -				<input checked="" type="radio"/> + <input type="radio"/> -			
<input checked="" type="radio"/> + <input type="radio"/> -				<input checked="" type="radio"/> + <input type="radio"/> -			

Remarks:

Send To... ESIS: Coordination Complete ☐

Pos: Reminder (Z):

Fac: Entry #:

Submit Spelling Clear Save As

Training Pending: 0

NTML: DCC 10 11 Nov 2005 2111

Options Edit View Tools Information Print Reports Link Search Help

Misc
RSTN
MRSTN
GStop
APREQ
Delay
RWY
Sum
EQ
Log
MyEntry
SISO
ICE
Count
SWAP
PIREP
MA
Telcon
INFO
SUA
Pending

MM Michael McGrath

Entry Time: 2110

Time	Type	FAC	Message
2109	FWD	ZDV	2109-2209 today is a federal holiday Fwd by ZDV/TMU/MM
2101	RSTN	ZDV	DEN EnRte via WHITE 20 Mit 2101-2146, WX: TSTMS, ZDV: ZBW, RSTN: REQ
2106	SWAP	ZDV	DEN Entered SWAP J21 usable at 2106 Fwd by ZDV/TMU/MM
2106	SRSTN	ZDV	EnRte WHITE 30 Mit 2200-2300, WX: LOW CEIL NC/VISIB LITY, ZDV: ZAB, SYR WX Coordinated RSTN: GDP (FA) DEN FAC=(2ndTier+CYZ_AP) ZAU ZMP ZID ZJX ZOB ZBW ZTL ZDC ZNY EXCPT STL ZKC 11/2140Z-11/2300Z, reason test text, explain test text MAX=162 AVG=143 AAR=66/30/6C/30 RMK: comments test text ADVZY=1 DEN/ZDY 11/11/2005
2108	EDCT	DCC	
2108	DELAY	ZDV	ZDV A/C on DEN, +30/2121;12 ACFT WX: LOW CEILING/VISIBILITY Fwd by ZDV/TMU/MM

Requests Awaiting Approval: 1 Proposed RSTNs on me: 0

Log/Approve Disapprove Open Refresh Remove

ntmlordsvr2.egh.csc.com Pending: 6



Exceed


OIS - SeaMonkey

File Edit View Go Bookmarks Tools Window Help

Back Forward Reload Stop http://10.156.193.241/ois/ Search Print

Home Bookmarks Linux TOD OIS ATCSCC ADVIS RMT ITWS Current Reroutes Web RSTRNS WSI PLAYBOOK

OIS Pos Relief East-Rstrm West-Rstrm CoverSheet Routes Adv Fac Info #s WX-NOTA... RVR ITWS Route Mgm...

 **ATCSCC
OIS
SYSTEM**

**03 23 08
2152:07**

OIS Main Menu

- Summary
- Contingency Database
- Planned Outages
- Int'l Summary
- Schedules
 - Day
 - Mid
 - Even
- East Directory
- West Directory
- NSST
- Crisis Management
- National Playbook
- Metro
- Tier Info
- Checklists
- Airport Metrics

(Note: This page will refresh every minute. Last updated Sun, 23 Mar 2008 21:51:31 UTC.)

NATIONAL PROGRAMS

CONTROL ELEMENT	START	END	SCOPE	REASON	AVG	AAR	PR	ADVZY	DA
HPN	1700	0159	ALL+CZY_AP (GAAP)	VOLUME / VOLUME	2	28	24	026	DA
JFK	2100	0259	(Distance) - 1000 miles. + CYHZ+CYOW+CYUL+CYYZ	VOLUME / VOLUME	92	36	36	037	DA
TEB	1900	0159	ALL+CZY_AP (GAAP)	VOLUME / VOLUME	6	26	24	029	DA

GROUND STOPS

ARPT	UPDATE	POE	SCOPE	REASON	ADVZY

DELAY INFO

ARPT	AD	DD	TIME	REASON
FLL		+90	1910	VOL:Multi-taxi
IAH		+15	2116	WX:WIND
MIA		+60	1909	WX:TSTMS
PBI		+30	2104	TM

Initiatives:MIT/MINIT:WX:TSTMS

VACAPES REQUESTS

AREA	REQ/APVL	ALTITUDE	TIME	REMA
A,B,C,D	APVD	AOA FL240	1700-0400	SEASO VO
E	DISAPVD	AOA FL240	1700-0400	SEASO VO

CANCELLED INITIATIVES

ARPT	TYPE	TIME CANCELLED
FLL	GS	23/2125

AIRPORT CLOSURES

ARPT	TIME	REASON	REOPEN

Traffic Situation Display OIS - SeaMonkey

Sun Mar 23 21:52

- Web application available to communicate delays with FAA, Airlines, Military, and General public

- Delay information automatically displayed and allows manual input



Exceed

OIS - SeaMonkey

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Home Bookmarks Linux TOD OIS ATCSCC ADVIS RMT ITWS Current Reroutes Web RSTRNS WSI PLAYBOOK

OIS Pos Relief East-Rstrm West-Rstrm CoverSheet Routes Adv Fac Info #'s WX-NOTA... RVR ITWS Route Mgm...

Schedules

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Mid
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East Directory
West Directory
NSST
Crisis Management
National Playbook
Metro
Tier Info
Checklists
Airport Metrics
Request Date
View All Airport Metrics

ABQ
ANC
ATL
AUS
BDL
BHM
BNA
BOS
BUF
BUR
BWI
CLE
CLT
CVG
DAL
DAY
DCA
DEN
DFW
DTW
EWR


AAR/ADR Tracking System - 3/23/2008

ARPT	Date/Time-Zulu	Arrival Runway(s)	AAR	Departure Runway(s)	ADR
ABQ	03/23/2008 1243Z	08/03	64	08/03	30
ANC	03/23/2008 1430Z	07R/07L	30	07L/32	0
ATL	03/23/2008 1430Z	26R/27L/28	126	26L/27R	100
AUS	03/23/2008 1452Z	35R	17	35R	17
BDL	03/23/2008 1110Z	24/33	37	24/33	0
BED	03/23/2008 1100Z	29	26	29	26
BFI	03/23/2008 1235Z	13R	24	13R	24
BHM	03/23/2008 1439Z	06/36	42	06/36	0
BNA	03/23/2008 1053Z	02L/02C/02R	72	02L/02C/02R	60
BOS	03/23/2008 1950Z	27/22L	59	22R	50
BUF	03/23/2008 1701Z	5	37	5	37
BUR	03/23/2008 1300Z	08/15	42	08/15	36
BWI	03/23/2008 1010Z	33L	40	28	40
CLE	03/23/2008 1842Z	06R/06L	56	06R	45
CLT	03/23/2008 2125Z	18R/23	70	18L/18R	64
CVG	03/23/2008 1030Z	18R/18C/18L	108	18C/18L/27	112
DAL	03/23/2008 1058Z	31R/31L	40	31R/31L	36
DAY	03/23/2008 1130Z	06L/06R	45	06L/06R	0
DCA	03/23/2008 1010Z	01	36	01	36
DEN	03/23/2008 1533Z	16L/16R/17R	114	17L/17R/08/25	152
DFW	03/23/2008 1058Z	36L 35C 35R 31R	120	31L/36R/35L	100
DTW	03/23/2008 1254Z	22R/22L/21R	92	22L/21R	92
EWR	03/23/2008 2017Z	22L/11	52	22R	38
ELI	03/23/2008 2020Z	01/02	42	01/02	40

Traffic Situation Display OIS - SeaMonkey

WWW.Fly.FAA.Gov



 **Federal Aviation Administration** [FAA.gov Home](#) | [ATCSCC Home](#)


Flight Delay Information - Air Traffic Control System Command Center

[ATCSCC Home](#) | [Products](#) | [What's New](#) | [Site Map](#) | [ATCSCC FAQ](#) | [Text-Only Version](#)

View by Region:

Search by Airport:
(Enter city, airport code, airport name)

View by Major Airport:




The status information provided on this site indicates general airport conditions; it is not flight-specific. [Check with your airline](#) to determine if your flight is affected. Information on [wait times at security checkpoints](#).

- Web application available to communicate with delays with FAA, Airlines, Military, and General public.
- Delay information automatically displayed and allows manual input
- XML version of data for news providers (Weather Channel, CNN, etc.)

Aviation Information System



Federal Aviation Administration

FAA.gov Home | ATC

Air Traffic Control System Command Center

ATCSCC Home | Products | What's New | Site Map | ATCSCC FAQ | Text-Only Version

AIS Registration

To register and create an AIS account with us, provide your e-mail address and select a password. **Do not give us your e-mail account's password; create a new password.** After you submit the registration form below, we will send a confirmation number to the e-mail address you provide. You must [enter your confirmation number](#) before you can set your preferences or receive delay notifications. Once you have registered and successfully submitted your confirmation number, you can go directly to [the login page](#).

