

WELCOME

Southwest Florida International Airport

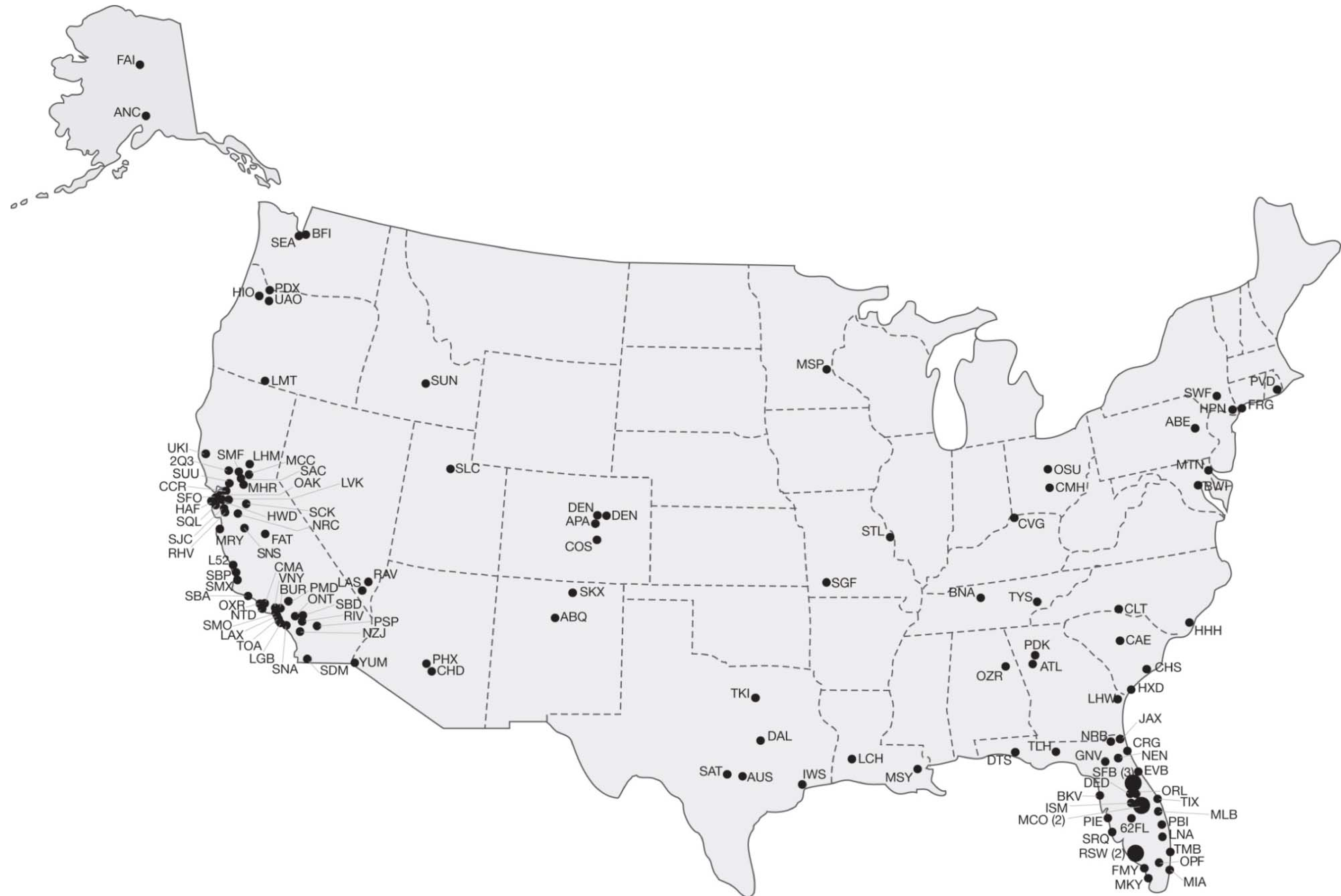
Federal Aviation Regulations (FAR)
Part 150 Overview

Public Workshop
#1

August 2011



National Noise Study Experience



RSW Noise Study Goals

- Document current and future noise exposure around the airport
- Encourage noise abatement alternatives that don't sacrifice one neighborhood for another
- Evaluate additional noise abatement opportunities
- Provide opportunity for community input
- Develop recommendations for noise abatement and noise mitigation measures
- Comply with Lee County Comprehensive Plan requirements

Roles and Responsibilities

- Three core organizations involved in aircraft operations at RSW
 - **Federal Aviation Administration (FAA)**
 - Directs the safe movement of aircraft in the air and on the ground
 - **Lee County Port Authority (LCPA)**
 - Landlord of the airport – Manages, improves, and maintains airport facilities
 - No control over where aircraft fly
 - **Airlines and Pilots**
 - Pilot in command has ultimate responsibility for the safe operation of his/her aircraft

Overview of FAR Part 150

- Airport noise studies are ***voluntary***
- Must follow FAR Part 150 process to be considered and accepted by FAA
- Why conduct a noise study?
 - Determine existing noise conditions at an airport
 - Evaluate the feasibility of possible flight procedure/land use changes
 - Educate communities on the Federal process and what ***can and cannot*** be done
 - “Comprehensive voice” for southwest Florida to the FAA – not just one community
 - Submit local Board endorsed recommendations to the FAA and airlines

Noise Study Process – Part 1

Develop Noise Exposure Maps (NEMs)

- Identify existing and 5th year projected noise conditions
- Use required FAA Integrated Noise Model (INM) computer program
- Correlate INM computer program to live field noise measurements
- Develop airport noise contours
- Submit to FAA for acceptance – becomes baseline condition for Phase 2

Noise Study Process – Part 2

Develop Noise Compatibility Plan (NCP)

