Federal Aviation Administration

Traffic Flow Management for Flight Operations Personnel

Table of Contents

Restriction of liability & disclaimer

The Federal Aviation Administration (FAA) makes no claims, promises, or guarantees about the accuracy, completeness, or adequacy of this material and expressly disclaims liability for errors and omissions in the contents. No warranty of any kind, implied, expressed or statutory, including but not limited to warranties of non-infringement of third party rights, title, merchantability, fitness for a particular purpose and freedom from computer virus, is given with respect to the contents of this material or its hyperlinks to internet resources. Reference in this presentation to any specific commercial products, processes, or services, or the use of any trade, firm or corporation name is for the information and convenience of the public, and does not constitute endorsement, recommendation, or favoring by FAA.

Introduction

Welcome to an introduction of Traffic Flow Management (TFM) for Flight Operations Personnel. This material will explain terms, techniques, and programs associated with Traffic Flow Management in the National Airspace System (NAS). As flight operations personnel and pilots, you may feel the affects of Traffic Management Initiatives (TMI) when flying into highly congested airspace, which may be caused by traffic volume, special events, or weather conditions.

The mission of Traffic Management is to balance air traffic demand with system capacity to ensure the maximum efficient utilization of the NAS. A safe, orderly, and expeditious flow of traffic, while minimizing delays, is fostered through continued analysis, coordination, and dynamic utilization of traffic management initiatives and programs.

Knowing how to access relevant information and understanding traffic management initiatives will aid you in planning your flight, avoiding needless delay, and assisting you in gaining full access to the NAS.

Many customers have dedicated resources for coordinating with FAA Traffic Management personnel, but, as we will demonstrate, you don't have to be an airline or large general aviation company to gain benefit from understanding how traffic management initiatives may affect your flight.

Organizational Structure

What is the relationship between Traffic Management and Air Traffic Control (ATC)?

Traffic Management is a function in all Air Route Traffic Control Centers (ARTCC), selected terminal facilities and the David J. Hurley Air Traffic Control System Command Center (ATCSCC).

Traffic Management personnel are air traffic controllers that analyze the demand on the system and implement initiatives that are then relayed to the controllers.

Controllers and system customers relay information to Traffic Management personnel for use in their decision-making process.

What is the hierarchy?

For traffic management issues, tower personnel work through the Terminal Radar Approach Control (TRACON), if available, or directly with the overlying ARTCC.

In general, TRACON personnel work through the overlying ARTCC.

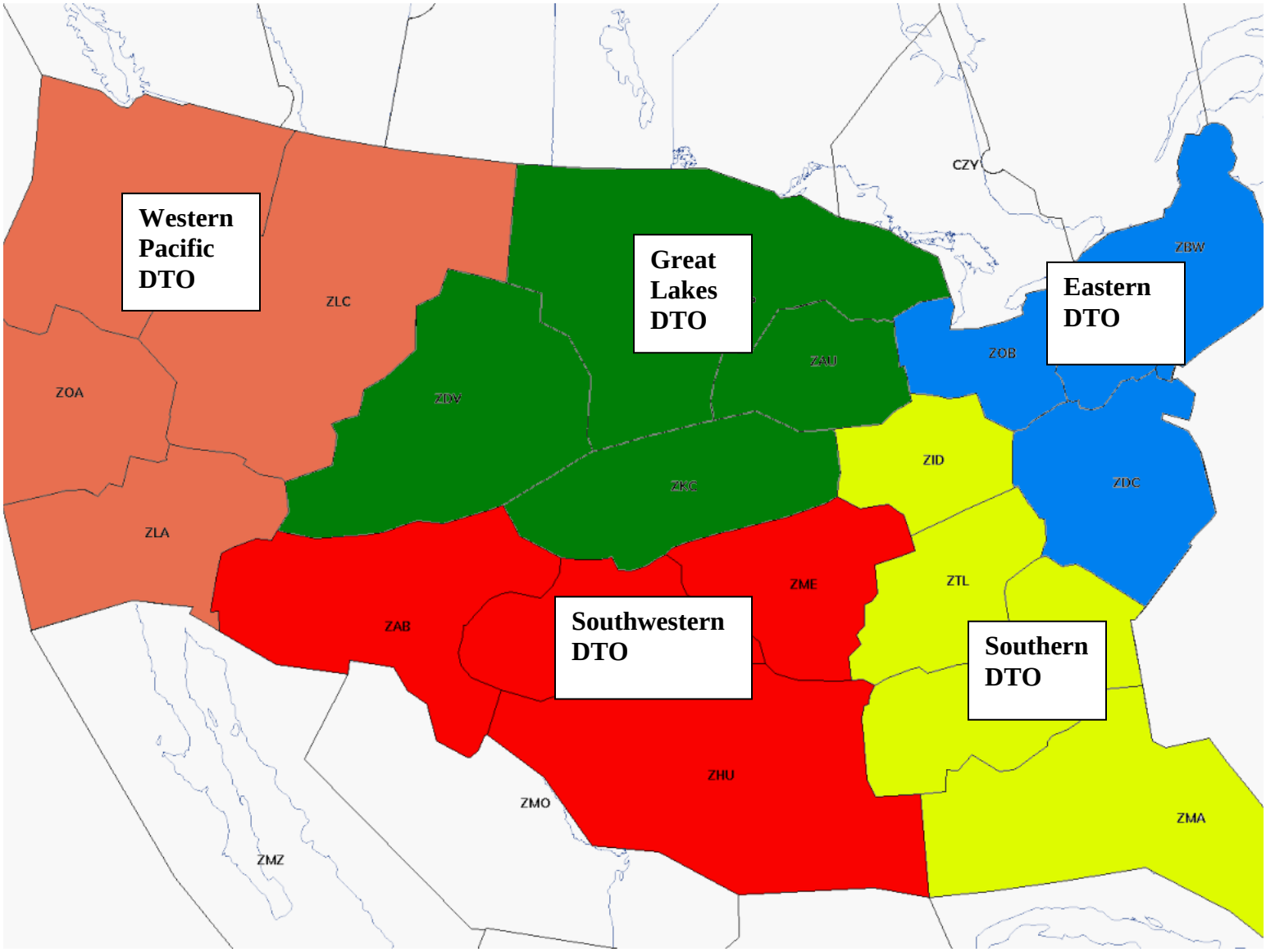
ARTCC personnel coordinate directly with the ATCSCC.

The ATCSCC has final approval authority for all national traffic management initiatives and is responsible for resolving inter-facility issues.

The hierarchy for other issues is for field facilities to work through their regional office, which reports to Washington Headquarters.

The ATCSCC is a Washington Headquarters organization that has field/Regional representatives called “Directors of Tactical Operations” or “DTOs.”

DTO Areas of Responsibility.



The DTOs facilitate Traffic Management issues within their regions and between other regions.

Who do I call with questions or concerns?

You should try to resolve your concerns with the controller you are talking to *if it will not be a distraction* to the controller.
Otherwise, you may call the FAA facility's management when you get on the ground or call your company or professional organization to address it with the FAA.

Traffic Management Overview

What is Traffic Management?

Traffic Management is the craft of managing the flow of air traffic in the National Airspace System (NAS) based on capacity and demand.

How does it differ from Air Traffic Control (ATC)?

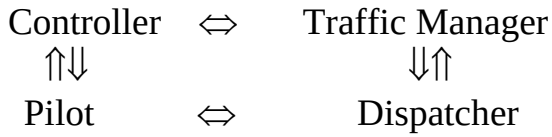
All air traffic controllers, including Traffic Managers, strive to provide a safe, orderly, and expeditious flow of traffic on a first come first served basis.

The differences lay in the scope, time parameters, tools, equipment, and the communication processes.

The separation of air traffic is the responsibility of air traffic controllers, utilizing the tools at their disposal.

The tools may range from a non-radar ATC clearance, relayed through a flight service station, to the issuance of a clearance to a pilot while under radar contact.

The normal communication process is:



What's a "System Approach?"

It is a management approach that considers the impact of individual actions on the whole. Traffic management personnel facilitate a "system approach" in managing traffic.

They consider who or what may be impacted and focus on a coordinated effort to ensure equity in the delivery of air traffic services.

A system approach is taken in collaborative decision-making activities with the system stakeholders (stakeholders include air traffic control, airlines, general aviation or any other participants in the National Airspace System). Consensus building is the goal.

It requires stakeholders to look at the costs and benefit to the system and not to one specific part, e.g., equitable distribution of delay.

What is Collaborative Decision making?

It means collaboration involving the system stakeholders in determining the best approach to a given situation.

Is there any one Collaborative Decision process preferred over another?

No. Different strategies or processes are based on a particular situation.
As events evolve, from forecasted to actual, different Traffic Management Initiatives (TMI) are applied as appropriate.
Ultimately, the goal is to use the least restrictive TMI to manage the situation.

Is there anyway I can avoid being involved in a Traffic Management Initiative (TMI)?

All aircraft that meet the specified criteria of the TMI are included. Aircraft that are impacted by a TMI and requires priority handling because of some special circumstance may be accommodated.

Do traffic management initiatives need to be complied with?

In accordance with Federal Air Regulations Parts 91, 121 and 135, all operators have the right of refusal of a specific clearance and may elect an alternative.

Alternatives include, but are not limited to ground delay, diversion to other airports or request to stay on the filed route.

How do you ensure compliance?

Air traffic controllers and Traffic Management specialists strive to ensure TMI compliance. In special circumstances they may request exemptions for certain aircraft. In the case of Ground Delay Programs (GDP) or Airspace Flow Programs (AFP), the Air Traffic Control System Command Center (ATCSCC) monitors compliance with the Flight Schedule Monitor (FSM). The FSM is a computer program used by the ATCSCC and customers to monitor of aircraft within the National Airspace System (NAS).

What is the impact of Non-Compliance of a TMI?

In the case of a GDP or AFP, non-compliance with a TMI can manifest in an overabundance of airplanes or unused slots at the destination airport or volume of airspace, which can never be filled.

The results can include holding, diversions, extensions, and revisions of the GDP/AFP and/or Ground Stops, all which lead to more delay. In short, everyone pays the price for non-compliance.

Is there anything I can do to help the National Airspace System (NAS) operate more efficiently?

Yes! Participate within the guidelines provided.

How do I find out what's going on in the NAS?

The FAA website, http://www.fly.faa.gov/, provides near real-time status information about the NAS. You may also receive information through the local air traffic facility

(including flight service stations), your airline, flight department, or other professional organizations (e.g. NBAA, ATA, AOPA).

Where do I find further explanatory information about TMIs and how do I read the data?

The appendices at the end of this document list additional resources available to you.

Basic Traffic Management Techniques and Terms.

What are miles-in-trail (MIT)?

Miles-in-trail describes the number of miles required between aircraft departing an airport, over a fix, at an altitude, thru a sector, or route specific.

For example, standard separation between aircraft in the en route environment is five (5) nautical miles. During a weather event this separation may increase significantly.

Why do you use it?

MITs are used to apportion traffic into a manageable flow, as well as provide space for additional traffic (merging or departing) to enter the flow of traffic.

Is there any analysis of MIT and their impact on the system?

The FAA, with contract support, continues to evaluate MIT and their impact on delay. FAA facilities are expected to provide justification for the requested MIT.

Are delays attributed to MIT?

Yes. Normally MIT is implemented in response to a specific situation. For example, TM has implemented a 30 MIT restriction on aircraft departing BWI/DCA/IAD via J75 that will affect 10 aircraft in a one-hour timeframe. The delays encountered from this restriction would be accountable.

What are minutes-in-trail (MINIT)?

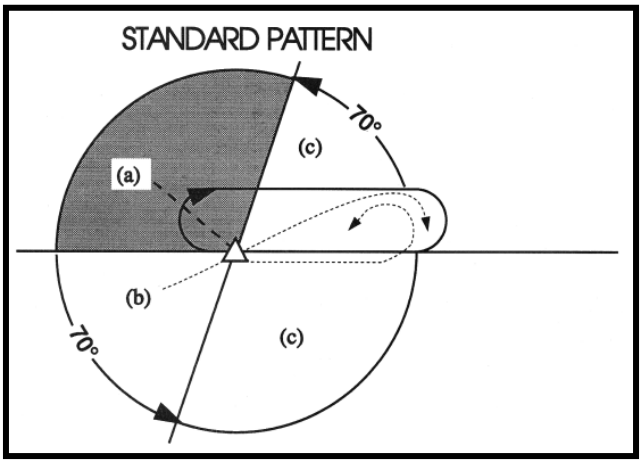
Minutes-in-trail describe the minutes needed between successive aircraft.

Why do you use it?

It is normally used when aircraft are operating in a non-radar environment or transitioning to/from a non-radar environment.

It may also be used if additional spacing is required due to aircraft deviating around weather.

Do you purposely plan on airborne holding?



Planned airborne holding is used to manage a particular situation.
At other times, airborne holding is in response to a situation and is unplanned.

Why don't controllers like to hold?

Controller preference to hold is dependent on their operating environment.

Is holding efficient?

At some facilities where holding airspace is available, holding ensures aircraft are available to fill the capacity at the airport.

In other cases, because of the airspace configuration, holding is impractical.
For example, control sectors with large blocks of special use airspace and many flows of traffic to multiple airports that do not remain clear of holding pattern airspace make it difficult to execute holding safely.

What are sequencing programs?

Sequencing programs are designed to achieve a specified interval between aircraft.
They may be software generated or determined by Traffic Management personnel.

Why are there different types?

There are different sequencing programs to accommodate different phases of flight.

What are they and how are they different?

A *Departure Sequence Program* (DSP) assigns a departure time to achieve a constant flow of traffic over a common point. Normally this involves departures from multiple airports.

An *En route Spacing Program* (ESP) assigns a departure time that will facilitate integration into the en route stream.

An *Arrival Sequencing Program* (ASP) assigns fix-crossing times to aircraft destined for the same airport.

How do Traffic Managers use altitude?

