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February 15, 2007

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS
FOR THE DRAFT
2005 L. G. HANSCOM FIELD ENVIRONMENTAL STATUS AND PLANNING REPORT

PROJECT NAME	: Draft 2005 Hanscom Field Environmental Status and Planning Report
PROJECT MUNICIPALITY	: Bedford, Concord, Lexington, and Lincoln
PROJECT WATERSHED	: Shawsheen River
EOEA NUMBER	: 5484/8696
PROJECT PROPONENT	: Massachusetts Port Authority (Massport)
DATE NOTICED IN MONITOR	: December 6, 2006

As Secretary of Environmental Affairs, I hereby determine that the Draft 2005 Hanscom Field Environmental Status and Planning Report (DESPR) submitted **adequately and properly complies** with the Massachusetts Environmental Policy Act (MGL c.30, ss. 61-62H) and with its implementing regulations (301 CMR 11.00). I find that no major issues remain that warrant the preparation of a separate Final Environmental Status and Planning Report (FESPR). Therefore, in the next edition of the Environmental Monitor, I will publish notice that the DESPR is being reviewed as the FESPR, in accordance with 301 CMR 11.08(8)(b)(2)(a). On Tuesday, March 13, 2007, at 5:00 pm, the MEPA consultation session for the FESPR has been scheduled in the Civil Air Terminal (second floor) at Hanscom Field.

Project Description

Hanscom Field comprises approximately 1,300 acres of land, located approximately 20 miles northwest of Boston, within the municipalities of Bedford, Concord, Lincoln, and Lexington. Since 1974, when Massport assumed ownership of the field, it has primarily accommodated private General Aviation (GA) activity, commercial, and cargo service. The Federal Aviation Administration (FAA) identifies Hanscom Field as a reliever airport. As a reliever to Logan Airport, Hanscom Field provides substantial airside relief by annually serving

over 200,000 GA operations. Hanscom Field also supports limited commercial air service.

The ESPR inventories Hanscom's facilities and infrastructure, summarizes Massport's tenant audit program, identifies airport activity levels, describes ground transportation, explains Massport's Environmental Management System, and provides information on Hanscom's planned role in the future regional transportation system and its 5-year projected improvement program. It also looks at noise and air quality levels under existing and alternative future scenarios, and identifies cultural, historical, conservation and recreational resources.

History and Purpose of ESPR

Since 1985, the Generic Environmental Impact Report (and now the ESPR) has provided an effective planning tool from which the proponent's policy and program developments are derived. The 2005 ESPR presents an overview of the operational environment and planning status of Hanscom Field and provides long-range projections of environmental conditions against which the effects of future individual projects can be compared. The ESPR allows the reviewer to see historical environmental information, current information, and the forecast of the future environmental effects at Hanscom Field.

The ESPR does not replace the MEPA review of specific projects at the site that exceed regulatory thresholds. I note that the thresholds specifically exempt routine maintenance and replacement projects. For each project-specific review, Massport would be required to perform an individual analysis of impacts and mitigation (to be implemented, for those projects that require a stand-alone EIR, through Section 61 Findings). The ESPR serves as a vehicle for ensuring that long-term, broad-scope planning informs the review and implementation of individual actions at Hanscom Field.

This ESPR addressed the Secretary's Certificate establishing the scope for the 2005 ESPR, dated May 31, 2005. It also responded to the November 7, 2005 Certificate, which was issued on the Notice of Project Change that was submitted by Massport regarding the proposed lease and construction of a Fixed Base Operator (FBO) facility.

Review of the DESPR:

The 2005 DESPR used the base information developed for the 2000 ESPR, presented policy considerations and an overview of the airport's current and potential future role within the regional planning context, and included a status report on the proponent's proposed planning initiatives and projects. It provided an Executive Summary of the major sections of the ESPR. It summarized the evolution of the Hanscom Field environmental review process. The DESPR described the analysis framework for the environmental reporting and technical studies to be conducted.

The DESPR updated the information that was presented in the 2000 ESPR regarding the airfield and its supporting infrastructure and utility systems. It included the use and storage of hazardous materials at Hanscom Field and spill prevention efforts. The DESPR described the deficiencies in the water and wastewater distribution systems to Hanscom facilities in Bedford. It identified changes in water and wastewater demand/generation at Hanscom facilities for 2000 to 2005, and projections for water use and wastewater flow for 2010 and 2020. The DESPR described Massport's water conservation measures for equipment, plumbing, and landscape irrigation at Hanscom. Massport will identify Infiltration/Inflow removal proposed for the wastewater system when any development plans are finalized. It reported on the status of the Authority's tenant audit program. The DESPR summarized the current status of the 21E sites at Hanscom Field. It contained information on the size and use of all existing structures and parking areas (including the numbers of spaces).

