# Chapter 5 Regional Transportation Context

This chapter summarizes information that was included in the *Draft ESPR* for regional transportation context and provides responses to scoping elements identified in the MEPA Certificate related to the regional air transportation system and Hanscom's current and future roles within that system; the long-term advantages and disadvantages of Hanscom as a commercial service reliever airport compared to Worcester Regional Airport; and the viability of Hanscom Field as a general aviation (GA) reliever airport.

### Summary of the Draft ESPR

The *Draft ESPR* discussed Hanscom's role in the regional airport network. General aviation activity levels at Hanscom were compared to GA activity levels at other GA reliever and commercial service airports in the region. Similarly, to put the commercial airline activity at Hanscom in perspective, Chapter 5 presented the commercial airline activity levels at the region's principal commercial service airports. In addition, the chapter reported on improvement plans and development projects at the region's principal commercial service airports; potential passenger diversion from Logan to regional airports and high-speed rail; Massport's efforts to promote increased utilization of existing regional commercial service airports; and the status of ground access improvement projects in the vicinity of Hanscom Field. The key findings of the *Draft ESPR* are summarized below:

- Hanscom Field is the region's premier full-service GA reliever airport, handling the private and corporate aviation needs of GA users in the Route-128 area. In 2000, Hanscom Field accommodated over 200,000 annual GA operations, more than any other GA or commercial service airport in the area.
- Efforts to increase regional airport utilization have been succeeding. Between 1995 and 2000, passenger traffic at the regional airports increased by 11.5 percent per year compared to average annual growth of 2.5 percent at Logan Airport. As a result, the region is less reliant on Logan Airport for commercial air transportation.
- Although regional airports will continue to expand, Logan will remain the primary airport for serving the core Boston metropolitan area, and will continue to serve as the region's principal airport for long-haul domestic and international services.
- Hanscom Field can continue to play a limited role and support some level of scheduled airline services. However, Hanscom's principal role in the regional airport network will be as a general aviation reliever to Logan.



- Rail projects in the New England area will continue to play a role in meeting the region's inter-city transportation needs. Amtrak's high-speed, Boston-New York Acela service is expected to accommodate up to 1.2 million Logan passengers or one-third of the estimated, future, air-travel demand between Boston and New York.
- An expanded regional airport system and improved inter-city rail services can divert up to 3.8 million passengers from Logan Airport in 2010.
- Massport advocates a regional transportation policy to improve the efficient use of the region's transportation infrastructure by appropriately expanding the use of regional airports and alternative transportation modes. To achieve this policy goal, Massport is committed to cooperative transportation planning and is working actively with federal, state and regional agencies to ensure an integrated, multi-modal regional transportation network.

## Table 5-1GA and Military Operations at GA Reliever and Commercial Service Airportsin the Consolidated Boston Metropolitan Area

		GA and Military Operations		Average	Percent	Based
Airport	Airport Type**	1995	2000	Annual Growth	Local (2000)	Aircraft (2000)
Hanscom Field*	GA Reliever	190,282	205,799	1.6%	36.8%	393
Nashua/Boire Field	GA Reliever	97,795	106,598	1.7%	50.0%	374
Beverly Municipal Airport	GA Reliever	90,623	97,121	1.4%	55.2%	163
Lawrence Municipal Airport	GA Reliever	87,132	93,025	1.3%	53.3%	185
Norwood Municipal Airport	Commercial Reliever	97,630	91,491	-1.3%	49.8%	206
Manchester Municipal Airport	Commercial Service	37,748	47,358	4.6%	41.2%	76
Worcester Regional Airport	Commercial Service	52,737	46,975	-2.3%	46.5%	92
Minute Man Airfield, Stow	GA Reliever	43,300	37,440	-2.9%	58.3%	80
Logan Airport*	Commercial Service	23,901	35,233	8.1%	0.0%	0
Pease International Tradeport	Commercial Service	30,781	25,766	-3.5%	19.9%	52
Total		751,929	786,806	0.91%	43.98%	1,621

Source: FAA APO Terminal Area Forecast

\* Massport Data

5-2

\*\* Based on FAA National Plan of Integrated Airport Systems (1998-2002), March 1999

Note: The consolidated Boston metro area includes the Worcester, MA-CT and the Manchester, NH Primary Metropolitan Statistical Areas.



### Hanscom's Role in the Regional Airport Network

#### GA Airport Network

Hanscom Field is the premier full-service GA facility serving Massachusetts and the New England region. The airport accommodates a variety of private and corporate GA activities, as well as charter and air taxi operations that might otherwise use Boston-Logan International Airport. Table 5-1 compares GA operations for Hanscom Field to other GA reliever or commercial service airports in the greater Boston metro area. (See Figure 5-1.) Because of its proximity to Boston, as well as the growing metro-west suburbs and Route 128-area businesses, Hanscom Field handles over 200,000 annual general aviation operations and provides substantial relief to Logan Airport. Boire Field in Nashua, NH, the next busiest GA airport in the Greater Boston area, accommodated only half as many general aviation operations as did Hanscom in 2000.

