



UMASS DONAHUE INSTITUTE



An Economic Contribution Analysis and Overview of
Massachusetts Military Installations

Underwritten by MassDevelopment for
The Military Asset & Security Strategy Task Force
Chairman, Lieutenant Governor Timothy P. Murray

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Letter from the Lieutenant Governor

Dear All,

Massachusetts military installations and the defense industry support thousands of jobs in all regions of the Commonwealth. “An Economic Contribution Analysis and Overview of Massachusetts Military Installations” emphasizes the economic benefits of each military installation, and will be a critical resource for the state’s Military Asset and Security Strategy Task Force and congressional delegation as we collectively protect and promote six major military installations in Massachusetts.

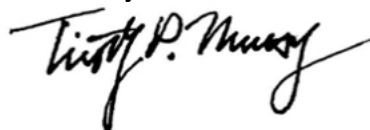
This first-of-its-kind report provides a comprehensive analysis of more than 46,500 jobs directly and indirectly related to our installations, far greater than we ever knew. Many of these jobs contribute to our national security, built on the innovation, technology, and research developed in and around each base. These jobs along with the missions and investments at each installation have major economic implications for Massachusetts and the nation.

Continuing with efforts to protect our military installations, I signed an Executive Order in February 2012 creating the Military Asset and Security Strategy Task Force. Through the Task Force, we are engaging with each community to coordinate the local and regional support for each base. We are also developing and implementing plans to enhance workforce training, infrastructure, energy efficiency, housing, and transportation improvements to strengthen our national security assets.

Over the last year, we have formed a strong partnership to work towards shared goals in protecting and promoting the jobs, missions, and investments at our military installations. On the state level, we are complementing the work of our congressional delegation by increasing collaboration with all state agencies, the Massachusetts National Guard, MassDevelopment, and Massport as well as education, workforce development, and economic development officials, municipal and elected officials, and veteran and military agencies.

On behalf the Task Force and everyone involved in this process, I am proud to join the University of Massachusetts Donahue Institute and MassDevelopment to release “An Economic Contribution Analysis and Overview of Massachusetts Military Installations.” We will continue to evaluate strategic investments at each military installation to maintain these valuable jobs and foster opportunities for economic growth across Massachusetts.

Yours truly,



Timothy P. Murray
Lieutenant Governor
Chair, Military Asset and Security Strategy Task Force

Executive Summary

The Commonwealth's military installations:

1. Provide personnel and equipment to address multiple regional and national security missions;
 - Massachusetts military installations serve as training posts, air bases, and contracting centers for defense-related research and development activity.
 - These military installations are located across the Commonwealth from the Pioneer Valley to Cape Cod. The position of these military installations allows for rapid response to local, domestic, and international security missions, as well as natural disasters.
2. Serve as important regional centers for employment;
 - In FY 2011, military installations in the Commonwealth employed 14,645 active, reserve, and guard military and civilian personnel. In addition, more than 31,900 jobs in the Commonwealth are supported by the spending of military and civilian personnel and the spending on daily operations, construction, and contracts of the installations.
 - These 14,645 personnel employed by the installations received nearly \$1.2 billion in salaries and benefits.
 - Most of these personnel reside in the Commonwealth, but those that do not live mostly in nearby New England states, with more than 900 employees estimated to reside in New Hampshire, nearly 600 in Connecticut, more than 200 in Rhode Island, more than 70 in Maine, and more than 40 in Vermont.
3. And interact as important economic engines in the Commonwealth.
 - In FY 2011, more than \$1.1 billion was spent on the daily operations and construction related expenses of the military installations in the Commonwealth.
 - Two military installations make key connections with the Commonwealth's innovation economy. Research and development and acquisition activities expenditures totaled nearly \$5.5 billion at Hanscom AFB and more than \$1.6 billion at the Natick Soldier Systems Center in FY 2011.
 - Total spending (including payroll, contracts/procurements, construction, and research and development acquisition activities) associated with the installations totaled nearly \$9.4 billion in FY 2011.
 - The economic contributions of this \$9.4 billion in spending led to an additional \$4.8 billion in indirect and induced economic activity across the Commonwealth for a total economic contribution of nearly \$14.2 billion in FY 2011.

Tables illustrating these contributions follow on the next page.

