# MASTER PLAN UPDATE

AIP NO. 3-23-0044-030-2014

**Final Draft**

# Pittsfield Municipal Airport

## Town of Pittsfield, Maine

**Maine Department of Transportation**
**Federal Aviation Administration**

**April 2016**

Hoyle, Tanner & Associates, Inc.

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# A - EXECUTIVE SUMMARY

## A.1 PROPOSED DEVELOPMENT

The primary proposed development at the Pittsfield Municipal Airport (2B7) over the next 20 years consists of maintaining the existing runway and taxiway infrastructure for safe and efficient use by private and corporate aircraft operators while improving safety, managing and planning for future growth, and expanding aircraft storage capacity as demand warrants.

The Airport is required by FAA to address the wildlife concerns identified by the 2014 USDA Wildlife Hazard Site Assessment. The FAA New England Region Wildlife Protection Specialist in a phone call to the Airport Manager on 3/31/16 agreed to let the Sponsor develop a local Pittsfield specific wildlife management plan outlining control methods as USDA recommended. The Plan should include documentation of the dates and times of observed wildlife hazards as well as recording of actions taken to harass or, with appropriate permits, trap or shoot hazardous wildlife. Installation of a perimeter wildlife fence may not be prudent at this time since few control or harassing procedures are currently in place or documented. Once this safety issue is remedied, the airport can better focus on development, growth, and becoming a sustainable entity.

A new LPV instrument approach procedure with lower weather minimums to Runway 36 will increase the all-weather availability of the airport. A lower minima LPV is not recommended at the Runway 18 approach end because of known obstructions (local community trees) or require excessive cost (relocating overhead power lines to underground). Land improvements around the runways may consist of vegetation clearing in wetland areas on the Runway 36 approach, but the extent of clearing will be determined and permitted at the time of implementation.

The current skydiving operation needs a permanent location to construct better facilities and restrooms for their clientele. They need safer patron access, vehicle parking and larger parachute landing areas within walking distance of their facility to reduce shuttling. The skydiving business could be relocated to the northeast portion of the airfield to accommodate these needs.

If the Airport does not meet the demand for hangar development, some airport users will possibly relocate to an alternate airport that has the desired hangars. This would have negative impacts on the growth and sustainability of the airport and the surrounding community's economy. It is highly recommended to encourage private or public hangar development. There is ample land available along the former runway. Utility infrastructure design and installation (electric, water, sewer, internet) will provide incentives for future development. Improving the drainage and utility systems in accordance with a development plan will make the Pittsfield Municipal Airport more efficient and more competitive for private hangar developers. An infrastructure project

financed by the Town could encourage hangar land leasing for private construction. The Town could recoup the costs by charging the builders an "impact fee" that would cover the private developer's portion of NEPA, DEP permitting, and infrastructure installation costs. These unfamiliar "soft" costs are often the reason private hangar builders walk away from a project. The National Environmental Policy Act (NEPA) requirements and Maine and Army Corps of Engineers environmental permitting in particular can be intimidating and costly if completed one hangar at a time. If the Town permits the entire hangar development area and installs the power, water, sewer and internet the developer can pay the prorated impact fee, lease the land, build the hangar and hook up to the services. The Town Manager advised on 03/30/2016 after Council discussion that the Town would be unable to fund speculative infrastructure development costs and the need for any hangar development to be a private effort or be funded using AIP grant funding.

In addition, parcels of land have been identified that could be considered excess to the current or future aeronautical needs of the airport. These parcels could be released from the surplus property and grant assurance obligations so they could be leased or sold for aviation compatible non-aeronautical revenue generation to support the airport.

## A.2 PROPOSED PROJECTS TIMELINE

### 0-5 YEARS – SHORT TERM

| Proposed Projects with Capital Improvement Costs | | | |
|---|---|---|---|
| **ALP Legend** | **Timeframe** | **Proposed Development** | **Estimated Cost** |
| a | Completed | Runway Maintenance and Markings | $ 200,000.00 |
| b | 1 | Unicom Frequency Change* | $ 0.00 |
| c | 2 | AWOS A-V Installation | $ 100,000.00 |
| d | 3 | LPV Aeronautical Survey | $ 100,000.00 |
| e | 2 | Skydiving Operations and Access* | $ 10,000.00 |

*** Not AIP Eligible**

### 5-10 YEARS – MID TERM

| Proposed Projects with Capital Improvement Costs | | | |
|---|---|---|---|
| **Legend** | **Timeframe** | **Proposed Development** | **Estimated Cost** |
| f | 5 | Hangar Development | $ 950,000.00 |
| g | 10 | Easement Acquisitions | $ 100,000.00 |

### 10 - 20 YEARS – LONG TERM

| Proposed Projects with Capital Improvement Costs | | | |
|---|---|---|---|
| **Legend** | **Timeframe** | **Proposed Development** | **Estimated Cost** |
| h | 10 | Alternate Airport Access – McCarty RD* | $ 750,000.00 |
| i | 15 | SRE Equipment | $ 250,000.00 |
| j | 15 | NEPA, Permit, Design, Construct Parallel Taxiway | $ 1,500,000.00 |
| k | 20 | Install Wildlife Deterrent Fence | $ 1,000,000.00 |
| l | 20 | Land Release* | $ 50,000.00 |
| m | 20 | Expand Tiedown Apron | $ 500,000.00 |

*** Partially or Not AIP Eligible**

## A.3 DEVELOPMENT MILESTONES AND TRIGGERING EVENTS

The proposed project timeline makes an assumption on when items will be needed at the airport. However, most of these items are triggered by operational needs. The short term projects address the current safety and operational needs of the airport. These items have already been discussed among the stakeholders and are priorities. Mid-term projects identify a need of the airport but are waiting for the trigger event or funding. Hangar Development has already been requested by existing and potential tenants, but the initial development costs require time for AIP funds to accrue if the construction is to be funded with Airport Improvement Grant funds. Private developers are wary of the perceived excessive environmental and permitting costs prior to design and construction of hangars. The possible release of land for non-aeronautical revenue generation is in the long term as it assumes that the demand will be low for commercial property until the Pittsfield Industrial Park is at capacity. This timing could change if there was an aeronautical-related industry that wanted to be adjacent to the airfield.

### A.3.1 ACTION ITEMS AND NEXT STEPS

In the next five years the priority for projects should be determined by the airport in consultation with MaineDOT and FAA. The priority of the short term projects are based on safety and operational improvements.

A one-time wildlife hazard assessment observed an abundance of wildlife sign (tracks, scat, feathers, etc.) from white-tailed deer, coyotes, foxes, and beaver. The FAA has approved the Sponsors request to locally develop a Wildlife Management Plan to address the safety issues relating to incursions created by the unrestricted access to the landing area. The plan will document wildlife hazards and clearly define the actions the airport staff will take to mitigate the hazards. The mitigation initially is anticipated to include harassment, depredation, and vegetation management. Wildlife deterrent fencing may eventually be needed to reduce the potential for wildlife strikes. The deer and turkeys present the greatest hazards, and two deer strike records reinforce that assumption. The aircraft operating area needs to be better protected by human or physical means.

Once the safety hazards are remedied, the airport can focus its available resources on growth and revenue generation projects including hangars. The release of excess land would provide an additional funding source for the airport to use to augment AIP eligible funding requirements; however there is an abundance of industrial land in the vicinity and the land may have limited marketability at this time.

### A.3.2 FUNDING PLAN

As a non-primary entitled General Aviation (GA) airport Pittsfield Municipal Airport can plan to receive approximately $150,000.00 each year to complete AIP eligible projects under the current FAA and State of Maine funding formulas. The annual sum can also be carried forward for up to four years to accumulate up to $600,000.00 of available funds for more costly projects. In addition, the State of Maine and FAA may provide discretionary funds for major projects deemed to be in the best interest of the flying public and beyond the funding capabilities of the non-primary entitlement program. The current proposed projects and the order of magnitude cost is shown in the previous tables. Projects with portions ineligible for AIP funding may be considered for private funding.

# B - AERONAUTICAL FORECAST

## B.1 BASIC AERONAUTICAL FORECAST

The FAA Terminal Area Forecast (TAF) was evaluated for possible use in the development of a forecast of aviation activity. The TAF is a detailed FAA forecast planning database that the FAA Office of Aviation Policy and Plans (APO) produces each year covering airports in the National Plan of Integrated Airport Systems (NPIAS). The TAF contains both historical and forecast data and is prepared to assist the FAA in meeting its planning, budgeting, and staffing requirements. The TAF forecasts are made at the individual airport level and are based in part on the national FAA Aviation Forecast.

The TAF assumes a demand driven forecast for aviation services based upon local and national economic conditions as well as conditions within the aviation industry. In other words, an airport's forecast is developed independent of the ability of the airport and the air traffic control system to furnish the capacity required to meet demand. However, if the airport historically functions under constrained conditions, the FAA forecast may reflect those constraints since they are embedded in historical data. In statistical terms, the relationships between economic growth data and data representing growth in aviation activity reflect those constraints.

Although updated and published each year to reflect annual changes in levels of aircraft operations and based aircraft counts, generally the TAF does not reflect accurate forecasts of future activity levels for many public use general aviation airports and airparks. In the TAF, forecasts of itinerant and local general aviation operations are based on time series analysis of historical aviation activity at the airport. However, for general aviation airports, historical data is derived from the Form 5010 data, due to the fact that small general aviation airports generally do not have an air traffic control tower or other standardized system for collecting and reporting operational data. Therefore, in the TAF, operations levels are held constant for the forecast unless specified by a local or regional FAA official. As shown in **Table B-1 and B-2**, the published TAF for Pittsfield Municipal Airport (2B7) was found to reflect constant projections of aviation activity growth through the year 2040. The TAF is suitable for the adoption or development of an aviation activity forecast for 2B7.

**TABLE B-1**
**TERMINAL AREA FORECAST (TAF) – HISTORICAL DATA**

| Year | Itinerant | | | | | Local | | | TOTAL | Based Aircraft |
|---|---|---|---|---|---|---|---|---|---|---|
| | Air Carrier | Air Taxi/ Commuter | General Aviation | Military | Total | Civil | Military | Total | | |
| 2004 | 0 | 1,000 | 7,000 | 0 | 8,000 | 12,000 | 0 | 12,000 | 20,000 | 38 |
| 2005 | 0 | 1,000 | 7,000 | 0 | 8,000 | 12,000 | 0 | 12,000 | 20,000 | 38 |
| 2006 | 0 | 100 | 5,000 | 0 | 5,100 | 12,000 | 0 | 3,600 | 8,700 | 40 |
| 2007 | 0 | 100 | 5,000 | 0 | 5,100 | 12,000 | 0 | 3,600 | 8,700 | 40 |
| 2008 | 0 | 100 | 5,000 | 0 | 5,100 | 12,000 | 0 | 3,600 | 8,700 | 36 |
| 2009 | 0 | 100 | 5,000 | 0 | 5,100 | 12,000 | 0 | 3,600 | 8,700 | 36 |
| 2010 | 0 | 100 | 5,000 | 0 | 5,100 | 12,000 | 0 | 3,600 | 8,700 | 38 |
| 2011 | 0 | 100 | 5,000 | 0 | 5,100 | 12,000 | 0 | 3,600 | 8,700 | 38 |
| 2012 | 0 | 100 | 5,000 | 0 | 5,100 | 12,000 | 0 | 3,600 | 8,700 | 38 |

Source: Terminal Area Forecast Fiscal Years 2012-2040

**TABLE B-2**
**TERMINAL AREA FORECAST (TAF) – FORECAST DATA**

| Year | Itinerant | | | | | Local | | | TOTAL | Based Aircraft |
|---|---|---|---|---|---|---|---|---|---|---|
| | Air Carrier | Air Taxi/ Commuter | General Aviation | Military | Total | Civil | Military | Total | | |
| 2013 | 0 | 100 | 5,000 | 0 | 5,100 | 12,000 | 0 | 3,600 | 8,700 | 43 |
| 2014 | 0 | 100 | 5,000 | 0 | 5,100 | 12,000 | 0 | 3,600 | 8,700 | 43 |
| 2019 | 0 | 100 | 5,000 | 0 | 5,100 | 12,000 | 0 | 3,600 | 8,700 | 43 |
| 2024 | 0 | 100 | 5,000 | 0 | 5,100 | 12,000 | 0 | 3,600 | 8,700 | 43 |
| 2034 | 0 | 100 | 5,000 | 0 | 5,100 | 12,000 | 0 | 3,600 | 8,700 | 43 |
| 2040 | 0 | 100 | 5,000 | 0 | 5,100 | 12,000 | 0 | 3,600 | 8,700 | 43 |

Source: Terminal Area Forecast Fiscal Years 2012-2040

FAA Order 5090.3C Field Formulation of the National Plan of Integrated Airport Systems (NPIAS) indicates that when forecast data of aircraft operations is not available, a satisfactory procedure is to forecast based aircraft using the statewide growth rate from the TAF and to develop activity statistics by estimating annual operations per based aircraft. A general guideline, the annual aircraft operations can be estimated as follows;

- 250 operations per based aircraft for rural general aviation airports with little itinerant traffic
- 350 operations per based aircraft for busier general aviation airports with more itinerant traffic
- 450 operations per based aircraft for busy reliever airports

- Up to 750 operations per based aircraft for busy reliever airport with large number of based aircraft

The statewide growth for all of Maine for the 20 years between fiscal years 2014 and 2034 was derived from TAF historical aviation activity data and results in an estimated compound annual growth rate (CAGR) of approximately 0.23%. It is a very low growth rate and results in minimal impacts to operations or based aircraft. Based on professional judgment and local knowledge, it was decided that applying 250 operations per based aircraft is reasonable for deriving aircraft operations at 2B7. Two forecast scenarios, low and high were developed. The low scenario represents a pessimistic or slow growth of based aircraft, where the high scenario represents aggressive or optimistic growth of based aircraft. The preferred forecast was derived by taking the middle point between the low and high scenarios, then adjusting based on local knowledge and professional judgment. The summary of the preferred derived Aviation Activity Forecast is depicted in **Tables B-3 to B-6**.

