



# 11

## Aviation







## **AVIATION**

### **Introduction**

#### **Facilities and Operational Characteristics**

Within the Montachusett Region, there are three general aviation airports. Fitchburg Municipal Airport is located between the cities of Fitchburg and Leominster and the Gardner Airport in Templeton is located near the Gardner City Line. Both are publicly owned. The third airport is Sterling Airport in Sterling which is owned by a private corporation. All three airports are open to the public.

#### **Fitchburg Municipal Airport (FIT)**

The largest of the airports by far is the Fitchburg Municipal Airport. The airport sits on 335 acres and is classified as a General Aviation, General Utility Stage II airport by the National Plan of Integrated Airport Systems (NPIAS). This indicates that the airport can serve all small airplanes and accommodate some larger aircraft with a wingspan of less than 79 feet. The airport was first constructed in 1919 and the Airport Commission which administers all air operations in the city, was formed in the late 1920's. In 1940, the airport land was donated by the Fitchburg Airport Commission to the City of Fitchburg.

Fitchburg Airport maintains two runways (14/32 and 02/20) both suitable for corporate jet use. The airport has an automated surface weather observation system (ASOS) which reports weather by radio (radio frequency 135.175) , telephone (978-343-9121) and internet. <http://weather.noaa.gov/weather/current/KFIT.html>. The airport is home to many businesses offering a range of aviation services, including flight training, scenic flights, charter flights, aircraft maintenance and an airport restaurant. (source: Fitchburg Airport web site [www.fitchburgairport.com](http://www.fitchburgairport.com)). Transportation services (auto rental, cab and limousine), lodging accommodation, and catering services for passengers are arranged by administrative staff at the airport.

The airport provides facilities for personal, corporate and air taxi services. They include a charter service, Bullock Charter, an aerial advertising company Aerial Super Signs, FCA Flight Center offering training and scenic rides and two aircraft maintenance companies, Autumn Air Services and Twin City Airmotive. Air taxi services are provided by Skyline Flight and air charter and scenic flights are provided by Harvard Air Taxi, LLC. In addition, Fitchburg is also the base for the Mount Wachusett Composite Squadron of the Civil Air Patrol. In addition, the airport leases space to a restaurant, namely Gene Collette's Airport Restaurant, available for users and guests.

An average of 170 flights per day are handled on its two-runway system. Runway 14/32 serves as the primary runway due to its length (4,510 feet long and 100 feet wide) and wind coverage. Runway 2/20 serves as the crosswind runway when Runway 14-32 crosswinds exceed 12 mph, is 3,504 feet long and 75 feet wide.



Access to the Fitchburg Municipal Airport is via Falulah Road (Airport Road), which provides indirect access to Route 2 (via Hamilton Street and Routes 12 and 13), and downtown Fitchburg (via Bemis Road, Route 12 and Summer Street). Although geographically close to Route 2, access to the Airport can be confusing and is subject to traffic problems along Route 13. Improvements to Route 12 between Route 2 in Leominster and Bemis Road in Fitchburg have recently been completed alleviating previous traffic problems. Added turn lanes as well as new or upgraded signals and geometrics at the Route 12 intersections with Erdman Way, State Street, Nichols Street, Benson Street and Bemis Road/Wanoosnoc Road are anticipated to improve the flow of traffic between the two cities and subsequently provide additional benefits to accessing the Airport. Improvements to Route 13 between Route 2 in Leominster and Route 2A in Lunenburg are expected to be reviewed by MassDOT based upon recommendations from the Fitchburg/Leominster/Lunenburg Transportation Analysis Project completed in 1999.

An update to the 1990 Airport Master Plan was completed in 2008 in which improvements were identified. The improvements are focused on airport safety, compliance with Federal Aviation Administration (FAA) standards and maintenance of the airport's financial self sufficiency. The improvements are scheduled to be implemented from 2010 through 2024. Improvements to be implemented consist of:

- Realign runway 14-32 to a 16-34 orientation; and construct the runway at a total paved length of 5,150 feet with the use of declared distances, to provide an "Accelerate-Stop Distance Available" (ASDA) of 5,000 feet.
- Construction of standard Runway Safety Areas (RSAs) at each end of Runway 16-34 (150' wide by 300' long).
- Remove the existing Runway 14-32 and the existing parallel Taxiway "D" pavement.
- Abandon and remove the existing Runway 2-20.
- Reconstruct the existing Main Apron to be realigned with the proposed Runway 16-34. This will provide an increase of 6 aircraft tie-downs for a total of 85 paved aircraft parking tie-downs on the Main Apron.
- Update the Airport's Vegetation Management Plan, and acquire easements for tree clearing in the Airport's FAR Part 77 Surfaces.
- Replace two existing box hangars (approximately 75' x 50') with two corporate hangars (60' x 120').
- Construct two (2) 70' x 70' conventional box hangars.