Register for the Aviation Information System

Enter your e-mail address:	<input type="text"/>
Enter your password:	<input type="password"/>
Re-enter your password:	<input type="password"/>
<input type="button" value="Register"/> <input type="button" value="Clear Form"/>	

Register

Confirmation

Login

Unsubscribe

Resend CN

Resend PW

- Public can sign up to receive information for airport delays via email

International ATFM TELCONS



- NAV CANADA – twice per day
- EUROCONTROL – twice per day
- MEXICO – twice per day
- CARIBBEAN – once per day
- COLOMBIA – once per day
- BRAZIL – once per day
- JAPAN – once per month

- FUTURE
 - ~ **JAPAN - daily**



International TFMS Data Exchange

▪ Current Agreements

- Mexico
- Canada
- United Kingdom
- COCESNA
- Chile
- Columbia
- Eurocontrol
- Panama
- Dominican Republic
- Japan

▪ Future Expansion

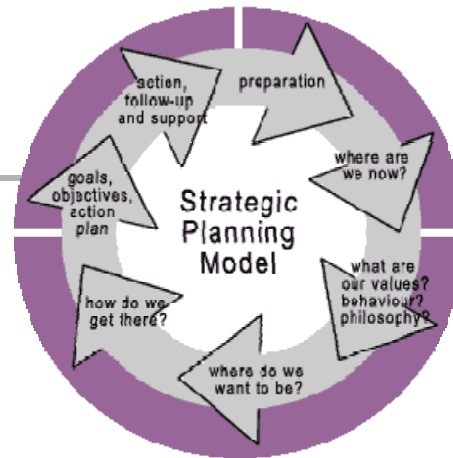
- Brazil

ATFM Planning

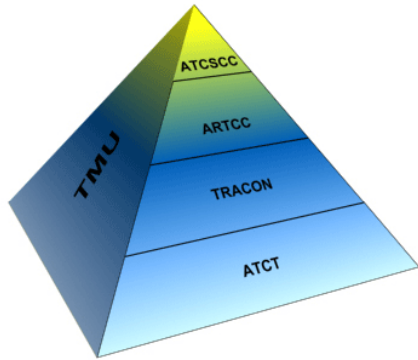


Strategic Planning – Special Events Special Traffic Management Programs





- STMP is a long range strategic initiative that is implemented when a location requires special handling to accommodate above normal traffic demand. 90/60/30/3 days milestones.
- STMP implementation is especially important when historical event demand is known to exceed system capacities. Re-occurring Major events are planned months/years in advance.



Strategic Planning




- All AT facilities must provide the ATCSCC with advance notification of planned outages and runway closures that will impact the AT system
- The ATCSCC electronically disseminates them to the National Business Aviation Association, the Airline Transport Association and Military.

Outages Page



AIS
 Pos Relief
 East-Rstrn
 West-Rstrn
 CoverSheet
 Routes Adv
 Fac Info #s
 WX-NOTA...
 RVR
 ITWS
 Route Mgm...



**ATCSCC
OIS
SYSTEM**

**03 19 08
1420:27**

OIS Main Menu

- [Summary](#)
- [Contingency Database](#)
- [Planned Outages](#)
- [Int'l Summary](#)
- [Schedules](#)
- [East Directory](#)
- [West Directory](#)
- [NSST](#)
- [Crisis Management](#)
- [National Playbook](#)
- [Metro](#)
- [Tier Info](#)
- [Checklists](#)
- [Airport Metrics](#)
- [TCA Hotline](#)
- [Cover Sheets](#)
- [OIT Info](#)

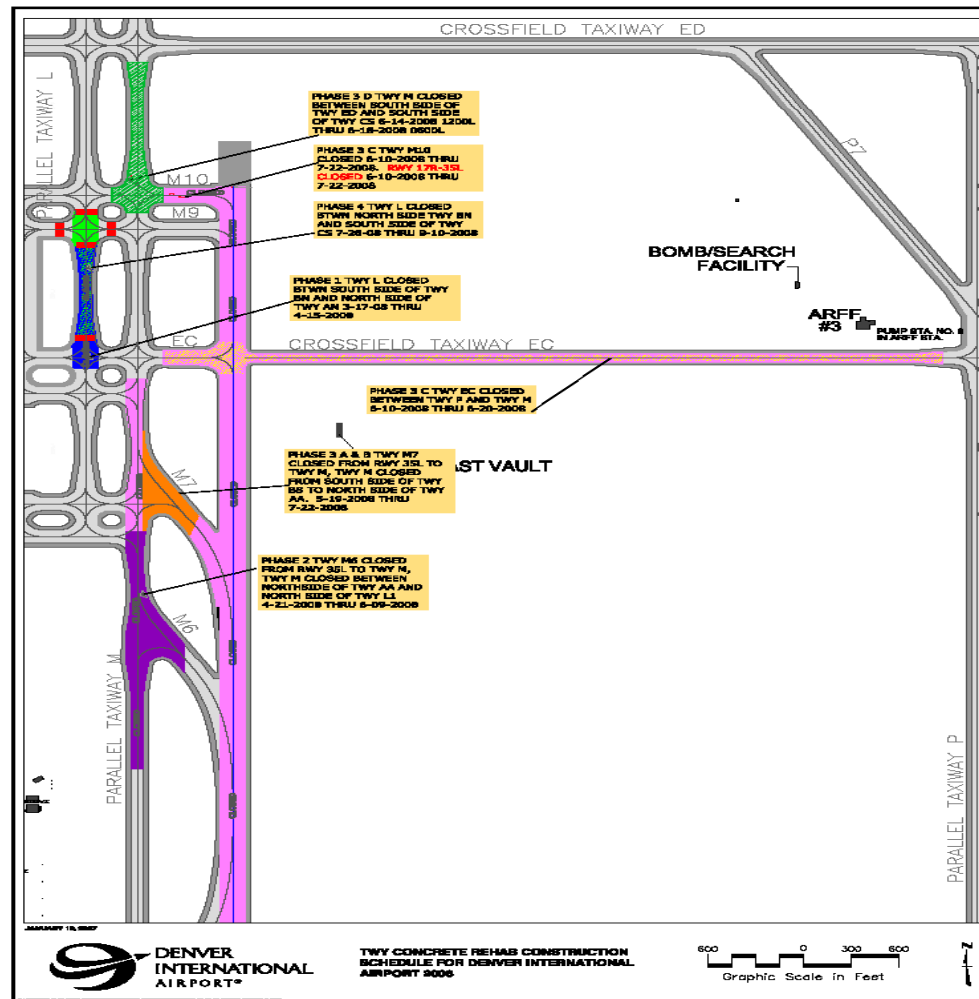
Planned Outages Summary										
Facility ID	Start Date	End Date	NAS ID	NAS Element	Work Type	City	State	SVC Area	Flight Check Required?	NOTAM Required?
	03/19/2008	03/25/2008	CKH	VOR	Other	OAHU KOKO HD	HI	WSA	No	Yes
	03/24/2008	04/11/2008	CPS	LOC	Replacement	EAST ST LOUIS	IL	CSA	Yes	Yes
	03/24/2008	03/28/2008	SEA	LOC	Other	SEATTLE	WA	WSA	No	Yes
	03/25/2008	04/02/2008	AUW	VOR	Shutdown	WAUSAU	WI	CSA	Yes	No
	03/25/2008	03/27/2008	BJI	TACR	Replacement	BEMIDJI	MN	CSA	Yes	Yes
	03/25/2008	03/27/2008	TRM	VOR	Replacement	THERMAL	CA	WSA	No	Yes
	03/26/2008	04/04/2008	HNL	LOC	Shutdown	OAHU HONOLULU	HI	WSA	Yes	Yes
	03/26/2008	07/31/2008	LVF	GS	Relocation	DALLAS	TX	CSA	Yes	Yes
	03/27/2008	03/27/2008	VNY	VOR	Other	VAN NUYS	CA	WSA	No	Yes
	03/31/2008	04/04/2008	HUH	VOR	Other	BELLINGHAM	WA	WSA	No	Yes
	03/31/2008	04/17/2008	OCF	RTR	Shutdown	OCALA	FL	ESA	No	No
	03/31/2008	10/01/2008	SSX	LOC	Relocation	NASHVILLE	TN	ESA	No	No
	03/31/2008	10/01/2008	UQU	LOC	Relocation	NASHVILLE	TN	ESA	Yes	Yes
	03/31/2008	04/21/2008	UWU	LOC	Replacement	LOS ANGELES	CA	WSA	Yes	Yes
	04/01/2008	04/03/2008	AKN	BDAT	Upgrade	KING SALMON	AK	WSA	No	Yes
	04/01/2008	04/04/2008	CHS	VOR	Other	CHARLESTON	SC	ESA	No	Yes
	04/01/2008	05/30/2008	EYW	VOR	Other	FLEMMING KEY	FL	ESA	Yes	Yes
	04/01/2008	04/03/2008	F17	RCO	Shutdown	CENTER	TX	CSA	No	No
	04/01/2008	08/01/2008	FJU	MALSR	Airport Imprv. Plan	CHICAGO	IL	CSA	No	No
	04/01/2008	08/01/2008	LOQ	MALSR	Airport Imprv. Plan	CHICAGO	IL	CSA	No	Yes
	04/01/2008	08/01/2008	THS	VOR	Replacement	SAINT THOMAS	PA	ESA	No	No

TSD
 AIS
 SeaMonkey
 ETMS

☐ Traffic Situation Display
 ☐ Replay Situation Display

Wed Mar 19
14:20

USER FORUMS ARE HELD



Impacts Time lined



Project number	Location	Dates	Notams	Notes
1 (Milestone 1)	Twy L @ BS	3/17 to 4/15 (30 days)	Twy L closed btwn south side of twy BN to north side of twy AN.	
2 (Milestone 4)				
Phase A	Twy M6	4/21 to 6/09 (50 days total)	Twy M6 closed from rwy 35L to twy M	
Phase B	Twy M from AS to M6	4/21 to 6/09	Twy M closed from south side of twy AS to north side of L1	
Alternate 1	Twy M south of M6	4/21 to 6/09		
3 (Milestone 3)				
Phase A	Twy M7 from M to Hold Bar	5/19 to 7/22 (65 days total)	Twy M7 closed from rwy 35L to M	Only work on M7 from M to the Hold Bar
Phase B	Twy M from AN to AS	5/19 to 7/22	Twy M closed from south side of BS to north side of AA	
Phase C (Rwy 35L clsd 6/10 to 7/22)	Twy M10	6/10 to 7/22	Rwy 35L closed for construction Twy M10 closed from 35L to M	M7 work to continue from Hold-Bar to 35L. No daily runway closures are scheduled while 35L is closed. 35L unusable as a taxiway north of M6.
	Twy EC	6/10 to 6/20	Twy EC closed from P to M (6/10 to 6/20)	
Phase D	Twy M @ CS	6/14 to 6/18	Twy M closed from south side of ED to south side of CS.	Close M from ED to CS
4 (Milestone 2)	Twy L from BS to BN	7/28 to 9/10 (45 days total)	Twy L closed from north side of BS to south side of CS	

Note: All construction areas will be properly marked and lit with low-level barricades, red flashing lights and one or more light plants for night visibility. Centerline lights leading to the closed areas will be extinguished and all appropriate airfield signage will be covered during the closures.

