

The State of Hanscom

**Presented to
The Hanscom Field Advisory Commission**

April 18, 2006

**By
Barbara A. Patzner, Director
L. G. Hanscom Field**



Massachusetts Port Authority

**John A. Quelch ♦ Chair
Craig P. Coy ♦ Chief Executive Officer**

STATE OF HANSCOM

April 2006

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, which 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 and do business throughout the world.

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" (BED). 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 general aviation airport, and it plays a critical role as a general aviation 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, 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 Air Force Base, 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 2005 accomplishments at Hanscom, as well as its plans for the airport's future.

SECTION I - 2005 AIRCRAFT ACTIVITY

Table 1 shows total aircraft activity levels at Hanscom Field for 7 a.m. to 11 p.m. operations in 2004 and 2005 based on Federal Aviation Administration (FAA) tower counts, fleet mix data, and estimates. The 2005 information is preliminary and will be thoroughly reviewed before publication of the 2005 noise report.

TABLE 1
Hanscom Field Aircraft Activity

2004

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

	CIVILIAN						MILITARY	TOTAL
	LOCAL	SINGLES	TWIN PISTON	TURBO	JET	HELI		
January	2806	3100	306	523	2415	593	43	9,786
February	5270	5275	327	549	2698	553	41	14,713
March	5488	4675	360	754	2709	589	104	14,679
April	4488	5713	395	984	3021	577	92	15,270
May	5037	5885	462	1092	3000	597	92	16,165
June	6316	7164	481	994	2959	597	104	18,615
July	5426	5775	531	1045	2868	608	242	16,495
August	6381	6020	480	976	2326	602	109	16,894
September	6043	6389	365	868	2588	582	96	16,931
October	4675	5164	405	872	3141	602	131	14,990
November	4886	5101	353	848	2929	577	84	14,778
December	3978	3452	353	652	2407	589	57	11,488
TOTAL	60,794	63,713	4,818	10,157	33,061	7,066	1,195	180,804

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
TOTAL	58,535	57,898	4,265	9,008	32,341	7,004	904	169,955

Note: The 2005 figures are preliminary. All 2005 data will be reviewed before publication of the 2005 annual noise report.

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 the 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 (including touch and go activity).

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 169,955 operations for 2005, a 6.0 percent decrease as compared to 2004. Although total operations have been below 200,000 nine 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 over the past 25 years or more, the civilian portion of the 2005 aircraft operations comprised over 99 percent of the total aviation activity. The 116,433 estimated single engine piston operations, which include touch-and-goes ("Local" in Table 1), indicate that their activity decreased 6.5 percent as compared to 2004. The single engine piston operations represented 64.4 percent of the total aircraft activity in 2005. Touch-and-go activity 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 4,265 estimated twin engine piston operations indicate a decrease of 11.5 percent as compared to 2004. They represented 2.5 percent of the 2005 operations. The 7,004 estimated helicopter operations indicate a decrease of 0.9 percent as compared to 2004, and they represented 4.1 percent of the total.

Turboprop aircraft activity, representing 5.3 percent of the 2005 total activity, decreased 11.3 percent, to 9,008 operations. This was partially due to the 15.8 percent decrease in commuter airline activity. In 2004, Boston-Maine Airways replaced Shuttle America as Hanscom's commuter airline, and in 2005, Boston-Maine conducted 3,627 operations and handled 17,457 passengers. This resulted in 8,701 enplanements, a 22 percent decrease as compared to 2004.

The 2005 civilian jet aircraft activity decreased 2.2 percent as compared to 2004. The 32,341 jet operations represented 19.0 percent of the total activity. Hanscom's fixed base operators, who service and manage many of the jet aircraft that use the airport, observe that many businesses today prefer jets to turboprops. The increase in jet traffic and the 8.0 percent decrease in non-commercial turboprop activity are consistent with this observation.

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 1,893 nighttime operations in 2005, a decrease from the 2,006 in 2004.

The 2005 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. Additionally, the Hanscom Field Environmental Status and Planning Report will be prepared during 2006, and it is using 2005 as the base year. As a result, there will be additional noise data available for 2005.

SECTION II - FINANCIAL RESULTS FOR FISCAL YEAR 2005

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 airport. 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 annual decreases in the deficit from FY97 through FY00. 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 weakened revenue. As shown in Table 2, the FY03 operating budget closed with a \$546,000 deficit, and including amortization, the deficit once again exceeded \$2 million. In FY04, it dropped to \$1.2 million, but exceeded \$2 million again in FY05.

