Final Supplemental Report



Final Supplemental Report

June 2014

Willow Run Airport FAR Part 150 Study

The preparation of this document was financed in part through a planning grant from the Federal Aviation Administration (FAA) as provided under Section 505 of the Airport and Airway Improvement Act of 1982 as amended by the Airway Safety and Capacity Expansion Act of 1987. The contents do not necessarily reflect the views or policy of the FAA.

Acceptance of this report does not in any way constitute a commitment on the part of the United States to participate in the development depicted herein, nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public law. This document is intended to be a planning document by the Wayne County Airport Authority. Final decisions concerning implementation of the recommendations shall be made by the Airport Authority.

The Noise Exposure Map and accompanying documentation for the Noise Exposure Maps for Willow Run Airport, submitted in accordance with FAR Part 150 with the best available information, are hereby certified as true and complete to the best of my knowledge and belief.

In addition, it is hereby certified that the airport operator has afforded adequate opportunity for the active and direct participation of the States, public agencies and planning agencies in the areas surrounding the airport, aeronautical users of the airport, the airport operator, and the general public to submit their views, data, and comments on the formulation and adequacy of that program. The airport operator has also provided notice and the opportunity for a public hearing.

Signed:	

Barnard Dunkelberg >>> Company a Mead & Hunt company

DENVER

1743 Wazee Street, Suite 400 Denver, Colorado 80202

Phone Number. 303 825 8844

FAX Number. 303 825 8855

TULSA

Cherry Street Building 1616 East 15th Street Tulsa, Oklahoma 74120-6027 Phone Number. 918 585 8844 FAX Number. 918 585 8857

BridgeNet International

Newport Beach, California

Dixon & Company

Milwaukee, Wisconsin

Synergy Consultants

Seattle, Washington

RS&H

Yipsilanti, Michigan

Jacobsen Daniels Associates

Yipsilanti, Michigan



of Transportation Federal Aviation Administration

May 28, 2014

Mr. Thomas Naughton, Chief Executive Officer Wayne County Airport Authority L.C. Smith Terminal – Mezzanine Detroit, MI 48242

Dear Mr. Naughton:

Detroit Airports District Office 11677 S. Wayne Road Suite 107 Romulus, MI 48174

Willow Run Airport (YIP) Detroit, MI Noise Compatibility Program (NCP) Approval

The Federal Aviation Administration (FAA) has evaluated the noise compatibility program for the Willow Run Airport (YIP) contained in the FAR Part 150 Noise Compatibility Study and related documents submitted to this office under the provisions of Title 49, USC, Chapter 475. The recommended noise compatibility program proposed by the Wayne County Airport Authority (WCAA) is identified in the FAR Part 150 Noise Compatibility Program Supplemental Report. I am pleased to inform you that the Great Lakes Region Airports Division Manager has approved all of the proposed action elements in the noise compatibility program in full. The specific FAA action for each noise compatibility program element is set forth in the enclosed Record of Approval (ROA). The effective date of this approval is, May 20, 2014.

All of the approval actions are more fully explained in the enclosed Record of Approval.

Each airport noise compatibility program developed in accordance with Part 150 is a local program, not a Federal program. The FAA does not substitute its judgment for that of the airport proprietor with respect to which measures should be recommended for action. The FAA approval or disapproval of Part 150 program recommendation is measured according to the standards expressed in Part 150 and Title 49, and is limited to the following determinations:

The noise compatibility program was developed in accordance with the provisions and procedures of Part 150;

Program measures are reasonably consistent with achieving the goals of reducing existing non-compatible land uses around the airport and preventing the introduction of additional non-compatible land uses around the airport.

Program measures relating to the use of flight procedures can be implemented within the period covered by the program without derogating safety, adversely affecting the efficient use and management of the navigable airspace and air traffic control systems, or adversely affecting other powers and responsibilities of the Administrator as prescribed by law.

Specific limitations with respect to FAA's approval of an airport noise compatibility program are delineated in Part 150, section 150.5. Approval is not a determination concerning the acceptability of land uses under Federal, state, or local law. Approval does not by itself constitute an FAA implementing action. A request for Federal action or approval to implement specific noise compatibility measures may be required, and an FAA decision on the request may require an environmental assessment of the proposed action. Approval does not constitute a commitment by the FAA to financially assist in the implementation of the program nor a determination that all measures covered by the program are eligible for grant-in-aid funding from the FAA under Title 49, USC, Chapter 471. Where Federal funding is sought, requests for project grants must be submitted to the FAA Detroit Airports District Office in Romulus, Michigan through the Michigan Department of Transportation, Office of Aeronautics.

The FAA will publish a notice in the Federal Register announcing approval of this noise compatibility program. You are not required to give local official notice, although you may do so if you wish.

Thank you for your continued interest in noise compatibility planning.

Sincerely,

John L. Mayfield, Jr.

Manager

Detroit Airports District Office

Enclosure

cc: APP-400 - Jim Byers

AGL-7 - Chuck Prock

AGL-610 - Lindsay Butler



Memorandum

Date:

May 14, 2014

From:

Manager, Detroit Airports District Office MD

To:

Airports Division Manager, AGL-600

Attn: AGL-610, AGL-7 9 574/14

Thru: AGL-611 will

Prepared by: Ernest P. Gubry, EPS, Detroit Airports District Office

Subject:

Willow Run Airport, Detroit, Michigan; Noise Compatibility Program (NCP)

Recommendation

On January 15, 2014, the Federal Aviation Administration (FAA) determined that the Noise Exposure Maps (NEMs) for the Willow Run Airport, Detroit, Michigan (YIP) were in compliance with the requirements of Section 103(a) Aviation Safety and Noise Abatement Act of 1979 and Title 14 Code of Federal Regulations, Part 150. The NCP review began on January 15, 2014. The public comment period ended on March 16, 2014. The FAA received no comments. The formal review must be completed on or before July 14, 2014.

Consultation with, and participation by airport users, Federal agencies, including the FAA, local regional and state planning agencies, local interest groups and individuals, helped in the development of a comprehensive program, taking into consideration all concerned interests. Numerous public information meetings were conducted, during the preparation of the maps and the program. These meetings are documented in Appendices B and C of the "Supplemental Report" and Chapter J of the FAR Part 150 Noise Compatibility Study. These activities were supported by a consultant with experience in the areas of airport noise control planning and public participation.

The Detroit Airports District Office has reviewed and evaluated the proposed NCP and concluded it is consistent with the intent of the Act and meets the standards set forth in 14 CFR Part 150. This coordination included the Offices of the Regional Counsel; Air Traffic Organization; Airport Planning and Programming Branch; Flight Procedures Team; Flight Standards; and ATO-Technical Operations. Comments have been incorporated into the final evaluation and proposed Record of Approval.

We are pleased to forward this NCP for the Willow Run Airport for your consideration. We request the appropriate approval of the submitted materials.

FEDERAL AVIATION ADMINISTRATION

RECORD OF APPROVAL

14 CFR PART 150 NOISE COMPATIBILITY PROGRAM

Willow Run Airport

Ypsilanti, Michigan

Detroit Airports District Office Manager	5 <u>//4//4</u> Date	Concur	Nonconcur
Great Lakes Region Office of Regional Counsel	5/2/14 Date	Concur	Nonconcur

Great Lakes Region Date Approve Disapprove

RECORD OF APPROVAL

14 CFR, Part 150 NOISE COMPATIBILITY PROGRAM WILLOW RUN AIRPORT YPSILANTI, MICHIGAN

INTRODUCTION

The Willow Run Airport (YIP or airport), Ypsilanti, Michigan, Part 150 Noise Exposure Maps and Noise Compatibility Program (NEM/NCP) describes the current and future non-compatible land uses based upon the parameters as established in Title 14 Code of Federal Regulations (CFR) Part 150 (Part 150), Airport Noise Compatibility Planning. This is a first time preparation of a Part 150 Study for YIP. YIP is proposing nine (9) measures for review and approval by the Federal Aviation Administration (FAA).

The Wayne County Airport Authority (WCAA), the sponsor for YIP, submitted this Part 150 study to the FAA in December 2013. The FAA accepted the NEM's for the airport on January 15, 2014 (FRN 2014-01560).

FAA requires the NEMs associated with the NCP apply to a period of no less than five years into the future, although the NCP may apply to a longer period if the sponsor so desires. The airport sponsor has requested that the program measures be applied to the Future 2018 NEM (Figure S-2), which represents future conditions at the airport. The Existing 2012 NEM is depicted in Figure S-1.

WCAA has certified the existing conditions depicted in the Existing 2012 NEM and the Future 2018 NEM presented at the public hearing are representative of 2013 and 2018.

This is the first Record of Approval (ROA) for the YIP NCP. This NCP includes nine (9) measures. The FAA groups these measures into three general categories: land use management (6), noise abatement (1), and program management (2). The recommended program measures are summarized in Chapter S (Pages S-10 and S-11). The objective of the noise compatibility planning process is to improve the compatibility between aircraft operations and noise-sensitive land uses in the area, while allowing the airport to continue to serve its role in the community, state, and nation.

The new recommended measures are identified below by program element and referenced to the NCP by page number. Each element summarizes, as closely as possible, the Sponsor's recommendations as found in the Part 150 NCP. The statements contained within the summarized recommendations and before the indicated FAA approval, disapproval, or other determination does not represent the opinions or decisions of the FAA.

The approvals listed herein include approval of actions the WCAA recommends to be taken by the FAA. It should be noted that these approvals indicate the actions would be consistent with the purposes of Part 150 if implemented. The approvals do not constitute decisions to implement the actions. The approvals do not constitute a commitment by the

FAA to provide Federal financial assistance for the projects. Later decisions concerning possible implementation of the actions may be subject to applicable environmental or procedures or requirements review.

Land Use Management Elements (LUME)

Recommendation 1 – Voluntary Sound Insulation of Single Family Homes within the 65 DNL (Pages L1-L11, L14 – L17, (Table F2) F.8, F.12, F.13, H.4, H.5, and S.12 – S.16 Figures S3, S4): The recommendation would voluntarily sound attenuate single-family residential structures, and other noise sensitive uses, within the 65 DNL noise contour. The structures would be voluntarily sound attenuated to achieve an inside noise level of less than 45 dB. WCAA will also receive a noise easement for each property. If additional noise sensitive uses are found, they too would be considered for voluntary sound attenuation.

FAA Determination: Approved.

Recommendation 2 – Voluntary Sales Assistance (Pages I.1-I.11, I.18 – I.19, (Table F2) F.8, F.12, H.8, H.9 and S.17 – S.18): This recommendation would provide sales assistance to those home owners wishing to sell their homes but who are concerned they may not be able to do so due to proximity to the airport. This would be a voluntary measure available to home owners who are within the 65DNL eligibility boundary but chose not to participate in sound attenuation.

FAA Determination: Approved. Implementation of this measure must comply with the Uniform Relocation and Real Property Acquisition Policies Act to be eligible for Federal funding.

Recommendation 3 – Require Buyer Notification Within the 60 DNL (Pages I.1-I.11, I.20 – I.22, F.8, F.18, F.19, H.10 and S.19 – S.21, Figure S5): This recommendation would provide direct notice to prospective home buyers that the home they are considering to purchase may be subject to aircraft noise intrusion. Many new home buyers are not aware of the proximity of the airport to the home they are considering. Such a notice on the plat or deed would require the local jurisdiction to adopt and implement because WCAA does not have land use control authority. WCAA would work with the surrounding communities to require notice of the noise to be placed on subdivision plats or deeds for each individual lot. Such notice would be recorded on the deed and is identified in a title opinion or title insurance report.

Outside the 65 DNL, FAA as a matter of policy encourages local effort to prevent new non-compatible development immediately abutting the 65 DNL and to provide a buffer for possible growth in noise contours beyond the forecast period. The Federal government has no authority to control local land. Only the local governments have the authority to implement this measure. Approval of this measure does not commit the FAA to future Federal funding assistance.

FAA Determination: Approved as local measure. The Federal government does not have local land use control authority. The local jurisdictions have the authority to pursue proposed land use controls. The FAA prefers the prevention of additional residential development within the noise contour.

Recommendation 4 – Work With Communities to Update Building Codes to Require Sound Attenuation of New Residences Within the 65 DNL (Pages L1-L11, L23 – L24, (Table F2) F.8, F.18 - F.20, H.11, H.12 and S.22-S.23): This recommendation would amend building code requirements to include sound attenuation standards for any new construction of noise sensitive uses within the 65 DNL contour. The action would not address existing residences, but would prevent future incompatibilities by requiring noise reduction or sound attenuation for new construction. Prior to issuing the building permit or plat approval, noise sensitive uses would be required, through construction techniques, to achieve a 30 dB noise reduction between outside noise levels and inside noise levels.

The Federal government has no authority to control local land use. Only the local governments have the authority to implement this measure. Approval of this measure does not commit the FAA to future Federal funding assistance.

FAA Determination: Approved as local measure. The Federal government does not have local land use control authority. The local jurisdictions have the authority to pursue proposed land use controls. The FAA prefers the prevention of additional residential development within the noise contour.

Recommendation 5 – Work With Communities to Update Comprehensive Plans to Discourage Noise Sensitive Uses Within the 65 DNL (Pages I.1-I.11, I.25, (Table F2) F.8, F18 - F.20, II.13, H.14 and S.24-S.25): All of the communities surrounding the airport have adopted comprehensive plans, which are updated periodically as conditions change. WCAA would work with the communities to ensure the plans do not recommend the introduction or continuation of non-compatible land uses within the 65 DNL noise contour. There is concern that vacant property within the 65 DNL could potentially be developed with additional non-compatible land uses.

The Federal government has no authority to control local land use. Only the local governments have the authority to implement this measure. Approval of this measure does not commit the FAA to future Federal funding assistance.

FAA Determination: Approved as local measure. The Federal government does not have local land use control authority. The local jurisdictions have the authority to pursue proposed land use controls. The FAA prefers the prevention of additional residential development within the noise contour.

Recommendation 6 – Work with Communities to Update Zoning Ordinances to Restrict Noise Sensitive Uses Within the 65 DNL (Pages 1.1-1.11, 1.26 - 1.27, (Table F2) F.8, F.18 - F20, H.15, H.16 and S.26-S.27): All of the communities surrounding the airport have adopted zoning ordinances, which are updated periodically as conditions change. Most of the property within the 65 DNL is currently zoned for nonresidential uses. However, zoning is a creation of the political body and can be changed through the political process. In addition, one of the dilemmas of contemporary planning and zoning is to incorporate high density residential development in commercial, retail and industrial zones. While the majority of an area may be non-residential, the introduction of residential units can result in noise concerns that were not as prevalent with non-residential uses. WCAA will work with the communities to either amend zoning ordinances to restrict such uses or continue to utilize those ordinances which prohibit such development.

The Federal government has no authority to control local land use. Only the local governments have the authority to implement this measure. Approval of this measure does not commit the FAA to future Federal funding.

FAA Determination: Approved as local measure. The Federal government does not have local land use control authority. The local jurisdictions have the authority to pursue proposed land use controls. The FAA prefers the prevention of additional residential development within the noise contour.

Noise Abatement Elements (NAE)

Recommendation 1 – Construct Ground Run-up Enclosure per A Site Selection Study (Pages I.30 – I.31, (Table F1) F.7, F.14, G.1, G.4, (Figures G15 & G16), G.46-G.53 and S.28-S.29): This recommendation is to construct a ground run-up enclosure to be used by all aircraft maintenance operations. WCAA will construct the facility and require all operators to use it. It is anticipated that with proper orientation the facility can be used about 95% of the time. Such a facility could achieve 100% reduction in population exposed to 70 dBA Lmax or greater noise.

FAA Determination: Approved. The ground run-up enclosure must remain outside of airport design surfaces, 14 CFR Part 77 surfaces, and not create an unsafe runway environment.

Program Management and Administrative Elements (PMAE)

Recommendation 1 – Operations Review and Part 150 Updates (Pages I.34, G.2, G.67, II.21, II.22 and S.30-S.31): This recommendation calls for the review and update the Part 150 Study as needed to reflect changes in the noise environment. A Part 150 study is a "snapshot" in time to look at the noise conditions generated by the current fleet mix and level of operations and the five-year forecasted levels. Federal regulations require a new study be completed if there is a significant increase or decrease in noise levels resulting from changes at the airport.

FAA Determination: Approved. If made necessary by NEM changes, an update to the NCP would address requirements of 150.23(e)(9). Section 150.21(d), as amended, states that the NEM should be updated if there is either a substantial new non-compatible use

within the DNI. 65 dB contour, or if there is a significant reduction in noise over existing non-compatible land uses.

Recommendation 9 - Continuation of the Study Advisory Committee (Pages 1.38 - 1.39, F.7, F.17, G.2, G.66, H2, H.22 and S.32-S.33): This recommendation calls for the continuation of the study advisory committee or a similar committee be implemented and maintained, with a balanced representation of airlines, local government, WCAA, FAA, and citizen stakeholders to assist and provide continuing guidance in implementing the study recommendations. This committee will utilize knowledge developed through the Part 150 Study and help build partnerships needed to implement these measures.

FAA Determination: Approved.



U.S. Department of Transportation Federal Aviation Administration

January 15, 2014

Detroit Airports District Office 11677 S. Wayne Road Suite 107 Romulus, MI 48174

Mr. Thomas Naughton, Chief Executive Officer Wayne County Airport Authority L.C. Smith Terminal – Mezzanine Detroit, MI 48242

Dear Mr. Naughton:

Willow Run Airport (YIP) Detroit, MI Acceptance of Noise Exposure Maps and Preliminary Review of Noise Compatibility Program

This letter is to notify you that the Federal Aviation Administration (FAA) has evaluated and accepted the Noise Exposure Maps and supporting documentation dated December 2013 for the Willow Run Airport. In accordance with 49 U.S.C. 47503 (the Act), as amended, we have determined that:

- The Existing Noise Exposure Map 2012 (Figure S1) noise contours and supporting documentation meet the requirements for the current Noise Exposure Map as of the date of submission as set forth in Title 14, Code of Federal Regulations (CFR), Part 150, Airport Noise Compatibility Planning, Section 150.21, and are accordingly accepted under this Part.
- The Future Noise Exposure Map with Existing Land Use 2018 (Figure S2)
 noise contours and supporting documentation are accepted as the description of the future
 conditions as set forth in Part 150, and are accordingly accepted under this Part.

FAA's acceptance of the Noise Exposure Maps is limited to the determination that the maps were developed in accordance with the procedures contained in Appendix A of Part 150. Such acceptance does not constitute approval of your data, information, or plans.

The FAA will publish a notice in the Federal Register announcing the acceptance of the Noise Exposure Maps for Willow Run Airport (enclosed). The FAA's acceptance of these Noise Exposure Maps under Part 150 in no way approves or endorses a Noise Compatibility Program, potential related federal funding of projects identified in such a program, or any related operating restrictions at the subject airport.

In addition, the FAA has formally received the Noise Compatibility Program for Willow Run Airport, effective January 15, 2014. Preliminary review of the submitted material indicates that it conforms to the requirements for the submittal of Noise Compatibility

Programs, but that further review will be necessary prior to approval or disapproval of the program. The formal review period, limited by law to a maximum of 180-days, will be completed on or before July 14, 2014. The public comment period ends on March 16, 2014.

Should any questions arise concerning the precise relationship of specific properties to noise exposure contours depicted on the Noise Exposure Maps, you should note that the FAA will not be involved in any way in the determination of relative locations of specific properties with regard to the depicted noise contours, or in interpreting the maps to resolve questions concerning, for example, which properties should be covered by the provision of Section 47506 of the Act. These functions are inseparable from the ultimate land use control and planning responsibilities of local government. These local responsibilities are not changed in any way under Part 150 or through FAA's acceptance of your Noise Exposure Maps Update. Therefore, the responsibility for the detailed overlaying of noise contours onto the maps depicting properties on the surface rests exclusively with you the airport operator, or those public agencies and planning agencies with which consultation is required under Section 47503 of the Act. The FAA relies on the certification by you under section 150.21 of Part 150 that the statutorily required consultation has been accomplished.

Your notice of this determination, and the availability of the Noise Exposure Maps, when published at least three (3) times in a newspaper of general circulation in the county where the affected properties are located, will satisfy the requirements of Section 47506 of the Act (section 150.21(f).

Your attention is called to the requirements of Section 150.21(d) of Part 150, involving the prompt preparation and submission of revisions to these maps, if any actual or proposed change in the operation of the subject airport might create any substantial, new noncompatible land use in any areas depicted on the maps, or significantly reduce noise over existing noncompatible uses that is not reflected in either NEM on file.

Thank you for your continued interest in Noise Compatibility Planning.

Sincerely,

John L. Mayfield, Jr.

Manager

Detroit Airports District Office

Enclosure

cc: AGL-610, AGL-7, MDOT

4910-13

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Availability of Noise Compatibility Program for Willow Run Airport, Ypsilanti,

Michigan

AGENCY: Federal Aviation Administration (FAA), DOT

ACTION: Notice

SUMMARY: The FAA announces its determination that the noise exposure maps submitted by the Wayne County Airport Authority, Michigan for Willow Run

Airport under the provisions of 49 U.S.C. 47501 et. seq (Aviation Safety and

Noise Abatement Act, herein after referred to as "the Act") and 14 Code of

Federal Regulations (CFR) Part 150 (hereinafter referred to as "Part 150") is in

compliance with applicable requirements. The FAA also announces that it is

reviewing a proposed noise compatibility program that was submitted for Willow

Run Airport under Part 150 in conjunction with the noise exposure map, and that

this program will be approved or disapproved on or before July 15, 2014.

EFFECTIVE DATE: The effective date of the FAA's determination on the noise

exposure maps and of the start of its review of the associated noise compatibility

program is January 15, 2014. The public comment period ends March 16, 2014.