Total Employment and Expenditures Summary: Massachusetts Military Installations FY 2011

| | |
|---|----------|
| Employment (full-time and part-time) | 14,645 |
| Gross Payroll (including salary and benefits) | \$1.17B |
| Value of All Contracts, Procurements, and Purchases | \$921.2M |
| Construction Expenditures | \$201.2M |
| Research & Development and Acquisition Activities Expenditures | \$7.08B |
| Total Expenditures (Payroll, Contracts/Procurements, and Construction) | \$9.38B |

Source: Massachusetts Military Installations

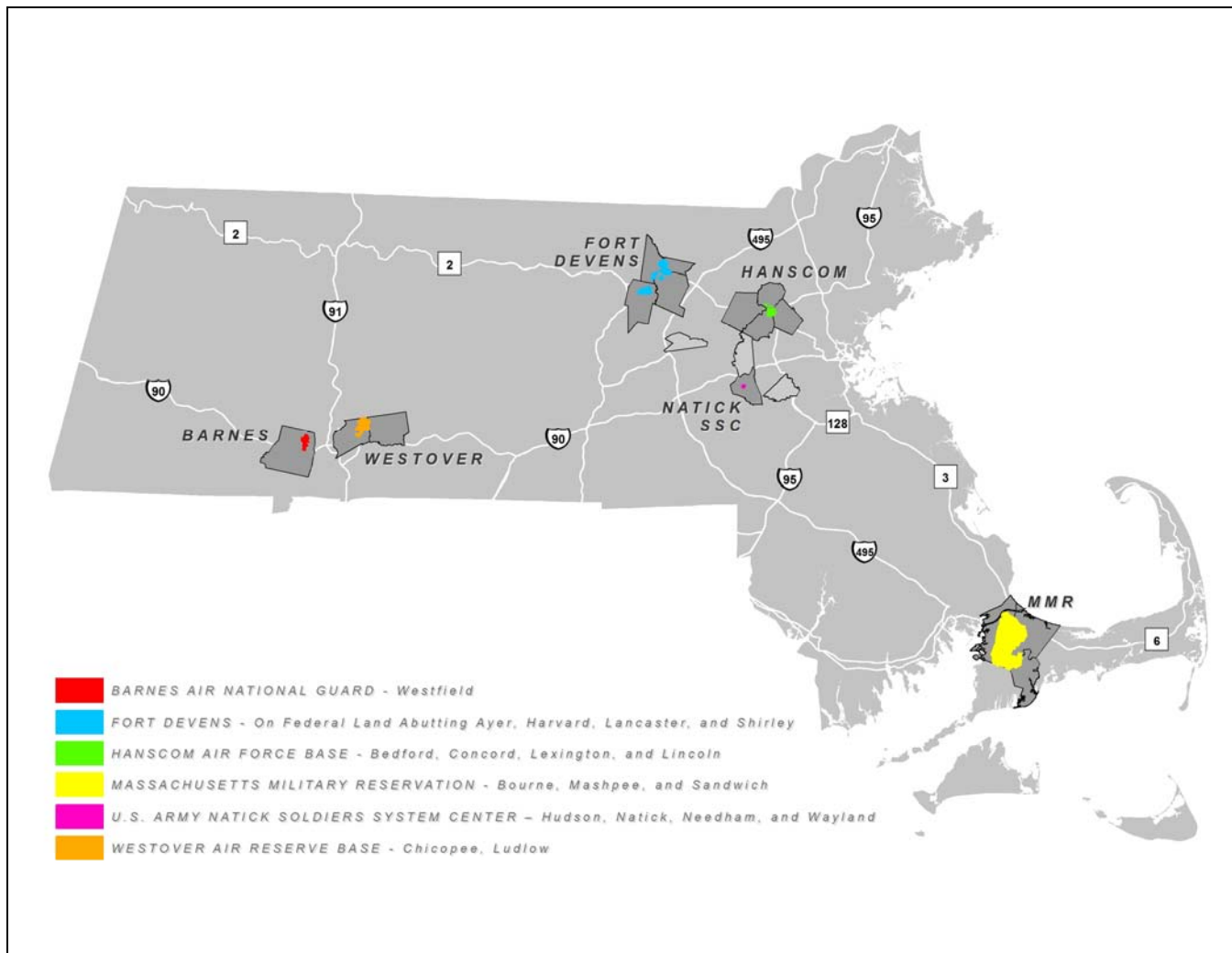
Total Economic and Employment Contributions: Massachusetts Military Installations FY 2011

| | Direct Effect | Indirect and Induced Effects | Total |
|------------|----------------------|-------------------------------------|--------------|
| Output | \$9.38B | \$4.80B | \$14.18B |
| Employment | 14,645 | 31,908 | 46,553 |

Sources: Massachusetts Military Installations and UMDI IMPLAN analysis.