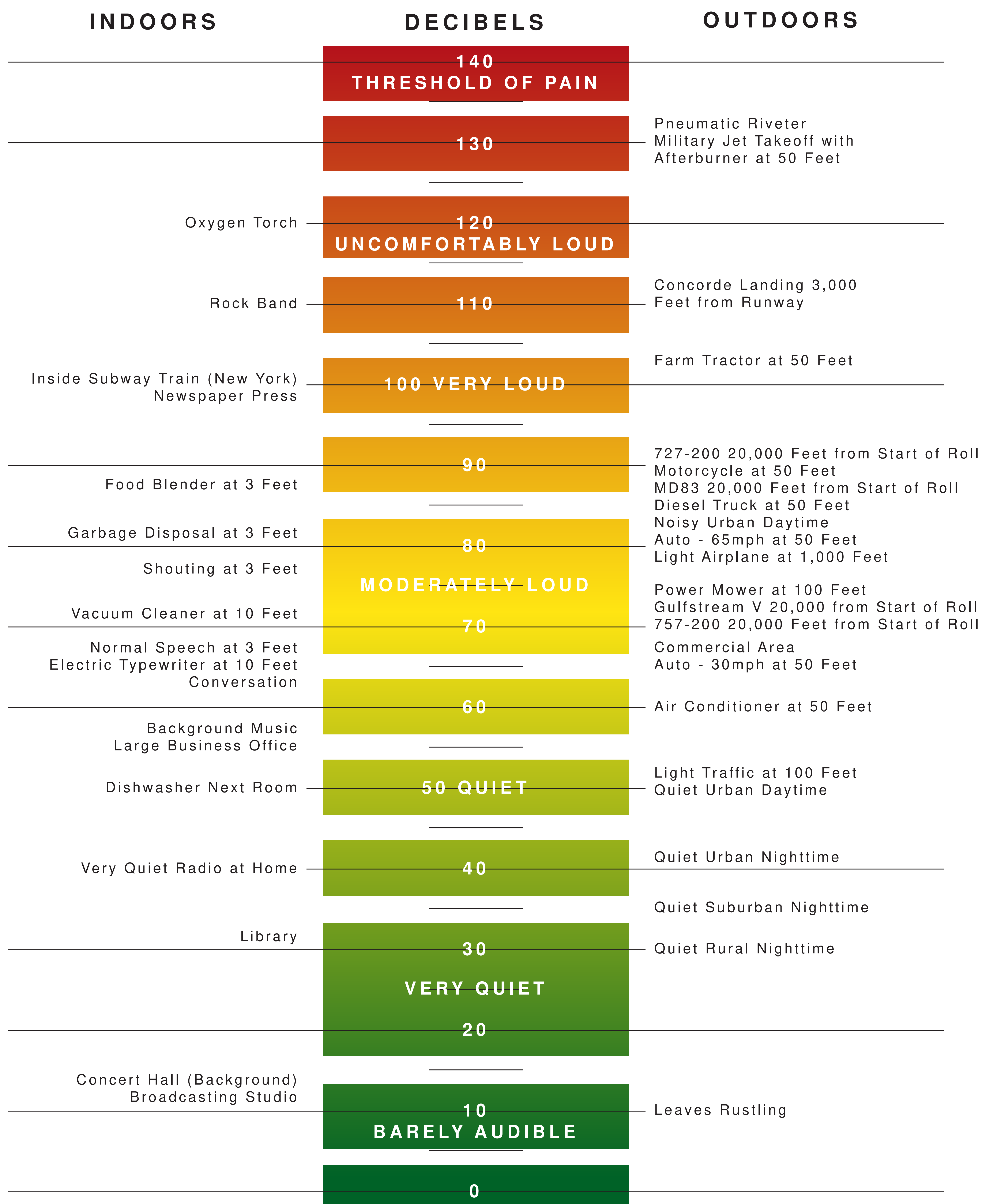
- Evaluate changes to flight procedures
 - Aircraft flight corridors
 - Aircraft altitudes
 - Preferred runway use
 - Flight procedure evaluation constraints
 - Do not compromise safety
 - Do not create delays in the air traffic system
 - Do not create a burden on FAA (i.e., time) or airlines (i.e., fuel)
 - Do not merely move flights over another community
- Evaluate land use overlay zoning
- NCP approved by local Board
- Submit to FAA for approval and implementation

How Airport Noise is Measured

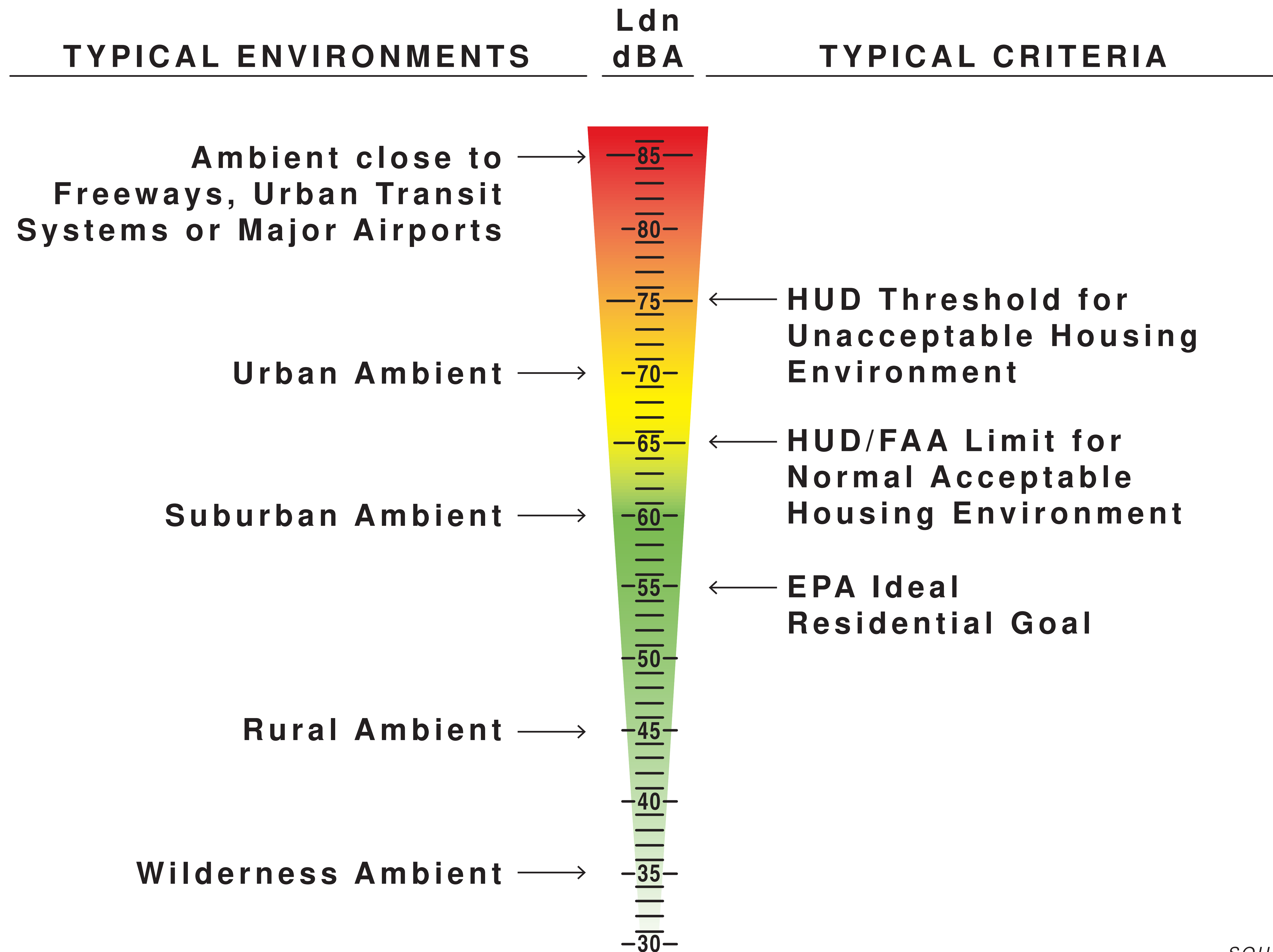
- Single Aircraft Overflight (Single Event)
 - Measured decibels at ground level for one aircraft overflight

