







## **Two Types of Delays**

Initiated by the User and Initiated by ATC

## When Does ATC DELAY Flights?

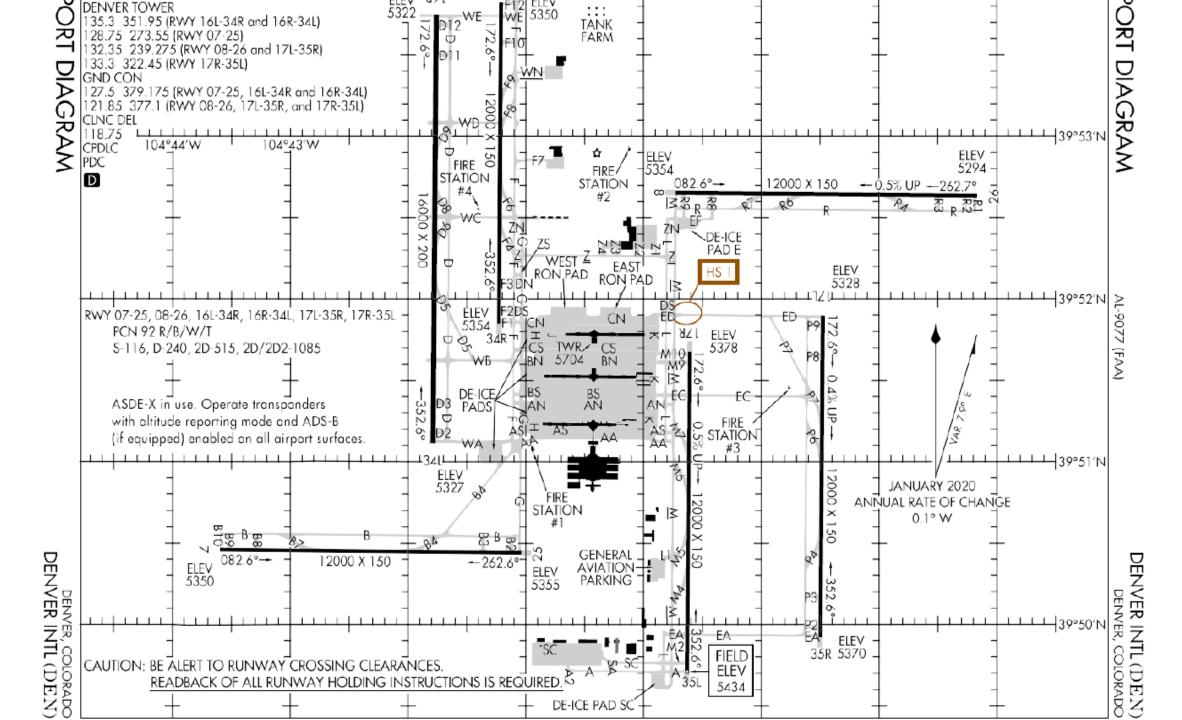
When Demand Exceeds Capacity

# Since the mid 1980's Air Traffic Control has evolved into Air Traffic Management

#### Arrival Delays

Airport Arrival Rate (AAR) is a dynamic parameter specifying the number of arrival aircraft that an airport, in conjunction with terminal airspace, can accept under specific conditions throughout any consecutive sixty (60) minute period.

 Arrival demand that exceeds the Airport Arrival Rate is what will cause your flight to be delayed on departure.