# Figure 5-1 General Aviation Reliever and Commercial Service Airports Accommodating GA Activity in the Greater Boston Metropolitan Area



#### Commercial Service Airport Network

Since September 1999, Hanscom also supports regional airline services operated by Shuttle America as a US Airways Express carrier. This role for Hanscom Field was established in the 1978 Master Plan, clarified in Massport Regulations, restated in the *1995 GEIR* and continues as part of Massport's ongoing policy for the airport. Although there are limited commercial passenger airline services available at Hanscom Field, the region's air passengers are primarily served by a network of commercial service airports throughout the six-state region. (See Figure 5-2.) Boston Logan International Airport is the largest of New England's commercial service airports and in 2000 Logan served 59 percent of the region's air passengers.







Note: Passengers are enplaned and deplaned passengers for Logan Airport and enplaned passengers times two for regional airports

As regional airports, like T.F. Green and Manchester, have grown, Logan's share of New England air passengers has declined from a high of 78 percent in the early 1980s to 59 percent in 2000. As a matter of policy, Massport has encouraged and initiated regional planning initiatives to foster regional airport expansion and an increased role for regional airports in serving the region's aviation demand. Because of issues of capacity and congestion at Logan Airport, it is expected that airlines will continue to serve the New England air travel market by expanding air travel options at the area's regional airports. Nevertheless, by virtue of its location relative to New England's population and commercial center, Logan Airport will remain the primary airport for serving the core Boston metropolitan area, and will continue to serve as the region's principal international hub and as a connecting hub for small, remote New England communities.

Historically, Hanscom Field has not sustained long-term scheduled airline services, and presently it is served by one commerical airline. In 2000, Shuttle America served approximately 160,000 Hanscom Field air passengers, or 0.3 percent of the New England air travel market. Because of its proximity to a large base of air passengers, estimated at approximately 5 million passengers in 2000, Hanscom is a potentially attractive



alternative for airlines and passengers as congestion at Logan Airport increases. Indeed, in April 2001, US Airways, Midway and Boston-Maine Airways expressed interest in serving Hanscom Field. US Airways and Midway later withdrew their proposals; Boston-Maine Airways initiated services in July 2002, but discontinued them in April 2003.

In 2001, Shuttle America's passenger traffic at Hanscom declined by 17 percent to 134,000. The drop in passenger traffic resulted from air service reductions following Shuttle America's Chapter 11 bankruptcy filing in April 2001, the temporary suspension of services after September 11, 2001, and reduced passenger demand in a weak economy. In 2002, commercial airline passengers (for Shuttle America and Boston-Maine Airways, which introduced Hanscom services in the summer of 2002) fell to 68,000. The reduced passenger activity reflects an overall decline in the US commercial airline industry resulting from a slow economy and geo-political uncertainties that have dampened the demand for air travel.

When the airline industry recovers from the current downturn, it is expected that Hanscom will continue to play a niche role within the region's commercial airport network by accommodating some level of scheduled airline services. However, Hanscom's ability to provide substantial commercial passenger relief to Logan Airport is limited for several reasons. First, Hanscom is in close proximity to three large commercial service airports - Logan, T.F. Green, and Manchester. These airports receive significantly higher levels of airline services and thus they are more attractive to air passengers than Hanscom Field. In addition to a distinct service advantage, both T.F. Green and Manchester are very attractive from a passenger's perspective, because the low-fare carrier, Southwest Airlines, serves them. Furthermore, Massport Regulations restrict scheduled passenger services and facility constraints at Hanscom Field will limit Hanscom's future role as a commercial service airport. While Hanscom could provide some commercial passenger relief to Logan, Hanscom's primary role will continue to be that of a general aviation reliever airport to Logan.

#### Strengths and Weaknesses of Hanscom and Worcester as Commercial Reliever Airports to Logan

In the December 16, 2002 MEPA Certificate on the *Draft ESPR*, Massport was asked to assess and compare the long-term advantages and disadvantages of Hanscom Field and Worcester Regional Airport as commercial relievers to Logan. Several factors influence the ability of a small, regional or GA airport to attract and sustain commercial airline services. These include:

- the size of the airport's catchment area demand for air travel
- proximity to larger, alternative airports, with high air service levels and/or low airfares
- available airside facilities
- adequate ground access

In terms of catchment area size, Hanscom has a significantly larger catchment area than Worcester, with approximately five million annual air passengers, compared to Worcester's estimated 2.1 million annual air passengers. However, over the long-term, Worcester's catchment area is expected to increase relative to the Hanscom catchment area. The Hanscom catchment area is entirely within Logan's catchment area. The impact of a spreading population and commercial base on the utilization of Worcester and the region's other commercial service airports is being studied in the ongoing New England Regional Airport System Plan.



Catchment area size alone does not determine an airport's ability to attract airline services. It is well documented that relative service levels, airfares, and ground access times are the primary factors that influence a passenger's airport choice decision, when faced with multiple airport options. Thus, the feasibity of successful airline services at an airport is also a function of the airport's proximity to larger, alternative airports that offer a greater level of airline services and/or lower airfares.