- Annualized Cumulative Measurement (***FAA Required***)
 - Day-Night Average Sound Level (**DNL**)
 - Computer generates an annualized average day noise contour
 - Data input to computer model
 - Aircraft types and frequency
 - Flight corridor location and runway use
 - Time of day
 - Nighttime penalty weighting (1 nighttime flight = 10 daytime flights)
 - Used to evaluate compatibility and noise exposure significance

Approximate Decibel Level of Common Sound Sources



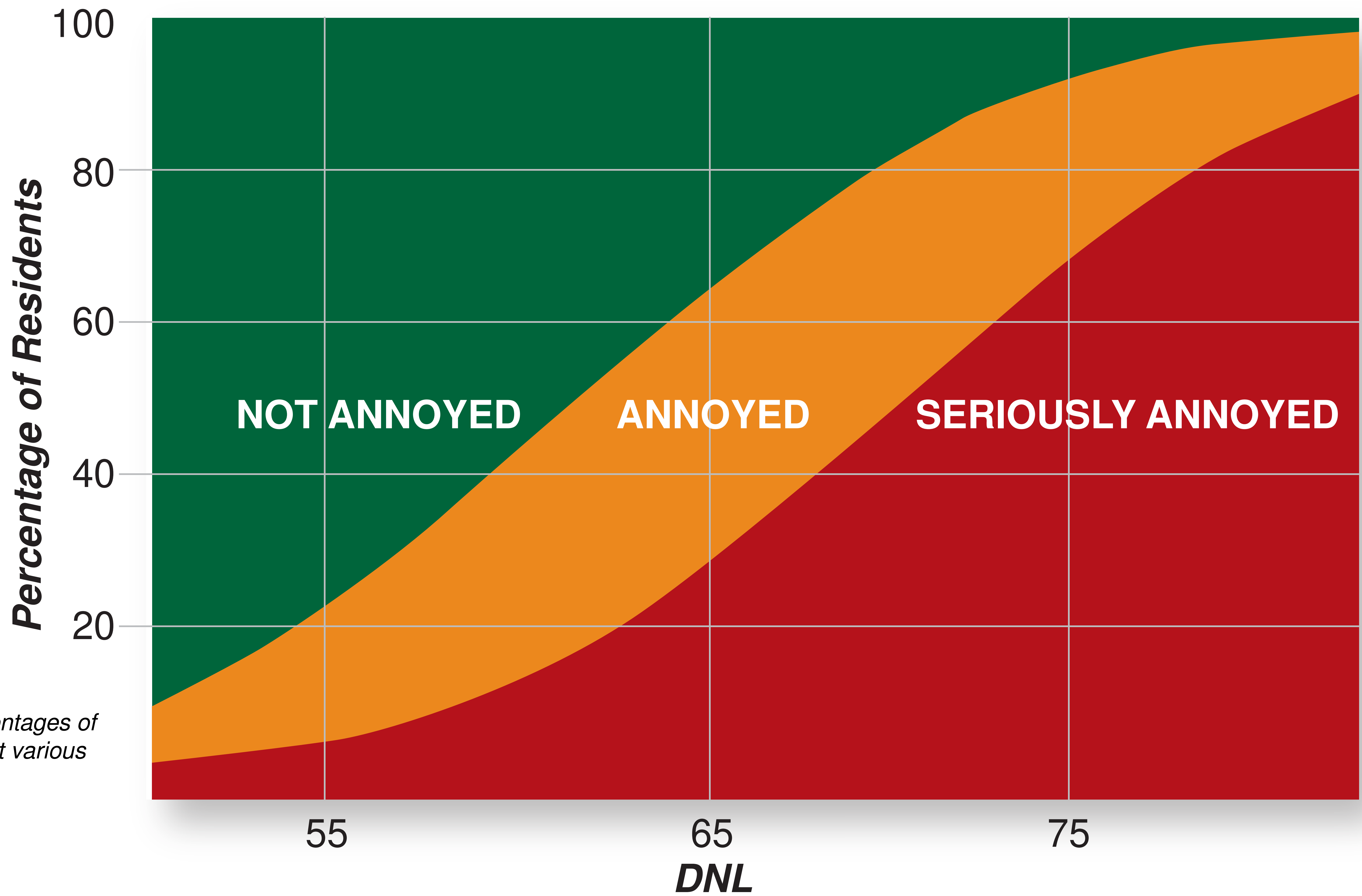
Typical DNL for Outdoor Environments



Why is 65 DNL Important?