The DESPR reported on airport activity levels for 2000 to 2005 and described the new forecasts of aviation activity for 2010 and 2020. The proposed scope was developed concurrent with the ongoing New England Regional System Plan (NERASP). Historic airport activity levels were described. The DESPR explained the process an airline must follow to commence service at Hanscom. It provided an update of activity levels at Hanscom Field according to the aircraft fleet mix and on activity levels of GA, commuter, and military operations from 2000 to 2005. The DESPR compared 2000-2005 activity levels to historic trends. It compared actual 2005 activity levels to forecasted 2005 activity levels from the 2000 ESPR. The DESPR reported on current and future trends within the airline industry.

The DESPR developed forecasts of aviation activity for 2010 and 2020 based on recent trends at Hanscom Field and with consideration of the role that the airport plays in the regional airport system. It reported actual changes in fleet mix and aircraft operations at Hanscom Field – both increases and decreases – and compared this data to the range of future activity levels and fleet mix defined by the moderate and high growth scenarios of the 2000 ESPR. Differences between actual and previously forecast activity levels were explained and reflected in the underlying assumptions for the 2010 and 2020 forecasts. The forecasts included coordination with forecasting for the Logan ESPR and the development of forecasts for the New England Regional Aviation System Plan Update.

Each forecasted year used a moderate growth scenario and a higher growth scenario. The fleet mix of the moderate growth scenario was comparable to existing conditions that included GA, military, commuter service and some cargo activity. This scenario was based on recent trends at the airport as well as regional and national aviation trends. A second scenario looked at a higher growth rate in GA, commuter and cargo operations. The purpose of the second scenario was to address the uncertainty of the commuter and cargo markets and to provide a sensitivity analysis for the evaluation of potential environmental impacts. The DESPR provided future aviation forecasts according to the 2010 activity levels and passenger forecasts and prepared activity levels and

passenger forecasts for the year 2020, which was consistent with the Logan ESPR and other regional planning efforts.

The DESPR assessed Massport's planning strategies for operating an efficient airport in an environmentally sensitive manner. It described the status of planning initiatives and projects for the Terminal Area, Airside Area, and Landside Area. The DESPR identified and described each project contained in Massport's five-year capital improvements program, and identified which, if any, of these projects may require individual MEPA review. It described new FAA or Massport security policies, which would affect environmental impacts relating to physical facilities or airfield operations. The DESPR reported on planning and development initiatives by the Minute Man National Historical Park (MMNHP), the Hanscom Air Force Base, and the four contiguous towns that affect Hanscom Field and are affected by Hanscom Field.

The DESPR described the role of Hanscom Field in the region's transportation system, and reported on the proponent's efforts to strengthen the regional transportation system and on its cooperative efforts with other transportation agencies to promote an efficient regional aviation system with improved public/private transportation access. It updated information provided in the most recent Logan ESPR. The DESPR described Hanscom Field's role in the GA airport network. It discussed the integration of the New England regional airport facilities as a regional system. The DESPR provided information on regional airport operations, passenger activity levels, and the status of plans and new improvements as provided by regional airport authorities. It discussed recent rail service initiatives by others that could affect air passenger travel. The role that Logan International Airport plays in intercity travel choices, and diversion opportunities to alternative modes and to regional New England airports was estimated based on available data. The DESPR identified Massport's efforts to promote service at Worcester and other airports, as well as other Massport involvement to promote the regional transportation system. It described the current status of the ground access improvements at the four New England regional airports (Logan International Airport, T. F. Green Airport, Manchester Airport, and Worcester Regional Airport) by state transportation agencies, including the projected dates for completion of studies and/or construction.

The DESPR reported on Ground Transportation conditions by using traffic, roadway and access analysis results, mode share data, high occupancy vehicle (HOV) ridership alternatives, parking inventory, and demand and management information. The traffic analysis was done in accordance with the EOEA/EOTC Guidelines for MEPA review. The background growth in traffic within the study area attributed to Hanscom Field was compared to other area sources. The study area for the traffic analysis included sixteen intersections. The proponent added two intersections at the request of the Town of Bedford. The DESPR identified and evaluated those study area intersections at which Hanscom Field traffic contributed 10-percent or more to the existing traffic volumes on any intersection approach. It also used this approach to evaluate the study area intersections for the forecast activity levels and years.