**TABLE B-3**

**SUMMARY OF AVIATION ACTIVITY FORECAST**

| Forecast Levels and Growth Rates | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Aviation Activity** | **Years** | | | | | | **Average Annual Compound Growth Rates (%)** | | | | |
| | **2014** | **2015** | **2019** | **2024** | **2029** | **2034** | **2014 to 2015** | **2014 to 2019** | **2014 to 2024** | **2014 to 2029** | **2014 to 2034** |
| **Passenger Enplanements** | | | | | | | | | | | |
| Air Carrier | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Commuter | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Enplanements | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Cargo** | | | | | | | | | | | |
| **Cargo/Mail (Enplaned + Deplaned Tons)** | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Itinerant** | | | | | | | | | | | |
| Air Carrier/Commuter (Part 121) | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Air Taxi (Part 135) | 126 | 132 | 155 | 184 | 213 | 241 | 4.76% | 4.23 % | 3.86% | 3.56 % | 3.30% |
| Total Commercial Operations | 126 | 132 | 155 | 184 | 213 | 241 | 4.76% | 4.23 % | 3.86% | 3.56 % | 3.30% |
| General Aviation | 6,322 | 6,609 | 7,759 | 9,195 | 10,63 2 | 12,069 | 4.55% | 4.18 % | 3.82% | 3.53 % | 3.29% |
| | | | | | | | | | | | |
| Military | 0 | 0 | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 0% |
| **Local** | | | | | | | | | | | |
| General Aviation | 4,552 | 4,759 | 5,586 | 6,621 | 7,655 | 8,690 | 4.55% | 4.18 % | 3.82% | 3.53 % | 3.29% |
| Military (Local Traffic Pattern) | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | | | | | | | | | | | |
| **Total Operations** | 11,000 | 11,26 3 | 12,314 | 13,630 | 14,94 6 | 16,262 | 2.39% | 2.28 % | 2.17% | 2.06 % | 1.97% |
| **Instrument Operations** | 2,750 | 2,816 | 3,079 | 3,407 | 3,736 | 4,066 | 2.40% | 2.29 % | 2.17% | 2.06 % | 1.97% |
| **Peak Hour Operations** | 4 | 4 | 4 | 5 | 5 | 5 | 0% | 0% | 2.26% | 1.50 % | 1.12% |

## TABLE B-4
## SUMMARY OF BASED AIRCRAFT FORECAST

| Based Aircraft Forecast | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Years | | | | | | Average Annual Compound Growth Rates (%) | | | | |
| | 2014 | 2015 | 2019 | 2024 | 2029 | 2034 | 2014 to 2015 | 2014 to 2019 | 2014 to 2024 | 2014 to 2029 | 2014 to 2034 |
| Single-Engine (Non-jet) | 37 | 38 | 40 | 43 | 45 | 48 | 2.70% | 1.57% | 1.51% | 1.31% | 1.31% |
| Multi-Engine (Non-jet) | 7 | 8 | 9 | 10 | 13 | 15 | 14.29% | 5.15% | 3.63% | 4.21% | 3.88% |
| Rotorcraft | 0 | 0 | 1 | 1 | 1 | 1 | 0% | 0% | 0% | 0% | 0% |
| Turboprops and Jets | 0 | 0 | 0 | 0 | 0 | 0 | 0% | 0% | 0% | 0% | 0% |
| Other (Ultralights and Gliders) | 0 | 0 | 0 | 1 | 1 | 1 | 0% | 0% | 0% | 0% | 0% |
| **Total Based Aircraft** | 44 | 46 | 50 | 55 | 60 | 65 | 4.55% | 2.59% | 2.26% | 2.09% | 1.97% |

* Hoyle, Tanner & Association. Local Knowledge and Professional Opinion.

## TABLE B-5
## SUMMARY OF OPERATIONAL FACTORS FORECAST

| Operational Factors | | | | | | |
|---|---|---|---|---|---|---|
| | 2014 | 2015 | 2019 | 2024 | 2029 | 2034 |
| **GA Operations Per Based Aircraft (OPBA)** | 250 | 250 | 250 | 250 | 250 | 250 |

## TABLE B-6
## COMPARISON OF DERIVED AND FAA TAF FORECASTS

| Year | Derived Forecast | FAA TAF | Derived Forecast vs. FAA TAF (%) |
|---|---|---|---|
| **Passenger Enplanements** | | | |
| 2014 | 0 | 0 | 0.0% |
| 2019 | 0 | 0 | 0.0% |
| 2024 | 0 | 0 | 0.0% |
| 2029 | 0 | 0 | 0.0% |
| 2034 | 0 | 0 | 0.0% |
| **Commercial Operations** | | | |
| 2014 | 0 | 0 | 0.0% |
| 2019 | 0 | 0 | 0.0% |
| 2024 | 0 | 0 | 0.0% |
| 2029 | 0 | 0 | 0.0% |
| 2034 | 0 | 0 | 0.0% |
| **Total Operations** | | | |
| 2014 | 11,000 | 8,700 | 26% |
| 2019 | 12,314 | 8,700 | 42% |
| 2024 | 13,630 | 8,700 | 57% |
| 2029 | 14,946 | 8,700 | 72% |
| 2034 | 16,262 | 8,700 | 87% |

Note: FAA TAF data is on a U.S. Government FY basis (October through September).

The forecast scenarios as well as the preferred forecast is depicted in the tables and graphics that follow.

**TABLE B-7**
**LOW FORECAST**

| Low Forecast | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Year** | **Single Engine Low** | **Multi-Engine Low** | **Jet Low** | **Helicopter** | **Other Low** | **Total Low** | **Operations Low** |
| 2014 | 37 | 7 | 0 | 0 | 0 | 44 | 11,000 |
| 2015 | 37 | 7 | 0 | 0 | 0 | 44 | 11,026 |
| 2019 | 37 | 7 | 0 | 0 | 0 | 44 | 11,129 |
| 2024 | 38 | 7 | 0 | 0 | 0 | 45 | 11,259 |
| 2029 | 38 | 7 | 0 | 0 | 0 | 45 | 11,391 |
| 2034 | 39 | 7 | 0 | 0 | 0 | 46 | 11,525 |

**TABLE B-8**
**HIGH FORECAST**

| High Forecast | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Year** | **Single Engine High** | **Multi-Engine High** | **Jet High** | **Helicopter** | **Other High** | **Total High** | **Operations High** |
| 2014 | 37 | 7 | 0 | 0 | 0 | 44 | 11,000 |
| 2015 | 38 | 8 | 0 | 0 | 0 | 46 | 11,500 |
| 2019 | 42 | 12 | 0 | 0 | 0 | 54 | 13,500 |
| 2024 | 47 | 17 | 0 | 0 | 0 | 64 | 16,000 |
| 2029 | 52 | 22 | 0 | 0 | 0 | 74 | 18,500 |
| 2034 | 57 | 27 | 0 | 0 | 0 | 84 | 21,000 |

**TABLE B-9**
**AVERAGE FORECAST**

| Average Forecast | | | | | | | |
|---|---|---|---|---|---|---|---|
| Year | Single Engine Average | Multi-Engine Average | Jet Average | Helicopter Average | Other Average | Total Average | Operations Average |
| 2014 | 37 | 7 | 0 | 0 | 0 | 44 | 11,000 |
| 2015 | 38 | 8 | 0 | 0 | 0 | 45 | 11,263 |
| 2019 | 40 | 10 | 0 | 0 | 0 | 49 | 12,314 |
| 2024 | 43 | 12 | 0 | 0 | 0 | 55 | 13,630 |
| 2029 | 45 | 15 | 0 | 0 | 0 | 60 | 14,946 |
| 2034 | 48 | 17 | 0 | 0 | 0 | 65 | 16,262 |

**TABLE B-10**
**PREFERRED FORECAST**

| Preferred Forecast | | | | | | | |
|---|---|---|---|---|---|---|---|
| Year | Single Engine Preferred | Multi-Engine Preferred | Jet Preferred | Helicopter Preferred | Other Preferred | Total Preferred | Operations Preferred |
| 2014 | 37 | 7 | 0 | 0 | 0 | 44 | 11,000 |
| 2015 | 38 | 8 | 0 | 0 | 0 | 46 | 11,263 |
| 2019 | 40 | 9 | 0 | 1 | 0 | 50 | 12,314 |
| 2024 | 43 | 10 | 0 | 1 | 1 | 55 | 13,630 |
| 2029 | 45 | 13 | 0 | 1 | 1 | 60 | 14,946 |
| 2034 | 48 | 15 | 0 | 1 | 1 | 65 | 16,262 |

**FIGURE B-1**
**BASED SINGLE ENGINE FORECAST**

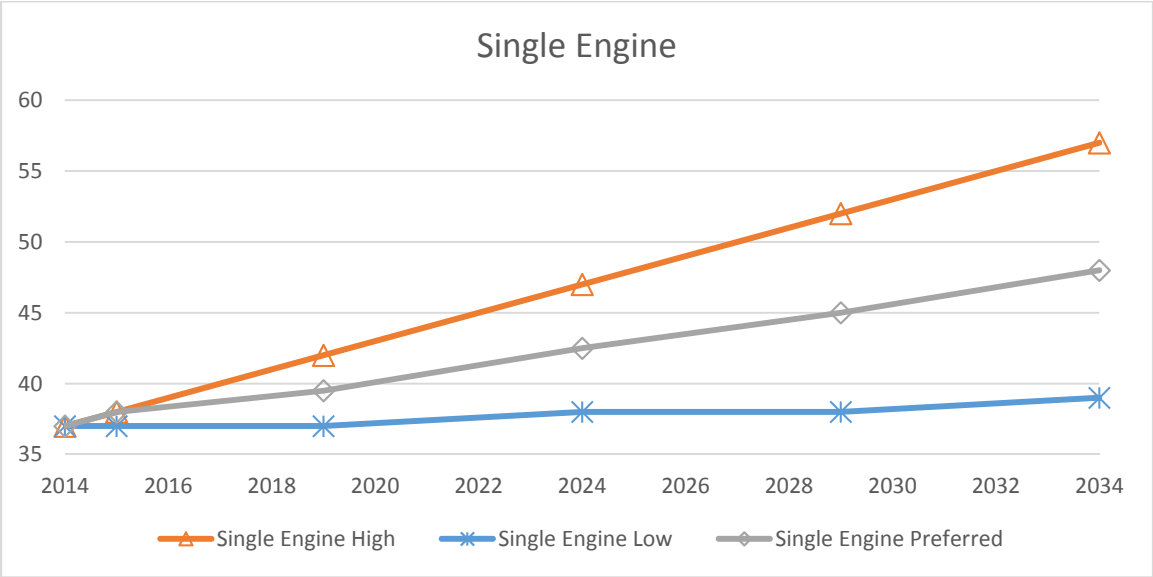



**FIGURE B-2**
**BASED MULTI-ENGINE FORECAST**

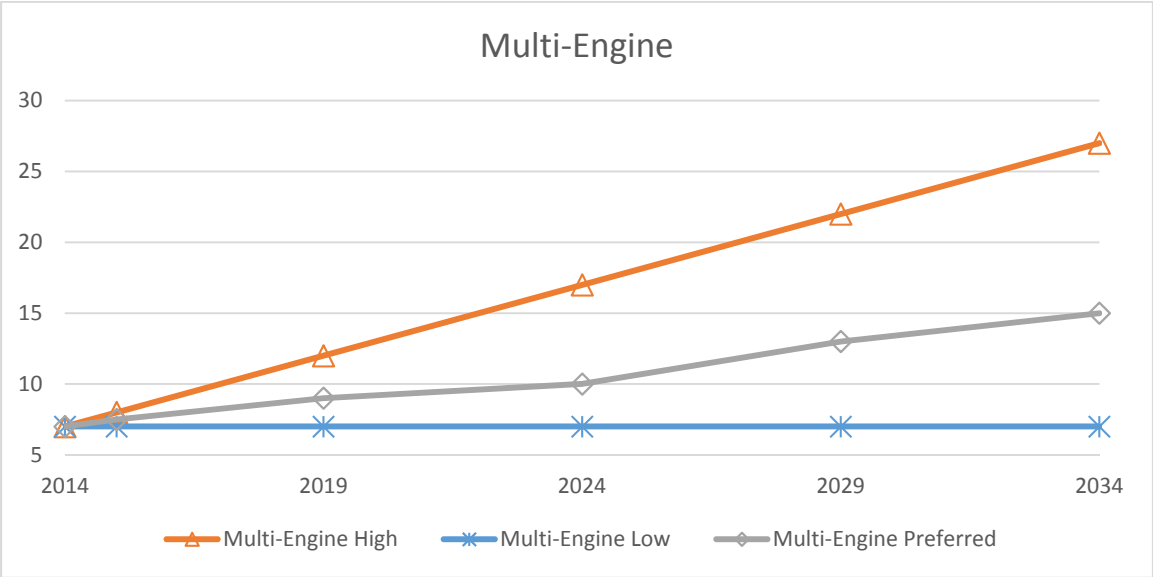


**FIGURE B-3**
**TOTAL BASED AIRCRAFT FORECAST**

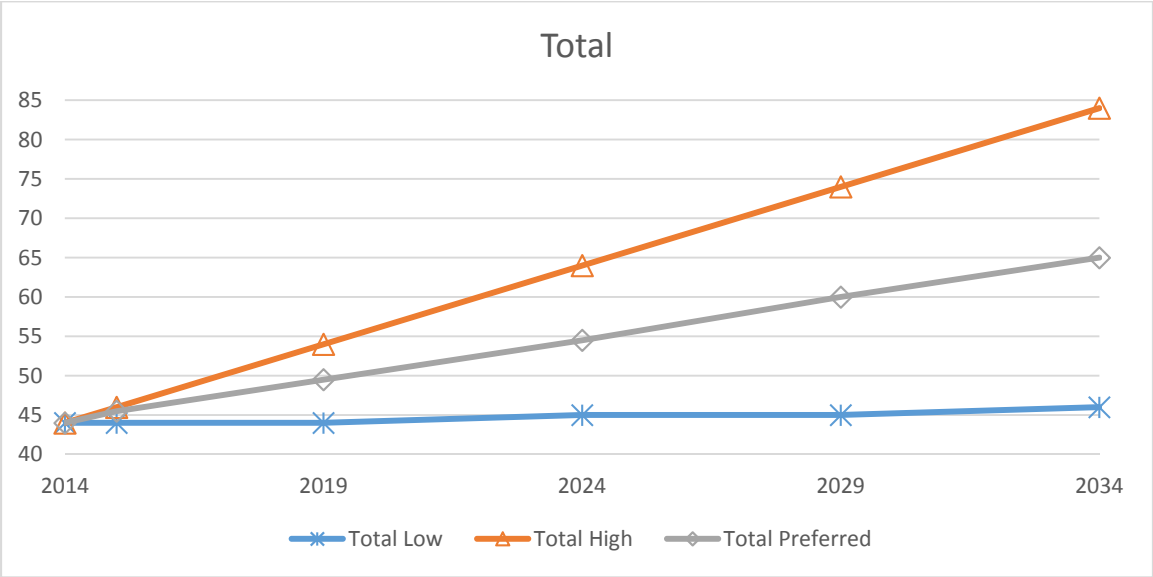
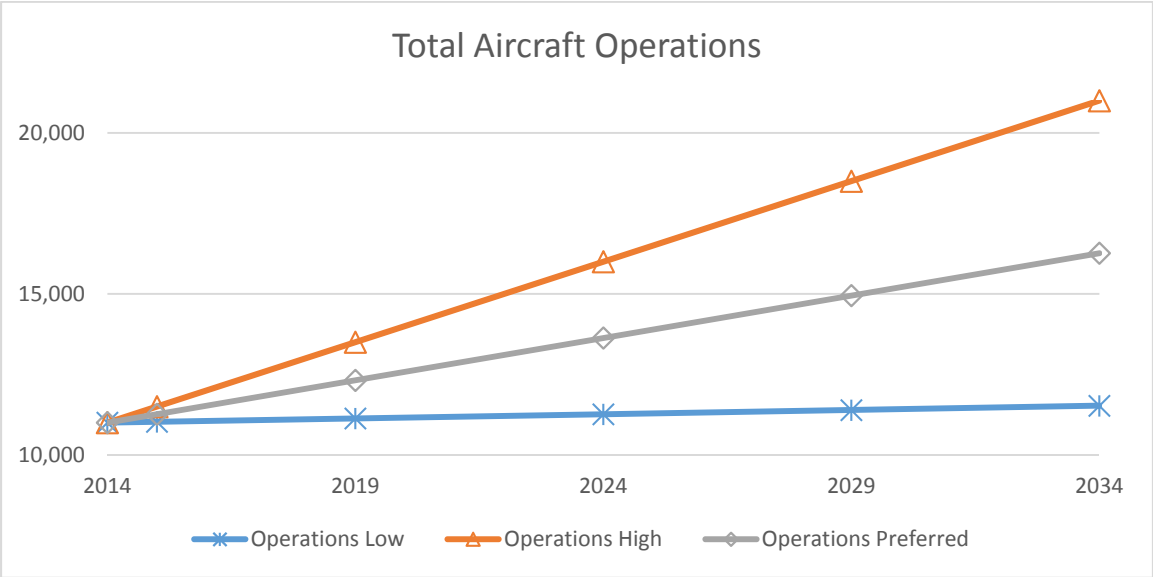



**FIGURE B-4**
**TOTAL OPERATIONS FORECAST**



## B.2 CRITICAL AIRCRAFT

The critical aircraft is the most demanding aircraft identified in the forecast that will use the airport. Federally funded projects require that the critical aircraft will make substantial use of the airport in the planning period. Substantial use means either 500 or more annual itinerant operations or scheduled service. The critical aircraft may be a single aircraft or a composite of the most demanding characteristics of several aircraft.

