

# **The State of Hanscom**

**Presented to the  
Hanscom Field Advisory Commission**

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# THE STATE OF HANSCOM

## **MASSACHUSETTS PORT AUTHORITY**

The Massachusetts Port Authority (Massport) is the owner and operator of Laurence G. Hanscom Field. Massport also operates Boston Logan International Airport, Worcester Regional Airport, the Port of Boston's Conley Container Terminal and Black Falcon Cruise Ship Terminal. These facilities provide safe, secure, and efficient transportation resources for travelers and businesses and enable Massachusetts and New England to compete successfully in the global marketplace. Massport receives no state tax funding and is governed by a seven-member Board appointed by the Governor.

Massport's facilities are essential to the citizens of the Commonwealth and provide economic benefits throughout the region. At the same time, Massport strives to minimize the impact of its operations on surrounding communities. Massport is diligent in abiding by all environmental regulations and is a leader in promoting voluntary environmental initiatives. Massport implements and participates in outreach programs that encourage an open and timely exchange of information and ideas. It is Massport's goal to understand and integrate the concerns of the community into its projects and plans whenever and wherever possible.

## **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 until 1956, when the legislature placed Hanscom Field under Massport's jurisdiction. Although the land was always controlled by the state, the airfield was leased and maintained by the military until 1974.

Today, Hanscom Field is the region's premier full-service general aviation airport, and it plays a critical role in New England's regional aviation system as a general aviation reliever for Logan International Airport. Aircraft operations at Hanscom have traditionally included commuter, business, charter, light cargo, personal aircraft, air taxi, medical, military 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 (HAFB), 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 HAFB, the Federal Aviation Administration, Minute Man National Historical 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. It discusses Massport's 2018 accomplishments at Hanscom, as well as plans for 2019.

## SECTION I - AIRCRAFT ACTIVITY

Table 1 shows total aircraft activity levels at Hanscom Field for 7 a.m. to 11 p.m. operations in 2017 and 2018 based on Federal Aviation Administration (FAA) tower counts, fleet mix data, and estimates. The 2018 data are preliminary and will be thoroughly reviewed before publication of the 2018 noise report.

**TABLE 1**  
**Hanscom Field Aircraft Activity**

2017  
FROM FAA TOWER REPORTS & ESTIMATES (7 A.M.-11 P.M)

	CIVILIAN						MILITARY	TOTAL
	LOCAL	SINGLES	TWIN PISTON	TURBO	JET	HELI		
January	2749	1996	189	401	2142	638	11	8,126
February	2773	1819	169	409	2134	595	45	7,944
March	2774	1777	188	413	2422	661	39	8,274
April	3451	2873	213	590	2545	647	60	10,379
May	4744	3425	288	719	3051	702	58	12,987
June	5596	4159	290	781	2808	696	123	14,453
July	4521	3266	445	965	2136	836	84	12,253
August	4721	3476	239	727	2144	698	40	12,045
September	3865	2457	390	890	2827	766	68	11,263
October	4134	2981	230	826	3066	702	44	11,983
November	3383	2511	228	583	2717	737	42	10,201
December	3317	1371	234	585	2388	773	22	8,690
<b>TOTAL</b>	<b>46,028</b>	<b>32,111</b>	<b>3,103</b>	<b>7,889</b>	<b>30,380</b>	<b>8,451</b>	<b>636</b>	<b>128,598</b>

2018  
FROM FAA TOWER REPORTS & ESTIMATES (7 A.M.-11 P.M)

	CIVILIAN						MILITARY	TOTAL
	LOCAL	SINGLES	TWIN PISTON	TURBO	JET	HELI		
January	2572	1331	181	395	2328	738	19	7,564
February	3368	1585	198	468	2438	656	14	8,727
March	3766	1810	216	458	2511	746	28	9,535
April	3412	1877	272	729	2734	859	46	9,929
May	4147	2764	285	843	2941	882	65	11,927
June	4094	3279	304	925	2585	844	43	12,074
July	3922	3088	319	966	2130	936	63	11,424
August	3940	2618	273	869	2329	828	55	10,912
September	3504	2472	297	872	2471	815	14	10,445
October	3257	2149	250	878	3003	823	38	10,398
November	2688	1859	227	571	2745	727	26	8,843
December	3608	2118	226	601	2500	800	33	9,886
<b>TOTAL</b>	<b>42,278</b>	<b>26,950</b>	<b>3,048</b>	<b>8,575</b>	<b>30,715</b>	<b>9,654</b>	<b>444</b>	<b>121,664</b>

Note: The 2018 figures are preliminary. All 2018 data will be reviewed before publication of the 2018 annual noise report.