- **65 DNL and higher** = FAA and the US Department of Housing and Urban Development (HUD) consider to be incompatible with residential, schools, hospitals, and other noise-sensitive users near airports.
- **Less than 65 DNL contour** = federal government considers all uses compatible with airport noise.
- There is no noise significance or impact threshold associated with a single aircraft overflight.

DNL Noise is Subjective

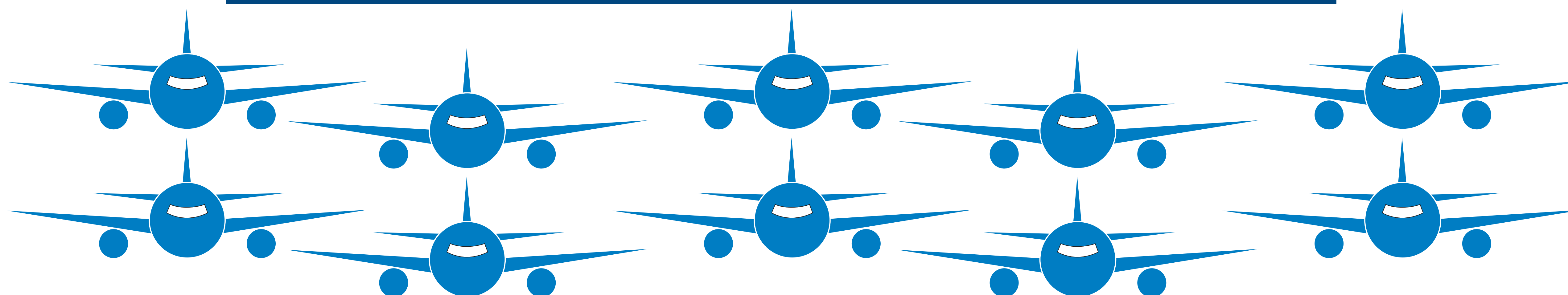


Approximate percentages of citizens annoyed at various DNL levels:

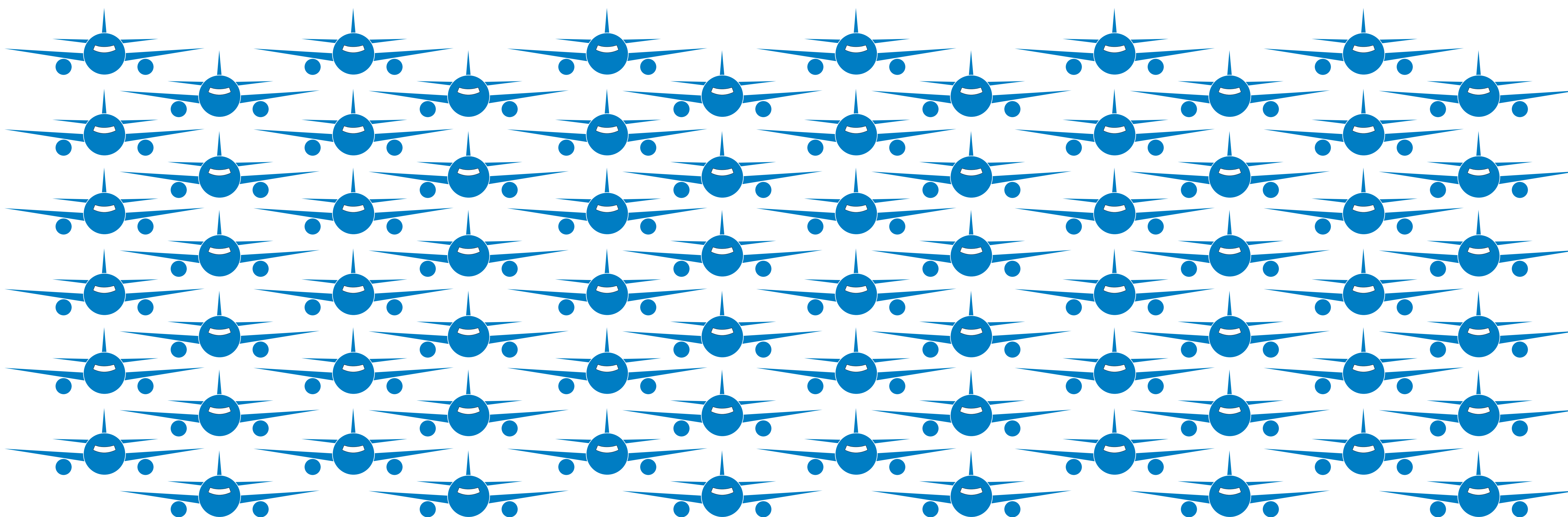
- 55 DNL – 20%
- 60 DNL – 40%
- 65 DNL – 60%
- 70 DNL – 80%

How Many Planes = 65 DNL?

