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## Using Nighttime Falconry for Roosting Blackbird Abatement at Dallas/Fort Worth International Airport

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*Dallas Fort Worth International Airport*

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# **Using Nighttime Falconry for Roosting Blackbird Abatement at Dallas/Fort Worth International Airport**

Cathy Boyles, Wildlife Administrator  
DFW Airport

## Challenge Overview



## Challenge Overview



Terminal C



## Challenge Overview

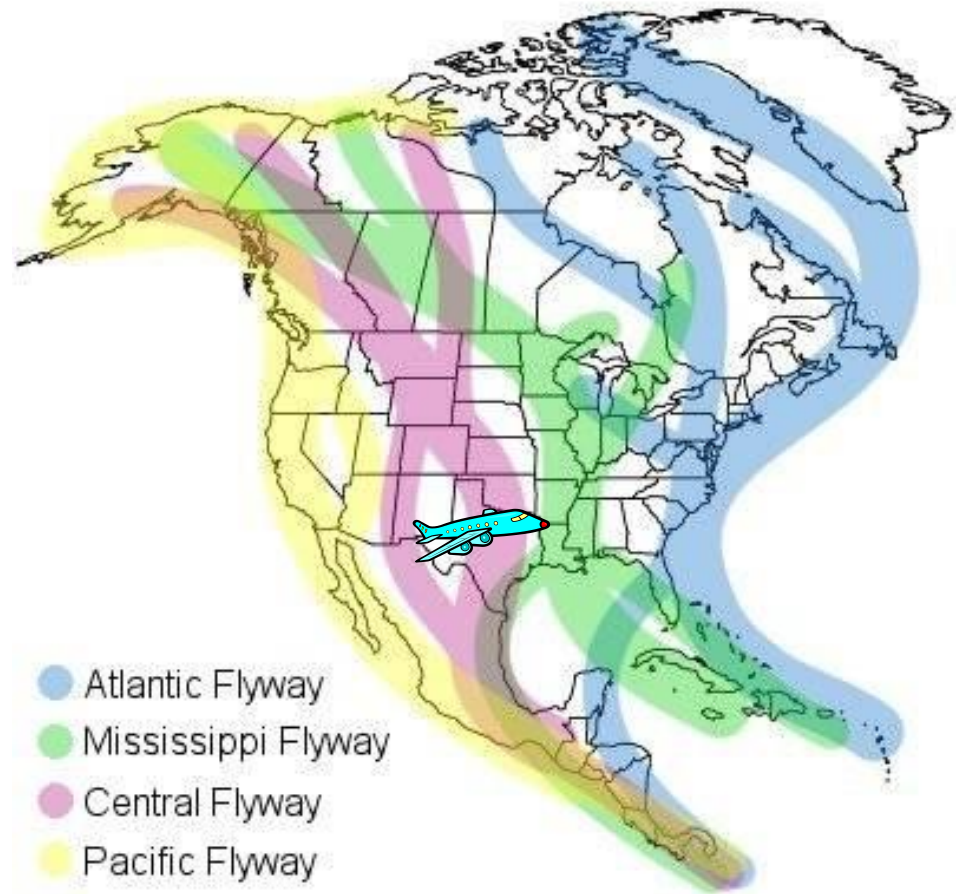


Terminal B, 2006

# DFW Airport Overview

DFW Airport is located in Texas along a major path of the Central Flyway- one of four North American migratory bird routes.

Migratory species in addition to year round residents pose a challenge for the airport .