- Construct a corporate hangar facility at the north end of the airfield, proposed to have five (5) 75; x 75; hangars, a paved parking area, and a taxiway, Taxiway “E”, that provides access to the parallel Taxiway “D” near the proposed Runway 16 end.
- Construct a self-service fueling facility adjacent to Taxiway “c”.
- Replace the existing Airport Administration Building with a new Administration Building adjacent to the existing building.



Fitchburg Municipal Airport – Looking East



## Gardner and Sterling Airports

Both the Gardner and Sterling Airports are general aviation facilities open to the public. The Gardner Airport's runway (Runway 18/36) is 2,999 feet long by 75 feet wide, is paved and has pilot controlled lighting. There is also a VHF Omnidirectional Range navigation system (VOR) and Global Positioning System (GPS) for assistance in approaches to the airport. Gardner Municipal Airport lies in the southeast corner of Templeton, just over the municipal line with Gardner. It is under the control of the Gardner Airport Commission. The Airport has been in existence since the 1930's. The Airport serves primarily as a recreational resource for avid private pilots. It has no commercial passenger airlines or air freight services. In 2008 a



consultant completed an update to the Airport Master Plan. The plan sets forth a program for capital facilities that include:

- Construct a new airport administration/equipment building or convert and renovate the leased Close/McCole hangar for administrative purposes.
- Construct new T-hangars for additional aircraft storage to meet a growing demand.
- Purchase new snow removal equipment and construct a new building to house such equipment.
- Replace the two substandard on-site wells.
- Install additional fencing and signage for security purposes to prevent inadvertent access to the airfield.
- Remove 11 acres of tree obstructions to conform to FAA requirements.
- Construct new stormwater management facilities to detain and treat runoff due to airport expansion.
- Replace the existing rotating beacon on the terminal building with a 35 foot pole and rotating beacon. (This task has been completed.)
- Overlay the runway with 4" of pavement, reconstruct the parking apron and relocate the access road.



Gardner Airport – Looking West



Sterling Airport's Runway 16/34 measures 3,086 feet by 40 feet. Sterling's airport is located just off of Interstate 190. Sterling has intensive glider activity on the weekends.

Based aircrafts are 17 at Gardner and 78 at Sterling. This represents a decrease of 12 aircraft at Gardner (from 29 to 17) from figures derived from the 2007 RTP. Sterling has remained the same at 78 based aircrafts.





Sterling Airport – Looking Northwest



Gardner and Sterling also lie within proximity to several numbered routes. In Gardner, access is from Airport Road via Route 2A, while Sterling can be reached on Greenland Road from Routes 62 or 12. Additionally, each airport is located close to a major highway facility, Route 2 for Gardner, and I-190 for Sterling.

## Summary

It is likely that these airports will remain as is and continue to serve as general aviation airports for sport and/or recreation and not for the movement of goods or freight. The following table provides data for each of the airports in the Region.



### Montachusett Airport Data

	Fitchburg		Gardner	Sterling
No. of Runways	2		1	1
Runways	14/32	02/20	18/36	16/34
Length x Width (ft)	4,510 x 100	3,504 x 75	2,999 x 75	3,086 x 40
Pavement Type/Condition	Asphalt/Good	Asphalt/Good	Asphalt/Good	Asphalt/Good
Weight Limit(s)	Single Wheel - 30,000 lbs; Double Wheel - 41,000 lbs		Single Wheel - 25,000 lbs	Single Wheel - 8,000 lbs
Obstructions	Trees	Trees	Trees	Trees
Parking	Hangars, Tie downs		Tie downs	Hangars, Tie downs
Lights	Yes		Yes	Yes (Radio Controlled)
Services	Fuel, Charters, Flight Instruction, Maintenance		Fuel, Flight Instruction, Aircraft Rental	Fuel, Flight Instruction, Aircraft Rental & Sales
No. of Aircraft Based	123		17	78
Type of Aircraft	Single Engine	111	15	29
	Multi Engine	3	1	2
	Ultra lights	2	1	3
	Jet	1	0	0
	Helicopter	4	0	0
	Gliders	2	0	44
Avg. Aircraft Operations	170/day		101/week	135/day
Type of Operation	Local General Aviation	64%	23%	71%
	Transient General Aviation	32%	76%	28%
	Air Taxi	3%	<1%	<1%
	Military	<1%	1%	<1%
Other				Helipad 50 ft x 50 ft Glider Activity

Source: [www.airnav.com](http://www.airnav.com) – January 2011

A review of data for 2010 with information from the 2007 Regional Transportation Plan (RTP) shows significant changes in several areas of aircraft operations.

