

# **The State of Hanscom**

**Presented to  
The Hanscom Field Advisory Commission**

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# STATE OF HANSCOM

## **MASSACHUSETTS PORT AUTHORITY**

The Massachusetts Port Authority (Massport), which was created by the legislature in 1956, is the owner and operator of Hanscom Field. Massport is a world-class, independent, public authority that develops, promotes and manages airports, the seaport and transportation infrastructure to enable Massachusetts and New England to compete successfully in the global marketplace. Massport is committed to providing safe, secure and efficient transportation facilities that provide travelers and businesses with the freedom to travel throughout the world.

Massport's facilities are essential to the citizens of the Commonwealth and provide economic benefits throughout the region. At the same time, Massport recognizes that its facilities may have an impact on its host communities. In order to responsibly address this, Massport is not only diligent in abiding by all environmental regulations, but voluntarily participates in many environmental programs. Additionally, Massport implements and participates in outreach programs that encourage an open and timely exchange of information and ideas that assist Massport in developing mitigation programs.

## **HANSCOM FIELD BACKGROUND**

In 1941, the Commonwealth of Massachusetts purchased land northwest of Boston to build an airport, and the State Senate and House of Representatives passed resolutions "...relative to the designation of the proposed Boston Auxiliary Airport as Laurence G. Hanscom Field, Boston Auxiliary Airport at Bedford". Control of Hanscom passed to a number of different agencies, including the Massachusetts Aeronautics Commission, until 1956, when the legislature placed Hanscom Field under Massport's jurisdiction,

Hanscom Field is the region's premier full-service general aviation airport, and it plays a critical role as a corporate reliever for Logan Airport. Aircraft operations at Hanscom include commuter, business, charter, cargo, personal aircraft, air taxi and flight school activity. Hanscom Field serves the diverse flying needs of the region's high technology corporations and educational institutions and is an important resource for Hanscom Air Force Base (AFB), a research and development facility abutting the airfield.

The *State of Hanscom* is presented annually to the Hanscom Field Advisory Commission (HFAC), a legislatively created body comprised of representatives from the surrounding residential communities, the aviation community, and area-wide organizations. State elected officials, and representatives from Hanscom AFB, the Federal Aviation Administration, Minute Man National Historic Park, and Massport serve as resources to the commission.

In presenting the *State of Hanscom*, Massport provides an opportunity for a wide range of interested parties to discuss the airport's role in the regional transportation system and to discuss Massport's objectives for the facility. The *State of Hanscom* presents the airport's operational activity, financial performance, and economic benefits, and it discusses Massport's 2006 accomplishments at Hanscom, as well as its plans for the airport's future.

## SECTION I - 2006 AIRCRAFT ACTIVITY

Table 1 shows total aircraft activity levels at Hanscom Field for 7 a.m. to 11 p.m. operations in 2005 and 2006 based on Federal Aviation Administration (FAA) tower counts, fleet mix data, and estimates. The 2006 information is preliminary and will be thoroughly reviewed before publication of the 2006 noise report.

**TABLE 1**  
Hanscom Field Aircraft Activity

2005  
FROM FAA TOWER REPORTS & ESTIMATES (7 A.M.-11 P.M)

	CIVILIAN						MILITARY	TOTAL
	LOCAL	SINGLES	TWIN PISTON	TURBO	JET	HELI		
January	2927	2638	277	592	2338	587	33	9,392
February	3833	3801	310	696	2554	536	31	11,761
March	4235	4374	330	739	2756	586	53	13,073
April	4702	5354	334	777	2800	570	74	14,611
May	4971	4953	406	871	2908	606	102	14,817
June	6924	5833	427	932	2952	601	82	17,751
July	6162	6110	416	830	2299	603	69	16,489
August	6248	6136	425	789	2437	591	132	16,758
September	6098	6010	342	773	2660	570	123	16,576
October	4073	3994	336	805	3035	592	58	12,893
November	3918	4844	349	638	3120	575	55	13,499
December	4444	3851	313	566	2482	587	92	12,335
<b>TOTAL</b>	<b>58,535</b>	<b>57,898</b>	<b>4,265</b>	<b>9,008</b>	<b>32,341</b>	<b>7,004</b>	<b>904</b>	<b>169,955</b>

2006  
FROM FAA TOWER REPORTS & ESTIMATES (7 A.M.-11 P.M)

	CIVILIAN						MILITARY	TOTAL
	LOCAL	SINGLES	TWIN PISTON	TURBO	JET	HELI		
January	3313	3108	304	508	2521	593	105	10,452
February	3548	3568	273	600	2516	539	65	11,109
March	5467	4878	349	658	2747	600	170	14,869
April	4889	5602	350	626	2871	575	133	15,046
May	5243	4534	342	737	2949	600	159	14,564
June	4661	4300	451	782	2936	577	117	13,824
July	7319	6781	369	770	2338	593	137	18,307
August	5837	6426	429	842	2530	593	136	16,793
September	5024	5400	376	854	2809	570	169	15,202
October	4769	4985	384	907	3152	606	139	14,942
November	4371	4314	379	815	3210	577	179	13,845
December	4781	4296	346	729	2675	594	83	13,504
<b>TOTAL TO DATE</b>	<b>59,222</b>	<b>58,192</b>	<b>4,352</b>	<b>8,828</b>	<b>33,254</b>	<b>7,017</b>	<b>1,592</b>	<b>172,457</b>

Note: The 2006 figures are preliminary. All 2006 data will be reviewed before publication of the 2006 annual noise report.

The FAA tower counts are traditionally used to report the official number of operations for an airport, but at Hanscom they do not include operations between 11 p.m. and 7 a.m. when the FAA Tower is closed. In addition to the 7 a.m. to 11 p.m. aircraft activity, there were 2,321 nighttime operations in 2006, an increase from 1,893 in 2005.