Airports that are isolated from larger, competitive airports are more likely to attract and sustain airline services than airports that are very close to alternative airports. In this respect, Hanscom's ability to provide substantial long-term commercial service relief to Logan is limited by its closeness to Logan Airport, Manchester and T.F. Green. Hanscom Field is approximately 40 minutes from Logan Airport, a well-established commercial service airport with an abundance of air service options. Worcester, on the other hand, is more isolated from competitive airports. For Worcester, Logan is also the closest large commercial service airport, but it is more than an hour's drive away.

Other alternative airports to Worcester, such as T.F. Green, Manchester and Hartford/Bradley, are also more than an hour's drive away. T.F. Green is approximately one hour and twenty minutes from the Worcester area by car; Manchester is approximately one hour and ten minutes away; and Hartford/Bradley is approximately one hour and twenty minutes away. The existence of low-fare, competitive airports, and the willingness of some passengers to drive long distances for lower airfares has inhibited Worcester's ability to attract and sustain commerical air services. Nevertheless, because of its relative isolation from competitive airports and growth constraints at T.F. Green, Worcester has greater long-term potential for attracting and sustaining commerical services than Hanscom.

In terms of available facilities, the FAA and the City of Worcester invested \$33 million in airside and landside improvements to upgrade the Worcester Airport. In 1993, a \$15.7 million passenger terminal with four jetway gates, two ramp level gates, and two baggage carousels was constructed. In addition, more than \$8 million was invested in navigational equipment and airfield improvements to enhance Worcester's operational reliability.

As described in Chapter 4 of the *Draft ESPR*, the terminal building and parking facilities at Hanscom would require additional investments to accommodate the ESPR forecast levels of commercial passengers in 2005 High Growth Scenario and the 2015 Moderate and High Growth scenarios.

Both airports face certain environmental and operational constraints. Hanscom's ability to provide commercial relief to Logan is also limited by Massport Regulations, which restrict commercial passenger service to aircraft with 60 or fewer seats.

The Worcester Airport has long suffered from poor service reliability due to weather conditions. The airport's high altitude results in low ceiling conditions and fog that close the airport more often than other regional airports at lower altitudes. Massport has studied the feasibility of upgrading the Worcester Airport to a Category II/III Instrument Landing System (ILS) to increase the airport's operating reliability in poor weather conditions. Upgrades to the ILS at Worcester have been delayed due to lack of funds in the wake of September 11, 2001. Ground access has also been a problem that has limited Worcester's ability to realize its full potential. MassHighway is studying improvements to the greater Worcester area roadway network that would also benefit the accessibility of Worcester Airport by providing a direct, less complex connection between the airport and the interstate highway system.



#### Viability of Hanscom as a GA Reliever Airport

The continued viability of Hanscom Field as the premier GA airport in the region is without question. Several events, including a downturn in the national and local economies, the events of September 11, 2001, the U.S. military action in Iraq, and the SARS virus, have weakened the demand for commercial airline services worldwide. From 2000 to 2002, annual air passengers in the US have declined by 12 percent. Over the same period, passenger traffic at Logan fell by 18 percent and the number of Hanscom air passengers declined by 58 percent. In response to a reduction in passenger volume, Shuttle America reduced its scheduled services at Hanscom by almost 50 percent in November 2002, when it discontinued service to Philadelphia. As of May 2003, Shuttle America provides only six weekday departures from Hanscom to Trenton, compared to its peak Hanscom schedule of 22 average daily departures in May 2002. In April 2003, Boston-Maine Airways discontinued its scheduled operations at Hanscom.

Even in the 2015 High Growth Scenario, which assumes the greatest number of commercial airline operations (27,620 passenger and cargo airline operations), annual aircraft operations (295,828) are projected to remain below Hanscom's historic high of over 300,000 operations and the practical annual capacity of 320,000 annual operations described in the Hanscom Field Master Plan. Furthermore, commercial operations represent only eight to nine percent of total operations in the 2015 High Growth Scenario. The forecast level of commercial services would have little or no effect on Hanscom's viability as a GA airport.

The growth of commercial service to the Moderate Growth levels analyzed in this document will have little or no effect on touch-and-go training operations. Touch-and-go training are the only type of GA activity that could potentially be affected by increased levels of commercial airline operations in the High Growth scenarios. The High Growth scenarios assume no growth in touch-and-go operations to account for the higher forecast level of commercial airline operations in these scenarios. Under the High Growth scenarios, some of these types of training operations could shift to other nearby airports but still be based at Hanscom. For example, student pilots at the flight schools could depart from Hanscom Field, fly to a nearby airport, such as Beverly Municipal Airport, practice take-offs and landings at the nearby airport, and return to Hanscom Field when the touch-and-go training is completed. In all future scenarios, general aviation remains the overwhelming dominant use of Hanscom Field.



**5-8** This page left intentionally blank.