The FAA tower counts are traditionally used to report the official number of operations for an airport; at Hanscom they do not include nighttime 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 2,459 nighttime operations in 2018, an increase from 2,226 in 2017.

The airport's activity levels have historically been closely aligned with the economic health of Massachusetts' high technology industry in the Routes 128/95 and 495 areas and have generally mirrored national trends.

The data in Table 1 show 121,664 operations for 2018. This indicates a 5.4% decrease as compared to 2017. Although total operations have been below 200,000 in 23 out of the past 25 years, they were well above 200,000 for the 30 years prior to 1993, and they exceeded 300,000 in 1970.

Consistent with activity for the past thirty-six years, the civilian portion of the 2018 aircraft operations comprised approximately 99% of the total aviation activity. The largest component of the total activity, 56.9%, consisted of single engine piston (SEP) operations ("Local" plus "Singles" in Table 1). The 69,228 estimated SEP flights indicate that their activity decreased 11.4% as compared to 2017. This included a 8.1% decrease in touch and go/local traffic and a 16.1% decrease in non-touch-and-go/local operations by SEPs.

Touch-and-go/local activity comprised 61% of the SEP 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; they are most commonly conducted by flight schools using SEP aircraft.

The 3,048 estimated twin engine piston operations indicate a decrease of 1.8% as compared to 2017. They represented 2.5% of the 2018 operations. The 9,654 estimated helicopter operations indicate a 14.2% increase as compared to 2017, and they represented 7.9 % of the total. Estimated turboprop aircraft activity, representing 7 % of the 2018 total activity, increased 8.7%.

The 30,715 civilian jet operations that were conducted in 2018 represented 25.2 % of the total activity and indicate a 1.1% increase, as compared to 2017. Business jet activity peaked at 34,522 operations in 2007.

All of the 2018 data used to create Table 1 will be reviewed for the 2018 annual noise report, which will be prepared later in the year and presented to HFAC. The noise report 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 2018**

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.

Table 2 demonstrates the fluctuations in revenues and expenses over the last five years. Comparing FY18 to FY17, operating revenues increased 17.1 % and expenses increased 15.8%, leaving Hanscom with an operating surplus of \$533 thousand. Amortization increased to \$3.7 million, resulting in a \$3.2 million deficit in FY18.

Projections for FY19, made in 2018, included a decrease in revenues, a slight decrease in expenses and amortization increasing to \$4.1 million. The projected deficit for FY19 is \$4.3 million. Increased expenses include development of the Massport Airport Rescue & Fire Fighting (ARFF) department and Customs and Border Protection Facility, as well as repairs made to the Civil Air Terminal to remediate water damage after a flood in July 2017.

Massport recognizes that controlling Hanscom's deficit requires an aggressive multi-faceted approach. On the cost side, every expenditure and project is 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. 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 generate revenue and are allowed activities under federal law. While Massport may not actively solicit scheduled air service, it will accept and appropriately process applications for such service from entities that may seek to operate such air service at Hanscom Field.