The airport's activity levels have historically been closely aligned to the economic health of the high technology industry in Boston's Route 128/95 area. For ten years starting in 1987, when Massport began estimating the fleet mix, the fleet mix remained relatively constant, with some increases in the percentage of jet operations and some decreases in the percentage of single engine piston operations.

More noticeable fleet mix changes began in 1999 when commuter service was reintroduced using turboprops, causing an increase in the percentage of turboprop operations. In addition, the percentage of single engine piston activity began to decline more steeply, while the percentage of jets increased more sharply. Business jet usage was particularly influenced by the September 11, 2001 events.

The data in Table 1 show 172,457 operations for 2006, a 1.5 percent increase as compared to 2005. Although total operations have been below 200,000 ten times in the past twelve years, they were well above 200,000 for the 30 years prior to 1993, and they exceeded 300,000 in 1970.

Consistent with experience for more than 25 years, the civilian portion of the 2006 aircraft operations comprised over 99 percent of the total aviation activity. The 117,414 estimated single engine piston operations, ("Local" plus "Singles" in Table 1), indicate that their activity increased 0.8 percent as compared to 2005. The single engine piston operations represented 68.1 percent of the total aircraft activity in 2006. Touch-and-go activity ("Local" in Table 1) comprised a little more than half of these operations. Each touch-and-go consists of a practice landing and take-off and is counted as two operations. Touch-and-goes are not allowed in aircraft over 12,500 pounds at Hanscom, and they are most commonly conducted by flight schools using single engine piston aircraft.

The 4,352 estimated twin engine piston operations indicate an increase of 2.0 percent as compared to 2005. They represented 2.5 percent of the 2006 operations. The 7,017 estimated helicopter operations indicate an increase of 0.2 percent as compared to 2005, and they represented 4.1 percent of the total.

Turboprop aircraft activity, representing 5.1 percent of the 2006 total activity, decreased 2.0 percent to 8,828 operations. This was due to the 15.7 percent decrease in commuter airline aircraft operations. In 2006, Boston-Maine, Hanscom's only commuter airline, conducted 3,057 operations and handled 17,680 passengers. Although there were fewer commuter aircraft operations in 2006 as compared to 2005, there were 8,736 enplanements, a 0.4 percent increase.

The 2006 civilian jet aircraft activity increased 2.8 percent as compared to 2005. The 33,254 jet operations represented 19.3 percent of the total activity. Hanscom's business jet operations have fluctuated between 30,000 and 33,500 annually since the events of September 11, 2001.

The 2006 noise report will be prepared later in the year and will be presented to HFAC. It will include a more detailed analysis of operations and trends as well as a full analysis of noise exposure using EXP, a metric developed to track changes in Hanscom's noise environment.

## **SECTION II - FINANCIAL RESULTS FOR FISCAL YEAR 2006**

Massport continues its commitment to operating a first class facility while striving to improve Hanscom's financial performance. Massport's fiscal year (FY) begins on July 1 and ends on June 30.

Operating Hanscom Field with a balanced budget has been a challenge since 1974 when Massport assumed responsibility for maintaining the airfield. From FY93 through FY97, the airport's deficit exceeded \$2 million annually. This resulted from the continued need to address aging facilities and equipment while aircraft activity decreased because of the slowed economy. Increased efforts to control Hanscom's deficit, combined with an improved economy, produced decreases in the deficit from FY97 through FY02. There was a balanced operating budget from FY00 through FY02, and in FY02, Hanscom experienced its lowest deficit, including amortization, in recent history.

Unfortunately, security and insurance related costs escalated after the events of September 11, 2001, and a soft economy threatened to weaken revenues. As seen in Table 2 on the next page, the FY03 deficit jumped to \$2.3 million, the FY06 deficit approached \$2.5 million, and the FY07 deficit was projected at \$3.1 million when the budget was prepared in the spring of 2006.

Table 2 demonstrates that expenses continue to escalate at a faster pace than revenues, and the deficit increased by 11.2 percent when comparing FY06 to FY05. FY06 revenues totaled over \$7.1 million, a 17.3 percent increase, as compared to FY05. The largest increase came from new and increased fees. Meanwhile, operating expenses increased 11.5 percent, and on a positive note, Hanscom experienced a surplus of \$78,500 in its operating budget. However, FY06 amortization increased 29.4 percent, and it was the addition of \$2.5 million in amortized costs that resulted in Hanscom's largest deficit to date.

Massport recognizes that controlling Hanscom's deficit requires an aggressive multi-faceted approach. On the cost side, every expenditure and project is carefully scrutinized for its financial implications, and cost-saving measures continue to be explored. On the revenue side, a regular review of rates and charges, followed by appropriate adjustments, has been adopted. This has included the introduction of some new fees. Expanding sources of revenue through development, as discussed later in this report, is another avenue for controlling the deficit. Massport also recognizes that commercial and/or air taxi services help increase revenue, and Massport will support companies that express interest in operating such services out of Hanscom, as long as they comply with Massport's regulations.