Massport recognizes that reducing the deficit requires a multi-faceted approach. There is an on-going effort to control costs at Hanscom; every expenditure and project is carefully scrutinized for its financial implications, and cost saving measures are explored. Expanding sources of revenue through development, as discussed later in this report, is another avenue. 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.

Other approaches for reducing the deficit include increasing the rates and charges, and/or implementing new fees. In FY04, Massport implemented a Landing Fee for transient aircraft as well as a Customs cost recovery program at Hanscom. Other fees were increased in both FY04 and FY05. The rates and charges are currently being reviewed to determine where additional increases should be implemented, and periodic reviews and increases can be anticipated.

TABLE 2
Hanscom Field Historical Financial Summary
FY02-FY06
(000s omitted)

REVENUES	FY02	FY03	FY04	FY05	<i>Projected</i> FY06
RENTALS					
Hangar / Cargo	\$1,265	\$1,396	\$1,755	\$1,573	\$1,290
Ground/Land	752	574	761	855	1,343
Terminal	446	351	299	263	236
Other Exclusive Space	27	27	27	27	10
Utilities	109	102	106	108	113
SUBTOTAL	2,599	2,450	2,948	2,826	2,992
FEES					
Customs Fees (effective Oct., 2003)			284	290	413
Fuel Flowage	767	756	815	800	841
Tie Downs	139	133	164	166	147
Landing & Parking Fees	57	64	686	709	811
Night Field Surcharge	262	443	325	533	345
SUBTOTAL	1,225	1,396	2,274	2,498	2,557
COMMISSIONS					
Rental Cars	180	179	146	134	150
Flight Schools	0	16	10	74	20
Ground Servicing	423	(74)	208	233	198
Other	212	126	321	342	495
SUBTOTAL	815	247	685	783	863
TOTAL REVENUES	4,639	4,093	5,907	6,107	6,412
OPERATING EXPENSES					
Maintenance	1,241	1,355	1,446	1,660	1,988
Administration	906	1,013	1,390	1,284	1,538
Utilities	259	271	322	272	397
Insurance	129	440	497	926	650
Professional Fees	82	132	136	83	779
Security	484	563	442	1,020	1,320
Other**	382	476	516	526	290
General & Administration	428	389	466	585	651
TOTAL OPERATING EXPENSES	3,911	4,639	5,215	6,356	7,613
OPERATING SURPLUS/DEFICIT	728	(546)	692	(249)	(1,201)
AMORTIZATION	1,608	1,783	1,869	1,953	2,450
TOTAL COSTS (oper.+amortiz.)	5,519	6,422	7,084	8,309	10,063
SURPLUS/DEFICIT	(\$880)	(\$2,329)	(\$1,177)	(\$2,202)	(\$3,651)

Figures may not add exactly due to rounding.

**Other includes expenses such as electrical maintenance, engineering and environmental costs

FY=fiscal year (FY04: July 1, 2003 - June 30, 2004)

Table 2 outlines Hanscom's financial performance from FY02 through FY05 and includes financial projections for FY06, using standard accounting principles. FY05 revenues totaled over \$6.1 million, a 3.4 percent increase, as compared to FY04. Unfortunately, FY05 operating expenses approached \$6.4 million, an increase of 21.9 percent as compared to FY04. The largest increase was for security, which jumped over 130 percent. Meanwhile, insurance costs increased 86 percent, which was on top of the 13 percent increase between FY03 and FY04 and the 241 percent increase between FY02 and FY03.

In the FY06 scenario, the operating budget continues to show modest increases in revenue, but the operating deficit increases from almost \$250,000 in FY05 to over \$1.2 million in FY06. This is influenced significantly by the 2005 Environmental Status and Planning Report (ESPR), which is projected to cost almost \$800,000. The ESPR is a study that is prepared every five years, and is discussed in Section IV of this report.

Adding in amortized costs, the FY05 deficit is \$2.2 million and the FY06 deficit is expected to increase to \$3.6 million. This will be the first time the Hanscom deficit has exceeded three million, but this is also the first time the ESPR costs have not been amortized.

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 FY05, Massport invested almost \$3.2 million in airfield, terminal and other facility improvements at the airport. Cumulatively, approximately \$47.6 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.