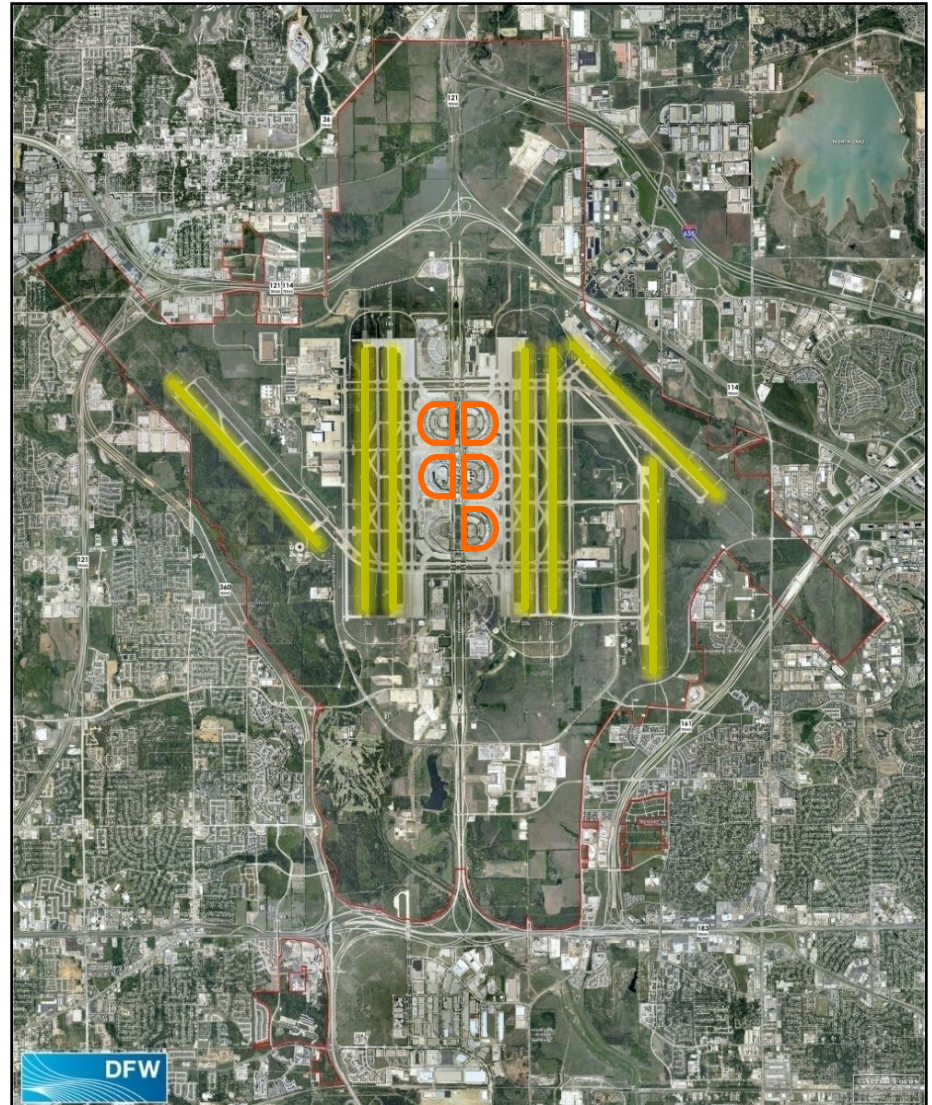


## DFW Airport Overview

18,000+ acres

Fifty five percent of land area is developed.

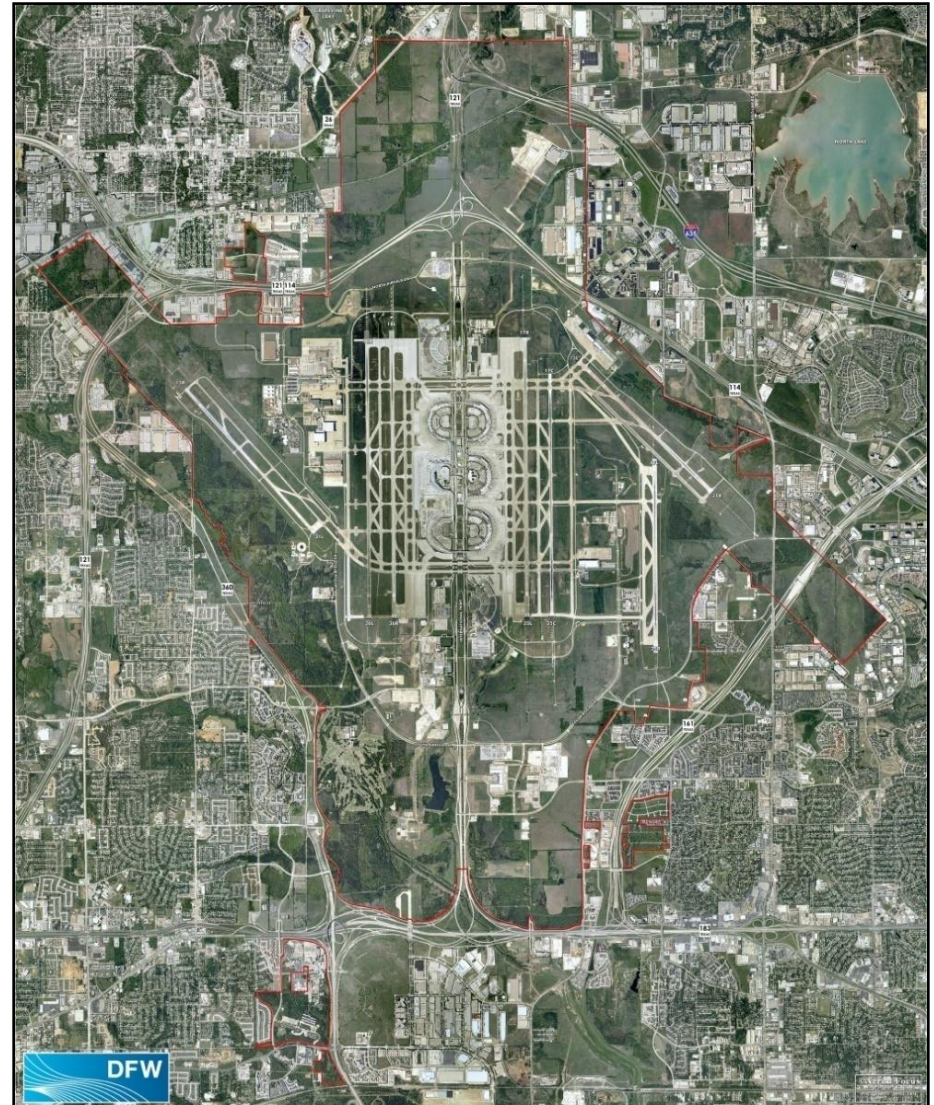
Operations numbers typically exceed 600,000 flights annually.