**TABLE 2**  
**Hanscom Five Year Financial Summary**  
**Fiscal Years (FY) FY15 -FY19**

<b>YEAR</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>	<b>Forecast FY19</b>
<b>RENTALS</b>					
Terminal	348,763	298,327	324,304	359,911	325,369
Non-Terminal	2,433,381	2,426,818	2,267,539	2,080,170	2,140,391
Ground	3,267,246	3,497,221	3,527,693	4,548,012	4,571,134
Utilities	128,354	136,247	106,268	136,317	114,379
<b>SUBTOTAL</b>	<b>6,177,743</b>	<b>6,358,613</b>	<b>6,225,804</b>	<b>7,124,409</b>	<b>7,151,273</b>
<b>FEES</b>					
Landing Fees	910,310	915,194	1,146,436	1,276,601	1,188,965
Customs Fees	647,324	639,480	725,664	760,699	711,737
Night Field Use Fees	711,003	622,298	750,075	813,743	757,084
Parking Fees	141,720	157,601	103,860	108,840	114,800
Other	739,376	816,274	768,408	1,602,080	817,167
<b>SUBTOTAL</b>	<b>3,149,733</b>	<b>3,150,846</b>	<b>3,494,443</b>	<b>4,561,963</b>	<b>3,589,754</b>
<b>COMMISSIONS</b>					
Rental Cars	169,152	169,529	208,010	203,481	203,379
Flight Schools	27,204	34,227	25,302	28,181	26,423
Ground Servicing	153,073	137,294	149,442	115,201	122,681
Fuel Flowage	1,663,855	1,599,670	1,901,628	2,023,986	1,925,467
Other	742,746	781,346	867,264	1,009,514	908,332
<b>SUBTOTAL</b>	<b>2,756,030</b>	<b>2,722,067</b>	<b>3,151,645</b>	<b>3,380,362</b>	<b>3,186,283</b>
<b>TOTAL REVENUES</b>	<b>12,083,506</b>	<b>12,231,526</b>	<b>12,871,892</b>	<b>15,066,734</b>	<b>13,927,309</b>
<b>OPERATING EXPENSES</b>					
Admin, Maint., Security Staff	4,127,765	6,219,379	6,339,974	6,832,241	7,062,576
Supplies & Materials	325,023	460,890	456,909	463,920	335,109
Repairs	550,729	570,901	572,637	1,616,457	497,233
Services	2,638,165	2,294,475	2,431,577	2,531,912	2,876,787
Utilities	301,072	256,992	301,872	355,775	330,608
Insurance	196,175	185,584	194,806	199,539	206,761
Miscellaneous	816,154	1,055,860	1,036,678	1,093,728	1,055,295
General & Administration	1,105,988	1,144,729	1,219,911	1,440,106	1,734,810
<b>TOTAL OPERATING EXPENSES</b>	<b>10,061,070</b>	<b>12,188,811</b>	<b>12,554,363</b>	<b>14,533,678</b>	<b>14,099,179</b>
<b>OPERATING SURPLUS/DEFICIT</b>	<b>2,022,436</b>	<b>42,715</b>	<b>317,529</b>	<b>533,057</b>	<b>(171,870)</b>
<b>AMORTIZATION</b>					
	<b>3,433,408</b>	<b>3,158,412</b>	<b>3,158,412</b>	<b>3,768,452</b>	<b>4,195,482</b>
<b>Total Costs (oper + Amort.)</b>	<b>13,494,479</b>	<b>15,347,222</b>	<b>15,712,775</b>	<b>18,302,130</b>	<b>18,294,661</b>
<b>SURPLUS/DEFICIT</b>	<b>(1,410,973)</b>	<b>(3,115,697)</b>	<b>(2,840,882)</b>	<b>(3,235,395)</b>	<b>(4,367,352)</b>

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

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

Located off Route 128/95, Hanscom Field has been 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 FY18 Massport invested \$13.4 million in airfield, terminal, equipment and other facility improvements required to maintain the airport. Past and future investments ensure that Hanscom will continue to be prepared to support future economic growth by serving the diverse needs of users who operate a wide variety of aircraft.

Periodically, there is an examination of the economic impacts of Massport's facilities. The Massachusetts Department of Transportation/Aeronautics Division last conducted an airport economic impact study in 2019. It was determined that there were 2,243 full-time equivalent jobs related to Hanscom Airfield activity. Annual wages for those workers whose employment is directly related to airport activity are \$133 million. Hanscom generated estimated economic benefits of \$679 million when all the direct, indirect and induced economic benefits of the airport were considered. Estimated economic benefits described above do not include economic benefits generated by Hanscom Air Force Base. The Massachusetts Department of Transportation/Aeronautics Division is currently conducting a new economic impact study.

### **SECTION IV - 2018 ACCOMPLISHMENTS AND 2019 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—Annual Airfield Improvement Program**

Most projects at Hanscom are part of maintaining a safe and efficient airfield, and these may be eligible for full or partial federal funding under the FAA's Airport Improvement Program (AIP).