Massport recently 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 - 2005 ACCOMPLISHMENTS AND 2006 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. Massport is committed to maintaining the airport as a first class, full service airport, but 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: Certain projects that are part of maintaining a safe and efficient airfield are eligible for federal funding under the FAA's Airfield Improvement Program (AIP). Each year Massport submits projects for FAA funding approval.

2005: Designs for upgrading the Runway Safety Areas (RSA) for Runway 5/23, an AIP eligible project, were completed in 2005. This project is required to meet FAA safety criteria. It is not a runway expansion; it does not require any additional pavement; and it will not change how the runway is used. The project involves re-grading turf, some of which is in wetland areas at the Runway 23 end. 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. In the fall, MEPA held a public hearing and issued a scope for an Environmental Impact Report (EIR).

Other AIP eligible projects include the restoration of airfield pavement. Taxiway Tango resurfacing and Phase 1 of the East Ramp overlay project were completed in 2005.

2006: Environmental permitting for the RSA project will be pursued, with consultants completing an EIR that will be submitted to MEPA. In response to the FAA's requirement that airports have updated Airport Layout Plans (ALPs) on file with them, Massport will be updating Hanscom's ALP. Phase 2 of the East Ramp overlay project will start in the spring of 2006, with completion expected during the construction season.

(b) Safety and Security

Background: Safety and security are critical components of operating an airport, and there is a continual emphasis on both at Hanscom.

Safety: 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 traction, and Hanscom has needed a new sand storage facility for a number of years. 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.

As part of Hanscom's FAA Part 139 certification requirements, Hanscom staff coordinate an annual program to ensure an effective response in the event of an aircraft emergency. Two out of every three years, staff conduct a tabletop exercise to review plans for handling an emergency. On the third year, staff organize a simulated aircraft emergency situation, which allows emergency responders and area medical teams to participate in a hands-on experience.

Massport has a contract with 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. Although the primary purpose of the simulated emergency is to test the effectiveness and efficiency of the airport's incident command and communication team, it also allows mutual aid responders to test response times and area medical facilities to evaluate the capabilities of their resources.

Security: There was an increased emphasis placed on security after the events of September 11, 2001. Before the end of 2002, equipment for an ID badging system that can incorporate access control mechanisms was purchased, policies for an ID badging system were developed, and installation of new security fencing began. The ID badging program requires that everyone with access to the airfield undergoes a background security check before being badged, and once badged they must display the badge when on the airfield. Those who are not badged cannot access the airfield without an escort by a badged person.

2005: *Safety:* Plans were pursued to build a heated sand storage facility that would reduce the need for multiple deliveries of FAA-approved sand during winter storms. The building was constructed in proximity to the approach end of Runway 29, improving access to the sand during storms. Construction was nearing completion by the end of the year. Additionally, Massport continued to use sodium formate on the runways and taxiways during icy conditions, as needed.

In July 2005, Massport conducted its triennial emergency exercise by simulating an airfield accident involving a Boeing 727. Wyotech students volunteered to pose as injured passengers. In addition to Massport and the Air Force Base fire department, responders included area fire departments, the state police, Massachusetts Red Cross, Lahey Clinic, Emerson Hospital, Boston MedFlight, Hanscom's fixed base operators, the FAA, the National Transportation Safety Board, and the Transportation Security Administration. A major benefit was that all the participants saw their contemporaries in action, putting names to faces and coordinating during a hands-on experience.

Security: Approximately 1,700 ID badges were in effect at the end of 2005. Upgraded airfield security fencing from the terminal area to the Pine Hill t-hangars, plus trap gates for vehicles accessing the t-hangars, were installed. Installation of an access control system was pursued.

2006: With the badging program and new fencing in place, steps will be taken in 2006 to install an access control system. Pedestrian gates will be added near the vehicle trap gates, and bollards will 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. Safety precautions and training programs will continue to be implemented.

(c) **Clear Zone Obstruction Removal**

Background: A critical component of maintaining compliance with FAA certification and safety requirements is the elimination of clear zone obstructions. It is paramount that Massport remove vegetation that is penetrating, or close to penetrating, runway approach surfaces. Historically, a vegetation removal project has been required every five years. Based on a 1999 obstruction analysis using aerial photogrammetric mapping of the runway ends, 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) in 2001 that included the identification of two phases of required project-specific vegetation removal. Massport also delineated the wetlands that were to be affected by the Phase 1 vegetation removal. Subsequently, 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, and 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 Phase 1 vegetation removal that was in wetlands. In 2003, Massport received the Orders of Conditions from all four towns for Phase 1.

