Federal Aviation Administration

Memorandum

Date: January 6, 2015

From: Richard Doucette, Manager, Environmental Programs, ANE-610 RTD

To: Mary Walsh, Manager, Airports Division, ANE-600

John Donnelly, Regional Counsel, ANE-7

Subject: Westover Metropolitan Airport, Part 150 Record of Approval

Attached is the Record of Approval for the Noise Compatibility Program developed by the Westover Metropolitan Development Corporation for the Westover Metropolitan Airport. One change to the existing Noise Compatibility Program measures is proposed. The Airport Sponsor proposes to expand the noise-land acquisition boundary from the 70DNL noise contour, out to the 65DNL noise contour. After discussion with APP-400, two other measures were disapproved, as they provide no measurable benefit inside the 65DNL noise contour

No written comments were received during the FAA comment period.

Upon your concurrence/approval below, the *Federal Register* Notice of FAA's approval of the Noise Compatibility Program can be submitted.

John Donnelly Regional Counsel, ANE-7	2/6/2015 Date	✓ Concur	 Nonconcur
Mary Walsh Manager, Airports Division, ANE-600	2/6/2015 Date	✓ Approved	 Disapproved

RECORD OF APPROVAL

Westover Metropolitan Airport
Chicopee and Ludlow, Massachusetts

FAR PART 150 NOISE COMPATIBILITY PROGRAM

1.0 Introduction

The Westover Metropolitan Airport sponsored an Airport Noise Compatibility Planning Study under a Federal Aviation Administration (FAA) grant, in compliance with 14 CFR Part 150. Westover Municipal Development Corporation produced a report entitled *"Westover Metropolitan Airport/Westover Air Reserve Base Noise Exposure Map and Noise Compatibility Program Update."* The Noise Compatibility Program (NCP) and its associated Noise Exposure Maps (NEM) were developed concurrently and submitted to FAA for review and approval on September 25, 2014. The NEM was determined to be in compliance on September 25, 2014. This determination was announced in the Federal Register on October 10, 2014.

The study provides an overview of all the noise mitigation measure previously approved in the January 1, 1996 Record of Approval. This overview can be found in Chapter 5 of the NEM/NCP document. The one change proposed in the NCP Update is expanding the noise land acquisition boundary from the 70DNL noise contour out to the 65DNL noise contour. This measure is approved. All other previously approved (1996) measures were reviewed for their current status, and for consistency with Part 150. As part of this review, the FAA now disapproves two previously approved measures: the Runway 23 and Runway 05 noise abatement departure procedures for civilian aircraft. These measures do not currently provide benefits within the 65 DNL contour. Meaningful noise abatement procedures may be designed and recommended under a future NCP update.

2.0 Noise Abatement Measures

The 1996 NCP evaluated and recommended several noise abatement measures. These measures were modeled and compared to the noise exposure contours developed under that study, and those which provided a benefit (a reduction in the number of residences and estimated population within the 65 DNL noise contour) were included in the Airport's recommended plan submitted to the FAA. Each of the four approved measures included consultation with the Westover Tower and Bradley Approach Control, the air traffic facility whose jurisdiction surrounds that of the Westover Tower.

Measures were proposed for both civilian and military operations. The following sections describe each of the measures, the FAA's conclusions at the time (approval or disapproval), and evaluates the procedure in the current environment.

2.1 Nighttime Preferential Runway Use for Civilian Aircraft

Description: This measure calls for civilian aircraft to use Runway 05 for departures and Runway 23 for arrivals to the maximum extent practicable. This preferential runway use was first adopted by the WMDC Board of Directors in 1987. Thus, the recommended pattern of civilian operations would be departures to the north and arrivals from the north, taking advantage of the lower density of residential land uses in Granby and Ludlow. If nighttime operations increased to levels predicted at the time, the WMDC would reevaluate the measure to achieve a more balanced level of runway use.