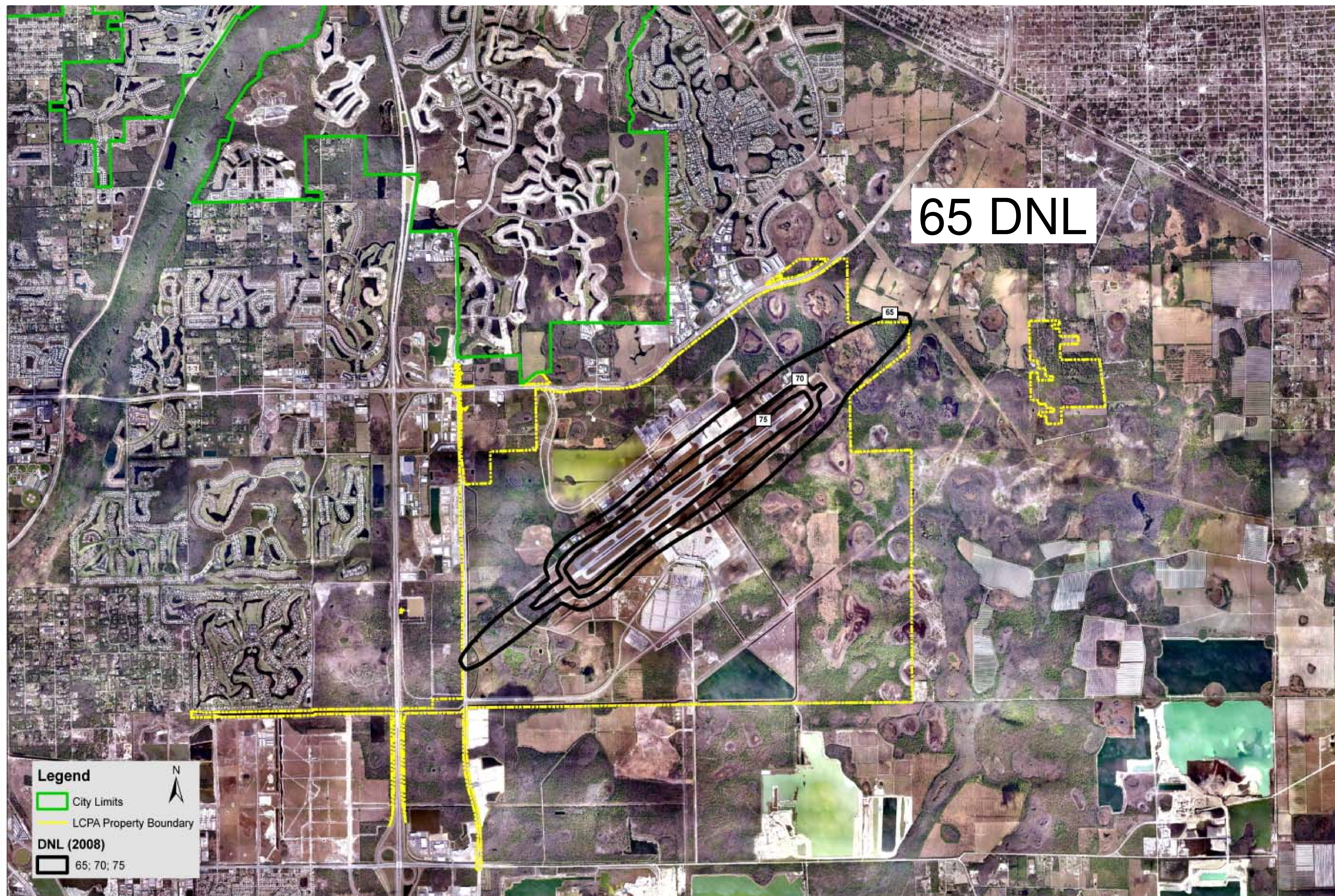
10 Events/Day SEL 104.4 dBA = DNL 65



100 Events/Day SEL 94.4 dBA = DNL 65



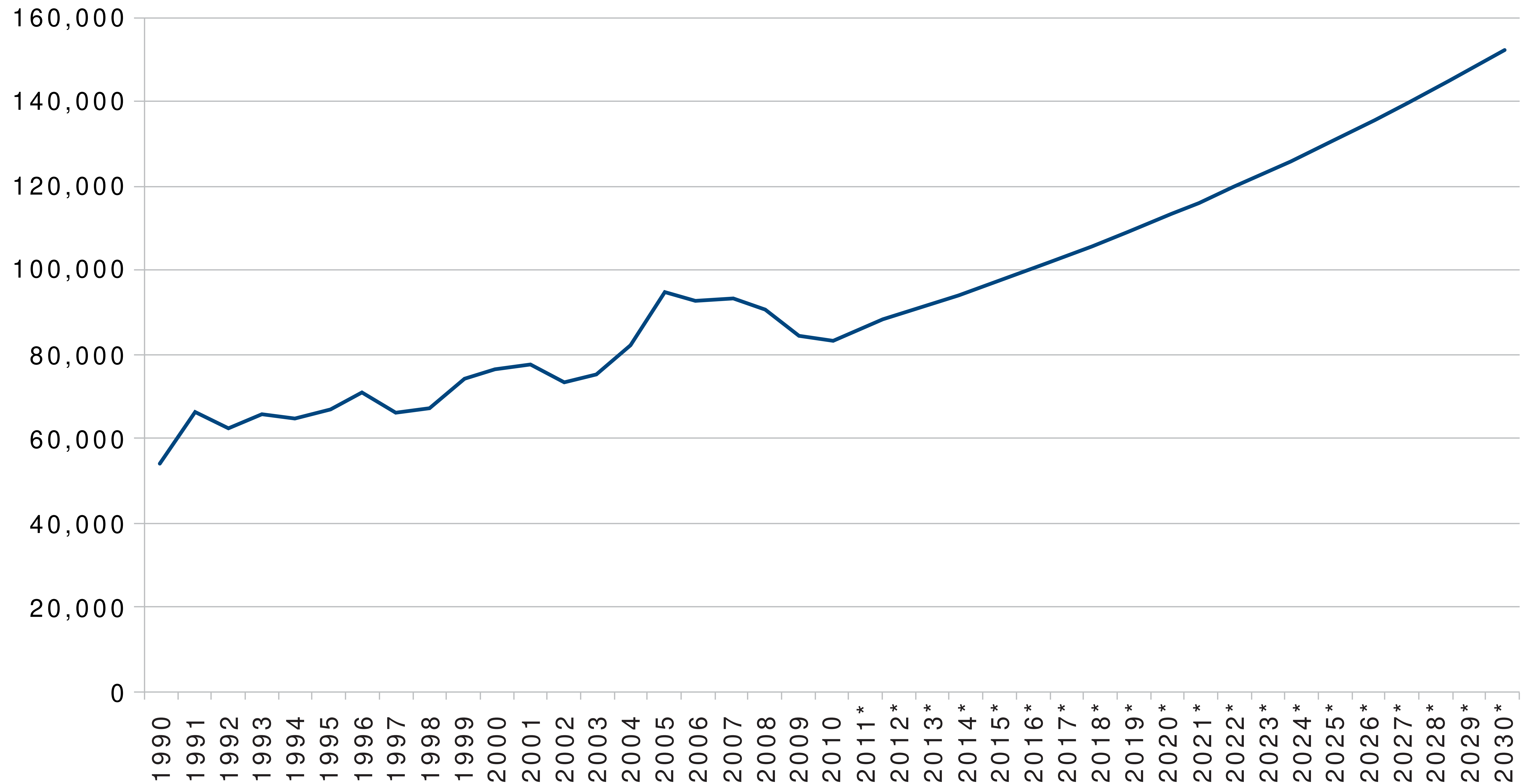
RSW 2006 FAA Approved DNL Noise Contours