The construction phase of the Phase 1 vegetation removal began in late January of 2004. In accordance with the environmental permits, most of the work was completed while the ground was frozen; work in remaining areas was completed in the spring and fall. Maintenance of the areas that were cut was initiated to minimize the need for future large-scale cutting.

2005: Phase 2 of the vegetation removal project addresses obstructions that have been identified in Bedford's Hartwell Town Forest and Jordan Conservation area. In 2005, Massport made an effort to clarify the FAA requirements for this area.

2006: In 2006, the issues related to the extent of FAA-required vegetation removal will be resolved. Massport plans to begin discussions with the Town of Bedford in an effort to develop a mutually agreeable management plan for this area. Additional NOI filings are anticipated for Phase 2 vegetation removal.

Burning continues to be viewed as a potentially positive mechanism for controlling vegetative growth. In past years, the Concord Natural Resources Commission has been particularly supportive of this approach to vegetation control. If conditions warrant, Massport will work with the Concord Natural Resources Commission to develop prescribed burns that reduce the extent of future vegetation penetrations in Concord.

(d) **Airside Maintenance**

Background: Additional space is needed in the field maintenance garage because large snow removal and maintenance equipment is currently stored outside, exposed to the elements. Staff has reviewed many alternatives for protecting this equipment.

2005: New replacement overhead doors for the existing field maintenance garage were installed, and staff reviewed the financial implications of alternative construction options for extending the maintenance garage. Budget constraints have put the extension project on hold.

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 anticipated 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 consideration.

In its general aviation role, Hanscom is home for private pilots, flight schools, 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 specialize, while the fixed base operators offer a full range of services. Hanscom's customer base requires more hangar space than is currently available.

In the 2000 Environmental Status and Planning Report, Massport identified potential development sites, including the Hangar 1 site, the Hangar 24 site, and undeveloped parcels in the Pine Hill area and north of Runway 11/29. Massport solicits third party development for new facilities, and in 2004, Liberty Mutual began replacing Hangar 1 with a hangar now identified as Hangar 16.

While third party developers have constructed most of the hangar facilities at Hanscom, Massport owns t-hangars and tie-down spots for owners of small aircraft. Massport must maintain the t-hangars and tie-downs, as well as the Civil Air Terminal.

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.

2005: Liberty Mutual completed construction of Hangar 16 and moved from Hangar 10 into Hangar 16 in June of 2005. Massport issued a Request for Interest to solicit a new tenant for Hangar 10 and selected Stream Enterprises, which submitted a proposal to replace the facility with a hangar that would accommodate the wider wingspans and greater tail heights of today's aircraft designs.

Massport issued an RFP for development of the Hangar 24 site in 2005. Staff selected Crosspoint Enterprises' proposal to build and operate a third fixed base operator facility at Hanscom.

Other 2005 projects included completion of t-hangar roof repairs and installation of upgraded HVAC units on the second and third floors in the civil terminal. Both of these projects had started in 2004.

2006: Massport will finalize leases and work with Stream Enterprises and Crosspoint Enterprises as they complete their plans for new facilities at Hanscom. It is anticipated that development of a site near the Pine Hill t-hangars will move forward. Additionally, an RFP may be issued for development of a site on the northeast side of the airfield, although this may not take place in 2006.

New development opportunities will be identified and analyzed in the 2005 Environmental Status and Planning Report, which is being prepared in 2006. The results of that study will influence additional future development at Hanscom.

Upgrades in the civil terminal will focus on outside repairs and replacing the lavatories on all three floors. Shifts in tenancy on the second floor of the terminal building may require some renovations to accommodate tenant needs and to ensure that all tenants on that floor continue to have two means of egress. Staff will review potential upgrades for the first floor of the CAT that could increase efficient use of the area and bring the space to a par with the upgrades made in recent years on the second and third floors.

Finally, Massport will continue to consider the role it might play in the future use of the Raytheon facilities that were vacated in 2000. The land, owned by the U.S. Navy, is in Bedford and is contiguous with Massport's 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. 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.