**Airfield Pavement Maintenance:** There is an on-going program for reconstructing pavement on the airfield.

**In 2018:** Massport designed a plan to rehabilitate the pavement on the East Ramp.

**In 2019:** Massport will rehabilitate the East Ramp utilizing a combination of crack sealing, asphalt repair and asphalt replacement.

## Safety and Security on and off the Airfield

Safety and security are the two most critical components of operating an airport, and there is a continual multi-level 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.

**1. Obstruction Removal:** A high priority for Massport is maintaining compliance with FAA certification and safety requirements regarding obstructions within runway approach and departure surfaces. Massport uses aerial photogrammetric mapping of those surfaces to identify vegetation that is penetrating, or close to penetrating, these surfaces. The state identified vegetation removal guidelines in the *Generic Environmental Impact Report (GEIR) for Vegetation Removal at Public Use Airports* and the *1999 GEIR/Generic Environmental Notification Form Update*. Historically, a vegetation removal project has been required every five years at Hanscom.

- ***Hanscom's Previous Five Year Vegetation Management Plans (VMP's) Using the State's GEIR Guidelines:***

- The first Five Year VMP (2002-2006) minimized the need for additional vegetation removal in the areas that were cut in 2004.
- Vegetation removal was required in areas that were not part of the first five year VMP.
- The second Five Year VMP was based on a 2007 Airspace Analysis, and identified obstructions in Bedford's Jordan Conservation Area (JCA), as well as some obstructions located in Concord. An Order of Conditions for the JCA was issued by the Bedford Conservation Commission in January of 2010. In 2010, the Bedford Conservation Commission, Massport and the Bedford Selectmen signed a Memorandum of Agreement (MOA) that allows Massport to periodically access the JCA for this and future such projects, subject to the Commission's review under the state Wetlands Protection Act. The term of the MOA is 50 years, which shall renew automatically for an additional 50 years at the conclusion of the first 50 year period, subject to the provisions of the MOA.
- As part of the MOA with the town of Bedford, Massport worked with the towns of Bedford and Concord to develop access to a trail system on two Massport-owned parcels. A trail connection between Bedford conservation land and Concord open space parcels was also completed. Massport officially opened the trails in September, 2011.

Massport has continued maintenance of the vegetation removal areas and the trail system throughout 2012, and performed aerial photogrammetric mapping of the airport as part of its next five year VMP update. In 2013, Massport began development of the 2014-2018 VMP Update based on analysis of the findings from the most recent aerial photogrammetric mapping of the airport. In 2014, the third VMP update was submitted to the four towns' Conservation Commissions along with Notices of Intent for the required vegetation removal in wetland areas, and received Orders of Conditions for vegetation removal in wetland areas from all four towns' Conservation Commissions.

**In 2018:** Massport also began preparations for the 2019-2023 VMP Update, updating aerial mapping.

**In 2019:** Massport will finalize development and permitting for the 2019-2023 VMP Update.

- 2. Annual Emergency Exercise:** 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 table-top exercise is conducted two out of every three years. On the third year, a simulated emergency is conducted on the airport.

**In 2018:** Massport conducted a table top exercise focusing on interagency protocols, communication procedures and media relations training.

**In 2019:** Massport will conduct a full scale exercise in the fall.

- 3. Airport Rescue and Fire Fighting (ARFF) Facilities:** Massport has standardized ARFF procedures across all three Massport-owned airports in order to enhance safety and coordination efforts. This allows Massport Fire-Rescue to leverage additional resources from across the state for use at Hanscom Field. Massport Fire-Rescue began operations at Hanscom Field in November 2015. Operations are currently conducted utilizing a bay of the Massport Maintenance Garage and a temporary trailer as living and working quarters. Design of a new ARFF facility began in 2016. The current Customs and Border Protection (CBP) facility is an aging trailer on the east side of the airfield and needed to be brought up to current Customs and Border Protection facility guidelines.

**In 2018:** Construction of the permanent ARFF & CBP facility began in 2018.

**In 2019:** The facility is expected to be completed in May 2019.

- 4. Wildlife Control:** Wildlife on an airfield can be a serious safety hazard for aircraft. The U.S. Department of Agriculture (USDA) regularly conducts field visits at Hanscom to monitor and evaluate wildlife on the airfield, with a particular focus on assisting Massport in minimizing wildlife strike hazards.

