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MAYOR BRANDON JOHNSON

Chicago O'Hare International Airport Noise Contours

O'Hare Noise Compatibility Commission (ONCC) Residential Sound Insulation Program (RSIP) Committee Meeting

May 14, 2026

CDA
Chicago Department of Aviation

O'HARE
INTERNATIONAL AIRPORT

FAA NOISE MODELS

Integrated Noise Model (INM)

- First released in 1972, the last version was 7.0d
- Now a legacy tool

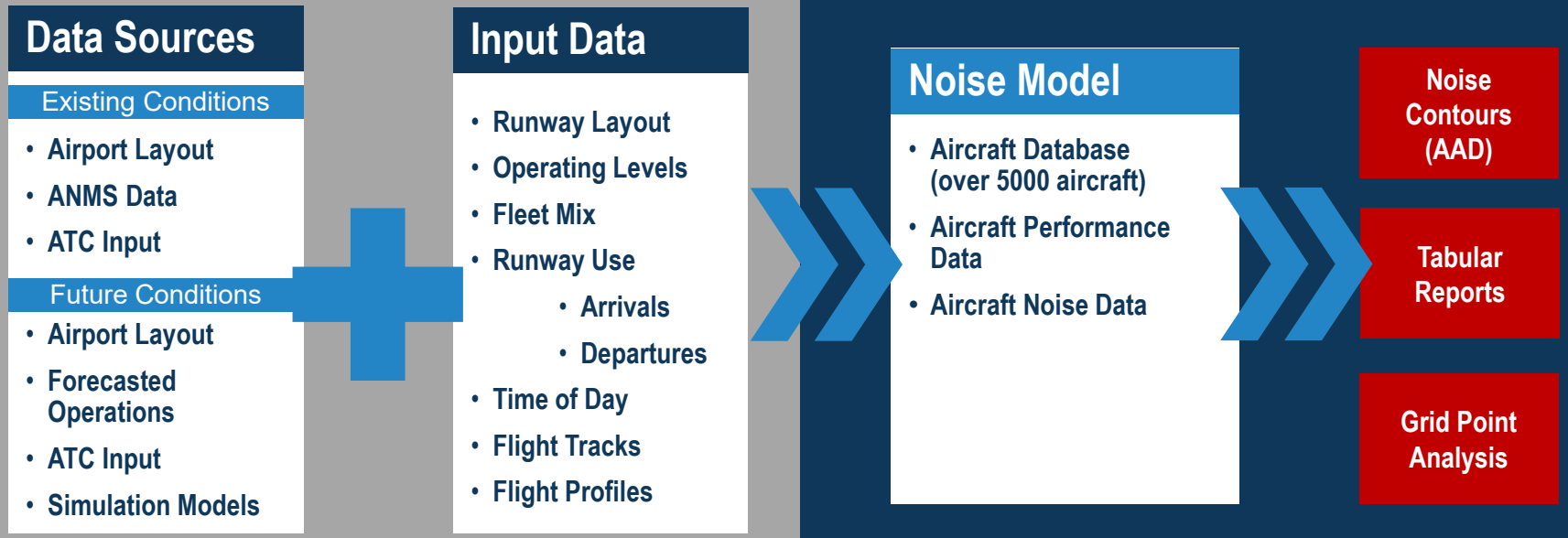
Aviation Environmental Design Tool (AEDT) is the required tool for noise, fuel burn, and emissions modeling of FAA actions