They use altitude to segregate different flows of traffic or to distribute the number of aircraft requesting access to a specified geographic area.

What is Low Altitude Alternate Departure Routing (LAADR)?

LAADR is a procedure whereby flight altitudes may be limited to flight level 230 and below. LAADR procedures are primarily used in the departure phase of flight, but can be extended for an entire flight when operational benefits are achieved.

Where can I find out about them?

Contact your local ATC facility to see if LAADR procedures are applicable.

Airline dispatchers may have this information available as well as your NBAA and ATA representative.

The ATCSCC will normally publish, via advisory, the use of LAADR after the Planning Team Telcon (PT).

Am I eligible to use them?

This procedure may be assigned to you, if so, you will be informed to expect an altitude lower than your requested altitude.

For short flights the procedure may be applied for the entire route. For long flights you will be given a point to expect a higher altitude.

What does "Capping," mean?

"Capping" is a colloquialism for planning to hold aircraft at altitudes lower than their requested altitude until they are clear of a particular area.

It may be in response to weather or other situations that have impacted air traffic's ability to provide service and it may be applied to the entire route of flight.

When do you use it?

It is used during constrained situations in the National Airspace System and enables aircraft to continue to depart while remaining "underneath" a constrained airspace.

How do I know if I'm being "Capped?"

You will know when the air traffic controller advises you in your clearance to "expect" a final altitude lower than your requested altitude, based on the appropriate altitude for your direction of flight.

What if I don't have enough fuel?

Each pilot in command has the option to refuse a clearance for safety reasons. If you cannot comply with the clearance you are required to advise ATC.

At that time, different options may be presented to you, including the option of taking a delay on the ground until the situation in the airspace is resolved.

What is "Tunneling?"

"Tunneling" is a colloquialism for descending traffic prior to the normal descent point at an arrival airport to remain clear of an airspace situation on the route of flight.

Why do you use it?

"Tunneling" is used to avoid conflicting flows of traffic and holding patterns.

How do I know if I'm being subjected to this technique?

You will be descended prior to your normal descent point for the destination airport.

What is tower-en route?

Tower en route is a situation where the aircraft never reaches the en route stratum, but stays in the lower terminal altitudes being handed-off from tower to tower vs. center to center. This sometimes reduces delays, especially if the higher en route stratum is congested.

Ground Delay Programs (GDP)

A Ground Delay Program is a traffic management procedure where aircraft are delayed at their departure airport in order to manage demand with capacity at their arrival airport. Flights are assigned departure times, which in turn regulate their arrival time at the impacted airport.

Ground Delay Programs will normally be implemented at airports where capacity has been reduced because of low ceilings, thunderstorms, or when demand exceeds capacity for a sustained period.

They are implemented to ensure the arrival demand at an airport is kept at a manageable level, to preclude extensive holding and to prevent aircraft from having to divert to other airports. They are also used in support of Severe Weather Avoidance Plan (SWAP, explained in further detail later in this document.)

How does it work?

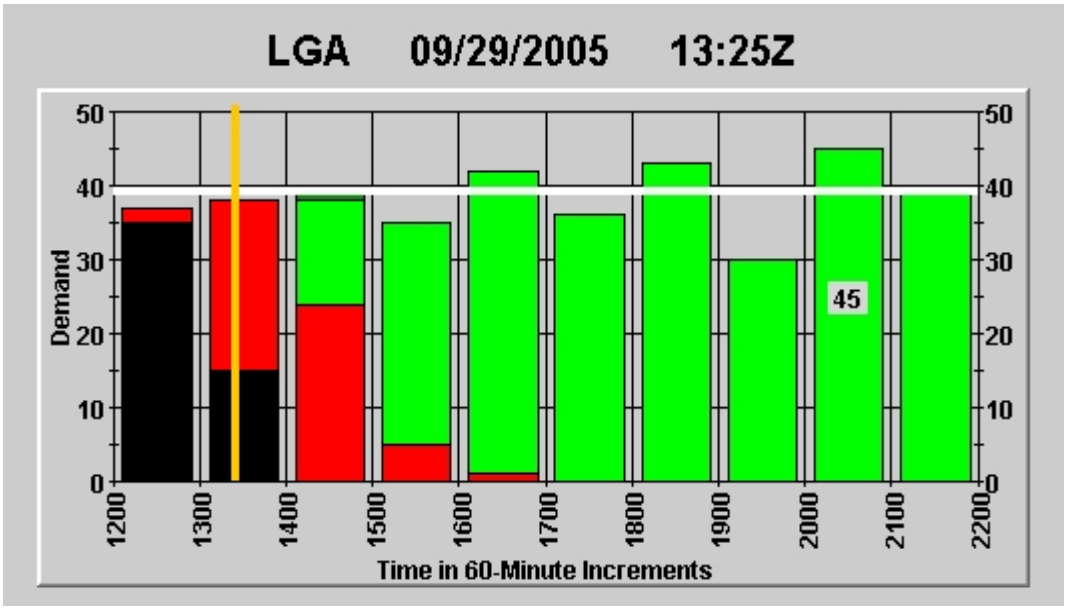
The FAA uses software called Flight Schedule Monitor (FSM) that compiles scheduled flight information and flight plans from the Air Route Traffic Control Centers (ARTCC) to calculate and then display graphically the known demand for arrival and/or departures at airports.

When an overage of demand versus capacity is noted, a GDP is modeled through the FSM software.

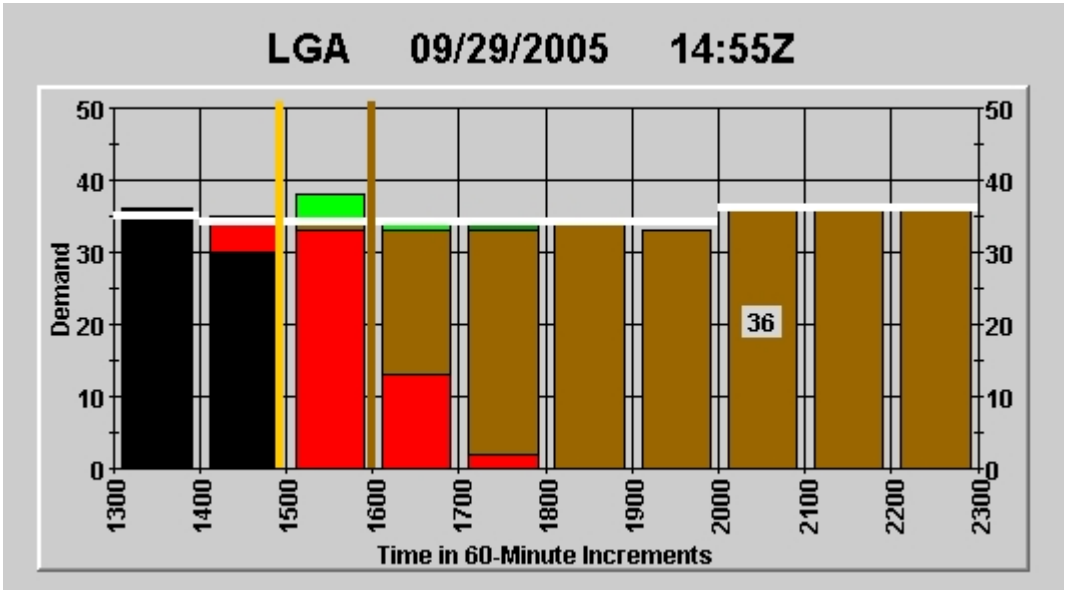
FSM assigns arrival “slots” to aircraft based on the available capacity and flight arrival times, and adds delay in sequential order until demand equals capacity.

Let’s look at a few FSM screen shots!

LGA demand chart before a GDP was issued for high winds. Note the airport acceptance rate is 38 and the demand has peaks and valleys.



LGA demand chart after GDP issued. The GDP starts at 1600UTC with the airport acceptance rate of 34 until 2000UTC then the rate increases to 36 for the remainder of the program. The demand is leveled out.



All aircraft filed to a GDP airport that are known to the FSM software are assigned an Expect Departure Clearance Time (EDCT, see definitions below), although not all aircraft will receive a delay.

Aircraft that are not in the original list of flights when the program is implemented will also receive a delay. Their delay will be equal to the average Delay Assigned (DA, see definitions below) to all other flights arriving in the 15-minute time interval that their flight is requesting to arrive.

What are the terms used in a GDP and what do they mean?

Expect Departure Clearance Time (EDCT):
The runway release time ("wheels up") assigned to an aircraft in a GDP. EDCT's appear on the flight progress strip located in the towers and terminal facilities.

Delay Assignment (DA):
The delay that is assigned to an aircraft during a GDP.

Aggregate Demand List (ADL):
The traffic in the NAS that was known at the time the list was generated from the Flight Schedule Monitor (FSM).

Program rate:
The number of aircraft that the GDP software is to provide to the airport, for each hour. The program rate may not be the same as the arrival rate.

In some instances, the traffic is slowed for en route sector complexity, caused by weather, even though the arrival airport is Visual Meteorological Conditions (VMC).

Airport Acceptance Rate (AAR)
The number of aircraft an airport can accept in a one-hour time frame. The AAR is determined by the Aviation System Airport Performance Metrics, which takes into consideration the runways in use, weather conditions, and NAVAID limitations to determine the AAR.

How can I change my EDCT?

Aircraft must depart within +/- 5 minutes of their EDCT to be in compliance with the GDP. If you do not think you can make your assigned time or if you need to request an earlier or later time, then contact clearance delivery or the tower at the departure airport.

What types of GDP's are there?

There are two types of GDP's: A DAS (Delay Assignment) and a GAAP program.

There are two types of DAS programs:
A *tier-based program* includes Air Route Traffic Control Centers (ARTCC's) that touch the ARTCC in which the GDP airport is located. These programs are referred to as 1st tier, 2nd tier, Six West (limited to west coast airports), No West (limited to east coast airports) and an ALL program. An All program would include all ARTCC's.

A *Distance Base* program is based on a specific mileage from the GDP airport.

What is a GAAP program?

Introduced in late 2004, GAAP is a new type of GDP to allocate arrivals in an equitable manner to an airport in a high demand situation such as the NBAA conference, Indianapolis 500 Race etc. It improves predictability and reliability for all operators – scheduled and unscheduled. The significant difference between a traditional DAS GDP and a GAAP is the way in which delays are assigned to flights that are unknown at the time of program implementation.

So how does GAAP work?

A GAAP is issued when known demand is *less* than the airport arrival rate (AAR). GAAP compares known traffic to airport capacity and allocates arrival slots to the known flights, scheduled or unscheduled, which may result in delay. It also generates a list of *unassigned* slots, which are held for future flights that are unknown to the ETMS at the time of implementation. All Instrument Flight Rules (IFR) flight plans that enter the system after implementation of the program will be assigned the first available unassigned slot at or after their requested time of arrival. The maximum delay a flight may receive is 360 minutes; however this is a configurable parameter and may be reduced if deemed appropriate.

It is most effective when it is implemented early on the day of expected increased demand to maximize slot availability and predictability. Also, to reduce excessive maximum delay assignments at the end of the expected peak demand time frame. These programs are most effective when the time of program expiration is hours past the time of expected peak demand.

GAAP is not designed to be used when demand is at or above capacity for any extended period of time, because there will be limited availability for unassigned slots. If airport demand eventually exceeds capacity the program may be revised to a DAS GDP resulting in new EDCTs for all known demand, scheduled or unscheduled.

Where is information detailing current GAAP or DAS GDPs depicted?

When a GAAP or DAS GDP is implemented, the Air Traffic Control System Command Center (ATCSCC) details the parameters of the program(s) and issues an advisory and can be found at http://www.fly.faa.gov/adv/advAdvisoryForm.jsp. Current programs are also displayed on the ATCSCC Operational Informational System (OIS) webpage at www.fly.faa.gov/ois under the *Ground Delay Programs* section. Each line details the program airport, the start and end times of the program, flights included, scope*, reason, average delays (AVG), airport acceptance rate (AAR), program rate (PR), and the corresponding advisory number with hyperlink.

* Scope refers to the distance or centers included in the GDP. While the program may not cause all flights to be delayed, all flights will receive an EDCT. Flights outside of the scope will receive an EDCT closely matching their proposed departure time.

How do I know what my EDCT is?

EDCTs for a GAAP GDP may be accessible through the webpage (see below) by entering the tail number and date of flight. This webpage is active when a program is in place and can be found at http://www.fly.faa.gov/gaap/jsp/gaapIndex.jsp
NOTE: In Spring of 2006 this webpage will be available to view EDCTs for all types of GDPs.

What is the process for implementing Traffic Management Initiatives (TMI)?

Air traffic personnel monitor the NAS for high demand sectors/airports on a continuous basis.

When a concern is raised about the traffic situation at a specific sectors/airport (s), a conference is held among impacted air traffic facilities, the ATCSCC and the primary system customers at the airport, to discuss alternatives and modeled scenarios.

An advisory may be issued when a GDP is being proposed but not yet implemented. If the decision is made to implement a GDP, then EDCT's will be sent to CDM members, airlines, NAS computers, and an advisory is issued that states a GDP has been implemented.

You may find more information about advisories at
http://www.fly.faa.gov/adv/advABD.jsp

How do the GDP procedures affect aircraft operators?

All aircraft operators are expected to depart within five (5) minutes of the EDCT.

Each aircraft operator needs to plan to taxi in a manner consistent with meeting the EDCT.

If an aircraft is late, air traffic controllers are required to call the ATCSCC to get a new EDCT. This could mean additional delay for the aircraft.

How do I know I have an expect departure clearance time?

You may go to http://www.fly.faa.gov/ois to see if a GDP is in place for your destination airport or call the local flight service station or the departure airport tower.

How do I find out my EDCT?

All major airlines and some large business aviation companies have a connection to the FSM and receive their EDCTs electronically. Other users can find out their times by calling the departure airport tower.