**TABLE 2**

**Hanscom Field Historical Financial Summary**

Fiscal Years (FY) 03-07

<b>REVENUES</b>	<b>FY03</b>	<b>FY04</b>	<b>FY05</b>	<b>FY06</b>	<i>Budgeted</i> <b>FY07</b>
<b>RENTALS</b>					
Terminal	350,914	298,946	262,628	268,192	264,000
Non-Terminal	1,422,764	1,782,857	1,600,589	1,393,438	1,635,262
Ground	574,419	760,708	854,952	1,227,720	1,549,089
Tie Downs	132,778	164,171	165,935	150,161	151,920
Utilities	101,672	106,080	107,686	153,692	174,453
<b>SUBTOTAL</b>	<b>2,582,547</b>	<b>3,112,762</b>	<b>2,991,790</b>	<b>3,193,203</b>	<b>3,774,724</b>
<b>FEES</b>					
Landing Fees	63,518	686,059	522,678	825,070	519,294
Customs Fees (effective Oct. 2003)	n/a	283,676	290,080	556,647	360,000
Night Field Use Fees	443,248	326,106	532,497	436,049	336,000
Parking Fees	In "Other"	In "Other"	80,249	119,636	120,600
Other	123,748	320,787	247,816	578,752	411,770
<b>SUBTOTAL</b>	<b>630,514</b>	<b>1,616,628</b>	<b>1,673,320</b>	<b>2,516,154</b>	<b>1,747,664</b>
<b>COMMISSIONS</b>					
Rental Cars	179,479	146,192	133,627	139,383	143,700
Flight Schools	16,293	9,543	74,031	27,195	30,000
Ground Servicing	(73,676)	207,724	232,783	177,649	179,100
Fuel Flowage	756,265	815,207	799,537	792,895	759,200
Other	1,612	1,390	202,263	319,528	294,020
<b>SUBTOTAL</b>	<b>879,973</b>	<b>1,180,056</b>	<b>1,442,241</b>	<b>1,456,650</b>	<b>1,406,020</b>
<b>TOTAL REVENUES</b>	<b>4,093,034</b>	<b>5,909,446</b>	<b>6,107,351</b>	<b>7,166,007</b>	<b>6,928,408</b>
<b>OPERATING EXPENSES</b>					
Admin, Maintenance, Security Sta	2,505,896	2,295,862	3,069,967	3,162,629	3,352,733
Services	439,978	731,235	935,415	879,201	1,392,386
Utilities	270,634	321,465	271,747	414,686	459,019
Insurance	439,521	497,428	926,360	635,881	657,574
Professional Fees	134,650	137,314	83,392	784,602	317,500
Other (inc supplies, repairs, etc.)	459,239	766,212	484,395	600,658	603,069
General & Administration	389,086	465,910	584,528	609,886	778,623
<b>TOTAL OPERATING EXPENSE</b>	<b>4,639,004</b>	<b>5,215,426</b>	<b>6,355,804</b>	<b>7,087,543</b>	<b>7,560,904</b>
<b>OPERATING SURPLUS/DEFICI</b>	<b>(545,970)</b>	<b>694,020</b>	<b>(248,453)</b>	<b>78,464</b>	<b>(632,496)</b>
<b>AMORTIZATION</b>	<b>1,783,000</b>	<b>1,868,670</b>	<b>1,952,484</b>	<b>2,526,530</b>	<b>2,506,620</b>
<b>TOTAL COSTS (oper.+amortiz.)</b>	<b>6,422,004</b>	<b>7,084,096</b>	<b>8,308,288</b>	<b>9,614,073</b>	<b>10,067,524</b>
<b>SURPLUS/DEFICIT</b>	<b>(2,328,970)</b>	<b>(1,174,650)</b>	<b>(2,200,937)</b>	<b>(2,448,066)</b>	<b>(3,139,116)</b>

### **SECTION III - ECONOMIC BENEFITS OF HANSCOM ACTIVITY**

Massport's facilities enable the region's leading industries and local residents to make connections with new markets, products, customers, family, and friends. In just about every aspect of life in Massachusetts, Massport is helping the local economy grow.

Located off Route 128/95, Hanscom Field has become a vital link to domestic and international destinations for individual pilots, commuter airlines and local employers, including high technology corporations, research and development firms, and educational institutions. Businesses look for accessible air travel when deciding where to locate, and Hanscom provides local businesses with easy access to corporate travel opportunities.

In FY06, Massport invested almost \$4.8 million in airfield, terminal and other facility improvements at the airport. Cumulatively, approximately \$52.4 million has been spent on completed capital projects at Hanscom since 1959. These and future investments ensure that Hanscom will continue to be equipped to serve the diverse needs of users who operate a wide variety of aircraft and that Hanscom is prepared to support future economic growth.

In 2006, Massport completed an examination of the economic impacts of 2004 activity related to Massport facilities, including Hanscom Field. It was determined that there were 462 jobs directly related to Hanscom, and it was estimated that Hanscom generated economic benefits of \$180.6 million when all the direct, indirect and induced economic benefits of the airport were considered. It was also found that Hanscom generated \$9.6 million in state and local taxes and that \$65.4 million was spent on local purchases.

### **SECTION IV - 2006 ACCOMPLISHMENTS AND 2007 OBJECTIVES**

Massport's primary responsibility at Hanscom Field is to maintain a safe, secure, and efficient regional airport, while minimizing the environmental impact of its operations. Improvements are made in accordance with these guiding principles. While Massport is committed to maintaining Hanscom as a first class, full service airport, maintenance and improvements at the airport are consistently coupled with a variety of environmental initiatives, programs, and policies.

#### **Maintain and Improve Airfield**

##### **(a) Annual Airfield Improvement Program**

**Background:** Many projects at Hanscom are part of maintaining a safe and efficient airfield, and these are generally eligible for federal funding under the FAA's Airfield Improvement Program (AIP). Each year Massport submits projects for FAA funding approval.

One AIP-eligible project at Hanscom will improve the Runway Safety Areas (RSA) for Runway 5/23 as required by the FAA. It is not a runway expansion; it does not require any additional pavement; and it will not change how the runway is used.

The RSA project began in 2005 with design preparation for areas that require re-grading. Affected wetland areas at the Runway 23 end were identified. The permitting process required for the wetland work began when Massport submitted an Environmental Notification Form for the project to the Massachusetts Environmental Policy Act (MEPA) staff in July 2005. In the fall of 2005, MEPA held a public hearing and issued a scope for an Environmental Impact Report (EIR).