- Current version AEDT4a

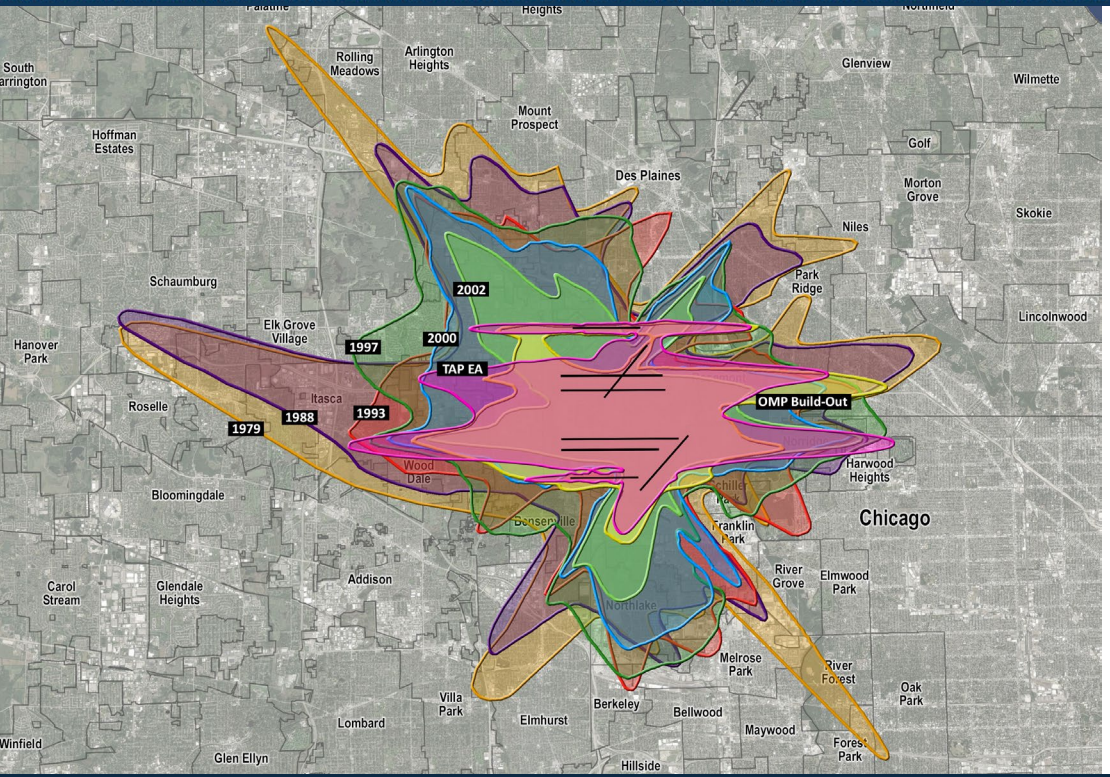
FAA's Office of Environment and Energy (AEE) oversees AEDT development and implementation

AEDT is designed to model individual future studies ranging in scope from a single flight at an airport to scenarios at the regional, national, and global levels