Introduction

Map of Military Installations in Massachusetts



Sources: U.S. Census Bureau, Geography Division and MassGIS. Produced by UMass Donahue Institute.

A thriving defense sector remains vital to the well-being of the Massachusetts economy, with more than 125,000 jobs and billions of dollars in economic impact at stake. The Bay State ranks among the top states nationally for Defense Department and Homeland Security contracts, many of which result in highly specialized products and services.

The Commonwealth's military bases promote defense innovation and serve as economic engines in their own right. While several studies have detailed economic impacts for some of the bases, none have assessed the six in the same fashion and time frame to allow for a uniform assessment. With federal funding cuts threatening possible base closures and reductions in mission and personnel, MassDevelopment, on behalf of the Military Asset and Security Strategy Task Force, requested that the UMass Donahue Institute Economic and Public Policy Research (EPPR) unit assess the economic contributions of Massachusetts' six military installations and develop a final product that would:

- Provide a straightforward model to enable the repetition of the exercise in the future.
- Ensure that the approach taken is as consistent as time, available data, and resources allow across bases to allow for comparable reporting.
- Allow comparisons of the Commonwealth's military and homeland security installations.
- Provide a template for information on each of the six sites so that major activities at each base are clear, and major components of spending are easy to read and understand.

Methodology

Data Collection

The University of Massachusetts Donahue Institute Economic and Public Policy Research Unit (EPPR) requested an itemization of spending by each installation, and MassDevelopment identified appropriate contacts to coordinate data collection for each base (see Appendix A for data contacts by installation). These data contacts were asked to provide expenditure data for their respective installations. Insofar as several different missions under different commands may use a particular installation, data contacts were requested to capture the vast majority of the economic activity at each installation. In cases where several major missions exist on the same base, data contacts from each major mission were contacted, and data were aggregated, to provide a base total (see notes in relevant sections for more information on how this was done for each relevant base). Due to time and resource constraints, and the goal to make the analysis replicable, EPPR only captured data from tenants of an installation if the primary data contacts could provide the information. We focused data collection on the major missions of each installation. We note what commands and tenants each economic contribution analysis covers in footnotes.

EPPR provided each data contact with a standard outline specifying the data needed for the analysis and engaged in additional follow-up with installations to tailor the data collection process to match the different economic activities undertaken by each installation.

These six installations function and are structured in multiple ways. Each installation and tenant has its own accounting, reporting systems, and relationships with other commands. A centralized full accounting of information at the base-level can be rare, especially for large, multi-functional bases. Thus, consistent data reporting proved challenging, not only across installations, but within them as well. Given finite time and resources, every effort was made to ensure the most comparable and complete data collection possible in spite of the many different accounting and oversight systems used by the myriad missions, commands, and tenants for which we sought data.

Relationship among Missions

While each installation serves a different combination of tenants, the military installations across the Commonwealth provide support, training grounds, housing, administrative and other services to the Army, Air Force, Coast Guard, Army National Guard, Army Reserve, Marine Reserve, Navy Reserve, Air National Guard, Air Force Reserve, Coast Guard Reserve, and other state and federal services. Additionally, some installations have other “tenant” organizations, or groups that are located within the installation, but are not under either the command of a service branch of the military or under the major command of the installation. As noted earlier, financial records are generally kept by service, mission, or command rather than by an installation. To the extent possible, we try to indicate the service missions and tenants located at each particular installation, and clarify what groups are covered by the financial information provided. Analysis focused on specific military installations may miss some of the spending by military missions or commands operating outside of military installations. Analysis on an installation basis required dividing or aggregating related missions or commands in two particularly notable instances: the Massachusetts Army and Air National Guard and the Massachusetts Military Reservation (MMR).