Pittsfield doesn't have 500 operations of a single aircraft; therefore the design aircraft at this airport will be a family of aircraft with similar characteristics. The most demanding aircraft would be the Beech King Air and Beech 18 which are both based aircraft. According to the forecast, a conservative estimate is that each based aircraft completes 250 operations per year. Therefore these two aircraft alone meet the operational threshold of critical aircraft. Itinerate aircraft provide a buffer to the forecast assumption.

## B.3 RUNWAY DESIGN CODE (RDC)

For the purpose of airport geometric design, each runway will contain a RDC which signifies the design standards to which the runway is to be built. The RDC consists of three parameters: Aircraft Approach Category (AAC), Airplane Design Group (ADG) and the approach visibility minimums. These parameters represent the aircraft that are intended to be accommodated by the airport, regardless of substantial use.

The most demanding based aircraft is the BE30 King Air powered by twin engines and seat up to 7-13 passengers with a max takeoff weight (MTOW) 14,000 lbs. and a wingspan of 50 ft. Newer large aircraft have better performance with MTOW over 12,500 lbs. These aircraft can still be classified as B-II aircraft. Because of this, the Runway Design Code is B-II.

## B.4 APPROACH AND DEPARTURE REFERENCE CODE (APRC AND DPRC)

The Approach and Departure Reference Codes (APRC and DPRC) describe the current operational capabilities of a runway and adjacent taxiways where no special operating procedures are necessary. In contrast, the RDC is based on planned development and has no operational application. The APRC and DPRC may change over time as improvements are made to the runway, taxiways, and NAVAIDs. Table 3-7 and 3-8 in AC 150/1500-13A summarizes the relationship between runway and taxiway for APRC and DPRC.

a. **Approach Reference Code (APRC).** Like the RDC, the APRC is composed of three components: AAC, ADG, and visibility minimums. Visibility minimums are expressed as RVR values in feet of 1600, 2400, 4000, and 5000 (nominally corresponding to lower than 1/2 mile, lower than 3/4 mile but not lower than 1/2 mile, not lower than 3/4 mile, and not lower than one (1) mile, respectively). The third component for a runway operated under visual approach conditions (including circling approaches) only should read "VIS."

i. The APRC for Runway 18 is B/II/5000 since there is no taxiway, but the tree line is 250ft from the runway (ROFA). The visibility minima on the RNAV GPS approach procedure is not lower than 1 mile.

ii. The APRC for Runway 36 is B/II/5000 since there is no taxiway, but the tree line is 250ft from the runway (ROFA). The visibility minima on the RNAV GPS approach procedure is not lower than 1 mile.

**b. Departure Reference Code (DPRC).** The DPRC represents those aircraft that can take off from a runway while any aircraft are present on adjacent taxiways, under particular meteorological conditions with no special operational procedures necessary. It is similar to the APRC, but is composed of two components, AAC and ADG.

i. The DPRC for Runway 18 is B/II since it has a runway to obstruction separation of 250 feet.

ii. The DPRC for Runway 36 is B/II since it has a runway to obstruction separation of 250 feet.

FAA approval of the forecast is provided in Appendix A.

# C - ALTERNATIVES AND PROPOSED DEVELOPMENT

## C.1 PROPOSED DEVELOPMENT

The ultimate goal of the airport is to provide the flying public facilities that are safe and effective at meeting their needs while maintaining financial sustainability. The Maine Aviation Systems Plan Update (March 2006) categorized the airport as a Level II meaning the airport should be capable of accommodating all business and personal operations using single and twin-engine general aviation aircraft. Scheduled commercial airline operations do not use Level II airports. The System Plan suggested that the following facilities and services be viewed as objectives that system airports should strive to meet or provide as they plan their future development. Asterisked items are currently lacking at Pittsfield.

**Airside Facilities**

- Aircraft Design Group – B category aircraft
- Runway Length – Greater than 3,500 feet and less than 5,000 feet
- Runway Width – 75 feet
- Taxiway – Partial Parallel*
- Approach – Non-Precision
- Lighting – MIRL and LITL
- Visual Aids – Rotating Beacon
- Lighted Wind Cone/Segmented Circle
- REILS
- VGSI (VASIs/PAPIs)
- Weather – Not an objective for Level II

**General Aviation Landside Facilities**

- Hangars Based – 50% of based fleet
- Hangars Transient – 25% of overnight aircraft*
- Apron – 50% of based; 25% of transient
- Terminal/Administration – 1,000 square feet
- Operations/Maintenance Hangar – 5,000 square feet
- Auto Parking – Equal to 75% of the number of based aircraft

**Services**

- FBO – Full or limited service
- Maintenance – Full or limited service
- Fuel – 100LL
- Terminal/Pilot – Phone, Restrooms, Flight Planning/Lounge
- Food – Limited service*
- Ground Transportation Services – On-site courtesy car*

- Security – Full Perimeter Fencing*
- Utilities – All

As discussed in facility requirements, there are several capital improvement projects that airport users have proposed that would increase services, promote economic grow for the airport and surrounding community, while maintaining safety. The airport users proposed the following improvements to the airport during the August 13, 2014 public meeting:

- Runway Maintenance and Markings
- Automated Weather Observation System (AWOS A-V)
- Unicom Frequency Change to avoid the 122.8 congestion
- Skydiving Operations and Access
- Hangar Development
- Airport Access
- LPV Approach
- Parallel Taxiway
- AWOS Weather Observations
- Non-aeronautical Revenue Generation

## FACILITY DEVELOPMENT ALTERNATIVES

### RUNWAY MAINTENANCE AND MARKINGS

If the airport only does the minimum maintenance required by grant assurances, the runway will deteriorate at a faster rate than if crack sealing and crack repair methods are implemented. Due to the enormous costs for runway reconstruction, extending the life of the existing facility by implementing pavement maintenance practices is highly recommended. MaineDOT and FAA consider these practices eligible for AIP funding and MaineDOT has completed a State funded crack sealing and markings project in FY 2015.

### AERONAUTICAL SURVEY TO CREATE A LOCALIZER PERFORMANCE WITH VERTICAL GUIDANCE INSTRUMENT APPROACH

An aeronautical survey to determine exact locations and elevations of potential obstructions will allow the FAA to create an LPV instrument approach to the airport. Currently pilots use a non-vertically guided GPS LNAV approach with weather data from Bangor to descend to within 466 feet above the ground. An LPV approach with on-site weather could lower the minimums further. This approach is the best possible option for a GA airport like Pittsfield and can be used by pilots to descend to the lowest possible altitudes in poor weather conditions.

### UNICOM FREQUENCY

The existing Unicom frequency of 122.8 is the same as the frequency of the Unicom at Dexter, Central Maine (Norridgewock) and Belfast airports as well as many others in Maine. It is also the AWOS weather frequency at Norridgewock and Belfast. This results in radio frequency congestion on the approach and in the traffic pattern at Pittsfield. A request through the FCC for a discrete Unicom frequency designation for Pittsfield would reduce the radio transmission congestion.

### SKYDIVING OPERATIONS AND ACCESS

The skydiving operations run by Vacationland Skydiving is an established business with long-term development plans and has been growing over the past years. They are currently stationed southwest of the runway along the former runway in a temporary structure with portable restrooms. Their cliental currently park at the FBO and walk across the apron, and along the taxiways to access the skydiving operations center. Currently unfavorable winds require the establishment to reschedule approximately 60 jumps per week. The skydiving business needs a permanent location to construct better facilities and restrooms for their cliental. They need safer patron access, vehicle parking and larger designated landing zones within walking distance to their facility to reduce shuttling. Three alternatives have been considered to meet the needs of the skydiving operation.

*Relocate to an alternate airport*

The business is a contributing user to the airport by purchasing fuel; renting hangar space; and utilizing FBO maintenance services. They also attract people to the community which contributes to the local economy. They do not create a nuisance to other airports users nor do they operate in an unsafe manner. There is ample land not being utilized that can accommodate their current operations. Because of these factors, it is not recommended that the skydiving operations relocate to an alternate airport.

*Maintain Current Location*

The business could construct a permanent structure and temporary leach field within the vicinity of their current operations. In the future, the sewer line could be extended to their location which would eliminate their need for a leach field. There is power and water stubbed near Taxiway A that they could extend to their facility. A new access road would need to be constructed and this access is needed for future hangar development along the closed runway. The drawback to growing in the present location is that the parachute landing area requires large areas of turf that would inhibit the growth of hangar development in this area of the airfield. As discussed in the Hangar Development Alternatives, this location is the most viable option. Therefore it is not recommended that the skydiving operations maintain their current location.

*Relocate to Former Runway 28 End*

The business could relocate to the northeast portion of the airfield which is the closed Runway 28 end. The site is unimproved except for the closed runway, however there is

an existing access road from Peltoma Ave which could be upgraded. There are also utilities that could be extended from Peltoma Ave, or the business could install septic and a well to provide client relief. This side of the airfield is less suited for future hangar development and non-aeronautical revenue generation is not foreseeable in the near future. Therefore, a larger parachute landing area will have limited impact on future development of the airport. The site would be improved for skydiving operations by removing the old pavement and clearing trees to the south. The pavement removal can be used as stormwater mitigation for other onsite improvements and may be eligible for AIP funding. This alternative is the preferred location for the skydiving operations and access.

## WILDLIFE DETERRENT FENCE

The USDA Wildlife Services conducted a one-time Wildlife Hazard Site Assessment on 17 October 2014. The primary recommendation from the letter report (**Appendix B**) was installation of wildlife fencing to inhibit the access of wildlife entering the aircraft operating area. The FAA on 3/31/16 agreed to allow the sponsor to create and implement a local wildlife hazard management plan with documentation and mitigation methods detailed. If the anticipated harassment, depredation, and vegetation management in the proposed plan prove insufficient and a fence is determined to be needed, three alternatives are considered for this development.

### *No-Build Alternative*

Fencing is costly and requires significant maintenance over the years to repair damage. The presence of wetlands in the vicinity of the runway indicate that this could be a substantial permitting and mitigation effort as well. By not installing the wildlife fence, these costs could be avoided. However, a liability exposure to the sponsor of the airport exists now that the USDA has recommended fencing.

### *Fence the Entire Airport*

Fencing the entire airport would satisfy the recommendations of the wildlife assessment, but this is the most costly alternative. The benefit of this alternative is that the fence line will have little impact on current operations or future growth.

### *Partially Fence the Airport*

To reduce the cost of permitting and construction, the length of fence installed could be targeted to areas where the deer pressure is highest and limited to developed areas where the deer are likely to access. As the airport develops, sections of the fence may need to be relocated to accommodate the growth. The fence line would have to be planned to minimize safety and operational impacts on the skydiving operations.

## HANGAR DEVELOPMENT

The airport has been approached by airplane owners and hangar builders who desire to house aircraft in hangars upon airport property. Three alternatives have been considered to meet the needs of future hangar development.

*No Build*

If the Airport does not provide the hangars or adequate space for aircraft owners to build private hangars the owners are likely relocate to an alternate airport. This would have negative impacts on the growth and sustainability of the airport and the surrounding community's economy.

*Northeast - Former Runway 28 End*

The northeast portion of the airfield consists of the deteriorating abandoned Runway 28. There are no utilities close to the abandoned runway where hangars would most likely be constructed. All of the airport utilities and services are such as the FBO and fueling are located on the west side of the runway 18/36. The abandoned pavement on the east side has not been maintained since closure and has deteriorated beyond levels acceptable for aircraft. The Airport would be required to construct a taxiway to provide access for any future hangar development. There is no perimeter road for vehicle access to this section of the airport, so vehicles will have to cross the runway, or an access road needs to be constructed prior to development. The east side of the active runway is not the preferred alternative for hangar development.

*Southwest - Former Runway 10 End*

The west portion of the airfield was improved during the reconstruction of Runway 18-36 in 2003 and was used as temporary runway. It has since been converted to a taxiway and utilized to access the existing hangars. Water and electrical utilities have been stubbed to the vicinity and sewer could be extended from the main that exists nearby. Access to hangar development areas on the west side of the active runway is via the existing gate at the terminal apron and vehicles have to drive across the apron and along the taxiway. An alternate vehicle access road is recommended to be established using McCarty road and the abandoned runway to reduce unnecessary vehicle traffic on the apron and taxiways.

## AIRPORT ACCESS

The current access to the airport is via Harrison Avenue which is a paved road with abutting residential development. A mechanical vehicle gate leads to the apron. Four alternatives have been considered to access the airport from alternative routes.

*Maintain Existing Access*

The existing gate immediately mixes vehicle with aviation traffic. It also creates a hot spot for foreign object and debris (FOD) being tracked onto the apron. It is recommended that this access is maintained, but is not considered the primary user access to the airport.

*McCarty Road*

McCarty Road is a private gravel road owned by an abutter who has historically expressed concerns about allowing unnecessary traffic to utilize the road. The Town has an easement to the road for the sole purpose of accessing the wastewater treatment facility located at the end. The Airport would be required to purchase rights to utilize the road. The abutter allowed temporary access of construction vehicles for the construction of the apron expansion so there is open communication and collaboration with the airport. The length of road improvements for this alternative is much longer than the other options, a total length of approximately 3,700 ft from Main Street to the last hangar near Taxiway A. Construction in phases is not viable since the entire length would be required to provide access to the existing users. There would be no wetland impacts with this alternative, and the removal of excess pavement could be used as stormwater mitigation. There are only two residential properties which use this road: one located on Main Street and only utilizes the first 100 ft of the road; and the other being a farm property that currently has access from Summer Court.

*Extend Harrison Ave*

This alternative maintains the existing access down Harrison Ave, but diverts the vehicle traffic west around the apron and hangars through an existing snowmobile trail to the rear of the proposed hangar development. A total length of approximately 2,700 linear feet would be needed from Harrison Ave to the last of the proposed hangars near McCarthy Road. Only 1,400 feet would be required to provide access to the current airport users. The rest of the distance can be phased as required by future development. There are known wetlands in the vicinity of the proposed road for this option. The availability of wetland boundary is limited and the approximate impact is indeterminate. It appears that impacts can be minimized, but not avoided. The exact bounds of the airport property for this location have not been determined by a licensed surveyor and may require the acquisition of property to complete the right-of-way.

There are multiple variations of this option. Since Harrison Ave is a residential road, it may make sense to consider acquiring access from Chester Street, Cianchette Street, Estelle Street, or Wright Street. These options would depend upon the availability of the property. It should be noted that gaining new access through a residential community will increase traffic in the neighborhood and may create opposition from the abutters.

*Peltoma Ave*

This option would provide access to the northeast section of the airport. Since this is not the preferred alternative for the future hangar development, it should only be considered as allowable for access to the proposed relocated skydiving facilities. These improvements are not likely to be AIP eligible.