AEDT - AIRCRAFT NOISE MODELING INPUTS AND OUTPUTS



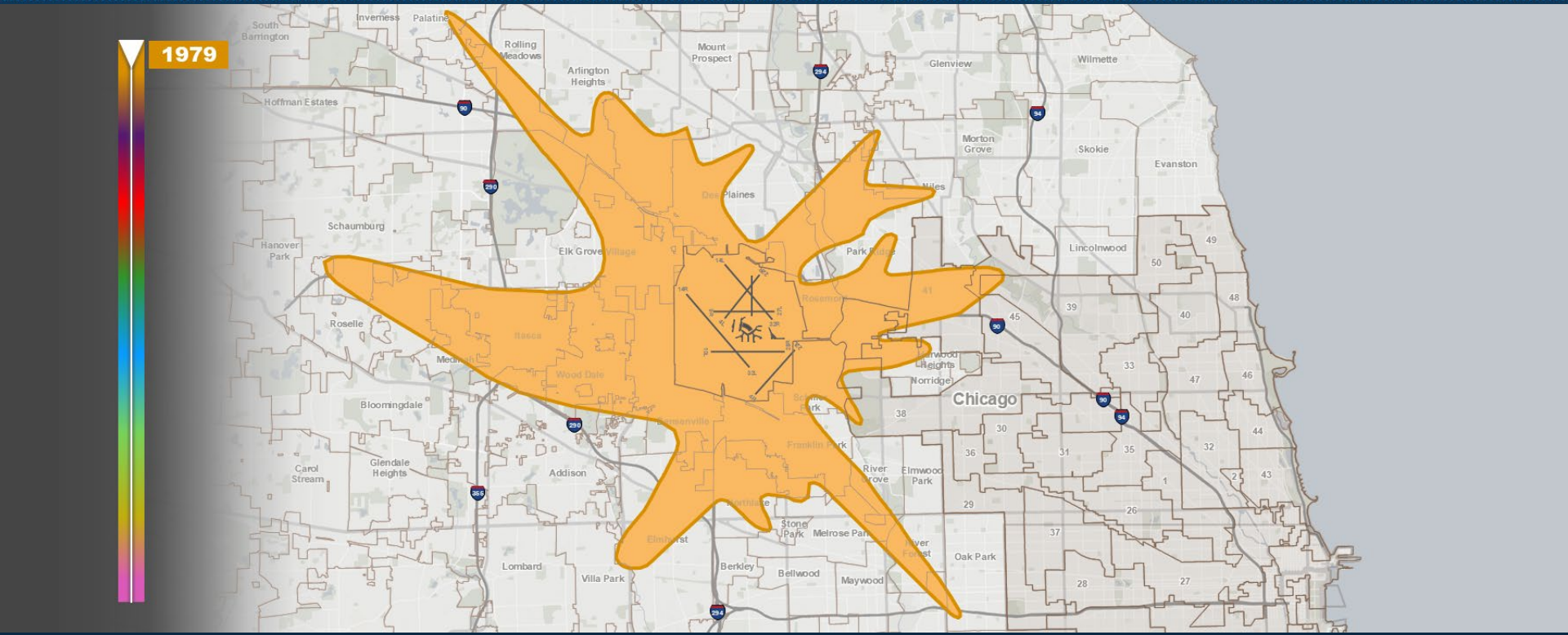
O'HARE NOISE CONTOURS



The modeled 65 Day-Night Average Sound Level (DNL) noise contour at O'Hare has shrunk in size since 1979 (left) despite an increase in total aircraft operations because of the replacement of loud Stage 1 and 2 aircraft with quieter Stage 3 and 4 aircraft mandated by the federal Airport Noise and Capacity Act of 1990.

Noise Contour Comparison in Square Miles vs 1979							
1979	1988	1993	1997	2000	2002	OMP Buildout	TAP EA
89.3	67.1	49.8	56.7	37.6	21.2	17.6	19.7
-	-25%	-44%	-37%	-58%	- 76%	-80%	-78%

O’HARE CONTOUR MORPH



SOUND INSULATION AND NOISE CONTOURS

Noise Contours	1993				1997		2000			OMP Build-Out							
Noise Model	INM																
Program Year or Phase	1995	1996	1997	1998	1999	2000	2002	2003	2004	2006	2007	2008	2009	2010/ Phase 15	Phase 16	Phase 17	Phase 18
Sound-Insulated Homes	10[1]	614	762	849	850	850	773	600	611	881	152	998	989	988	1,001	727	374
Total	**2,235**				**1,700**		**1,984**			**6,110[2,3]**							
RSIP Funding	Bonds and PFCs[4]				Bonds and PFCs		Bonds and PFCs			FAA Grant Bonds and PFCs							

The CDA and FAA have invested over $393,000,000 into sound-insulating 12,029 homes.

1: Demonstration Program
2: Does not include any homes from Phase 19
3. There are currently 423 homes enrolled in Phase 19
4. Passenger Facility Charges

FUTURE O'HARE RSIP

Airport Improvement Program (AIP) grant reimbursement eligibility

- NEPA noise mitigation requirement
  - The FAA's Record of Decision (ROD) for the OMP (noise mitigation requirement)
  - The FAA's Finding of No Significant Impacts Record of Decision (FONSI ROD) for the TAP and Air Traffic Procedures EA (no noise mitigation requirement)
- FAA-approved Airport Noise Compatibility Plan "Part 150" (14 CFR Part 150)

The CDA is exploring options to secure funding for the next phase of the RSIP.

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CHICAGO DEPARTMENT OF AVIATION

MICHAEL J. MCMURRAY, COMMISSIONER

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