Massachusetts Army and Air National Guard

The Massachusetts Army and Air National Guard operate in multiple locations throughout the Commonwealth, including at some of the six installations included in this analysis, but also outside of these installations. As this study does not seek to examine the economic contributions of the Massachusetts Army and Air National Guard, but rather the installations themselves (limited to specific geographic locations), the installation analysis likely excluded some spending unless it was connected directly to one of the six installations. For instance, National Guard personnel only connected to the Joint Force Headquarters (JFHQ) in Milford are included only if they are also connected to Barnes Air National Guard Base, Otis Air National Guard Base (MMR), or Camp Edwards (MMR) directly, and those data contacts reported them as such.

Massachusetts Military Reservation (MMR)

The MMR in Bourne has been used for military purposes since 1911.¹ One of the most complex installations with varied commands, missions, and tenants, MMR houses Air Force, Coast Guard, Army and Air National Guard and other tenant organizations. Otis Air Force Base (Air National Guard), the Air Station Cape Cod (Coast Guard), Camp Edwards (Army National Guard) and the Cape Cod Air Force Station (Air Force) contacts contributed economic data for their major missions at the MMR. Other tenant organizations were not surveyed at this time due to time and resource constraints, though a 2009 study² estimated their economic effects.

Comparability across Installations

While this study does seek to create commensurate analyses that would also allow for direct comparison, we acknowledge that given how unique each installation is, a simple comparison across installations looking at only dollars spent as a reflection of importance would be misleading. The following sections present discussions of each installation in its own right, both to provide a comprehensive analysis with a common methodology and to recognize each installation's unique contributions.

Comparability with Other Studies

Defense Technology Initiative Defense Contracts Analysis

Concurrently with this analysis, the Defense Technology Initiative (DTI) has also engaged EPPR to analyze Department of Defense and Department of Homeland Security contracts awarded to businesses and institutions within each New England state for FY 2011. The DTI-sponsored study looks at DoD and DHS primary contracts awarded to New England businesses, as well as work actually performed in New England (whether this work results from a primary contract awarded in New England or elsewhere), and includes an economic contribution analysis.

Because some DoD and DHS contracts awarded to New England businesses are awarded through and/or on behalf of the six installations included in this study, the contract data used in the DTI-sponsored study overlaps to an unknown degree with the direct spending on contracts reported by the installations considered in this study. Furthermore, data limitations on both the installation data and the USASpending.gov contracting database complicate distinguishing in every case which contracts support the operation of the military installations from those that are ultimately awarded to businesses supporting other federal defense and homeland security needs. Therefore, the economic activity in this study *should not* be added to the economic activity resulting from the DTI analysis, as doing so would result in some double-counting. Instead, these two studies complement each other in a

¹ Massachusetts Military Reservation overview found at <http://states.ng.mil/sites/MA/MMR/MMR-overview2.htm>

² Basile Baumann Prost Cole & Associates, Inc. Massachusetts Military Reservation Economic Impact Study. August 2009. states.ng.mil/sites/ma/resources/erc/publications/EIA.pdf

more qualitative way as they answer specific and unique questions about the federal defense-related economic contributions in Massachusetts.

Limitations and Areas for Potential Future Research

Certain economic activities could not be measured given time and resources available for this study. Spending by visitors to the installations who come from out of the area (most notably those who come to Massachusetts for training) is an area for future exploration. Service members who come from out of state to train at installations in the Commonwealth also spend money locally for goods and services. Analyzing the impacts of such spending typically requires the use of surveys to estimate local visitor spending.

Installations rarely have centralized bureaucracies, particularly when multiple missions exist on a base. In fact, the bureaucracy (i.e. procurement office) for some installations exists off-base and out of state, and therefore local mission staff may not have access to all of the financial information related to their local spending. Some contract spending from DoD or DHS may go directly to local firms to support an installation without the installation keeping financial records of the transaction. Additionally, some DoD and DHS spending related to Massachusetts firms has no connection to local installations at all. In spite of the difficulties these factors present for this study, any spending connected to Massachusetts firms associated with contracts to support local installations, regardless of where the purchase office is located, will be included in the forthcoming study for the DTI.

The following analysis includes only the information received from each installation and its associated contact. While not all expenditures may have been captured, this study seeks to capture the vast majority of expenditures originating from each base. Additionally, many installations receive consumable supplies through the U.S. General Services Administration and do not perform their own contracting/acquisition functions on-site. To this end, the full costs of operating each installation may not be fully represented by the data used for this analysis. Thus, the following can be considered a conservative analysis of the economic contributions of each installation in the Commonwealth.