RSW vs Other Airports

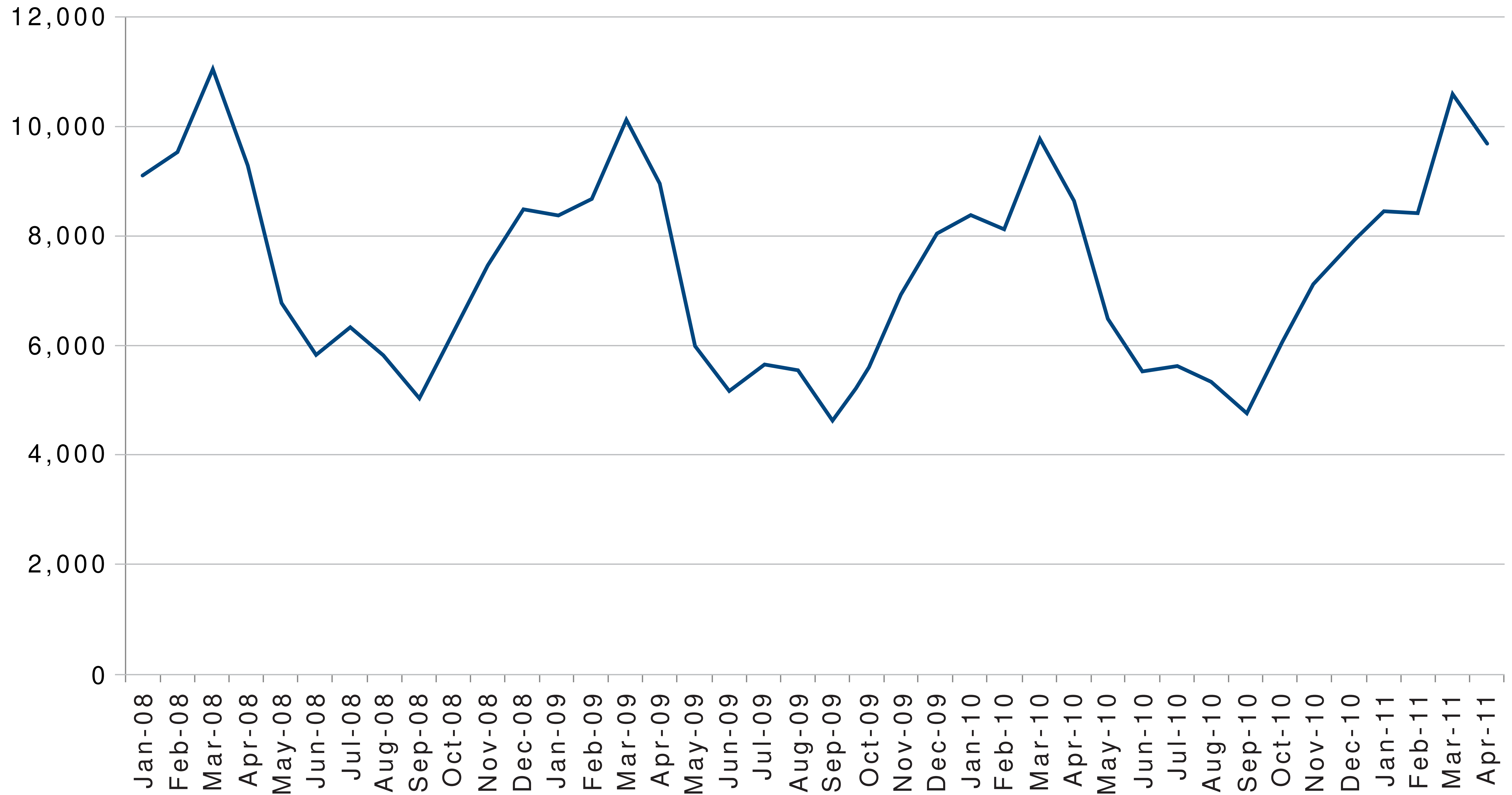
| AIRPORT | ANNUAL OPERATIONS | POPULATION INSIDE 65 DNL |
|------------------|-------------------|--------------------------|
| Southwest Fla. | 83,238 | 0 |
| Key West | 71,043 | 1,228 |
| White Plains, NY | 180,218 | 1,590 |
| Teterboro | 173,699 | 4,245 |
| Chicago Midway | 267,520 | 4,700 |
| LaGuardia | 384,080 | 7,542 |
| Cleveland | 235,969 | 8,529 |
| Minn.-St. Paul | 446,840 | 9,734 |
| St. Louis | 248,397 | 15,204 |
| O'Hare | 881,566 | 16,250 |
| San Diego | 228,167 | 23,602 |
| Miami | 372,635 | 42,507 |
| Seattle-Tacoma | 343,026 | 44,802 |
| Los Angeles | 615,525 | 69,016 |