**In 2006:** A Draft Environmental Impact Report (DEIR) for the RSA project was submitted to MEPA in July 2006. After holding a public hearing, MEPA issued a certificate showing that the DEIR adequately and properly complied with the scope of work. Additionally, the certificate outlined the steps for preparing a Final Environmental Impact Report (FEIR) for the project.

Additional projects addressed in 2006 included an update of the existing Airport Layout Plan (ALP) and pavement rehabilitation.

- In response to the FAA's requirement that airports maintain current ALPs on file with them, Massport worked with the FAA to prepare an updated ALP for Hanscom.
- Phase 2 of the East Ramp overlay project was completed in 2006.

**In 2007:** The FEIR for the RSA project was submitted to MEPA on January 31, 2007 and noticed in the Environmental Monitor on February 8, 2007. Close of public comments was scheduled for March 8, 2007 and the Secretary's certificate was due on March 15, 2007. This will be followed by a permitting process with the Town of Bedford's Conservation Commission, Department of Environmental Protection (DEP), and the Army Corp of Engineers. Massport will issue an RFP for the project. Construction is expected to begin by late 2007.

Additional projects to be addressed in 2007 include completing the ALP update and some additional pavement rehabilitation.

- Massport expects to file the updated ALP with the FAA in March or April. It is anticipated that the FAA will accept the ALP, which will complete the ALP update project.
- The design for pavement reconstruction for taxiways Mike and Whisky, an upgrade to the existing main electrical vault for the airfield lighting systems, and rehabilitation of pavement near the Pine Hill t-hangars will be pursued.

## **(b) Safety and Security**

**Background:** Safety and security are the two most critical components of operating an airport, and there is a continual emphasis on both at Hanscom. Massport's commitment to operating a safe and secure airport helps safeguard its host communities as well as those who use the airport.

*Safety:* In addition to the RSA project, recent safety initiatives have focused on ensuring the runways are maintained efficiently and effectively during winter weather conditions. FAA-approved sand is used to improve friction on the runways, taxiways and ramps, and Massport began construction of a new sand storage facility in 2005. Additionally, a 2003-2004 study and water quality monitoring program showed that the use of sodium formate, a relatively new de-icing product, would be an environmentally safe agent for airfield use.

One of Hanscom's FAA Part 139 certification requirements is to conduct an annual exercise to ensure an effective response in the event of an aircraft emergency. A tabletop exercise is conducted two out of every three years. On the third year, a simulated emergency is conducted on the airport, which allows emergency responders and area medical teams to participate in a response and transport exercise. Although the primary purpose of the simulated emergency is to test the effectiveness and efficiency of the airport's incident command and communication team, Massport encourages participation by mutual aid responders, which allows them to test their response times and to evaluate the capabilities of their medical facilities.

Massport has a contract with the Hanscom Air Force Base fire department to provide Aircraft Rescue and Fire Fighting services, as well as structural fire and first responder emergency medical services. Massport works closely with the Base fire department in coordinating the tabletops and the emergency exercises.

*Security:* There was an increased emphasis placed on security after the events of September 11, 2001. Before the end of 2002, installation of new security fencing was initiated and an ID badging program was developed. Anyone requiring unescorted access to the airfield must now undergo a background security check in order to obtain a badge. Badges must be displayed at all times when on the airfield.

**In 2006:** *Safety:* Massport completed construction of a heated sand storage facility to reduce the need for multiple deliveries of FAA-approved sand during winter storms. The building is in close proximity to the approach end of Runway 29, improving access to the sand during storms. Additionally, Massport continued to use sodium formate on the runways and taxiways during icy conditions, as needed.

In July 2006, Massport conducted a tabletop emergency exercise to review procedures for dealing with an airfield emergency. Participants interacted with their contemporaries from different organizations, putting names to faces while talking through a variety of potential scenarios and response actions.

*Security:* Approximately 1,800 ID badges were in effect at the end of 2006. An evaluation of potential access control systems was initiated.

**In 2007:** *Safety:* Safety initiatives and training programs will continue to be implemented, and a table top emergency exercise will be performed. Additionally, Massport has entered into a contract with the USDA to conduct a wildlife assessment, which was recommended by the FAA. The project will involve twelve months of observation and data collection to identify types of wildlife and their patterns on the airfield.

*Security:* There are plans to install an access control system, pedestrian gates near the vehicle trap gates, and bollards to replace the Jersey barriers in front of the civil terminal. All security measures will continue to be reviewed, with appropriate adjustments being made, as warranted.

(c) **Clear Zone Obstruction Removal**

**Background:** A critical component of maintaining compliance with FAA certification and safety requirements is the elimination of obstructions within the runway approach surfaces. It is paramount that Massport remove vegetation that is penetrating, or close to penetrating, runway clear zones. Historically, a vegetation removal project has been required every five years. Based on a 1999 obstruction analysis using aerial photogrammetric mapping of the runway approach and departure surfaces, it was determined that vegetation removal from uplands and wetlands was necessary at all four runway ends in all four towns.

Following state guidelines in the *Generic Environmental Impact Report (GEIR) for Vegetation Removal at Public Use Airports* and the *1999 GEIR/Generic Environmental Notification Form Update*, Massport drafted a Vegetation Management Plan (VMP) for all four runway ends in 2001. Additionally, Massport delineated the wetlands that were identified in the first Five Year Vegetation Maintenance Plan in the VMP, and the Conservation Commissions in the four towns approved the Abbreviated Notices of Resource Area Delineation to verify the wetland boundaries.

In 2002, Massport finalized the VMP. Using the 2001 approved wetland boundaries, Massport submitted Notices of Intent (NOIs) to the Conservation Commissions in the four contiguous towns for the VMP's first Five Year Vegetation Maintenance Plan, which included vegetation removal that was in wetlands. By 2003, Massport had received Orders of Conditions from all four towns.

Implementation of the vegetation removal plan took place in 2004. Subsequent maintenance of the areas that were cut has minimized the need for additional large-scale cutting in those areas.