2005: As part of Massport’s environmental commitment, the Environmental Management Unit continued to monitor and audit activities at Hanscom in 2005 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 to ensure proper functioning and regulatory compliance;
- Inspecting Massport and tenant facilities to ensure environmental compliance;
- Reviewing 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 regular 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 2005, Massport did not have any reportable spills of hazardous waste materials at Hanscom Field. There was one spill by a tenant that was reported to the Department of Environmental Protection (DEP) and cleaned up by Clean Harbors.

2006: In 2006, 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 facilitate 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. By 2005, 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. This site was originally assigned Release Tracking Numbers (RTNs) 3-13953 and 3-17349 by DEP; however, they were eventually combined, and Massport followed the interim deadlines of the earlier RTN 3-13953. Several rounds of subsurface investigation were conducted on this site in order to define the nature and extent of contamination, and Massport began remediation in 2004. Remediation included excavation and offsite disposal of polychlorinated biphenyl contaminated soils. The U.S. Environmental Protection Agency (EPA) under the Toxic Substance Control Act regulated the offsite disposal.

2005: Remediation and site restoration were completed in 2005.

2006: DEP and EPA documents will be submitted to bring this site to regulatory closure in 2006.

(c) DEP Shawsheen Watershed Initiative

Massport continues to work cooperatively with the Executive Office of Environmental Affairs (EOEA) and the Shawsheen Watershed partners to improve the Shawsheen River water quality. When possible, Massport has been incorporating potential water quality improvements into ongoing projects, such as reducing impermeable areas and investigating engineering solutions to reduce/delay peak runoff flows into the river. Additionally, Massport requires new projects to include compensatory storage for stormwater in order to avoid increasing peak stormwater runoff rates.

2006: In 2006, weirs will be installed in the airfield outfall pipes leading to the Shawsheen. The weirs will be designed to regulate discharge water, using the existing drainage system for temporary storage. The goal is to help eliminate a sudden increase in riverbank levels during large storm discharge events.

(d) Protection of Rare and Endangered Species

Background: Two grassland bird species subject to the Massachusetts Endangered Species Act have been observed at Hanscom: the Upland Sandpiper and the Grasshopper Sparrow. In cooperation with the Massachusetts Audubon Society, Massport has traditionally managed airfield vegetation in a manner to protect the grassland nesting areas of these species, while maintaining aviation safety. As part of this effort, Massport suspends mowing activity 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.

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 also minimizes risks associated with hazardous wildlife species on the airfield. Massport continues to follow the guidelines of the Grassland Management Program.

(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 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; it also looked at 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.

2005: A draft Scope for the 2005 ESPR was submitted to MEPA in 2005, and MEPA issued a certificate, including a Scope of Work. Massport issued an RFP, selected a consultant for the project, and data collection began.

2006: The Draft ESPR will be filed with MEPA in the fall of 2006. The filing will be followed by a series of public meetings to discuss the assumptions and findings. MEPA's certificate will determine what additional work, if any, is needed to finalize the document.

Community Outreach

Massport is committed to the public's "right to know" and will build community relations and public confidence through proactive, open communications and responsible environmental policy discussion, and by weighing all sides of an issue to find resolutions that will benefit the greater public good.

(a) Community Meetings

Massport is committed to maintaining an open dialogue with its stakeholders, including those who use the airport and the representatives of the towns that abut the airfield, the Minute Man National Historic Park, the FAA, and Hanscom Air Force Base. Massport staff regularly attended two monthly community meetings.

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. Massport staff attend the HATS meetings to comment on discussion items and to respond to questions relating to Hanscom Field and Massport in general.

(b) Noise Metrics and Noise Abatement and Mitigation

Background: 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. It submitted its final report with recommendations in September 1999. Although Massport did not adopt all the metric-related recommendations included in the report, Massport continues to support many of them. A number of the metric recommendations were included in the 2000 ESPR and will continue to be presented in future studies.

Most of the abatement and mitigation recommendations were addressed when Massport developed a fly friendly program in 2001. This program encourages pilots to use the quietest flying techniques that are safe and practical. Inserts for pilot manuals continue to be made available for pilots of all aircraft, outlining the Aircraft Owners and Pilot Association's and

National Business Aircraft Association's quiet flying recommendations. Framed posters describing noise abatement procedures are hanging in the flight school offices and FBOs.