## PARALLEL TAXIWAY

The existing facility does not provide a taxiway to reach the Runway 36 end. This causes aircraft to taxi down the runway for Runway 18 arrivals and Runway 36 departures. In the event of poor communication, this situation has incursion potential. Three alternatives are considered for the full length parallel taxiway. A partial length is not considered since it will not provide the same functionality of the full length and will not avoid environmental impacts.

*No-Build*

If no taxiway was built, the aircraft traffic would continue as currently operating.

*East Side of Runway*

In the event that the parallel taxiway was constructed on the east side of the runway, every RW 18 landing and RW 36 departure, would require the aircraft to cross the runway since all the airport amenities are located on the west side. The intent of the parallel runway is to eliminate aircraft incursions by reducing taxiing and vehicles on the runway.

The extent of wetland impacts is unknown since no wetland delineation has occurred within the last 5 years. The last delineation was performed for the runway reconstruction in 2003. Based on the information available, it appears that both sides of the runway have similar amounts of wetlands at the limits of clearing. Therefore it is assumed that environmental impacts will not be reduced by constructing the parallel taxiway on the east side of the runway.

During the one-time hazard assessment, it was noted that the sewer treatment ponds create a potential bird hazard during run-ups. The 36 end is surrounded by bird habitat so the threat of bird strikes is possible regardless of where the parallel is built.

*West Side of Runway*

By constructing the parallel taxiway on the west side of the runway, aircraft will avoid taxiing down the runway for arrivals and departures. This installation will also help eliminate the direct access from apron to runway. It will also eliminate the direct access from Taxiway D to the runway.

## NON-RESIDENTIAL THROUGH THE FENCE OPERATORS

There currently exist three non-residential through the fence operators at 2B7. Curtis Air is the long time Fixed Base Operator who provides the terminal and flight planning area as well as maintenance and airport management. Tip Top LLC maintains a corporate hangar on private property adjacent to the airport and access the public field with corporate aircraft. The third private hangar owned by Gail Realty is north of the FBO hangar and accesses the runway via a private taxilane. The alternatives are for the sponsor to document the access points and provide the FAA with copies of through the fence access agreements between the parties. The TTF operators are depicted in the graphic.

## AUTOMATED WEATHER OBSERVING SYSTEM (AWOS)

The closest weather reporting source is Waterville or Bangor airports. To get the lowest possible instrument approach minima an FAA certified local altimeter setting and visibility observation is required. Three alternatives are considered for installation of AWOS weather observation system to provide the certified altimeter and visibility information for a future LPV approach to RW 36 with the lowest possible descent minimums.

*Adjacent to TW D*

This location would require the installation of a power source. The runway lights and windcone are nearby, but would require different circuitry and voltage. Unfortunately, it is also in a location that would be prime for future apron expansion.

*East Side of Runway*

Located just south of the former runway, a power source will need to be extended to the position. This area used to be the location of the wind sock, and the area has since revegetated into small trees. Consideration of a future parachute landing area will impact this location.

*Peltoma Ave*

Located just north of the runway in upland area, this position is directly adjacent to utility poles for a power source. It would also be more representative of the wind conditions on the approach since it will not be shielded by trees. Access in the winter would be easier since Peltoma Ave is plowed.

## NON-AERONAUTICAL REVENUE GENERATION

A critical part of all airport planning is the goal of becoming and remaining financially self-sustaining. Identification of airport obligated land that is either unsuitable for aeronautical development or is excess to the airport's needs can be an important tool to reach the self-sustaining goal. Excess parcels can be identified for FAA release from surplus property deed restrictions or AIP Grant obligations and be released for non-aeronautical use or sale. All proceeds from non-aeronautical leases or land sales must be dedicated to airport use. It is recommended that the land is leased and not sold. Selling land provides a substantial sum of money, however once those funds are spent there is no more resources for the airport. Land also tends to increase in value over time. Land leases provide much smaller sums of money, but provide income to the airport over much longer time periods and can increase with the value of the property. Leasing the land creates a more financially sustainable approach for the airport. Two alternatives at 2B7 are considered for future land release.

*McCarty Road*

The airport owns a significant amount of land to the southwest of the airport along McCarty Road. Since the future growth of the airport's aeronautical development (hangars) will most likely be along the closed runway the land along McCarty will not be needed for aviation use. This area could be released for non-aeronautical revenue generation. Surveys of the property will be required to determine suitability for development and marketability.

*Peltoma Ave*

The airport owns land adjacent to Peltoma Ave beyond the former end of Runway 28. This site has utilities accessible from Peltoma Ave. Currently the ALP depicts relocating the skydiving facility in the vicinity with access from Peltoma Ave. In the event the skydiving facility does not relocate to this area, this land could be released from FAA grant restrictions and leased or sold to a compatible non-aeronautical facility in a manner that complements the airport's land use.

## C.2 APPROACH PROCEDURE REQUIREMENTS

Currently the runway has a RNAV GPS approach to each runway. A Localizer Performance with Vertical guidance (LPV) is a non-precision GPS enabled aviation instrument approach procedure. Instrument approach minimums of an LPV approach can be equal to those of a ground based instrument landing system (ILS) dependent upon an aeronautical survey to determine obstructions to approach surfaces. An LPV approach will increase the all-weather availability of the airport. Required improvements may consist of vegetation clearing in wetland areas on the Runway 36 approach. The clearing requirements are to be determined and permitted prior to approach procedure development. An LPV approach is not recommended to the Runway 18 end due to known obstructions, including trees in a community park and utility poles, which would be expensive or controversial to mitigate.

## C.3 Navigational Aids

The runway ends currently utilize Runway End Identifier Lights (REILs) and Runway 36 has a Precision Approach Path Indicator (PAPI). The installation of a Medium Intensity Approach Lighting System (MALSF) could provide an additional reduction in visibility minimums for an LPV approach to 36. Due to the high cost of installation and operation of a MALSF as well as the significant wetland impacts required for installation a MALSF is not feasible. No additional navigation aids are warranted.

## C.4 WIND COVERAGE

A key factor influencing runway orientation and the number of runways is the wind coverage. Wind coverage is the percent of time crosswind components are below an acceptable velocity. Wind conditions affect all aircraft to varying degrees, but smaller aircraft, like those utilizing Pittsfield Municipal Airport, are particularly affected by cross wind components.

An analysis of the wind conditions was conducted to determine the operational impacts on the existing facility. Ideally, a runway should be aligned with the prevailing wind since crosswinds are often a contributing factor in small aircraft accidents. In accordance with the standards in AC 150/5300-13A Appendix 2, the runway shall be aligned to achieve 95.0 percent wind coverage. If this is not obtainable with a single runway, a crosswind runway is warranted.

Data was sourced from National Oceanic and Atmospheric Administration, National Climatic Data Center (NCDC) for 10 consecutive years ranging from 2004 to 2014. The data was synthesized into the standard 36 wind sectors based to three meteorological conditions: All-weather, Visual Meteorological Conditions (VMC) and Instrument Meteorological Conditions (IMC). On site data was not available, so the nearest representative site was sourced from Bangor International Airport, Bangor, Maine located 23 nautical miles to the northeast.

Airport users were also asked for input on their crosswind experiences. The general consensus was that the tall trees at the edge of the ROFA create a buffer against the

wind patterns. This buffer doesn't exist once you gain altitude where the effects of crosswinds are less consequential.

Allowable crosswind components for each Runway Design Code (RDC) is listed in Table 3-1 of AC 150/5300-13A. Below are the two Runway Design Codes which represent the aircraft utilizing Runway 18-36.

**TABLE 3-1**
**ALLOWABLE CROSSWIND COMPONENT PER RUNWAY DESIGN CODE (RDC)**

| Runway Design Code (RDC) | Allowable Crosswind Component |
|---|---|
| A-I and B-I (including small aircraft) | 10.5 knots |
| A-II and B-II | 13 knots |

A windrose was drafted with the sourced data plotted. This windrose is provided on the Airport Data Sheet in the drawing set. The existing runway provides adequate wind coverage resulting in 96% wind coverage for A-I/B-I aircraft and 98% wind coverage for A-II/B-II aircraft. Therefore the existing orientation exceeds the minimum wind coverage and therefore provides substantial safety and utility for the airport users.

**WIND COVERAGE**

| Meteorological Condition | Observations | Runway | Wind Coverage Crosswind Component (Knots) | |
|---|---|---|---|---|
| | | | 10.5 | 13 |
| All-Weather | 120,216 | 18/36 | 96.35% | 98.52% |
| Visual Meteorological Conditions (VMC) | 89,020 | | 96.41% | 98.55% |
| Instrument Meteorological Conditions (IMC) | 31,196 | | 96.18% | 98.44% |

Source: Downloaded from National Climatic Data Center. Bangor International Airport (726070; 726088), years 2004 to 2014.
FAA Airports GIS Program, Airport Design Tools, Standard Wind Analysis
Note: year 2014 includes full observations dataset up to October and partial dataset for November

No crosswind runway is required or recommended due to the substantial construction and maintenance costs associated with the development and the minimal additional wind coverage provided by a crosswind runway.

# D - MODIFICATION TO STANDARDS

There are no approved Modifications of FAA standards at Pittsfield Municipal Airport.

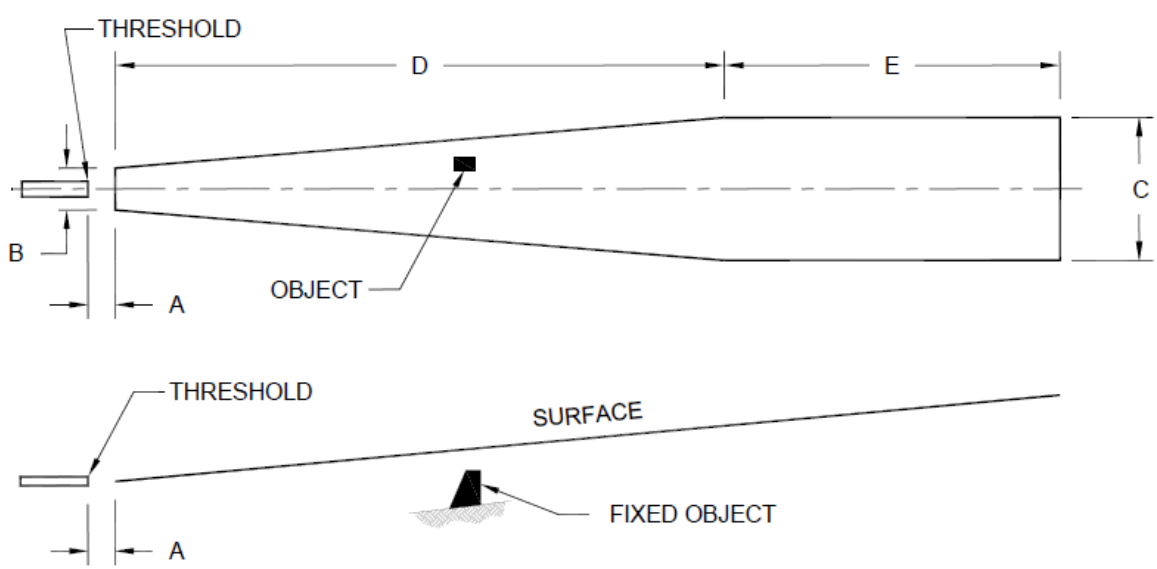
# E - OBSTRUCTION CLEARANCE SURFACES

The Obstruction Clearance Surface (formerly Threshold Siting Surface) is used to establish the runway thresholds and departure ends. The surface is established to provide proper clearance for landing at a specific point on the runway over obstacles. Ideally located at the beginning of pavement, the runway threshold can be relocated, or displaced, as a means to obtain obstacle clearance; conformity in the RSA, ROFA, and RPZ; or to avoid environmental impacts.

Pittsfield with an ARC of B-II supports twin-engine aircraft. According to Table 3-2, Approach/Departure Standards Table of A/C 150/5300-13A extracted below, Pittsfield's runway type would be expected to support instrument night operations, serving approach category A and B only. This requires an Obstruction Clearance Surface beginning 200 feet from the threshold, 400 feet wide, expanding to 3,800 feet wide at 10,000 at a 20:1 slope. Refer to line 4 of the following extract from the FAA Airport Design Circular and the associated graphic.

**TABLE 3-2. APPROACH/DEPARTURE STANDARDS TABLE**

| Runway Type | | DIMENSIONAL STANDARDS* Feet (Meters) | | | | | Slope/ OCS |
|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | |
| 4 | Approach end of runways expected to support instrument night operations, serving approach Category A and B aircraft only. [1] | 200 | 400 | 3,800 | 10,000 | 0 | 20:1 |
| 9 | Departure runway ends for all instrument operations. | 0 | See Figure 3-4. | | | | 40:1 |




DISPLACEMENT NOT REQUIRED

Pittsfield Municipal Airport has proper obstacle clearance, conforming Runway Safety Area (RSA) and Runway Object Free Area (ROFA). However, according to the most recent version of the Airport Design Advisory Circular, Pittsfield does not have a conforming Runway Protection Zone (RPZ) due to incompatible land uses in the RPZ. Refer to Section F, *Runway Protection Zone*, for explanation of the RPZ.

Whenever a threshold is displaced to improve obstruction clearances or for other safety reasons the landing distance available (LDA) is reduced. Pittsfield currently has 4,003 feet LDA with no obstructions requiring threshold displacement. The primary existing business user operating a Beech King Air 300 requires a minimum of 4000 feet for their purposes.

# F - RUNWAY PROTECTION ZONE

The RPZ's function is to enhance the protection of people and property on the ground. This is best achieved through airport owner control over RPZs. Control is preferably exercised through the acquisition of easements or titles.

The RPZ is a trapezoidal in shape and centered about the extended runway centerline. The RPZ is divided into two areas: the central portion of the RPZ and the controlled activity area. The central portion of the RPZ extends from the beginning to the end of the RPZ. Its width is equal to the width of the runway obstacle free area (ROFA). The controlled activity area is the remaining area of the RPZ on either side of the central portion of the RPZ.

According to Table 3-5, Runway Design Standards Matrix of A/C 150/5300-13A, the dimensions of a B-II RPZ begins 200 feet from threshold at 500 feet in width extending 1,000 feet and expanding to 700 feet in width. The approach and departure RPZ are the same since there is no displaced threshold.

Under current conditions there are several incompatible land uses as outline in FAA Memorandum, Interim Guidance on Land Uses Within a Runway Protection Zone, dated 9/27/2012 that are existing within the RPZ to Runway 18. There is a public road, Peltoma Avenue; a residential home located across the avenue; Manson Park located across the avenue; and aerial utility poles and lines along Peltoma Avenue. The RPZ to Runway 36 encompasses the existing float plane access basin which isn't explicitly determined as incompatible, but may qualify as a transportation facility.

According to Section 322.a.(1) of *AC 150/5300-13A Airport Design,* declared distances may be used to mitigate unacceptable incompatible land uses in the RPZs. This is relevant to non-jet GA airports and not recommended due to the reduction in usable runway compared to the limited benefit of the RPZ shift. Refer to Section M for additional information on declared distances.