**In 2018:** Massport continued to implement all aspects of its Wildlife Hazard Management Plan.

**In 2019:** Massport will continue to implement all aspects of its Wildlife Hazard Management Plan, including upgrades to airfield fencing.

- 5. Security:** There was an increased emphasis placed on security after the events of September 11, 2001. Before the end of 2002, installation of enhanced security fencing was initiated and an ID badging program was developed. Today, anyone requiring unescorted access to the airfield must undergo a background security check in order to obtain a badge, and badges must be displayed at all times on the airfield. A variety of other measures have been adopted as the result of an on-going process of evaluating and implementing new security programs, as appropriate. In 2017, Massport replaced portions of the perimeter security fencing in the Runway 23 approach area. In 2018, Massport began implementation of the SAFE e-badging program for all three airports. The system is more streamlined and standardized across all airports. This will make it easier for badge holders to renew and train. In addition, Massport expanded the badge office, adding two new badge training stations as well as updated software and training videos.

**In 2019:** Massport will add additional cameras. Massport will also continue its program to replace sections of perimeter fencing each year.

**Safety Inspections and Meetings:** In addition to the FAA’s annual inspection, Massport’s Safety Office staff conducts regular safety inspections, and monthly safety meetings are held with tenants and the FAA tower personnel to facilitate the identification of safety concerns. Every year, Massport reviews its snow removal plan with the FAA tower staff and Hanscom tenants to ensure effective communication and coordination during snow removal operations.

### **Maintain and Improve Facilities**

Hanscom’s critical role in the regional transportation system demands appropriate maintenance programs and responsible development of airport facilities. Anticipating future needs and meeting the needs of existing users of Hanscom Field create challenges that require careful analysis and flexibility. Massport makes adjustments to its projects based on local demand and changes in the aviation industry.

**1. Massport Controlled Facilities:** In addition to the airfield, Massport owns and manages the Civil Air Terminal, a number of corporate hangars that are leased, t-hangars and tie-down spots for owners of small aircraft, the central parking lot, and the entrance areas to the airfield. There is a continual process of maintaining and upgrading these facilities and areas. The Civil Air Terminal is home to a number of aviation businesses, including Hanscom’s flight schools.

**In 2018:** T-Hangar Rows A-C have reached the end of their useful life replacement of the three rows began.

**In 2019:** Replacement of the three T-Hangar rows will be completed. Plans to relocate the Pine Hill T-hangars from their current site to the North Airfield area will be finalized.

**2. Third Party Development:** Based on demand, Massport responds to and solicits third party development and management for new aviation-related facilities that support Hanscom’s role in the regional transportation system as a full service general aviation airport. Most of Hanscom’s hangars, with associated office space, are owned or leased by tenants who are responsible for maintaining the facilities.

Potential development sites are identified and analyzed in Hanscom’s Environmental Status and Planning Reports (ESPRs), which serve as planning tools when considering future development at Hanscom.

- **East Ramp:** The East Ramp, located on the southeast side of the airfield, was identified in the 2005 and 2012 ESPRs as a potential site for corporate hangars. The ramp area is an impervious surface that is used for storage and movement of aircraft.

**In 2018:** Massport continued to update aging infrastructure, and completed designs to repair portions of the East Ramp.

**In 2019:** The East Ramp pavement repairs will take place.

- ***Pine Hill Site:*** The Pine Hill site is located on the southwest side of the airfield and currently houses t-hangars. The parcel can support additional hangar facilities.

**In 2018:** Massport issued a Request for Interest in utilizing the parcel for hangar development.

**In 2019:** Massport will re-locate the Pine Hill T-hangars to make way for a new corporate hangar area planned by Ross Rectrix Aviation.

- 3. Property North of the Airfield:** There are two parcels of land north of Runway 05/23 in Bedford that abut the airfield. One of these parcels, a 17 acre lot with a hangar, was owned by the U.S. Navy and was used by Raytheon until 2000. In 2018, Massport withdrew its interest in acquiring the lot, and the General Services Administration (GSA) auctioned the lot on behalf of the US Navy. The other parcel is owned by Massport and until 2011, was leased by the U.S. Air Force. The area is west of the Navy parcel and comprises approximately 22 acres of partially developed land. Contained within the property is a system of roads and concrete pads that were used for a trailer park by the Air Force until 2011.