The DESPR discussed Massport's efforts to establish an effective set of regional Transportation Demand Management (TDM) measures. It reported on Massport's survey of Hanscom Field employees. It described TDM strategies. The DESPR reviewed existing metropolitan transportation documents and reported as to how they relate to Hanscom Field access. It provided six potential options for constructing a new roadway to reach the East Ramp Area.

The DESPR reported current noise conditions for the year 2005 and projections for the forecast activity levels and years. It used the following indicators to discuss noise conditions:

- Total Noise Exposure (EXP) as calculated in accordance with FAA prescribed standards and past practice at Hanscom Field
- Day-Night Average Sound Level (DNL) contours for 55, 60, 65, and 70 dBA. Time-Above (TA) contours showing 30, 60, 90, and 120 minutes of exposure to 55 dBA.
- Single Event Level Distribution (SEL) metrics, as already incorporated into the annual Noise Report.
- A ranked tabulation of take-off noise levels for different classes of aircraft (used as the basis for SEL), and the numbers of operations for each class (on an average daily basis).

All noise contour levels were computed with the Integrated Noise Model (INM): the DNL levels depicted were based on accepted EPA and FAA guidelines. The basic structure for the TA analysis followed the protocols developed for the Logan ESPR. The DESPR identified the current changes in the INM model, quantified the effect of modeling changes upon data, and ensured that reporting of past trends is adjusted for such changes. It quantified the land area and residential population within DNL and TA contours, based on year 2000 census data. The DESPR contained an analysis and review for areas that are affected by noise from aircraft upon start-up and take-off roll. It addressed the issue of engine run-ups and the operation of Auxiliary Power Units (APU) and Ground Power Units (GPU). Massport will consider short-term noise monitoring at specific sites where complaints are common.

The DESPR presented the noise data from the permanent monitoring stations at Hanscom Field, including minimum, maximum and average daily DNL values. It addressed the reliability of certain monitoring locations, particularly with respect to background noise levels, and it compared predicted with actual noise measurements.

The DESPR described the Noise Workgroup noise abatement measures that have been implemented. The proponent does not propose an acoustical treatment to reduce noise impacts in engine run-up areas. The Secretary had also recommended that Massport consider implementing noise mitigation for the Wheeler-Merriam House in Concord because it is located within the 55dBA DNL contour. The proponent adheres to the 65dBA FAA standard for proposing any noise mitigation measures for run-up areas or historical properties.

The DESPR reported on current air quality conditions for the year 2005 and projections for the forecast activity levels and years. It used the following emissions inventory indicators of air quality: Carbon Monoxide (CO), Oxides of Nitrogen (NO_x), Volatile Organic Compounds (VOCs), Particulate Matter (PM_{10} and $PM_{2.5}$) and carbon dioxide (CO_2). The DESPR analyzed available air quality monitoring results for Ozone Precursors, Nitrogen Dioxide (NO_2), and SO_2. It reported on measures to reduce on-site emissions from all sources, including fuel handling, ground service equipment, and building heating and cooling. The DESPR reported on Massport's efforts to encourage fixed base operators to consider purchasing alternatively fueled vehicles.

The DESPR included the most recent wetlands delineation, the identified vernal pools, and the riverfront areas for the Shawsheen River and Elm Brook. It reported on wildlife habitat mapping. The DESPR included an update of Massport's Vegetation Management Program. It reported that there were no significant changes to the Hanscom Field storm water management system and to the Storm Water Pollution Prevention Plan (SWPPP). The DESPR identified the Best Management Practices that Massport will undertake as part of the SWPPP. It described the water quality monitoring program at the Shawsheen River and Elm Brook. Massport did not report any groundwater monitoring. The DESPR provided information on the National Pollutant Discharge Elimination System (NPDES) permit, and the SWPPP. It reported on the indicators for water quality improvement based on its NPDES Permit monitoring results and the results from its limited monitoring program when it uses runway-deicing chemicals. The DESPR identified that the proponent had reduced the amount of impervious areas at Hanscom Field by 4.4 acres from 2000 to 2005.

The DESPR reviewed the existing data on historical and archeological resources at Hanscom Field. The most current version of the State Register of Historic Places and the files of the Massachusetts Historical Commission (MHC) were reviewed by the proponent. The proponent prepared a cultural resources survey that meets the Secretary of Interior's Standards and Guidelines for Identification for the Hanscom study area. The DESPR addressed the concerns raised by the Minute Man National Historical Park (MMNHP). Massport also consulted with the towns to obtain the latest historical/archaeological information. The DESPR reported on the interagency working group that was formed to review impacts on the MMNHP. It identified and described the National Park Service's soundscape goals and plans for the MMNHP. The DESPR responded to the scope item requesting a discussion of the information associated with the 55dBA DNL noise level for buildings listed on the State Register. The proponent adheres to the 65dBA FAA standard for proposing any noise mitigation measures.