FOR FURTHER INFORMATION CONTACT: Ernest P. Gubry, 11677 S. Wayne Road, Suite 107, Romulus, MI 48174, E-mail: Ernest.Gubry@faa.gov Phone: 734-229-2900. Comments on the proposed noise compatibility program should also be submitted to the above office.

SUPPLEMENTARY INFORMATION: This notice announces the FAA finds that the noise exposure maps submitted for Willow Run Airport are in compliance with applicable requirements of Part 150, effective January 15, 2014. Further, FAA is reviewing a proposed noise compatibility program for that airport which will be approved or disapproved on or before July 14, 2014. This notice also announces the availability of this program for public review and comment.

Under 49 U.S.C., section 47503 of the Act, an airport operator may submit to the FAA noise exposure maps which meet applicable regulations and which depict non-compatible land uses as of the date of submission of such maps, a description of projected aircraft operations, and the ways in which such operations will affect such maps. The Act requires such maps to be developed in consultation with interested and affected parties in the local community, government agencies, and persons using the airport.

An airport operator who has submitted noise exposure maps that are found by FAA to be in compliance with the requirements of Part 150, promulgated pursuant to the Act, may submit a noise compatibility program for FAA approval which sets forth the measures the operator has taken or proposes to take to

reduce existing non-compatible uses and prevent the introduction of additional non-compatible uses.

The Wayne County Airport Authority submitted to the FAA on December 12, 2013, noise exposure maps, and other documentation that were produced during the Willow Run Airport 14 CFR Part 150 Noise Compatibility Study. It was requested that the FAA review this material as the noise exposure maps, as described in section 47503 of the Act, and that the noise mitigation measures, to be implemented jointly by the airport and surrounding communities, be approved as a noise compatibility program under section 47504 of the Act.

The FAA has completed its review of the noise exposure maps and related descriptions submitted by the Wayne County Airport Authority. The specific documentation determined to constitute the noise exposure maps includes:

Figure S1 (Existing 2012 Noise Exposure Map); Figure S2 (Future 2018 Noise Exposure Map), Information pertinent to the aircraft operations, fleet mix, runway utilization, and nighttime use are located in Chapter D, updated in Chapter I and Chapter S. This is inclusive of all tables. Information about noise monitoring sites is located in Figure C11 (Noise Measurement Sites). The FAA has determined that these maps for Willow Run Airport are in compliance with applicable requirements. This determination is effective on January 15, 2014. FAA's determination on an airport operator's noise exposure maps is limited to a finding that the maps were developed in accordance with the procedures contained in appendix A of 14 CFR Part 150. Such determination does not constitute

approval of the applicant's data, information or plans, or constitute a commitment to approve a noise compatibility program or to fund the implementation of that program.

If questions arise concerning the precise relationship of specific properties to noise exposure contours depicted on a noise exposure map submitted under section 47503 of the Act, it should be noted that the FAA is not involved in any way in determining the relative locations of specific properties with regard to the depicted noise contours, or in interpreting the noise exposure maps to resolve questions concerning, for example, which properties should be covered by the provisions of section 47506 of the Act. These functions are inseparable from the ultimate land use control and planning responsibilities of local government. These local responsibilities are not changed in any way under Part 150 or through FAA's review of noise exposure maps. Therefore, the responsibility for the detailed overlaying of noise exposure contours onto the map depicting properties on the surface rests exclusively with the airport operator that submitted those maps, or with those public agencies and planning agencies with which consultation is required under section 47503 of the Act. The FAA has relied on the certification by the airport operator, under section 150.21 of Part 150, that the statutorily required consultation has been accomplished.

The FAA has formally received the noise compatibility program for Willow Run Airport, also effective on January 15, 2014. Preliminary review of the submitted material indicates that it conforms to the requirements for the submittal of noise compatibility programs, but that further review will be necessary prior to approval or disapproval of the program. The formal review period, limited by law to a maximum of 180 days, will be completed on or before July 14, 2014. A public hearing was held on November 6, 2013 at 5:30 pm.

The FAA's detailed evaluation will be conducted under the provisions of section 150.33 of Part 150. The primary considerations in the evaluation process are whether the proposed measures may reduce the level of aviation safety, create an undue burden on interstate or foreign commerce, or be reasonably consistent with obtaining the goal of reducing existing non-compatible land uses and preventing the introduction of additional non-compatible land uses.

Interested persons are invited to comment on the proposed program with specific reference to these factors. All comments should be sent to Ernest P. Gubry at the address under FOR FURTHER INFORMATION CONTACT. All relevant comments, other than those properly addressed to local land use authorities; will be considered by the FAA to the extent practicable. Copies of the noise exposure maps, the FAA's evaluation of the maps, and the proposed noise compatibility program are available for examination upon prior appointment during normal business hours, at the following location:

Federal Aviation Administration

Detroit Airports District Office

11677 S. Wayne Road, Ste. 107

Romulus, MI 48174

Willow Run Airport

Mr. Sean Brosnan

801 Willow Run Airport

Ypsilanti, MI 48198

Questions may be directed to the individual named above under the heading,

FOR FURTHER INFORMATION CONTACT.

Issued in Romulus, Michigan, January 15, 2014.

John L. Mayffeld, Jr.

Manager, Detroit Airports District Office

Supplemental Chapter

Introduction

Subsequent to the presentation of the Recommendations to the public at a Public Hearing in March 2011 and the development of the Draft Federal Aviation Regulation (FAR) Part 150 Study in June 2011, the Federal Aviation Administration (FAA) revised the national Terminal Area Forecasts (TAF) to reflect anticipated aircraft operational levels at Willow Run Airport. The TAF projections are based on a national forecast of aviation activity which is allocated to the individual airports in the National Airspace System and are based on previous year's actual activity. The forecast methodology is presented in the Appendix.

The revised forecasts were significantly different from the forecasts developed for the original Draft Part 150 Study, and as such, it was determined that the Study be updated to reflect the new forecasts and the resulting noise contours associated with those forecasts. Along with the noise contours, existing population numbers were updated to reflect changed conditions. In addition, the Recommendations have been updated to reflect the removal of Recommendations which are no longer valid. The revised Existing Noise Exposure Map and the revised Future Noise Exposure Map reflect 2012 and 2018 operations, respectively.

Revised Land Use Analysis and Noise Exposure Maps

The land use analysis and alternatives evaluation contained in the original study were developed using an existing year reflecting 2009 and a future year contour reflecting 2015. The existing year was chosen because it reflected the most current operational data available at the time the Study was initiated.

One of the key products of a FAR Part 150 Noise Compatibility Plan is the preparation of the Noise Exposure Maps (NEM's). The Noise Exposure Maps identify the existing and future noise exposure and have been prepared using the Federal Aviation Administration's Integrated Noise Model (INM) Version 7.0c. To prepare a noise contour for a particular year, the INM requires information concerning the number of aircraft operations, the types of aircraft (fleet mix), and the time of day that the activity takes place. As stated in the original document, noise measurements were used to help validate the model. The noise measurements followed Part 150 guidelines.

In an effort to use the most current information available, November 2011 through October 2012 operations was used to produce the revised Existing Noise Exposure Map (Figure s1) and fiscal year 2018 operational projections were used to produce the five-year revised Future Base Case Noise Exposure Map (Figure s2), based on the TAF. These two revised maps are shown on the following two pages and were developed using the operations presented in Table s1.

The Future Noise Exposure Map reflects one facility change, the planned closing and removal of Runway 14/32. An Environmental Assessment was prepared on the proposed closing of the runway in 2013. Subsequent to this, plans and specifications for the closing of the runway were prepared, and the runway is programmed to be removed in 2014, along with the reconstruction of Runway 5R/23L. As such, the 2018 map reflects the closing of the runway and a shifting of operations from Runway 14/32 to Runway 9/27. No other facility or operational changes are reflected in the Future Noise Exposure Map different from what is shown on the Existing Noise Exposure Map.

December 2013 Willow Run Airport S. 2

¹ Note the 2018 TAF projections are based on the Federal fiscal year, (beginning in October and ending in September).

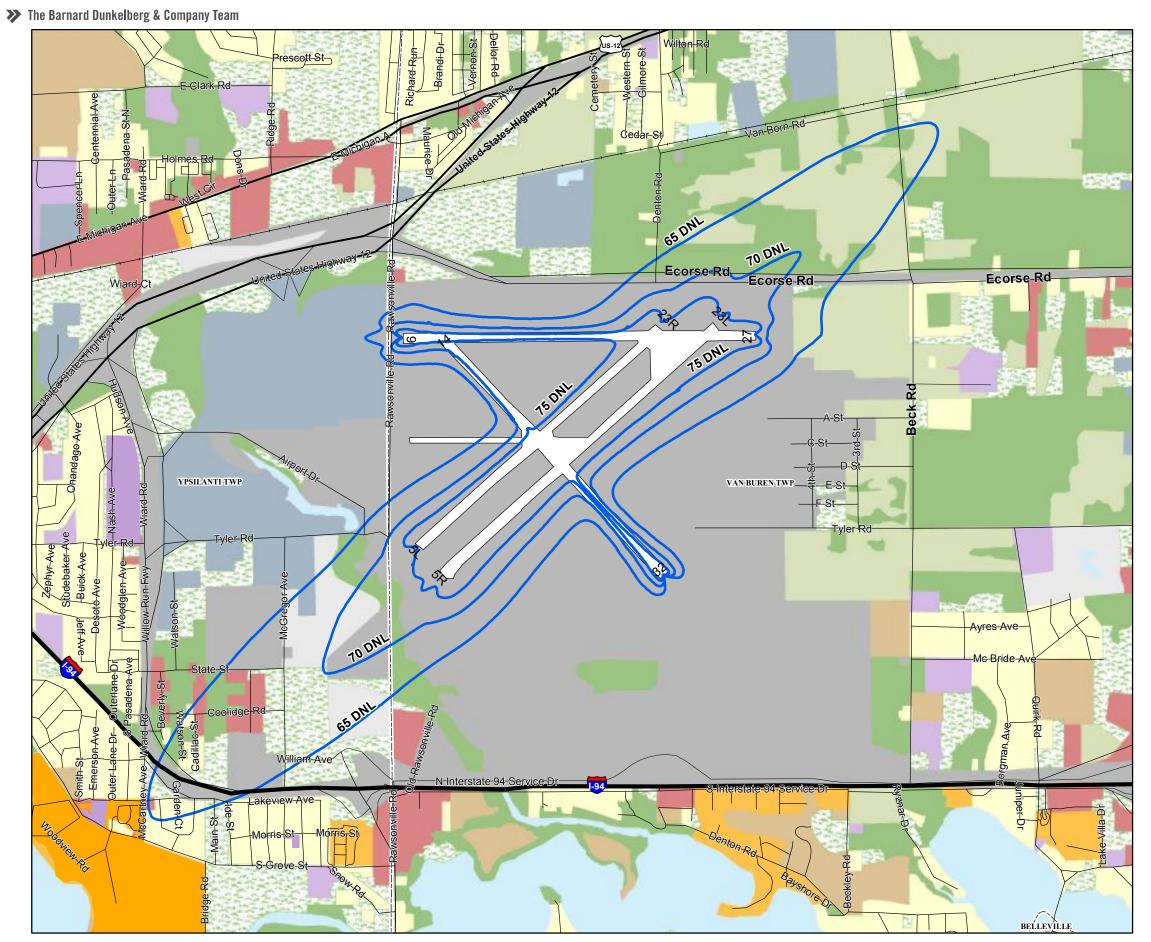
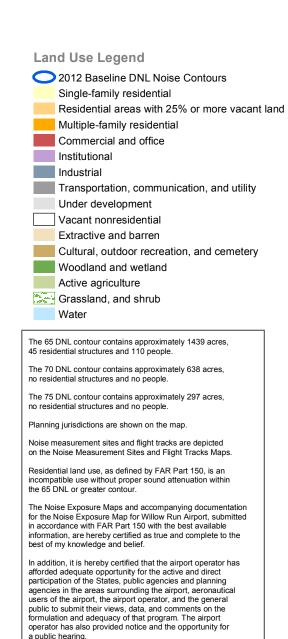


Figure S1
Existing 2012 DNL Contours
Noise Exposure Map







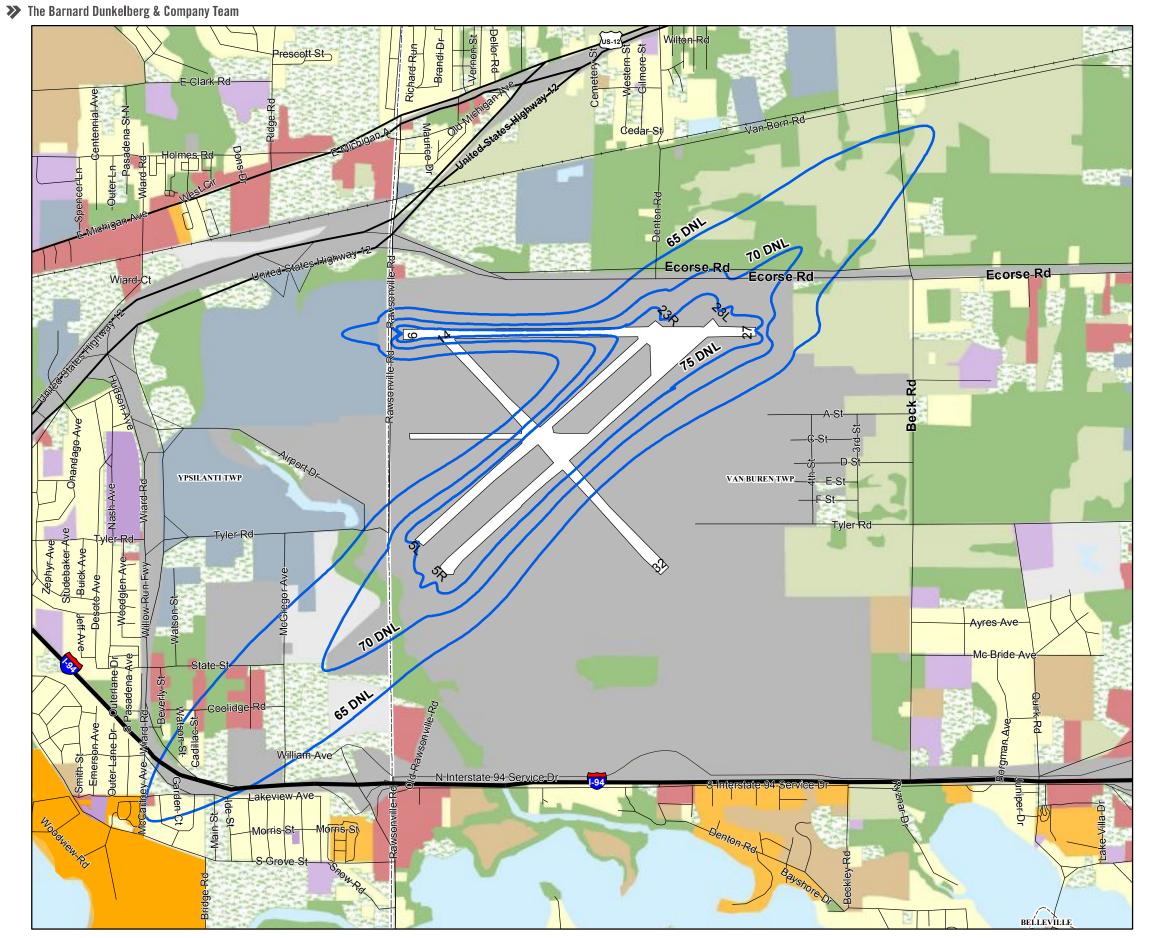
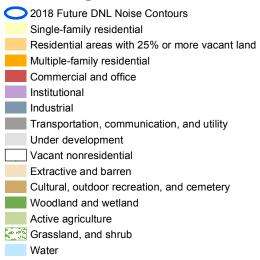


Figure S2
Future 2018 DNL Contours
Noise Exposure Map

Land Use Legend



The 65 DNL contour contains approximately 1287 acres, 50 residential structures and 122 people.

The 70 DNL contour contains approximately 525 acres, no residential structures and no people.

The 75 DNL contour contains approximately 277 acres, no residential structures and no people.

Planning jurisdictions are shown on the map.

Noise measurement sites and flight tracks are depicted on the Noise Measurement Sites and Flight Tracks Maps.

Residential land use, as defined by FAR Part 150, is an incompatible use without proper sound attenuation within the 65 DNL or greater contour.

The Noise Exposure Maps and accompanying documentation for the Noise Exposure Map for Willow Run Airport, submitted in accordance with FAR Part 150 with the best available information, are hereby certified as true and complete to the best of my knowledge and belief.

In addition, it is hereby certified that the airport operator has afforded adequate opportunity for the active and direct participation of the States, public agencies and planning agencies in the areas surrounding the airport, aeronautical users of the airport, the airport operator, and the general public to submit their views, data, and comments on the formulation and adequacy of that program. The airport operator has also provided notice and the opportunity for a public hearing.

Signed D





Table S1
SUMMARY OF AIRCRAFT OPERATIONS, BY TYPE
Willow Run Airport FAR Part 150 Study

Aircraft Category	2012 Base	2018 Forecast
Widebody Jets Narrowbody Jets Regional Jets Business/Corporate Jets Single Engine Prop Multi-Engine Prop Helicopter Military	17 3,356 2,151 8,174 55,450 3,963 182 269	0 3,532 2,256 10,523 54,653 4,042 214 0
Total Operations	73,604	75,220

Source: Jacobsen/Daniels Associates LLC

Note—Military aircraft operations were associated with an airshow the airport used to sponsor. The airshow no longer occurs and as such, no military operations are forecast in the future.

The actual INM input data sheets, separated by INM aircraft type and percent nighttime use, are found in the Appendix. In addition to aircraft operations and fleet mix, runway use is also an important element in generating DNL noise contours. The runway utilization tables have been updated to reflect revised runway use percentages and are presented in the following tables. **Table s2** presents the runway utilization for the existing conditions, and **Table s3** presents the same information for the future conditions.

Table S2 SUMMARY OF REVISED RUNWAY UTILIZATION, EXISTING 2012 Willow Run Airport FAR Part 150 Study

			Runway	End Pero	entage U	tilization		
Aircraft Type	<u>05L</u>	<u>05R</u>	<u>09</u>	<u>14</u>	<u>23L</u>	<u>23R</u>	<u>27</u>	<u>32</u>
Departures								
GA Single Engine Local	8.8%	20.2%	1.8%	0.8%	26.2%	30.4%	8.4%	3.4%
GA Twin Engine Local	12.0%	21.0%	1.0%	0.0%	39.0%	16.0%	6.0%	5.0%
GA Propeller Itinerant	10.1%	23.0%	2.0%	0.6%	29.4%	25.4%	6.9%	2.6%
Commuters	12.0%	21.0%	1.0%	0.0%	39.0%	16.0%	6.0%	5.0%
Business Jets	13.0%	27.3%	2.0%	0.0%	37.1%	13.4%	4.6%	2.6%
Regional Jets	7.0%	28.0%	4.0%	0.0%	48.0%	7.0%	4.0%	2.0%
Air Carriers	7.0%	28.0%	4.0%	0.0%	48.0%	7.0%	4.0%	2.0%
Military	9.0%	29.0%	0.0%	0.0%	54.0%	8.0%	0.0%	0.0%
Arrivals								
GA Single Engine Local	9.4%	17.0%	4.0%	1.6%	26.2%	34.0%	3.6%	4.2%
GA Twin Engine Local	11.0%	21.0%	4.0%	0.0%	43.0%	18.0%	2.0%	1.0%
GA Propeller Itinerant	9.9%	18.1%	4.0%	1.1%	31.0%	29.4%	3.1%	3.3%
Commuters	11.0%	21.0%	4.0%	0.0%	43.0%	18.0%	2.0%	1.0%
Business Jets	10.6%	22.7%	3.1%	0.0%	42.8%	18.3%	2.0%	0.5%
Regional Jets	3.0%	32.0%	3.0%	0.0%	60.0%	2.0%	0.0%	0.0%
Air Carriers	3.0%	32.0%	3.0%	0.0%	60.0%	2.0%	0.0%	0.0%
Military	3.0%	35.0%	0.0%	0.0%	60.0%	2.0%	0.0%	0.0%

Source: BridgeNet International, 2007

Willow Run Airport December 2013 FAR Part 150 Noise Compatibility Study/Supplemental Chapter

S. 6

Table S3 SUMMARY OF REVISED RUNWAY UTILIZATION, FUTURE 2018 Willow Run Airport FAR Part 150 Study

			Runway	End Pero	entage U	tilization		
Aircraft Type	<u>05L</u>	<u>05R</u>	<u>09</u>	<u>14</u>	<u>23L</u>	<u>23R</u>	<u>27</u>	<u>32</u>
Departures								
GA Single Engine Local	8.8%	20.2%	2.6%	0.0%	26.2%	30.4%	11.8%	0.0%
GA Twin Engine Local	12.0%	21.0%	1.0%	0.0%	39.0%	16.0%	11.0%	0.0%
GA Propeller Itinerant	10.1%	23.0%	2.6%	0.0%	29.4%	25.4%	10.0%	0.0%
Commuters	12.0%	21.0%	1.0%	0.0%	39.0%	16.0%	11.0%	0.0%
Business Jets	13.0%	27.3%	2.0%	0.0%	37.1%	13.4%	7.2%	0.0%
Regional Jets	7.0%	28.0%	4.0%	0.0%	48.0%	7.0%	6.0%	0.0%
Air Carriers	7.0%	28.0%	4.0%	0.0%	48.0%	7.0%	6.0%	0.0%
Military	9.0%	29.0%	0.0%	0.0%	54.0%	8.0%	0.0%	0.0%
Arrivals								
GA Single Engine Local	9.4%	17.0%	5.6%	0.0%	26.2%	34.0%	7.8%	0.0%
GA Twin Engine Local	11.0%	21.0%	4.0%	0.0%	43.0%	18.0%	3.0%	0.0%
GA Propeller Itinerant	9.9%	18.1%	5.1%	0.0%	31.0%	29.4%	6.4%	0.0%
Commuters	11.0%	21.0%	4.0%	0.0%	43.0%	18.0%	3.0%	0.0%
Business Jets	10.6%	22.7%	3.1%	0.0%	42.8%	18.3%	2.5%	0.0%
Regional Jets	3.0%	32.0%	3.0%	0.0%	60.0%	2.0%	0.0%	0.0%
Air Carriers	3.0%	32.0%	3.0%	0.0%	60.0%	2.0%	0.0%	0.0%
Military	3.0%	35.0%	0.0%	0.0%	60.0%	2.0%	0.0%	0.0%
Reduced Operations								
Increased Operations								

Source: BridgeNet International, 2007

Willow Run Airport December 2013 FAR Part 150 Noise Compatibility Study/Supplemental Chapter **S.** 7 The land use analysis and population tables presented in the Land Use Chapter have been updated based on the revised noise contour maps and are presented in the following tables. Table 1 of FAR Part 150 was used to determine compatibility.