**In 2018:** Massport developed and released a Request for Proposals for the North Airfield parcel. Massport developed and filed an Environmental Assessment for development of the North Airfield property.

**In 2019:** Massport accepted a proposal to build corporate hangars on the Pine Hill site. Massport will relocate the Pine Hill T-Hangars to the North Airfield, in preparation for the upcoming development.

- 4. Boston MedFlight:** In 2015, the lease for Hangar 12A expired. Massport issued an RFP for re-development of the parcel, and, in 2016, accepted a proposal from Boston MedFlight. Boston MedFlight has been based at Hanscom Field for over 20 years. The new facility will hold state of the art training facilities, ambulances, their fleet of helicopters and fixed wing medical support aircraft.

**In 2018:** Boston MedFlight completed construction of their new LEED facility.

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

Massport has consistently maintained high environmental standards while complying with state and federal environmental regulations. In addition to complying with mandated requirements, Massport has elected to participate in programs that use environmentally friendly technologies and innovations to minimize operational impacts. There is a continual effort to extend and improve Hanscom's environmental performance.

- 1. Environmental Programs and Audits:** In 2001, Massport brought its environmental commitment to a new level when Hanscom Field became the first U.S. airport to attain ISO 14001 certification. 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.

Massport meets its environmental commitments using a series of programs that include monitoring and auditing activities at Hanscom to ensure compliance with environmental regulations and the use of pollution prevention practices. Ongoing practices include:

- Using the EMS to track, manage and improve environmental compliance and performance; updating targets as target dates are reached or when opportunities arise for improving the EMS framework;
- Participating in the Massachusetts State Sustainability Program (Executive Order No. 438) to promote environmentally sustainable practices and in the Massachusetts' Leading By Example Program – Clean Energy and Efficient Buildings (Executive Order No. 484);
- 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 other 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 an aggressive recycling program for tenant and Massport offices.
- Identifying opportunities during Massport capital program project design development to reduce stormwater runoff and peak flows;
- 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.
- Utilizing Massport's Sustainable Design Guidelines and Standards for use by architects, engineers, and planners when working on capital projects at any Massport facility.
- Regular updating and training for Hanscom's Stormwater Pollution Prevention Plan (SWPPP) to include best management practices for stormwater management and snow removal.

**In 2018:** ISO auditors conducted the surveillance audit for ISO certification in May, with an eye on recommendations to complete certification to the new standard in 2019.

**In 2019:** ISO auditors will conduct an ISO certification audit in May to the new ISO14001:2015 Standard.

- 2. Environmental Status and Planning Reports (ESPRs):** In 1978, Massport prepared the Hanscom Field Master Plan and Environmental Impact Statement, which triggered the adoption of General Rules and Regulations for Laurence G. Hanscom Field, effective July 31, 1980. Since 1985, Massport has prepared a series of increasingly comprehensive environmental assessments for

Hanscom Field that identify the environmental effects of current conditions and activity at the airport, compare these conditions to historical data, and present and evaluate the potential cumulative environmental effects of several future scenarios. These studies serve as planning tools for future development.

Data collection and draft chapters for the 2017 ESPR is currently in progress. Massport anticipates publishing the 2017 ESPR in early to mid-2019.

### **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.

- 1. Community Meetings:** Massport staff regularly attends monthly community meetings to inform the public of airport planning and policy developments. Massport also sponsors informational meetings with the communities and other interested parties when appropriate. Massport staff regularly attend the following monthly meetings:
  - *The Hanscom Field Advisory Commission (HFAC):* The HFAC was established by the legislature in 1980 to review Massport decisions regarding its goals, policies and plans for the airport. It includes representatives from the aviation and residential communities as well as advisory members who represent the Minute Man National Historical Park, Hanscom Air Force Base, the FAA, and Massport. Massport staff members provide HFAC with information regarding Massport's goals, policies and plans for the airport. Additionally, staff members prepare and present monthly aircraft activity and noise reports, capital program and third party development status reports, as well as the annual State of Hanscom report and the annual Noise Report.
  - *The Hanscom Area Towns Committee (HATS):* HATS was created to consider matters of common interest to the four towns that are contiguous to Hanscom Field and Hanscom Air Force Base. One select-board member from each town serves on HATS along with planning board representatives and at-large members from the towns. HATS representatives consider regional traffic, planning, land use and other issues. Massport staff members attend the HATS meetings to address Massport-related agenda items, participate in discussions, and respond to questions relating to Hanscom Field and Massport.
- 2. Noise Metrics and Noise Abatement/Mitigation:** Aircraft noise is a concern for many Hanscom area residents and the Minute Man National Historical Park. Massport recognizes the importance of pro-actively addressing this issue and is committed to continuing its current noise-related programs while exploring appropriate new initiatives.