Can it be changed?

It can be changed, based on changing conditions at the GDP airport e.g. changing weather conditions or changes in the airport acceptance rate. Airline customers may substitute their aircrafts' EDCTs to meet their schedule objective.

How am I notified if it changes?

Airline dispatchers should provide updated EDCT's directly to company personnel. Other pilots receive their modified times from the tower at their departure airport.

What if I depart VFR and try to receive my clearance in the air?

Air traffic controllers are required to provide VFR aircraft with the appropriate delay assignment before providing the pilot with a clearance to the ground delayed airport. You may check with the local flight service station prior to departure to see if a GDP is in place.

The FSS may call the ARTCC, which controls your departure airport to get your EDCT prior to departure.

Why do I get a time outside of the parameters for the GDP that are posted on the Operational Information System (OIS)?

GDPs are based on original scheduled arrival times. Therefore, the estimated time en route (ETE) is considered in determining the appropriate departure time. The EDCT may be assigned after the times listed in the GDP.

In some cases the EDCT is after the program time because excess demand will flow over into subsequent hours, but must still be managed to ensure the balance between capacity and demand.

If you were estimated to arrive near the end of the GDP, you may be assigned an EDCT that puts your arrival time after the GDP has ended.

Do I receive a delay if I am requesting priority handling, such as a "diversion" or a "lifeguard" flight?

Aircraft requesting priority handling are assigned an EDCT. However, ATC will strive to provide the level of service requested by the operator. Customers that have diversion aircraft because of a GDP will receive priority handling over all other aircraft to the extent possible.

Who should I contact if I need to change my departure time?

Pilots should contact their dispatch office or their departure airport control tower if they need to change their departure time, however, this could change your EDCT.

Where can I get status information on Ground Delay Programs?

GDP information is viewable on the website http://www.fly.faa.gov/ois, look under the header "Ground Delay Programs." Additional guidance about interpreting the data is listed under the "help" button.

Ground Delay Programs have been implemented at all major airports and depending on the situation, can be issued at any airport in the country.

Ground Stop (GS)

What is a Ground Stop?

A Ground Stop is a procedure requiring aircraft that meet specific criteria to remain on the ground. The GS may be airport specific, related to a geographical area, or equipment-related.

Example: A GS could affect all departures to Teterboro, or all departures entering a specified sector, or all category I and II aircraft to Washington Dulles.

Why ground stop?

Ground Stops are implemented when air traffic control is unable to safely accommodate additional aircraft in the system. They are most frequently used for:

1. Severely reduced capacity situations such as:

    A. Weather below user arrival minima;
    B. Severe weather reducing usable routes;
    C. Major equipment outages;
    D. Catastrophic events.

2. Precluding extended periods of airborne holding.
3. Precluding sectors from reaching saturation levels.
4. Precluding airports from reaching gridlock.

Ground stops are tier based or distance (flying time) and will be specified. Most ground stops are reactive to the current situation; however, in some situations, they may be planned in advance.

For example, weather is forecast to develop along the east coast. Aircraft may be released until the weather materializes, at that time, a GS would be issued to ensure additional aircraft are not released until the operational situation allows.

What is the process for ground stops?

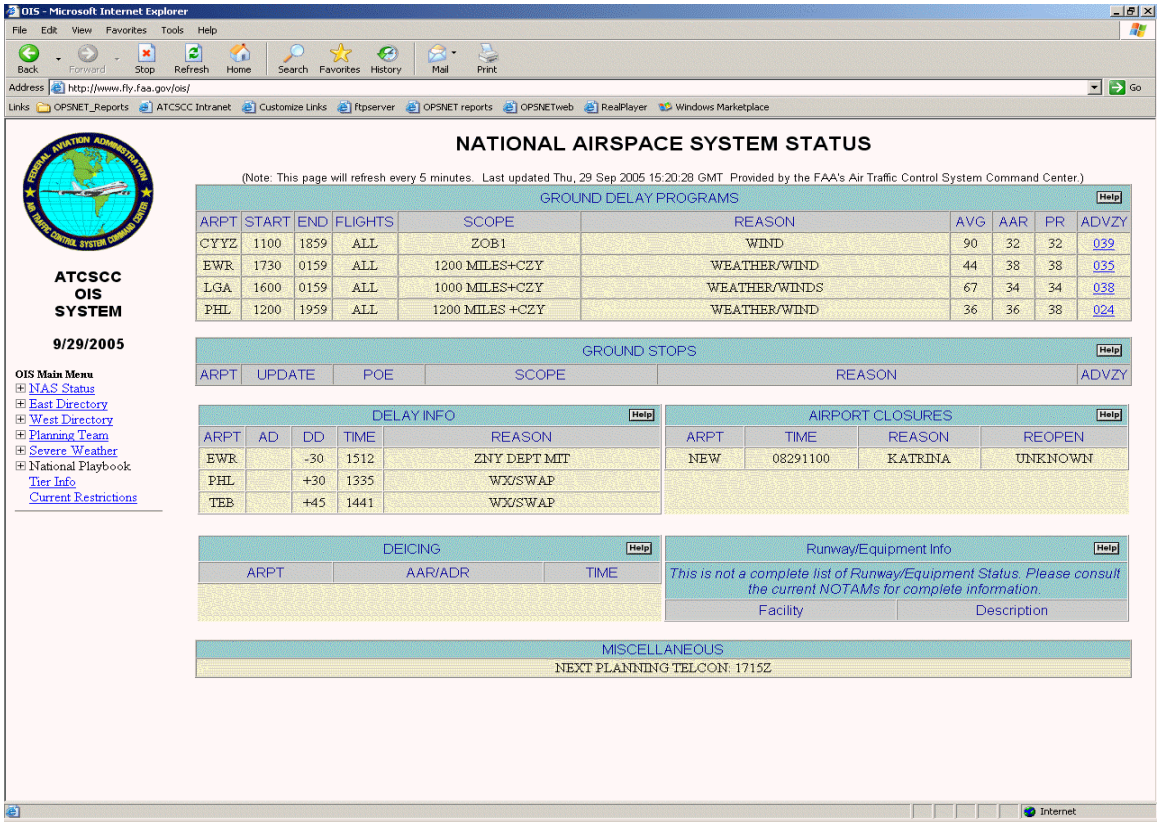
Facilities may implement GS for up to 15 minutes without notifying the ATCSCC. A facility GS may not exceed 30 minutes. Once the delay is anticipated to reach 15 minutes or more, the ATCSCC is notified.

If the GS is expected to continue, an advisory will be issued by the ATCSCC advising customers of the stop.

Where can I get current status information on ground stops?

Ground stop information for delays of less than 15 minutes should be provided by the ATC facility. Delays of 15 minutes or more are viewable on the webpage www.fly.faa.gov/ois. Find them under the header “Ground Stops.” (See below)

Occasionally, aircraft inbound to an airport may be stopped over a specific fix. This information will be recorded on the OIS under the heading “delay info.” Additional guidance about interpreting the data is listed under the “help” button.



Delay

What is a "delay" according to the FAA?

Reportable delays are delays to IFR traffic of 15 minutes or more, experienced by individual flights.

Delays may result from detaining an aircraft at the gate, short of the runway, on the runway, on a taxiway and/or in a holding configuration anywhere en route.

Are there any delays that are not reported?

Linear holds, e.g. speed reductions, and/or pilot initiated deviations around weather cannot be accounted for and are not included in the reporting process.

Delays that are due to mechanical or other aircraft operator – company problems are not reported.

Taxi time spent under the control of non-FAA entities, e.g., company or airport ramp towers, are not included in delay calculations.

How are delays measured and recorded?

Delay calculations begin when the aircraft enters ATC jurisdiction, e.g., calls for taxi on ATC controlled airport property, or enters a holding pattern.

When delays are issued with a Ground Delay Program; the EDCT, minus the proposed departure time and the average taxi time, equals the delay time. These delays are attributed to the arrival airport.

Delay calculations end when the aircraft departs or exits holding.

All airports have calculated average taxi times for all runway configurations. These values are not included in reported delays. Delay calculations are entered each day by all air traffic facilities except flight service stations, Regional Office and FAA Headquarters.

The data is entered into software called the Operations Network (OPSNET).
This information is forwarded to the ATCSCC for analysis.

Delays are normally attributed to the following five factors: weather, volume, equipment, runway, and other.

The "other" category is used for items such as security issues, aircraft accident, noise abatement, flight check, etc.

What are the most delayed airports in the United States?

In calendar year 2004, ORD, ATL, EWR, PHL, LGA, IAH, IAD, DFW, LAS & SFO were the top delayed airports. These airports change from year to year and may be dependent on numerous factors including construction, weather and airline schedules.

More detailed information is available via the Freedom of Information Act (FOIA) process. There is a quick find search at http://www.faa.gov/ for requesting information under FOIA.

Why do aircraft that push back, call for clearance, etc., after me, and depart ahead of me?

Air traffic control operates on the "first come, first served" principle. However, controllers are expected to use their best judgment in determining the safest and most efficient flow of traffic considering the different types of aircraft and whether priority handling has been requested.

Also, different departure fixes may have TMIs that controllers must consider while orchestrating the most efficient operation.

Is there any way to help mitigate delays?

Use the information available on the website http://www.fly.faa.gov/ois in planning your flight to meet any special requirements that may be in place that could affect your flight.

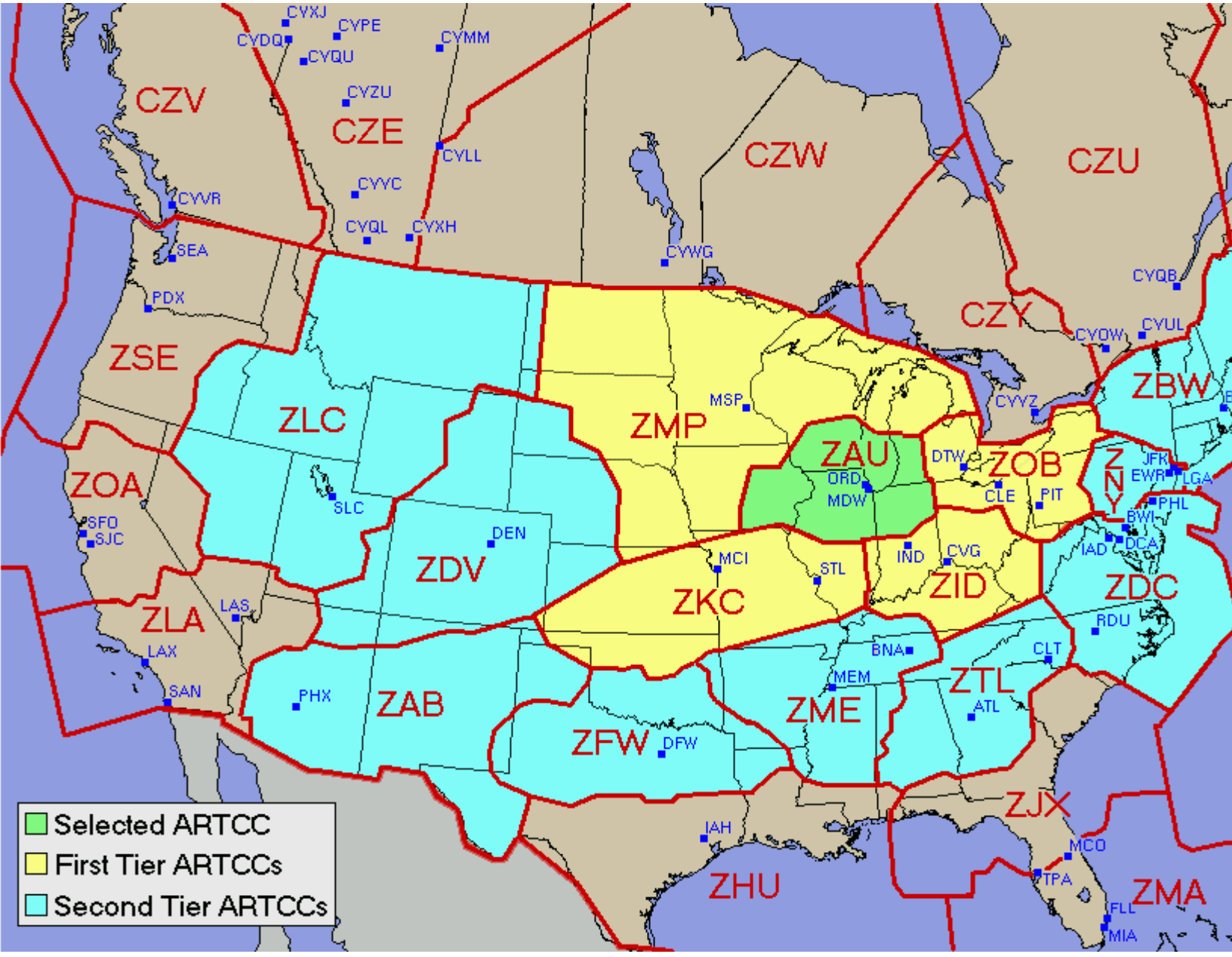
Examples that could impact your flight; GDPs, High-Density Traffic Airports (HDTA), or Special Traffic Management Program (STMP) reservation. (HDTAs and STMPs are explained later in this document.)

Plan your flight to operate during the less busy times at the airport or in areas of congested airspace.