Pre-tactical



DEN DENVER INTL

!DEN **03/284** (KDEN A1120/07) DEN TWY L CLSD BTN TWY BN AND TWY AN
BARRICADED/LGTD TIL 0706252300

!DEN **03/269** (KDEN A1096/07) DEN RWY 35L CLSD FOR RESURFACING WEF
0706101500-0707222100

!DEN **03/251** DEN TWY M SW RADIUS OTS AT TWY BS

!FDC **8/8497** (KDEN A1064/07) DEN FI/T DENVER INTERNATIONAL, DENVER, CO. ILS
OR LOC RWY 35L OTS.



Federal Aviation
Administration

Pre-tactical



Memorandum

TO: All Operational ATCSCC Personnel

FROM: Manager, ATCSCC Strategic Operations

SUBJECT: Denver, CO (DEN) Runway 35L Closure

ISSUED: May 24, 2007 **REMOVE:** July 27, 2007

PROJECT: DEN Runway 35L closure for runway/Taxiway repair.

SCHEDULED DATES/TIMES: June 10, 2007 at 2245L (0345 UTC) through July 22 at 1600L (2100 UTC).

OPERATIONAL IMPACT: AAR will be reduced by 25%

DELAYS: Weather dependent, delays possible.

TRAFFIC MANAGEMENT INITIATIVES (TMI's):

East/West flow – None.

North/South flow – Increased MIT and reduced use of the dual arrival routes.

North/South flow IFR – GDP with an AAR in the 60-70 range.

CUSTOMER COORDINATION: Local customers briefed, NOTAM will be issued.

GENERAL: Please direct questions to John XXXX at ext. 3121.

Tactical Planning



Weather
Forecast -
(CCFP)

Telcons

Feedback
Telcons every
Two (2) hours

Evaluate

Execution



Evaluate

Advisories

Operations Plans



Traffic Management Modeling for Safety: **Determining Aerodrome Acceptance Rate (AAR)**



Traffic Management Model for Determining Aerodrome Acceptance Rate (AAR)



Definitions

- **Aerodrome Acceptance Rate (AAR):**

The number of arrival aircraft that an aerodrome -- in conjunction with weather conditions, terminal airspace, ramp space, parking space, and facilities -- can accept per hour

Traffic Management Model for Determining Aerodrome Acceptance Rate (AAR)



Identify any conditions that may reduce the Potential AAR. Conditions may include:

- Intersecting arrival and departure runways
- Lateral distance between arrival runways
- Dual use runways – runways that share arrivals and departures
- Land and Hold Short operations

Traffic Management Model for Determining Aerodrome Acceptance Rate (AAR)



Conditions may include (continued):

- Availability of high speed taxiways
- Airspace limitations and constraints
- Procedural limitations (noise abatement, missed approach procedures)
- Taxiway layouts
- Meteorological conditions

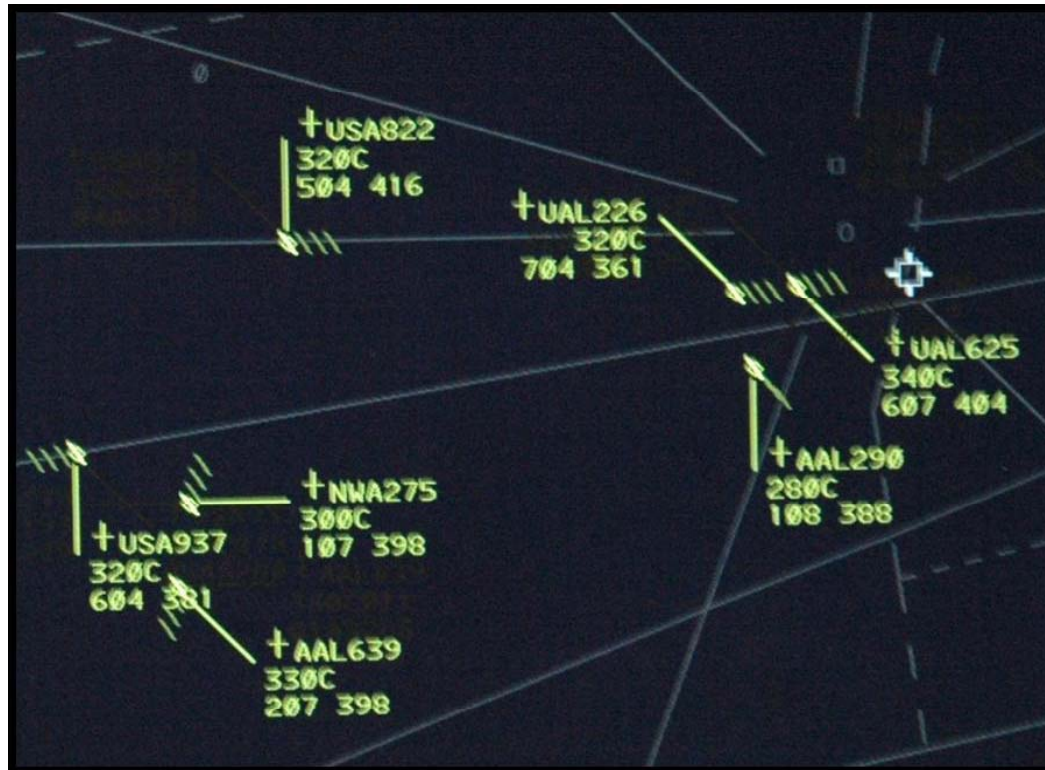
Traffic Management Model for Determining Aerodrome Acceptance Rate (AAR)



Suggestion:

- Calculate the Actual AAR value for each aerodrome runway configuration for the following weather conditions:
 - Visual Meteorological Conditions (VMC) - weather allows vectoring for visual approaches
 - Marginal VMC - weather does not allow vectoring for visual approaches, but visual separation on final is possible
 - Instrument Meteorological Conditions (IMC) – Visual approaches and visual separation on final are not possible

Traffic Management Modeling for Safety: Determining Sector Capacity



Traffic Management Model for Determining Sector Capacity



Definition

- Sector capacity:
 - The optimum number of flights
 - in a given sector
 - for a specified period of time
- that can be managed safely and efficiently

Understanding this will be tactically adjusted by local, professional judgment to the optimum sector capacity value, as necessary

Traffic Management Model for Determining Sector Capacity



Definition

- Factors that affect sector capacity:
 - Airway structure in the sector
 - Airspace volume of the sector
 - Vertically and horizontally
 - Complexity of operations in the sector
 - Number of adjoining sectors
 - Amount of climbing/descending traffic
 - Terrain
 - Military operations and special use airspace

Traffic Management Model for Determining Sector Capacity

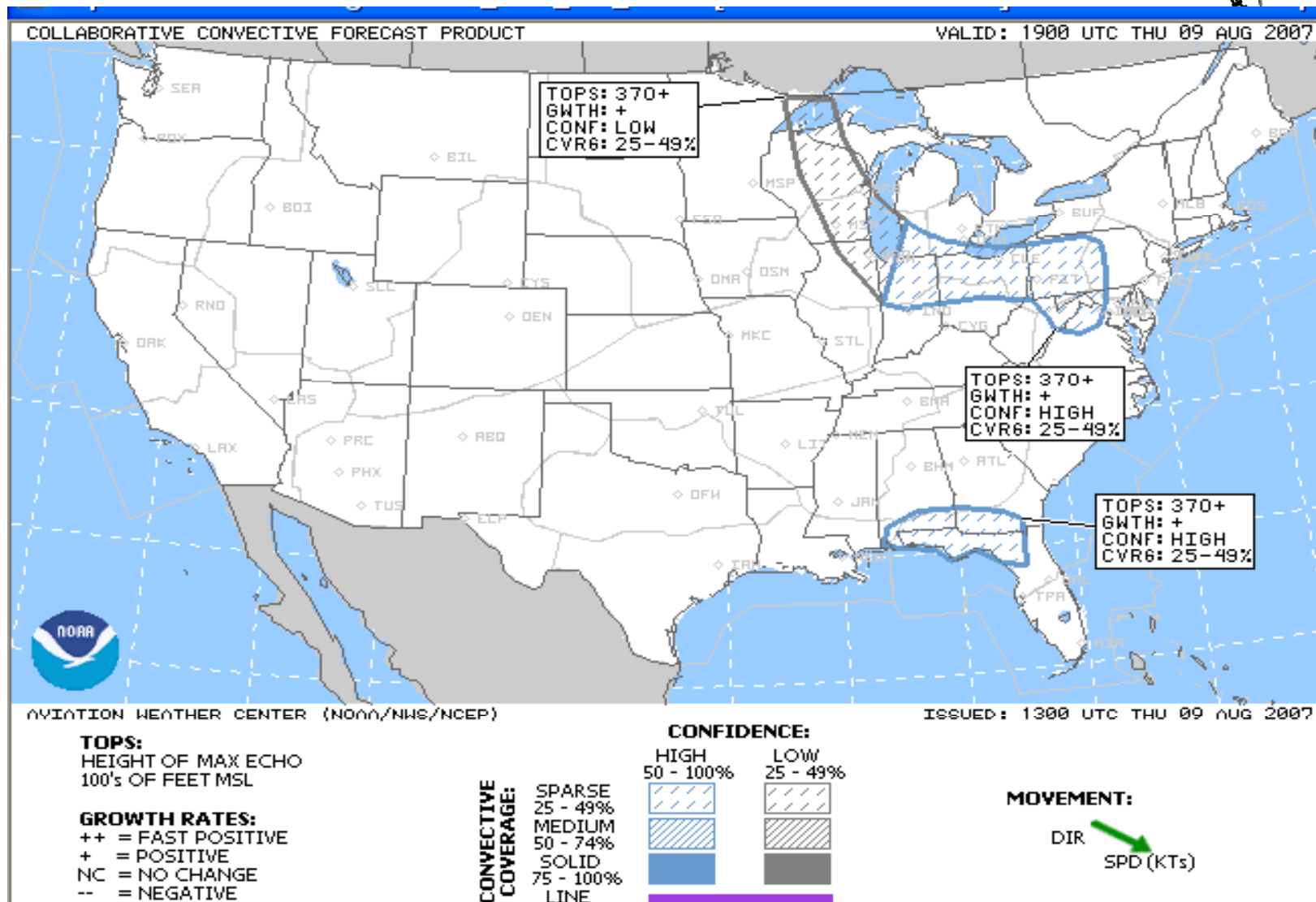


Determining sector capacity

- Adjust the optimum sector capacity value
- After taking into consideration the factors that affect the sector:
 - Apply local, professional judgment and adjust the optimum sector capacity value up or down, as necessary



