

# Efforts underway to reduce aircraft noise

The Metropolitan Airports Commission (MAC) Noise Program Office focuses on efforts to reduce noise through a balanced approach including reduction of noise at the source, land use planning and management and noise abatement operational procedures.

**Reduction of Noise at the Source** – which, in the United States, refers to aircraft noise certification standards set by the Federal Aviation Administration (FAA). Essentially, the amount of noise an aircraft produces must fall within levels the FAA establishes. In 2016, the FAA began a process to establish a more stringent noise standard (known as Stage 5) to apply to new airplanes certified after December 31, 2017 (or December 31, 2020 for airplanes weighing less than 121,254 pounds).

The Stage 5 noise standard is intended only for newly developed aircraft and does not result in a restriction or production cut-off for airplanes approved under Stage 3 or Stage 4 standards. Moreover, the MAC does not have the authority to restrict aircraft from operating at the Minneapolis-St. Paul International Airport (MSP) or any of its airports based on aircraft noise levels. Fortunately, aircraft engine and airframe manufacturers and aerospace designers continually invest in technology improvements to reduce noise levels emitted from aircraft.

For example, NASA's Environmentally Responsible Aviation (ERA) Project has an ambitious goal of reducing cumulative noise levels 42 decibels Effective Perceived Noise Level (dB EPNL) below Stage 4 requirements for aircraft entering service in 2025.

**Land Use Planning and Management** – refers to the reduction of noise impact to sensitive areas, such as homes and schools. The MAC's Residential Noise Mitigation Program at MSP is one of the most extensive in the United States, providing sound mitigation to eligible homes in areas beyond the national standard. Since 1992, the MAC has spent almost \$500 million in property acquisition and home insulation for over 18,000 residences and 18 schools.

**Noise Abatement Procedures** – address the operation of an aircraft to reduce noise impacts over sensitive areas, such as



residences. The MAC Noise Program Office worked with the FAA to develop the following procedures at MSP to reduce noise impacts (for a full description of the procedures, visit [macnoise.com/our-neighbors/msp-noise-abatement-efforts](http://macnoise.com/our-neighbors/msp-noise-abatement-efforts)).

- Egan-Mendota Heights Corridor
- Runway Use System
- Noise Abatement Departure Profiles
- Minneapolis Straight-Out Departures
- Voluntary Nighttime Agreements
- Nighttime Power-backs
- Engine Run-up Rule
- Pilot Training Restriction
- Runway 17 River Departure Procedure
- Runway 17 215-Degree Departure Heading
- West Cargo Ramp Hushkitted Engine Starts



Each month, some noise abatement procedures are evaluated for compliance and reported to MSP's Noise Oversight Committee (NOC) and to local air traffic management. The MAC publishes these monthly compliance reports on its website at [macnoise.com/tools-reports/monthly-operations-reports](http://macnoise.com/tools-reports/monthly-operations-reports).

LEARN MORE ABOUT THE MAC'S NOISE ABATEMENT PROGRAMS.  
Visit [macnoise.com](http://macnoise.com) or call 612-726-9411.