#### Airport Arrival Demand Chart

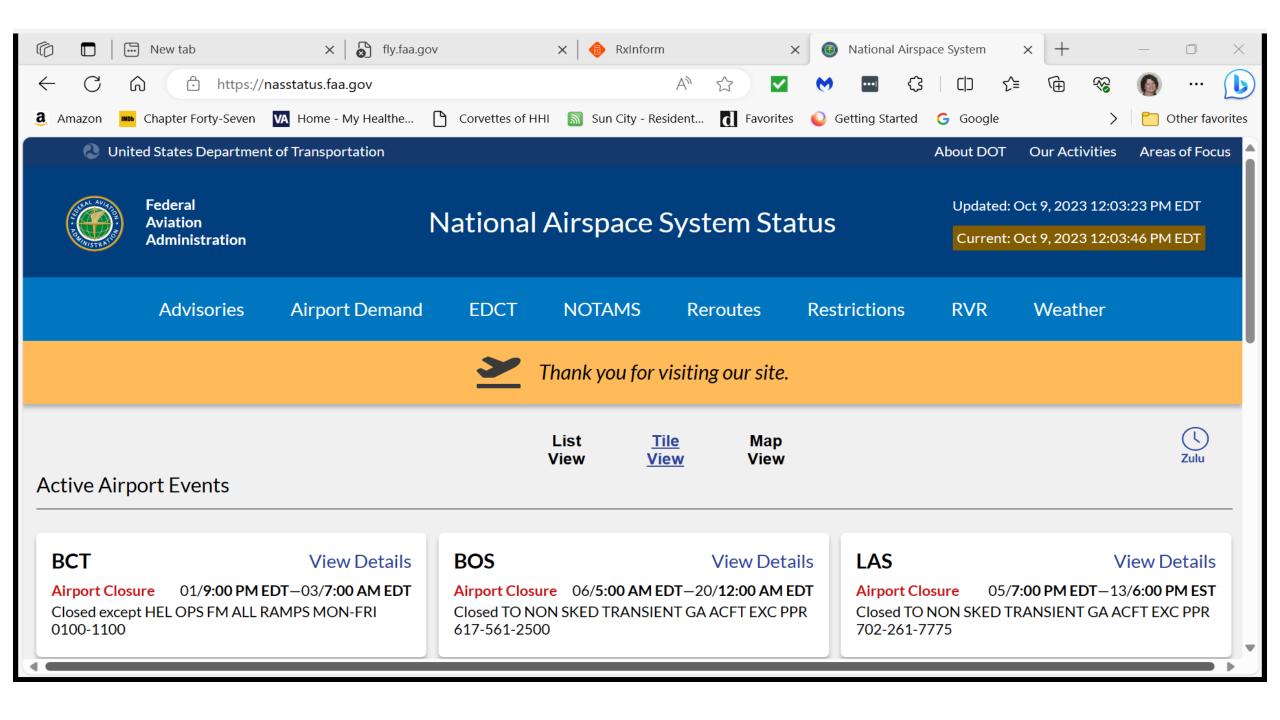
Add New Graph



• Air Traffic Control System Command Center (ATCSCC) - The ATCSCC oversees all air traffic control. It also manages air traffic control within Air Route Traffic Control Centers and Terminal RADAR Approach Controls where there are problems (bad weather, traffic overloads, inoperative runways).

. www.fly.faa.gov

Air Traffic Management is slowly replacing Air Traffic Control





## Delay Mitigation

• Every large Air Traffic facility has a Traffic Management Unit (TMU) that works in conjunction with **Air Traffic Control System Command Center (ATCSCC)** to manage the flow of traffic.

#### Ground Delay Program

- Ground Delay Programs (GDP) 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. Lengthy periods of demand exceeding acceptance rate are normally a result of the airport's acceptance rate being reduced for some reason. The most common reason for a reduction in acceptance rate is adverse weather such as low ceilings and visibility.
- In some cases, the demand exceeds the optimal airport acceptance rate. (PHL)

#### **How It Works**

Flights that are destined to the affected airport are issued Controlled Departure Times (CDT) at their point of departure. Flights that have been issued CDTs are not permitted to depart until their Controlled Departure Time. These CDTs are calculated in such a way as to meter the rate that traffic arrives at the affected airport; ensuring that demand is equal to acceptance rate. The length of delays that result from the implementation of a Ground Delay Program is a factor of two things; how much greater than the acceptance rate the original demand was, and for what length of time the original demand was expected to exceed the acceptance rate.

Operators are allowed to substitute flights.

#### Airspace Flow Program

 Airspace Flow Program (AFP) is a process whereby traffic managers identify a constraint in the en-route system, develop a real-time list of flights that are filed into the constrained area, and implement an AFP. The Airspace Flow Program distributes expect departure clearance times (EDCT) to meter air traffic demand through the area. Examples of constraints include thunderstorm activity, turbulence, and periods of excess demand.

#### Other Tools

- Miles in Trail
- Metering Unique to ZBW/BCT (Boston Center/Boston Consolidated TRACON)
- Holding
- Ground Stop

- Special Events
  - US Open Flushing Meadows-Corona Park, Queens, New York City
  - NASCAR
  - RBC Heritage Classic

- Equipment Outages
  - Comm Lines

Air Mobility Command's 89th Airlift Wing



Air Mobility Command's 89th Airlift Wing

AF1

AF2

Exec1F

Exec2F

Special Air Mission – SAM flight

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