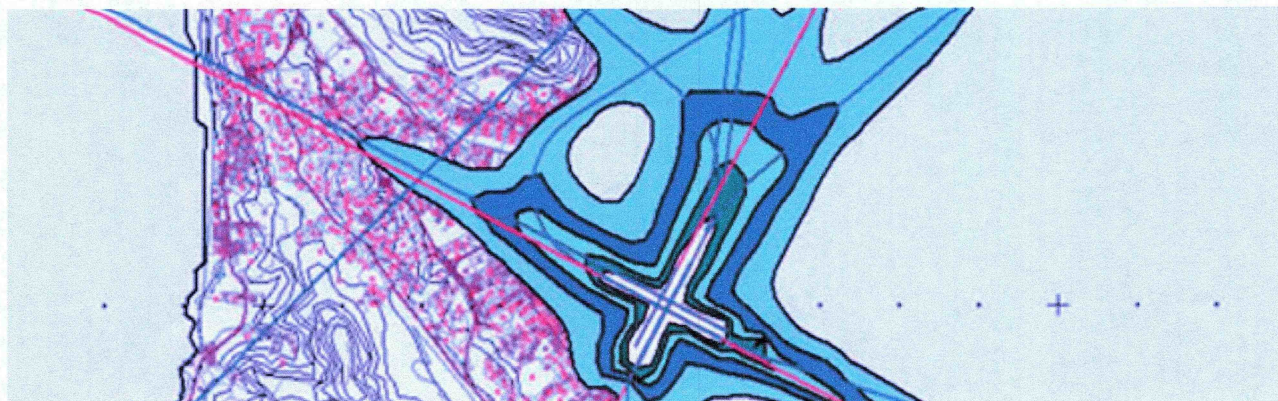**ATAC**

Aviation Analysis Experts

Integrated Noise Model (INM)

Global Standard Modeling Tool for Aircraft Noise Impacts

ATAC was the primary software developer and system integrator of the Integrated Noise Model (INM). INM has been replaced by the Aviation Environmental Design Tool (AEDT) as of May 29, 2015. The INM was the Federal Aviation Administration's (FAA's) standard computer model for assessing aircraft noise impacts in the vicinity of airports and over National Parks. It was the required noise assessment tool for airport noise compatibility planning under FAR Part 150 and for environmental assessments and impact statements under FAA Orders 1050 and 5050 in compliance with the National Environmental Policy Act. While no longer under active development and no longer usable for regulatory purposes in the U.S., the INM is still used for regulatory purposes in various other countries

More than 1,000 users in over 65 countries used the INM to assess noise impacts caused by changes in airspace structures, proposed runways or runway configurations, revised aircraft routings and flight profiles, modified air traffic control operational procedures, and revised traffic demand levels or fleet mix.

Applications

The INM computer program calculates noise exposure contours in the vicinity of airports by using a large database of aircraft flight performance and acoustic data along with airport-specific user-input data. The INM graphical user interface provides a versatile, user-friendly, windows-style means for users to specify operational scenarios to be modeled and to review the noise results. Application of the INM includes:
Assessing changes in noise impact resulting from new or extended runways or runway configurations
Assessing new traffic demand and fleet mix
Evaluating other operational procedures
Fulfilling statutory requirements defined in FAA Order 1050.1E, Policies and Procedures for Considering Environmental Impacts; Order 5050.4A, Airport Environmental Handbook; and Federal Aviation Regulations (FAR) Part 150, Airport Noise Compatibility Planning

Features

The model supports 16 different pre-defined noise metrics from the A-Weighted, C-Weighted, and Perceived Tone-Corrected noise level families.

User-defined metrics may also be created from these families, such as the Australian version of the Noise Exposure Forecast.

The main outputs from the INM model are noise exposure contours that are used for land use compatibility mapping.

The model calculates predicted noise levels at specific sites, such as hospitals, schools, or other sensitive locations and provides detailed information for the analyst to determine which events contribute most significantly to the noise at each location.

Benefits

The Integrated Noise Model has provided significant benefits to the user, including:

Meeting the requirements for airport noise compatibility planning under FAR Part 150 and for environmental assessments and impact statements under FAA Orders 1050 and 5050 in compliance with the National Environmental Policy Act

Use of the world's most extensive publicly-available database of aircraft noise and flight performance data

The ability to export graphical noise analysis data to commercially available Geographic Information System (GIS) software such as ESRI ArcExplorer and MapInfo

For additional information about INM please visit the FAA's INM web page.

ATAC Corporation / 2770 De La Cruz Blvd. / Santa Clara, CA 95050-2624 / 408.736.2822

© 2015 ATAC I Privacy Policy I Site Map
Webmail Log-in