# G – DEVELOPMENT SUMMARY

## G.1 PROJECTS COMPLETED SINCE LAST ALP

The last Airport Master Plan was developed in 1985. Below is a list of projects completed since the previous Airport Master Plan. Not all the items have been completed:

Historical Development Projects

| Year | Project Description | AIP Number | Total Project Costs | Federal Share | State Share | Local Share |
|---|---|---|---|---|---|---|
| 1989 | Crack sealing Runway 1-19 with AE-20 and poly fibre | | $2,200.00 | | $1,100.00 | $1,100.00 |
| 1996 | Airport Master Plan Update | 3-23-0053-02 | $44,500.00 | $37,854.00 | $4,055.00 | $2,591.00 |
| 2001 | Conduct approach study for Runway 1-19; conduct environmental assessment to clear Runway 1-19 approaches | 3-23-0036-03 | $208,900.00 | $188,010.00 | $10,445.00 | $10,445.00 |
| 2003 | Acquire land in the transitions to Runways 1 and 19; and acquire avigation easements in the approach to Runway 19 | 3-23-0036-04 | $131,550.00 | $118,395.00 | $6,577.00 | $6,578.00 |
| 2003 | Reconstruct, mark and light Runway 1-19 (approx. 4,000' x 100') | 3-23-0036-05 | $2,780,887.04 | $2,502,798.34 | $139,044.35 | $139,044.35 |
| 2004 | Acquire snow removal equipment to include wheel loader, snow blower, snow plow and snow basket | 3-23-2300-04 | $231,346.00 | $219,778.00 | $5,783.65 | $5,783.65 |
| 2005 | Construct snow removal equipment storage building | 3-23-0036-06 | $263,285.00 | $250,121.00 | $6,582.00 | $6,582.00 |
| 2006 | Vegetation Management Plan and permit application | 3-23-0036-07-2006 | $119,800.00 | $113,810.00 | $2,995.00 | $2,995.00 |
| 2007 | Runway 1 approach obstruction clearing - Phase 2 | 3-23-0036-08-2007 | $158,120.00 | $150,214.00 | $3,953.00 | $3,953.00 |
| 2008 | Design only for the reconstruction of the general aviation apron | 3-23-0036-09-2008 | $96,000.00 | $91,200.00 | $2,400.00 | $2,400.00 |
| 2009 | Reconstruction of general aviation apron | 3-23-0036-10-2009 | $1,195,830.00 | $1,136,038.00 | $29,896.00 | $29,896.00 |
| 2010 | Fence design, update SWPPP and reimbursable agreement of PAPI relocation | 3-23-0036-11-2010 | $30,737.00 | $29,201.00 | $768.00 | $768.00 |
| 2011 | Environmental Assessment for apron expansion | 3-23-0036-12-2011 | $117,000.00 | $111,150.00 | $2,925.00 | $2,925.00 |
| 2012 | Design of the General Aviation Apron Expansion | 3-23-0036-13-2012 | $104,000.00 | $93,600.00 | $5,200.00 | $5,200.00 |
| 2013 | General Aviation Apron Expansion | 3-23-0036-14-2013 | $584,780.00 | $526,302.00 | $29,239.00 | $29,239.00 |
| 2013 | Reconstruct Taxiway | 3-23-0036-15-2013 | $322,440.00 | $290,196.00 | $16,122.00 | $16,122.00 |

The previous Master Plan outlined several more projects that have not been completed to date. These projects are no longer applicable to the current needs of the facility:

- Reconstruct Runway 10-28 (Runway closed in 1985)
- Install new NDB
- Expand terminal building
- Prepare EA and justify runway extension
- Construction of a Helipad

## PROJECTS PROPOSED IN THE FUTURE

### G.2 0-5 YEARS – SHORT TERM

| Proposed Projects with Capital Improvement Costs | | | |
|---|---|---|---|
| **ALP Legend** | **Timeframe** | **Proposed Development** | **Estimated Cost** |
| a | Completed | Runway Maintenance and Markings | $ 200,000.00 |
| b | 1 | Unicom Frequency Change* | $ 0.00 |
| c | 2 | AWOS A-V Installation | $ 100,000.00 |
| d | 3 | LPV Aeronautical Survey | $ 100,000.00 |
| e | 2 | Skydiving Operations and Access* | $ 10,000.00 |

*** Not AIP Eligible**

### G.3 5-10 YEARS – MID TERM

| Proposed Projects with Capital Improvement Costs | | | |
|---|---|---|---|
| **Legend** | **Timeframe** | **Proposed Development** | **Estimated Cost** |
| f | 5 | Hangar Development | $ 950,000.00 |
| g | 10 | Easement Acquisitions | $ 100,000.00 |

### G.4 10 - 20 YEARS – LONG TERM

| Proposed Projects with Capital Improvement Costs | | | |
|---|---|---|---|
| **Legend** | **Timeframe** | **Proposed Development** | **Estimated Cost** |
| h | 10 | Alternate Airport Access – McCarty RD* | $ 750,000.00 |
| i | 15 | SRE Equipment | $ 250,000.00 |
| j | 15 | NEPA, Permit, Design, Construct Parallel Taxiway | $ 1,500,000.00 |
| k | 20 | Install Wildlife Deterrent Fence | $ 1,000,000.00 |
| l | 20 | Land Release* | $ 50,000.00 |
| m | 20 | Expand Tiedown Apron | $ 500,000.00 |

*** Partially or Not AIP Eligible**

# H - SHADOW OR LINE OF SIGHT STUDY

Pittsfield Municipal Airport is a non-towered field.

# I - COORDINATION LETTERS AND PUBLIC COORDINATION

No new coordination letters have been drafted for this Master Plan since the previous development projects required them. Public input for the Master Plan was sought during two public meetings and via reviews of Draft Master Plan reviews. Comments received via the public review process are provided in Appendix C1 & 2:

- MaineDOT comments and Consultant responses dated 1/21/16
- Sponsor, FAA comments Consultant responses dated 3/31/16

# J - WILDLIFE HAZARD MANAGEMENT ISSUES REVIEW

USDA, Wildlife Services was contacted by the airport to conduct a one-day site visit to determine if there were signs of wildlife hazards at the airport. The wildlife hazard assessment was conducted on September 25, 2014. This initial consultation identified American crows, Canada geese, wild turkeys, blue jays, bald eagle, ring-billed gulls, pileated woodpeckers, American kestrel, and rock pigeons. In addition, an abundance of wildlife sign (tracks, scat, feathers, etc.) was also documented from white-tailed deer, coyotes, fox, and beaver. Historically two aircraft deer-strikes have occurred on the airfield. Based on this information, the installation of a Perimeter Fence was recommended to deter wildlife from entering the facility. It is known that this fence will not eliminate the passage of fowl such as turkey and geese, but it will discourage deer and coyotes. The FAA New England Region Wildlife Protection Specialist in a phone call to the Airport Manager on 3/31/16 agreed to let the Sponsor develop a local Pittsfield specific wildlife management plan outlining control methods as USDA recommended. The Plan should include documentation of the dates and times of observed wildlife hazards as well as recording of actions taken to harass or, with appropriate permits, trap or shoot hazardous wildlife.

The survey also suggested the Airport acquire a State or Federal depredation permit.

A copy of the Wildlife Hazard Assessment is provided in Appendix B.

# K - PRELIMINARY IDENTIFICATION OF ENVIRONMENTAL FEATURES

## K.1 MAJOR AIRPORT DRAINAGE DITCHES

Two major stormwater drains cross under the former Runway 10-28. There is an aging drain pipe underneath Taxiway D that drains stormwater from Runway 18 to the east, and includes runoff from of the residential neighborhood to the northwest. Most of the proposed aviation development is to the west of this drainline. Any failure of the existing aging drain pipe would cause sinkholes in Taxiway D and eliminate access to the runway/apron area.

The east side of Runway 10-28 drains from Runway 18 to the west. This is also an aging structure. Failure of this structure would prevent access by the proposed relocated skydiving facility to the runway.

## K.2 WETLANDS

The airfield is adjacent to Sebasticook Bog. This is a large inundated wetland hydraulically connected to the Sebasticook River.

## K.3 FLOOD ZONES

Airport property has base flood elevations determined as Zone AE meaning Special Flood Hazard Areas inundated by 100-year floods. This zone overlays the Runway 36 end safety area and the last few feet of the runway to the south.

However, where most of the planned development is proposed, the zone has been determined as Zone X meaning areas determined to be outside the 500-year flood-plain.

## K.4 HISTORIC OR CULTURAL RESOURCES

The National Register of Historic Places has listed several properties in the vicinity of the airport. The properties include the Founders Hall, Pittsfield Public Library, Pittsfield Railroad Station, and the Pittsfield Universalist Church; all of which are approximately a half mile from the airport.

## K.5 SECTION 4(F) FEATURES

Across Peltoma Avenue is Mason Park, which has been described as a “jewel of an in-town park.” The park was bequeathed to the Town by John W. Manson in 1941 and named after his mother, Mary Ann Lancey Manson Park. The facility was donated with an intended use of sports fields, gardening, and playground for all. Since its inception, the park has grown in size by gifts of community-spirited individuals and now encompasses 45 acres of land on either side of the Sebasticook River. Manson Park now boasts three softball diamonds with bleachers, three tennis courts, a basketball court, horseshoe pit, a picnic area with fireplaces and tables, playground, good access roads, parking facilities, and benches. The park is recognized as the headquarters for the Maine Egg Festival and Kiwanis Karnival; two very popular events held near the fourth of July.

## K.6 FLORA AND FAUNA

The vegetative management plan was developed by Woodlot Alternatives, Inc. in 2003, and does not specify any endangered or threatened species. It does, however, outline the limits of a Cedar Swamp, which is an important winter browse for deer and provides excellent habitat for birds and mammals. Northern White Cedar is very slow growing and does not recover quickly through natural regeneration. Impacts to this community requires environmental compensation.

## K.7 NATURAL RESOURCES

An unnamed stream is identified to the south-west of the runway on the FEMA Map and the USGS 7.5 minute map of the airport. This stream and the Sebasticook River are resources protected under the Maine Department of Environmental Protection with a 75 foot do-not-disturb buffer.

## K.8 WATER QUALITY

The Department of Environmental Protection regulates stormwater based on the cumulative area of new impervious and landscaped areas. The most recent development at the airport was the apron expansion. This utilized the existing pavement footprint from the former Runway 10-28 to reduce the amount of “new” pavement area to 38,175 sf/ 0.9 acres of new pavement. This project maintained a threshold under one (1) acre of impervious.

The next project will most likely exceed this threshold which will require stormwater mitigation under the Chapter 500 Stormwater Law. There is a significant amount of unused impervious area associated with the former runway. On-site mitigation (removing impervious area equivalent one and a half times the proposed area) is the recommended method to meet the requirements of Chapter 500. A stormwater management BMP requires on-going maintenance and observations in addition to the initial costs of construction.

# L - RUNWAY SAFETY PROGRAM ACTION ITEMS

There are no current items from the Runway Safety Program Office or Runway Safety Action Plan at Pittsfield Municipal Airport.

# M - DECLARED DISTANCES

Declared distances represent the maximum distances available and suitable for meeting takeoff, rejected takeoff, and landing distances performance requirements for turbine powered aircraft. Takeoff Run Available (TORA) and Takeoff Distance Available (TODA) are the distances that apply to takeoff operations. The Accelerate Stop Distance (ASDA) applies to a rejected takeoff, and the Landing Distance Available (LDA) applies to landing operations.

According to AC 150/5300-13A Airport Design Section 322.a(1) declared distances may be used to obtain additional RSA and/or ROFA prior to the landing threshold and beyond the departing end of the runway, and mitigate incompatible land uses in the RPZs. In addition, declared distances may also be established to mitigate penetrations of the approach and departure surfaces.

At 2B7 declared distances have been reviewed for the following reasons:

- Incompatible land uses within the RPZs. Runway 18 LDA and Runway 36 TORA were reviewed to eliminate the incompatible residential and recreational land uses within the approach and departure RPZ, respectively. By essentially shifting the RPZ south, the existing incompatibilities are replaced with new non-compliant uses. This is due to the trapezoidal shape of the RPZ being wider the further it is from the runway end. Therefore the reduction of usable runway is not justified by this shift.

According to *FAA Order 5190.6B FAA Airport Compliance Manual*, the application of declared distances may not be appropriate at some general aviation airports. Pilots of small general aviation aircraft do not have a requirement to use declared distances to calculate allowable operating weights; therefore, use of declared distances would not be appropriate at general aviation airports serving only small general aviation aircraft. Pittsfield serves both small aircraft and large aircraft. Therefore, the use of declared distances may not be appropriate at 2B7 but they are required to be determined in accordance with the FAA ALP SOP No. 2.0.

# APPENDIX A
# Forecast Approval

McDougal, Evan R.

**From:** michelle.ricci@faa.gov
**Sent:** Thursday, November 19, 2015 9:34 AM
**To:** Luke.Garrison@faa.gov; Stacie.Haskell@maine.gov; Tim.LeSiege@maine.gov; info@curtis-air.com; townmanager@pittsfield.org
**Cc:** McDougal, Evan R.; O'Brien, Matthew T.
**Subject:** FW: Pittsfield Coordination Meeting

Good Morning,

The email below will serve as FAAs approval of the Forecast for the 2015 Master Plan Update for the Pittsfield Municipal Airport, Pittsfield, Maine.

Thank you.

Michelle Ricci
Environmental Protection Specialist
Federal Aviation Administration
New England Region
12 New England Executive Park
Burlington, MA 01803
781-238-7631

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**From:** Nicosia-Rusin, Ralph (FAA)
**Sent:** Wednesday, November 18, 2015 4:37 PM
**To:** Ricci, Michelle (FAA)
**Subject:** RE: Pittsfield Coordination Meeting

I have reviewed the Forecast Chapter for Pittsfield Airport. I find the forecast identified as the "Preferred Forecast" and presented in Table 3-10 of the Forecast Chapter to be a reasonable range of values to utilize in planning current and future facility requirements to be depicted on the airport layout plan.

Facilities design based upon forecasts beyond five years will require evidence of near term growth approaching these levels in order to justify AIP funding and any required NEPA findings.

Designation of design aircraft categories will generally have a greater impact on facility design and layout than forecasts of volumes of operations or passengers. Since this topic was not covered in this chapter, it is important that it be determined prior to specifying facility requirements or alternative layouts. It is the prerogative of the sponsor and the consultant to address this issue in the inventory or facility requirement chapters if not specified in the forecast chapter.

*Ralph Nicosia-Rusin*
Airport Capacity Program Manager
New England Region Airports Division
781 238-7612 office
603-465-7292 telecommuting

# APPENDIX B
# USDA Wildlife Hazard Site Visit Report

**United States Department of Agriculture**

Animal and Plant Health Inspection Service

Wildlife Services

79 Leighton Road
Suite 12
Augusta, Maine 04330
(207) 629-5181
(207) 629-5182 (fax)

October 17, 2014

Caleb Curtis, President
Curtis Air
Pittsfield Municipal Airport
176 Harrison Avenue
Pittsfield, ME 04967

cc: Kathryn Ruth, Town Manager
Town of Pittsfield, ME 04967
112 Somerset Avenue
Pittsfield, ME 04967

Dear Caleb:

This is a follow-up to our recent discussions and site visit conducted at Pittsfield Municipal Airport (2B7) by USDA APHIS Wildlife Services (WS) on Thursday, September 25, 2014. The meeting and site visit were conducted to discuss current wildlife hazards, identify potential attractants, and to recommend management practices that would help reduce wildlife hazards at your airport.

The discussions, site visit, recommendations, and information contained in this letter, together constitute an official Site Visit (formerly known as Initial Consultation) to assess the wildlife concerns at your facility. Wildlife hazard management recommendations contained in this letter are limited in scope and are based on observations made from my site visit and the facts that you provided on that day. Although Site Visits do contain an evaluation of wildlife hazards and a set of recommendations, they are not to be confused with Wildlife Hazard Assessments (WHA); however, Site Visits do often provide important background information when initiating a WHA. As you are likely aware, a WHA is conducted over a one-year period and facilitates an accurate and meaningful analysis of wildlife hazards at your airport. A valuable component of a WHA is the thorough set of recommendations that are provided to reduce wildlife hazards.