The following table, **Table S4**, presents the number of people, housing units, and specific land use acreages for the 2012 contour.

Table S4 REVISED EXISTING NOISE EXPOSURE MAP WITH GENERALIZED EXISTING LAND USE, 2012

Willow Run Airport FAR Part 150 Study

Land Use	DNL Conto	••	DNI Com		DNI Con	
Residential	20	Ac	0	Ac	0	Ac
People	110		0		0	
Housing Units	45		0		0	
Schools	0		0		0	
Historic Sites	0		0		0	
Business/Office	25	Ac	0	Ac	0	Ac
Grassland/woodland	242	Ac	20	Ac	0	Ac
Industrial	7	Ac	0	Ac	0	Ac
Transportation/Communication	946	Ac	603	Ac	297	Ac
Other	199	Ac	15	Ac	0	Ac
Total Acres	1,439	Ac	638	Ac	297	Ac

Source: Southeast Michigan Council of Governments 2010 Census Data, BDC Analysis.

The total figures for each contour are cumulative. The figures for the larger contours contain the area within all smaller contours.

December 2013

The following table, **Table S5**, presents the number of acres of different land use types within the Future Noise Exposure Map, as well as the number of people and housing units.

Table S5
REVISED FUTURE NOISE EXPOSURE MAP WITH EXISTING LAND USE, 2018

Willow Run Airport FAR Part 150 Study

Land Use	DNL 65 Contour	DNL 70 Contour	DNL 75 Contour
Residential	20 Ac	0 Ac	0 Ac
People	122	0	0
Housing Units	50	0	0
Schools	0	0	0
Historic Sites	0	0	0
Business/Office	24 Ac	0 Ac	0 Ac
Grassland/woodland	214 Ac	18 Ac	0 Ac
Industrial	10 Ac	0 Ac	0 Ac
Transportation/Communication	820 Ac	496 Ac	277 Ac
Other	199 Ac	11 Ac	0 Ac
Total Acres	1,287 Ac	525 Ac	277 Ac

Source: Southeast Michigan Council of Governments

2010 Census Data, BDC Analysis.

The total figures for each contour are cumulative. The figures for the larger contours contain the area within all smaller contours.

Revised Recommendations

Subsequent to the submittal of the Draft Part 150 document, the Recommendations were re-evaluated with some changes. The original Recommendations can be found in the Issues/Actions and Recommendations Chapter of the June 2011 Draft Report. The following Recommendations reflect the official submittal Recommendations and have been presented at a Public Hearing held on November 6, 2013.

Revised Recommendations Summary Listing

The recommendations are summarized and categorized as follows. The Recommendations are based on the Future Noise Exposure Map. The recommendations are **not listed** in priority of implementation. Priorities may change as conditions change, and should be set each year along with the Airport's Capital Improvement Program (CIP). The original Options are shown in parenthesis.

Land Use Management Elements (LUME)

Recommendation 1	Voluntary Sound Insulation of single family residential
	structures within the 65 DNL noise contour
	(LUME Alt. 1)

Recommendation 2 Voluntary Sales Assistance Program (LUME Alt. 4)

Recommendation 3 Recommend communities require disclosure statements/buyer notification (LUME Alt. 5)

Recommendation 4 Work with communities to require sound attenuation of new residences (LUME Alt. 6)

Recommendation 5 Work with communities to update master plans to discourage noise sensitive uses within the 65 DNL (LUME Alt. 7)

Recommendation 6 Work with communities to update zoning ordinances to restrict noise sensitive uses within the 65 DNL (LUME Alt. 8)

Noise Abatement Elements (NAE)

Recommendation 1 Construct ground run-up enclosure (NAE Alt. 7b)

Program Management and Administrative Elements (PMAE)

Willow Run Airport December 2013

Recommendation 1 Operations Review and Part 150 Updates (PMAE Alt. 9) Recommendation 2 Continuation of Study Advisory Committee (PMAE Alt. 11)

It is the intent of the Airport Authority to implement elements of the proposed Noise Compatibility Program as quickly as possible. However, the timetable for implementation would depend very heavily on the availability of funding, especially federal and local funding.

Existing Actions

This is the first FAR Part 150 Study that the Airport has completed; therefore, there is no existing Noise Compatibility Program at the Airport.

Willow Run Airport December 2013
FAR Part 150 Noise Compatibility Study/**Supplemental Chapter** S. 11

Land Use Management Elements (LUME)

LUME RECOMMENDATION 1—VOLUNTARY SOUND INSULATION OF SINGLE FAMILY HOMES WITHIN THE 65 DNL

ISSUE

Reduction of noise sensitive land uses within the airport environs.

NEW ACTION

It is recommended that the Airport sound attenuate to achieve an inside noise level of less than 45 dB, on a voluntary basis, those single-family homes within the future 65 DNL noise contour as defined by the Eligibility Boundary shown on the following page. In addition to being within the Eligibility Boundary, the residence must have an existing inside noise level greater than 45 dB as defined by the latest FAA guidance. The sound attenuation would reduce indoor noise levels which would result in the houses being considered as a compatible land use. As a consideration for such sound attenuation, the Airport would receive a noise easement from the homeowner. If attenuation is found to be economically unfeasible or if other circumstances exist, the Airport would determine if purchase of a noise easement only would be more desirable.

In addition, if other noise sensitive uses are found within the Eligibility Boundary they too would be considered to receive sound attenuation on a voluntary basis.

COMMENTS

This Action would allow those homeowners within the 65 DNL noise contour or greater to receive sound attenuation to reduce the inside noise levels to 45 dB or below. If a residential structure has an existing inside noise level of less than 45 dB, then it may not be eligible for

Willow Run Airport
FAR Part 150 Noise Compatibility Study/Supplemental Chapter

federal funding. The FAA guidelines consider sound attenuated houses within the 65 DNL contour compatible if sound attenuated. Sound attenuation does not apply to manufactured or mobile homes, as they cannot be attenuated to meet reduction codes. This Action would convert non-compatible uses to compatible uses and would reduce the noise intrusion to those residences where the owner decides to take advantage of sound attenuation. The Airport would receive a noise easement in return for the sound attenuation. However, if the local jurisdiction will not issue a building permit until the house is "brought up to code", the cost to do so is not eligible for FAA funding.

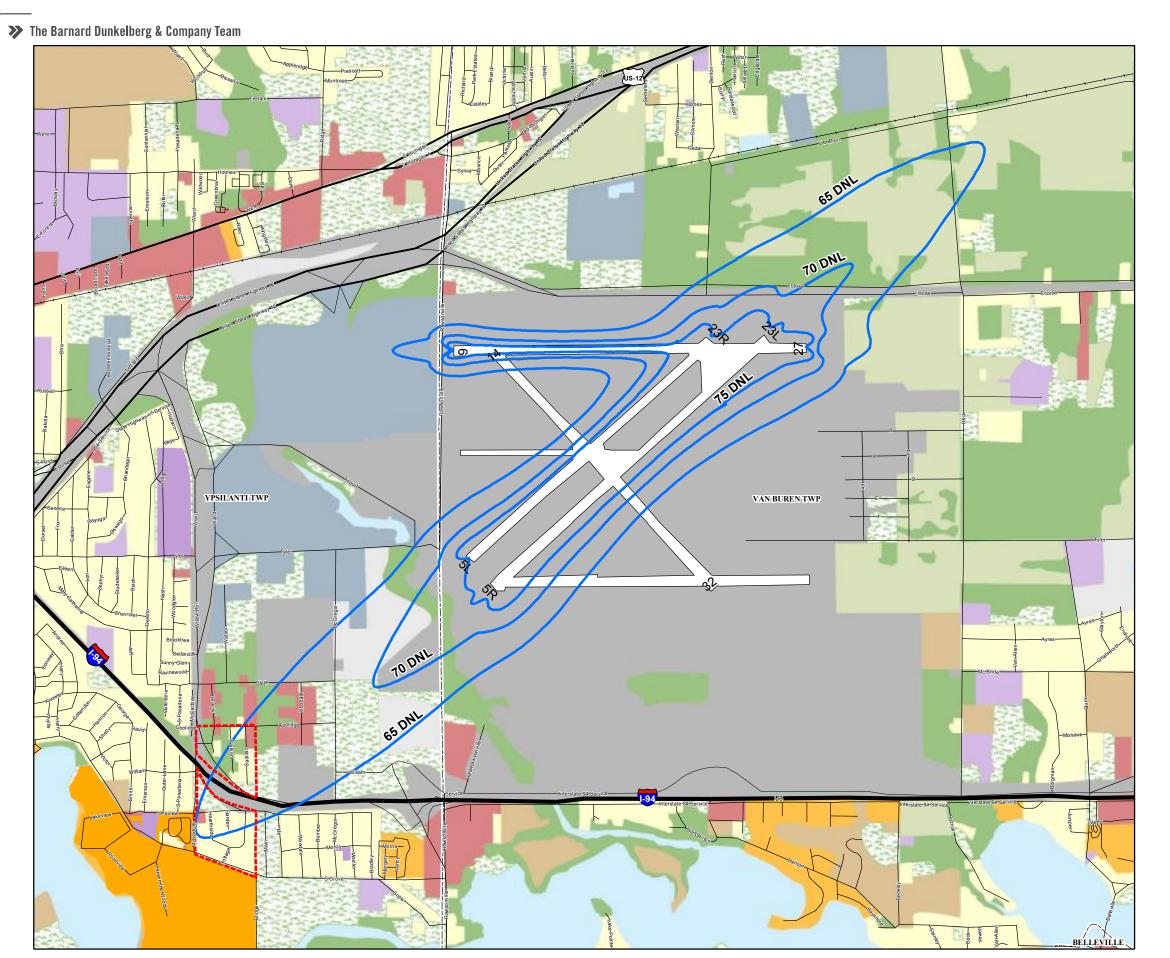
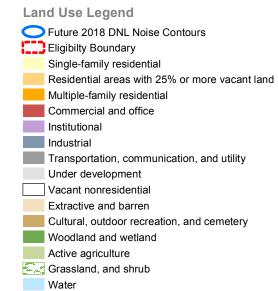
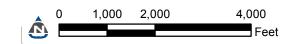


Figure S3
Eligibility Boundary Map







SOURCE: Southeast Michigan Council of Governments (SEMCOG), November, 2006.

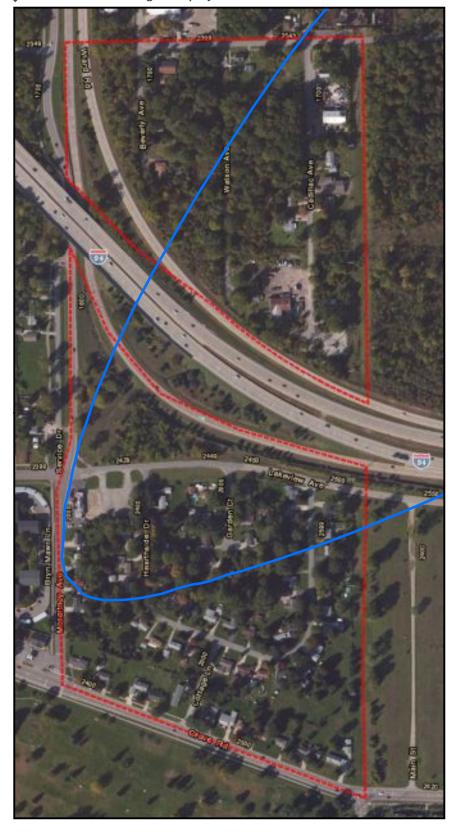
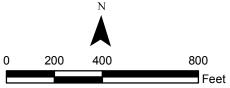


Figure S4 Eligibility Boundary Detail



Service Layer Credits: Copyright:© 2013 Esri, DeLorme, NAVTEQ, TomTom Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

Aerial photo date: 9/18/2011

Legend

2018 DNL Noise
Eligibilty Boundary

SOURCE: Southeast Michigan Council of Governments (SEMCOG), November, 2006.



FAR Part 150
Supplemental Report
Willow Run Airport (YIP)

COST

There are approximately 75 single family residential structures within the Eligibility Boundary. The cost for sound attenuation is estimated at approximately \$50,000 per house, depending upon type of construction, resulting in an estimated cost of \$3.75 million for the single family units. The cost for just an easement is estimated to be approximately \$3 – 5.000.

RESPONSIBLE PARTIES

The Airport would apply to the FAA for the necessary funding to conduct the program and to sound attenuate those houses found feasible. Contingent upon availability of federal funds, the Airport would institute the new sound attenuation program. The homeowners need to respond to the Airport concerning attenuation.

AIRPORT ACTION

The Airport would apply to the FAA for necessary funds to accomplish this Action upon the approval of the FAR Part 150 Study. The Airport would then hire a consultant to prepare a Program Manual and initiate the Program.

TIME FRAME

This New Action would be initiated by the Airport as soon as the FAR Part 150 Study is approved. It is estimated that it will take approximately two to six years to complete the sound attenuation program, depending upon funding availability.

Willow Run Airport
FAR Part 150 Noise Compatibility Study/**Supplemental Chapter**

LUME RECOMMENDATION 2—VOLUNTARY SALES ASSISTANCE.

ISSUE Reduce noise impacts to areas of non-

compatible land uses.

NEW ACTION The Airport would offer Sales Assistance to

home owners wishing to sell their homes but who are concerned that they are not able to do so due to proximity to the Airport. This would be a voluntary Action available to home owners who are within the 65 DNL noise contour, but

chose not to participate in sound insulation.

value.

This voluntary Action would provide a Sales Assistance Program as an option for owners of residential uses if they are eligible for sound insulation. In some cases, home owners desire to sell their homes and feel that they cannot receive fair market value for a home due to its proximity to the Airport. This Action helps alleviate that situation, but it does not require the Airport to actually purchase the homes. As a result, if fair market value could not be obtained, the Airport would compensate the current owner for a sale that is verified to be less than the current fair market or appraised

The owner is guaranteed fair market value for the property. In this type of program, the Airport operator does not take title to the property, but rather compensates the property seller for the difference between fair market value and the value offered by a purchaser. Should the property sell for less than the appraised value, the Airport operator would compensate the selling owner for the shortfall. Property is appraised at its current fair market value of the home owner's interest "as is," subject to aircraft noise. The property is listed and sold subject to

COMMENTS

the Airport's easement that is conveyed to the Airport at the sale of the property. This Action is most successful with single family, as opposed to multifamily, structures because the sale prices of most owner-occupied multifamily structures are not as sensitive to aircraft noise levels.

COST

Participation in such a program is traditionally relatively small, about 3% of those eligible for sound attenuation. Assuming 2 owners participate and an approximate differential of \$5,000 for each sale, the cost would be approximately \$10,000.

RESPONSIBLE PARTIES

The Airport is responsible for applying to the FAA for funding, the home owners are responsible for notifying the Airport of their intention to participate. The FAA is responsible for granting funds, if available.

AIRPORT ACTION

The Airport would apply to the FAA for necessary funds to accomplish this Action upon the approval of the FAR Part 150 Study.

TIME FRAME

This Action can be initiated immediately upon approval of the Part 150 Study and is not contingent upon other Recommendations.

December 2013 Willow Run Airport **S.** 18

LAND USE MANAGEMENT ELEMENT RECOMMENDATION 3—REQUIRE BUYER NOTIFICATION WITHIN THE 60 DNL

ISSUE

Ensure notification of potential aircraft noise intrusion to prospective residents by providing direct notice of the possibility of such intrusion.

CONTINUED ACTION

It is recommended that the Airport Authority work with the surrounding communities to require notice of noise to be placed on subdivision plats or deed for each individual lot. Such notice would be recorded on the deed and is identified in a title opinion or title insurance report, as are other similar notices

COMMENTS

This action would give direct notice to prospective home buyers that the home they are considering may be subject to aircraft noise intrusion. Many new home buyers are not aware of the proximity of the airport to the home they are considering. This would allow them to make an informed decision. Such plat or deed notice would require local jurisdiction adoption and implementation because the Airport Authority does not have land use control authority. The local jurisdictions have the authority to require notice to be placed on plats or deeds for a new subdivision or as a condition of building permit approval. This would be most effective for such approvals within the 60 DNL and greater noise contour, as shown on the following page. This is similar to the types of notice required for other public health, safety, and welfare issues such as severe terrain. underground conditions, historic districts, and tax assessment districts.

Willow Run Airport
FAR Part 150 Noise Compatibility Study/Supplemental Chapter

COST The cost to implement this recommendation is

within the normal subdivision and plat review of

the local jurisdictions.

RESPONSIBLE PARTIES The Airport Authority is responsible for

coordinating with the local jurisdictions

concerning location of properties for notice, and

the local jurisdictions are responsible for implementing the notice requirements

AIRPORT ACTION The Airport Authority would coordinate with the

local jurisdictions and ensure that they have the proper maps to identify the 60 DNL and greater

noise exposure contour.

TIME FRAME This Action could be initiated by the Airport

Authority and the jurisdictions immediately.

Willow Run Airport
FAR Part 150 Noise Compatibility Study/**Supplemental Chapter**

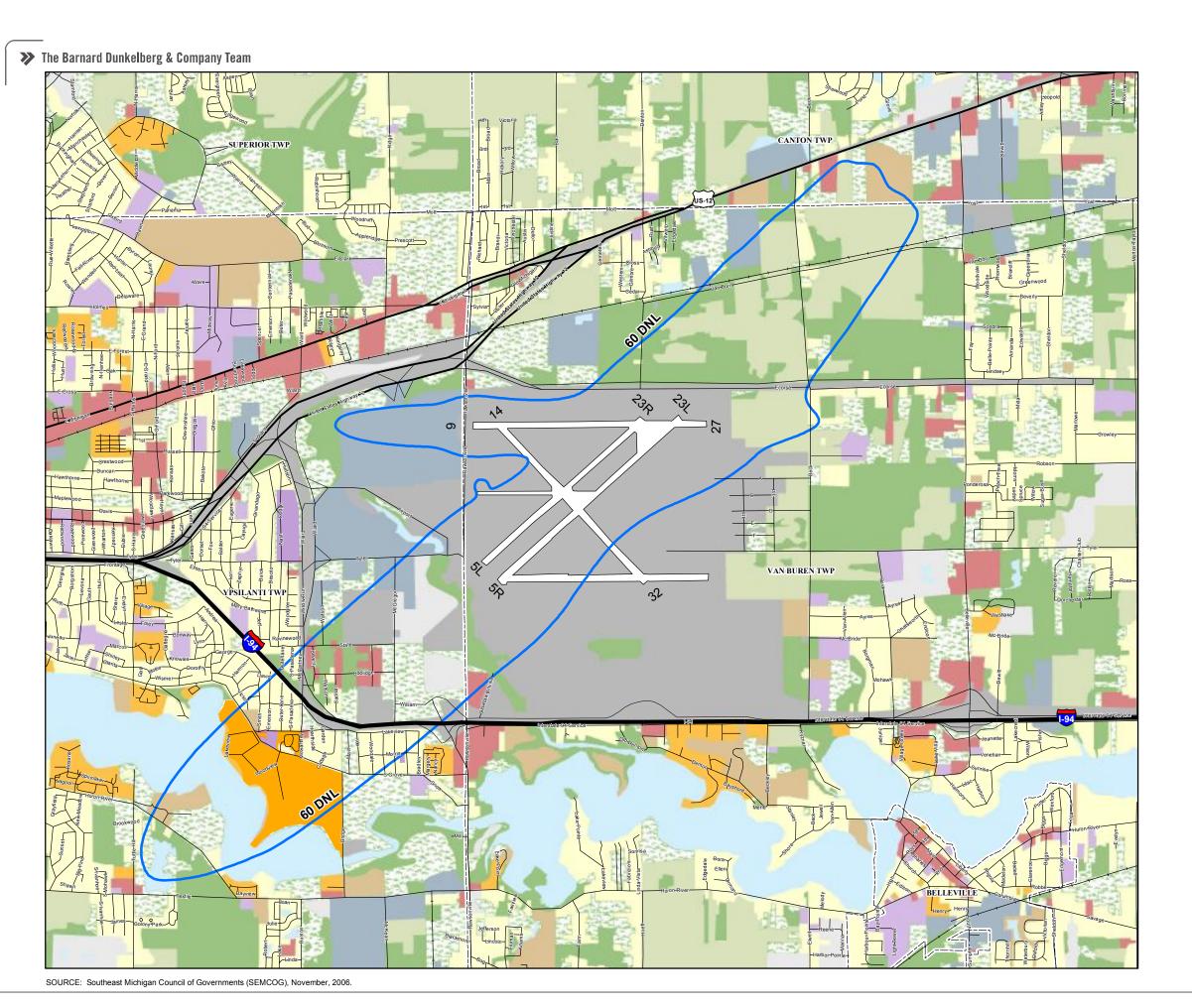
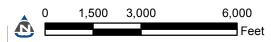


Figure S5
Buyer Notification Boundary



Grassland, and shrub

Water





LAND USE MANAGEMENT ELEMENT RECOMMENDATION 4—WORK WITH COMMUNITIES TO REQUIRE SOUND ATTENUATION OF NEW RESIDENCES WITHIN THE 65 DNL

ISSUE Reduce the number of non-compatible

residences within the 65 DNL.