**In 2006:** Massport continued to maintain the permitted areas of the VMP, following the VMP Orders of Conditions.

The VMP obstruction analysis identified obstructions in Bedford's Hartwell Town Forest and Jordan Conservation area if vegetation were to be cut at a 34:1 slope. After extended communications and negotiations with the FAA, it was agreed that Massport could pursue cutting at a 20:1 slope rather than a 34:1 slope. It is anticipated that this eliminates the need to cut vegetation in the Bedford Town Forest. Massport initiated communications with the Town of Bedford to discuss the needs for a mutually agreeable management plan for the Jordan Conservation area.

**In 2007:** Massport plans to pursue discussions with the Town of Bedford regarding obstructions in the Jordan Conservation area. Additionally, Massport will prepare a second Five Year Vegetation Maintenance Plan for the VMP and will present the five year plan to the four town conservation commissions for approval. It is anticipated that implementation of the second Five Year Vegetation Maintenance Plan will begin in late 2007.

(d) **Landside Maintenance**

**Background:** In addition to maintaining the airfield, Massport must maintain the parking and entrance areas to the airfield.

**In 2007:** Hanscom Field begins at the intersection of Hanscom Drive and Bedford Road. There is a Massport sign at this corner announcing the entrance to the airport. There are plans to improve the entry signage and landscape, providing a more professional and attractive first impression for those using the facility.

**Maintain and Improve Facilities**

**Background:** Hanscom plays a critical role in the regional transportation system. This role demands appropriate maintenance programs and responsible development of airport facilities. At the same time, Massport must remain flexible, making adjustments to its projects based on changes in the aviation industry. Anticipating future needs and meeting the current needs of new and existing tenants create challenges that require careful analysis.

In its general aviation role, Hanscom is home for private pilots, flight schools, an aircraft maintenance training facility, small airport-related businesses, companies that provide air taxi services, and local companies' flight departments. In addition, there are companies that provide services to aircraft operators; some of these companies specialize, while the fixed base operators offer a full range of services. Most of Hanscom's hangars, with associated office space, are owned or leased by tenants who are responsible for maintaining the facilities.

*Third Party Development:* Hanscom's customer base requires more hangar space than is currently available. In recent years, Massport has solicited third party development and management for new facilities.

*Massport Controlled Facilities:* Massport owns and manages the Civil Air Terminal, as well as t-hangars and tie-down spots for owners of small aircraft and a number of corporate hangars that are leased. The civil terminal is home to a number of aviation businesses, including Hanscom's flight schools, and it is the base for Hanscom's commuter airline service. Accommodating commuter service requires Massport to continually assess the airline's needs, particularly as they relate to the Civil Air Terminal space.

**In 2006:** *Third Party Development:* Massport signed a lease with Stream Enterprises to replace Hangar 10 with a hangar that would accommodate the wider wingspans and greater tail heights of today's aircraft designs. Massport also worked with Crosspoint Enterprises, which had been selected to develop the Hangar 24 site; these negotiations failed to result in an agreement.

Massport was informed by the Massachusetts Historical Commission (MHC) that Hangar 24, which is located on one of Massport's identified development sites, meets some of MHC's

criteria for historical significance. Massport prepared a Project Notification Form regarding its plans for Hangar 24 and submitted this to MHC in late 2006.

Massport initiated discussions with the two flight schools regarding development of a Pine Hill site that has been identified for development. One or both flight schools may be interested in building on the site.

New development opportunities were identified and analyzed in the 2005 Environmental Status and Planning Report (ESPR), which is discussed in the section Monitor and Respond to Environmental Issues below. The results of the study, once it is finalized, will influence future development at Hanscom.

*Massport Controlled Facilities:* Restrooms in the Civil Air Terminal were renovated. Additionally, designs were developed to renovate the Civil Air Terminal first floor, which will improve the efficiency of the area.

**In 2007:** *Third Party Development:* Massport will consult with MHC in an effort to eliminate, mitigate, or manage the effects of redevelopment of the Hangar 24 site. Massport is interested in issuing a Request for Proposals for the redevelopment of the site.

It is expected that development of a site near the Pine Hill t-hangars, potentially by one or both flight schools, will move forward. Additionally, Massport will evaluate the results of the 2005 ESPR to determine future opportunities to fulfill its role in the regional transportation system as a full service general aviation airport.

*Massport Controlled Facilities:* Massport plans to upgrade the first floor of the Civil Air Terminal. Also, Massport will continue to consider the role it might play in the future use of the U.S. Navy facilities, located north of the airfield, that were vacated by Raytheon in 2000. The land is in Bedford and is contiguous with Massport property. The hangar abuts the airfield, and the office building is on a hill overlooking the airport.

## **Monitor and Respond to Environmental Issues**

### **(a) Environmental Programs and Audits**

**Background:** Massport has consistently maintained high environmental standards while complying with state and federal environmental regulations. There is a continual effort to extend and improve the use of environmentally friendly technologies and innovations to identify and minimize operational impacts.

In 2001, Massport brought its environmental commitment to a new level when Hanscom Field became the first U.S. airport to become ISO 14001 certified. To become certified, Massport developed and implemented an Environmental Management System (EMS) that meets international performance standards. The EMS provides a framework that fosters the use of environmentally sustainable practices for operating the field and creates an auditable system for

tracking, managing, and improving environmental performance. The EMS facilitates environmental compliance, encourages strategic environmental thinking during business and planning processes, and promotes environmental awareness.

In 2002, Massport began participating in the new State Sustainability Program (Executive Order 438) developed by the Executive Office of Environmental Affairs. This program was an expansion of the Clean State Program in which Massport had actively participated for many years.