RSW Annual Aircraft Operations – Arrivals & Departures



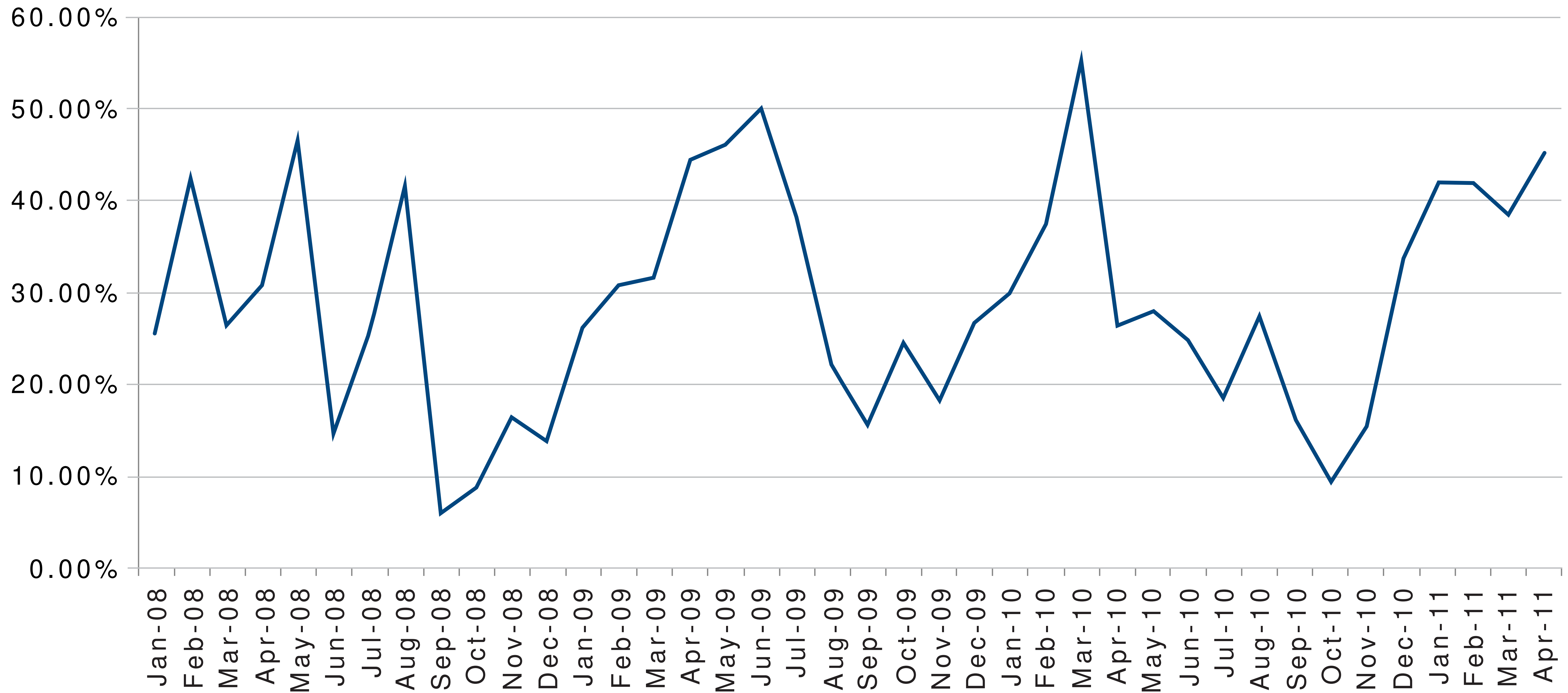
* FORECAST SOURCE: FAA TERMINAL AREA FORECAST – DECEMBER 2010

RSW Operations Fluctuate by Month

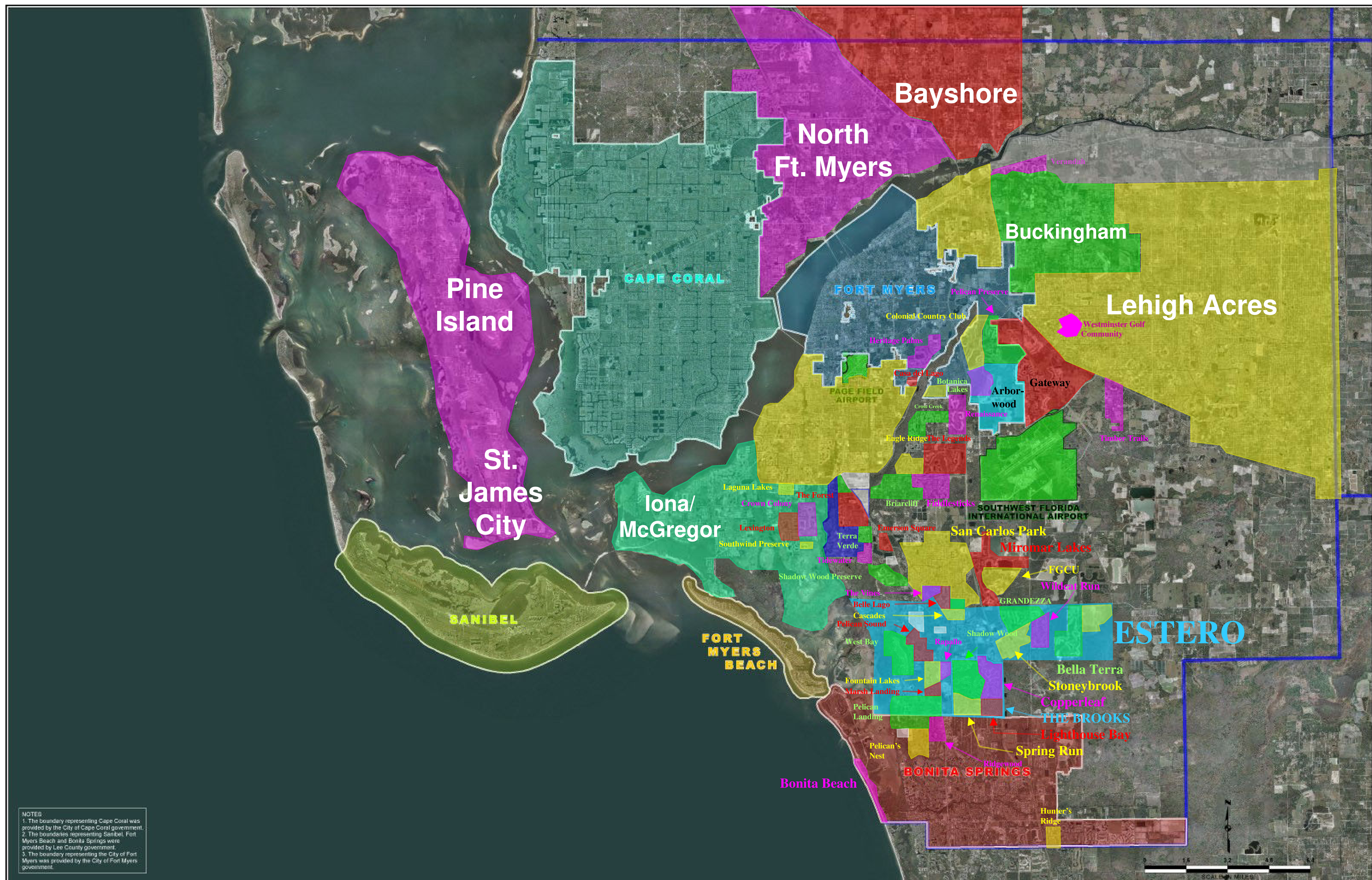


RSW Runway Use Fluctuates by Month

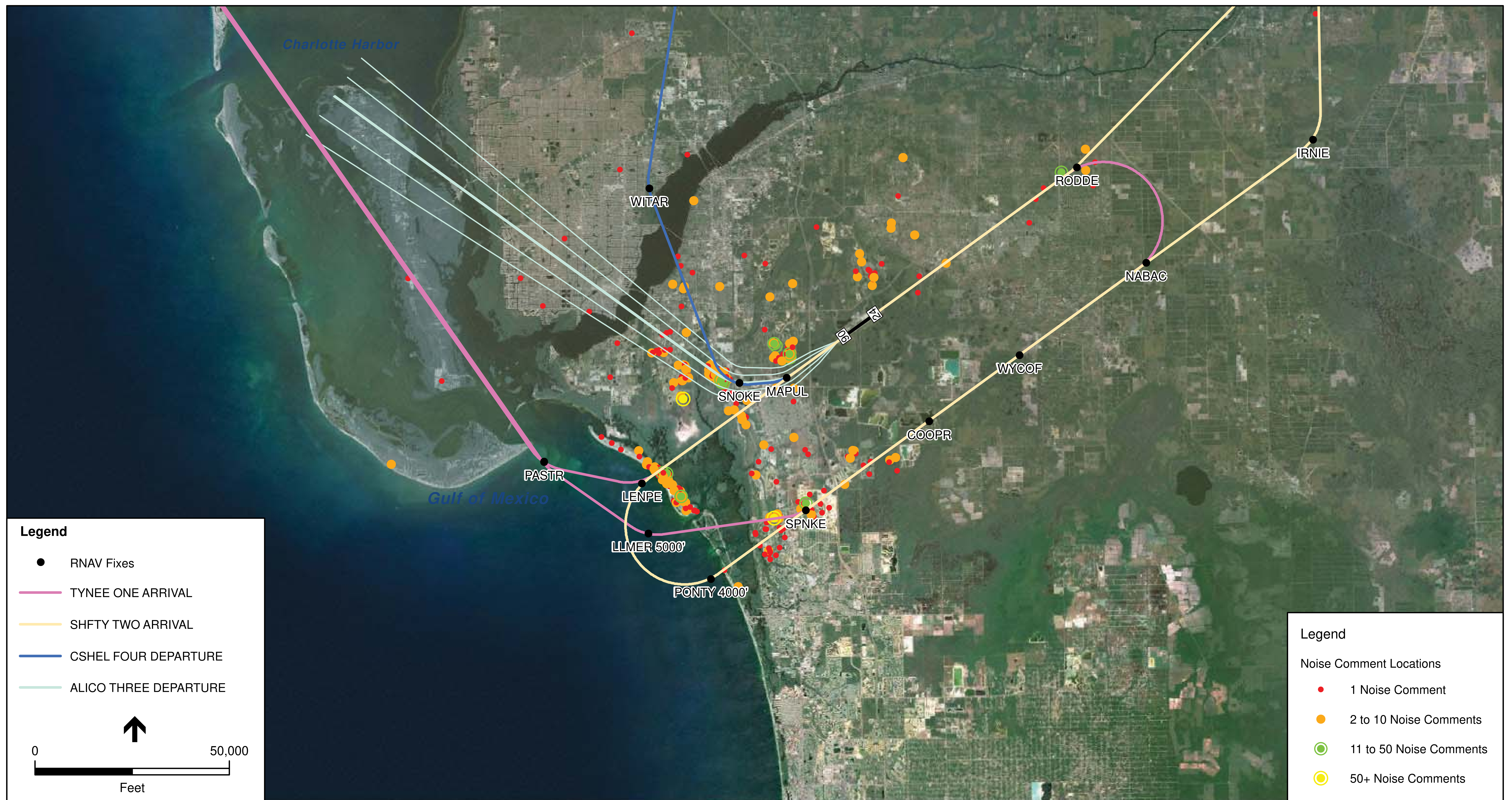
(Use of Runway 24 Shown)



LOCAL COMMUNITIES



Flight Procedures vs Public Comments



RSW Noise Study Schedule

- Data Acquisition/*Public Meetings – Summer 2011*
- Field Measurements and Noise Modeling – Summer 2011
- Draft Noise Contours Developed – Fall 2011
- Round No. 2 Public Meetings – Fall 2011
- FAA Approval of Noise Contours – Winter 2012
- Develop/Evaluate Alternatives – Winter 2012
- Round No. 3 Public Meetings – Spring 2012
- Draft Study Recommendation – Summer 2012
- Board Endorsement/Submit to FAA – Fall 2012
- FAA Approval Final Approval/Implementation – 2013

Thanks for your participation
in the
RSW FAR Part 150 Noise Study