Weather Products: CCFP



Planning Process



- Review the tactical information on the OIS
- Advise which CCFP product the plan is based upon
 - May require some extensive discussion
 - All customers/facilities use the same product
- Format of the published plan advisory
 - Time frame under discussion
 - Terminal and Enroute constraints
 - Routes (implemented or expected)
 - Individual airport issues listed via center
- VIP movement
- Facility and Customer input/feedback

Planning Process Flow



Weather
Forecast -
(CCFP)

Telcons

Feedback
Telcons every
Two (2) hours

Evaluate

Execution



Evaluate

Advisories

Operations Plans



ATCSCC Advisory

ATCSCC ADVZY 068 DCC 07/13/2005 OPERATIONS PLAN

ATCSCC ADVZY 068 DCC 07/13/05 OPERATIONS PLAN
VALID FOR 131600 THRU 132200

TERMINAL CONSTRAINTS:
 NY METROS/PHL/DC METROS/ATL/PHL/CVG-LOCIGS
 IAD-TAXIWAY CONSTRUCTION
 DC METROS/PIT/CLE/DTW/ATL/MCO/IAH/DFW-TSTMS
 LAS-1R/19L RWY CONSTRUCTION
 LAX-LOCIGS/VSBY

ENROUTE CONSTRAINTS:
 ZBW/ZNY/ZDC/ZJX/ZHA/ZTL/ZME/ZFW/ZHU/ZLC/ZAB-TSTMS
 A761-TSTMS
 R763-CLSD TILL 1900 DUE TO TSTMS
 ZJX/ZHA-SPACE SHUTTLE LAUNCH

1. ROUTES
 1800-0000 -CHOKEPOINT ROUTES TO EWR/JFK (FCA)
 AFTER 1800 -SHOWBIRD 6 PLAYBOOK ROUTES PSBL
 AFTER 1600 -RRP SUSPENDED VIA J29 ZEW/ZHU/ZME TO NORTHEAST
 AFTER 1700 -POSSIBLE PLAYBOOK ROUTES, INCLUDING HGM AND/OR
 CANADIAN ROUTES TO THE NORTHEAST POSSIBLE

2. ZNY
 UNTIL 0300 -LGA/EWR/PHL GROUND DELAY PROGRAMS
 UNTIL 0200 -NY METROS/PHL CDRS/SWAP, GROUND STOPS PSBL
 AFTER 1700 -JFK GROUND DELAY PROGRAM PSBL
 UNTIL 0000 -TEB GAAP GROUND DELAY PROGRAM EXPECTED

3. ZOB
 AFTER 1900 -DTW/CLE/PIT CDRS/SWAP, TACTICAL REROUTES, CAPPING/
 TUNNELING, GROUND STOPS PSBL

4. ZTL
 UNTIL 0400 -ATL GROUND DELAY PROGRAM
 UNTIL 0000 -ATL CDRS/SWAP, GROUND STOPS PROBABLE
 AFTER 1800 -CLT CDRS/SWAP, TACTICAL REROUTES

5. ZJX/ZHA
 UNTIL 2300 -TACTICAL REROUTES, CAPPING/TUNNELING

*** SUBMIT NEW OPERATIONS PLAN AGENDA ITEMS VIA OIS PAGE ***

NEXT PLANNING TELCON: 131715Z
 PARTICIPATION REQUIRED BY: ALL CENTERS/H90
 131545-131759
 05/07/13 15:45 FSA.//lxtstn00a

National System Strategy Team (N S S T)