The State Sustainability Program was designed to encourage state agencies to promote environmentally sustainable practices, including “green building”, reduced environmental impact from operations, and energy efficiency. “Green building” is the design, construction, and/or renovation of buildings that achieve energy efficiency and environmental sustainability. Massport has taken a leadership role in ensuring that its facilities and those of third party developers meet the U.S. Green Building Council’s Leadership in Energy and Environmental Design criteria.

**In 2006:** As part of Massport’s environmental commitment, the Environmental Management Unit continued to monitor and audit activities at Hanscom in 2006 to ensure the use of pollution prevention practices and compliance with environmental regulations. Programs that are ongoing include:

- Tracking, managing and improving environmental compliance and performance through the EMS;
- Monthly inspections of all Massport fuel storage tanks and the Field Maintenance garage to ensure regulatory compliance;
- Inspecting Massport and tenant facilities to ensure environmental compliance;
- Reviewing and updating the Spill Prevention Control and Countermeasure (SPCC) Plan, which outlines steps to be taken by Massport employees in the event of a spill of fuel or hazardous materials;
- Implementing and encouraging tenants to utilize Best Management Practices (BMPs) as discussed in the National Pollutant Discharge Elimination System (NPDES) multi-sector permit for stormwater discharges at Hanscom Field;
- Conducting periodic water quality inspections at Massport’s stormwater outfall locations;
- Participating in the Massachusetts State Sustainability Program (Executive Order No. 438) to promote environmentally sustainable practices;
- Participating in an aggressive mixed paper and cardboard recycling program for tenant and Massport offices.
- Identifying opportunities for development projects to control stormwater runoff. For example, if a project results in an increase in impervious surface, Massport requires compensatory storage for stormwater in order to avoid increasing peak stormwater run-off rates. This policy is incorporated into all Hanscom Field development.
- Identifying opportunities during Massport capital program project design development to reduce stormwater runoff and peak flows.

In 2006, Massport did not have any reportable spills of hazardous waste materials at Hanscom Field. There was one spill by a tenant that did not affect any drains. Clean Harbors responded to the event, and it was reported to DEP.

**In 2007:** Massport's Environmental Management Unit and Hanscom staff will continue to use the EMS as the basis for tracking, managing and continually improving environmental performance. Targets will be updated as target dates are reached or when opportunities arise for improving the EMS framework. Staff will continue to monitor and audit Massport and tenant activities at the airport and will discuss issues with the responsible parties to ensure compliance with environmental regulations and permitting requirements. Massport will continue to support all of its on-going environmental commitments, including active participation in the state's environmental programs.

**(b) Management of Massachusetts Contingency Plan (MCP) Sites**

**Background:** Over the years, Massport has maintained steady progress in closing its active DEP-listed sites at Hanscom Field. Early in 2006, there was only one remaining disposal site that was being brought to regulatory closure under the MCP. Massport was listed as the potentially responsible party (PRP) for the open site, located adjacent to the Massport Field Maintenance Garage.

**In 2006:** Massport brought its only remaining MCP disposal site to regulatory closure in 2006. There are no longer any open MCP sites.

**(c) DEP Shawsheen Watershed Initiative**

Massport continues to work cooperatively with the Massachusetts DEP and the United States Air Force to improve the quantity and quality of stormwater discharges into the Shawsheen River. In recent years, Massport has reduced impermeable areas and incorporated engineering solutions to reduce/delay peak runoff flows into the river. Whenever possible, Massport has incorporated water quality and water quantity improvements into ongoing projects. Since 2002, Massport has removed 4.4 acres of impervious surface, and Massport continues to require new projects to include compensatory stormwater storage in order to mitigate any potential increase in peak stormwater run-off rates.

**In 2006:** Overflow weirs for temporarily storing water were installed in three large drainage pipes leading to the Shawsheen River. The weirs were designed to reduce the peak discharge of stormwater and increase base flow by releasing the stored water over time. Massport also began to identify and evaluate other stormwater improvements to reduce peak discharge flows and increase base flows into the river. An important goal of the Hanscom stormwater improvement program is to reduce the potential for sudden flow increases and provide temporary storage with timed release of water to increase the base flow into the headwaters.

**In 2007:** Massport will continue with the evaluation, design, and construction of stormwater improvements at Hanscom Field. An evaluation is currently underway to rank potential improvements before moving to design and then construction. Part of the work will be to

quantify potential improvements and coordinate with the USAF on the implementation and evaluation of the improvements to the river. Massport will continue to work with the Massachusetts DEP and other Shawsheen partners to make improvements that will benefit the Shawsheen River and Massport's downstream neighbors.

**(d) Protection of Rare and Endangered Species**

**Background:** Two grassland bird species subject to the Massachusetts Endangered Species Act have been observed at Hanscom Field: the Upland Sandpiper and the Grasshopper Sparrow. In cooperation with the Massachusetts Audubon Society, Massport has traditionally managed airfield vegetation in a manner that maintains aviation safety while protecting the grassland nesting areas of these species.

As part of its commitment to help protect the Upland Sandpiper and other listed grassland species, Massport completed a Grassland Management Program in 2004 that protects these birds while minimizing risks associated with hazardous wildlife species on the airfield. As part of this effort, Massport suspends mowing activities in some areas (excluding runway safety areas) during the critical nesting season of these birds. In addition, the U.S. Department of Agriculture regularly conducts field visits at Hanscom to monitor and evaluate wildlife on the airfield, with a focus on assisting Massport in minimizing bird strike hazards.

**(e) Environmental Status and Planning Report (ESPR)**

**Background:** Starting in 1985, Massport has prepared a series of environmental assessments for Hanscom Field. These studies identify the environmental effects of current conditions and activity at the airport, and they present and evaluate the potential cumulative environmental effects of several future scenarios.

Massport's first Generic Environmental Impact Report (GEIR) for Hanscom Field evaluated the environmental impacts for 1985 conditions and looked at the potential impacts for 1990. In 1997, a GEIR Update was completed, using 1995 as the base data year and evaluating potential impacts for 2000 and 2010. Subsequently, the name of the study was changed from a GEIR to an Environmental Status and Planning Report (ESPR) because it was determined that this title better characterized the study.