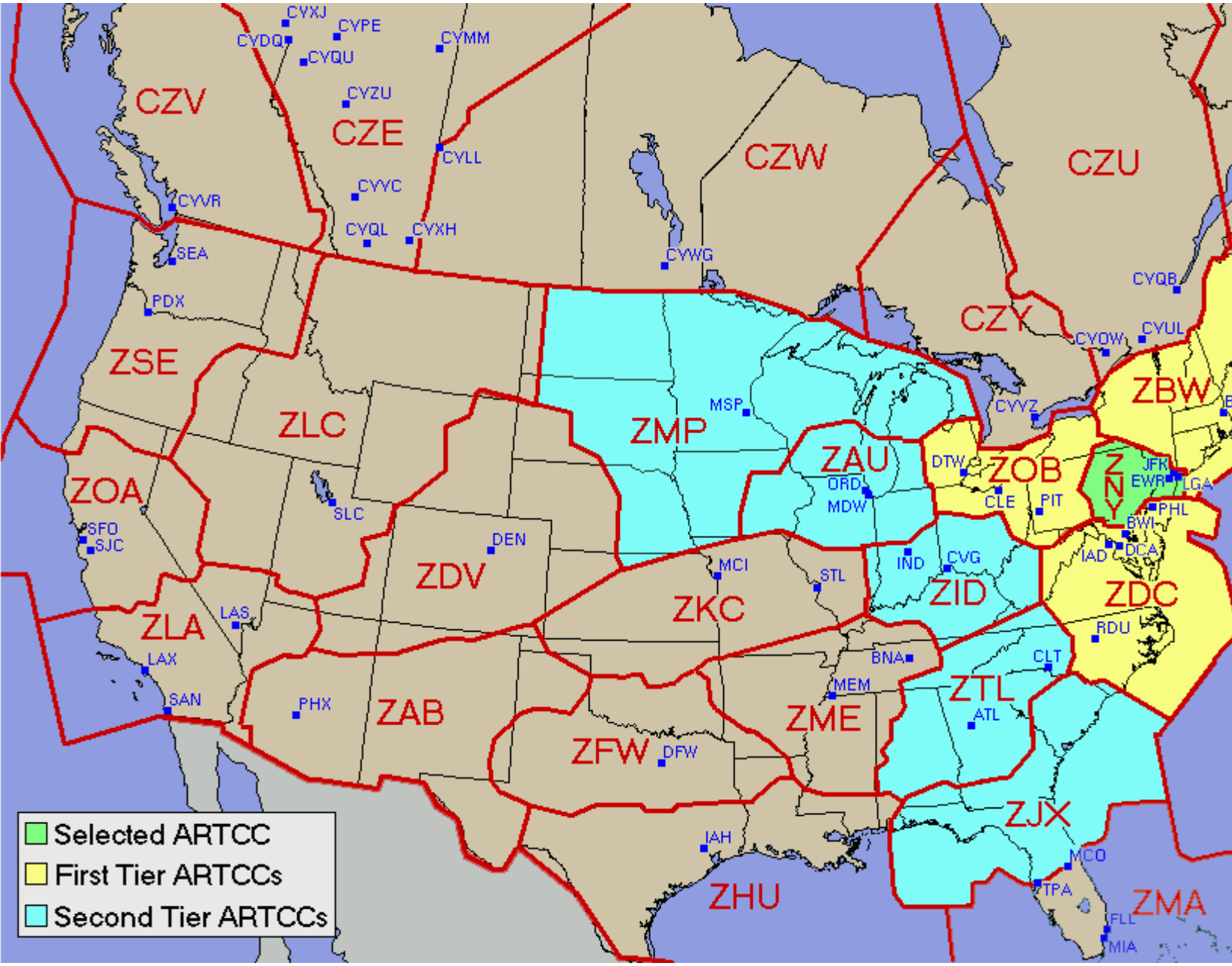
Tier Information

What does ‘tier” mean? For example, ZAU1 (Chicago ARTCC 1st tier) or ZNY2 (New York ARTCC 2nd tier)? The word “tier” describes a geographical area that is based on Air Route Traffic Control Center (ARTCC) boundaries. It may be used for implementing TMIs.

For example, ZAU1 would describe all ARTCCs adjacent to Chicago ARTCC. (See map)



ZNY2 would describe all ARTCCs adjacent to New York ARTCC plus the ARTCCs next to them.



There are some variations to the tier description to account for the size and domestic-international services provided by each ARTCC. More information about tier description can be found at: http://www.fly.faa.gov/ois and scroll down to “tier info” on the left side.

Why is it important?

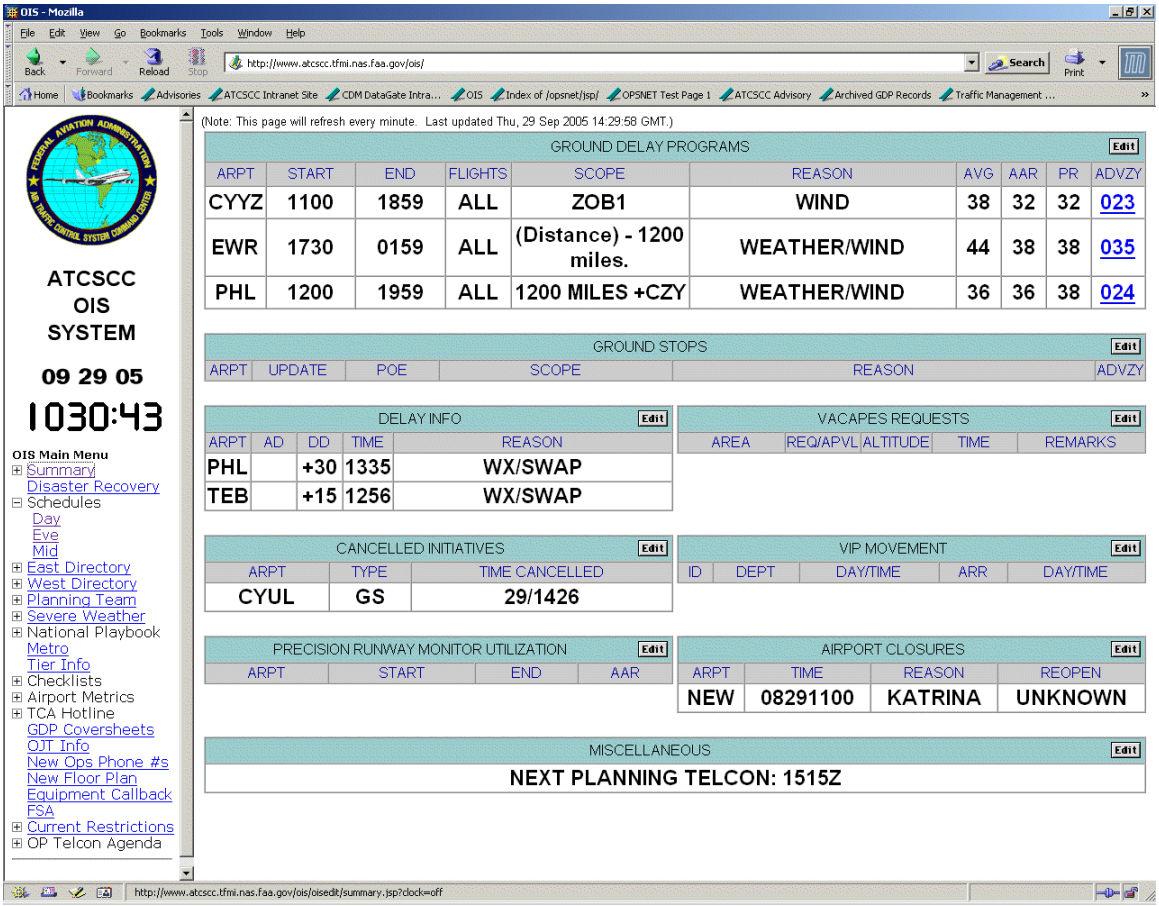
The tier structure may determine who is assigned a delay in Ground Delay Programs, as well as, whether a specific TMI applies to you.

Where can I get information?

The information is available at http://www.fly.faa.gov/ois under the OIS main menu at the bottom listing “tier information.”

Operational Information System (OIS)

What is the OIS?
It is a web page managed by the ATCSCC that provides current information to customers about the status of the National Airspace System (NAS).



Where is it?
Find it at http://www.fly.faa.gov/ois

What information is contained there?
The OIS displays information on numerous subjects pertinent to the NAS, including Ground Delay Programs, ground stops, airport closures, deicing, delays, etc.

Is there a guide for using it?

The "help" button under each category gives guidance concerning the topic listed on the OIS.

Advisories

What is an advisory?

An advisory is a message that is disseminated electronically by the ATCSCC or ARTCC. It contains information pertaining to the National Airspace System.

Advisories are normally used for the following:
Ground stops.
Ground Delay Programs.
Airspace Flow Programs
Route information.
Planning Telcon (PT) advisories.
Facility outages.
Volcanic Activity Bulletins.
Special Traffic Management Programs (STMP).

This list is not all-inclusive. Any time there is information that may be beneficial to a large number of customers, an advisory may be sent. There may be times when an advisory is not sent due to workload or the short duration of the activity.

Is there a place I can read them?

To access U.S. and Canadian advisories for the current day and the previous 14 days, go to http://www.fly.faa.gov/adv/advADB.jsp click on advisories database.

Where do I find a list of terms contained in the advisories?

Go to: http://www.fly.faa.gov/FAQ/Acronyms/acronyms.html. At the end of this document in the appendices, see Acronyms for another website that has commonly used terms.

The Aeronautical Information Manual (AIM) also lists many FAA acronyms.

As the advisories may be issued for unusual circumstances, not all terms will be included.

If necessary, you may contact your local flight service station for further information.

Planning Team (PT)

What is the Planning Team?

The PT is a collaboratively developed team consisting of personnel at the ATCSCC, ARTCC and selected terminal facilities as well as weather forecasters, airline planners, international facility personnel, military and general aviation representatives that identify short-term and long-term plans for the management of the National Airspace System (NAS).

How is it formulated?

The PT schedules a telephone conference approximately once every two hours to discuss current and forecasted events and their impact on the NAS.

Based on the discussion, a plan is formulated for the future (up to about 6 hours), and published as an advisory.

Can I participate?

Typically, each organizational unit has one representative who brings the concerns of their organization to the discussion. The numbers of phone lines are limited and a pin number is issued to each participant.

Your input is valuable, and your organization may have a representative that can carry your concerns forward to the planning discussion.

Where do I get a copy?

A copy of the PT is normally displayed on the OIS within 30 minutes after the completion of the collaborative discussion. It is listed in the advisories at: http://www.fly.faa.gov/ois and click on “Planning Team” in the left hand column.

Basic Weather

What weather information tools do you use in making traffic management decisions?

Traffic Management personnel utilize numerous weather products to help formulate their plan for the day. Some products are listed below:

Terminal Area Forecasts (TAF) describes anticipated weather conditions at airports. In the U.S., these forecasts are produced every eight (8) hours by the National Weather Service (NWS).

Convective outlooks forecast the most severe thunderstorms in the U.S. for the next 18 hours. They are updated several times throughout the day.

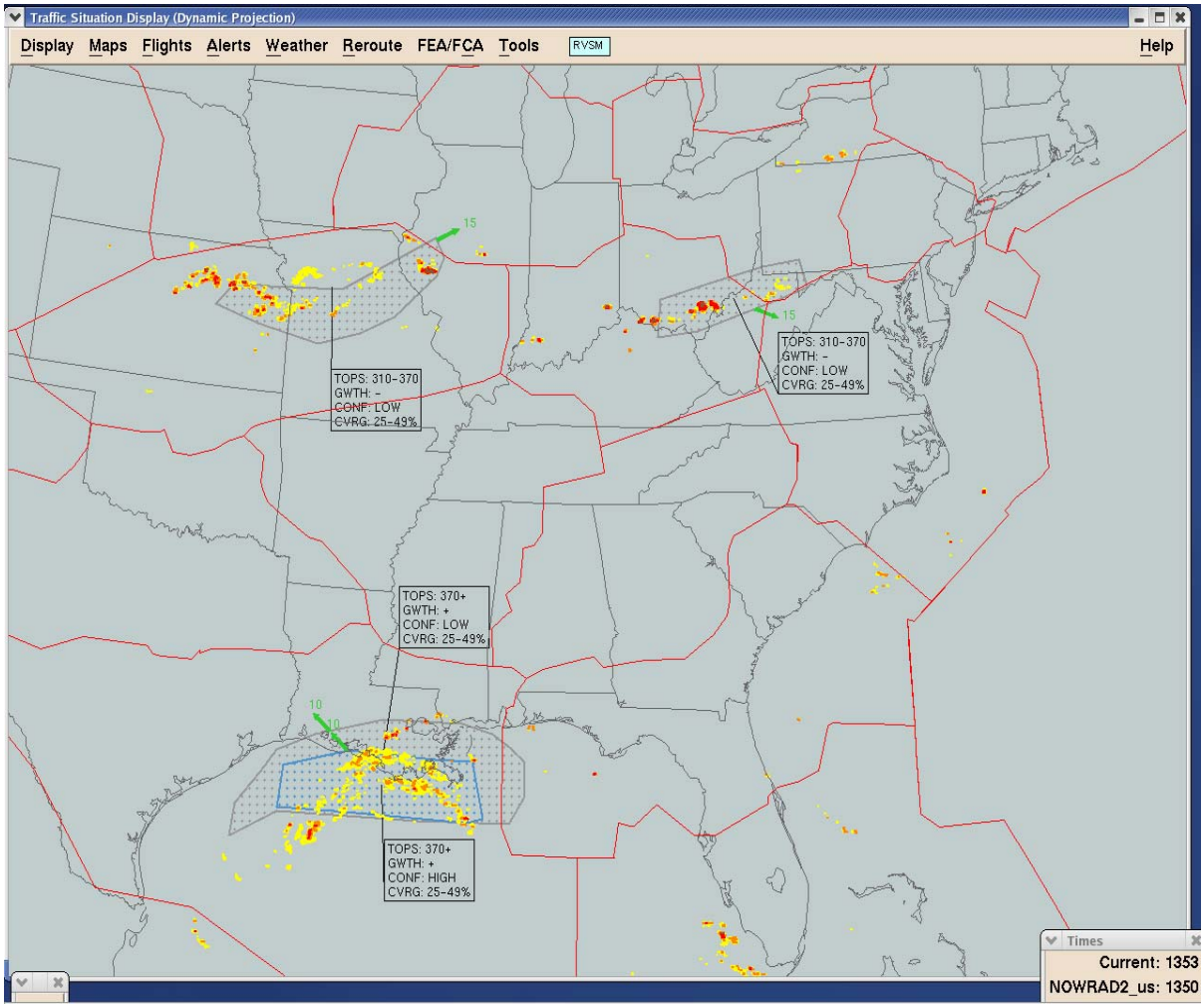
The Collaborative Convective Forecast Product (CCFP) is a forecast for intense convection activity that is made for 2, 4 and 6-hour periods by a group consisting of the NWS, the customers, ARTCC weather units and the meteorologists service of Canada.