- Planner



- Tactical Airspace Manager



- Regional Air Space Manager



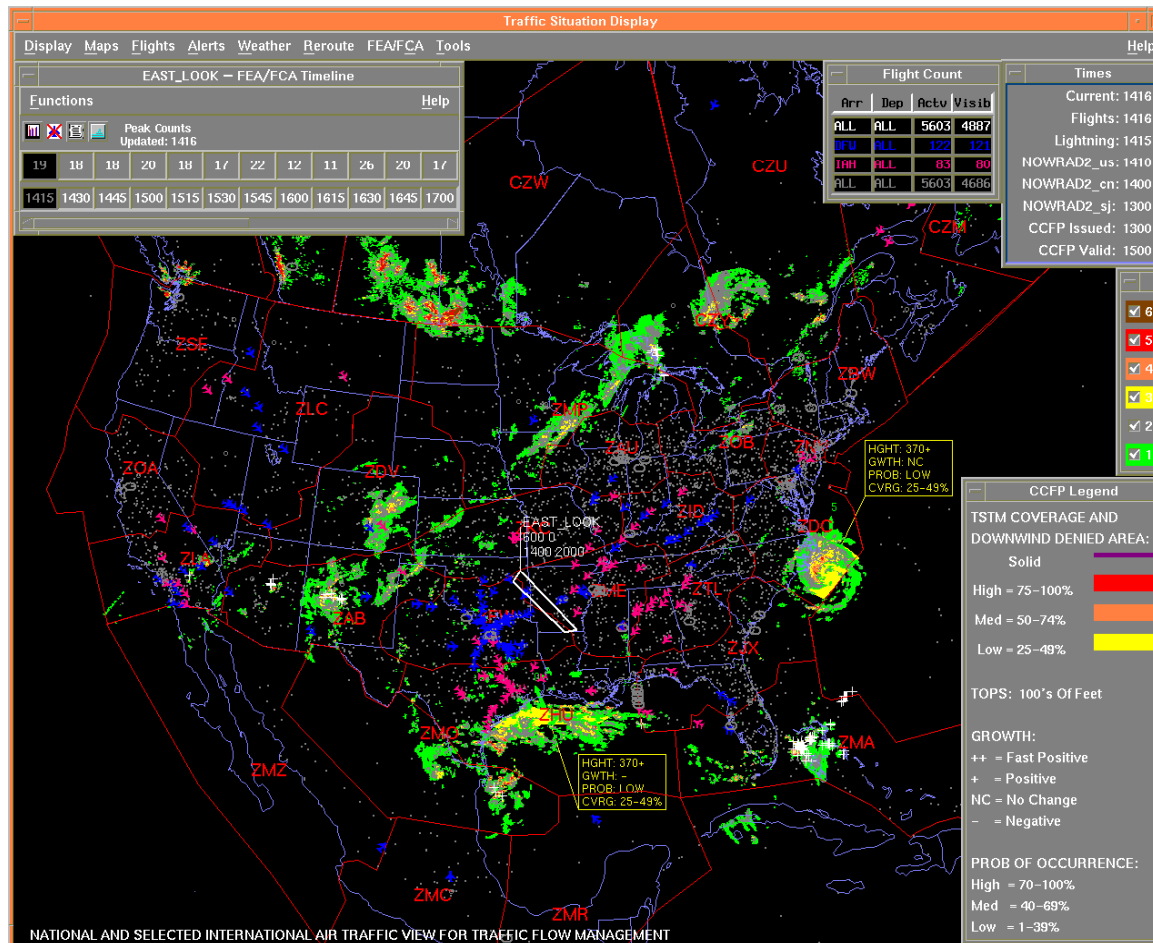
- Tactical Customer Advocate



- International Operations Manager



Traffic Situation Display

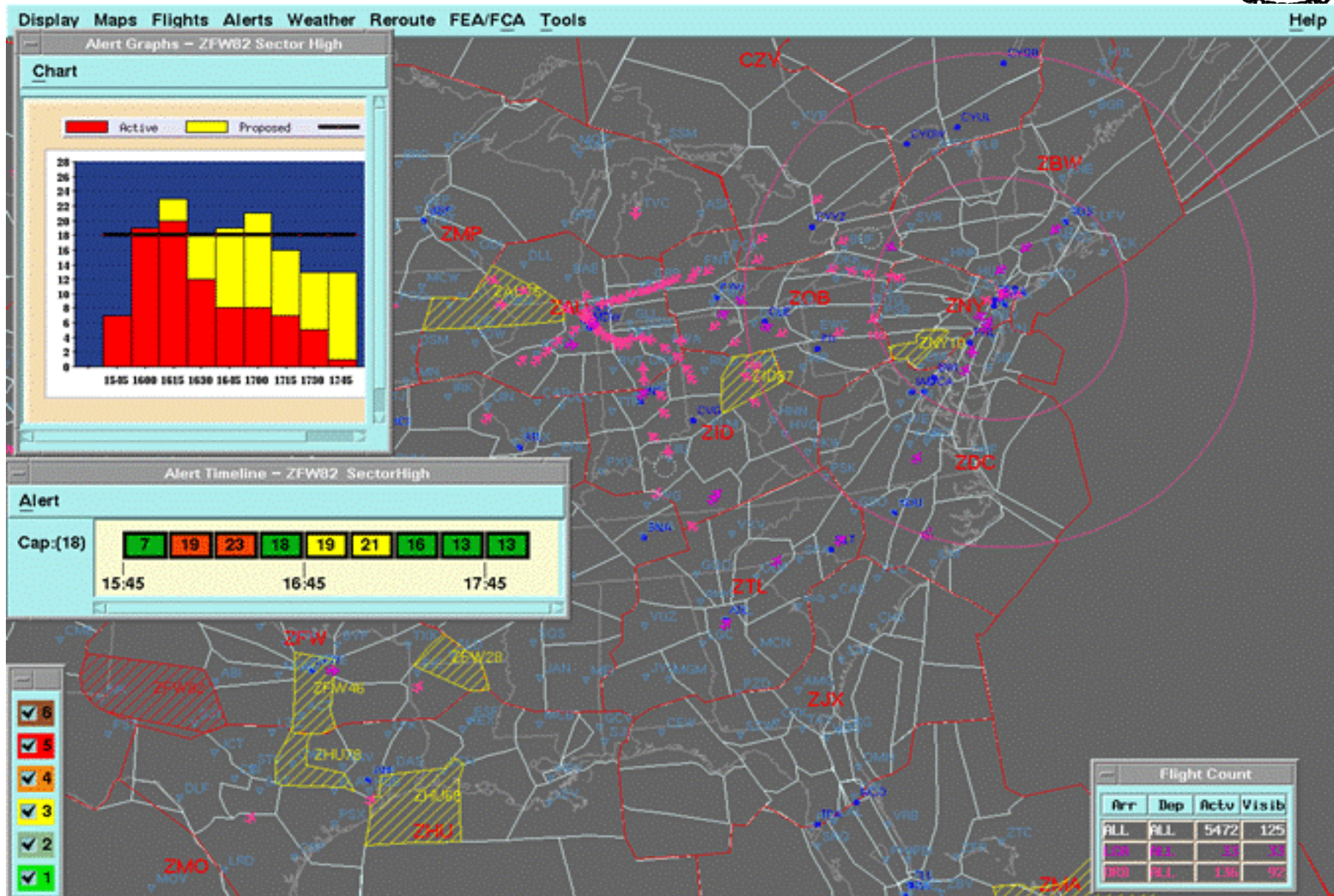


Common Situational awareness

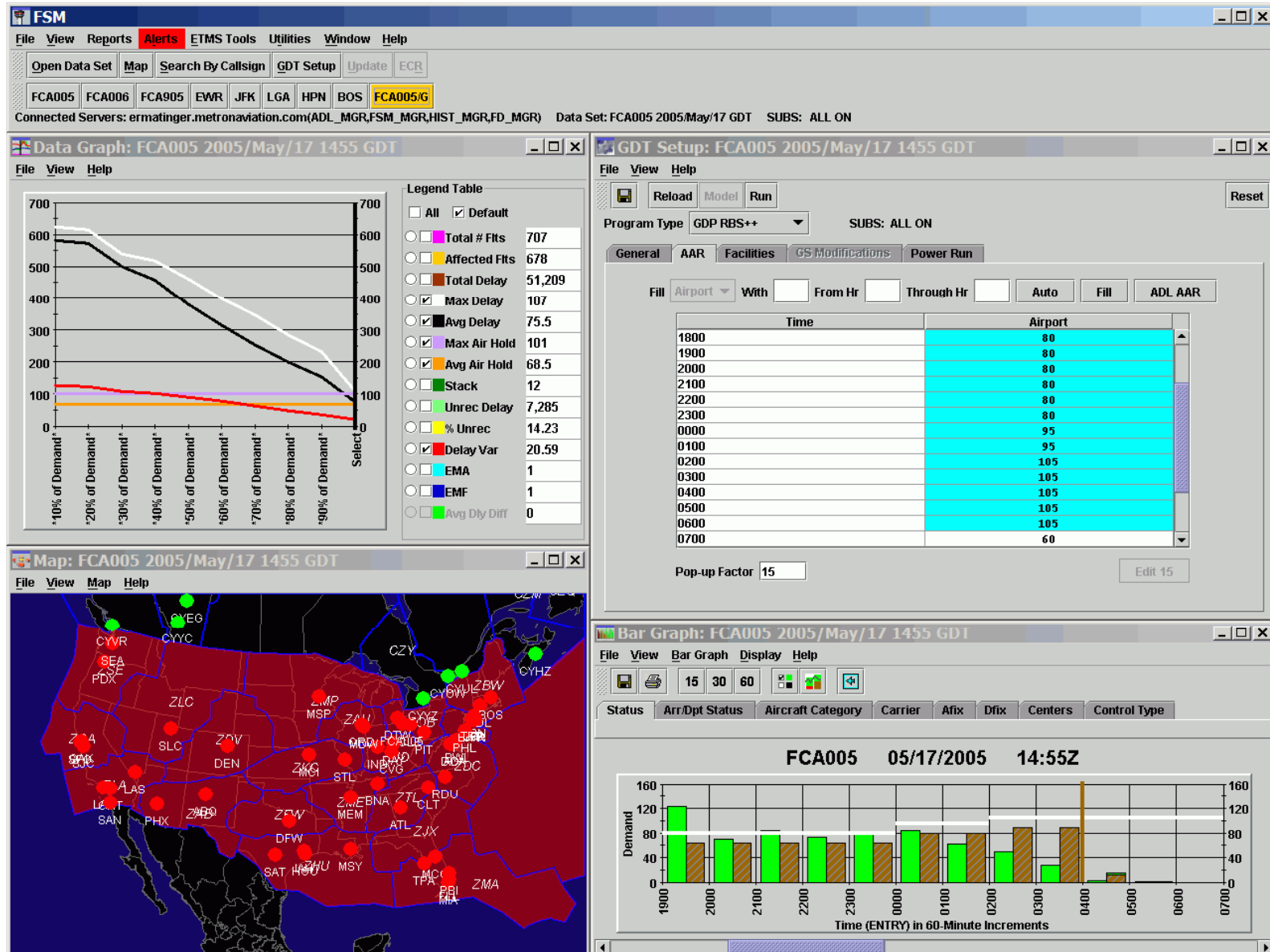
- Provides National Airspace System (NAS) and foreign-source information
- Distinguishes civil & military aircraft
- Displays all flights or flights sorted by origin, destination, airline, type of aircraft, and/or NAS element: sophisticated data filters
- Once per minute updates
- Weather information
- Customizable display and queries
- User selectable views via zoom, move, and projection features
- Accepts Early Intent Messages to enhance route modeling

- Interoperable with airlines to form common situation awareness
- Deployed at a variety of FAA, military, and other user sites

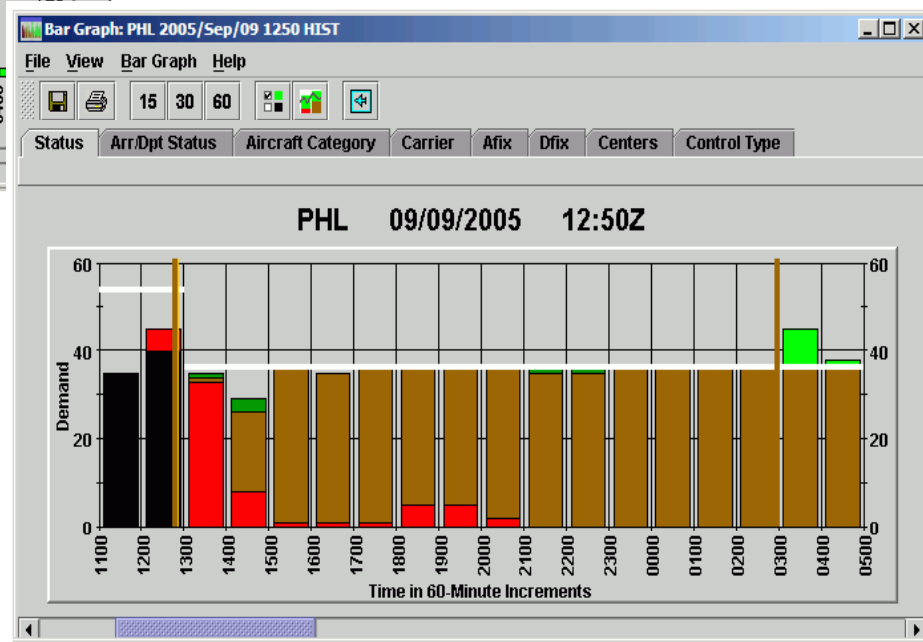
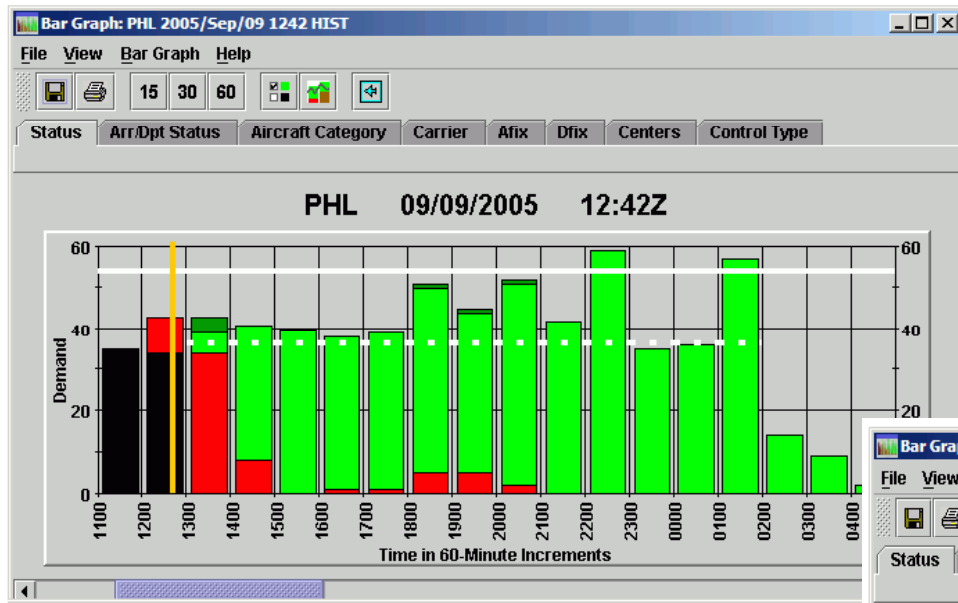
Sector Alerts