CONTINUED ACTION It is recommended that the Airport Authority

> work with the local jurisdictions to require sound attenuation for new residential structures within

the 65 DNL and greater noise contour.

COMMENTS

This action would amend requirements to include sound attenuation standards for any new construction of noise sensitive uses within the 65 DNL contour. This action would not address existing residences, but would prevent future incompatibilities by requiring noise reduction or sound attenuation for new construction. Prior to building permit or plat approval, noise sensitive uses would be required, through construction techniques, to achieve a minimum 30 dB noise reduction between outside noise levels and inside noise levels.

The local jurisdictions would not specify the means to achieve this reduction in the code. only that such reduction is necessary. The builder is given the option of how to achieve such reduction. Normally, the plat or building plans are certified to provide for the necessary noise reduction by an engineer or architect licensed to practice in the State. Although FAA guidelines suggest a 25 dB reduction within the 65 DNL, experience has shown that it may be desirable to achieve a 30 dB reduction within the 65 DNL since aircraft noise annovances at Willow Run Airport are experienced at lower noise levels (at noise levels less than 65 DNL).

Once implemented, these requirements would result in a slight increase in the cost of construction, as homes are built with the appropriate insulation. At other airports, contractors have found that the cost of such insulation, performed at the time of construction is less than \$10,000, compared to the cost of retrofitting an already built home (estimated at approximately \$50,000).

COST

As stated above, the approximate cost to sound attenuate a home during construction is less than \$10,000 per home. The cost to administer the requirements would be part of the normal review and approval process of the various jurisdictions. The estimated cost to amend existing codes would be approximately \$30,000, and would be borne by the municipality.

RESPONSIBLE PARTIES

The Airport Authority and the jurisdictions are responsible for working together to identify areas that would require sound attenuation. The Airport Authority is responsible for coordinating and assisting the jurisdictions and the jurisdictions are responsible for implementation.

AIRPORT ACTION

The Airport Authority would coordinate with the jurisdictions in updating their codes and would assist them to the extent possible.

TIME FRAME

This Action can be initiated immediately.

December 2013 Willow Run Airport S. 23

LAND USE MANAGEMENT ELEMENT RECOMMENDATION 5--WORK

WITH COMMUNITIES TO UPDATE COMPREHENSIVE PLANS TO DISCOURAGE **NOISE SENSITIVE USES WITHIN THE 65**

DNL.

ISSUE Reduce introduction of new noise sensitive uses

within the 65 DNL noise contour.

CONTINUED ACTION The Airport Authority would work with the

communities to either amend comprehensive

plans, as necessary, to discourage the

introduction of new noise sensitive uses within the 65 DNL noise contour or continue to use

those plans which do discourage such

development.

All of the communities surrounding the Airport COMMENTS

> have adopted comprehensive plans, which are updated periodically as conditions change. The

Airport Authority would work with the

communities to ensure that the plans do not recommend the introduction or continuation of non-compatible land uses within the 65 DNL noise contour. There is concern to the amount of vacant property within the 65 DNL that could potentially be developed with additional noncompatible land uses, such as residences, schools, hospitals, or other noise sensitive uses.

In addition, it would be helpful if the noise contours were adopted as part of the

comprehensive plan to help guide compatible

development.

COST As the communities update their existing

> comprehensive plans, airport compatibility issues should be taken into consideration as part of the normal updating process. As such there should be no additional cost associated

with this action.

Willow Run Airport FAR Part 150 Noise Compatibility Study/Supplemental Chapter **RESPONSIBLE PARTIES** The Airport Authority is responsible for

coordinating with the communities during the update process and providing whatever information is needed. The communities are

responsible for actually updating and

implementing the plans.

AIRPORT ACTION The Airport Authority would assist the

communities in development of these plans as

requested.

TIME FRAME This Action can be initiated immediately.

Willow Run Airport
FAR Part 150 Noise Compatibility Study/**Supplemental Chapter**

LAND USE MANAGEMENT ELEMENT RECOMMENDATION 6--WORK

WITH COMMUNITIES TO UPDATE ZONING ORDINANCES TO RESTRICT NOISE SENSITIVE USES WITHIN THE 65 DNL.

ISSUE

Reduce introduction of new noise sensitive uses within the 65 DNL noise contour.

CONTINUED ACTION

The Airport Authority would work with the communities to either amend zoning ordinances, as necessary, to restrict the introduction of new noise sensitive uses within the 65 DNL noise contour or continue to utilize those ordinances which do prohibit such development.

COMMENTS

All of the communities surrounding the Airport have adopted zoning ordinances, which are updated periodically as conditions change. Most of the property within the 65 DNL is currently zoned for non-residential uses. However, zoning is a creation of the political body and can be changed through the political process. In addition, one of the dilemmas of contemporary planning and zoning is to incorporate high density residential development in commercial, retail, and industrial zones. While the majority of an area may be non-residential, the introduction of residential units can result in noise concerns that were not as prevalent with non-residential uses. Zoning code amendments can stimulate some desired community development changes while at the same time introducing new citizen concerns.

Therefore, it is important that the Airport Authority work with the communities to review any amendments to the code that may unintentionally introduce non-compatible land

December 2013 Willow Run Airport S. 26

uses, or amend those ordinances which may

already permit such uses.

COST As the communities update their existing

comprehensive plans, airport compatibility issues should be taken into consideration as part of the normal update. As such there should be no additional cost associated with this action.

RESPONSIBLE PARTIES The Airport Authority is responsible for

> coordinating with the communities during the update process and providing whatever information is needed. The communities are responsible for updating and implementing the

plans.

AIRPORT ACTION The Airport Authority would assist the

communities in plan development as requested.

S. 27

TIME FRAME This Action can be initiated immediately.

Willow Run Airport December 2013 FAR Part 150 Noise Compatibility Study/Supplemental Chapter

Noise Abatement Elements (NAE)

NOISE ABATEMENT ELEMENT RECOMMENDATION 1—CONSTRUCT GROUND RUN-UP ENCLOSURE PER A SITE SELECTION STUDY

ISSUE Reduce engine maintenance noise intrusion on

residents living close to the Airport.

NEW ACTION This action would construct a Ground Run-up

> Enclosure (GRE) in which to conduct maintenance ground run-up operations.

COMMENTS Aircraft operators must regularly conduct

maintenance or repairs on aircraft systems and

engines. For certain types of aircraft maintenance, engine run-up tests are

conducted to demonstrate that the aircraft's inflight systems are working properly before the aircraft can be put back into service. A run-up is a pre-flight test of the engine systems, where various levels of engine power are applied while the aircraft remains stationary. A substantial amount of noise can be created when run-up tests occur. A GRE can provide a

location for such operations to occur that minimize engine noise intrusion on the

surrounding community. A GRE could be sited adjacent to one of the existing taxiways to enable aircraft to perform run-ups in a manner

that minimizes aircraft noise for the surrounding community. There are

approximately 5,900 people within the 70 Lmax contour that could be eliminated by this Action, as shown on page G.48, Table G15 of the

June 2011 Draft Report.

A GRE cannot be used under all wind conditions, as the enclosure is aligned with the prevailing winds. However, assuming a south

December 2013 Willow Run Airport S. 28 orientation, the facility could be used approximately 95% of the time.

Using the DC-9 as an example, a GRE could reduce the noise levels associated with run-up operations by approximately 15 dBA which translates into a 100% reduction in the population exposed to 70 dBA Lmax or greater noise.

COST

The cost to implement this action is approximately \$5 to \$7 million. The final location and more definitive cost estimates should be developed as part of this Action.

RESPONSIBLE PARTIES

The Airport Authority is responsible for identifying a location for the GRE, writing the request for a proposal for design and construction, and notifying the operators of the procedures after construction is complete. The FAA is responsible for directing taxiing aircraft to the GRE and the operators are responsible for using the GRE.

AIRPORT ACTION

The Airport Authority would identify an acceptable GRE location, apply for federal funding to hire consultants to design the structure, write the specifications and write the Request for Bid for contractors. Then, the Authority would hire the contractor to construct the facility.

TIME FRAME

This Action can be initiated immediately upon approval of this Study; air space review of the location; and receipt of funding.

December 2013 Willow Run Airport S. 29

Program Management and Administrative Elements (PMAE)

PROGRAM MANAGEMENT AND ADMINISTRATIVE ELEMENT RECOMMENDATION 1—OPERATIONS REVIEW AND PART 150 UPDATES

ISSUE Update and review of the FAR Part 150 Study.

CONTINUED ACTION The FAR Part 150 Study is a five-year program

> recommended to be re-evaluated at the end of the five-year period. In addition, if there is a significant change in either aircraft types or numbers of operations, or significant new facilities, then it is recommended that the Study be re-evaluated prior to the end of the five-year

time frame.

COMMENTS It is recommended that Airport Authority staff

> undertake a yearly review of the aircraft types and numbers, along with the actual number of

operations occurring at the Airport and determine if they are consistent with the projections contained in the FAR Part 150 document. The various actions would also be reviewed to assess their ability to mitigate the projected noise intrusion and to rate the overall

effectiveness of the program.

COST The cost of monitoring the information set forth

> in this section would be borne out of the normal Airport Authority operating budget. Consultant assistance for various elements would be approximately \$40,000. The cost to update the

entire Part 150 Study ranges from \$200,000 to

\$300,000.

RESPONSIBLE PARTIES The Airport Authority would be responsible for

updating and monitoring the study. The FAA could help fund the update if there are funds

S. 30

available for such planning.

AIRPORT ACTION

Based on the monitoring activities described, the Airport Authority would reevaluate the program when there is a significant change in operations, aircraft types, or at the end of the five-year timeframe.

TIME FRAME

The Airport Authority would continue its monitoring program and consider the need for a full update at the end of the fifth-year after submittal or earlier if necessary as per FAR Part 150.

PROGRAM MANAGEMENT AND ADMINISTRATIVE ELEMENT RECOMMENDATION 2—CONTINUATION OF STUDY ADVISORY COMMITTEE

ISSUE Continuation of learning curve and "body of

knowledge" developed during the Study

process, and follow-up on the implementation of

the recommendations.

NEW ACTION The Study Advisory Committee established for

> this Study has been instrumental in establishing these recommendations. It is recommended that a similar committee or the same committee continue to monitor programs implemented as a

result of the Part 150 Study after its completion.

Considerable time an effort has been expended, by both the Airport Authority and the Committee members, in the development of this Study. especially the "learning curve" effort and the building of relationships. This committee is too valuable a tool for communication to risk losing

at the end of this process. In addition, on-going aircraft operational procedures evaluation should be discussed through the Committee. It is very difficult to foster a feeling of trust in many

airport planning efforts. Such a feeling can be developed through the members of this or a similar Committee. Both sides of most issues are represented and all interests are heard. This is very important for the continued

S. 32.

successful implementation of the noise compatibility program and operation of the

Airport.

December 2013 Willow Run Airport

COMMENTS

COST The cost for organizing and conducting

Committee meetings could be included in the normal operating expenses of the Airport Authority at approximately \$30,000 per year.

RESPONSIBLE PARTIES The Airport Authority would be responsible for

the formulation of the Committee and

Committee administration. Other parties may be responsible for appointing members of the

Committee. Committee members are

responsible for attending and participation in

Committee functions.

AIRPORT ACTION The Airport Authority would schedule and

conduct the Committee meetings, on at least a quarterly basis, as a means of disseminating information and gathering input on noise

compatibility issues.

TIME FRAME This action can occur within the first few months

of approval of the FAR Part 150 Study. It can also be implemented without regard to any

other recommendation.

Willow Run Airport
FAR Part 150 Noise Compatibility Study/**Supplemental Chapter**

Consultation

A public hearing was held on the Supplemental Chapter and Recommendations on November 6, 2013 at The Yankee Air Museum. There were eight people who signed in for the hearing. The hearing was an open house format with boards representing the existing and future operations, population and land use within the noise contours, the existing and future noise exposure maps, the eligibility map, and the noise compatibility plan map. Both verbal and written comments were accepted. A court reporter was present to take verbal testimony. The open house was held first with the presentation presented after one half hour of viewing the boards. None of the attendees stayed for the presentation. The transcript and proof of publication are in the Appendix. No comments were received either during or subsequent to the hearing.

On November 12, 2013 the Airport Authority approved the Recommendations and the Noise Exposure Maps and directed the staff and consultants to submit the document to the FAA. The Resolution is in the Appendix.

Willow Run Airport December 2013 S. 34

Appendix

NM Operational Tables	Appendix A
Hearing Transcript	Appendix B
Proof of Publication	Appendix C
Sponsor Approval Record	Appendix D
Forecast Methodology	Appendix E

Appendix A INM Operational Tables

Aircraft Operations by INM Type Willow Run Airport Period: November 1, 2011 to October 31, 2012

Operations	INM		& Gees	Daily A	rrivals	Daily De	partures	Total Oc	erations
Category	Type	Day	Night	Day	Night	Day	Night	Daily	Yearly
GA Single Engine Local	CNA172	1.88						3.76	1.372
	GASEPF	2.37						4.73	1.728
	GASEPV	5.09						10.17	3,713
GA Twin Engine Local	BEC58P	1		0.96	0.00	0.96	0.00	1.92	701
GA Propeller Engine Itinerant	BEC58P			7.24	1.27	7.52	0.99	17.02	6.212
	BEC9F CNA152			3.65 0.50	0.29	3.52 0.50	0.43	7.89 1.00	2.880 365
	CNA172	1		8.18	0.36	8.42	0.12	17.08	6.234
	CNA177			0.06	0.00	0.06	0.00	0.12	43
	CNA182			0.94	0.06	0.97	0.03	2.00	731
	CNA206 CNA208			0.15 2.21	0.00	0.15	0.00 1.84	0.29 6.74	107 2,462
	CNA20T	1		4.95	0.41	5.11	0.25	10.72	3,912
	GASEPF			11.95	0.35	12.18	0.12	24.60	8.978
	GASEPV			13.67	3.83	13.49	4.01	35.01	12,777
	PA28 PA30	1		0.18	0.27	2.26 0.18	0.09	4.71 0.35	1,720
	PA31	1		3.62	0.62	3.50	0.74	8.48	3.095
Helicopters Itinerant	EC130			0.12	0.00	0.12	0.00	0.25	91
	R22			0.12	0.00	0.12	0.00	0.25	91
Commuters	BEC190			0.48	0.13	0.51	0.10	1.22	444
	CVR580			0.14	0.00	0.15	0.00	0.30	109
	DHC6 DHC8			0.53	0.72	0.67	0.58	2,49 1.45	911 531
	EMB120			0.06	0.02	0.05	0.04	0.17	62
	HS748A			0.22	0.02	0.21	0.03	0.47	170
	L188			0.03		0.03		0.05	19
	SF340			0.06	10.0	0.07	0.01	0.14	52
Business Jets Itineram	CIT3			0.24	0.01	0.24	0.02	0.51	187
	CL600 CNA55B			0.55 1.51	0.03	0.56 1.46	0.02	1.16 3.37	425 1,230
	CNA750			0.25	0.01	0.26	0.01	0.53	193
	FAL20			1.67	1.11	1.85	0.93	5.56	2,031
	GIIB			0.06	0.00	0.06	0.00	0.12	44
1	GIV GV			0.25	0.02	0.24	0.02	0.53 1.03	193 375
	IA1125			0.40	0.03	0.39	0.02	0.83	303
	LEAR25			0.49	0.18	0.54	0.13	1.34	489
	LEAR35			1.67	0.40	1.71	0.37	4.15	1,514
	MU3001			1.49	0.00	0.01	0.00	0.02 3.24	1,184
	SABR80				0.14	1.46	0.16		
Regional Jets	CRJ701 EMB145		1	0.71 2.14	0.01	0.71	0.02	1.45 4.36	529 1,593
	EMB14L			0.03	0.01	0.04	0.00	0.08	29
Air Carriers	727EM1			0.00	0.01	10.0	0.01	0.02	8
	727EM2		- 1	0.35	0.46	0.41	0.40	1.62	591
	7373B2			0.02	0.03	0.02	0.03	0.10	37
	737N17 737400			0.03	0.03	0.02	0.04	0.12	44 17
	737800			0.03	0.01	0.02	0.01	0.06	23
	747400			0.02	0.01	0.02	0.00	0.05	17
	757PW			0.01	0.00	10.0	0.00	0.01	4
	757RR			0.01	0.00	10.0	0.00	0.01	4
	A320-211 DC870			0.00	0.00	0.00	0.00	0.01	2 25
	DC8QN			0.00	0.00	10.0	0.00	0.01	4
	DC910			1.13	0.82	1.29	0.67	3.92	1.429
	DC930			0.87	0.64	1.06	0.44	3.01	1,099
M	MD83			0.07	0.03	0.07	0.03	0.19	68
Military Local and Itinerant	A10A C130	1	1	0.01	0.00	10.0	0.00	0.01	5 9
	DHC6	I		0.09	0.00	0.09	0.00	0.19	68
	F-18			0.07	0.00	0.07	0.00	0.13	48
	GASEPV	1		0.02	0.00	0.02	0.00	0.05	17
	L188 A10A			0.15	0.00	0.15	0.00	0.01	113
	AIVA				0.00	0.01	0.00	3,02	
Totals ,		9.33		77.34	14.15	77.69	13.81	201.65	73,603

Aircraft Operations by INM Type

Willow Run Airport

Operations Category Beech Propeller All Series Cessna Propeller All Series	INM Type BECS8P BEC190	Touch & Goes Day Night	Daily /	Arrivals Night	Daily De	partures	Total Ope	erations
Category Beech Propeller All Series	Type BECS8P BEC190							crations
Beech Propeller All Series	BEC58P BEC190	110, 110,			1.450	Night	Duity	Yearly
	BEC190		_					
Cessna Propeller All Series			4.08	0.10	3.22	0.96	8.36	3.052
Cessna Propeller All Series			1.79	0.12	0.50	0.10	1.19 3.88	436 1.415
Country Indiana	BEC9F CNA152		0.42	0.00	0.42	0.00	0.84	306
	CNA172	1.88	6.84	0.30	7.04	0.10	18.04	6,585
	CNA177		0.05	0.00	0.05	0.00	0.10	36
	CNA182		0.79	0.05	0.81	0.03	1.67	611
	CNA206		0.12	0.00	0.12	0.00	0.25	90
	CNA208		1.85	0.97	1.28	1.54	5.64	2,059
	CNA20T		4.14	0.34	4.27	0.21	8.96	3,272
Miscellaneous Propeller All Series	GASEPV	5.09	16.77	0.50 5.37	17.10 18.94	0.17 5.63	39.27 59.30	14,335 21,645
Piper Propeller All Series	PA28	3.00	0.97	0.12	1.05	0.04	2.19	801
t the trebuile to delive	PA30		0.08	0.00	0.08	0.00	0.16	60
	PA31		0.12	1.85	0.19	1.78	3.95	1,441
Convair CV-540/580/600/640	CVR580		0.16	0.00	0.16	0.00	0.31	114
Miscellaneous Commuters	DHC6		0.48	0.65	0.61	0.53	2.27	828
	DHC8		0.32	0.34	0.35	0.31	1,32	483
	EMB120		0.06	0.02	0.04	0.03	0.16	57
	HS748A L188		0.20	0.02	0.19	0.02	0.42	155
	SF340		0.05	0.00	0.02	10.0	0.13	47
Helicopters	EC130		0.15	0.00	0.15	0.00	0.29	107
	R22		0.15	0.00	0.15	0.00	0.29	107
Beach Jet All Series	MU3001	1	0.52	0.12	0.53	0.11	1.28	466
Bombardier Learjet All Series	LEAR25	1	0.00	0.00	0.00	0.00	0.00	0
	LEAR35		2,79	0.75	2.90	0.64	7.07	2,580
Cessna Business Jets all Series			0.24	0.01	0.24	0.02	0.51	187
	CNA525C CNA55B	1	0.28	0.03	0.27 1.46	0.04	0.61 3.37	1,230
	CNA750		0.25	0.01	0.26	0.01	0.53	193
Dassalt Falcon All Series	FAL20		1.67	1.11	1.85	0.93	5.56	2,031
	F10062	1	0.72	0.08	0.69	0.10	1.59	582
Gulfstream Jets All Series	GIIB		0.00	0.00	0.00	0.00	0.00	0
	GIV	1	0.39	0.03	0.39	0.03	0.83	304
	GV		0.62	0.04	0.60	0.06	1.32	483
Hawker Business Jets all Series	SABR90		0.16	0.02	0.16	0.02	0.36	131
Miscellaneous Business Jets	LEAR35	1	0.06	0.00	0.06	0.00	0.13	47 688
MISCELIZIROUS BUSINGS JOB	CL600 IA1125		0.65	0.02	0.64	0.03	1.34	490
Mitsubishi	MU3001		0.01	0.00	0.01	0.00	0.02	8
Sabseliner 80	SABR80		1.91	0.18	1.88	0.21	4.18	1.525
Bombardier CRJ All Series	CRJ701		0.75	0.01	0.74	0.02	1.52	555
Embraer ERJ All Series	EMB145	1	2.33	0.05	1.84	0.53	4.75	1,735
	EMB14L		0.04	0.01	0.04	0.00	0.09	32
Airbus A319 & A320	A320-211	1	0.00	0.00	0.00	0.00	0.01	2
Boeing 727 All Series	727EM1		0.00	0.01	0.01	0.01	0.02	619
Boeing 737 All Series	727EM2 7373B2		0.36	0.49	0.43	0.42	0.11	619 39
Doning 131 7th States	737N17		0.03	0.04	0.02	0.04	0.12	46
	737400		0.01	0.01	0.02	0.00	0.05	17
	737800		0,03	0.01	0.02	0.01	0.07	24
Boeing 747 All Series	747400						0.00	0
Boeing 757 All Series	757PW		0,01	0.00	0.01	0.00	0.01	4
	757RR		0.01	0.00	10.0	0.00	0.01	4
Douglas DC 8 All Series	DC870					- 1	0.00	0
Davids DC 0 AT Suite	DC8QN DC8QN		1.19	0.86	1.35	0.70	0.00 4.11	0 1,499
Douglas DC 9 All Series	DC910 DC930		0.91	0.67	1.11	0.47	3.16	1,153
Douglas MD 82 & 83	MD83		0.91	0.03	0.07	0.03	0.20	72
Military Fighter Aircraft	AIOA		0.01	-	0.01		0.01	5
	C130		0.01		0.01		0.02	9
	DHC6		ll .			- 1	0.00	0
	F-18		0.07		0.07		0.13	43
	GASEPV					- 1	0.00	0
	L188		0.15		0.15	- 1	0.31	113
	A10A	<u></u>	0.01		0.01		0.02	9
Totals		9.332	77,94	15.77	77.32	16.39	206.08	75,220

Appendix B Hearing Transcript

NOTICE OF PUBLIC HEARING WILLOW RUN AIRPORT PAR Part 150 Supplemental Noise Compatibility Study

The above-mentioned hearing
Taken at Willow Run Airport,
Ypsilanti, Michigan,
Commencing at 6:00 p.m.,
Wednesday, November 6, 2013,
Before Rhonda M. Taylor, CRR, RPR, CSR-4664

Ypsilanti, Michigan November 6, 2013 6:17 p.m.