2005: Massport continued to encourage Fly Friendly techniques in 2005. Videos that discuss the concepts were incorporated into the training required to get a Hanscom security badge. As a result, pilots based at Hanscom are being exposed or re-exposed to the program, increasing awareness and an understanding of the quiet flying techniques.

Additionally, Massport joined Sound Initiative, a recently created coalition that supports the federal phase out of Stage 2 aircraft weighing less than 75,000 pounds. Stage 2 aircraft were manufactured before today's stringent noise standards were adopted for new airplanes. The use of Stage 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. Just a small number of operations by the lighter Stage 2 aircraft can contribute significantly to the noise exposure at Hanscom.

2006: Massport will strive to operate Hanscom with minimal impact on the community whenever possible and will continue to support community conscious programs such as Fly Friendly. Many Hanscom pilots received their first security badge before Hanscom's badge training program incorporated the Fly Friendly video. Since badges must be renewed every two years, some pilots will be seeing the video for the first time during the renewal process. Additionally, Massport will continue to support Sound Initiative in its effort to phase out the use of all Stage 2 aircraft.

(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 monitors—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 the system, and issued an RFP. Rannoch Corporation was selected for the project.

2005: The noise monitoring system upgrade is a complex program, and Massport and Rannoch started 2005 in the midst of contract negotiations that took several months. The agreement incorporated a process for including community input, and the communities established an ad hoc noise group to work with Massport. A survey was distributed to members of the noise group and some aviation representatives to help identify information that they would like to see in a new Hanscom-specific website. Some preliminary discussions with the noise group regarding monitor sites and other details were initiated. Meanwhile, Massport and Rannoch began to tackle the myriad of technical issues that needed to be resolved before installation could move forward.

2006: There will be follow up meetings with community representatives at critical milestones during the noise monitoring system upgrade, and Massport anticipates working particularly closely with the surrounding communities regarding the monitor site locations. 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) Base Realignment and Closure (BRAC) Process

Background: When Hanscom Air Force Base was threatened with closure during the 2004-2005 federal BRAC process, Massport actively engaged in local and state efforts to keep it open. BRAC is used to determine which bases in the United States should be closed.

2005: Local and state efforts to keep Hanscom Air Force Base open were rewarded in September 2005 when the Base was not included on the BRAC closure list.

2006: The towns are interested in continuing to foster support for the Base in anticipation of future BRAC programs. Massport will continue to support such initiatives.

(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 2005, Massport contributed nearly \$11,000 to educational, scholarship, and youth programs in the Hanscom area and sponsored more than \$15,000 for summer internship positions in the four towns.

SECTION V – CAPITAL PROJECTS FOR FY06 THROUGH FY10

Each year, capital projects for Hanscom Field are evaluated for funding. The following table outlines the projects that have been identified, including the potential funding years from FY06 to FY10. Estimated project costs are included. The list does not include the projects that have been completed in FY06. It is a fluid list, which 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.

HANSCOM FIELD FY06 TO FY10 CAPITAL PROJECTS

PROJECTS	Current Funding Years	Cost FY06-FY10(in 000s)
Airfield Improvement Program (East Ramp Overlay-Phase 2)	FY06-FY07	\$1,715
Runway Safety Area Improvements	FY06-FY08	\$1,962
Security Enhancements	FY06-FY08	\$616
Field Maintenance Sand Storage Facility & Garage Extension	FY06-FY08	\$1,486
CAT Bathroom Renovations	FY06-FY07	\$300
Noise Monitoring Upgrade	FY06-FY07	\$276
CAT 1st Floor Renovations	FY06-FY07	\$1,521
CAT Roof and Building Repairs	FY07-FY09	\$275
Stormwater Infrastructure	FY07	\$40
Upgrade Electric Service	FY07-FY08	\$500
Airfield Improvement Program (Taxiway H Rehab)	FY09-FY10	\$1,000
Airfield Improvement Program (Taxiway M Rehab)	FY10	\$740
Parking Revenue System	FY07	\$200
Invoicing System	FY07	\$200
Second Floor CAT Renovations	FY07	\$100
Perimeter Road Improvements	FY09	\$312
T-Hangar Apron Rehabilitation	FY09-FY10	\$1,793
Utility Service to East Ramp	FY07-FY09	\$1,500
Underground Water System Infrastructure	FY07-FY09	\$2,165