Finally, the military installations in Massachusetts naturally have economic relationships with and hire employees who live in nearby states. Our economic contribution analysis is limited to the economic contributions to the Massachusetts economy (resulting from spending related to Massachusetts firms and payroll spending on Massachusetts residents).

Economic Contribution Analysis and the IMPLAN Model

Economic contribution analysis attempts to estimate the total contribution of different types of economic activities to a regional and/or state economy. An initial investment in one sector of an economy (i.e. defense, research and development, etc.) spurs additional economic activity in other sectors as the money is re-spent within the region. The total economic contribution of the investment is estimated by tracing the flow of money between industries and households until all of the initial investment eventually leaves the region through foreign or domestic trade, or is collected as a tax.

The IMPLAN modeling system, a widely used proprietary software, combines the U.S. Bureau of Economic Analysis' Input-Output Benchmarks with regional employment and wage data to construct quantitative models of the flow of goods and services among businesses that purchase materials and services from one another and from employees who use their increased earnings to purchase additional goods and services from local businesses. The IMPLAN model captures all monetary market transactions for consumption in a given time period.

The following EPPR economic contribution analyses of each military installation in Massachusetts use the total operations and payroll budgets of each installation to represent the initial contribution of the installation to the Massachusetts economy. These initial contributions then continue to generate economic effects in the state. We use a budget of installation expenditures in three categories -- operations, personnel payroll, and construction -- to identify how the dollars from each of these expenditures move through the economy. The IMPLAN software and data package for Massachusetts is used to model the later rounds of local spending that follow. Finally, all rounds of spending are added together to produce the total contribution estimate. The model is specifically tailored to reflect the expenditure patterns and industry mix of Massachusetts, including specific information about when expenditures leave the state due to foreign and domestic trade and taxes.

As previously stated, this study includes an analysis across all six installations that can be used for comparative purposes. Several of the installations have been the subject of economic impact studies in the recent past. This analysis improves on previous work by using consistent methodology and the most recent, most comprehensive data available for the six installations.

We estimate two major types of contributions:

- *Outputs* are expenditures of the industry and supplier industries to produce the final good.
- *Employment* refers to all employees required to produce the outputs, including wage and salary employees; full-time and part-time employees; and the self-employed.

IMPLAN estimates direct, indirect, and induced effects for both outputs and employment. Direct, indirect, induced, and total are defined as follows:

- *Direct effect* refers to the gross expenditures of the industry or sector on operations, payroll, and taxes.
- *Direct employment* refers to workers in the sector or industry.
- *Indirect effect* refers to spending by suppliers and contractors to produce inputs for the industry (such as medical devices).
- *Indirect employment* refers to employees of the industry's contractors and suppliers.
- *Induced effect* refers to household spending on goods and services by industry employees and the employees of contractors and suppliers (both direct and indirect employees).
- *Induced employment* refers to the employees of industries that produce the household goods and services purchased by the direct and indirect employees.
- *Total outputs* or *total impacts* are the sum of direct, indirect, and induced effects.
- *Total employment* is the sum of direct, indirect, and induced employment.

Barnes Air National Guard Base

Overview

Barnes Air National Guard Base is located in Westfield on Westfield-Barnes Regional Airport. The major tenant at the base, discussed below, is the Air National Guard 104th Fighter Wing.

Massachusetts Air National Guard, 104th Fighter Wing

Barnes is home to the 104th Fighter Wing of the Air National Guard, which maintains a highly-trained, well-equipped, and motivated military force to provide combat-ready F-15 aircraft and support elements in response to wartime and peacetime tasking under state and federal authorities. The F-15 Eagle is an all-weather, extremely maneuverable tactical fighter that provides 24-hour protection for the northeastern United States.³

When Air National Guard units are not mobilized or under federal control, they report to the governor of their respective state or territory,⁴ or the commanding general of the District of Columbia National Guard. Under state law, the Air National Guard provides for the protection of life and property, and helps with keeping peace, order, and public safety. The Air National Guard does so by providing emergency relief support during natural disasters such as floods, earthquakes, and forest fires; search and rescue operations; support to civil defense authorities; maintenance of vital public services; and counterdrug operations. Federally, the Air National Guard provides almost half of the Air Force's tactical airlift support, combat communications functions, aeromedical evacuations, and aerial refueling. In addition, the Air National Guard has total responsibility for air defense of the entire United States.⁵

Economic Contribution Analysis⁶

In FY 2011, Barnes Air National Guard Base employed 1,317 military (active-duty and Guardsmen), DoD, and non-DoD civilians who together received nearly \$59.6 million in salaries and benefits. In FY 2011, Barnes Air National Guard Base spent more than \$6.4 million on contracts, procurements, and purchases for daily operations. In addition, more than \$1.8 million was spent on construction-related activities at the installation.