Flight Schedule Monitor (FSM)



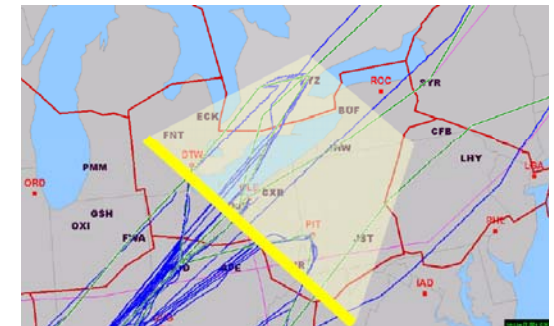
The Before and After





Flow Evaluation Area & Flow Constrained Area

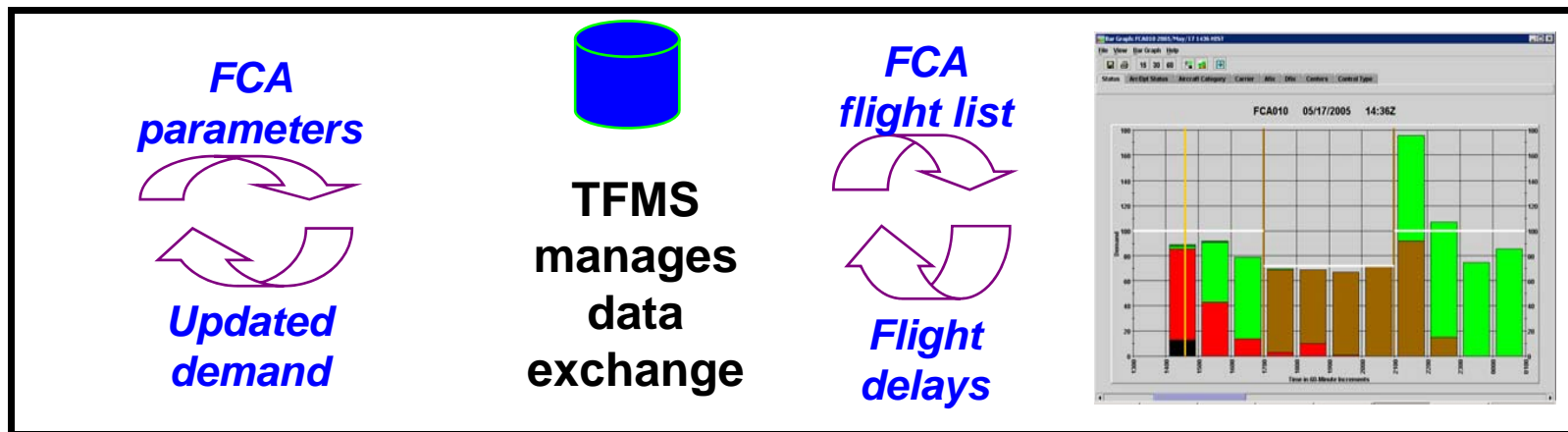
- FEA – Geographic area identified as being impacted by weather or other constraint, is shared with customers and FAA facilities to allow voluntary rerouting away from impacted area.
- FCA – A formalized FEA which requires positive traffic management initiatives to meter traffic through constrained area
- Initiatives applied may be
 - Miles-in-trail or minutes-in-trail.
 - Capping altitude below impacted area
 - Tunneling through designated corridors
 - Ground stops



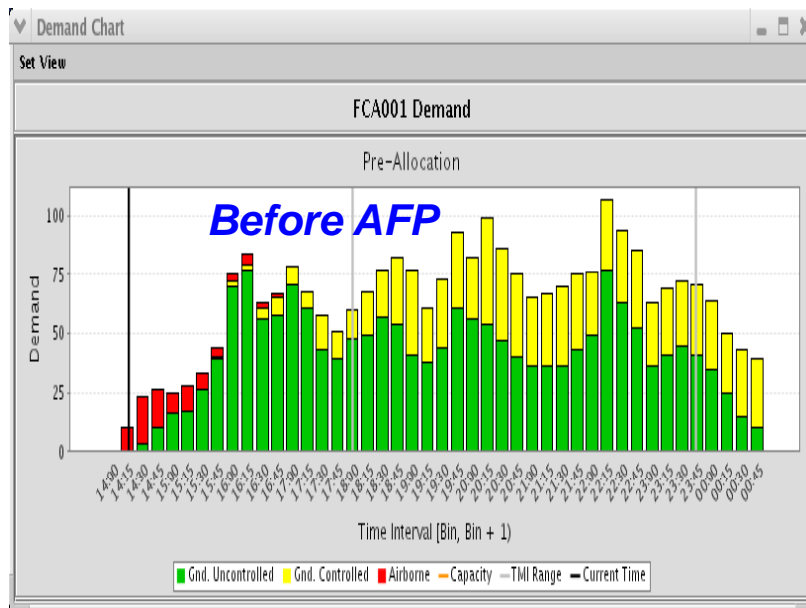
Airspace Flow Program (AFP)



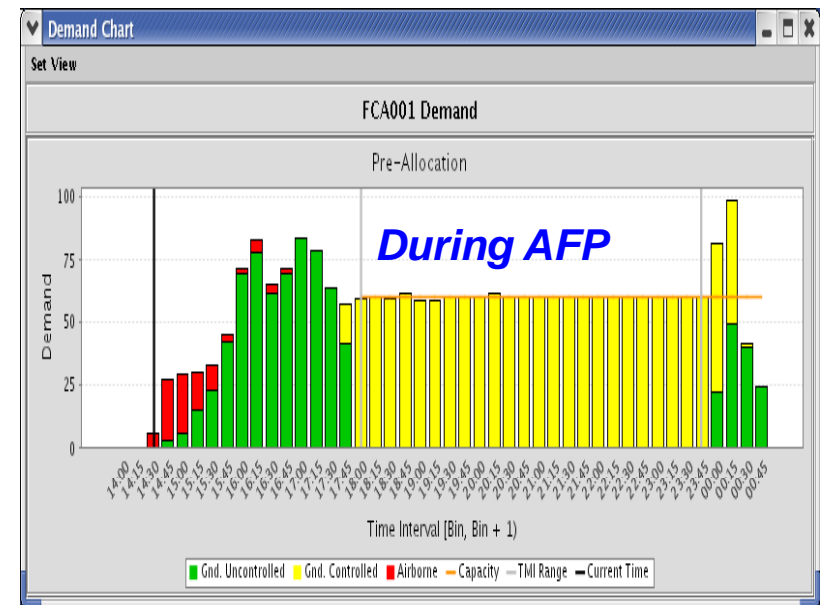
- AFP technology is a merger of the capabilities of the Traffic Situation Display (FCAs) and the Flight Schedule Monitor (GDPs)
- Allows traffic managers to apply coordinated delays to flights overloading en route resources



AFP Benefits

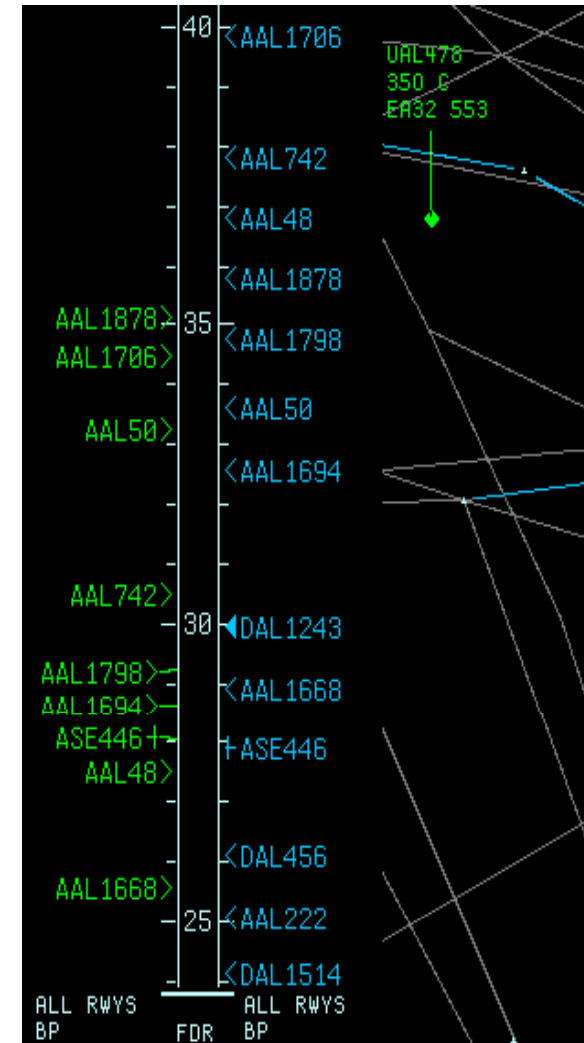
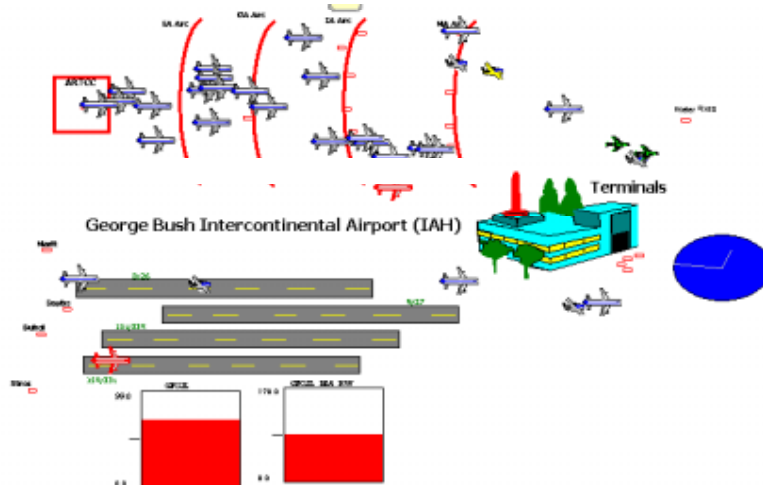
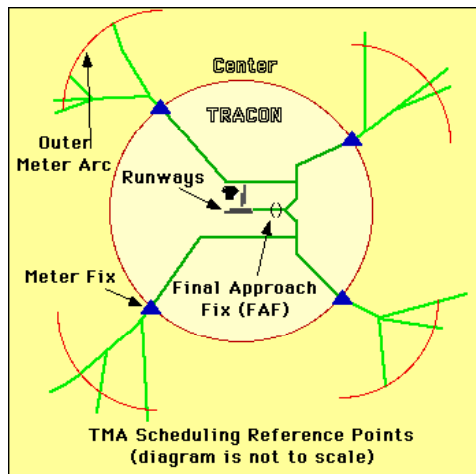


versus



- **Distributes delays equitably** among flights through the constrained resource.
- **Provides** customers with more **predictability & flexibility** /options (such as rerouting out of the AFP).