The CCFP is discussed, critiqued and adjusted to develop a forecast based on many different inputs. It is the primary planning weather tool for Traffic Management personnel during severe weather periods.

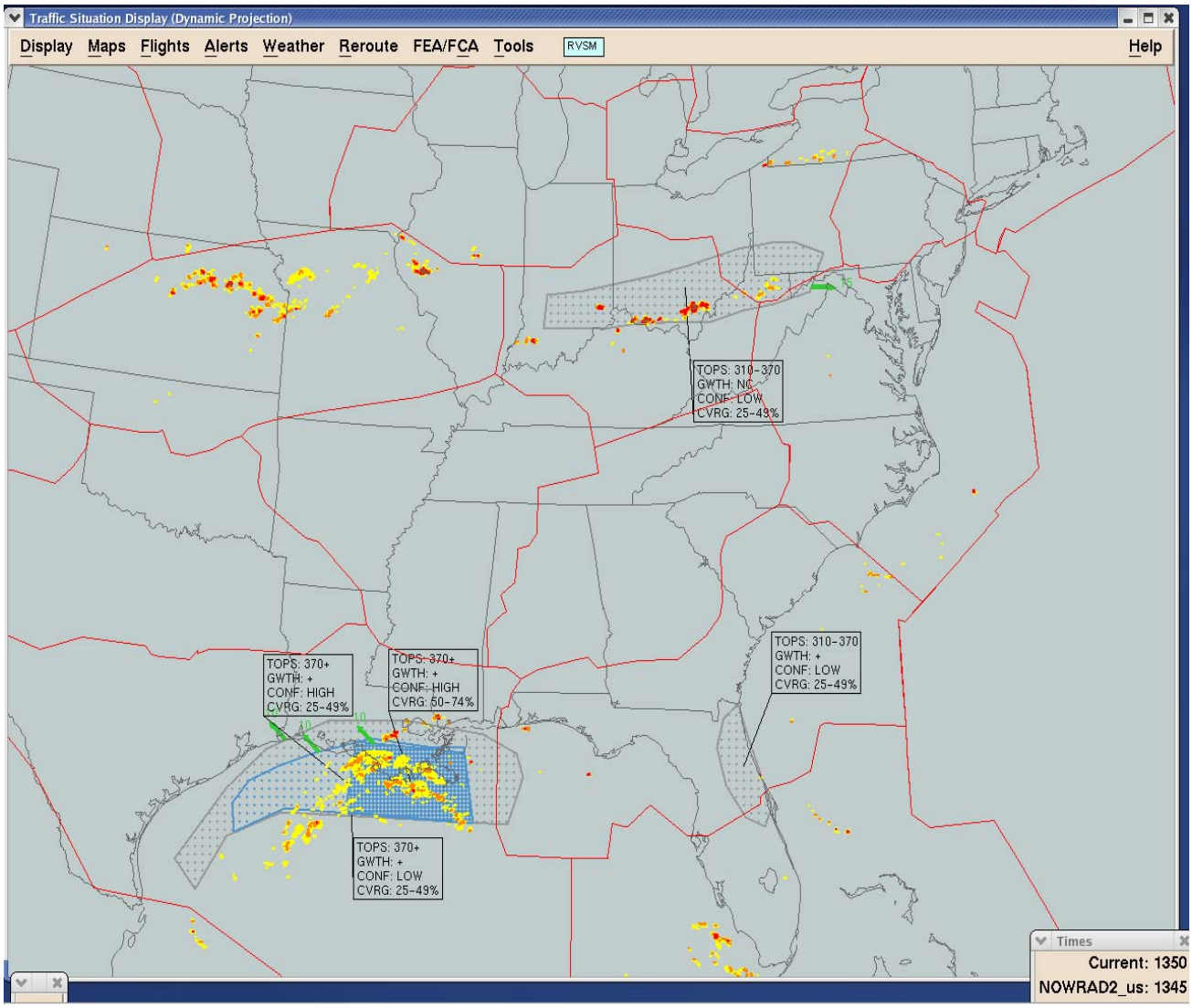
It consists of a defined area (polygon), and describes maximum cloud tops, growth and decay tendencies, and direction and speed of movement, as well as the forecaster's confidence in the forecast.

Let's take a look at CCFP!

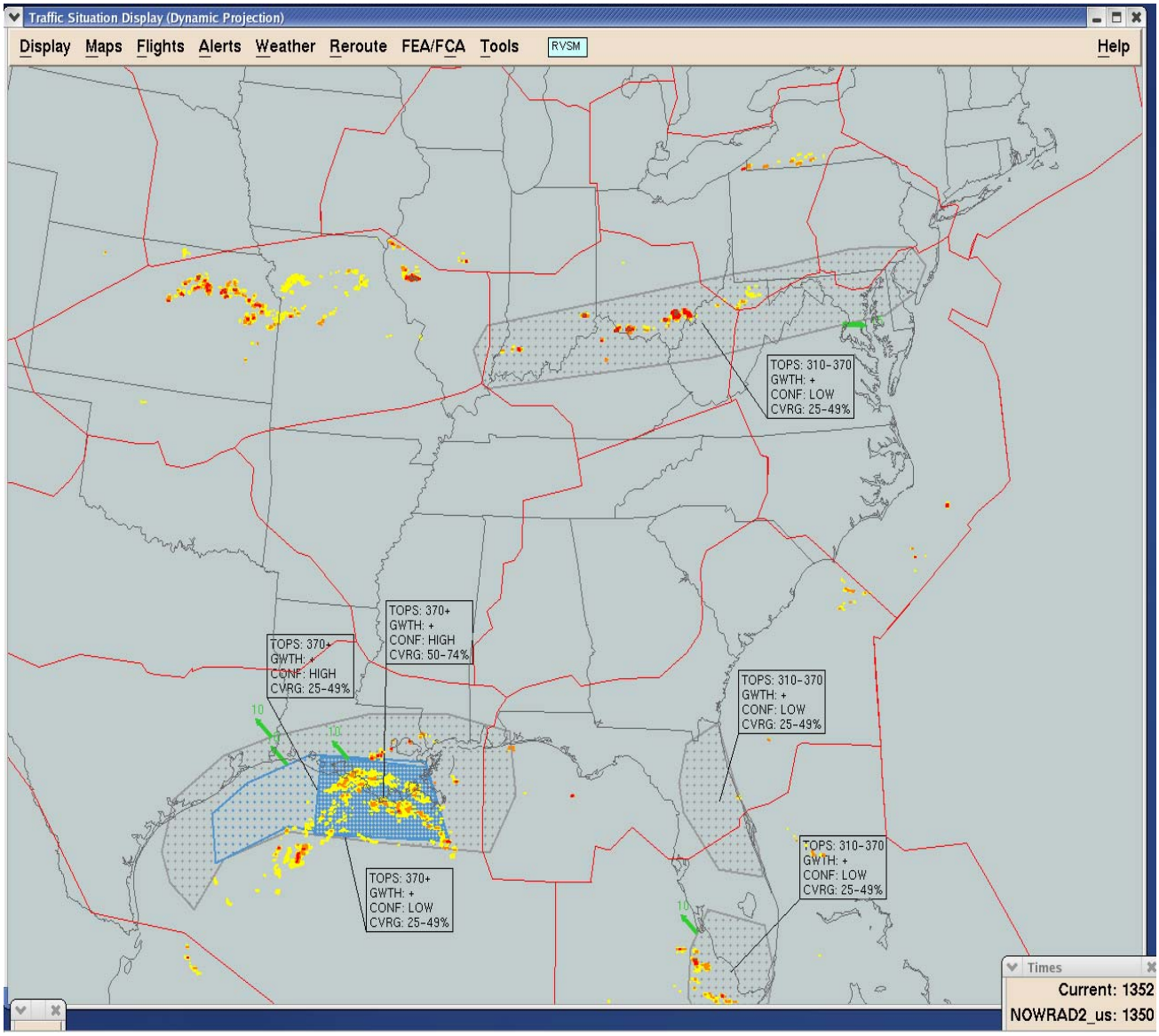
Below is a two-hour CCFP (Hurricane Rita).



Below is a four-hour CCFP. (Hurricane Rita)



Below is a six-hour CCFP. (Hurricane Rita)



Can I participate in the CCFP?

No. You can find out more information about the CCFP by contacting your ATA/NBAA/airline representative or go to the web pages below.

The CCFP is available at: http://aviationweather.gov/products/ccfp
Additional weather data is at: http://aviationweather.gov/

De-icing/Anti-icing.

De-icing is the process of removing existing frozen precipitation, frost or ice from aircraft surfaces.

Anti-icing is the process of preventing accumulation of frozen contaminants on aircraft surfaces.

Both processes may involve the application of various fluids to the aircraft.

What is air traffic's role in de-icing?

When requested by local airport operators at Federal Aviation Regulation (F.A.R.) Part 107 and Part 139 airports impacted by icing weather conditions, air traffic participates in developing Local Airport Deicing Plans (LADP).

The LADP may affect:

Airport Arrival Rates (AAR).

Airport Departure Rates (ADR).

Gate hold procedures.

The LADP emphasize local strategies for minimizing the amount of time an aircraft spends on the ground after being de-iced/anti-iced.

Aircraft operators are expected to plan their de-icing/anti-icing activities in conjunction with the information supplied to them.

Aircraft operators are expected to de-ice in a manner consistent to meet Expect Departure Clearance Times (EDCT).

Once an aircraft has been de-iced it will be released unless a ground stop applicable to that aircraft is in effect.

If necessary, the notification and procedures for de-icing/anti-icing should be addressed in the LADP.

Aircraft operators are responsible for managing their holdover times and returning to be de-iced/anti-iced, if necessary.

Where can I get current status information on de-icing and anti-icing?

Your local airport including the air traffic control tower or gate management personnel is the best source of information!

Status information is also viewable on the website: http://www.fly.faa.gov/ois/
Look for the header "de-icing." Additional help with interpreting the data is listed under the "help" button.

Severe Weather Avoidance Plan (SWAP)

What is "SWAP?"

SWAP is a formalized program that is developed for areas susceptible to disruption in air traffic flows, caused by thunderstorms.

Each air traffic facility may develop its own strategy for managing the severe weather event. Their plan then becomes part of the overall daily operations plan.

Is there a "plan" for managing traffic flows in severe weather?

As each weather event is unique, the response is tailored to meet the specific forecasted and actual events of the day. The SWAP plan is issued through the PT.

Can I get a copy of it?

The plan, available to all users, is published as an advisory under the PT. Additionally, routes issued in support of SWAP are issued as route advisories by the ATCSCC. They may be found at http://www.fly.faa.gov/

Inform yourself about conditions in the NAS and plan appropriately.
Be prepared to respond to rapidly changing weather conditions which may require new routes, often longer, to be issued.

ATC may request flights to evaluate flight conditions after the weather has passed.
If capable, volunteer your services!

Why do I get delayed on the ground when the weather is VFR?

There may be times when the weather en route or at the airport of destination is what prevents your departure, rather than weather at the departure airport itself.

If aircraft are all deviating through a small opening in the weather, traffic becomes very condensed and complex, thereby requiring additional traffic management initiatives. On the other hand if the airport of destination has a reduced AAR for some reason you may be delayed because of TMIs or compliance with a GDP.

Is there something I can do to help?

Pay attention to what is being said on the radio and be informed!

Stay safe!

Routes

What route information is available?

Route information is contained in the:
Airport Facility Directory
Preferential route information in the host computer
Route Management Tool (RMT)
North American route advisory circular
Operational Information System (OIS)
Federal Air Regulations (FAR)
Notices to Airmen (NOTAM)

Why are there so many sources?

Route information is published in various sources for different purposes, different users and different time frames.

Why does Air Traffic Control (ATC) reroute me?

To ensure you stay with the "flow" of traffic, remain clear of special use airspace, avoid congested airspace, and areas of known weather where aircraft are deviating or refusing to fly.

How do I find out what route ATC wants me to file?

The most current information is located on the OIS in the advisories and in the NOTAMS. These sources document changes to standard routes for the current date or for a special event.

Why do I get routed so far from my requested route when it appears there is no weather on the route I filed?

As flows of traffic are moved to accommodate severe weather, the traffic that would have been on the non-impacted route may be moved to manage volume issues.

What if I don't file the route ATC wants me to file?

Normally air traffic controllers will clear you via the route specified by traffic management. You may be rerouted in the air, or on the ground.

Normally, the operator should file or amend flight plans with the appropriate routes when the aircraft is 45 minutes or more from the proposed departure time.

ATC facilities will enter reroutes for active flights, or normally for flights less than 45 minutes from departure.

What if I can't accept the route due to safety of flight or fuel concerns?

You are required to notify the controller you cannot accept the route for safety reasons.

The controller will work with you to find an acceptable route. However, there may be occasions when you will have to divert to a different airport.

In accordance with Federal Air Regulations (FAR), all operators have the right of refusal of a specific route and may elect an alternative.

Alternatives include but are not limited to ground delay, diversion to another airport or a request to stay on filed route.

Who should I coordinate with beforehand if I know I can't accept the route?

You should notify the clearance delivery controller if you cannot accept the route issued. If possible, an alternative will be offered.

However, there may be no alternatives and you could be required to accept a delay on the ground until the route becomes available.