This non-mandatory measure was recommended in part to assist noise abatement efforts once the Westover Tower remained open for 24 hours per day. At the time, civilian operations could not operate at the Airport when the Westover Tower was closed (11:00 p.m. to 7:00 a.m.) without prior arrangement. The 1996 NCP included the assumption that the Westover Tower would begin 24-hour operations, although this has not yet occurred. Implementing this measure was forecast to reduce the estimated population within the 65 DNL noise contour south of the Airport.

FAA Finding 1996: Approved this voluntary measure.

Current Status: Preferential runway use for civilian operations remains consistent, mostly due to the location of the general aviation facilities (FBO/terminal area). Approximately 80% of civilian operations occur to or from the north. The Westover Tower remains closed to civilian operations from 11:00 p.m. to 7:00 a.m., although the WMDC can request a waiver for the Westover Tower to open prior to 7:00 a.m. or remain open past 11:00 p.m. if needed.

2.2 Noise Abatement Departure Procedures for Military Aircraft on Runway 23

The 1996 NCP proposed that select military C-5 departures from Runway 23 follow a noise abatement procedure. Military operations primarily depart from Runway 23 (south). At the time of the study, C-5 Runway 23 departures were required to climb on runway heading (approximately 230 degrees) until radar contact is confirmed with Bradley Approach Control, located 20 miles south of Westover. Due to the distance between the radar and aircraft, this sometimes resulted in the overflight of heavily populated areas until radar contact was established and aircraft were instructed to turn towards their destination. The proposed flight paths included earlier left or right turns, coordinated with the Bradley Approach Control.

FAA Finding 1996: Approved as voluntary, as implementation was shown to reduce the estimated population within the 65 DNL noise contour.

Current Status: The military continues to use Runway 23 as the primary departure runway. Due to the change in the mission of C-5 aircraft, the types of operations flown have changed to meet wartime flying requirements. C-5 operations do use an early turn to the west to avoid overflight of more heavily populated areas.

2.3 Noise Abatement Departure Procedures for Civilian Aircraft on Runway 23

Description: This measure proposed that civilian aircraft, particularly larger and louder aircraft that depart from Runway 23, use a noise abatement heading of 205 or 255 degrees, rather than flying a runway heading (approximately 230 degrees).

FAA Finding 1996: Approved this voluntary measure. Implementation of this measure would have, at the time, assisted in reducing the number of residences within the 65 DNL noise contour.

Current Status: Many of the larger aircraft that operated at the Airport prior to 2000, such as 727's or 737-200's, were phased out of the fleet through the passage of the Airport Noise and Capacity Act of 1990 (Stage 2 aircraft weighing less than 75,000 pounds will be prohibited from operating in 2015). As a result, the overall fleet of passenger aircraft is quieter. Noise modeling input data, developed in consultation with the Westover Tower, indicates that a majority (approximately 72%) of civilian departures from Runway 23 depart on a course that follows the runway heading (approximately 230 degrees), while approximately 28% depart from the runway and turn towards a heading of approximately 270 degrees.

In consideration of the current and forecast levels of civilian air traffic, the current types of aircraft in use at the airport, and the predominant noise characteristics of the military fleet, it is not expected that use of the noise abatement procedure would reduce the noise-sensitive land uses within the 65 DNL.

FAA Finding 2015: Disapproved. This measure provides no measurable benefit within the 65 DNL contour at this time. Meaningful noise abatement procedures may be designed and recommended under a future NCP update, as the local conditions warrant.

2.4 Noise Abatement Departure Procedures for Civilian Aircraft on Runway 05

Description: The measure called for aircraft, upon departure from Runway 05 and once safely airborne, to tum to an ATC-assigned heading of 080 degrees, then follow instructions issued by Bradley Approach Control towards their respective navigation fix. This early turn of approximately 30 degrees would route departing aircraft further away from the Acrebrook subdivision, taking advantage of more compatible land uses. The measure was proposed to be applicable between the hours of 10:00 p.m. and 6:00 a.m. and was estimated to reduce potential noise impacts in the Acrebrook subdivision, which was also proposed for eligibility under the voluntary acquisition program. The measure was proposed contingent upon FAA approval of the voluntary acquisition program (discussed in Section 5.2.2) to reduce noise north of the Airport, specifically in the Acrebrook neighborhood.