For your information, several Federal Aviation Administration (FAA) documents are available that provide important information that may assist in mitigating wildlife hazards. Specifically, Advisory Circular (AC) 150/5200-33B (Hazardous Wildlife Attractants On or Near Airports), AC 150/5200-32B (Reporting Wildlife Aircraft Strikes), Certalert 04-16 (Deer Hazard to Aircraft and Deer Fencing), Certalert 98-05 (Grasses Attractive to Hazardous Wildlife), the FAA manual entitled, "Wildlife Hazard Management at Airports", and other resources all serve as useful references to airport operators and should be consulted. These documents are available from the FAA's web site at: http://www.faa.gov/airports/airport_safety/wildlife/.

During my site visit on September 25, I recorded the species of wildlife that were observed as well as any habitat features that may attract wildlife. It is most likely that my wildlife surveys did not identify all the species present, or capture the full frequency of their occurrence. The species that were identified included: American crows, Canada geese, wild turkeys, blue jays, bald eagle, ring-billed gulls, pileated woodpeckers, American kestrel, and rock pigeons. In addition, an abundance of wildlife sign (tracks, scats, feathers, etc.) was also documented from white-tailed deer, coyotes, foxes, and beaver. Again, it is understood that a greater diversity of wildlife is present as compared to what was documented. I recognize from our conversation that deer and turkeys likely present the greatest hazards, and the two strike records with deer reinforce that theory.

In addition to the wildlife species observed, the general habitat conditions were also detailed. Some specific habitat features that may attract and support wildlife at Pittsfield Municipal are:

- mature forested areas to the east and west of the runway;
- water treatment lagoons;
- open grasslands interspersed with scrub-shrub and tree cover at the northeast edge of airfield;
- agricultural lands, mostly cow pastures, to the west of the airport;
- forested, and emergent herbaceous wetlands located at the south side of the runway; and
- hayfields that surround the AOA.

Based on these observations, historical wildlife hazards at Pittsfield Municipal, and our conversations, the following general recommendations are provided:

1. <u>Install a Perimeter Fence.</u> Through our conversations, it is clear to WS that a perimeter fence is not the desired outcome for the future of the airport. This intention is held by the Fixed-Base Operator (FBO) and perhaps others, and is based on the premise that a fence would be visually unappealing and may detract from the open community atmosphere that is an apparent underpinning within the Town of Pittsfield. However, it is well understood that airport perimeter fences are the most effective, long-term approach in preventing aircraft collisions with deer. Notably, deer are the highest ranked species that cause damage to aircraft if a strike occurs. They also have a high likelihood to cause a catastrophic incident. In addition, airports that do not have perimeter fences can do little to prevent the occurrence of deer on the air operations area (AOA). While lethal removal of deer inside a fenced airport is a standard recommendation by WS, WS does not advise for lethal removal without a fence. Even though offending individuals could be removed, other individuals would colonize vacant habitats; therefore, culling free-ranging deer would likely be viewed as unethical or an irresponsible practice performed on a public resource.

A deer resistant fence that is at least 10 feet tall (topped by 3 strands of barbed wire) is the most effective long-term deer damage management method for use on the airport. Typical perimeter fencing (either 6 or 8-foot chain-link topped with three barbed wire outriggers) that controls public access to airfields is inadequate for complete deer exclusion, although these standard fences do well at excluding *most* deer. Installation of deer resistant fencing can be expensive and is usually implemented with financial assistance from the FAA. Refer to FAA Certalert No. 04-16 (Deer Hazard to Aircraft and Deer Fencing) for additional information on deer hazards and fencing recommendations. WS recommends that Pittsfield Municipal begin planning for the installation of a perimeter fence by initiating dialogue with the FAA Regional Office to obtain funding for this project. Consultation with a qualified airport wildlife biologist should be ongoing throughout the fencing design phase to ensure proper placement and effective exclusionary function.

Until a perimeter fence becomes reality, WS recommends several immediate methods to reduce the presence of deer on or near the runway:

- Perform routine runway safety inspections before all aircraft movements;
- Harass all deer observed in the immediate vicinity (AOA, safety areas, and/or overruns) each time they are observed and continue harassment until they disperse;
- Encourage deer hunting practices that are safe and are compatible with airport objectives; and
- Widely communicate within the aviation community that deer frequent the airfield using notices to airmen (NOTAM) or some other effective alternative.

2. Vegetation Management. Current vegetation management at Pittsfield Municipal appears to be minimal. Only the minimum requirements for maintaining short grass is being conducted; generally along the runway edges and around lights and other airfield navigation aids. WS understands that the airport allows a local farmer to cut the tall grass areas for hay production. It is recommended that Pittsfield Municipal personnel be very cautious regarding the attractive nature of agricultural production relative to vegetation management, especially when soil amendments (e.g., manure) are added and cutting is ongoing (additional information is provided in recommendation # 10). Cutting of tall grass serves as a wildlife attractant due to insects and small mammals being killed during the mowing process. Species such as crows, turkeys, foxes and coyotes often frequent freshly mowed fields; therefore, additional caution is warranted during these periods.

   There is no single or uniform recommendation for the most appropriate grass height to maintain on an airport. Recent research findings made by USDA WS indicate that tall vegetation management may not reduce overall bird use of airports. The research did however, note marginally higher use by birds of short vegetation during the spring and summer. In areas where Canada geese, gulls, starlings and other similar bird species are prevalent, maintenance of grass between 6”-8” may

reduce the extent to which these birds will occur there. Maintenance of longer grass height (10”-12”) could further reduce the presence of these birds, but does have the potential to harbor populations of small mammals, which in turn could exacerbate aircraft hazards created by raptors. With the exception of short grass (3”-4”) within runway and taxiway safety areas, grass length of at least 6” should be maintained at Pittsfield Municipal, and regular mowing would decrease the production of grass seed that may be attractive to many seed-eating birds. Finally, insect control measures (consult with local Cooperative Extension) are an alternative to limit the availability of insect foods desired by gulls, turkeys, kestrels, and others.

Brushy areas along ditches, streams, and the periphery of the airfield should be mowed and maintained to be kept clear of dense vegetation, to increase runoff and eliminate wildlife habitat where animals would nest, feed, loaf, or roost. Annual or bi-annual bush-hogging is recommended in areas where mowers are unable to operate. A late summer/autumn mowing is essential since it reduces occurrence of rank matted vegetation that could support small mammal populations that attract raptors.

The area where tree removal has recently occurred (approach end, runway 36) currently contains both woody and herbaceous regeneration which serves as an attractant for many wildlife species, especially deer. In addition, this regenerating forest stand increases the heterogeneity of the forested landscape, and as a result, likely increases the diversity and abundance of wildlife. Ideally, this land area should be converted to mowable grass cover; however, WS recognizes this is currently cost-prohibitive. WS understands that Pittsfield Municipal received financial assistance to remove the standing trees that were located in this area to reduce visual obstructions. Future long-term planning should include strategies to acquire the funds required to extend runway safety areas, object-free areas, and/or visual surface areas. This would prevent the need to perform tree harvest operations after trees mature and will simultaneously reduce the habitat diversity adjacent to the airfield. A complete WHA would facilitate more detailed, specific habitat recommendations for your airport.

3. <u>Water Management.</u> Whenever possible, all standing water should be eliminated from the airport environment. Of course, some water sources cannot be eliminated and such is the case at Pittsfield. The major water attractant at Pittsfield Municipal is clearly the water treatment lagoons. These ponds are known habitat for a wide variety of species, most notably, waterfowl. Ducks and geese are highly ranked relative to their potential to cause damage if struck by an aircraft. WS was unable to document the full extent of this attractant; a full year of surveys would be required to understand and evaluate the abundance of waterfowl and waterbirds and their related hazard potential. Still, this water attractant would be very difficult to mitigate. The most likely scenario would be to explore exclusion options (grid systems) and harassment programs; two very costly and difficult solutions. An

immediate recommendation is difficult without knowing the extent of the birds present during each season. A general caution notice for airport users is warranted, coupled with a watchful eye to document waterbirds and harass when possible. Encouraging hunting, if suitable, may also reduce waterfowl use in the fall and early winter.

Other attractive water sources include temporary pools on pavement surfaces, wet grassy areas, ditches and drains, mitigated and natural wetlands, and ponds. Besides attracting ducks and Canada geese, they are also known to harbor blackbirds, gulls, and other birds and mammals. Improving the drainage to expedite water flow is desirable. While ditches are advised to eliminate water, they must be maintained to ensure water flow. In certain situations, ditches should be covered or otherwise modified and replaced by underground systems. If that is not practical, ditches should be cleared of vegetation and ditch slopes should be modified to permit easy access by mowing equipment.

4. Review all New Landscaping/Development Plans for Wildlife Hazards. All landscaping and airport development plans should be reviewed by a qualified airport wildlife biologist to identify potential wildlife attractants and hazard potential. Vegetation that provides fruits, nuts, and nesting/roosting sites should be avoided. All turf seeding should be of a specific fescue variety. Maintaining current and new landscaping is critical to decreasing the attractiveness of an airfield to wildlife.

5. Provide Training for Pittsfield Municipal Wildlife Control Personnel. Pittsfield Municipal Airport personnel involved in wildlife hazard control should be periodically trained to optimize the effectiveness of methods, and to ensure continued compliance with federal and state laws. WS provides a 1-day training course for airport personnel which covers topics such as wildlife identification, regulations and permits, wildlife habitat and population management techniques, and safe/effective use of firearms, pyrotechnics, and other tools. Contact WS for additional information on training opportunities. These services may also be available in the private sector.

6. Operation of Wildlife Hazard Management Patrols. Operation of wildlife hazard management patrols by informed, motivated, and equipped Pittsfield Municipal personnel is the most important short-term action Pittsfield Municipal can take to identify and reduce wildlife hazards to aircraft and public safety. Wildlife patrols are required to document and reduce the presence of wildlife on the airport. Typical responsibilities of the patrol should be to search for and report all wildlife strikes, identify and communicate wildlife attractants to Pittsfield Municipal management, record wildlife present or not present (see #8 below), and to harass wildlife away from aircraft movement areas. Wildlife patrol staff must be capable of addressing immediate and longer-term wildlife hazard situations, and be trained to identify birds, other wildlife, and wildlife attractants. They should ideally be able to employ

the all necessary tools to reduce wildlife hazards which include firearms, electronic devices, propane cannons, pyrotechnic launchers, and any other tools and devices that require strict adherence to safety protocols. Patrol personnel must be capable of recognizing if/when lethal control of wildlife is necessary to protect human safety on the airport. Responsible conduct of wildlife removal, pursuant to federal and state permits includes proper species identification, safe and effective shooting and/or capture of animals, and appropriate reporting of take to the U.S. Fish and Wildlife Service (USFWS) and/or the Maine Department of Inland Fisheries and Wildlife (MDIFW). As previously mentioned in item #5 above, WS provides annual training for these responsibilities.

As implied above, lethal control techniques are required to reinforce non-lethal methods. All airports should maintain a Migratory Bird Depredation Permit issued by the USFWS, as well as a permit to lethally remove state-regulated species issued by the MDIFW. Pittsfield Municipal does not currently possess a state or federal depredation permit, and WS recommends that you obtain these. These permits should be renewed each year and amended as needed. As we discussed on the day of my visit, deer, turkeys and gulls (herring, ring-billed, and great black-backed) are problematic and should therefore be permitted for take. WS also recommends adding other species that are frequently observed including Canada geese and various duck species. A federal permit is required for gulls, geese, and ducks while a state permit pertains to mammals and wild turkeys.

7. Continue to Report Wildlife Strikes. Thorough my conversation with you on the day of my visit, it was apparent that you were familiar with strike reporting as this has been conducted before. For clarification purposes, wildlife strikes occur when: 1) a strike between wildlife and aircraft is witnessed; 2) evidence or damage from a strike has been identified on an aircraft; 3) bird or other wildlife remains, whether in whole or in part, are found within 250 feet of a runway centerline or within 1,000 feet of a runway end unless another reason for the animal's death is identified or suspected, or on a taxiway or anywhere else on or off the airport that you have reason to believe was the result of a strike with an aircraft; or 4) the presence of birds or other wildlife on or off the airport had a significant negative effect on a flight (e.g., aborted takeoff/landing). The third category of this definition, the collection of bird carcasses near movement areas, usually constitutes the greatest proportion of an airport's wildlife strike record, and is the result of responsible actions of airport operational staff. In addition, strike reporting from all other airport users should be highly encouraged. Reporting strikes can be completed on the FAA website at http://wildlife-mitigation.tc.faa.gov/wildlife/default.aspx. Bird strike remains should be submitted for positive identification and those instructions are found at http://wildlife-mitigation.tc.faa.gov/wildlife/birdremains.aspx. WS biologists are available to offer technical assistance with this process.

   The National Wildlife Strike Database serves as a very important tool to assist WS biologists in managing wildlife hazards at airports. The database has been

maintained since 1990 and currently contains over 153,000 wildlife strikes. Without a comprehensive historic record of wildlife strikes at a given airport, we lack significant information which helps formulate wildlife hazard recommendations.

8. Maintain Airport Wildlife Log. The log should contain pertinent wildlife hazard management information (strike reports, summaries, wildlife control activity forms, wildlife observations/surveys, personnel training, etc.) in one readily-accessible source, so that FBO staff, the Airport Manager, and other select Pittsfield Municipal users can review and add to it as appropriate. The wildlife log, if properly maintained, will assist Pittsfield Municipal in determining appropriate strategies to reduce hazards and in predicting when hazards might develop, based on past patterns. The wildlife log is invaluable to airport wildlife biologists when formulating wildlife hazard recommendations at your airport. Finally, monitoring logs have also been used as legal evidence if a wildlife-related incident was to occur. These logs demonstrate what activities were (or were not) conducted to prevent wildlife hazards. It is equally important to document the times when patrols are conducted, but no wildlife were observed.

9. Adopt a Zero Tolerance Policy Towards the Most Hazardous Wildlife. One of the most important aspects of any wildlife control program is the recognition of wildlife hazards. A zero tolerance policy on the airfield should be adopted toward all hazardous wildlife. Although any bird or mammal on the airfield could be considered hazardous because they could cross the runway, priority should be given to species with the greatest risk for causing damage if struck. In any wildlife deterrent operation, common sense judgments must be made in regard to the proper timing and implementation of deterrent actions.

10. Advocate for Compatible Land-use Practices. WS recognizes that Pittsfield Municipal is a small, rural, community-based airport that is surrounded by private lands with traditional land-use practices. Some of these land uses are known to be attractive to wildlife; therefore, caution is warranted as wildlife will continually be present because of these existing habitats. While it is nearly impossible to change existing land-uses, influencing the conditions of future development is more likely. Still, WS recommends that airport staff and town leaders should be proactive in discussions that involve all off-site attractants. Specific attractants adjacent to Pittsfield Municipal include the water treatment lagoons, natural wetlands, agricultural production (crops and pastures) land, transfer station, and human structures, which all tend to attract different species. It is important that adjacent landowners understand the relationship of their activities to public safety at the airport. Cropland and pastures are often attractive to wildlife particularly if animal feed is available to wildlife. Animal waste products were identified as being stored on the abandoned runway at the east side of the airfield at Pittsfield Municipal, and these manure piles or spread manure could attract wildlife. Overall, every land use can be attractive to certain species of wildlife so it is imperative that airport

management be aware of surrounding land uses and most importantly changes in land use that could affect wildlife use in the airport environment.