Preferred Routes

What is a preferred route?

A route that is requested, and has been published by ATC to inform users of the “normal” traffic flows between airports.

Why were they developed?

They were developed to increase system efficiency and capacity by having balanced traffic flows among high-density airports, as well as, de-conflicting traffic flows where possible.

Where can I find them?

They are listed in the Airport-Facility Directory and in the Route Management Tool (RMT) on the Operational Information System (OIS).

How come I file a preferred route and am immediately issued a new route on departure?

There may be other constraints on the system, e.g., severe weather that is disrupting normal traffic flows.

If you believe the preferred route is erroneous because you never receive the route, please contact the departure center with your questions.

Coded Departure Routes (CDR)

What are coded departure routes?

Coded Departure Routes are a combination of coded air traffic routings and refined coordination procedures.

They are designed to mitigate the potential adverse impacts to ATC and users during periods of severe weather or other events that impact the NAS.

CDRs facilitate electronic coordination of route data.

Where can I find CDRs?

The routes are located in the RMT on the OIS.

How will I know when to use them?

The ATCSCC will issue an advisory when CDRs are in effect.

They may be listed on the PT for potential use.

Can I use them?

Only customers that have a signed letter of agreement with the FAA are eligible to use the CDRs between the city pairs in the coded format, however any customer can file a route that corresponds to a CDR.

Any pilot may file the route listed in the CDR route string if the field labeled “user file” contains a “Y”. At the present time the FAA is considering making CDRs available to all users.

National Playbook

What is the playbook?

The National Playbook is a collection of Severe Weather Avoidance Plan (SWAP) routes that have been pre-validated and coordinated with impacted air route traffic control centers. They may be used in support of convective weather, military operations and other situations.

What are the routes?

Routes for the National Playbook are listed on the OIS.

Can I get a copy of them?

You may print a copy of the routes. However, the routes are updated approximately every 56 days, consistent with charting dates. A preview version of the new edition will be available seven (7) days before the effective date.

How do I know when they are in effect?

The ATCSCC will issue an advisory stating playbook or modified playbook routes are in effect.

Can I use them?

Any pilot may use the playbook routes when they are in effect!

How do I find out if it applies to me?

The route advisories issued by the ATCSCC normally specify the flows of traffic impacted by the advisory; e.g., all departures to Chicago O'Hare International airport from the west.

It will require you to look at the fix you would normally file over to determine if the playbook applies to you.

What if I don't know and don't file the playbook route?

Air traffic controllers will issue the route either before departure or while airborne, as the situation dictates.

Flow Evaluation Area (FEA) Flow Constrained Area (FCA)

What is an FEA? FCA? How are they different?

Developed on an ad hoc basis, they are both three-dimensional volumes of airspace, along with flight filters and a time interval, used to identify flights.

They may be drawn graphically, around weather, or they may be based on a NAS element such as a VORTAC.

They are used to evaluate demand on a resource.

They are different because an Evaluation Area is just under study while a Constrained Area requires action to address a particular situation.

How do I find out about FEAs AND FCAs?

You will know about one because a route advisory will indicate the impact area as an FCA.

Can I view it graphically?

At this time, only authorized government users and Collaborative Decision Making (CDM) participants have access to viewing FEAs and FCAs.
NOTE: They will be made available for viewing to all customers in the Spring of 2006.

How do I know one impacts me?

You may not. You may fly through an FCA if you are not one of the "filtered flights" that has been designated to remain clear of the airspace.

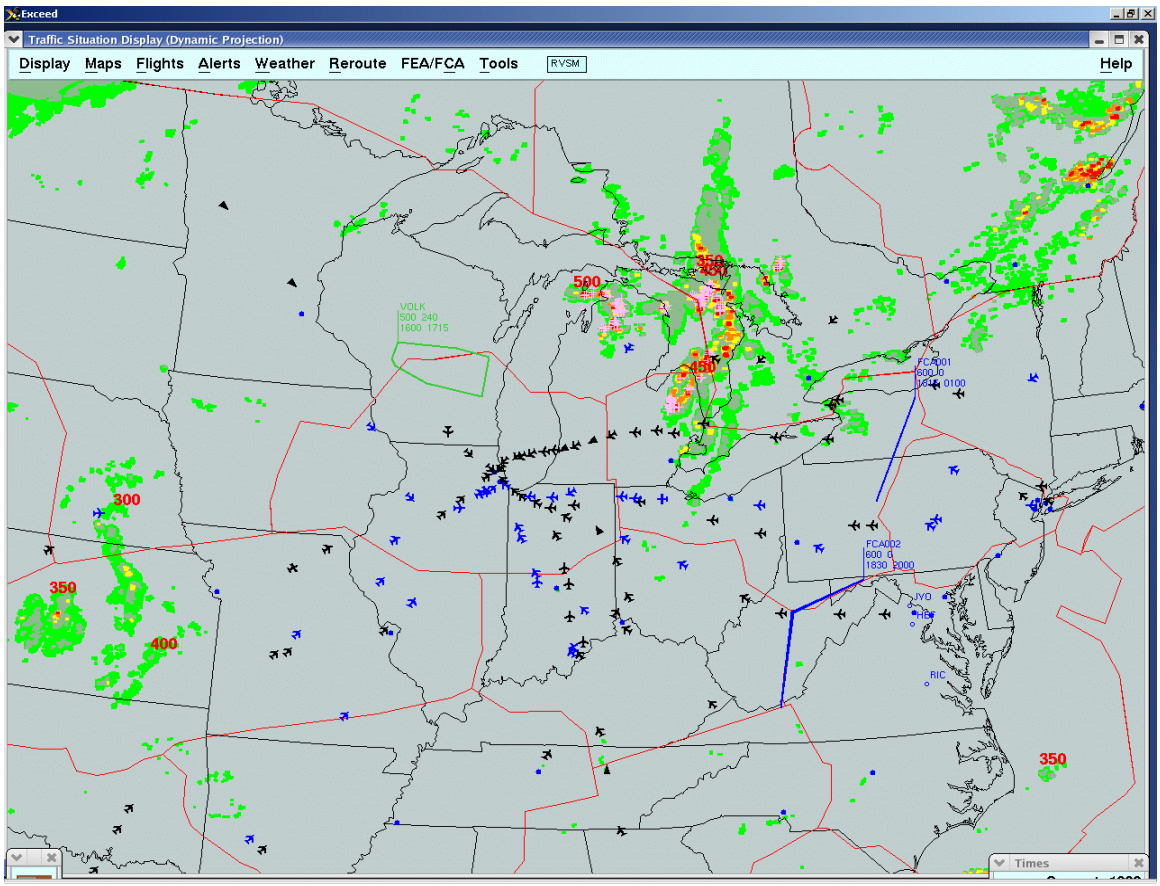
If you are one of the "filtered flights" you will receive a route that remains clear of the FCA.

The goal is to make the airspace a manageable situation; not a "no fly zone!"

What if I don't file around it?

ATC will issue a route that remains clear of the FCA, if appropriate.

Here are some examples of FEAs and FCAs, drawn on the Traffic Situation Display (TSD).


Exceed
Traffic Situation Display (Dynamic Projection)
Display Maps Flights Alerts Weather Reroute FEA/FCA Tools RVSM Help
500
150
300
350
400
350
VOLK
500 240
1600 1715
FCA001
600 0
1645 0100
FCA002
600 0
1830 2000
JYO
HEF
RIC
Times

Airspace Flow Programs (AFPs)

Airspace Flow Programs (AFP) will be introduced in Spring 2006 and mark a significant new step in en route traffic management. The principal goal for the initial deployment will be to provide enhanced en route traffic management during severe weather events. An AFP is a traffic management process that identifies constraints in the en route system, develops a real-time list of flights that are filed into the constrained area, and distributes expect departure clearance times (EDCT) to meter the demand through the area.

If an AFP is issued and a flight is included, the pilot will receive an expect departure clearance time (EDCT). Meeting the departure time is important because it allows traffic managers to properly meter flights through the constrained area being controlled by the AFP.

When an AFP is issued the FAA will send an Advisory that is accessible at http://www.fly.faa.gov/adv/advAdvisoryForm.jsp.

The AFP will also appear on the Operational Information System (OIS) page at http://www.fly.faa.gov/ois/.

At airports with an airport traffic control tower, controllers will provide you with the EDCT when you call for your clearance. If you are departing an airport without a control tower, you can determine if your flight has an EDCT. You may visit the ATCSCCs website at http://fly.faa.gov to determine if your flight has an EDCT. This website will provide information regarding the location and reason for an AFP. It will also provide a "Look Up" function to determine if your flight has received an EDCT.

It is important for you to check the ATCSCC website - before you depart - to determine if your flight is included in an AFP. Depending on the severity of the constraint leading to AFP, you may:

- be assigned airborne holding to provide the delay necessary for your flight to arrive; or
- be rerouted to avoid the AFP altogether; or
- need to land to absorb the delay; or
- be allowed to enter the AFP with minimal delay.

You have a window of time in which to depart and not miss the EDCT. Flights are asked to depart as close to the time as possible. If conditions warrant, you may depart 5 minutes before the EDCT and up to 5 minutes after. Outside of that window, you can exercise the following options:

- If your company is a CDM member, flight operations have a process for contacting the ATCSCC to request a new time.
- At airports with a control tower, the controller has a process for requesting a new time and can assist you.
- At airports without a control tower, you may:
    1. Contact Flight Service.

2. Contact the overlying ARTCC or TRACON.

If you prefer to explore other options rather than the assigned delay, you may be able to:

- Route out of the AFP. If there is another acceptable route available that would take the flight out of the AFP, you may choose to re-file the flight plan.
- Make a stop en route. You may elect to land at an intermediate airport to provide the delay necessary for the flight to arrive at the AFP controlled time of arrival.

If you file a new flight plan into an existing AFP, the flight will be treated as a popup. Your flight will be assigned an EDCT consistent with the delay received by other flights filed to enter the AFP at about the same time.

If you file a flight plan out of an AFP and into another, the flight will be treated as a popup. Your flight will be assigned an EDCT consistent with the delay received by other flights filed to enter the AFP at about the same time. In addition, you will forfeit the arrival slot in the original AFP.

If your flight is included in both an airport ground delay program and an AFP, the EDCT for the ground delay program will take precedence.

It is recognized that the predicted demand through an AFP and the weather impacting the area may change substantially over time. When the conditions warrant, traffic managers will take steps to coordinate and implement revisions to the AFP. In a revision, AFP entry slots are recomputed so that demand is again metered to meet capacity and new EDCTs are sent to the en route centers, control towers, and customer flight operations centers.

The AFP capability is a fundamental change to traffic flow management, and successful implementation will necessitate automation changes to ETMS and FSM for both the FAA and NAS users. It is imperative for NAS users to understand the impact of these changes on the data they see and on the automation systems. It is incumbent on the users to read Federal Aviation Administration Air Traffic Control System Command Center, Ground Delay Program, and Substitution Message Processing, Version 2.4 to determine any consequences on their automation systems, and be ready to operate with those changes in time for the deployment of ETMS 8.2, currently targeted for release in May, 2006. This and other more comprehensive documents concerning GDP and AFP issues can be found at: http://www.fly.faa.gov/NASDOCS/nasdocs.html.

AFP Frequently Asked Questions

1. Q: Who will implement AFPs and coordinate all AFP decisions?

A: The newly created NESP (National En route Spacing Position) at the ATCSCC will have oversight responsibilities for all AFPs.

2. Q: How were the boundaries for the six AFPs (FCAA01-A06) decided?

A: For the inaugural AFP season, six AFPs were defined to generally correspond to ARTCC boundaries, filtered for flights arriving to specific destination centers. By using these ARTCC boundaries, field facilities and customers will be able to identify which flights are included in the AFP, and what routes would be required to reroute out of an AFP. Also, when ground stops are necessary, tier based ground stops that transition into EDCT program revisions will produce more consistent values. After initial implementation, it is anticipated that the use of AFP will be expanded beyond the original six to allow traffic managers greater flexibility in applying the tool.

3. Q: In what weather scenarios do we expect to use the six predefined AFPs (FCAA01-A06)?

A: The anticipated weather scenarios will include lines or popcorn storms in the NY Metro/Boston areas, in the Ohio Valley or ZDC ARTCC, and/or the DC Metro region. The forecast should also include CCFP (collaborative convective forecast product) predictions of medium to high confidence in areas with greater than 50% coverage. After initial implementation, it is anticipated that the use of AFP will be expanded for use not only in weather scenarios but also in high air traffic demand scenarios. This will provide traffic managers with an additional tool to manage geographic areas that experience periods of complex, high volume traffic.

4. Q: How is the AFP Arrival Rate (AAR) set?

A: Based on the anticipated conditions, the NESP will select an arrival rate based on guidelines developed through analysis of historical data. These guidelines will be refined over time. When 'ad-hoc' AFPs are developed, the AAR may be a set number of aircraft allowed to pass through the FCA per hour or may be a percent reduction of known demand.

5. Q: What happens if my flight has an AFP EDCT, but is caught in an airport ground stop?

A: The ground stop has the higher priority. If the ground stop is lifted and the AFP is still in place, the flight will get a new EDCT for the AFP along with a control type of RCTL (re-control). If the number of RCTL flights disrupts the delivery of the AFP, the NESP may elect to revise the AFP after the ground stop ends.

6. Q: Will the Flight Service Stations (FSSs) be able to assist me in determining if my flight is captured in an AFP, what my EDCT delay is, or help file routes around an AFP?

A: FSSs are currently unable to obtain AFP EDCT information without calling a Tower, Tracon, or ARTCC. Although they do receive Advisories, they are not equipped to keep up with updates, reroutes, revisions or cancellations.