>> MR. DUNKELBERG: My name is Rick Dunkelberg and we programmed a public hearing for the Willow Run Airport FAR Part 150 study to begin at 6:00. Prior to that, we held an open house starting at 5:30 which several people showed up. Nobody stayed at the public hearing and no new people have attended. It is 6:18. We are closing the public hearing. (Statement concluded at 6:18 p.m.)

CERTIFICATE OF REPORTER

STATE OF MICHIGAN)
) SS
COUNTY OF LIVINGSTON)

I hereby certify that I reported stenographically the foregoing proceedings at the time and place hereinbefore set forth; that thereafter the same was reduced to computer transcription under my supervision; and that this is a full, true, complete and correct transcription of said proceedings.

Rhonda M. Taylor

RHONDA M. TAYLOR, CRR, RPR, CSR 4664

Notary Public

Livingston County, Michigan

My commission expires: April 3, 2018

Part 150 Supplemental Noise Compatibility Study Public Hearing Sign-In Sheet

DETROIT METRO - WILLOW RUN

Yankee Air Museum November 6, 2013 from 5:30 - 7:30 p.m.

<u>i</u>	œ	ize	7.	gn .	, yn	4.	έn	, N		
	Dan- Stein	Alan Berezansky	MICHARCONCAY	Ed Moulssey	OMAN DHEETER	Theresa Somosik was	Elever Carbily	GARY MAKSHAII	Tom MoCARATHY	Please Print First and Last Name
	Youken Au Mr.	WCAA	LNC 4 A	Myshif		LUCAA	FAA		WCAA	Organization (if any)
	2543 Meade Ct	10250 mipsieBett RA.		934 Juneau Rd	7701 Exck Rd	L.C. Smith		44430 ROBSON	L.C. GM TTH	Address
	hange hopps Q youther all ruseum	Alan. Berezadsay & wich A. us	MENTER CONLINE CIOCAR, US	cossec cn. 18/946 @ yahap. com	OMS 714/103 Walnows.com	theresa. Samosiule e waa.	ERWEST CARRYCE FAR. GOV		TOM, MCCALZATTY®	E-mail Address

Part 150 Supplemental Noise Compatibility Study Public Hearing Sign-In Sheet

DETROIT METRO . WILLOW RUN
WAYNE COUNTY ANNORT AUTHORITY

Yankee Air Museum November 6, 2013 from 5:30 - 7:30 p.m.

10.	က်	.00	7.	in.	4.	w	2	-	
							Busy Horrow	Rich Wheeling	Please <u>Print</u> First and Last Name
									Organization (if any)
							49575 lu. 14000- porsi De	7596 Freshy ct	Address
							PILCTY PAROL COM		E-mail Address

Appendix C Proof of Publication

State of Michigan Scounty of Macomb

Affidavit of Publication

Dixon & Company 3041 E. Newport Ct. Milwaukee, WI 53211 Attn: Helen Dixon

See attached.		

Debbie Verschueren

Being duly swom deposes and says that the above advertisement(s) appeared in the Detroit News and Free Press on October 6, 2013, invoice 2380994. As an authorized employee of The Detroit Newspapers he/she knows well the facts stated herein.

Signed Deblui Verchulian

Sworn and subscribed to me, a notary Public in and for Wayne County State of Michigan.

On This 7th Day of

October

2013

DNA 62.1 REV 10000 Cressor

MEGHAN E. DITRAPANI
Notarry Public, State of Michigan
Countly of Wayana
My Commagan Equires Nay, 31, 2014
Acting in the Country of Maccomb

Dtropan

麗 d UMPAI Breed prints 飄 Ship Ship Ship Ship 1,027 1940 1945 **M** PACE OPPOSE OPOSE OPPOSE OPOSE OPPOSE 쌦 00 MI 00 MI 00 MI # Charles of Charles o Control of Service Control of Se POSES OF STATE OF STA 245 L

| 議談: 議員

phonogia carraction of the Control o 441 cm Sr.E PER DOLL

THE PROPERTY OF THE PARTY OF TH

NACORES Betwelf (Versof) Brigary Arboritos Indias (Versof) Carrier (Versof) (Versof) (Versof) (Versof) (Versof) (Versof) (Versof) (Versof) (Versof) (Versof)

480

The state of the s

8

Stock A redeserbed many many Dest on take (5

Yoghen At Manuscin 6/854 D Sweet Bedinade, Nathagen

Hebusay special policy of the policy of the

1974 Pd Chemisk

STATE OF MICHIGAN

S

County of Wayne

Rosemery K. Otzman

newspaper for	day of	October	and ending on the _	10 12
day of	otober	A.D., 20 <u>/.3</u>		
To wit:				
	Laser	KANY K. O	tzman	
Subscribed an	id sworn to be	efore me this <u>/8</u>	the day of October	A.D., 20 <u>/3</u>
			A hours	
	Notary Put	Ille Acting in and for	the County of Wayne, S	tate of Michigan
Mv Commissio		_ 4-12 =	-	

Public Notice

NOTICE OF PUBLIC HEARING WILLOW RUN AIRPORT FAR Part 150 Supplemental Noise Compatibility Study

Yankee Air Museum 47884 D Street Belleville, Michigan

Wednesday, November 6, 2013 5:30 to 7:30 p.m.

Wayne County Airport Authority is in the final stages of conducting a Federal Aviation Regulation (FAR) Part 150 Aircraft Noise and Land Use Compatibility Supplemental Study for Willow Run Airport. The supplemental Study represents the combined efforts of community and airport stakeholders who have an interest in activity at the Airport.

The public is invited to attend a Public Hearing to provide information about changing conditions that have taken place since the last Part 150 Noise Study was completed in 2009. Those changes include reductions in aircraft operations and the potential closure of Runway 14-32.

Wayne County Airport Authority will hold a Public Hearing on the Part 150 Supplemental Study on Wednesday, November 6, 2013 at the Yankee Air Moseum located at 47884 D Street in Belleville, Michigan from 5:30 to 7:30 p.m. The Hearing will be a formal open house format, allowing the public to stop by anytime between 5:30 and 7:30 p.m. A short presentation will be held at 6:00 p.m. Public comments will be taken by a court reporter after the 6:00 p.m. presentation or can be made in writing and submitted that evening. Written comments can also be submitted by mail through November 15, 2013 to:

Theresa Samosiuk
Wayne County Airport Authority
L.C. Smith Terminal – Mezzanine
Detroit, Michigan 48242
Theresa samosiuk@wcaa.us

A copy of the Supplemental Recommendations Chapter is available for public review in the Airport Administrative offices at Willow Run Airport, 801 Willow Run, Ypstlanti, ML, or www.wcaa.us/development/noise/willowrunoverview, and www.wcaa.us/development/noise/willowrunoverview, and www.willowrunairport.com/development. Pre-arranged appointments can be made by calling (734) 485-6666.

Reasonable auxiliary aids and services, such as signers for the hearing unpaired will be provided upon three (3) days' nouce to Kristy Exner, Wayne County Airport Authority at (734) 247-2223 or by e-mail to kristy.exner@wcaa.us.

Publish: October 17, 2013

STATE OF MICHIGAN

County of Washtenaw

amuy Ja

Being duly sworn deposes and say he/she is Principal Clerk of



ANN ARBOR NEWS DAILY EDITION

	the County of Washtenaw and otherwise qualified according to notice, taken from said paper, has been duly published in said paper
OGDBER ID	_ A.D. 20 3
Sworn to and subscribed before me this	0 day of 00000 20 <u>18</u>
	JANICE M. RINGLER Notary Public, Birds of Michigan County of Kent My Commission Expires: 10/03/2014 Acting in the County of

NOTICE OF PUBLIC MEASING
WILLOW RUN AddPORT
FAR Part 150 Supplementel Noise Compatibility Study

Yorkes Air Massura 47884 D Sangi Bellemile, Airchigan

Wednesday, November 6, 2013 8:30 to 7:50 p.m.

Wayse County Algorit Authority in in the lived allogat of conducting a Federal Ariation Regulation (FAI) Part 150 Arcaelt Nobe and Land Use Comparishing Supplemental Study for Wolcoe Bur Airport. The amplipmental Study represents the combined efforts of commenting and august stateholders who have an initiated a county of the Airport.

The public a revited to artend a Public Heasting to provide inflorentiate charging conditions that have taken place since the last from 150 Naive Study was completed in 2009. Those charges reclude reductions in altered operations and the partning classes of Funetry 14:02.

Wayte Coarty Airpon Authority wit hold a Rublic Hearing on the Part 150 Sepplemental Study on Wednesday, November 6, 2013 or the Kontres Air Motivat Incoded at 270 M D Stumm 16 Selbertle, NACkigan from 5:00 to 7:30 pm. The Repairing will be a kornal open house kornal, allowing the public to you by protons housens 5:10 and 7:30 pm. A shart provention will be half at 200 pm. Period conversers will be tolum by a cool reporter after the 5:00 pm presentation or our or our model to whiting and submitted the 3:00 pm. Writen converse as also be unbacked for small formula Motivator and submitted the 3:00 pm. presentation by our termode in writing one secretary, be published by and through November 15, 2010 to.

> Wayne County August Authoray LC Smit Jestinul - Marzonne Detroit Michigan #8742 Dierena samodalithetou es

A capy of the Sypplemental Recommendators Chapter II, available for public review in the Aspert Activities others to William Run Airport, 851 William Run, Ypotoris, 661, or reviews advantagement/hosto/williamstarentess did were willowspringed apparetness can be made by calling (73.4) e35-dags.

Reasonable dustions and and services, such as signess for the hearing imported with be provided upon three (3) days' notice to Ently Europ. Wayne County Auronn Australia of 1734) 247-2723 or by 6-notific billity enter@vecas.ce

STATE OF MICHIGAN \ SS. Susan Willert County of Wayne

day of Subscribed and sworn before successively, and that the first insertion theref was on the of the Associated Newspapers of Michigan, a newspaper printed, published and of October has been duly published in said newspaper at least circulated in the County of Wayne in said state, that the annexed printed notice being duly swom, deposes and says that he is one of the printers and publishers A.D., 2013 and the last insertion on the A.D., 20 me this 450 day of weeks day

SEAN ALLEN RHAFSA
Notary Public - Michigan
Wayne County
Wayne County
My Commission Expires Jones, 2015
Acting in the County of

October

AD 2013

Notary Public Signature

Commission Expires

1-16-2015

NOTICE OF PUBLIC HEARING WILLOW RUN AIRPORT FAR Part 150 Supplemental Noise Compatibility Study

Yanker Air Museum 47884 D Street Belleville, Michigan

Wednesday, November 6, 2013 5:30 to 7:30 p.m.

Wayne County Airport Authority is in the final stages of conducting a Federal Aviation Regulation (FAR) Part 150 Aircraft Noise and Land Use Compatibility Supplemental Study for Willow Run Airport. The supplemental Study represents the combined efforts of community and airport stakeholders who have an interest in activity at the Airport.

The public is invited to attend a Public Hearing to provide information about changing conditions that have taken place since the last Part 150 Noise Study was completed in 2009. Those changes include reductions in aircraft operations and the potential closure of Rupway 14-32.

Wayne County Airport Authority will hold a Public Hearing on the Part 150 Supplemental Study on Wednesday, November 6, 2013 at the Yankee Air Museum located at 47884 D Street in Belleville, Michigan from 5:30 to 7:30 p.m. The Hearing will be a formal open house format, allowing the public to stop by anytime between 5:30 and 7:30 p.m. A short presentation will be held at 6:00 p.m. Public comments will be taken by a court reporter after the 6:00 p.m. presentation or can be made in writing and submitted that evening. Written comments can also be submitted by mail through November 15, 2013 to:

Theresa Samosiuk
Wayne County Airport Authority
L.C. Smith Terminal - Mezzanine
Detroit, Michigan 48242
Theresa samosiuk@wcaa.us

A copy of the Supplemental Recommendations Chapter is available for public review in the Airport Administrative offices at Willow Run Airport, 801 Willow Run, Ypsilanti, MI., or www.wcaa.us/development/noise/willownunoverview, and www.willownunairport.com/development. Pre-arranged appointments can be made by calling (734) 485-6666.

Reasonable auxiliary aids and services, such as signers for the bearing impaired will be provided upon three (3) days' notice to Kristy Exner, Wayne County Airport Authority at (734) 247-2223 or by e-mail to kristy.exner@wcaa.us.

Publish: October 10, 2013

House I work being duty sworn

which the annexed notice is a true copy, was published in the said WESTERN GROUP (THE BELLEVILLE VIEW, THE CHELSEA STANDARD, THE DEXTER LEADER, THE MANCHESTER ENTERPHISE, THE SALINE REPORTER, THE MILAN NEWS LEADER, THE A2 JOURNAL, THE YPSILANTI COURIER)

publication of said holice were......

October 10,2413

and further deponent/அதிசுர் ந

NOTARY PUBLIC, CAKEAND COUNTY, MICHIGAN

THANK CROWN

ADDIATY PHELIC, STATE OF ME

OCUMPY OF LAPELE

MY COMMISSION CREMES MAY 30, 2014

ACTUS INCOMPLETED

James 2

Logal Notices 1050

HOTICA OF PUBLIC BEAUTING HILLOW BLIN ARPORT FAR TSO Supplemental Mode Comparison May Study

4784 D Sines

Mediepides, November 6, 2013 5:38 Nr. 7:30 p.m.

Wepte Courty Almost Authority is in the ficulture of conducting a federal Arthritis languables (Ref) (Per 1925). Altereft News and Logid Use Comparition, Sugmentaria Notify the Willers flow import. The papelreview Sendy represents the consistent of time of community and elegan stellaholding who have as latticed to obthiny or fire lapport.

The public is invited to etted a Public Hearmy to provide uplemental about duration under the term plant and the age of the term that plant and the age first 150 kines Smily and completed in 2009. Bears demand which the arrothing persons and find potential decree of turney (4-3):

Whyte Courty Algors Authority will hald to Make Reserving on the Front 150 Senghament and Market Reserving on the Front 150 Senghament and Market Reserving on the Front 150 Senghament and Alfaber Reserving and the Salah Technical Alfaber Reserving and the to Salah Technical Alfaber Reserving and the to Salah Technical And Technical Senghament and the top of the

Worse (sure) Aligen inflictly
Worse (sure) Aligen inflictly
Life Settl Inflicted - Macteure
Debut, Buthque 62242
Bettle surenside@grap.us

A capy of the Supplemental Recommendations Origins to evolution and a supplementation of these of Willew Box Alexand, Bill Willow Ray, Top-letent, Bill, or "Arman with a few of the supplementation of the mental rights for the supplementation of the credit for commentation of the supplementation of the credit by collect (734) 445-4666.

Incocode comiting side and services, such or speec for the theeting organized will be previously only of them. (2) days may deal be previously only on them. (2) days may be be factly f

Vollshed October 18, 2013

GARAGE SALE Oct. 5-6, 2013 from 11 AM to 5 PM @ 2627 Fleet near Linwood/Oakman Blvd area. Antiques, Housewares, and Clothing. (313)396-0057

Find it here!

CLASSIFIEDS

ENGINEERS

ENGINEERS

CAE Analyst (Troy, MI, or other unanticipated locations throughout the U.S.) other unanticipated locar tions throughout the U.S.) MSME & 12 mo. exp as CAE/Vehicle Dynamics Analyst incl: MSC ADAMS, MATLAB and HyperGraph. Send resume & salary reqs. Altair ProductDesign at: jobs @altair.com (Ref. code CAE). No calls. EOE

ymerization (HTP) Group Director of Infotainment, General Motors CBU. (Farmington Hills, MI). Translate corporate, division and department goals to Sales Team goals, assign to appropriate team members. Monitor progress of team members and provide support to provide tools and process changes to facilitate meeting goals. Increase top line sales for an awarded book of business between \$250M to \$118 per year, minimizing consumption of engineering resources; create and maintain strong relationships for infotainment and electronics, direct sales forecasting; create and fulfill a support plan for the customer's sales, product planning, marketing and public relations organizations, maintain and manage entry and mid-level relationships. Bachelor's in Engineering Management, Electronics Engineering or related + 5 years of exp as Account Manager or any related automotive engineering management position. Must have exp with CAD/CAM design and data processing for PCB boards. Eagle, AutoCAD, Barco, C, Python, Pascal, Shell Script, Assembler; must have exp with automotive engineering management exp for automotive infotainment and navigation solutions. Employer will accept any combination solutions. The proposed in lieu of primary requirements. Paulla V. Smith, Almana Becker Automotive Systems. Inc. 39001 West 12. Mile Road, Farmington Hills, MI 48331. Ref. Code HiBAH1. Include ref. code. pipeline with new ideas. Position requires a Ph.D.

Engineering Technician
The City of Warren is
accepting applications
without regard to race or sex
for the position of
Engineering Technician.
Go to www.cityofwarren.org
under "Job Listings" for all
information. Deadline to
apply: October 18, 2013,
by 5:00 p.m. Ford Motor Company

Product Development Engineer (Dearborn, MI). Reqs Product Development Engineer (Dearborn, MI). Reqs Bach's or frgn equiv deg in mech'l eng, automotive eng or rel field & 3 yrs powertrain dvlpmt exp. Must also have 3 yrs exp: perform'g engine testing (dyno or vehicle) that incl evaluating attribute effects on diff engine ctrapproaches/settings; evaluating emissions responses to fundamental engine ctrastings; evaluating aftertreatment interaction water treatment interaction water control; & using powertrain instrumentation, data collection & analysis tools. Apply online: corporate.ford.com/careers

Industrial Engineering

Project Manager.

Senior Supplier Risk. Engineer - Provide immed on-site support at critical watering for degreed & exp of deprivations for explicit specific speci

Industrial Engineering Project Manager

als & metals, food, and/or healthcare clients. Write proposals for simulation work. Identify objectives/scope of simulation work delets, collect & analyze data; Build, verify, validate & test models. Manage simulation project work of jr. modelers & review performance. Analyze output/identify best solutions & implement/document results, plans and recommendations. Requires Bachelor's Degree in Industrial, Manuf or Civil Engglus 4 yrs exp in job offer of the degree of the province of the prov

LG Power Chem, Inc. seeks a Battery Systems Mechanical (Thermal) Engineer (work location: Troy, MI) to design, test & validate mechanical components of both module & pack & cooling systems used in advanced battery systems including BEV, HEV & PHEV battery packs. Req. Master Degree or foreign educ. equiv. & 2 yrs. exp. Travel: 20%, inc. international. Send resume. cover letter, job code BSMELGFP to: P. Frink, LG Chem Power, Inc., 1857 Technology Drive, Troy, MI 48083.

TURN OFF YOUR CELL PHONE

RINGTONE WILI SEAL THE

careerbuilder.com

The Dow Chemical Co. has Materials Engineer in Research: BASF Corpora an opening in its Midland, MI office for: Development Ention is seeking a Materials Engineer in Research for gineer: Cost-effectively deeloping creative solutions the High-Temperature Polto complex engineering and design problems working in conjunction with a combination of MEC designers, engineers and fabrication sources through use of ma-terials science, design and engineering skills, and process knowledge that meet or exceed customer's expectations. Master's degree required. To apply & submit your resume visit www.dow. com/careers and search under North America for job # 1307996 EOE. Wirtz Manufacturing Com-pany Inc seeks **Mechanic**

ENGINEERS

Wirtz Manufacturing Company Inc seeks Mechanical Engineer to work in Port Huron, Michigan. Will complete engineering of all industrial battery manufacturing equipment using Engineering design software. Develop new machine designs of battery manufacturing equipment and improve features and functions of new and existing industrial equipment. Generate project schedules and estimates. Develop all tooling for battery manufacturing equipment. Liaise with manufacturing locations to ensure that components and equipment are made to specs. Must have Masters Degree

equipment are made to specs.
Must have Masters Degree in Mechanical Engineering or foreign equivalent and have two years of experience performing mechanical engineering work in an industrial capacity with experience in battery manufacturing and equipment design and development. Applicants submit resumes to Ken Warshefski, Human Resources Manager, 1105 24th Street, P.O. Box 5006, Port Huron, MI 48061-5006. MANAGEMENT

Eberspaecher North Ameri ca, Inc. seeks a Director of Quality Management for a position in Novi, MI. Quali-

Quality Management for a position in Novi, MI. Qualified candidates must have an MS in Business Admin, Engineering Mgt, or foreign equivalent & 2 yrs exp in the job offered or substantially similar position. Interested candidates should send their resumes to: Monica Britton, eberspaecherjobs @gmail.com or, Eberspaecher North America, ATTN: Monica Britton, 29101 Haggerty Road, Novi, MI 48337. No phone calls please

seeks candidates for an Admissions Director. As the Director you will manage the facility census and lead the facility census development team You will lead marketing activities in the

community and local hospitals to develop referrals. You will be esponsible for the entire process from facility tours, to consulting with families to qualifying esidents for payor types through signing agreements.