The DESPR identified that it will work with the four communities and the Department of Food and Agriculture to protect Massport-owned agricultural land from conversion to non-agricultural uses.

The DESPR reported on the development of Massport's Sustainable Development Program and its Environmental Management System (EMS) Program. Massport recently received an International Standards organization (ISO) 14001 Certification for Hanscom Field, making it the

first airport in the nation to receive an ISO 14001 Certification. The Certification establishes objectives and targets, monitoring procedures and roles and responsibilities to track and manage the environmental performance of Hanscom Field. The DESPR included a summary of the existing sustainable practices by Massport at Hanscom Field. It included Massport's recycling policy and toxic reduction at the airport. .

Summary of the DESPR Environmentally Beneficial Measures:

The DESPR included a separate chapter on environmentally beneficial measures (mitigation), which summarized actions described in the previous chapters (such as TDM, noise abatement, and sustainability measures). This chapter identified the parties responsible, and a schedule for implementation, and the estimated costs in Table 12-1.

Massport charges night-time (11:00 pm to 7:00 am) landing fees for both GA and commercial flights. These landing fees charge a penalty over daytime operations. Massport will not develop landing fees based on noise-generated by type of aircraft, with higher fees for noisier aircraft. The DESPR identified Massport's effort to extend the "Fly Friendly" program to commercial flights. Massport has no plans to provide additional noise attenuation around run-up areas.

Massport has committed to undertake the following environmentally beneficial measures as conditions warrant them (Table 12-1 in DESPR):

- Provide a traffic control officer at Hanscom Drive/Route 2A during weekday morning and afternoon peak hours ($80,000 to $100,000 shared with multiple parties).
- Provide ground transportation information on Massport website.
- Provide transit information in Civil Air Terminal.
- Participate in the MassRIDES Transportation Management Initiative program.
- Provide information about transit and non-auto travel options in prominent locations throughout Hanscom Field.
- Provide a bus shelter with transit information ($5,000 to $6,000).
- Install bicycle racks in front of Civil Air Terminal and at other Hanscom Field locations ($1,000 per unit).
- Coordinate with the Town of Concord to assess improvements to the regional bicycle network.
- Support the Sound Initiative in an effort to phase out the use of all Stage 2 aircraft ($10,000 to $20,000).
- Implement the Fly Friendly program to commercial operators.
- Direct run-up procedures to the East Ramp.
- Relocate the noise monitors based on input from the ongoing community coordination process and implement updates to the Noise and Operations Monitoring System ($276,000).

- Encourage tenants to consider the purchase of alternatively fueled vehicles, where appropriate.
- Encourage of FBOs to minimize APU/GPU use.
- Use ultra low sulfur fuel in Massport fleet vehicles.
- Evaluate the installation of a paved aircraft holding area at the head of Runway 23 to reduce minor aircraft delays.
- Consider alternative fuel vehicles for any new Massport vehicle purchase.
- Construct stormwater improvements in detention areas around Hanscom Field in conjunction with the U.S. Air Force.
- Utilize MassDEP Best Management Practices.
- Implement and maintain the Environmental Management System procedures to control environmental effects.
- Coordinate and convene a sustainable design conference with the Towns of Bedford, Concord, Lexington and Lincoln, the National Park Service, the U.S. Air Force, and other interested abutters.

I urge Massport to strongly consider additional TDM and TMA measures to reduce single passenger trips to Hanscom Field. Massport should also consider instituting parking fees for single passenger vehicles with free or reduced parking fees for ridesharing at Hanscom Field.

Conclusion:

As part of its public information efforts, Massport has proposed to convene one public meeting during the review of the Final ESPR, which will be in addition to the MEPA hearing for the Final ESPR. The MEPA consultation meeting is scheduled on Tuesday, March 13, 2007, at 5:00 pm at the Civil Air Terminal (second floor) at Hanscom Field. In the Environmental Monitor of February 20, 2007, the DESPR will be noticed as a Final ESPR.

February 15, 2007
Date

Ian A. Bowles

Comments received:

Tetra Tech Rizzo, 1/25/07
Concord Historical Commission, 2/7/07
Lincoln Board of Selectmen, 2/7/07
Julian J. Bussgang, 2/7/07

ShhAir, 2/7/07
MHC, 2/9/07
MAPC, 2/9/07
Concord Historical Commission letter amendment, 2/12/07

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