FAA Finding 1996: Approved this voluntary measure. This measure would reduce the number of residences and estimated population within the 65 DNL noise contour.

Current Status: Generally, aircraft departures from Runway 05 fly a runway heading of approximately 50 degrees. In consideration of the current and forecast levels of civilian air traffic, the current types of aircraft in use at the airport, and the predominant noise characteristics of the military fleet, it is not expected that use of the noise abatement procedure would reduce the noise-sensitive land uses within the 65 DNL

FAA Finding 2015: Disapproved. This measure provides no measurable benefit within the 65 DNL contour at this time. Meaningful noise abatement procedures may be designed and recommended under a future NCP update, as the local conditions warrant.

3.0 Land Use Measures

Land use measures seek to correct existing non-compatible land uses and to further inhibit the development of land uses that could be impacted by noise from aircraft operations. The WMDC does not control the land uses surrounding the Airport, but can make recommendations in consultation with local jurisdictions. The recommended land use measures include mitigation programs (voluntary acquisition and relocation, sound insulation) and preventive measures, which seek to limit the possibility of future non-compatible development.

3.1 Voluntary Land Acquisition and Relocation Program

Description: The intent of the voluntary purchase and relocation program is to eliminate or significantly reduce the number of people remaining in areas of high noise exposure. The 1996 NCP identified approximately 150 residences exposed to 70 DNL, which was updated under the 2004 NEM Update to include approximately 416 potentially eligible structures (single and multi-family structures) within the 70 DNL of the 2003 NEM. The WMDC received funding from the FAA to initiate the voluntary acquisition program in 2005.

FAA Finding 1996: Approved this voluntary measure.

Current Status: **Figure 5-1** presents a map depicting those properties which have been acquired as of December 2013. These 48 properties, accounting for approximately 203 acres, have been acquired, any homes have been demolished, and the land remains vacant (therefore compatible with aircraft operations).

Of the 48 total acquired properties, 39 properties are located in residential areas north of the airport; 23 properties in Granby and 16 properties in Ludlow, while the 9 remaining properties are located to the south of the Airport in Chicopee. For each acquired property, an aviation easement will be attached to the deed after parcel assembly is completed. Once acquired, the properties are maintained by the WMDC until a complete reuse and disposal plan is developed.

FAA Finding 2015: This NCP is proposing that residences exposed to noise levels 65 DNL and above be included in the voluntary acquisition program. The continuation of the program is discussed in Section 5.3. This is a change from the previously-approved noise land acquisition program in the 70 DNL contour, and is the one measure proposed for revision at this time.

Voluntary Acquisition of land is approved, except for those identified parcels now removed from the eligible noise contour. Due to changes in the aircraft fleet mix and level of operations, a number of parcels once eligible for noise mitigation are not eligible at this time. If the level of operations and fleet mix change over time, causing the noise contour to grow, the NEM should once again be updated. This could make more properties eligible for noise mitigation in the future. Noise land acquisition will be accomplished within the parameters of Part 150, the AIP Handbook, and the Uniform Relocation Act.

3.2 Voluntary Sound Insulation Program

Description: A sound insulation program is a voluntary program with the goal of providing acoustic treatment to eligible homes to reach a 5 dB improvement compared to existing indoor levels. The sound insulation program was initially identified to include those residences within the 65 DNL noise contour, in addition to residences located in the 70 DNL noise contour that declined participation in the voluntary acquisition program. In exchange for the installation of sound insulating materials, which typically include acoustically-rated windows and doors, and could include upgrades to mechanical systems, the property owner would be required to grant a noise easement.