A 4-year degree in marketing or health related field is required and nursing home experience is a plus. We provide a competitive wage and benefits package and upward mobility. Submit resume to canton admissions@

Family Nurse Practitioner, Genesse Community Health Center Application deadline: Application deadline: General statement of duties: General statement of duties: General Control of Statement of General Statement Of Gener

Hospitalist / Staff wanted in Saginaw, Michigan to provide professional family and medicine medical care to patients boarded in the Hospital's Medical/ Surgical Nursing Units and to participate in educational endeavors i.e. seminars and medical conferences. esume to Jan Gould, Physi cian Recruiter, Covenant Medical Center, Inc. 1477 North Harrison Street, Saginaw, MI 48602

nursing home services provider, has openings for experienced LTC Medicaid Billers Experience is required in Room and Board

Skilled Nursing Medicaid and Medicaid Coinsurance. CHAMPS

Care, is helpful. Candidates must be savvy in customer service, and have general computer skills Successful candidates will be offered an excellent compensation package including: a salary based on experience, health insurance with a \$0 cost plan, 401k with employer match, company paid life insurance, PTO, etc. Email resume to: Attn: A/R Director,

spaynter@

cienahmi.com

Cure the job hunt blues.

careerbuilder

HEALTHCARE SKILLED TRADES

NexCare Health Systems

is hiring please visit our website to see our career opportunities and locations www.nexcarehealth. com

Openings for applicants at our Detroit location (2799 W. Grand Blvd.) for "Medical Physicist" -Job Code 80428 and "Pain Anesthesiologist -Job Code 80427 Submit resume to Henry Ford website at: http://careers.henryford.com job code.

Henry Ford

Health System Detroit, MI 48202

(INTERNAL MEDICINE)

Wayne State University Physician Group is seeking a full-time Physician (Internal Medicine) in Detroit, Michigan. Diagnose and provide treatment for diseases and injuries of internal organ systems. Provide care for patients who have a wide range of problems associated with the internal organs such as the stomach, kid-neys, liver and digestive Contact Jessica Mar tract. tin. HR Generalist. Wavne State University Physician Group, 1420 Stephenson Highway, Troy, MI 48083, jjmartin@med.wayne.edu

facility 5+ years experience in hospital LTC facility, or other health care facility Current MI License

JJarackas@Bortz.org Bortz Health Care of Warren 11700 E. Ten Mile Rd. Warren, MI 48089

Managers

Company! Join the Buddy's Pizza Team! We offer competitive

coverage, family discounts. Fax Resume: (248) 855-6329 Email: buddyspizza@

Ste. 206 Farmington Hills, MI 48334



Call 313 -347-2933 EOE **Inside Sales Agents**

SALES ENGI

Please submit resume and salary requirements to:

Attn: Sales Engineers 13231 23 Mile Rd. Shelby Township, MI 48315

hresources@ uticaenterprises.com

Cure the job

careerbuilder .com

Advance Boring & Tool in Chesterfield Township is hiring experienced

BORING MILL. Quality Manager BRIDGEPORT & CNC OPERATORS

BUY+SELL

All Shifts APPLY IN PERSON AT

Advance Boring Tool Co. 26950 23 Mile Rd Chesterfield Twp., MI 48051

OR FAX (586) 598-9303

TRINITY

Full job found at www. marinepollutioncontrol.

com

Job may require 2nd shift schedule and weekend

schedule and weekend work when necessary. Fax 313-841-4304 or email hr@ marinepollutioncontrol. com. Apply in-person 8631 W. Jefferson, Detroit 48209. EOE

Manufacturing

Machine Maintenance

- Plymouth Bakery -

Mechanical/Electrical skills

•PLC's, pneumatics, hydraulics,

Conveyor systems, welding

•Great work schedule

Pay starts \$21/hour and negotiable

Fast paced environment

Please e-mail your resume careers@lajoygroup.com EOE

PROTOTYPE PRESS

OPERATORS

(2 day & 1 night Shifts)

Sequoia Tool, an Automotive Sheetmetal Prototype/ Limited Production
Supplier, needs 2 day & 1
night Prototype Press Operators. This position requires the ability to produce quality stampings
and parts to print using
multiple tools. Candidate
must nossess knowledge

must possess knowledge of die theory, blank devel opment, die barbering

and die tryout.
Candidate must be able to the condidate must be able to the care to the ca

die design a plus. General knowledge of hydraulic and mechanical press operation required. Syears in a prototype setting required. Must have prior experience with die tryout, blank development and general knowledge of press work. Spotting large dies, part layout/approval and basic machining skills needed. Must have own tools.

Benefits offered are: 401(k), Health and Dental insurance, vacation.

586-463-2696 or Apply at: 44831 N. Groesbeck Hwy, Clinton Twp., MI 48036. Have all intern

SERVICE TECHNICIAN

resume to: Fax 313-582-2340

PERIENCED. nor electrical, electronics

& mechanical. Willing to train. Starts at \$12/hr.Send

or email: jobopportunity@ ervicestations.com

Skyway Precision Inc.

Is currently seeking

candidates for....

It's RAPIDLY GROWING

MANUFACTURING

FACILITIES IN THE PLYMOUTH/LIVONIA

AREA:

Skilled & Non-Skilled

Manufacturing

Positions for both day and night shifts. Experience in a production driven CNC machining environment pre-

Please forward salary equirements with resume to: kpatton@ skywayprecision.com Fax: #734-455-9659

Skyway Precision Inc.

Machine Repair

macilille repairs and installations.

Experience in a CNC Machining Production En vironment is Preferred

Please forward salary requirements with resume to: **kpatton@ skywayprecision.com** Fax: #734-455-9659

Spring

cleaning?

pment, uie ind die tryout.

•Excellent benefits

Diesel Mechanics Needed! Full Time, Medical Benefits and Paid Time Off. Dearborn Heights, Ecorse, Wyandotte Apply by Fax 313-295-5616 or email melissak@ melissak@ trinitytransportation.com or online at www. trinitytransportation. com/careers

RESTAURANT

salary, bonus package, medical

SALES OPPORTUNITIES



SALES STAFF No exp nec, we train qualified candidates

Permanent positions from \$10 / Hour Personal time & benefits. Requires: Good phone & basic pc skills, multi-tasker. Submit email to: cfa48124@yahoo.com CSS is an EOE

Sales Engineers A leading manufacturing & engineering firm located in Macomb County has immediate openings for:

NEERS

Excellent Benefits

Fax: (586) 323-5227 Or E-mail:

Territory Merchandising Rep

Alliance Foods, Inc. Is hiring for a Full Time Territory Merchandiser in Detroit, MI and surrounding areas. This position will be responsible for merchandising functions at Corporate and Licensee owned Save-A-Lot Food Stores. 75-80% travel, overnight travel upwards of 5-8 nights per month, business mileage reimbursed. \$35K salary exempt to start plus benefits.

Must have grocer mer-Must have grocer mer-chandising experience, but most of all passion, good work ethic, detail oriented and a team playe with a great attitude. Please submit resume to: kpapaleo@ alliance-foods.com No phone calls please.

hunt blues.

SKILLED TRADES

Skyway Precision Inc. Is currently seeking

candidates for...

andidates will be respon-ible to maintain and aciss Management Represen-ative for TS-16949. Facili-ate Quality activities to support the CNC manufacuring process. support the CNC manufac-turing process. Ensure that all product and serv-ices provided to our Cus-tomers meet and exceed their required specifica-tions. Develop and train all Quality personnel in their job functions.Initiate all Customer required cor-rective actions and follow up to ensure that they are effective.

skywayprecision.com Fax: #734-455-9659

Bulletin Board

grave sites, together, sect 13823. \$4995. 951.679.8820

LOST & FOUND

NUTICE
All advertising published is subject to the applicable rate card, copies of which are available from our Advertising Department. All ads are subject to approval before publication. We reserve the right to edit, refuse, reject, or cancel any ad at any time. Errors must be reported in the first day of publication. We shall not be liable for any loss or expense that results from the publication (whether published correctly or not) or omission of an advertisement.

ANNOUNCEMENTS

Looking for Nephew , Damian H. Born in Greyling Ml. 515-669-2277

WIN A 2013 CORVETTE LT4 60th Anniv. Edition or \$40K Cash. www.winavette.com

LEGAL NOTICE/ BIDS/PROPOSALS

CREDIT UNION
The Michigan Office of Financial and Insurance Regulation placed the Craftsman Credit Union, Insurance Certificate No. 61511, 2444
Clark St., Detroit, MI 48209, into involuntary liquidation. The National Credit Union Administration Board has accepted appointment as Liquidating Agent of the credit union.

credit union.

All creditors having any claim or demand against Craftsman Credit Union must submit their claim or demand in writing, together with proof, by December 16, 2013. All such claims or demands must be sent to the following address:
National Credit Union Administration Liquidating Agent for the Craftsman Credit Union 4807 Spicewood Springs Road, Suite 5100.
Austin, Texas 78759
Tel. No. (512) 231-7900

Claims or demands filed after December 16, 2013, may be barred due to untimely submission.

LOW INCOME PUBLIC HOUSING WAIT LIS ANNOUNCEMENT

Detroit, MI 48207, (313) 833 3590. Applications will neither be distributed nor accepted after 12:00 noon on October 12, 2013. Applicants, please bring photo identification.

Detroit Housing Commission 1301 E. Jefferson Detroit. MI 48207 (313) 877-8000 TTY/TDD: (800) 222-3679 Website: www.dhcmi.org

NOTICE OF NON-DISCRIMINATION: The Detroit Housing Commission does not discriminate on the basis of race, color, creed, national origin, age, handicap, sex or sexual orientation. Discrimination complaints may be filed with the Detroit Housing Com-mission, Board of Commis-sioners, 1301 E. Jefferson, Detroit, Michigan 48207.

EQUAL HOUSIN buying anything old that doesn't eat 248.399.6666

Hourly rate is negotiable Contact Dr. Norma Jose elephone number: (586) telephone number: (586) 465-8323 or e-mail to norma.josef@mccmh.net.

MEET SEXY SINGLES Listen / Reply FREE! Straight (313) 963-0000 Gay/Bi (313) 962-5000 Free Code 3059, 18+ 100's of Singles Want You! Why wait? Try it free! 313-274-2700 Call now! 18-

#1 Chat in Detroit! Meet Local Singles, 18+ 313-586-1111 Try it Free LOCAL GIRLS GO WILD! Call FREE! 313-887-1004 or 800-945-3616 18+

ADULT ENTERTAINMENT American Beauties 888.488.2244 Adult Ent. Special

SEXY TRANS GIRL Amanda Coxx 10 reasons call. Adult ent 313.686.485 KELLY- BLACK Beauty

HOT CANADIAN GIRLS Legal & Licensed adlt ent 519-944-2000 (13167614)

LEGAL NOTICE/ BIDS/PROPOSALS

Notice of HIV/AIDS

The Detroit Department of Health and Wellness Ine Detroit Department of Health and Wellness Promotion through an agreement with a Southeastern Michigan Health Association announce the availability of grant funds from the Ryan White Treatment Extension Act beginning March 1, 2014. Requested for proposals will be available on October 4, 2014 at SEMHAryanwhite.org. These materials explain the application and selection process.

Approximately 6 million in federal resources will be provided to successful applicants who provide medical and supportive medical and supportive services to persons living with HIV/AIDS in the following counties: Wayne, Oakland, Macomb, Lapeer, St. Clair and Monroe. Non Profit Organizations and local units of government who provide or are interested in providing services to are interested in providing services to persons living with HIV/Aids in one of the above mentioned counties are invited to submit a proposal

Final award totoals are dependent on availablity of federal resources administered by the Health Resources and Services Administration.

roposal

The Request For Proposal, instructions, and all necessary applications materials may be obtained by visiting SEMHARyanWhite.org

NOTICE OF PUBLIC HEARING WILLOW RUN AIRPORT FAR Part 150 Supplemental Noise Compatibility Study Yankee Air Museum 47884 D Street Belleville, Michigan

Wednesday, November 6, 2013 5:30 to 7:30 p.m. Wayne County Airport
Authority is in the final
stages of conducting a
Federal Aviation Regulation
(FAR) Part 150 Aircraft Noise
and Land Use Compatibility
Supplemental Study for
Willow Run Airport. The
supplemental Study repre
sents the combined efforts
of community and airport
stakeholders who have an
interest in activity at the

interest in activity at the Airport.

The public is invited to attend a Public Hearing to provide information about changing conditions that have taken place since the last Part 150 Noise Study was completed in 2009. Those changes include reductions in aircraft operations and the potential tions and the potential closure of Runway 14-32. Wayne County Airport

Wayne County Airport Authority will hold a Public Hearing on the Part 150 Supplemental Study on Wednesday, November 6, 2013 at the Yankee Air Museum located at 47884 D Street in Belleville, Michigan from 5:30 to 7:30 p.m. The Hearing will be a formal open house format, allowing the public to ston by any the public to stop by any-time between 5:30 and 7:30 the public to stop by any-time between 5:30 and 7:30 p.m. A short presentation will be held at 6:00 p.m. Public comments will be taken by a court reporter after the 6:00 p.m. presentation or can be made in writing and submitted that evening. Written comments can also be submitted by mail through November 15, 2013 to:

Theresa Samosiuk Wayne County
Airport Authority
L.C. Smith Terminal -Mezzanine Detroit, Michigan 48242 Theresa.samosiuk@wcaa.us

A copy of the Supplemental Recommendations Chapter is available for public review in the Airport Administrative offices at Willow Run Airport, 801 Willow Run, Ypslanti, MI., or www.wcaa.us/d evelopment/noise/willowrun overview, and www.willowrun airport.com/development. Pre-arranged appointments can be made by calling (734) 485-6666.

Reasonable auxiliary aids and services, such as signers for the hearing impaired will be provided upon three (3) days' notice to Kristy Exner, Wayne County Airport Authority at (734) 247-223 or by e-mail to kristy.exner@wcaa.us.

ENTERTAINMENT SERVICES

A PRIVATE COLLECTOR

BUYING — Coin, sportcards & Stamp Collections. Call 248-471-4451 TOP \$\$

WANTED: OLD ORIENTAL RUGS. Any Size Or Condi-tion. Call Toll Free, 1-800-660-8938

APPLIANCE/HOME FURNISHINGS

Stanley Oak Wood and Glass Dining Room Set with Lighted China Cabinet. Six Chairs, two extentions and table pads. \$2000 Table is 66 " X 44" without the extentions. (248)303-2413

WEW PHOTOS CHLINE AD MICHIGAN.COM Lega Counseling

ATTORNEYS -LEGAL SERVICES

Bankruptcy from \$350 248-559-4448 A debt relief agcy who help people file for bkrtcy relief under the bkrtcy code

A DIVORCE \$75 CS&R 734.425.1074 www.CSRdisability.co

248-398-5000

LEGAL NOTICE/ BIDS/PROPOSALS

ORDER FOR SERVICE BY PUBLICATION STATE OF MAINE

DISTRICT COURT Location Lewiston YAN ZHAO Plaintiff 18 Roland Avenue Lewiston, ME 04240

JIAN REN CHEN Defendant

Doll Show Sun Oct 6, 10-4 P.L.A.V. Hall, 25222 Warren Dbn Hts btw Tel/Beech Daly 8' tables \$30. 248-702-6277 This court has reviewed the motion of the plaintiff for service by publication pursuant to Rule 4(g) of the Maine Rules of Civil Procedure. Lincoln Park Sale-1689 Goddard, Sun 10-3pm. Furn, Electronics, Mens cloth, china, wine cooler, Zildjian cymbals, dvds, vhs t is ORDERED that service

be made upon the other party by publishing a copy of this Order once a week for three (3) successive weeks, in the The Detroit News, a newspaper of general circulation in the county where the action is pending. It is **FURTHER ORDERED** that the party being served by publication appear and serve an answer to the motion or complaint on the other party at the above address. The answer must be filed with the court within forty-one (41) days after the first publication of this Order.

It is **FURTHER ORDERED** that the moving party mail that the moving party mail copy of the Order as pub-lished to the other party at the party's last known ad-

Failure to serve an an -swer will cause judgment by default to be entered, granting relief sought in the motion or complaint.

The motion or complaint.

PRELIMINARY INJUNC TION: IT IS FURTHER
ORDERED that the above
named parties be:
1. Prohibited from transferring, encumbering, concealing, selling or otherwise
disposing of any property of
either or both parties, except
in the usual course of business or for the necessities of
life, without the written consent of the parties or the
permission of the court.
2. Prohibited from imposing
any restraint on the personal
liberty of the other party or
on any natural or adopted
child of either or both of the
parties.
3. Prohibited from voluntarily. DOGS & KENNELS AKC MALTESE 2F left. Vet ck'd, 1st shots, wormed 10 wks. Call for info \$500 (989) 435-3979 WEW PHOTOS ONLINE AT MICHIGAN.COM ATTENTION PET LOVERS ATTENTION PET LOVERS
Detroit Newspapers discourages ads which offer pets for
free. These ads may draw responses from individuals
who might use your animal
for research, breeding or other purposes. We recommend
asking a nominal price for
your pet. Please be sure to
screen respondents carefully.
Your pet will thank you!

CATS

child of ettner or both of arties.

3. Prohibited from voluntarily removing the other party or any child or children of the parties from any policy of health insurance that provides coverage for the other party or the child or children of the parties. Blue Heeler Pups- shots. wormed. Can deliver \$175. 810.636.2349 810.869.0272 Border Collie/Terrier pups super smart & very playful. \$295. 734.646.4007 **BOXER AKC PUPS** Blk &

WARNING: This Preliminary Injunction is an official court Order. If you disobey this Order, the court may find you in contempt of court. This court Order is effective until the earliest of the following: 1) the court revokes or modifies it; 2) A final judgment is entered in the matter before the court; or 3) The action is dismissed. whites, brindles, M/F \$400. 313-717.8022 Bull Mastiff/Pit bull pups beautiful brindle babies shi-ny coats \$350 734.646.4007 Champion Golden Retrievers Kelore Golden Retrievers . Bred for health and tem-perament . I have been showing and raising quality companions for over 15 years. AKC, female, good with children, male, parents on site, show quality, (231)527-0116 http://www.keloregoldens. com

VIEW PHOTOS ONLINE AT MICHIGAN.COM

Chihuahua Pups - Tiny Adorable, M/F, All Colors, Shots, \$275+, 248-894-2640

German Shepherd Pups AKC-OFA.*Top Imported Bloodines *World Class Dogs* \$800. Also 2 adults avail. 734.992.2040 GERMAN SHEPHERDS or ROTTWEILERS **WANTED** 2-3 Years Old, 586-228-9215 or 586-201-6443.

(313) 822-4400 (313) 405-0052 Auction MUSICAL INSTRUMENTS

Beautiful Baldwin Acrosonic Piano, dark wood, exc cond must sell\$600 734.697.1142 EQUIPMENT

GREEN ACRES GUN & KNIFE Military Show Buy/sell/Trade. Sun Oct. 6 9-2:30 pm. Livonia Elks 31117 Plymouth 1blk E/Merriman (48150) Info: (248)543-3087 or www.michmilitaryhistory.com

ARTS & CRAFTS/ HOBBIES

MISC. WANTED & FOR SALE

Farm fresh freezer beef for sale. jmhigginsfarms.com (231) 206-9580

WANTED BY COLLECTOR: Military items, guns, swords & war souvenirs. Call for cash

SEASONAL ITEMS FIREWOOD — By the Ser load 20 cords 4x4x8 Call for price. 989-426-6852

Commercial

Nerchandise

RESTAURANT & STORE EQUIP.

Hardware Store misc supplies: shelving, tools, over \$80K worth. 313-585-0220. Recreation

MOTORCYCLES WANTED Dead or Alive makes & parts.TOP CAS WAITING 248-361-3733

RV SALES DUTCHMAN '07 38' 2 Slide-outs, 2 Br, 2 entry doors, air, awning, micro. clean, \$15,200/bo 248-215-6116; cell 701-213-9811.

Gulf Stream '06 Friendship G7-42, 400 cat 4 slides. MSRP \$285k, selling at \$165k or possible trade for resort prop. 810-282-1543

Play the sell game.

800-WANT-ADS

A PERSONAL BANKRUPTCY For \$400 Complete UAW Employee Discount FREE Consults 10yr Atty Experience 313-354-1020 njbrandlaw.com Neal J. Brand & Assoc.

1-800-603-3333

Garage Sale

To place an ad, visit us online or call 1-800-WANT ADS (926-8237)

To advertis call 1-800-WANT-AD

RUMMAGE SALE-Holy Trinity Lutheran Church, 39020 Five Mile, between Haggerty & Newburgh, Preview Sale \$2 admission, Proview Sale OAKLAND

FARMINGTON HILLS RUMMAGE SALE The Birmingham Temple 28611 W. 12 Mile btwn Middlebelt & Inkster. Thurs., Oct. 10, 5pm-8pm (20% Mark-Up 1st Night) Fri., Oct. 11, 9am-4pm Sat., Oct. 12, 9am-noon Bag Salel Cash Only Please

Rummage Sale Nardin Park United Methodist Church, 29887 W. 11 Mile, Farmington Hills, Tues. Oct 8th 6-9pm Surcharge; Wed. Oct 9. 9-5pm Thurs. Oct. 10th 9-3 pm. Bag Sale.