In response to the residential community's aircraft noise and operational concerns, Massport adopted regulations (Part F of the General Rules and Regulations for Laurence G. Hanscom Field) in 1980. Most of these programs could not be duplicated or changed under current federal law. They include:

- A nighttime field use fee to help discourage activity between 11 p.m. and 7 a.m.
- A restriction on scheduled commercial air carrier service to aircraft with no more than 60 seats.
- Restrictions on touch-and-go activity by weight of aircraft and time of day. Touch-and-Go's are aircraft operations conducted to practice landing and departing techniques.
- Limitations on Auxiliary Power Unit (APU) and Ground Power Unit (GPU) use.

Although Massport began supporting the use of the National Business Aviation Association's (NBAA's) noise abatement procedures for jet aircraft in the mid-1980s, the Fly Friendly program at Hanscom provided an opportunity to broaden such efforts. Massport expanded its support of quiet arrival and departure techniques by publicizing the Aircraft Owners and Pilot Association's (AOPA's) noise abatement procedures for piston aircraft and by developing and publicizing quiet flying procedures for helicopters. Part of this effort included the development of a multi-faceted publicity program that results in pilots being exposed and re-exposed to the importance and understanding of the quiet-flying techniques, as follows:

- Handouts for pilots, outlining the procedures are distributed at the FBOs, the flight schools, and in Massport's Hanscom offices.
- Videos describing the techniques for both jet and piston aircraft are incorporated into the training required to qualify for a Hanscom security badge.
- Descriptions of these quiet flying procedures are posted on Massport's website.
- Signage on the airfield provides a last minute reminder to departing pilots to use quiet flying techniques.

In late 2009, Massport staff began using flight track data created by the new noise monitoring system to identify potential opportunities for reducing touch-and-go traffic over the Hartwell Tavern area in the Minute Man National Historical Park. Massport also initiated communications with the FAA and the Hanscom flight schools to identify practical recommendations and help create an implementation program. By working together, touch-and-go patterns for each runway were devised to safely increase the number of flights that fly over the airport, which inherently minimizes aircraft noise for the park's visitors. An aggressive publicity program was implemented, including the display of framed posters, mailings, and meetings with pilots and flight instructors, as well as local press coverage. Massport staff has since continued to work with local pilots and the FAA to reduce the number of flights over the MMNHP. Flight track data is reported quarterly. Results of the touch and go program are shared with pilots, certified flight instructors, the FAA and MMNHP staff. Massport also communicates MMNHP special events to local pilots and encourages the flying community to review Hanscom's Fly Friendly recommendations. The result is an average of 22% fewer flights over the Park since the inception of the program in 2009. Massport has expanded the program to reach pilots at Hanscom Air Force Base.

**In 2019:** Massport will continue to track and share touch and go data as well as continue proactive outreach efforts to maintain the success of the program.

**3. Sound Initiative:** The Airport Noise and Capacity Act of 1990 required the phase out of noisier Stage 1 and 2 aircraft<sup>1</sup> weighing over 75,000 pounds. In 2005, Massport joined Sound Initiative, a

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<sup>1</sup> Stage 1 and 2 aircraft were manufactured before today's stringent noise standards were adopted for new airplanes. The use of Stage 1 and 2 aircraft weighing over 75,000 pounds was phased out nationally by 2000, but most of Hanscom's jets weigh less than 75,000 pounds.

coalition that was formed to encourage the extension the 1990 Airport Noise and Capacity Act to phase out Stage 1 and 2 aircraft weighing 75,000 pounds or less that were exempt from the original Act. The effort was promoted by a group of airport managers and neighbors at corporate airports where older aircraft accounted for an inordinate number of noise complaints. In 2012, Congress passed the FAA Modernization and Reform Act, which included the phase out of all non-stage 3 aircraft by December 31, 2015. Section 506 of the Act prohibits the operation, within the 48 contiguous states, of jets weighing 75,000 pounds or less that do not comply with Stage 3 noise levels. In 2016, Hanscom Field recorded the lowest levels of sound in airport history.