7. Q: Will DUATS show AFP and alert me that I am included in the program?

A: DUATS (Direct User Access Terminal System) is a web system that provides a wide range of services to pilots, but does not provide EDCT information. Services include weather briefings, flight planning, aeronautical data, NOTAMS, TFRs, weather graphics, etc. DUATS provides Advisories in plain text format, but they are very difficult to read. It is unlikely that a GA pilot will get any AFP or EDCT information from DUATS based on their current capabilities.

North American Route Program (NRP)

What is NRP?

The North American Route (NRP) program specifies provisions for flight planning at flight level 290 (FL290) and above, within the conterminous U.S. and Canada.

What does it do for me?

It enables flexible route planning for aircraft operating at FL290 and above, from a point 200 nautical miles (NM) from their point of departure to a point 200 NM from their destination.

Additional flexibility is available by utilizing specified Departure Procedures (DP) and Standard Terminal Arrival Routes (STAR) that have been identified within 200 NM of the airport(s).

Why am I taken off my NRP route?

There may be times when air traffic requires flights to be on specified routes due to volume, weather or separation requirements.

Under most circumstances an advisory is issued by the ATCSCC whenever NRP procedures are curtailed.

How do I find out more information?

Participation in NRP is voluntary and the process is outlined in FAA Advisory Circular 90-91h. For more information go to: http://www.faa.gov/, click on Advisory Circular.

Priority Handling

What is it?

Aircraft that meet specific criteria receive expeditious handling to the extent possible.

Controllers are expected to use good judgment in determining their ability to provide priority handling based on the existing conditions.

Do any flights get priority handling?

An aircraft in distress has right-of-way over all other traffic.

Priority may be provided to “lifeguard” flights, NRP program participants, diversions and other types of flights requesting special assistance.

How do I let you know I’m eligible and requesting priority handling?

The Aeronautical Information Manual and pertinent advisory circulars provide guidance on types of flights eligible for priority handling. They also explain how to indicate the information on your flight plan.

Flight departments should be aware of programs available to them for priority handling and how this information is forwarded to the FAA.

Diversion Recovery

What is it?

Diversion recovery is when an effort is made to return “diversions” to airports of their original intended landing.

What is a diversion?

A diversion is a flight that is required to land at other than its original destination for reasons beyond the control of the pilot or company, e.g., periods of significant weather.

How does the ATC know an aircraft has diverted?

The Flight Schedule Monitor (FSM) software has an “auto detection” algorithm that indicates a flight has changed its destination while airborne and subsequently filed a flight plan to the original destination.

Additionally, if the flight plan contains the acronym “DVRSN” in the remarks section of the flight plan, this information is displayed on a separate web page so that traffic management personnel are aware of the diversion and take action for expeditious handling.

Do aircraft that have diverted get priority handling?

ATC tries to provide priority handling to “diversions.” However, there may be times when a situation prevents ATC from providing this service.

What if I forget to put DVRSN in my flight plan?

You may call your airline representative, professional organization representative or notify the air traffic facility of your status as “a diversion.”

Where can I get additional information?

The Aeronautical Information Manual contains information regarding diversions and how to indicate this information to ATC.

Special Traffic Management Program (STMP)

What is a "STMP"?

A Special Traffic Management Program (STMP) is a long range strategic initiative that is implemented when a location requires special handling to accommodate above normal traffic demand, e.g. The Indianapolis 500, Kentucky Derby, Master's Golf tournament, NBAA Convention, etc.

Why are they implemented?

They are implemented to balance capacity with demand. This becomes especially important when the demand is unknown prior to the event.

Currently the FAA does not store flight plans in the NAS computer more than two (2) hours in advance. STMP reservations provide long range planning capability for the event.

How do I know if I have a slot or not?

The computer reservation system will provide a confirmation number at the end of the transaction.

What do I do with the reservation information I receive?

The NOTAM regarding the STMP normally requires the reservation number to be entered in the "remarks" section of your flight plan.

Traffic Management personnel use this information to monitor the activity at the STMP airports.

Is it required to have a reservation if a STMP is in place?

Yes! The STMP NOTAM will specify whether it is for IFR or VFR aircraft and if it pertains to arrivals, departures or both.

What happens if I don't?

If you do not have a reservation an ATC clearance cannot be issued to the STMP airport and you will be delayed on departure.

If there is no space for additional aircraft at the STMP airport, you will be asked your intentions.

Is there any way I can get a reservation, even though the STMP indicates no slots are available?

STMP reservations are distributed on a "first come, first served" basis. There may be occasions when an additional slot will be available.

The STMP NOTAM will have phone numbers for contacts about the STMP.

You also need to check during the program to see if additional slots have become available, or other participants have cancelled their reservations.

Why can't I get a reservation in the Denver Ski Country STMP or any other STMP?

During some STMPS, demand exceeds capacity and there may be thousands of users vying for the limited slots. Reservations are available 72 hours in advance.

The following article is from a joint FAA/customer meeting concerning STMPs for Ski Country Airports and STMPs in general.

Enhancements to Ski Country and STMPs for Fall 2005 Finalized

September 14, 2005

Background on the STMP Enhancements Workgroup

In mid-July, the Special Traffic Management Program Enhancements Workgroup (STMPE WG) met to prepare for STMP enhancements being introduced in the fall of 2005. The STMPE WG is a subgroup of the joint FAA/Industry Collaborative Decision Making Workgroup (CDM). The July 12 meeting, held at the FAA Air Traffic Control System Command Center, focused on short and long-term enhancements to the present STMP process.

A second meeting, held September 13th in Northern Virginia, discussed the FAA's plan to adopt all of the 2005 recommendations with few exceptions and alterations noted below. FAA Denver Center Traffic Management Officer Randy Carlson led the meeting. The group consists of an equitable mix of customer representatives from general aviation, flight plan service providers, fractional companies, charter operators, and traditional NBAA member flight departments.

Through this workgroup, customers have been meeting regularly with the FAA and other FAA contract support units since October 2002, where they have an opportunity to contribute to improving the STMP process by addressing areas such as the reservation process, slot compliance, and routing issues. The goal is to identify areas for improvement or modifications and to then make formal recommendations to the FAA. While many of the workgroup discussions at the July meeting focused on the Ski Country STMP issues, many of the fall 2005 implementations will be applicable to both Ski Country STMPs and the overall STMP process.

2004-2005 Ski Country STMP Statistics

The following is a summary of Denver Center statistics from the 2004-2005 Ski Country STMP Season. For more information, download the Ski STMP Post Analysis PowerPoint file (226 KB) available on the NBAA website: http://www.nbaa.org/

A major conclusion of the data summary by workgroup members is that there is no "hoarding" of reservations by any segment of the general aviation community. When it comes to overall slot utilization, both groups, "November/Tango-November" and fractional operators are relatively similar in regards to allowing obtained reservations to go unused.

- Analysis of the statistics showed that of all of the customers (both "November/Tango-November" and fractional operators) who actually received a reservation, only 48-50 percent of those actually used them, meaning that roughly half of all reservations obtained by all customers throughout the entire 2004-2005 Ski Season were never utilized.
- This statistic was divided up even further between those operating under "November/Tango-November" tail numbers, versus those flying under a specific three-letter call sign identified as a fractional operator. Both groups were within 1 percent of each other in regards to utilization of obtained reservations.
- Of the total number of reservations available during the 2004-2005 Ski Country STMP, 7,594 were reserved by "November/Tango-Novembers" tail numbers, while 3,868 reservations were obtain by fractional operators. The ratio between the numbers of reservations obtained by operators with a "November/Tango-November" tail number in relation to a fractional operator is almost 2:1.
- On the top five busiest days at ASE, for instance, only 22.3 percent of the total reservations obtained were by fractional operators, versus 61 percent that were obtained by "November/Tango-November" tail numbers. The remaining percentages were made up of the airlines (9.8 percent) or were not reserved at all (7 percent) due to operation limitations.

Workgroup Recommendations approved for implementation for the 2005-2006 Ski Season

The following enhancements were submitted by the STMPE WG to the FAA and approved for fall 2005 implementation. Other specific recommendations for fall 2006 are also listed although not adopted at this time.

The following is a summary of approved changes for all STMPS starting in the Fall of 2005. For more information, download the FAA ESTMP Web Site changes for 2005/2006 PowerPoint file (1.1 MB) available on the NBAA website: http://www.nbaa.org/

Ski Country STMP Recommendations Approved for the 2005-2006 Ski Season

- GJT airport will be removed from the Ski Country STMP airports. The STMP will include only ASE, EGE, RIL, MTJ, and TEX.
- 2005-2006 calendar dates for STMPs are set for: December 14, 2005, through January 4, 2006; February 16, 2006, through February 21, 2006; March 15, 2006, through April 4, 2006, and June 29, 2006 through July 6, 2006. Note that this is dramatically less than in previous years, which usually began on November 27 and ended near April 15, and includes one period in the summer where demand is higher than usual.
- Revised and expanded Ski Country Playbook Routes, which will be required for all operators wishing to operate into Ski Country airports. These playbook routes will be implemented and effective beginning December 12, 2005, through March 30, 2006. Note that it is imperative that customers make every effort to file the appropriate playbook routing when flying to the Ski Country area. These routes will be in the NOTAM issued for the Ski Season. Customer compliance of these routings will directly determine the overall success of the dramatic reduction in the Ski STMP reservation dates. All pilots and associated flight support personnel must be fully acquainted with the available routing information. Additionally, ski country routes may be implemented on dates outside the STMP when demand warrants their use.
- Clearer notification on the e-STMP website of Ski STMP cancellations as well as overall requirements for reservations. For instance, on a date in which the Ski STMP may have actually been cancelled, users may receive a message saying that reservations "are not required for your time of arrival," when indeed the program has already been cancelled for that particular day.

General STMP Recommendations/Improvements Approved for Fall 2005 Implementation

- New servers with larger bandwidth at the FAA Command Center already have been acquired to increase support for the e-STMP website.
- The slot availability screen has been redesigned making it easier for users to view and comprehend the cumulative number of reservations available for a particular airport. They will also improve the way the messaging works in situations where you are given a slot for your alternate airport instead of your primary request.
- The e-STMP customer database will require that all customers provide current and complete contact information to include phone numbers. This will allow air traffic facilities to contact customers directly should they have any questions regarding specific reservations within the system. Each November 1st, users will be asked to verify and correct any changes in their profile. This will allow the FAA to purge old data from the database.
- Implement a new reservation code format that will consist of a preliminary part and a confirmation part. Instead of the traditional date/time code, a new format will be used that begins with the arrival airport code, followed by the arrival time,

and ends with five randomly generated characters. For example, an ASE arrival reservation on December 17, 2005, may appear as ASE194512345.
    - ASE - ASE
    - 1945 - arrival time
    - 12345- Five digit random code
    - Once confirmed a "C" and random 2 digit code will be added. For example, once confirmed the above reservation number would be: ASE194512345C12
- All arrival reservations reserved more than 24 hours in advance of the arrival reservation time, regardless of destination, will be required to be reconfirmed via the e-STMP web site between the 24th and 8th hour prior to the arrival reservation time. Upon reconfirming the reservation, a "C" and a random two-digit code will be added to the end of your reservation number (see breakdown above). If a customer does not reconfirm a reservation by the eight-hour mark, then that reservation will automatically be cancelled and placed back into "availability" status for another customer to utilize. If, however, a customer obtains an entirely new arrival reservation within 23 hours of the arrival reservation time, then they will not be required to reconfirm the slot. This new reservation code will already contain the "C" and randomly generated two-digit code at the end of the reservation number.
- Customers will no longer be allowed to obtain a reservation within plus or minus 30 minutes of any reservation already obtained by the same tail number or call sign identifier. This is a direct result of an enormously high number of customers who obtained reservations for an entire "block of time" due to an "estimated" arrival time. Then once they narrowed down their anticipated arrival time, they neglect to cancel any remaining reservations that then go unused. Another example is the case where several different resources are being utilized to obtain reservations. Once the customer chooses the most appropriate time, the "non-accommodating" reservations are not cancelled and then go unused.
- The RON (Remain Over Night) button will be a blank field that the user must select "yes" or "no."

General STMP Recommendations for Fall 2006 Implementation (not finalized)

- A capability for customers and the FAA to generate reports in conjunction with maintaining a customer profile including tail-specific information. This report will indicate all reservation activity performed by customer. This will allow each customer the ability to track any reservations made for aircraft in their fleet within their account.
- The e-STMP database should interface with the Enhanced Traffic Management System (ETMS) database to increase customer and FAA accountability, address compliance issues, improve predictability, and to allow dynamic monitoring of on-time performance to maximize capacity.
- Allowing e-STMP to be interfaced with an aircraft registry database to assist in the improvement of slot availability. This is a safeguard against users accidentally

placing a reservation under an aircraft that is not registered to them, nor contained within their e-STMP profile.

Conclusions

Customers should become familiar with all of the above recommendations, especially those that will be in place for the fall 2005 STMP season. These recommendations were developed carefully with much discussion among all of the represented customer groups and the FAA. These recommendations are one step towards addressing the recurring equity and efficiency issues often vocalized through customer feedback and suggestions. Throughout the upcoming fall and winter seasons, data will be analyzed for adherence to routings, overall compliance with slot times, and other similar metrics. Customer performance improvements will have to be noticeable to justify implementing the proposed fall 2006 recommendations.

High Density Traffic Airports (HDTA)

What are they?

High Density Traffic Airports are specified in title 14 of the code of Federal Aviation Regulations, Part 93, and Subpart K.

Currently, the following airports require unscheduled operations to acquire a reservation prior to operating at the airport:

John F. Kennedy International (JFK)

Ronald Reagan Washington National (DCA)

LaGuardia Airport (LGA) for specified periods of the day.

Chicago O'Hare Airport (ORD)

How do I get a reservation for a High Density Traffic Airport?

You may receive a reservation through the Airport Reservation Office (ARO), located at the ATCSCC, through a touch-tone telephone (800-875-9694) or the Internet http://www.fly.faa.gov/ecvrs.

Is there someone I can call if I need a reservation and can't get one?

The ARO telephone number is 703-904-4452.