FAA Finding 1996: Approved this voluntary measure.

Current Status: A sound insulation program has not been implemented. The WMDC began the voluntary acquisition program once funding became available for homes that experienced higher noise levels. This NCP is proposing that residences exposed to noise levels above 65 DNL within the Future (2019) NEM be included in the voluntary acquisition program. The WMDC prefers to complete the voluntary acquisition program prior to initiating a sound insulation program. Any initiation of a sound insulation program will be approved in advance by the FAA, to ensure conformance with Part 150.

3.3 Compatible Use Zoning

Description: Zoning for compatible land uses includes rezoning land that may be developed with noise-sensitive land uses, such as residences, places of worship, or schools. Rezoning would change the development potential of the land to a use that is more compatible with aircraft operations, such as industrial or open space. The 1996 NCP included specific recommendations for each city or town in order to minimize chances that new noncompatible land uses will be developed within the 65 DNL contour. The 1996 NCP suggested that

Chicopee, Granby and Ludlow maintain their existing zoning but consider adopting overlay zoning, and that Springfield and South Hadley maintain their existing industrial zoning classifications.

FAA Finding 1996: The FAA, although it has no jurisdiction in local land use affairs, approved this measure.

Current Status: Based on zoning information provided by MassGIS, portions of the Future (2019) NEM 65 DNL contour include residential zoning in Granby, residential-agricultural zoning in Ludlow, and general industrial and residential zoning in Chicopee. The 65 DNL noise contour does not include land within South Hadley or Springfield, although aircraft do overfly these areas. The WMDC will continue to work with each jurisdiction to determine the feasibility of implementing this measure.

3.4 Airport Overlay District

Description: An overlay district is a zoning technique which identifies additional restrictions on development in addition to the underlying zoning, by modifying (but not eliminating) the underlying zoning. Overlay districts offer an option to provide a more flexible development control than that of changing the allowed uses in entire zoning districts and focusing on only the portion of the community with potential non-compatible land uses.

Since 1992, the Town of Ludlow has had an Aircraft Flight Overlay District intended to protect the public health, safety, and general welfare; and to protect human life and property from hazards of aircraft noise and accident potential created by the Town's proximity to Westover. By 1996, Ludlow had implemented the aircraft flight overlay district, encompassing the noise and accident potential zones from the AICUZ. At that time, hospitals, nursing homes, auditoriums and concert halls were prohibited within the overlay districts. Educational and religious institutions are permitted by right in all districts according to the Massachusetts Zoning Enabling Act, and the Town had sought and received home rule authority from the state legislature to allow restriction of development of schools, day care centers, and houses of worship within accident potential zones. The existing overlay district does not prohibit residential land uses or impose sound insulating requirements on residential lands.

The initial NCP recommended that Chicopee and Granby adopt an airport overlay district which encompasses land within the 65 DNL contour, and that the town of Ludlow change the boundaries of its airport overlay district to include all of the land within the forecasted 1998 contour.

FAA Finding 1996: The FAA, although it has no jurisdiction in local land use affairs, approved this measure for the purposes of Part 150.

Current Status: No further changes to the Town of Ludlow's overlay district have been implemented, and no other jurisdictions have developed an overlay district to date. The 65 DNL noise contour of the Future (2019) NEM extends into Ludlow, Granby and Chicopee. The WMDC will continue to work with each jurisdiction to determine the feasibility of implementing this measure.

3.5 Subdivision Regulations

Description: Subdivision regulations describe the procedures and standards for the division of parcels of land, most notably for sale or development as smaller parcels. The use of subdivision regulations by a municipality prescribes certain conditions that must be met by a developer prior to receipt and recordation of a plat. Generally, amending subdivision regulations is most practical when large amounts of undeveloped land are present.

The 1996 NCP recommended that the Town of Granby, as the jurisdiction with the most notable assemblage of undeveloped land within the 65 DNL noise contour, amend their subdivision regulations to require noise easements to be obtained on newly created lots within the 65 DNL noise contour.