Fur, Fins& Feathers

To advertise call 1-800-WANT-ADS

Persian CPC blue Tabby boy. breeder \$1000. MC/V snopeke.com 734-765-5671

AKC tamily raised, 1 male last of litter. 810-499-6434 LAB PUPS, AKC, \$500 SHOTS, YELLOW OR BLACK. 734-652-9593

cash only 419.250.3160

F1B, exc. family pet. \$600 989.864.8606; 810.542.0164 Pekingese AKC- White boy Champ li, micro chip, \$500. MC/Visa 734.765.5671 Pomeranian Puff Ball Pups Blacks & Creams \$350-400



Rhodesian Ridgeback AKC UPS boys/girls born /10/13, 248 545 3222

ȘḤIH TZU/ POM nots \$395. 734.646.4007 Yorkie, 12 wks, 1 pup, AKC, shots, tails, wormed \$700-M Cute&Cuddly (586)243-8635

Williams

October 24th
US Tool & Cutter Co.
8975 Orchard Lake Rd.
Farmington Hills, MI November 5th & 6th Hargrove Machinery Sales, Inc Sales, Inc 14050 Oakland Ave. Highland, Park, MI

WilliamsandLipton.com 248-478-2000

DOORS: Interior doors; Bi-fold Units; French Doors; Poplar & Pine 6 Panel; Birch & Maple; Oak Flush Doors Exterior doors: Cherry & Mahogany Leaded Glass w/Sidelights; Swing Patio Doors; Steel Entry Doors; Interior and Exterior Door Hardware

FLOORING: Finished & Unfinished Flooring in Oak, Maple, Cherry, Walnut and Other Exotic Woods;

Laminate Flooring Mosaics and Medallions

Faucets; Granite Countertops MISCELLANEOUS: Hardware; Lumber; Siding; Molding & Trim; Spindles & Stair Parts; Deck Posts; Ceiling Fans; Lock Sets; Power & Hand Tools; Live Plants; Lighting; AND MUCH MORE! **REGISTRATION OPENS AT 7:30 A.M.**

Visit our website to pre-register; find maps and directions to our AUCTION SITE; auction terms and much more!

N23800



RUMMAGE SALE-

DOGS & KENNELS

GERMAN SHORT HAIR -AKC Champion bloodline AKC Champion bloodline 9 weeks, 1st shots. \$500 (810) 984-1365 GOLDEN RETRIEVER pup

LAB PUPS white color, 2 yr guar. shots. dews. family raised. \$600. 586.604.2415 raised. \$500.000.00 LABRADOODLE PUPS nice \$450-500





ROTTWEILER AKC Reg Puppies born July 30, tails, dewclaws, shots, dewormed \$800 call Mary989.863.0744 Schnauzer Mini AKC pups 2 white females great personality \$650. 734.646.4007

rn. uct. 11, 5pm, 11580 Ozga Romulus MI Guns, Decoys, Fishing, Furniture, Clocks, Oil Lamps, Toys, BB Guns, Nautical, Gui-tars, Dolis, Jewelry and the Unique. 1-800-801-6452 dougdaltonauctioneer.com ONLINE PUBLIC AUCTIONS

BUILDING MATERIAL

SATURDAY, OCT. 19, 2013 Gibraltar Trade Center N., Mt. Clemens

AUCTION STARTS AT 9 A.M. Preview Friday, Oct. 18, 12-6 P.M. TERMS: Buyer's Premium. Visit Website or call for details. Sale day selections and statements take precedence over written material. Full settlement must be made each day of th sale. Merchandise must be removed by 5:00 p.m., Sunday, Oct. 20. The auction is no place for small children. Pre-Register On Line: www.peakauction.com



in our Polymer Research organization in Wyandotte, Michigan. Main focus is to identify and guide interdis ciplinary product develop ment topics for raw materi als (including polymers and resins) to address unmet market needs for ex ternal customers. Partici pate in innovative produc levelopment projects and equipment development projects to explore next technology-levels in HTF and expand the HTP application portfolio. Design and direct research experi-ments on laboratory and pilot plant scale. Maintair a detailed laboratory note book and prepare interna technical reports and pre sentations in accordance vith scientific and intellec tual property principles. In terface with research and development units from other BASF divisions globally to provide the Re-search & Development

degree in Chemical Engineering or in Polymer Sci ence and Engineering and three years of experience in polymer science and en gineering. Experience must include polymer chemistry, polymer processing, and polymer engineering. All experience may be gained prior to conferral of Ph.D. degree in an academic or industri al setting. Up to 10% do-mestic and internationa travel required.

1609

Wyandotte, MI 48192. See us on the World Wide Web at www.basf.com EOE M/F/D/V.

indicating Requisition

Code 1302983 , to: Attn: Kathie Patrico, Human Re-sources Representative,

Avenue

Biddle

Press Hardening Die Engr. in Troy, MI responsible to meet all objectives & measurables from tool design approval to tool buy-off & home-line trials, for high-volume & high-speed auto-motive manufacturing & asembly ops. BS' ME & 2 yrs. exp. in pos. above, as Tooling Engr., Press Hardening Die Engr. or rel. occup. red'd. Will accept equiv. foreign degree; will also accept any fully equiv. combo of edu, training & work exp. Exp. must incl. press hardening tool design & process devel., rel. tool & equipment construction, tool follow-up & buy-offs, & die try-out, debug, & run-at rate testing; steel blank devel. & material utilization for optimal blank pest & blank diese constructs Flujeti Mallagel
Dearborn, MI
Perform simulation, optimization & create decision
support models related to
utilization of facilities, equipment & machinery, industrial
& manuf. products & systems for automotive, minerals & metals, food, and/or
healthcare clients. Write
proposals for simulation
work. Identify utilization for optimal blank nest & blank die construc-tion for high-speed produc-tion forming; Stamping, of

welded blanks & use of multiple stamping transfer sys., for high-strength, dualphase materials; understanding of statistical apps. to the mnftg proc.; & production equipment start-up, line commissioning, & day-to-day production support in a corp. ops. environment. Send resume & salary req'ts to: Gestamp Alabama, LLC Attn: Susan Higel, HR Job Code: LC13-103 2701 Troy Ctr. Dr., Ste. 150 Troy, MI 48084

careerbuilder

.com

Time for a change?

UNLESS YOU'RE SURE THAT AWESOME

START BUILDING

Perioperative RN Surgical center seeking full or part time RN. Fax resume to 248-281-0034.

PHYSICIAN

Director of Nursing For 152 bed skilled LTC

HEALTHCARE **Admissions Director** Regency at Canton, one of Michigan's newest nursing home facilities,

You must be a savvy communicator.

cienafacilities.com

MEDICAID BILLER Ciena Healthcare, Michigan's largest skilled

Send Resume and Salary Requirements

Restaurant & Kitchen We're a Growing

buddyspizza.com Mail: 31800 Northwestern.

panding Est. Sales Firm has openings for

Hrly + Bonus + Benefits + 401K

EXPERIENCED IN AEROSPACE, & DEFENSE INDUSTRY

to sell your stuff.

Please forward salary requirements with resume to: **kpatton**@

CEMETERIES & MONUMENTS WHITE CHAPEL, Troy

NOTICE Fleet Mechanic MPC is looking for an experienced Fleet Mechanic. Min. req. are: HS Diploma, 3+ yrs exp. working on diesel & non-diesel vehicles, ASME cert. in automotics and heavy truck, CDL-A license w/ tanker and airbrakes endorsements, good driving record (3 pts or less). Pref. req. are: prior exp. working on vacuum equip. and/or hydraulic services.

Adopt: A secure life of love awaits your baby through the gift of adoption. Exp. paid. Daria (888) 788-5624.

LIQUIDATION NOTICE TO CREDITORS OF CRAFTSMAN CREDIT UNION

The Detroit Housing Commission (DHC), pursuant to HUD regulations, is accepting applications for the one-and two-bedroom wait lists at Algonquin Apartments on Saturday, October 12, 2013, bedroom, Applications with the commission of the commission

Kelley Lyons, Executive Director

Macomb County Community Mental Health seeks limited Macomb County Community
Mental Health seeks limited
hours of contractual
psychiatric services for its
gatekeeper unit, the Access
Center, Duties include
Physician Review oversight
and monitoring of inpatient,
PHP, ECT, residential treatment and aftercare planning
for consumers of high acuity
services; Inpatient provider
peer review, pre-admission
screening consultation; and
participation in utilization
management activity,
Access Center staff training,
and on-site Access Center
staff consultation.
Psychiatrist must be Board
eligible/Board certified
(Board certified
(Board certified
Communication)
(Board certified)
Limited hours with some
on-call review services.
Hourly rate is negotiable,

DATING SERVICES Single In Flint/Lansing Listen & Reply FREE! Straight (810) 597-0500 (517) 318-0440 Gay/Bi (810) 597-0597 (517) 318-0333 Use Code 3060, 18+

FIND YOUR SOUL MATE: Call FREE! 313-668-3000 or 800-811-1633 18+

EARTHTONE SPA 17431 Fort, Riverview *****(734) 285-5628***** Merchandise ANTIQUES & COLLECTIBLES

COLLECTOR PAYS
INSTANT \$85
for all war relics. I
Beat all offers. Also
Buying Pre- 64 Silver coins.
Guaranteed! Will come to
you. 734.634.3608 Original Phone Booth w/original phone. very good condition 734-658-1146

Gorgeous Glass Dining Table, 7 foot. Like new Reduced \$1600. Beautiful luxurious China Cabinet, built-in wine rack. 10ft x 7ft. Reduced \$1600. Beautiful grandfather clock 8 ft high \$1000. 248.626.2038

11444444444 TA DIVORCE From \$90 Compl.

BANKRUPTCY from \$395 ATTORNEYPIERCE .org

BANKRUPTCY **\$0 DOWN** Attorney Joseph L Grima We are a debt relief agency.
We help people file for
bankruptcy relief under the
bankruptcy code

DUI-OWI Drivers Lic. Rest traffic tickets 30 Yrs Exp. 313-701-7974 Ed Cherniak

This order is incorporated into the docket by reference at the specific direction of the court.

Fair Haven Eagles #2784 Craft Show & Auxiliary Bake Sale. 7545 Palms Rd., Fair Haven, MI 48023. Sat, Nov 23rd 9am-3pm. Crafters Needed. Table Rental \$15. Tina 810-794-4801 COCKER SPANIELS AKC 8 wks/1st shots, \$400, Pics: Facebook @ peyerkscockerspaniels (810) 984-1365

> Marketplace: AUCTIONS Antique Estate Auction

careerbuilder

.com

TILE: Glass, Stone & Ceramic Tile WINDOWS-All Major Brands KITCHEN & BATH: Complete Kitchens by Peak Cabinet Co.; Kitchen & Bath Cabinets; Jetted Tubs; Toilets; Vanities; Shower Environments:



It's always a good move

with apartments.com.

800-WANT ADS Adult Ent. 586-625-3040

Appendix D Sponsor Approval Record

RESOLUTION No. 13-127

Mead & Hunt, Inc. (Supplement to Draft Federal Aviation Regulation Part 150 Noise Study) Control No. 1400026

By Board Member Mike Jackson

WHEREAS, the Wayne County Airport Authority, pursuant to the Michigan Public Airport Authority Act, being MCL 259.108 – 259.125c, operates and manages the Detroit Metropolitan Wayne County Airport and Willow Run Airport and is vested with the powers and authority to undertake such management and operation pursuant to the Aeronautics Code of the State of Michigan; and

WHEREAS, the Wayne County Airport Authority is governed by the Wayne County Airport Authority Board; and

WHEREAS, Mead and Hunt has prepared a Supplement to Draft Federal Aviation Regulation (FAR) Part 150 Noise Study at Willow Run Airport; and

WHEREAS, the Wayne County Airport Authority Board desires to approve the Supplement to Draft Federal Aviation Regulation (FAR) Part 150 Noise Study at Willow Run Airport and the submission of the Supplement to the FAA for review and comment.

NOW THEREFORE, BE IT RESOLVED that the Wayne County Airport Authority Board hereby approves the Supplement to Draft Federal Aviation Regulation (FAR) Part 150 Noise Study at Willow Run Airport prepared by **Mead and Hunt, Inc.** and the submission of the Supplement to the FAA for review and comment.

This Resolution was supported by Board Member Mary Zuckerman and carried by the following vote:

AYES: Glancy, Hall, Jackson, McNamara, Zuckerman

NAYS: None

DATE: November 12, 2013

Appendix E Forecast Methodology

INTRODUCTION

Aircraft operations data is a key input variable in the development of Noise Exposure Maps (NEM) as required in the development of Part 150 Noise Compatibility Plans. Actual aircraft operations data from the most recent year is used to develop the baseline or current year NEM. And a forecast of aircraft operations for a period at least five years in the future is used to develop the future year NEM. In the preparation of Willow Run Airport's (YIP or the Airport) NEMs, 2012 was established as the current year and 2018 was chosen as the future year.

This report provides a review of the existing baseline year (2012) aircraft operations, as well as the future forecast of operations from the FAA's Terminal Area Forecast released January 2013 (2013 TAF) and determines the reasonableness of its use in developing the Airport's 2018 future year noise exposure maps (NEM). In addition, to support NEM development, this report provides existing aircraft type (fleet mix) information, as well as the anticipated shifts in fleet mix between 2012 and 2018.

2012 BASELINE OPERATIONS

The aircraft operations used to develop the 2012 current year noise exposure map is based on Airport Situational Display (ASD) data (IFR operations) and Airport management records (VFR operations) for the period November 2011 through October 2012 (2012 Airport Data). The 2012 Airport Data was used because it was the most recent data available and it provided the most accurate portrayal of existing Airport operations by aircraft type (fleet mix).

According to 2012 Airport Data, there were 73,602 total aircraft operations at YIP compared to 74,692 as reported in the 2013 TAF for fiscal year 2012 (the 12-month period ending September 2012 (FY). This equates to a difference of 1,089 operations or a 1.5% variance from the 2013 TAF. Based on the assumption that the 2012 Airport Data provides the most accurate description of current Airport operations by fleet mix, and its minor variance from the 2013 TAF, it was used to develop the 2012 current year NEM. The planned 2018 NEM will be based on the 2013 TAF projections for 2018 of approximately 75,220 total aircraft operations.

2013 TERMINAL AREA FORECAST

Background

Each year the FAA Office of Policy and Plans publishes a new Terminal Area Forecast (TAF) for each of the nation's active airports. The TAF includes historical and forecast enplaned passengers, historical and forecast aircraft operations, the number of based aircraft, and other related data. All data is reported on a FY basis unless otherwise noted.

The TAF presents aircraft operations data organized by four specific FAA defined aircraft categories based on the size and air service function of each aircraft. The four aircraft categories are: air carrier, air taxi/commuter, general aviation and military. General aviation and military aircraft operations are further subdivided into itinerant and local operations. Itinerant operations include flights from one airport to another while local operations are flights which generally occur within site of the airport such as pilot training or recreational flights. In this report, military operations are presented as a single category because of the relatively small number of operations (182 in 2012).

Presented below in Table 1 is a summary of YIP's historical aircraft operations for the period 2002 through 2012 and the forecast for the period 2013 to 2018 as presented in the 2013 TAF. As discussed above, 2012 Airport Data is the source for 2012 aircraft operations presented on Table 1.

Table 1
Historical and Forecast Aircraft Operations
Willow Run Airport

		Commercia	ı					
		Air Taxi/	Total	Gei	neral Aviatio	n		Total
Year	Air Carrier	Commuter	Commercial	Itinerant	Local	Total GA	Military	Operations
					•	•	-	
2002	4,584	16,419	21,003	47,393	49,453	96,846	72	117,921
2003	4,366	17,105	21,471	46,458	45,187	91,645	98	113,214
2004	5,838	18,595	24,433	48,286	42,224	90,510	74	115,017
2005	4,904	20,219	25,123	44,139	37,804	81,943	42	107,108
2006	3,537	16,016	19,553	37,742	31,745	69,487	99	89,139
2007	4,682	15,875	20,557	32,143	26,831	58,974	90	79,621
2008	2,997	12,325	15,322	33,223	34,513	67,736	212	83,270
2009	1,274	8,724	9,998	25,610	28,240	53,850	524	64,372
2010	3,099	9,850	12,949	26,384	27,613	53,997	199	67,145
2011	4,402	10,331	14,733	24,730	26,751	51,481	1,061	67,275
2012	3,372	12,621	15,993	23,777	33,650	57,427	182	73,602
Forecast								
2013	3,556	10,106	13,662	26,850	32,479	59,329	182	73,173
2014	3,577	10,285	13,862	26,955	32,577	59,532	182	73,576
2015	3,598	10,465	14,063	27,061	32,675	59,736	182	73,981
2016	3,619	10,649	14,268	27,167	32,773	59,940	182	74,390
2017	3,640	10,836	14,476	27,273	32,872	60,145	182	74,803
2018	3,661	11,026	14,687	27,380	32,971	60,351	182	75,220
Compound	d Annual Gro	wth Rates						
2002-2012	-3.0%	-2.6%	-2.7%	-6.7%	-3.8%	-5.1%	9.7%	-4.6%
2007-2012	-6.4%	-4.5%	-4.9%	-5.9%	4.6%	-0.5%	15.1%	-1.6%
2009-2012	38.3%	13.1%	17.0%	-2.4%	6.0%	2.2%	-29.7%	4.6%
2012-2018	1.4%	-2.2%	-1.4%	2.4%	-0.3%	0.8%	0.0%	0.4%
2013-2018	0.6%	1.8%	1.5%	0.4%	0.3%	0.3%	0.0%	0.6%

Sources:

2002-2011 and 2013-2018: Federal Aviation Administration Terminal Area Forecast, January 2013.

2012: Provided by BridgeNet International from ASD data and Airport management records for the period Nov. 2011 - Oct. 2012.

Air Carrier Operations

Air carrier operations are defined as commercial operations provided by aircraft, when configured for passenger service, which have greater than 60 seats. This category typically includes scheduled airline service on passenger or all-cargo airlines, on-demand cargo service and charter flights. Since there is no scheduled passenger service at YIP, all of its air carrier operations are all-cargo flights.

Historical Operations. Air carrier operations at YIP decreased from approximately 4,600 in 2002 to 3,400 in 2012 at a compound annual growth rate (CAGR) of -3.0%. During the period 2002 to 2012, air carrier operations displayed a significant amount of variability reaching a peak of over 5,800 operations in 2004 before falling to a low of less than 1,300 in 2009 during the most recent national economic recession. The steep decline in 2009 air carrier operations at YIP was the result of a fall-off in air cargo activity which was also experienced on a national level. Since 2009, air carrier operations rebounded to approximately 4,400 in 2011 and settled at slightly below 3,400 in 2012.

Forecast Operations. Air carrier operations are forecast to increase from approximately 3,400 annual operations in 2012 to nearly 3,700 operations in 2018 at a CAGR of 1.4%. The forecast indicates that the recent decline in air carrier operations will level-off in 2012 and then air carrier operations will begin to slowly increase over the forecast period.

Air Taxi/Commuter

Air taxi/commuter operations are defined as commercial operations on aircraft, when configured to carry passengers that have 60 or fewer seats. The majority of air taxi/commuter operations at YIP are by on-demand cargo operators and charter passenger flights. The air taxi/commuter category includes aircraft operations by a wide range of aircraft sizes including operations by multi-engine turboprops and business jets.

Historical Operations. Air taxi/commuter activity at YIP is similar to air carrier activity in that it includes primarily all-cargo operations. Likewise, the number of the air taxi/commuter operations displayed considerable variability from year to year. From 2002 to 2012, air taxi/commuter operations declined from over 16,400 operations in 2002 to approximately 12,600 in 2012 at a CAGR of -2.6%. Air taxi/commuter operations peaked at over 20,200 in 2005 before falling to a low of about 8,700 in 2009, largely as a result of the most recent economic recession and the decline in total air cargo tonnage. Since 2009, air taxi/commuter activity has rebounded and reached approximately 12,600 aircraft operations in 2012.

Forecast Operations. Air taxi/commuter operations are forecast to decline from approximately 12,600 annual operations in 2012 to over 10,100 operations in 2013. Beginning in 2013, air taxi/commuter operations are projected to increase at a CAGR of 1.8% and reach over 11,000 operations by 2018.

Commercial Operations

Commercial operations include the combined activity of air carrier and air taxi/commuter aircraft operations.

Historical Operations. From 2002 to 2012, total commercial operations followed a trend similar to its individual components. Commercial operations increased from just over 21,000 in 2002 to a peak of approximately 25,100 in 2005 before falling to under 10,000 operations in 2009. Since 2009, commercial operations have rebounded to approximately 16,000 aircraft operations in 2012.

Forecast Operations. Total commercial operations are forecast to decline from approximate 16,000 operations in 2012 to 13,700 operations in 2013. Beginning in 2013 total commercial operations are projected to increase at an annual rate of 1.5% and reach approximately 14,700 operations in 2018.

General Aviation

General aviation (GA) operations are typically defined as operations other than commercial and military. GA operations typically range from small single-engine propeller aircraft used for flight training and recreational use up to large jet aircraft used for business or corporate purposes.

As presented in Table 2 below, GA operations are classified in the TAF as itinerant or local operations. Itinerant operations include those flights that include travel between multiple airports while local operations are those flights that takeoff and land at YIP and whose flight paths generally remain within site of the Airport.

Over the 2002-2012 period, the percentage share of total GA operations represented by itinerant and local operations has remained near 50% for each category, but has ranged from approximately 45% to 55% for each category.

