



# How Noise Contours are Generated

## User Inputs

### Inputs

- Airport Information
- Aircraft Flight Tracks
- Aircraft Fleet
- Number of Operations
- Runway Utilization
- Time of Day
- Aircraft Climb Profiles
- Departure Trip Length
- Meteorological Data
- Topographic Data

### Source

- ▶ Airport Layout Plan
- ▶ FAA Radar Data
- ▶ Tower, Airport Records, OAG
- ▶ Tower, Airport Records, OAG
- ▶ Radar/Wind Data, Airport Records
- ▶ Radar Data, OAG, Airport Records
- ▶ INM, Radar Data, Airline Records
- ▶ OAG
- ▶ Climatic Data, Airport Records
- ▶ Airport Layout Plan, U.S. Geological Survey



## Integrated Noise Model (INM)

### INM-Provided Information

- Aircraft Noise Levels
- Aircraft Performance Data



### Types of Aircraft Noise Considered within INM

- Arrival
- Departure
- Flyover
- Reverse Thrust (Braking)
- Run-up Noise

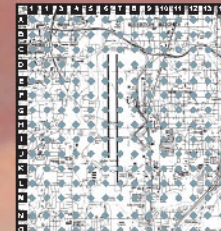
## Output



Noise Contours

SUMMARY OF GRID DATA - Comparative DNL and SEL Data With and Without NADP Clock-In and Exhaust Procedures Charlotte-Mecklenburg International Airport 11/17/11													
Noise	SEL	DNL	DNL and SEL Changes				SEL and Changes						
			From	To	Change	From	To	Change					
1	-15000	24000	A08	45.1	48.6	-3.6	47.4	-1.5	50.4	54.3	-3.9	52.4	-1.9
2	-12000	24000	A08	51.8	52.0	-0.2	49.5	-0.3	51.9	51.1	-0.8	50.8	-0.3
3	-9000	24000	A10	51.8	50.8	-1.0	49.7	-2.1	52.5	57.1	-4.6	57.2	-4.7
4	-6000	24000	A11	50.0	52.8	-2.8	52.7	-2.7	55.7	52.7	-3.0	51.5	-4.2
5	-3000	24000	A12	53.2	55.1	-1.9	55.1	-1.9	55.7	55.7	0.0	55.7	0.0
6	0	24000	A12	55.9	52.7	-3.2	52.4	-3.5	55.1	51.5	-3.6	55.8	-4.3
7	3000	24000	A14	58.9	58.8	-0.1	58.4	-0.5	58.4	56.0	-2.4	56.7	-1.7
8	6000	24000	A14	55.8	55.1	-0.7	49.5	-6.3	55.0	53.1	-1.9	55.9	-4.0
9	-15000	21000	S06	47.6	47.1	-0.5	46.0	-1.6	50.0	51.8	-1.8	50.3	-1.5
10	-12000	21000	S08	51.5	50.7	-0.8	49.5	-2.0	50.0	50.9	-0.9	50.7	-0.2
11	-9000	21000	S10	53.9	52.2	-1.7	52.0	-1.9	54.3	57.3	-3.0	53.1	-4.2
12	-6000	21000	S11	56.9	56.2	-0.7	54.5	-2.4	57.0	56.9	-0.1	52.9	-4.1
13	-3000	21000	S12	55.7	55.5	-0.2	55.8	0.1	53.5	55.1	-1.6	52.3	-1.2
14	0	21000	S15	53.1	52.6	-0.5	52.1	-1.0	52.5	51.3	-1.2	55.3	-4.0
15	3000	21000	S14	55.2	55.5	0.3	55.5	0.0	56.9	56.9	0.0	55.9	-1.0
16	6000	21000	S15	55.7	55.0	-0.7	49.2	-6.5	54.0	52.1	-1.9	50.3	-3.7
17	-15000	18000	C08	47.2	46.4	-0.8	45.3	-1.9	52.0	52.5	0.5	50.5	-1.5
18	-12000	18000	C09	51.5	50.4	-1.1	49.7	-1.8	51.1	50.3	-0.8	50.8	-0.3
19	-9000	18000	C10	54.7	52.8	-1.9	52.5	-2.2	52.6	57.5	-4.9	55.9	-1.6
20	-6000	18000	C11	57.7	52.8	-4.9	52.5	-5.2	52.6	52.1	-0.5	52.0	-0.6

Tabular Reports



Grid Point Analysis

OAG: Official Airlines Guide