# DFW Airport Overview

- Birds, migratory and resident, pose the biggest wildlife challenge
- Contributing attractants to bird activity are human activity and development:
  - Construction
  - Mowing operations
  - Leaseholders
  - Employees
  - Surrounding development





# DFW Airport Design

- Original design and landscape scheme contributes to bird challenges
  - Live Oaks central to original landscape theme in Developed Areas, including Terminals A, B, C, and E
  - Live Oaks green year round





## DFW Airport Design

- DFW Airport's landscape designed to be aesthetically pleasing to customers
- Birds find it attractive too



## Winter time Roosting Activity

- Roosting blackbirds attracted to the area seasonally, during the winter months
  - Protection/shelter
- Bird populations increased over the years





## Deterrent methods

- Deterrent methods tried:
  - Fake snakes
  - Lights
  - Netting
  - Limb clearing/thinning
  - Pyrotechnics
  
- Deterrent methods not tried:
  - Grape Fog
  - Lasers
  - Compressed Air/Water
  - Tree removal



## An Alternate Method

- 2007 contact with a Master Falconer with a proposal to assist



## Why Falconry?

- Natural Biological method
  - Operational deployment timing optimal
  - Environmentally green- no chemicals
  - Minimal noise/intrusion
  - Positive favorable results
  - Public response favorable
  - Prey is consumed or donated
- 
- Beta test was scheduled





## Beta Test

- Beta Test scheduled for December 3-7 2007 in Terminal B.
  - Used specific, controlled area for operational coordination
    - Communication
    - Collaboration
    - Coordination with Customer Service, Parking, DPS, Tower, Airport Ops Center, Airfield Ops



- Blackbirds staging, pre-falconry, December 3, 2007



**Terminal B- before abatement. “Staging “occurs over open elevated surfaces and structures before heading to the terminal’s trees to roost.**

- Before Falconry,  
December 3, 2007



**Terminal B- before abatement. Thousands of blackbirds “stage” on the roof over B23 before heading to the terminal’s trees to roost.**



## Beta Test Operations

- Operational procedures



## Beta Test Results

- Roost activity and density levels monitored in Terminal B at dusk each day during week of Beta Test. Notable observations were:
  - Overall numbers decreased through the course of the week, gradually at first and then dramatically toward the end of the week.
  - Roost behavior during staging changed. Birds appeared agitated.
  - Time to perform operation and disperse birds decreased with each day, from one hour duration on night 1, to 20 minutes on night 4. No birds were present to disperse on night 5.
- By December 7<sup>th</sup>, roosting birds no longer appeared over Terminal roof to stage and then enter trees to roost. No birds were detected during that night's operation.
- Falconers returned on December 13<sup>th</sup> to determine roost population density. No birds were seen or heard.
- CTA monitored on December 14<sup>th</sup> and again on December 19<sup>th</sup>, both at dawn. No birds were seen or heard in any Terminal.

## Beta Test Results



**Terminal B, December 14, 2007. Post abatement.**



## Full Deployment of Nighttime Falconry

- Contracted with Falconer for 2008/2009 roosting season.
- Deployment began November 3, 2008 to cover all Terminals.
- Concentrated in Terminal B again, till activity levels subsided, for 3 nights.
- Birds, and Operation moved to Terminal A, and followed areas of heaviest bird activity each night.



## Nighttime Falconry Outcomes

- No measurable roost returns occurred during the 2008/2009 roosting season.
- Several small populations of return (or new), roosts addressed with spotlights and brief hawking operations.
- Contract extended to include nest removal from Terminal trees.
- To date, small quiet groups of 50-200 birds have returned to the Terminals.

## Nighttime Falconry Outcomes

- 08/09 season: 59 birds were taken by five hawks
  - 70 hours used
- 09/10 season: 27 birds were taken by four hawks
  - 122 hours used, less than 40 spent on Hawking Operations\*\*
- 10/11 season: 3 birds taken with four hawks
  - 90 hours used, 14 spent on Hawking Operations\*\*

\*\*Note: included is monitoring activities. Spring/summer nest removal added to '10/'11 and subsequent contracts



## To Date, Post Abatement Activity

- Repeat Operations minimal
- Unconfirmed if new seasonal activity is returns or new migrating birds but believe they are return roosting blackbirds, due to behavior.
- Night time falconry continues seasonally, but flocks are addressed immediately and roosts do not persist.



## Pros and Cons of Falconry

- Pros:
  - Effective
  - Lasting Results
  - Economical
  - Natural deterrent
  - Low profile operation
  - Uses contract personnel for seasonal needs
  - Increases interest in airport wildlife issues...
  
- Cons:
  - Weather dependant
  - Hawks are not tame pets
  - Hawks ineffective during molting
  - Permitting process



Thank you.  
Questions?