Traffic Management Advisor



Traffic Management Tool Box



- Spacing programs (DSP/ESP)
 - Assignment of departure, enroute, fix-crossing time to ensure smooth, efficient traffic flow
- Severe weather avoidance plan (SWAP)
 - Implemented by impacted facilities when convective activity is expected to impact arrival/departure routes
 - Statements should include expected areas of impact and expected route changes
- Capping and tunneling
 - Tunneling refers to the early descent of arriving traffic. Capping refers to restricting departures to the low altitude stratum. Goal is to avoid saturated high altitude sectors



Playbook Routes

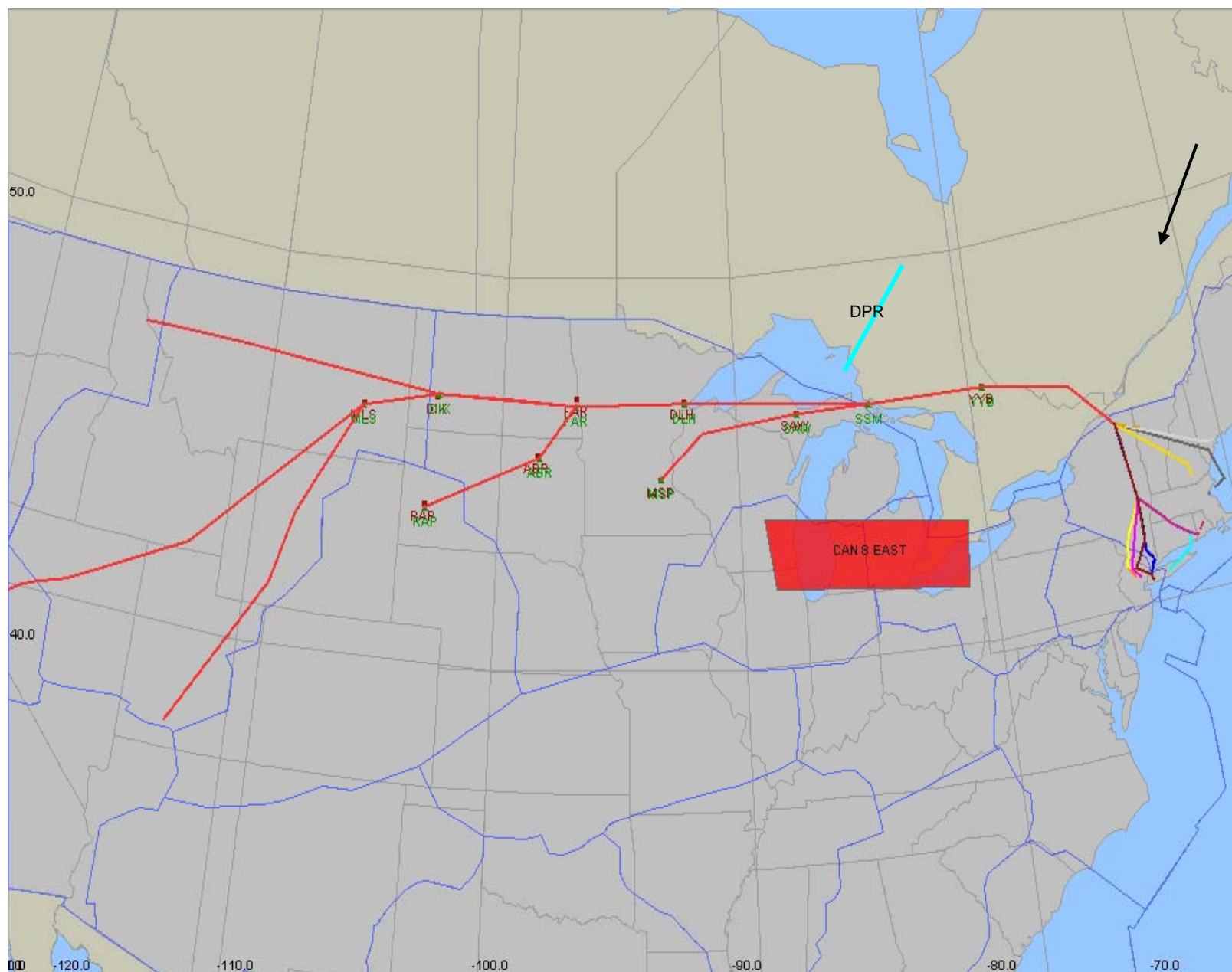
Formalized routes developed to mitigate weather impacts in areas that are routinely susceptible to severe weather.

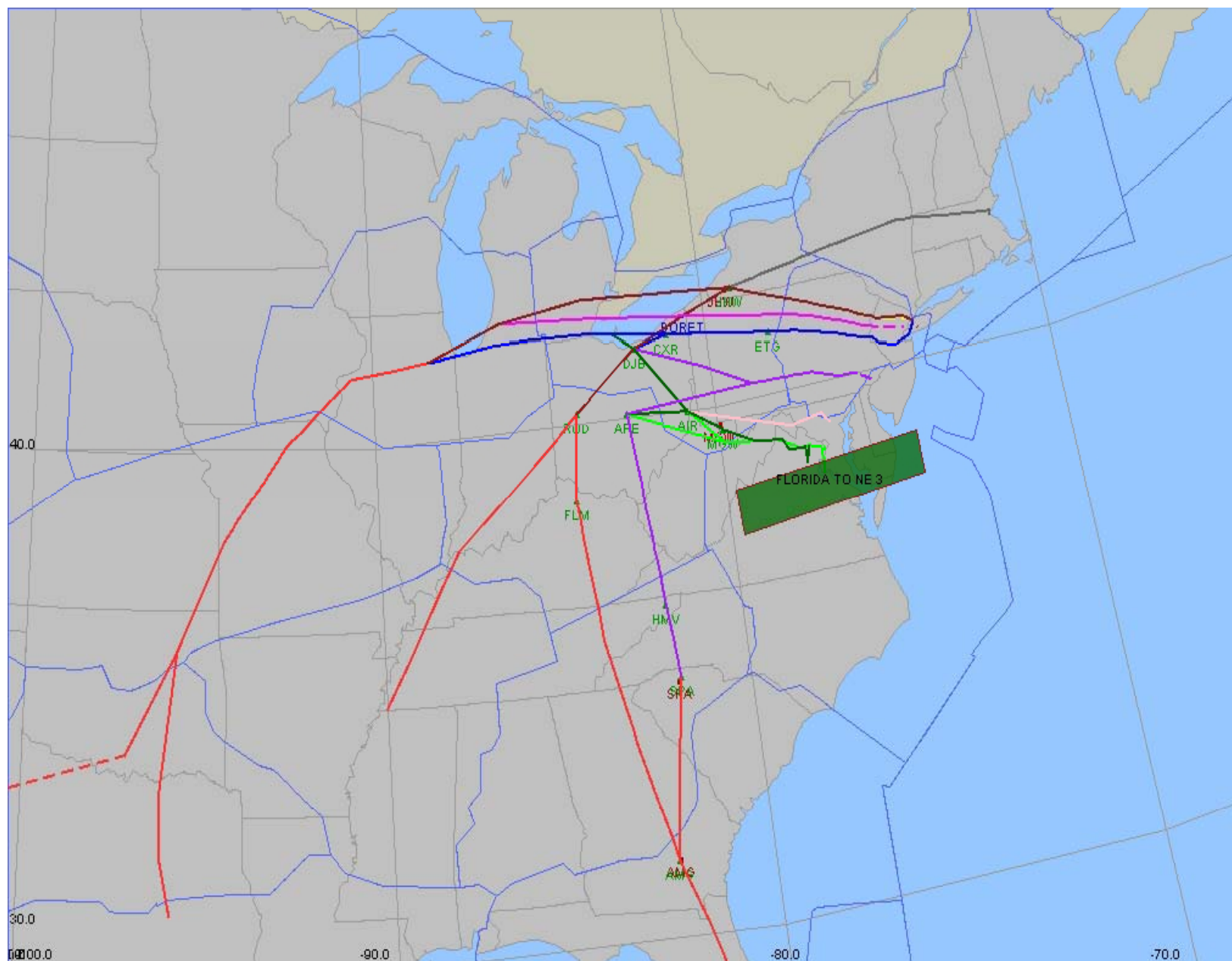


Playbook Purpose



- to enhance communication and implementation
- to promote a common situational awareness





Structure: 160 “Plays” (pre-coordinated routes)



- 72 Airport Plays
- 19 Airway Closure Plays
- 22 East-to-West Transcon Plays
- 21 Regional Route Plays
- 26 West-to-East Transcon Plays



ATCSCC responsibilities

- Develop an operational plan, in concert with the affected facilities and users to manage the flow of traffic in and around the impacted area using **Playbook** routes in conjunction with expanded MIT and tactical reroutes
- Be the final approving authority for alternate routes and initiatives that cross center or terminal boundaries.
- Implement the operational plan and coordinate all reroutes and initiatives.