The Site Visit (Initial Consultation) phase of WS' involvement is technically concluded with this letter report; however, it is important for you to know that WS is always available to offer technical assistance for managing wildlife hazards. Cooperative Service Agreements can be negotiated at any time for additional operational assistance. Based on this Site Visit, historical wildlife strikes, the surrounding habitat, and FAA guidance, WS suggests that a WHA be conducted at Pittsfield Municipal. Certainly, a WHA would allow qualified airport wildlife biologists and airport management to have a much more thorough understanding of the wildlife hazard potential at your airport.

I hope this information is useful to you in identifying and managing wildlife hazards at Pittsfield Municipal. I look forward to continuing to work with you and your staff to assess and mitigate wildlife hazards to aircraft and public safety.

Sincerely,

Adam Vashon
Qualified Airport Wildlife Biologist

# APPENDIX C-1
# MaineDOT Comments And Responses

**Pittsfield Maine ALPU Comments from and Responses MaineDOT**

Received from Tim LeSiege PE on 1/21/16

Comments followed by **responses in BOLD**
**by Evan R. McDougal C.M., Hoyle, Tanner & Associates**

1. **Sheet 2** - Runway Data table indicates Visibility Minimums at 5000 (I assume feet)… this is less than a mile (5280 ft) putting the actually visibility minimums in FAA terms as Not lower than ¾ mile. Considering the RPZ data is geared toward visibility minimums Not less than 1 mile, can you explain this to me? Shouldn't the data be consistent and lead to the same numbers? If the Visibility Minimums are indeed 5000 feet then the Approach RPZ should be 1700 ft long, 1000 ft inner width and a 1510 ft out width. The table on Sheet 6 says 1 mile. Please advise.

   **Instrument flight visibility is always measured and reported in Statute Miles per table 1-3 AC150/5300-13A - Therefore 5000 = not lower than 1 Statute Mile.**

**Table 1-3. Visibility minimums**

| RVR (ft) * | Instrument Flight Visibility Category (statute mile) |
|---|---|
| **5000** | Not lower than 1 mile |
| **4000** | Lower than 1 mile but not lower than ¾ mile |
| **2400** | Lower than 3/4 mile but not lower than 1/2 mile |
| **1600** | Lower than 1/2 mile but not lower than 1/4 mile |
| **1200** | Lower than 1/4 mile |

* RVR values are not exact equivalents.

2. The table calls for Visual and Instrument NAVAIDS.. HTA lists RNAV GPS in both columns.. not sure I would consider these NAVAIDS, I would expect something like PAPIs, VASIs, ILS, Odells…etc. **Edited**

3. Touchdown Zone Elevation. HTA lists 197.1 and 194.4 …yet Sheet 3 shows them as 194 and 184 respectively. Which is correct? **Sheet 3 is correct. Edited table**

4. The Airport Data Table lists the Existing ARC as B-II, then the Future ARC as B-II… yet all other Future use the term "Same"… seems inconsistent to list one that is the same, then use the term "Same" for the others. I know it's minor but it goes to consistency. **Corrected (for consistency)**

5. **Sheet 3** Please have the closed runway marker nearest the hangars moved further West past the Hangars. The "closed runway" in that section is now taxilane. A more accurate visual representation.

**The closed runway marker is depicted as existing on the ground on sheet 3. The Ultimate depicts an access road to hangar development areas and removal of excess pavement (and the X) in this area**

6. In the Structures, Buildings & Facilities box, is the plan to keep the Skydiving facility elevations at #? **Corrected Table**

7. In the upper right hand box, the note regarding traverse elevations should indicate the 23', 17' and 15' adjustments are used for FAA approach/obstruction calculations. It almost reads as if this is the accuracy. **Edited**

8. For ease of reading, can the Tax map identifiers be eliminated? Is there a need for them on this sheet? They obscure other airport based information. **Removed Lot Text Layer from Sheet – It could be left in PDF's and user could turn the layers on and off if desired.**

9. Property line not shown in the legends (also on Sheet 4 & 5) **changed existing black property line in legend to Blue.**

10. **<u>Sheet 4</u>** -See Sheet 3 changes. **Edits made.**

11. Can the Seaplane Launch and Dock verbiage be moved and given a longer lead in line? Seems obscured when it doesn't have to be. **Edited**

12. Regarding the Property line, HTA may wish to put a note on this page regarding the accuracy or list it as apparent, subject to verification/survey. **Done**

13. Future Parachute Facility… how do they get to the Runway? Will a plane be tied down there? Will they cross the runway for any reason? **Added a jump plane loading area next to gate 2 outside of ROFA.**

14. Will we need to create a parking area for the hangar owners? Should a "hangar" perimeter / back access road be created for vehicular traffic to keep them off the taxilanes? The Town should be encouraged to seek additional controlled access **At GA airports, airport fencing and controlled access gates works best to limit the vehicular traffic to authorized personnel. That traffic should be pilots and others with knowledge of airport movement area safety procedures set up by the airport management. In addition: Per AC 150/5300-13A 404 b (1) "Vehicles may operate within the (Taxiway) OFA provided they give right of way to oncoming aircraft by either maintaining a safe distance ahead or behind the aircraft or by exiting the OFA to let the aircraft pass".**

15. Fence line crosses the property line around the hangars… not so sure we can/should do this. Fence should be contained within airport property. (also on Sheet 5**)** **Property Line should be surveyed. When appropriate, standard 8 ft 3 wire eligible fencing should be installed within property lines where possible. Gaps along ineligible portions should be completed using local or state/local funding. Revised legend and graphic to show ineligible or private fence.**

16. At what point should Taxiways be re-identified as Taxilanes? This would allow for narrower Taxilane OFAs (10' for ADG-I, and 16' for ADG-II). Possibly less pavement needed in area A3. (and Sheet 5) **Planning is to the accepted forecast based ARC critical aircraft of B-II. When demand warrants design and construction the aircraft actually going to use an apron or taxiway/lane should be reexamined. The current private Taxiway C could be re-designated a taxilane.**

17. **<u>Sheet 5</u>** See Sheet 4 changes.

18. There is a dimension shown just above and to the right of the A2 box that is obscured… can this be moved so it is readable? **Corrected**

19. **<u>Sheet 6</u>** The Part 77 table indicates Visibility Minimums of 1 mile… sheet 2 says 5000 … please be consistent in terminology (1 mile in both tables, or 5280 in both tables if it is ~ not less than 1 mile visibility). **See answer to question 1**

20. Are obstructions shown based on a Category C approach or a Category A/B ? This was a HUGE question when Pittsfield lost their nighttime minimums and other approaches. Please verify and correct if needed. If these are truly obstructions it may cause a change in the CIP. **Obstructions shown are identified against the 34:1 Part 77 surface. The 20:1 OCS for AC150/5300-13A table 3-2, Line 4 is also shown. Line 8, 30:1 GQS surface is added for Runway 36 for future possible LPV planning.**

21. **<u>Sheet 7 & 8</u>** Does this take into account the trees removed by Pittsfield in 2013 or from the Obstruction removal project (AIP-08-2007)? **Sheets reflect current known obstruction points.**

22. **<u>Sheet 10</u>** Please include a legend for all the different property line line-styles. Thank you. **Added Legend**

**23.** There is a P2 indicated on the graphics between See Note 3 and See Note 4 … not sure what the P2 is for… please explain. **P2 is 924 feet from P1 and is a lot line for a subdivision abutting the airport. Deleted. The airport needs a boundary survey.**

24. Note 8 – Is McCarthy road a public road or a private road? The property line is drawn such that airport ownership crosses the road**. According to Google street view sign at the end of the Road it is McCarty Rd. We have been told it is a private road and the Town has access to the sewerage treatment lagoons via McCarty. We do not have survey to accurately depict the airport property boundary.**

25. Note 9 – Are there actual recorded or documented R.O.W's for these? **Note deleted. The Exhibit A Property Map is based on tax maps and a previous Town/Cianbro generated property Map. There are no recorded or documented ROWs for the known sewer or power utilities. Gail Realty has a 109 X 50 ft lease from TW B to Lot M23-L30 for access via taxilane C. We do not have survey to accurately depict the airport property boundary.**

**26.** Note 10 – Is the Utility Easement shown? **There is no evidence of an actual easement being in place and the Town Manager is not aware of any easement.**

# APPENDIX C-2
# Sponsor and FAA Comments and Responses

**From:** michelle.ricci@faa.gov
**Sent:** Thursday, March 31, 2016 9:12 AM
**To:** townmanager@pittsfield.org; Tim.LeSiege@maine.gov; McDougal, Evan R.; info@curtis-air.com; ralph.nicosia-rusin@faa.gov; Luke.Garrison@faa.gov; Jorge.Panteli@faa.gov
**Cc:** Audet, Timothy J.; Weaver, Fran H., NP; Stacie.Haskell@maine.gov
**Subject:** RE: FAA Notice of Intent, FY 2016 Entitlement Funds and Airport Master Planning

Good Morning,

I have written comments in red for #6 and #7.

Thank you.

Michelle

Michelle Ricci
Environmental Protection Specialist
Federal Aviation Administration
New England Region
1200 District Avenue
Burlington, MA 01803
781-238-7631

**Additional Comments have been reviewed and edits to the report made on 4/8/16 Evan R. McDougal**

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**From:** Kathryn Ruth [mailto:townmanager@pittsfield.org]
**Sent:** Wednesday, March 30, 2016 4:35 PM
**To:** 'LeSiege, Tim'; 'McDougal, Evan R.'; 'Caleb Curtis'; Nicosia-Rusin, Ralph (FAA); Garrison, Luke (FAA); Ricci, Michelle (FAA); Panteli, Jorge (FAA)
**Cc:** 'Audet, Timothy J.'; 'Weaver, Fran H., NP'; 'Haskell, Stacie'
**Subject:** FAA Notice of Intent, FY 2016 Entitlement Funds and Airport Master Planning

Greetings:
I wrote a few comments below in bold after Evan's comments.
THANKS so much,
Kathy

Kathryn Ruth
Town Manager
Town of Pittsfield
112 Somerset Avenue
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207-487-3138 (fax)
townmanager@pittsfield.org
www.pittsfield.org

**From:** LeSiege, Tim [mailto:Tim.LeSiege@maine.gov]
**Sent:** Wednesday, March 30, 2016 10:42 AM
**To:** 'McDougal, Evan R.' <emcdougal@hoyletanner.com>; townmanager@pittsfield.org; 'Caleb Curtis' <info@curtis-air.com>; 'Nicosia-Rusin, Ralph' <ralph.nicosia-rusin@faa.gov>; Luke.Garrison@faa.gov; Michelle Ricci (michelle.ricci@faa.gov) <michelle.ricci@faa.gov>; Jorge.Panteli@faa.gov
**Cc:** Audet, Timothy J. <taudet@hoyletanner.com>; Weaver, Fran H., NP <fweaver@hoyletanner.com>; Haskell, Stacie <Stacie.Haskell@maine.gov>
**Subject:** RE: FAA Notice of Intent, FY 2016 Entitlement Funds and Airport Master Planning

Please note that for #14, the State did not fund the 2015 project, this came from the individual participating airports entitlements. We only funded the 10% match. FAA-NE has ruled that State apportionment monies cannot be used for cracksealing and associated paint. Until this changes, the Town (through its use of its entitlement monies) would still be responsible for "funding" the project if/when the state opts to do another statewide type crackseal project.

**Timothy E. 'Spyke' LeSiege**, PE (ME#7821) PLS/PPS (SC#24119)
Aviation Engineer
Maine Dept. of Transportation
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16 State House Sta.
Augusta, ME 04333
207-624-3249 w
207-215-7459 c

*JCI Senator #59091*
*DREAM BIG - **Delivering Real Excitement and Motivation Because I Getit !!***

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**From:** McDougal, Evan R. [mailto:emcdougal@hoyletanner.com]
**Sent:** Wednesday, March 30, 2016 10:23 AM
**To:** townmanager@pittsfield.org; 'Caleb Curtis'; 'Nicosia-Rusin, Ralph'; Luke.Garrison@faa.gov; Michelle Ricci (michelle.ricci@faa.gov); Jorge.Panteli@faa.gov
**Cc:** Audet, Timothy J.; Weaver, Fran H., NP; Haskell, Stacie; LeSiege, Tim
**Subject:** RE: FAA Notice of Intent, FY 2016 Entitlement Funds and Airport Master Planning

Thanks Kathryn –

Please see my **comments embedded** below. We will incorporate your comments when we receive FAA's comments and prior to printing final documents for the April or May final informational meeting. I would suggest the last week of April or the first week of May if it works for the Town. Please let all know what dates and times work best for the town.

Evan

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**From:** Kathryn Ruth [mailto:townmanager@pittsfield.org]
**Sent:** Wednesday, March 30, 2016 12:23 AM
**To:** McDougal, Evan R. <emcdougal@hoyletanner.com>; 'Caleb Curtis' <info@curtis-air.com>; 'Nicosia-Rusin, Ralph' <ralph.nicosia-rusin@faa.gov>
**Cc:** Audet, Timothy J. <taudet@hoyletanner.com>; Weaver, Fran H., NP <fweaver@hoyletanner.com>
**Subject:** FAA Notice of Intent, FY 2016 Entitlement Funds and Airport Master Planning

Greetings Evan and All:

Listed below are the comments from the official discussion of the Master Plan Draft at the Pittsfield Town Council Meeting, which was a duly advertised public meeting on the Town's website and calendar. This is not a replacement for the upcoming meeting of interested parties, however, an opportunity to discuss the plan fully and get information out to the public before the informational session is held.