Since the last RTP, Fitchburg has seen a decrease in Average Aircraft Operations from 515 a day to 170 per day. Gardner average aircraft operations have remained practically the same from 100 a week to 101 a week. Sterling has experienced a slight decrease in average aircraft operations from 142 per day to 135 per day.

In addition, the types of operation show a significant shift between the two RTP years. While general operation has increased in Fitchburg, Gardner and Sterling, military operations have decreased according to [airnav.com](http://airnav.com).





### Comparison 2006 vs. 2010 Airport Characteristics

		Fitchburg		Gardner		Sterling	
		2006	2010	2006	2010	2006	2010
No. of Aircraft Based		138	123	29	17	78	78
Type of Aircraft	Single Engine	127	111	27	15	32	29
	Multi Engine	2	3	1	1	1	2
	Ultra lights	2	2	1	1	3	3
	Jet	2	1	0	0	0	0
	Helicopter	2	4	0	0	1	0
	Gliders	3	2	0	0	41	44
Avg. Aircraft Operations		515/day	170/day	100/week	101/week	142/day	135/day
Type of Operation	Local General Aviation	2%	64%	<1%	23%	<1%	71%
	Transient General Aviation	56%	32%	23%	76%	71%	28%
	Air Taxi		3%		<1%		<1%
	Military	43%	<1%	77%	1%	29%	<1%
Other						Helipad 50 ft x 50 ft Glider Activity	Helipad 50 ft x 50 ft Glider Activity

## Safety

Concerns had been expressed by area residents regarding the safety conditions at Fitchburg Airport in light of several incidents. The former Massachusetts Aeronautics Commission undertook a study in March 2005 to address those concerns. The study was entitled “*Final Report Aircraft Accidents and Incidents for the Fitchburg Municipal Airport Study Period 1994 – 2004.*” The conclusion of the study noted that “the analysis of aircraft accidents and incidents occurring in the vicinity of Fitchburg Municipal Airport for the 11 year study period, 1994 through 2004, has not revealed any patterns to suggest the airport or its operational practices were lacking in any parameter to have been the cause of any of the events.”

The 2007 Regional Transportation Plan indicated there were seven aviation accidents that occurred in our region in a three year time period.

The following table lists aviation accidents that have occurred within the Region from approximately January 2006 to February 2011. During that timeframe four accidents occurred. Information was obtained from the National Transportation Safety Board website.



## Montachusett Aviation Accident Data

Airport/Community	Date	Time	Weather	Type of Accident	Injuries/Fatalities	Cause
Sterling	08/08/08	4:30 p.m.	Visual Conditions	Boeing E75 touched down hard in grass adjacent to runway, the left main landing gear strut separated from airplane, the right landing gear strut bent, propeller stuck ground, and lower left wing spark broke.	0/0	Owner/Pilot improper flare. Pilot in command's inadequate remedial action.
Sterling	05/31/10	5:30 p.m.	Visual Conditions	Cessna on final approach for runway executed a go around. Pilot discontinued go around, closed the throttle and airplane settled into trees. Structural damage to the winds and fuselage resulted,	3/0	Not Yet Available
Gardner	7/14/07	5:51 p.m.	Visual conditions	Piper PA-28-161 collided with trees during an aborted landing at airport.	3/0	Pilot Failure to maintain control during landing
Fitchburg	11/06/10	1:10 p.m.	Visual conditions	North American AT-6F loss engine power collided with terrain and came to rest in Nashua River.	1/1	Not Yet Available

Source: NTSB website

## Security

With the increase in military aircraft operations at all three Montachusett airports, additional issues related to security may need to be investigated. To address possible issues, interaction between the airport and appropriate state and military personnel may be necessary.

Areas of consideration may include:

- Video surveillance of site perimeter
- Twenty-four hour on site security and monitoring
- Security at main entrance to airport
- Fencing of perimeter where needed

The Fitchburg Municipal Airport received state funding in 2003 to install approximately 3,000 feet of security fencing in its Terminal Building area. Also included was the installation of new pedestrian access gates, five new vehicular access gates with proximity card readers. These gates are intended to prevent access to the field.