Air Traffic Responsibilities- FAAO 7210.3

- **Favor and accept abnormal traffic flows routed through their area.**
- **Monitor, evaluate, and adjust route plans to ensure maximum effectiveness.**
- **Record 2 or more aircraft IDs when flight deviations will result in closure of a route, or when flights decline departure and landing due to severe weather.**
- **Solicit pathfinders to re-open routes.**

Coded Departure Routes (CDRs)



RMT 1.1
Program Settings Modifications Reports Window Help

☐ CDR Tool

EFFECTIVE 0901Z **27 Dec 2001**
TO 0901Z **21 Feb 2002**

Query Fields: Operational

Route Code	Origin/Dep Center	Destination/Arr Center	Departure Fix	Date/Time
	zny	zfw		

Route String: Remarks: ModFlag:

Database

☒ Operational
☐ Staging

Query Results: Operational

Time	RCode	Orig	Dest	Route String	DepFix	DCNTR	ACHTR	ModFlag	Remarks
2001-12-27 11:50:29	EWROFW36	KEWR	KDFW	KEWR COATE J36 WAJCE J29 PKV J131 LIT BYP4 KDFW	COATE	ZNY	ZFW	-	
2001-12-27 11:50:28	EWROFW48	KEWR	KDFW	KEWR LANNA J48 MOL J22 VWV J46 BNA J46 J6 LIT BYP4 KDFW	LANNA	ZNY	ZFW	-	
2001-12-27 11:50:28	EWROFW60	KEWR	KDFW	KEWR ELIOT J60 DJB J29 PKV J131 LIT BYP4 KDFW	ELIOT	ZNY	ZFW	-	
2001-12-27 11:50:28	EWROFW64	KEWR	KDFW	KEWR ELIOT ETX RAV J84 J29 PKV J131 LIT BYP4 KDFW	ELIOT	ZNY	ZFW	-	
2001-12-27 11:50:28	EWROFW70	KEWR	KDFW	KEWR D00E V276 PREPH OWENZ LUNND BETNY KATHY A700 CARPS AR5 J	D00E	ZNY	ZFW	-	
2001-12-27 11:50:26	EWROFW75	KEWR	KDFW	KEWR BIGGY J75 GSO J14 VUZ J52 S0S CQY5 KDFW	BIGGY	ZNY	ZFW	-	
2001-12-27 11:50:26	EWROFW80	KEWR	KDFW	KEWR ELIOT J80 FYLLS J29 PKV J131 LIT BYP4 KDFW	ELIOT	ZNY	ZFW	-	
2001-12-27 11:50:26	EWROFW86	KEWR	KDFW	KEWR BIGGY J75 GVE J37 SPA J14 VUZ J14 LIT BYP4 KDFW	BIGGY	ZNY	ZFW	-	
2001-12-27 11:50:25	EWROFW87	KEWR	KDFW	KEWR PARKE J6 COLNS J134 STL RZC FSM BYP4 KDFW	PARKE	ZNY	ZFW	-	
2001-12-27 11:50:25	EWROFW89	KEWR	KDFW	KEWR WHITE J209 ORF J174 ILM J4 CAE J52 ATL J14 LIT BYP4 KDFW	WHITE	ZNY	ZFW	-	
2001-12-27 11:50:25	EWROFWCA	KEWR	KDFW	KEWR GREK V419 JUDDS CAM J547 SYR J29 PKV J131 LIT BYP4 KDFW	GREK	ZNY	ZFW	-	
2001-12-27 11:50:24	EWROFWCH	KEWR	KDFW	KEWR WHITE J209 ORF J174 CHS J40 MOM J4 JAN ELD TXK BYP4 KDFW	WHITE	ZNY	ZFW	-	
2001-12-27 11:50:24	EWROFWJ5	KEWR	KDFW	KEWR PARKE J6 BWG S0S AEX LFK CWK LZZ JEN JEN8 KDFW	PARKE	ZNY	ZFW	-	
2001-12-27 11:50:23	EWROFWJ6	KEWR	KDFW	KEWR PARKE J6 BWG ARG FSM BYP4 KDFW	PARKE	ZNY	ZFW	-	
2001-12-27 11:50:23	EWROFWJ8	KEWR	KDFW	KEWR WHITE J209 ORF J174 ILM J4 CAE J52 S0S AEX LFK CWK LZZ JEN J	WHITE	ZNY	ZFW	-	
2001-12-27 11:50:23	EWROFWJ9	KEWR	KDFW	KEWR WHITE J209 ORF J174 CHS J40 MOM J590 LCH J2 IAH CWK LZZ JE	WHITE	ZNY	ZFW	-	
2001-12-27 11:50:22	EWROFWKA	KEWR	KDFW	KEWR WHITE J209 SBY J79 KATZN J193 WEAMR J121 ISO FLO CAE J52 TX	WHITE	ZNY	ZFW	-	
2001-12-27 11:50:22	EWROFWLM	KEWR	KDFW	KEWR WHITE J209 ORF J174 ILM J4 CAE J52 TXK BYP4 KDFW	WHITE	ZNY	ZFW	-	
2001-12-27 11:50:22	EWROFWPH	KEWR	KDFW	KEWR PARKE J6 LIT BYP4 KDFW	PARKE	ZNY	ZFW	-	
2001-12-27 11:50:21	EWROFWQ5	KEWR	KDFW	KEWR LANNA J48 MOL J22 VUZ J52 S0S CQY5 KDFW	LANNA	ZNY	ZFW	-	
2001-12-27 11:50:21	EWROFWQ6	KEWR	KDFW	KEWR PARKE J6 BWG S0S CQY5 KDFW	PARKE	ZNY	ZFW	-	
2001-12-27 11:50:21	EWROFWQ7	KEWR	KDFW	KEWR ELIOT J60 DJB J29 ROD J39 IU BWG S0S CQY5 KDFW	ELIOT	ZNY	ZFW	-	
2001-12-27 11:50:21	EWROFWU6	KEWR	KDFW	KEWR ELIOT J60 JOT MZV IRK J26 ICT IRW UKW7 KDFW	ELIOT	ZNY	ZFW	-	
2001-12-27 11:50:20	EWROFWU8	KEWR	KDFW	KEWR ELIOT J80 VHP J24 STL J19 ICT IRW UKW7 KDFW	ELIOT	ZNY	ZFW	-	
2001-12-27 11:42:46	HPNDFW36	KHPN	KDFW	KHPN COATE J36 WAJCE J29 PKV J131 LIT BYP4 KDFW	COATE	ZNY	ZFW	-	
2001-12-27 11:42:45	HPNDFW48	KHPN	KDFW	KHPN LANNA J48 MOL J22 VWV J46 BNA J46 J6 LIT BYP4 KDFW	LANNA	ZNY	ZFW	-	
2001-12-27 11:42:44	HPNDFW60	KHPN	KDFW	KHPN ELIOT J60 DJB J29 PKV J131 LIT BYP4 KDFW	ELIOT	ZNY	ZFW	-	
2001-12-27 11:42:44	HPNDFW64	KHPN	KDFW	KHPN ELIOT ETX RAV J84 J29 PKV J131 LIT BYP4 KDFW	ELIOT	ZNY	ZFW	-	
2001-12-27 11:42:43	HPNDFW75	KHPN	KDFW	KHPN BIGGY J75 GSO J14 VUZ J52 S0S CQY5 KDFW	BIGGY	ZNY	ZFW	-	
2001-12-27 11:42:42	HPNDFW80	KHPN	KDFW	KHPN ELIOT J80 FYLLS J29 PKV J131 LIT BYP4 KDFW	ELIOT	ZNY	ZFW	-	
2001-12-27 11:42:41	HPNDFW86	KHPN	KDFW	KHPN BIGGY J75 GVE J37 SPA J14 VUZ J14 LIT BYP4 KDFW	BIGGY	ZNY	ZFW	-	
2001-12-27 11:42:41	HPNDFW87	KHPN	KDFW	KHPN PARKE J6 COLNS J134 STL RZC FSM BYP4 KDFW	PARKE	ZNY	ZFW	-	
2001-12-27 11:42:41	HPNDFW89	KHPN	KDFW	KHPN WHITE J209 ORF J174 ILM J4 CAE J52 ATL J14 LIT BYP4 KDFW	WHITE	ZNY	ZFW	-	
2001-12-27 11:42:41	HPNDFWCA	KHPN	KDFW	KHPN GREK V419 JUDDS CAM J547 SYR J29 PKV J131 LIT BYP4 KDFW	GREK	ZNY	ZFW	-	
2001-12-27 11:42:38	HPNDFWCH	KHPN	KDFW	KHPN WHITE J209 ORF J174 CHS J40 MOM J4 JAN ELD TXK BYP4 KDFW	WHITE	ZNY	ZFW	-	
2001-12-27 11:42:37	HPNDFWJ5	KHPN	KDFW	KHPN PARKE J6 BWG S0S AEX LFK CWK LZZ JEN JEN8 KDFW	PARKE	ZNY	ZFW	-	
2001-12-27 11:42:36	HPNDFWJ6	KHPN	KDFW	KHPN PARKE J6 BWG ARG FSM BYP4 KDFW	PARKE	ZNY	ZFW	-	

1-139 / 139 records

http://www.fly.faa.gov/PLAYBOOK



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Select a Major Airport



ATFM



Matching
Air Traffic
Demand with
System
Capacity



Thank You