FAA Finding 1996: The FAA, although it has no jurisdiction in local land use affairs, approved this measure for the purposes of Part 150.

Current Status: The Town of Granby has not included the recommendations requiring noise easements into their subdivision regulations. The 65 DNL noise exposure contour of the Future (2019) NEM extends into Granby, in areas in which the WMDC is currently offering voluntary acquisition. The WMDC will continue to work with Granby to determine the feasibility of implementing this measure.

4.0 Implementation, Monitoring, and Review Measures

Implementation, monitoring, and review measures are those that can be undertaken by the WMDC to track the progress of the recommended noise compatibility program. They include measures that are designed to increase awareness of noise abatement and mitigation, and provisions for the continued monitoring of noise surrounding an Airport. The 1996 NCP identified four measures for inclusion in the program, as described in the following sections.

4.1 Pilot Awareness Program

Description: This measure identified that the WMDC would publish a pamphlet of noise abatement practices to be distributed to civilian pilots through the aviation services provider and WMDC's airport management. The pamphlet would include a map of noise sensitive areas around the airport and describe the operational measures which WMDC has adopted for noise abatement, including use of noise abatement departure procedures recommended by the National Business Aircraft Association or by individual aircraft manufacturers. The measure suggested that the WMDC would install signs in all terminal areas frequented by civilian pilots and along ramp and taxiway areas controlled by WMDC, instructing pilots to follow noise abatement procedures.

FAA Finding 1996: This measure was approved, with the caveat that the location and content of signs may be subject to FAA approval.

Current Status: The WMDC has installed signs in the terminal area pilot lounge and in areas leading to airside facilities directing pilots to be aware of noise-sensitive locations around the Airport. The WMDC is further evaluating the feasibility of installing more permanent signs encouraging the use of the noise abatement procedures for civilian aircraft from Runways 5 and 23.

4.2 Public Awareness Program

Description: This measure served to increase public awareness in the surrounding communities regarding the latest developments in the noise compatibility program.

FAA Finding 1996: Approved this voluntary measure.

Current Status: WMDC currently offers a voluntary acquisition and relocation program to property owners within the updated 2003 NEM. As part of that practice, the WMDC maintains contact with property owners within the 65 DNL noise contours.

4.3 Monitoring Nighttime Operations and Runway Use

Description: This measure was intended to assist in the identification and quantification of nighttime aircraft activity, specifically during the hours in which the Westover Tower was closed. Information to be collected included the time, type aircraft, registration/flight number, landing or take-off, runway used, and wind and weather conditions. The information would be used to determine compliance with WMDC's nighttime noise rule and to help provide guidance to Air Force contract tower personnel to determine compliance with the preferential runway use program.

FAA Finding 1996: The FAA approved in part and disapproved in part this measure. The FAA required the submittal of additional information regarding the noise rule, and stated that using the data to ensure compliance with any rules that would essentially limit aircraft operations would require an additional noise study.

Current Status: The Westover Tower tracks operations during hours the tower is open. Minimum operations occur during nighttime hours (10:00 p.m. to 7:00 a.m.). The additional information noted in the 1996 FAA Finding has not been submitted, and therefore the partial disapproval remains in effect.

4.4 Periodic Updates of Noise Exposure

Description: This measure recommended the ongoing monitoring of changes in noise exposure at the Airport, primarily by focusing on the changes that would likely have the greatest impact to cause an increase in cumulative noise exposure. The original measure identified, as primary potential drivers of noise exposure, any planned changes in scheduled jet operations by civilian aircraft, any planned changes in nighttime operations by civil aircraft, or annual changes in total civil operations.

FAA Finding 1996: Approved.

Current Status: As indicated in the introduction to the NCP in this chapter, the WMDC has completed or supported multiple evaluations of noise exposure as a result of changes in operations, including this update. WMDC will provide periodic NEM updates as required by law and regulation.