The 2000 ESPR analyzed the environmental effects for 2000 and compared the results to the data in the 1995 GEIR Update. In addition, potential environmental effects for 2005 and 2015 were analyzed based on a range of general aviation, commercial, and cargo growth scenarios, and on the development needed to support that activity.

Each year that the GEIR/ESPR documents were completed, they were submitted to the Massachusetts Environmental Policy Act (MEPA) offices, and the certificates issued by MEPA found them to be adequate. The certificate for the 2000 ESPR requested another environmental update using 2005 as the base year. A draft Scope for the 2005 ESPR was submitted to MEPA in 2005, and MEPA issued a certificate, including a Scope of Work.

**In 2006:** Massport prepared the Draft 2005 ESRP and filed it with MEPA on November 30, 2006. The document analyzes the environmental effects for 2005, compares them with the data in the 2000 ESRP, and projects potential environmental effects for 2010 and 2020 based on a range of general aviation, commercial, and cargo growth scenarios, and on the development needed to support that activity.

**In 2007:** During January, a series of meetings were held by Massport to present the material in the Draft 2005 ESRP. Additionally, MEPA held a January public hearing to receive public comments on the draft document. MEPA issued a certificate that found the Draft 2005 ESRP to adequately and properly comply with MEPA regulations and determined that the Draft ESRP could be submitted as the final document. MEPA scheduled its hearing for March 13, and Massport held an informational meeting on March 8. Close of comments was scheduled for March 25, 2007, and the MEPA certificate for the Final ESRP was scheduled to be issued on March 29, 2007.

### **Community Outreach**

Massport strives to build positive community relations and public confidence by maintaining open communications and by supporting programs that assist in addressing the concerns of Hanscom's stakeholders and host communities.

#### **(a) Community Meetings**

Massport is committed to the public's "right to know". Massport staff sponsor project specific informational meetings, tours, and public hearings for representatives and residents of the towns that abut the airfield, those who use the airport, the Minute Man National Historic Park, the FAA, Hanscom Air Force Base and other interested parties, as needed or requested. Additionally, Massport staff members regularly attend two monthly community meetings, as follows:

- *The Hanscom Field Advisory Commission (HFAC):* The HFAC was established by the Massachusetts legislature in 1980. It includes representatives from the aviation and residential communities as well as advisory members who represent the National Park, Hanscom Air Force Base, the FAA, and Massport. Massport staff provide members of the HFAC with pertinent information regarding events and plans for the airport, as well as general information about Massport's goals, policies and plans. Staff prepare and present monthly activity and noise statistics, the annual *State of Hanscom*, and the annual noise report, as well as a variety of other reports that are generated periodically.
- *The Hanscom Area Towns Committee (HATS):* The four towns that are contiguous to Hanscom Field and Hanscom Air Force Base created the Hanscom Area Towns Committee (HATS). One selectman from each town serves on HATS along with planning board and at-large members from the towns. Massport staff attend the HATS meetings to comment on discussion items and to respond to questions relating to Hanscom Field and Massport.

**(b) Noise Metrics and Noise Abatement and Mitigation**

**Background:** Aircraft noise may be the greatest concern for many Hanscom area residents and Minute Man National Historical Park, and Massport recognizes the importance of pro-actively addressing this issue. Massport is committed to implementing its current noise programs and to exploring appropriate new initiatives.

In 1980, Massport adopted regulations (Part F of the General Rules and Regulations for Laurence G. Hanscom Field) that include a nighttime field use fee that helps control activity between 11 p.m. and 7 a.m.; a restriction on commercial air carrier service to aircraft with no more than 60 seats; and restrictions on touch-and-go activity by type of aircraft and time of day. Touch-and-goes are aircraft operations conducted to repeatedly and consecutively practice landing and departing techniques. In addition, the regulations phased out the use of most Stage 1 aircraft at Hanscom. Stage 1 aircraft are some of the noisiest aircraft in the U.S. fleet. In the mid-1980s, Massport began supporting the use of the National Aircraft Business Association's noise abatement procedures for jet aircraft.

Following the 1995 GEIR Update, a Noise Working Group, with representation from both the residential and aviation communities, was established at MEPA's request. This group studied noise metrics and noise abatement and mitigation measures. It completed its mission in September 1999 by submitting a report with recommendations. Massport continues to review and report on the status of those recommendations in the ESPR, and those recommendations continue to guide Massport in its noise related initiatives.

Although Massport did not adopt all of the metric-related recommendations included in the Noise Working Group's report, most of them were addressed in the 2000 and/or 2005 ESPRs. Others will be addressed when the upgraded noise monitoring system (discussed below) is fully operational.

In an effort to minimize the impact of aircraft noise, all of the Noise Working Group's abatement and mitigation recommendations that required Massport's implementation were addressed. Most of them related to Massport's development of its fly friendly program. This program encourages pilots to use the quietest flying techniques that are safe and practical.

Massport created inserts for pilot manuals that outline the Aircraft Owners and Pilot Association's (AOPA) and the National Business Aircraft Association's quiet flying recommendations. These inserts continue to be made available for pilots of all aircraft using Hanscom. Framed posters describing noise abatement procedures are hanging in the flight schools' offices and the fixed base operators' facilities. Videos that discuss the AOPA concepts were mailed to all based pilots of piston aircraft in 2000. More recently, videos describing the techniques were incorporated into the training required to get a Hanscom security badge. As a result, pilots using Hanscom are consistently being exposed or re-exposed to the program, thus increasing awareness and an understanding of the quiet flying techniques.