Table 2
Historical and Forecast General Aviation Aircraft Operations
Willow Run Airport

	Itinera		Loca	I GA	Total
	Aircraft	% of	Aircraft	% of	General
Year	Operations	Total GA	Operations	Total GA	Aviation
	-				
2002	47,393	48.9%	49,453	51.1%	96,846
2003	46,458	50.7%	45,187	49.3%	91,645
2004	48,286	53.3%	42,224	46.7%	90,510
2005	44,139	53.9%	37,804	46.1%	81,943
2006	37,742	54.3%	31,745	45.7%	69,487
2007	32,143	54.5%	26,831	45.5%	58,974
2008	33,223	49.0%	34,513	51.0%	67,736
2009	25,610	47.6%	28,240	52.4%	53,850
2010	26,384	48.9%	27,613	51.1%	53,997
2011	24,730	48.0%	26,751	52.0%	51,481
2012	23,777	41.4%	33,650	58.6%	57,427
Forecast					
2013	26,850	45.3%	32,479	54.7%	59,329
2014	26,955	45.3%	32,577	54.7%	59,532
2015	27,061	45.3%	32,675	54.7%	59,736
2016	27,167	45.3%	32,773	54.7%	59,940
2017	27,273	45.3%	32,872	54.7%	60,145
2018	27,380	45.4%	32,971	54.6%	60,351
Compound A	nnual Growth	Rates			
2002-2012	-6.7%		-3.8%		-5.1%
2007-2012	-5.9%		4.6%		-0.5%
2009-2012	-2.4%		6.0%		2.2%
2012-2018	2.4%		-0.3%		0.8%
2013-2018	0.4%		0.3%		0.3%

Sources:

2002-2011: Federal Aviation Administration Terminal Area Forecast, January 2013 for FY 2012. 2012: Provided by BridgeNet International from ADS data and Airport management records for the period Nov. 2011 - Oct. 2012.

Historical Itinerant Operations. From 2002 to 2012, itinerant GA operations declined by approximately 50% from just under 47,400 operations in 2002 to approximately 23,800 operations in 2012 at a CAGR of -6.7%. This decline can be attributed to a number of factors including a significant rise in fuel prices that occurred from approximately 2004 to 2007 and then a severe national economic recession which occurred between approximately 2007 and 2009. Between 2009 and 2012, the decline in itinerant operations has greatly slowed with activity leveling off between approximately 24,000 and 26,000 annual operations.

Forecast Itinerant Operations. GA operations are forecast to increase to approximately 27,400 operations in 2018 at an annual rate of 2.4%. The majority of this growth is expected to occur from 2012 to 2013, and then from 2013 to 2018 the growth in itinerant operations is expected to level-off at an annual rate of 0.4%.

Historical Local Operations. From 2002 to 2012, local GA operations declined by approximately 32.0% from approximately 49,500 operations in 2002 to approximately 33,700 operations in 2012 at a CAGR of -3.8%. A significant portion of this decline can be attributed to the affects of rising fuel prices during the middle of the last decade and the national economic recession of 2007-2009. Local operations continued to decline through 2011, but in 2012 recorded an increase of nearly 26% as the result of improving economic conditions and the growth of Eastern Michigan University's Aviation Program based out of the Eagle Flight Center located at YIP.

Forecast Local Operations. Local GA operations are forecast to remain essentially flat, with a slight decline, from approximately 33,700 operations in 2012 to about 33,000 operations in 2018 at CAGR of -0.3%. Although this projection represents a small decline in GA operations from 2012 to 2018, the forecast actually projects a modest decline from 2012 to 2013 followed by an increase at a CAGR of 0.3% from 2013 to 2018.

Military Operations

Historical Military Operations. Military operations include all aircraft operations performed by military aircraft. Military operations at YIP are performed by a wide range of aircraft sizes and types from small single engine propeller aircraft to F-18 fighter jets. Similar to GA, military operations are typically classified as itinerant or local. However, due to the small number of operations, the results are presented as a single category.

From 2002 to 2012, military operations averaged less than 0.3% of total operations at YIP and only twice during this period have they accounted for more than 500 annual operations (see Table 1). Because of the unique nature of military operations, largely determined by classified U.S. Department of Defense objectives, they can vary significantly from year-to-year without any identifiable trend. Most of the Military Operations occur in conjunction with the "Thunder over Michigan" annual air show.

Forecast Military Operations. Military operations are projected to remain at their 2012 level of 182 annual operations through 2018.

Total Airport Operations

Total Airport operations are forecast to increase from approximately 73,600 annual operations in 2012 to approximately 75,200 operations in 2018 at a CAGR of 0.4%. The forecast indicates that the recent decline in total operations will level-off by 2013 and then traffic will begin to slowly increase over the forecast period. From 2013 to 2018 total airport operations are projected to increase at a CAGR of 0.6%.

2013 TERMINAL AREA FORECAST VALIDATION

The section below provides an evaluation of the 2013 TAF to determine the general reasonableness of its aircraft operations projections. Specifically, it analyzes the use of the year 2018 operations forecast in developing the 2018 future year noise exposure maps.

Commercial Operations

Commercial operations are the sum total of aircraft operations performed by aircraft included in the air carrier and air taxi/commuter categories. Commercial operations have historically accounted for approximately 20% of total YIP operations.

The 2013 TAF commercial operations forecast for the Airport appears reasonable given the long-term trends at YIP and the recent recovery in traffic that has occurred since the trough in 2009. The majority of the commercial operations at the Airport are performed by all-cargo aircraft. YIP has long served as an air cargo facility for Southeast Michigan and according to Airport management this situation is unlikely to change over the 2018 forecast horizon.

According to the FAA Aerospace Forecast 2012-2032 (FAA Aerospace Forecast), U.S. air cargo tonnage is projected to increase at an annual rate of 5.6% during the 2012-2018 period. And the Boeing Market Outlook 2012-2031 forecast projects a CAGR for North American air cargo tonnage of 4.5%. These forecasts suggest that it is reasonable to expect a modest increase in commercial all-cargo aircraft operations at YIP over the 2012-2018 forecast period.

As demonstrated on Table 3, three key regional economic indicators are projected to show significant improvement over the 2012-2018 forecast period. Employment levels are expected to reverse course from annual job losses of -1.3% from 2000 to 2010 to annual job growth of 0.6% from 2010 to 2020. Similarly, per capita personal income is expected to grow at an annual rate of 1.3% up from an annual rate of 1.1%. Likewise, gross regional product is projected to expand at a rate of 1.8% or approximately double its recent historical rate of 0.9%. And while the recovery from the recent economic recession has been slow, most economic forecasts expect it to continue which is likely to result in an increased demand for air service.

Table 3 Socioeconomic Factors Detroit Region

Detroit Region (a)(b)	Historical 2000-2010	Forecast 2010-2020
Employment	-1.3%	0.6%
Per Capita Personal Income	1.1%	1.3%
Gross Regional Product	0.9%	1.8%

Sources:

SEMCOG, Southeast Michigan 2040 Forecast Summary Revised, April 2012 U.S. Bureau of Economic Analysis.

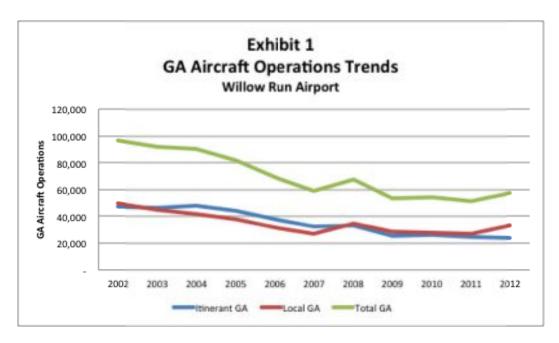
Woods and Poole Economics, Inc., 2012 Complete Economic and Demographic Data Source

- (a) Consolidated Detroit-Warren-Livonia MSA (Wayne, Oakland, Macomb, St. Clair, Livingston, Lapeer), Ann Arbor MSA (Washtenaw), and Monroe MSA (Monroe).
- (b) Compound annual growth rates for respective periods.

General Aviation Operations

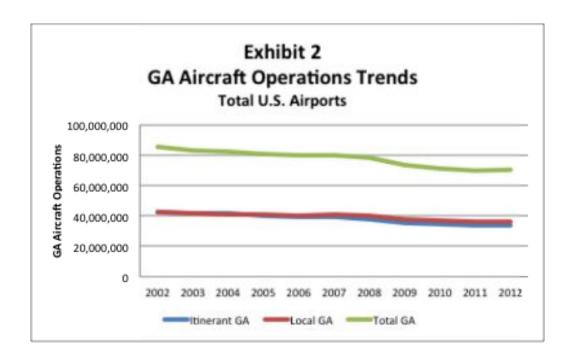
GA operations include local and itinerant operations and historically have accounted for approximately 80% of total YIP operations.

The 2013 TAF GA operations forecast appears reasonable based on the long-term trends of GA activity at YIP. As demonstrated in Exhibit 1 below, GA operations experienced a steady decline from 2002 to 2009, but leveled off in 2010 and 2011 and recorded an increase of 11.6% in 2012. GA operations at individual airports tend to follow national trends and as presented on Exhibit 2, historical GA operations trends for YIP were similar to those for the U.S.



Historically, GA activity has been closely tied to general economic conditions and fuel prices and given that the local and national economies are expected to continue a slow but steady rate it is reasonable to assume that GA operations follow this trend.

According to the 2013 TAF, total GA operations at YIP are projected to increase at an annual rate of 0.3% from 2013 to 2018 compared to 0.4% for the total U.S. This indicates that future GA traffic at YIP will continue to mirror national trends as it has historically.



Conclusion on Use of 2013 TAF for Noise Modeling Purposes

In our efforts to determine the reasonableness of the 2013 TAF for use in developing the 2018 NEMs, Jacobsen/Daniels Associates LLC (JDA), performed a thorough analysis of the 2013 TAF aircraft operations projections for YIP. In addition, we conducted other independent analyses including a survey of the Airport's largest all-cargo operators for their outlook on likely future demand, a review of other available aviation and socioeconomic forecasts (2013 TAF for State of Michigan and U.S., FAA Aerospace Forecast, Boeing Market Outlook) and discussions with Airport management.

Historical aircraft operations at YIP have been highly variable over the historical period of 2002 to 2012 and exhibited a generally downward trend from 2002 to 2009 before rebounding from 2009 to 2012.

This general decline in activity can be largely explained by economic factors such a decline in the automobile industry (the region's largest employer), a spike in fuel prices which negatively influenced GA traffic, a U.S. financial and banking crisis, and one of the nation's most severe economic recessions. While these negative events have largely passed, general

economic conditions are improving, and air traffic at YIP has been generally increasing, it is impossible to predict future events that may negatively influence air traffic at YIP and for the nation.

Based on the growth in air traffic at YIP from 2009 through 2012, which has likely occurred in response to improving regional and national economic conditions, the modest growth in air traffic projected in the 2013 TAF for the period 2012 to 2018 is considered a reasonable forecast of future aviation demand at YIP. Considering the information described above, in concert with reviewing the 2013 TAF for the State of Michigan and the 2013 TAF for the U.S., the FAA Aerospace Forecast, and the Boeing Market Outlook it was determined that the 2013 TAF operations forecasts are reasonable estimates of future aviation demand at YIP and appropriate for use in the development of the 2018 future year noise exposure maps in support of the YIP Part 150 Noise Compatibility Study.

Sensitivity Analysis on Updated Baseline Year (2012) Operations from 2012 Airport Data

Given the slight difference in 2012 operations when comparing the values provided in the TAF and those derived from 2012 Airport Data, a sensitivity analysis was conducted to ensure that this slight change in baseline operations would not influence the conclusion that the 2018 TAF operations are appropriate for use in the development of the 2018 future year noise exposure maps.

2012 Airport Data is approximately 1,090 operations or 1.5% lower than 2012 operations as reported in the 2013 TAF. To evaluate the impact of this difference between the two data sources, a sensitivity analysis was conducted where the 2013 TAF projected annual growth rate for the period 2012 to 2018 was applied to the 2012 Airport Data and generated 2018 forecast operations. This approach produced a new 2018 forecast of 74,122 total operations versus 75,220 total operations for 2018 as reported in 2013 TAF, which equates to a difference of 1,098 total operations or 1.5%. This minor difference between the two forecasts further supports our belief that the forecast for 2018 as presented in the 2013 TAF is reasonable for use in developing the Airport's 2018 NEMs.

In addition to the research and analysis described above, we reviewed the general approach, logic and methodology used in the development of the 2013 TAF. We found the 2013 TAF was prepared in a professional manner, employing a methodology that has been well tested and evaluated by the FAA and the aviation industry and that meets generally accepted industry practices for developing forecasts of aviation demand.

After a careful review of the analyses described above, we made a deliberate decision to use the 2013 TAF to provide the 2018 forecast of total aircraft operations at YIP for use in developing the Airport's 2018 NEM. We realize that if actual results deviate significantly from the forecast presented in the 2013 TAF, that the Authority accepts the responsibility to revise the forecast and related analyses if necessary.

EXISTING AND FUTURE FLEET MIX

The following section discusses the approach used to determine the existing and future aircraft fleet mix at YIP. The allocation of aircraft operations by aircraft type was determined from a variety of sources that include ASD Data, Airport management records, interviews with key Airport tenants and the 2013 TAF.

The 2012 current year fleet mix was determined from an extensive review of the ASD Data that included actual aircraft flight information for 2012. The fleet mix for the 2018 future year was based on the actual 2012 fleet mix which was adjusted for 2018 based on expected changes in the future aircraft fleet at YIP.

2012 Current Year Fleet Mix

The aircraft fleet mix for current year 2012 is provided below in Table 4.

Table 4
Aircraft Fleet Mix 2012
Willow Run Airport

Aircraft Type	Arrivals	Departures	Total Operations	Percentage of Total
Airbus A 319 &320	1	1	2	0.0%
Beech Jet All Series	222	222	444	0.6%
Beech Propeller All Series	2,511	2,511	5,022	6.8%
Boeing 727 All Series	300	300	599	0.8%
Boeing 737 All Series	60	60	120	0.2%
Boeing 747 All Series	8	8	17	0.0%
Boeing 757 All Series	4	4	8	0.0%
Bombardier CRJ All Series	264	264	529	0.7%
Bombardier Learjet All Series	1,002	1,002	2,004	2.7%
Cessna Business Jets All Series	711	711	1,423	1.9%
Cessna Propeller All Series	6,505	6,505	13,011	17.7%
Convair CV-540/580/600/640	52	57	109	0.1%
Dassault Falcon All Series	1,015	1,015	2,031	2.8%
Douglas DC 8 All Series	15	15	29	0.0%
Douglas DC 9 All Series	1,264	1,264	2,528	3.4%
Douglas MD 82 & 83	34	34	68	0.1%
Embraer ERJ All Series	842	842	1,684	2.3%
Gulfstream Jets All Series	306	306	612	0.8%
Hawker Business Jets All Series	85	85	170	0.2%
Helicopters	91	91	182	0.2%
Military Fighter Aircraft	91	91	182	0.2%
Miscellaneous Propeller	18,427	18,427	36,854	50.1%
Miscellaneous Business Jets	457	457	915	1.2%
Miscellaneous Commuters	756	756	1,512	2.1%
Mitsubishi All	3	3	6	0.0%
Piper Propeller All Series	1,179	1,179	2,358	3.2%
Sabreliner 80	592	592	1,184	1.6%
Unknown	-	-	-	0.0%
	36,799	36,804	73,603	100.0%

Source: BridgeNet International, Willow Run Airport (YIP) Aircraft Operations by INM Type, November 1, 2011 to October 31, 2012

Prepared by: Jacobsen/Daniels Associates LLC

Presented on Table 5 is a summary of the 2012 current year fleet mix sorted by aircraft category. Single-engine propeller operations represented the largest category of aircraft operations at YIP accounting for approximately 75.7% of total operations. The second largest share was represented by business/corporate jets at approximately 11.1%, followed by narrowbody jets with 4.6%.

Table 5
Operations by Aircraft Category
Willow Run Airport

Aircraft Category	2012 Baseline	% of Total
Widebody Jets	17	0.0%
Narrowbody Jets	3,398	4.6%
Regional Jets	2,151	2.9%
Business/Corporate Jets	8,174	11.1%
Single Engine Prop	55,719	75.7%
Multi-Engine Prop	3,963	5.4%
Helicopter	182	0.2%
tal Operations ¹	73,603	100.00%

¹ Total Operations numbers provided from actual 2012 operations (November 1, 2011 to October 31, 2012) as reported by BridgeNet International.

Source: BridgeNet International, Willow Run Airport (YIP) Aircraft Operations by INM Type, November 1, 2011 to October 31, 2012

Prepared by: Jacobsen/Daniels Associates LLC

2018 Future Year Fleet Mix

Through information gathered from tenant interviews some assumptions have been made about changes to the fleet mix for 2018. Surveys were issued to on-airport tenants requesting historical and anticipated changes in fleet mix, future flight activity, and facility needs. Results from the tenant interviews are as follows:

- Kalitta Charters plans to maintain their current fleet of 8-727-200, 2-DC-9's, 8-Falcon 20 and 10-Learjets;
- USA Jet's is going to maintain their current fleet of Falcon 20s, DC-9s and MD80s;
- Ameristar Jet Charter is going to maintain their current fleet of Falcon 20s, DC-9s, MD80s and 737s;
- DC-8 activity will likely not continue in the future.

Based on the information gained through tenant interviews and additional industry analysis, the following assumptions were made regarding changes in the Airport's projected 2018 fleet mix.

Based upon recent discussion with the current tenants, the Airport is projected to
have no widebody aircraft operations in 2018. Activity of these aircraft has declined
substantially in recent years. The Airport recorded only 16 widebody (B-747) aircraft

- operations in 2012 and that service is expected to be discontinued. Projecting future widebody operations at the airport will be closely monitored as this could change suddenly.
- Narrowbody aircraft operations are expected to increase slightly from approximately 4.6% of total aircraft operations in 2012 to 4.7% in 2018. These projections are based on interviews with current narrowbody operators at YIP and the FAA Aerospace Forecast of domestic cargo operations.
- Regional jet operations are expected to remain largely unchanged increasing from 2.9% of total aircraft operations in 2012 to 3.0% in 2018.
- Business/Corporate Jet activity is projected to increase from 11.1% of total aircraft operations in 2012 to approximately 14.0% in 2018. This assumption is based on projected changes in long-term, national turbojet activity as presented in the FAA Aerospace Forecast.
- Single engine, piston-powered aircraft activity is expected to decline from 75.7% of total aircraft operations in 2012 to 72.7% in 2018. This assumption is based on the Airport's historical trends and projected changes in long-term, national GA activity as presented in the FAA Aerospace Forecast for similar type aircraft. The Airport's share of multi-engine propeller aircraft operations and helicopter operations are expected to remain largely unchanged from 2012 at 5.4% and 0.3% respectively in 2018.

Table 6 provides the estimated 2018 future year fleet mix. Only minor changes from the 2012 fleet mix are expected to occur by 2018. The allocation of aircraft operations by aircraft type was based on the 2018 aircraft operations forecast from the 2013 TAF and the baseline fleet mix for 2012 adjusted for anticipated changes to the current fleet mix.

Table 6
Aircraft Fleet Mix 2018
Willow Run Airport

Aircraft Type	Arrivals	Departures	Total Operations	Percentage of Total
Airbus A 319 &320	1	1 1	2	0.0%
Beech Jet All Series	233	233	466	0.6%
Beech Propeller All Series	2,451	2,451	4,903	6.5%
Boeing 727 All Series	314	314	629	0.8%
Boeing 737 All Series	63	63	126	0.2%
Boeing 747 All Series	-	-	-	0.0%
Boeing 757 All Series	4	4	9	0.0%
Bombardier CRJ All Series	277	277	555	0.7%
Bombardier Learjet All Series	1,290	1,290	2,579	3.4%
Cessna Business Jets All Series	916	916	1,832	2.4%
Cessna Propeller All Series	6,480	6,480	12,959	17.2%
Convair CV-540/580/600/640	57	57	114	0.2%
Dassault Falcon All Series	1,307	1,307	2,614	3.5%
Douglas DC 8 All Series	- 1	-	-	0.0%
Douglas DC 9 All Series	1,326	1,326	2,652	3.5%
Douglas MD 82 & 83	36	36	72	0.1%
Embraer ERJ All Series	883	883	1,767	2.3%
Gulfstream Jets All Series	394	394	787	1.0%
Hawker Business Jets All Series	89	89	178	0.2%
Helicopters	107	107	214	0.3%
Military Fighter Aircraft	93	93	186	0.2%
Miscellaneous Propeller	17,989	17,989	35,979	47.8%
Miscellaneous Business Jets	589	589	1,178	1.6%
Miscellaneous Commuters	793	793	1,586	2.1%
Mitsubishi All	4	4	8	0.0%
Piper Propeller All Series	1,151	1,151	2,302	3.1%
Sabreliner 80	762	762	1,525	2.0%
Unknown	-	-	-	0.0%
	37,610	37,610	75,220	100.0%

Source: Jacobsen/Daniels Associates LLC

Presented in Table 7 is a summary of the 2018 future year fleet mix for YIP sorted by aircraft category. Single-engine propeller operations are forecast to account for the largest share of aircraft operations at approximately 72.7%, which is down from 75.7% in 2012. The second largest share is projected to be business/corporate jets at approximately 14.0%, which is up from 11.1% in 2012. The third largest share is projected as narrowbody aircraft which is expected to remain near its 2012 level of approximately 4.7% of total aircraft operations.

Table 7
Operations by Aircraft Category
Willow Run Airport

Aircraft Category	2018 Forecast	% of Total
Widebody Jets	0	0.0%
Narrowbody Jets	3,532	4.7%
Regional Jets	2,256	3.0%
Business/Corporate Jets	10,523	14.0%
Single Engine Prop	54,653	72.7%
Multi-Engine Prop	4,042	5.4%
Helicopter	214	0.3%
otal Operations	75,220	100.00%

Source: Jacobsen/Daniels Associates LLC