What happens if I try to go there and I don't have a reservation?

The only unscheduled traffic accepted at the airports without a reservation is emergency aircraft. The FAA monitors compliance with the regulations and violators are cited.

Why can't I get a reservation at DCA?

Effective August 18th, 2005 Charters and Corporate aircraft are allowed into DCA. This process is expected to be complex. Information and procedures can be found in the publication listed below.

Where can I get additional information?

FAA Advisory Circular 93-1A addresses operations at HDTA. Additional information is contained in the Aeronautical Information Manual. Information regarding General Aviation aircraft landing at DCA as well as HDTA airports can be found in Code of Federal Regulations (CFR) part 93, subpart K or http://www.tsa.gov/ keyword; DCA and Dept. of Homeland Security 49 CFR Parts 1520,1540 and 1562.

Appendix I

To download the Glossary as a PDF file, right-click on the link, select Save Target As, and specify a destination folder.

Back Close Window

Air Traffic Management Glossary of Terms	
Jump to: C E F G I L M N O R S T U V W Z	
Acronym	**Meaning**
AAR	Airport Acceptance Rate or Airport Arrival Rate. The number of arrivals an airport is capable of accepting each hour.
AC or A/C	Aircraft
ADZY	Advisory
AFP	Airspace Flow Program. An AFP is a traffic management process that identifies constraints in the en route system, develops a real-time list of flights that are filed into the constrained area, and distributes expect departure clearance times (EDCT) to meter the demand through the area.
ARPT	Airport
ARSR	Air Route Surveillance Radar. Air Route Traffic Control Center (ARTCC) radar used primarily to detect and display an aircraft's position while en route between terminal areas. The ARSR enables controllers to provide radar air traffic control service when aircraft are within the ARSR coverage. In some instances, ARSR may enable an ARTCC to provide terminal radar services similar to but usually more limited than those provided by a radar approach control.
ARTCC	Air Route Traffic Control Center. A facility established to provide air traffic control service to aircraft operating on IFR flight plans within controlled airspace and principally during the en route phase of flight. When equipment capabilities and controller workload permit, certain advisory/assistance services may be provided to VFR aircraft. There are 20 ARTCCs in the continental U.S.
ASR	Airport Surveillance Radar. Approach control radar used to detect and display an aircraft's position in the terminal area. ASR provides range and azimuth information but does not provide elevation data. Coverage of the ASR can extend up to 60 miles.
ATC	Air Traffic Control. A service operated by appropriate authority to promote the safe, orderly and expeditious flow of air traffic.
ATCSCC	Air Traffic Control System Command Center

ATCT	Airport Traffic Control Tower. A terminal facility that uses air/ground communications, visual signaling, and other devices to provide ATC services to aircraft operating in the vicinity of an airport or on the movement area. Authorizes aircraft to land or takeoff at the airport controlled by the tower or to transit the Class D airspace area regardless of flight plan or weather conditions (IFR or VFR). A tower may also provide approach control services (radar or non radar).
CDM	Collaborative Decision Making. Cooperative effort between the various components of aviation transportation, both government and industry, to exchange information for better decision-making.
CDR	Coded Departure Routes. Predefined routes used to route air traffic around areas of severe weather.
CIGS	Ceilings. The height above the ground of the base of the lowest layer of clouds when over half of the sky is obscured.
CLSD	Closed
EDCT	Expected Departure Clearance Time. Time issued to a flight to indicate when it can expect to receive departure clearance. EDCTs are issued as part of Traffic Management Programs, such as a Ground Delay Program (GDP).
EMERG	Emergency
EQUIP	Equipment
FSM	Flight Schedule Monitor. A tool used by Air Traffic Management Specialists to monitor air traffic demand at airports.
FSS	Flight Service Station. Air traffic facilities which provide pilot briefing, en route communications and VFR search and rescue services, assist lost aircraft and aircraft in emergency situations, relay ATC clearances, originate Notices to Airmen, broadcast aviation weather and NAS information, receive and process IFR flight plans, and monitor NAVAIDs. In addition, at selected locations, FSSs provide En Route Flight Advisory Service (Flight Watch), take weather observations, issue airport advisories, and advise Customs and Immigration of transborder flights.
GDP	Ground Delay Program. Ground Delay Programs are implemented to control air traffic volume to airports where the projected traffic demand is expected to exceed the airport's acceptance rate for a lengthy period of time. Flights that are destined to the affected airport are issued Expected Departure Clearance Times (EDCT) at their point of departure. Flights that have been issued EDCTs are not permitted to depart until their Expected Departure Clearance Time.
GPS	Global Positioning System
GS	Ground Stop. Ground Stops are implemented for a number of

	reasons. The most common reasons are: • To control air traffic volume to airports when the projected traffic demand is expected to exceed the airport's acceptance rate for a short period of time. • To temporarily stop traffic allowing for the implementation of a longer-term solution, such as a Ground Delay Program.
IFR	Instrument Flight Rules. A set of rules governing the conduct of flight under instrument meteorological conditions.
ILS	Instrument Landing System. A ground based precision approach system that provides course and vertical guidance to landing aircraft.
LAADR	Low Altitude Alternate Departure Route.
LAHSO	Land and Hold Short Operations. Operations which include simultaneous takeoffs and landings and/or simultaneous landings when a landing aircraft is able and is instructed by the controller to hold short of the intersecting runway/taxiway or designated hold-short point. Pilots are expected to promptly inform the controller if the hold short clearance cannot be accepted.
LO CIGS	Low Ceilings. Low clouds.
LOC	Localizer. The component of an ILS that provides course guidance to the runway.
MINIT	Minutes in Trail. A specified interval between aircraft expressed in time.
MIT	Miles in Trail. A specified interval between aircraft expressed in nautical miles.
MULTI-TAXI	Many aircraft trying to taxi at once, creating congestion.
NAS	National Airspace System. The common network of U.S. airspace; air navigation facilities, equipment and services, airports or landing areas.
NAVAID	Navigational Aid. Any visual or electronic device, airborne or on the surface, which provides point-to-point guidance information or position data to aircraft in flight.
NM	Nautical Mile. International unit equal to 6076.115 feet (1852 meters).
NOTAM	Notice to Airmen. A notice containing information (not known sufficiently in advance to publicize by other means) concerning the establishment, condition, or change in any component (facility, service, or procedure of, or hazard in the National Airspace System) the timely knowledge of which is essential to personnel concerned with flight operations.

NRP	National Route Plan. The NRP is a set of rules and procedures, which are designed to increase the flexibility of user flight planning within, published guidelines.
OTS	Out of service
RLSD	Released
RRTES	Reroutes
RWY	Runway
RWY CONFIG	Runway Configuration
SPO	Strategic Plan of Operation. See PT.
PT	Planning Team. The Planning Team acts as a focal point for the development of collaborative Strategic Plans of Operation. Their goal is 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.
STMP	Special Traffic Management Program. Reservation program implemented to regulate arrivals and/or departures at airports that are in areas hosting special events such as the Masters Golf Tournament and Indianapolis 500.
SVRWX	Severe Weather
SWAP	Severe Weather Avoidance Plan. An approved plan to minimize the effect of severe weather on traffic flows in impacted terminal and/or ARTCC areas. SWAP is normally implemented to provide the least disruption to the ATC system when flight through portions of airspace is difficult or impossible due to severe weather.
TACAN	Tactical Air Navigation Aid. An ultra-high frequency electronic air navigation aid that provides suitably equipped aircraft a continuous indication of bearing and distance to the TACAN station.
TFC	Traffic
TRACON	Terminal Radar Control Facility. A terminal ATC facility that uses radar and non-radar capabilities to provide approach control services to aircraft arriving, departing, or transiting airspace controlled by the facility.
TSD	Traffic Situation Display. A tool used by Traffic Management Specialists to monitor the position of air traffic and to determine the traffic demand on airports and sectors.
TSTMS	Thunderstorms
UTC	Coordinated Universal Time (abbreviated as UTC, and therefore often spelled out as Universal Time Coordinated and sometimes as Universal Coordinated Time) is the standard time common to every

	place in the world. Formerly and still widely called Greenwich Mean Time (GMT) and also World Time, UTC nominally reflects the mean solar time along the Earth's prime meridian.
VAPS	Visual Approaches. An approach conducted under Instrument Flight Rules that authorizes the pilot to proceed visually and clear of clouds to the airport. Usually this will be used in conjunction with Visual Separation. When using Visual Separation, a pilot sees the other aircraft involved, and upon instructions from the controller, provides his own separation by maneuvering his aircraft as necessary to avoid it. Visual Separation requires less spacing between aircraft than radar separation allowing more aircraft to land in a given period of time.
VFR	Visual Flight Rules. Rules that govern the procedures for conducting flight under visual conditions. The term "VFR" is also used in the United States to indicate weather conditions that are equal to or greater than minimum VFR requirements. In addition, it is used by pilots and controllers to indicate a type of flight plan.
VOL	Volume. Usually used to indicate that the volume of aircraft exceeds the airport's capacity.
VOR	Very High Frequency Omni Directional Range. A ground-based electronic navigation aid transmitting very high frequency navigation signals, 360 degrees in azimuth, oriented from magnetic north. Used as the basis for navigation in the National Airspace System. The VOR periodically identifies itself by Morse Code and may have an additional voice identification feature. Voice features may be used by ATC or FSS for transmitting instructions/information to pilots.
VORTAC	A navigational aid providing VOR azimuth, TACAN azimuth, and TACAN distance measuring equipment (DME) at one site.
VSBY	Visibility. The ability, as determined by atmospheric conditions and expressed in units of distance, to see and identify prominent unlighted objects by day and prominent lighted objects by night.
WND	Wind
WX	Weather
WX DEV	Weather Deviation
Z	Zulu Time. Another term used to designate Coordinated Universal Time (UTC), the standard time common to every place in the world. Formerly and still widely called Greenwich Mean Time (GMT) and also World Time, UTC nominally reflects the mean solar time along the Earth's prime meridian.
ZAB	Albuquerque Air Route Traffic Control Center (ARTCC)
ZAU	Chicago Air Route Traffic Control Center (ARTCC)

ZBW	Boston Air Route Traffic Control Center (ARTCC)
ZDC	Washington Air Route Traffic Control Center (ARTCC)
ZFW	Dallas-Ft Worth Air Route Traffic Control Center (ARTCC)
ZHU	Houston Air Route Traffic Control Center (ARTCC)
ZID	Indianapolis Air Route Traffic Control Center (ARTCC)
ZJX	Jacksonville Air Route Traffic Control Center (ARTCC)
ZKC	Kansas City Air Route Traffic Control Center (ARTCC)
ZLA	Los Angeles Air Route Traffic Control Center (ARTCC)
ZLC	Salt Lake City Air Route Traffic Control Center (ARTCC)
ZMA	Miami Air Route Traffic Control Center (ARTCC)
ZME	Memphis Air Route Traffic Control Center (ARTCC)
ZMP	Minneapolis Air Route Traffic Control Center (ARTCC)
ZNY	New York Air Route Traffic Control Center (ARTCC)
ZOA	Oakland Air Route Traffic Control Center (ARTCC)
ZOB	Cleveland Air Route Traffic Control Center (ARTCC)
ZSE	Seattle Air Route Traffic Control Center (ARTCC)
ZTL	Atlanta Air Route Traffic Control Center (ARTCC)

Appendix II

Links

This is a partial listing of available resources and should not be assumed to be all encompassing.

Federal Aviation Administration: http://www.faa.gov/

Air Traffic Control System Command Center (ATCSCC)
http://www.fly.faa.gov/flyfaa/index.html

NAS Aeronautical Information Management Enterprise System
http://naimes.nas.faa.gov/

NOTAMs, Aeronautical Information, Weather. Register free at:
https://register.naimes.nas.faa.gov

Notices to Airmen
http://www.faa.gov/ntap

Special Interest NOTAMs
http://www.faa.gov/specialnotams/specialnotam listing.htm

Special Use Airspace
http://www.faa.mil/milopssua/

Aviation Digital Data Service (weather)
http://adds.aviationweather.gov/

Advisory Circulars
http://www.faa.gov/index.cfm

FAA information for General Aviation
http://www.faa.gov/avr/afs//infoforgeneralaviation/

FAA flight standards service, aviation information website
http://av-info.faa.gov/

Aeronautical Information Manual
http://www.faa.gov/atpubs/aim/index.htm

Index of air traffic publications
http://www.faa.gov/atpubs/index.htm

Acronyms
http://www.awp.faa.gov/acronyms/default.htm

Additional resources: This is a partial listing of available resources and should not be assumed to be all encompassing.

FAA order 7340.1, Contractions Manual (Commonly used aviation abbreviations)
Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20315-0020
(202) 512-1800

FAA Order 7350.7, Location Identifiers
Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
(202) 512-1800

Aeronautical Information Manual
Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20315-0020
(202) 512-1800

FAA Handbooks/Orders
U.S. Department of Transportation
Subsequent Distribution Office, SVC-121.23
Ardmore East Business Center
3341Q 75th Avenue
Landover, MD 20785

Aeronautical charts:
NOAA Distribution Branch, n/cg33
National Ocean Service
6501 Lafayette Avenue
Riverdale, MD 20737-1199
(301) 436-6990

Advisory Circulars checklist
(Describes which advisory circulars are free and which are for sale.)
U.S. Department of Transportation
Svc-121.21
Washington, DC 20590

Advisory Circulars (free)
U.S. Department of Transportation
Subsequent Distribution Office, svc-121.23
Ardmore East Business Center
3341Q 75th Avenue
Landover, MD 20785

Advisory Circulars (for sale) and Federal Aviation Regulations
Superintendent of Documents
P.O. Box 371954
Pittsburgh, PA 15250-7954
Order desk: (202) 512-1800

FAA Organizational Directory (telephone book for sale)
Superintendent of Documents
P.O. Box 371954
Pittsburgh, PA 15250-7954
Order desk (202) 512-1800