



Federal Aviation Administration

Memorandum

Date: March 15, 2013

To: Donna Warren, Manager, Environmental Policy Team, AJV-11

CC: Julie Marks, Manager, Environmental Policy and Operations, AEE-400

From: Rebecca Cointin, Manager, Noise Division, AEE-100 *RC*
Ralph Iovinelli, Manager, Emissions Division, AEE-300 *RI*

Subject: Approval of AEDT Plug-in within TARGETS for Environmental Screening

PURPOSE

This memorandum provides approval on the use of the Aviation Environmental Design Tool (AEDT) Plug-in within the Terminal Area Route Generation, Evaluation and Traffic Simulation (TARGETS) tool for environmental screening in accordance with FAA Order 1050.1E (Change 1) *Environmental Impacts: Policies and Procedures*, under the National Environmental Policy Act of 1969 (NEPA), as amended, 42 United States Code (U.S.C.) §§4321 et seq

APPLICABILITY

When assessing the potential aircraft noise consequences of a proposed Federal action for NEPA, FAA Order 1050.1E, Appendix A, Section 14.2b, states that “[p]recedence evaluation with FAA screening methodologies, e.g., Area Equivalent Method (AEM) and Air Traffic Noise Screening (ATNS), may be appropriate.” It goes on to state that “[u]se of an equivalent methodology and computer model must receive prior written approval from the FAA’s Office of Environment and Energy (AEE).”

In addition, FAA Order 1050.1E, Change 1, Guidance Memo #3, “Considering Greenhouse Gases and Climate Under the National Environmental Policy Act (NEPA): Interim Guidance,” states that when aircraft fuel burn is computed and reported as part of a NEPA evaluation, quantification of aircraft CO₂e emissions in units of metric tonnes should be calculated from the fuel burn values and also included in the NEPA document.

In accordance with FAA Order 1050.1E, Appendix A, Section 14.5d the ATNS or other FAA-approved screening tool shall be used for air traffic airspace and procedure actions. Since the development of ATNS, the need of air traffic environmental screening has evolved and

additional screening tools for air traffic airspace and procedure actions have been developed, including a noise plug-in within TARGETS, a procedure design tool. Historically, screening tools have involved only noise capabilities as screening for air traffic airspace and procedure actions have mostly involved noise impacts. A broader environmental “plug-in” capability has been developed for TARGETS using AEDT, which is the FAA’s approved tool for modeling air traffic airspace and procedures actions.¹ The incorporation of AEDT into the TARGETS tool provides the capability to screen for both noise and fuel burn (which can be converted to CO₂e emissions in metric tonnes) within the procedure design phase. The AEDT Plug-in within TARGETS also provides an opportunity to take advantage of the latest advancements in aviation environmental modeling.

AEE has reviewed the implementation of the AEDT Plug-in within TARGETS. Based on this review, AEE approves the use of the AEDT Plug-in with TARGETS for environmental screening for air traffic procedure actions.

¹ Guidance on Using AEDT 2a to Conduct Environmental Modeling for FAA Air Traffic Airspace and Procedure Actions, FAA Order 1050.1E Change 1, Guidance memo #4