1. Page 1, last paragraph discusses an infrastructure project by the Town. The way that it is listed now sounds like the Town is going to finance this project itself and we would like to assure you that the Town does not have the resources to float a bond for airport improvements. We are totally dependent upon the FAA and MDOT grant process which we extensively appreciate and are so gratefully for all the funding received over the years. However, with the condition of our other infrastructure such as roads and buildings and being located in a high unemployment region and one of the poorest counties in Maine, we simply cannot finance a hanger project ourselves upfront. We have made a valiant effort to finance the 5% or 10% match required which we have been able to accomplish through the last grant project we were awarded. I am assuming that you mean that this is an AIP project like the others which would be invaluable to the Town and region due to all of the potential users who try to come here, but there is no available space or the users who are crammed into space which is not efficient requiring that other planes be moved to get to their plane. This is an attractive airport with great service in a strategy part of the State that needs more hanger space. It should be an attractive project for the AIP Program for funding as it will promote the airport for more use and build upon the great base that we currently have due to the FAA, MDOT and Pittsfield's investments over the years. **Added to the paragraph "In an email dated 3/30/16 the Town Manager expressed the Town's inability to fund speculative infrastructure development costs and the need for any hangar development to be a private effort or be funded using AIP grant funding once all safety related projects are funded." I would just make a minor change to the wording to note: "The Town Manager advised on 03/30/2016 after Council discussion that the Town would be unable"……rest of the sentence that you have. EDITED**

2. Page 2, Proposed Projects Timeline, Unicom Frequency Change. Our understanding is that all the airports in the area have the same frequency. How and why would we be different? **Page 16 discusses the reason for the suggested frequency change. With nearby airports all operating on a common 122.8 Unicom frequency there is congestion that can impact flight safety on busy days. The FCC expanded the available Unicom frequencies from 4 to 8 ten years ago or so. Governmental Airport Sponsors can request a frequency change to one of the less crowded frequencies at no cost other than the administrative burden. No Changes**

3. Page 2, Skydiving Operations and Access. While we appreciate the fact that there will be costs involved in the skydiving operation moving, the move is a benefit for the group. The Town will not be paying for this move. **That is not the intent. The Town determines where tenants may lease land and operate. Alternatives to the present location are presented on page 17 and the preferred alternative is the northeast portion of the closed runway. Required improvements would be negotiated with the Tenant during lease discussions. Costs can be transferred to the tenant via suitable lease terms. No Changes**

4. Page 3, Runway Pavement should be added. By the time the Town has a new Airport Master Plan after this plan currently under consideration, the pavement will be broken up and require re-paving despite our best efforts with the crack sealing. I recall the condition of the runway when I arrived here in 2002 and it was dangerous at best. We were fortunate to be allowed a total reconstruct project in 2004. However, it is now 12 years old and will not last forever**. Runways are designed to last a minimum of 20 years with many exceeding 30 before reconstruction. With regular crack sealing the Runway should be good until at least 2029. The next Master Plan in 10 years will look at the runway again as will MaineDOT every time they inspect the field. It is likely that due to funding on all government levels that the next Master Plan will be 20 years similar to the current process that is underway to replace the 1990's plan. No Changes**

5. Page 3, Land Release. What is the $50,000 which is not covered by the program? Is this the cost to pay back to the FAA for the release of the land for prior grant/s used to purchase it or the cost for someone to put together an application to do this work? I ask as I have been told repeatedly as people have requested parcels that are in the airport that are not being used that we have to pay back any grant funding that was received for these parcels' purchase in

order to acquire them back in order to sell them/allow for development by others. **The Land Release process and options is described in detail in Chapter 22 of FAA Order 5190.6B, Airport Compliance Manual. http://www.faa.gov/airports/resources/publications/orders/compliance_5190_6/ I have done land releases both as an airport manager and as a consultant. They are detailed and time consuming. The $35-50 K is an estimate of the potential costs to seek a release if you hire a consultant firm to do the work. It is not AIP eligible. If federal funding was used to originally acquire the parcel being released it is possible the proceeds from a sale would need to be reimbursed to the federal government. Keep in mind that a release does not necessarily mean outright sale and a release can also be sought to allow the Town to lease or use the parcels not needed for aeronautical use to be used for other non-aeronautical revenue generating uses provided the revenue generated directly benefits the airport. Due to the fact that we have learned that we can lease the land with revenue going to the airport, this is a worth leaving in the Master Plan. Thank you for explaining this out. No Changes**

6. Page 3-4, Wildlife Plan of Action. We need the acceptable plan for the FBO and the Town to implement the study to find out the impacts of shooting the wildlife under the special permits in order to provide for enhanced safety. The plan steps should be listed in the Master Plan so that it is clear to all. **An FAA approved Wildlife Management Plan is developed by a certified wildlife biologist often after a yearlong study of the airport habitats and risks from wildlife incursions. I would argue the yearlong study is not needed to create the plan but I am not the FAA or a certified wildlife biologist. I have sent a request to Allison Rogers in Sanford requesting she allow me to share her wildlife hazard study and the resultant wildlife hazard management plan to give your group an idea of the scope of work. I can add the steps required to the Master Plan but I would like FAA to comment on whether a full study is required or whether the FBO could just work with APHIS Wildlife Services to create an acceptable management plan to keep costs as low as possible. This item does need resolution for the Master Plan to be finalized. I recommend that a Wildlife Hazard Site Visit can be performed and a wildlife management plan be developed formt he site visit. FAA has draft guidance that should be followed. On 3/31/16 the FBO Owner/Contract Airport Manager Spoke with FAA Wildlife Specialist/Planner Michelle Ricci who agreed to allow the Sponsor to develop a local wildlife hazard management plan. Consultant provided a draft text from another airport for the Sponsor to use as a model.**

7. Page 19, Seaplane Base and Access. Improve to FAA Standards. We would agree that the seaplane landing area is greatly appreciated by the flying public and is well used. It is unique and of value to not only the region, but much of the State of Maine in this ½ of the State. I have heard about the seaplane access when I am in different parts of the State as it is well known. A Preliminary Study should be performed to determine the viability of the option. CAN THE SEAPLANE STUDY BE PLACED IN THE 1-5 YEAR TERM DUE TO ITS IMPORTANCE TO THE REGION**? I can move it to the short term projects but I suggest we wait for FAA's review and opinion on the possibility of a Modification of Standard. We would have to justify that the existing water landing area, while not meeting FAA standards for distance and obstruction clearances, provides an equal level of safety as the FAA design standards. That may prove very challenging. We would like to keep the seaplane access and further develop it if there is a chance that it could be renovated under the AIP program. The seaplane landing area is a low priority project for FAA. FAA priority projects are safety related projects. All safety related projects should be considered in the short term. EDITED CIP**

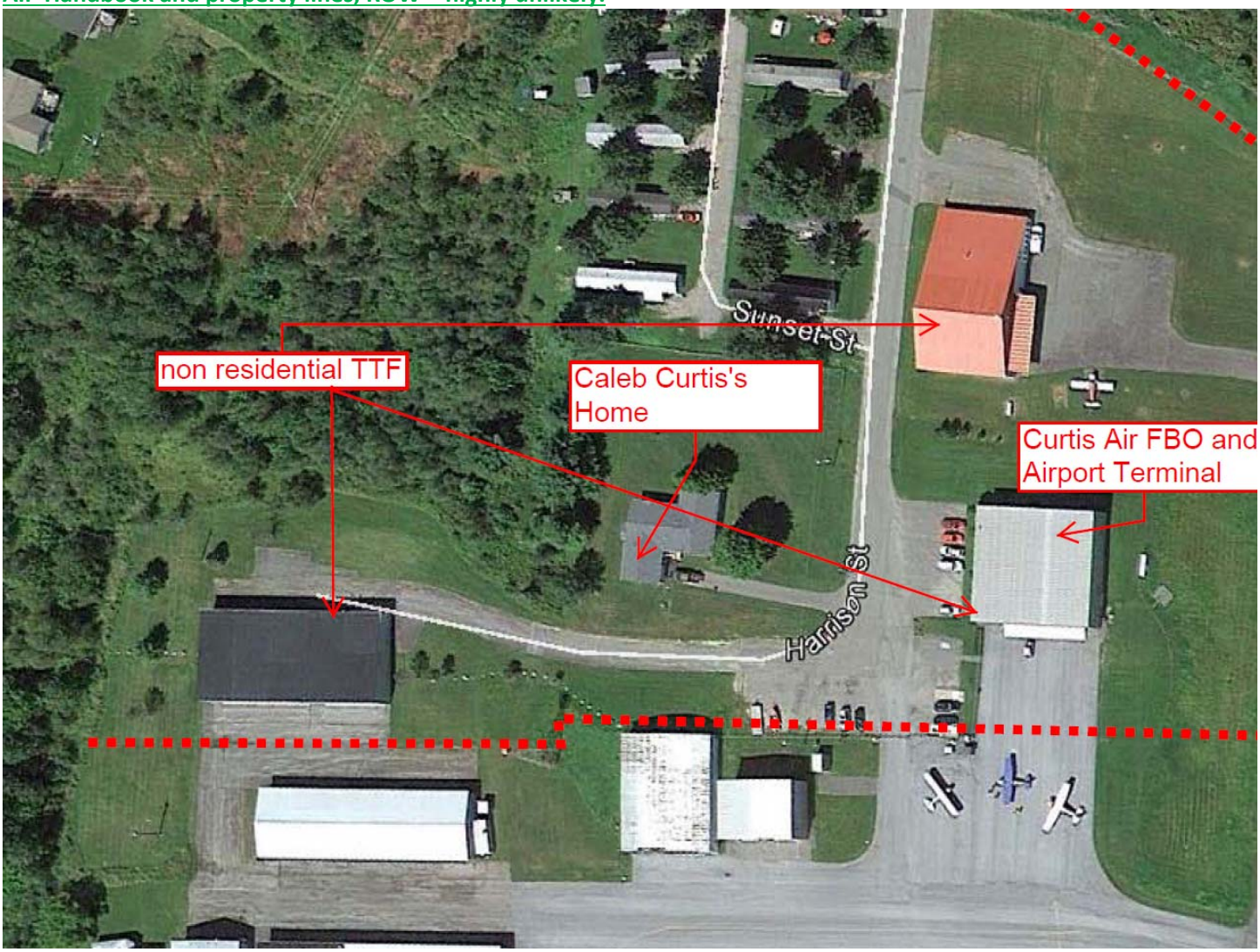
8. Page 20, Airport Access. There does not seem to be a perfect solution to this issue, however, we do need an improvement. It seems a very long distance, especially in winter, to have the traffic go down McCarty Road. I perceive we would then have to go down to haul people out. The Town has had this re-built, however, not for much more traffic than the Town's and as the back entrance to the airport for the Fly-in. **McCarty Road appears to be the best solution for a second access to aeronautical use areas to avoid impacting private property or wetlands. Flying is somewhat seasonal and the lighter vehicular traffic in winter could access the new hangar areas via the current gate and route via the FBO apron and taxiway. Vehicular traffic to the new hangar areas in suitable seasons could be encouraged to use McCarty Rd as an alternate. No Changes**

9. Page 23, AWOS. While the Airport is extremely active and as of the last Economic Report, 1 of the top producers of the General Aviation Airports, would we be allowed our own AWOS system? We are certainly not the size of Bangor. **An AWOS A-V would provide pilots with certified altimeter and visibility observations required to utilize the lowest instrument approach procedure minimums. Lifeflight of Maine has advised they cannot file a flight plan for**

**their new King Air to a field without an AWOS. And Pittsfield has the field length to support Lifeflight. Lifeflight of Maine currently has a technician trained to maintain and certify the Belfort AWOS A-V systems installed in Maine. An agreement with Lifeflight to maintain a similar system at 2B7 would be appropriate. Moved AWOS A-V up to short term and messagaed Lifeflight to confirm requirements and maintenance responsibilities.**

10. Page 31, Historic Grant Chart. Should this chart have the great Crack sealing and Marking Project that the State MDOT conducted for four communities including Pittsfield listed on it for last year? **A Master Plan is a snapshot in time. The cracksealing project was completed after the Master Plan was drafted. No Changes**

11. Important Project: An item that has not been considered is the lack of parking for spectator or business representatives who park outside of the airport gate so that they do not drive across the airport apron. Is there a way to improve the parking area although it does not appear to be part of the airport as listing it in this Master Plan? It is just outside the gate and I have always assumed that it is part of Harrison and Chester/Wright Streets (owned by the Town of Pittsfield). It could have an * listed as not AIP eligible. It seems that it should be an important project for the airport and we will all need to get together to fix ourselves (Town, FBO, users, etc.). **The Airport Entrance Rd and Airport Parking is typically eligible for AIP improvement program funding IF it is used solely to access the airport. That is not the case in Pittsfield due to the public roadway leading to private parcels as well as the airport. We can add an Airport Parking Improvement Project (in the mid-term?) and indicate ineligibility. If we were to limit the parking to only those who need to use the Airport, would it be eligible? It is rare when others park there. Based on Consultant understanding of AIP Handbook and property lines, ROW – highly unlikely.**



12. Important Project: The only project that was not completed in the old or current Airport Master Plan besides the ones that were listed as N/A was the helicopter pad which did seem excessive. Is this type of project one that could benefit all of the practicing aircraft from the military as well as the helicopters that land at the airport**? In my opinion, (with 4000+ hours of helicopter piloting time) there is no need for a helipad at 2B7. A helipad would require standard arrival and departure paths which could bring additional obstructions into play. Helo pilots are required to avoid the flow of fixed wing traffic and can make an approach to the runway and them ground taxi or hover taxi to a suitable parking spot as directed by the FBO. No Changes**

13. Important Project: Should we list Snow Removal Equipment for 2024 as the equipment that we obtained in 2004 will then be 20 years old? Right now it works well, however, when it is 20 years old, it will likely be needing more maintenance and repairs. I ask as we are likely to have this new Master Plan for a very long period of time, so we need to list the items that will come up during the next 20 years. The Snow Removal Equipment will need to be replaced someday. When I arrived, we had some really old malfunctioning equipment in operation. **Very good catch, We will add an improvement project for SRE equipment. Edited CIP to include SRE equipment.**

14. Important Project: Crack sealing and Markings: I am assuming that if we list this work under 0-5 years that we can also do this work at intervals over the 20 year period as one crack sealing and marking will not project the airport for the next 20 years. Can you verify this? **Crack sealing is typically considered to be maintenance and should be completed as conditions and funding allow. Hopefully the FAA will allow the State to use State Apportionment funds instead of airport NPE funds to continue to conduct Statewide crack sealing and marking projects and all airports will be in the rotation and benefit.**

Overall it is a very well worded and thought provoking plan. Thank you for the ability to have the time to comment on it through a Council meeting and interested citizens.

Please let me know which week in April or May is best for a meeting for your schedules and then we will run it past the airport users.
I am running a massive Regional Job Fair for two Counties on May 11 so that week would be off limits as we can have 300 – 500 people show up with our region's high unemployment rate.

THANKS,
Kathy

Kathryn Ruth
Town Manager
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207-487-3138 (fax)
townmanager@pittsfield.org
www.pittsfield.org

# APPENDIX C-3
# FAA Seaplane Base Decision

**From:** ralph.nicosia-rusin@faa.gov
**Sent:** Tuesday, April 12, 2016 4:44 PM
**To:** Stacie.Haskell@maine.gov; McDougal, Evan R.; townmanager@pittsfield.org
**Cc:** info@curtis-air.com; michelle.ricci@faa.gov; Tim.LeSiege@maine.gov; Jorge.Panteli@faa.gov; Bryon.Rakoff@faa.gov
**Subject:** RE: Airport Master Plan Final Draft Informational Session - PITTSFIELD

I will be attending the meeting on April 21st.

We have given the issue of seaplane facilities extensive review within our office. Our inclination is to seek ways to accomplish the expressed development objectives of airport sponsors. In this case we regretfully report the following conclusions:

1. Regular landings of seaplanes require a published seaplane landing area. None currently exists.
2. It is not possible to site the recommended 2,500 ft. by 200 ft. landing area in any portion of the river in close proximity to the airport. In addition to limited straight segments the river is too narrow.
3. Therefore accommodating seaplane access from the "seaplane taxiway" onto the airport is not consistent with FAA design guidance.
4. The ALP should not depict a "seaplane taxiway" nor any other facilities labeled as serving seaplane operations.
5. Permitting the towing of float planes from the canal onto the airport for services should be immediately discontinued given the absence of an approved seaplane landing area.
6. We do not support any future study of developing seaplane facilities at Pittsfield Municipal Airport.

*Ralph Nicosia-Rusin*
Airport Capacity Program Manager
New England Region Airports Division
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781 238-7612 office
603-465-7292 telecommuting
603-459-9436 cell phone

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**From:** Haskell, Stacie [mailto:Stacie.Haskell@maine.gov]
**Sent:** Tuesday, April 12, 2016 11:53 AM
**To:** 'McDougal, Evan R.'; townmanager@pittsfield.org
**Cc:** Caleb Curtis; Ricci, Michelle (FAA); LeSiege, Tim; Nicosia-Rusin, Ralph (FAA)
**Subject:** RE: Airport Master Plan Final Draft Informational Session - PITTSFIELD

That would work for us, although if possible 2:00 would be better but we can make whatever work!! ☺

Thanks,
Stacie

# APPENDIX D
# Airport Layout Plan Set