On another front, Massport joined Sound Initiative in 2005. Sound Initiative is a recently created coalition that supports the federal phase out of non-Stage 3 aircraft weighing less than 75,000

pounds. Stage 1 and 2 aircraft were manufactured before today's stringent noise standards were adopted for new airplanes. The use of non-Stage 3 aircraft weighing over 75,000 pounds was phased out nationally by 2000, but most of Hanscom's jets weigh less than 75,000 pounds. Just a small number of operations by the lighter Stage 1 and 2 aircraft can contribute significantly to the noise exposure at Hanscom.

**In 2006:** Massport continued to support the Fly Friendly program by distributing information that describes the program and by including the Fly Friendly video with the training for receiving a security badge. Although many Hanscom pilots received their first security badge before Hanscom's badge training program incorporated the video, badges must be renewed every two years. Therefore, many pilots saw the video for the first time during the renewal process.

Massport continues to support Sound Initiative in its effort to phase out the use of all non-Stage 3 aircraft. Towards that end, Massport wrote a letter in support of legislation filed by Senator Lautenberg of New Jersey to achieve that goal.

**In 2007:** Massport will continue its efforts to minimize the impact of aircraft noise on the communities. This will include supporting the phase out of some of the noisiest aircraft in the U.S. fleet and encouraging the use of community conscious programs such as Fly Friendly. Additionally, Massport staff agreed to help Minute Man National Historical Park collect data for its Soundscape study.

### (c) Noise Monitoring System

**Background:** In an effort to facilitate the understanding of noise impacts in the communities, Massport installed a noise monitoring system at Logan and Hanscom in the early 1990s. The system includes six Hanscom microphones—one off each of the runway ends in each of the contiguous towns and two others on the airfield at the ends of Runway 11/29. Data from the system are shared with the communities on a monthly basis.

In 2004, Massport decided to upgrade its noise monitoring system. After an extensive review process, Massport selected Rannoch Corporation for the project in 2005. The residential communities established an Ad Hoc Noise Group to work with Massport on this project, and Massport solicited community input from this group for use in developing a new website for the system. Users will be able to use the internet to log complaints and to get information on flights and the noise generated by those flights.

**In 2006:** The upgraded noise monitoring system has several interrelated, complex components for both Hanscom and Logan International Airport, including records of noise levels, flight tracks, aircraft identification, and a user-friendly website. Because the new computer systems had to be integrated with Massport's computer systems, the project started with Massport and Rannoch tackling a myriad of technical issues, some of which had to be resolved before moving into an installation phase. By the end of the year, Hanscom had six new microphones installed; initial information from the data being collected on operations became available; and website material was being drafted.

Early in 2006, Massport met with the Ad Hoc Noise Group to answer questions and concerns about the project. Additionally, there was discussion with the chair of the community group regarding the communities' desire to have some of the noise monitors moved because current locations of some monitors are not optimal. Massport has agreed to move two Hanscom monitors.

**In 2007:** The upgraded noise system is expected to become fully operational in 2007, and this will include a user-friendly, interactive website for residents. Massport will work with community representatives to determine new locations for two of the existing noise monitors. It is anticipated that some additional recommendations identified by the Noise Working Group in 1999 will be addressed when the new system is fully functional.

**(d) Community Contributions**

Massport's Charitable Contribution, Scholarship, and Community Summer Jobs Programs benefit organizations located in communities that host its facilities. The organizations serve a diverse constituency and a variety of worthwhile purposes. In 2006, Massport contributed over \$18,000 to educational, scholarship, and youth programs in the Hanscom area and provided approximately \$13,500 to sponsor summer internship positions in the four towns.

**SECTION V – CAPITAL PROJECTS FOR FY07 THROUGH FY11**

Each year, capital projects for Hanscom Field are evaluated for funding. The table on the next page outlines the projects that have been identified for FY07 through FY11. Estimated project costs are included. The list does not include projects that have been completed in FY07.

The capital programs list is fluid and gets adjusted periodically. Circumstances may change the year in which a project is started or completed, the estimated amount to be expended, or whether a project is actually implemented.

**TABLE 3**

**HANSCOM FIELD FY07 TO FY11 CAPITAL PROJECTS**

	<b>PROJECTS</b>	<b>Current Funding Years</b>	<b>Cost FY07-FY11(in 000s)</b>
	Noise Monitoring Upgrade	FY07	\$335
	Security Enhancements	FY07	\$423
	Airfield Improvement Program (Taxiway W & M Reconstruct)	FY07-FY08	\$1,980
	CAT 1st Floor Renovations	FY07-FY08	\$2,920
	Upgrade Electric Service--Airfield & Regulator	FY07-FY08	\$1,000
	Runway Safety Area Improvements	FY07-FY09	\$2,380
	Stormwater Infrastructure	FY07-FY11	\$500
	Airfield Entry Signage/Landscape	FY08	\$60
	Pine Hill Pavement Rehab	FY08	\$100
	Security Access Control System	FY08	\$405
	Security Fence	FY08	\$100
	CAT Roof and Building Repairs	FY08-FY09	\$330
	Airfield Improvement Program (Taxiway H Rehab)	FY09-FY10	\$1,000
	Salt Storage Enclosure	FY09-FY10	\$250
	Airfield Improvement Program (RW5 overrun & Taxiway H Overlay)	FY10	\$1,480
	Rehab Landside Road Areas	FY10	\$200
	Airfield Improvement Program (Taxiway M Rehab)	FY10-FY11	\$1,000
Unfunded	Parking Revenue System	FY07	\$200
	Utility Service Upgrade to East Ramp	FY07-FY09	\$1,500
	West Ramp Utility upgrade and Taxiway Adjustment	FY08	\$20
	Underground Water System Infrastructure	FY08-FY10	\$2,165
	Perimeter Road Improvements	FY09	\$312
	T-Hangar Apron Rehabilitation	FY09-FY10	\$1,920
	East Ramp Joint Repairs	FY10	\$200