4. **Noise Monitoring System:** To facilitate the understanding of noise impacts on the communities neighboring Hanscom, Massport installed a noise monitoring system at Hanscom in the early 1990s. The system includes six microphones—one off each of the runway ends in each of the four 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.
5. **Airport Activity Monitor:** Massport staff worked with ITT - Exelis to implement a user-friendly, interactive website that can be used to research a noise event or flight, log a noise disturbance, and track correspondence related to a logged noise disturbance. The “Airport Activity Monitor” was launched in December 2012 on the Massport website. In 2013, Massport signed a new 5-year agreement with ITT – Exelis to continue use of the Noise Monitoring System and the Airport Activity Monitor website. ITT – Exelis also provides Noise and Operations Monitoring System (NOMS) coverage to Logan Airport, which has switched from Multi-Lateration (MLAT) coverage to NextGen data feeds. In 2015, Massport and ITT – Exelis continued to optimize the MLAT system and re-calibrated to perform for Hanscom activity alone. Exelis also began upgrading the current Airport Activity Monitor website to the new “PublicVue Portal” product, which will contain all the current options that exist on Airport Activity Monitor. In addition, it will run more efficiently on a number of different browsers and electronic devices, enable users to filter arrivals or departures and see more detailed flight information on upgraded maps and graphics. ITT-Exelis was purchased by Harris Corporation in 2015, and the product provided remained the same, until an upgrade in 2016 with better graphics, maps and accessibility across multiple platforms and devices. The product has been continuously improved since the upgrade. In late 2018, a Request for Proposals to provide NOMS coverage for Massport was released. In 2019, a new contract will be finalized.
6. **Community Contributions:** Massport’s Charitable Contribution, Scholarship, Summer Internship 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 2018:** Massport contributed over \$7,000 to educational, scholarship, and youth programs in the Hanscom area. Additionally, Massport provided approximately \$14,600 to sponsor summer internship positions at various municipal departments in the four Hanscom towns and over \$15,000 for the salaries of local college students that worked directly for Massport.

## SECTION V – CAPITAL PROJECTS FOR FY19 THROUGH FY23

Each year, capital projects for Hanscom Field are evaluated for funding. Table 3 outlines the projects that have been identified for FY19 through FY23. The list does not include projects that have already been completed in FY19. Most of the projects focus on safety, security and maintenance. Estimated project costs are included.

The capital programs list is fluid and is 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 ultimately implemented.

**TABLE 3  
Hanscom Field FY19 to FY23 Capital Projects**

PROJECTS - Funded and Proposed	Current Funding Years	Cost FY18 - FY22 (in 000s)
Airfield Snow Equipment Replacement Program	FY17-FY23	\$4,880
ARFF & CBP Facility	FY17-FY20	\$12,000
Replace Electrical Infrastructure	FY17-FY21	\$3,000
Replace Fire Protection Infrastructure	FY17-FY22	\$7,800
Runway Geometry Study	FY18	\$100
Replace T-Hangar Rows A-C	FY18-19	\$4,300
CAT Drainage Improvements	FY18-FY19	\$1,800
Replace Salt Storage Enclosure	FY18-FY20	\$1,250
Replace Hangars 1-3 Electrical Distribution System	FY19	\$325
Renovate IT Data Center Room	FY19	\$300
East Ramp Joint Repair	FY19-FY20	\$2,500
Replace Airfield Perimeter Fencing	FY19-FY20	\$500
Rehabilitate Taxiway Romeo	FY20-FY21	\$3,700
Integrate E-Badging	FY20-FY21	\$250
Rehabilitate Taxiway November	FY21-FY22	\$1,500
Rehabilitate West Ramp	FY22-23	\$2,500
Rehabilitate Runway 5-23	FY23	\$5,000
	<b>TOTAL</b>	<b>\$51,705</b>

\*Note total costs listed include costs incurred during previous fiscal years