Employment and Expenditures Summary: Barnes Air National Guard Base FY 2011

| | |
|---|--------------|
| Employment (full-time and part-time) | 1,317 |
| Gross Payroll (including salary and benefits) | \$59,566,094 |
| Value of All Contracts, Procurements, and Purchases | \$6,413,970 |
| Construction Expenditures | \$1,833,312 |
| Total Expenditures (Payroll, Contracts/Procurements, and Construction) | \$67,813,376 |

Source: Barnes Air National Guard Base

³ 104th Fighter Wing Website Factsheet: <http://www.104fw.ang.af.mil/resources/factsheets/factsheet.asp?id=12530>

⁴ U.S. territories include, for example, Puerto Rico, Guam, and the U.S. Virgin Islands.

⁵ 104th Fighter Wing Website: <http://www.104fw.ang.af.mil/main/welcome.asp>

⁶ This analysis includes data covering the 104th Fighter Wing, 212 CEIS, 567 Band, and JFHQ. See Appendix A for data contact information.

Barnes Air National Guard Base is a major contributor to the economy of the Commonwealth. Directly and indirectly, this military installation is responsible for more than 1,700 jobs. The overall direct, indirect, and induced economic activity generated by the day-to-day operation of Barnes exceeded \$126.3 million in FY 2011.

Total Economic and Employment Contributions: Barnes Air National Guard Base FY 2011

| | Direct Effect | Indirect and Induced Effects | Total |
|------------|----------------------|---|---------------|
| Output | \$67,813,376 | \$58,500,822 | \$126,314,198 |
| Employment | 1,317 | 404 | 1,721 |

Sources: Barnes Air National Guard Base and UMDI IMPLAN analysis.

Fort Devens

Overview

Fort Devens (previously the Devens Reserve Force Training Area) is located on a portion of land that the U.S. Army purchased from the Towns of Ayer, Harvard, Lancaster, and Shirley nearly a century ago. Reserves who train at the base enhance their readiness utilizing training facilities that support activities on and off the installation. Fort Devens is home to tenant commands of the Army, Marine, and Navy reserves. At least 35 tenants at Fort Devens support 3,000 military and civilian personnel (See Appendix B for more detail on tenant organizations).⁷

U.S. Army, Marine, and Navy Reserves

Fort Devens supports civilians and military personnel from the U.S. Army, Marines, Navy, National Guard, FBI, and Massachusetts Emergency Management Agency. Fort Devens provides training facilities and training support to enhance the readiness of reserve component units in New England. Fort Devens has 960 beds in barracks for military trainees. The South Post contains 4,800 acres, 23 live-fire ranges, and 25 different training facilities including a live fire shoot house, used to train personnel with simulated realistic, stressful, decision-making scenarios; urban assault course; military operation in urban terrain; nuclear, biological, and chemical chamber; convoy operations course; and an improvised explosive device “petting zoo” or special training ground for personnel to get a hands-on look at the techniques most commonly used by insurgents.

Also located on South Post is Natick Labs’ (PM-FSS) Base Camp System Integration Laboratory. This unique laboratory replicates camps in combat zones 8,000 miles away in Iraq and Afghanistan in order to test and develop the shelters and systems that will best serve the troops and mission. Fort Devens’ main post has a training support center; 15 classrooms, including a distance learning center; video conferencing services; and transportation support services for passenger, freight, and unit moves. After Fort Devens ceased operating as an active duty installation in 1996, part of the base became Devens, a neighboring unincorporated community that has a small residential population and scores of businesses.⁸

Economic Contribution Analysis⁹

In FY 2011, employment at Fort Devens included 1,895 military (active-duty and reserve), DoD, and non-DoD civilians, who together received more than \$98.6 million in salaries and benefits. In FY 2011, Fort Devens and their associated tenants spent nearly \$14.5 million on contracts, procurements, and purchases for daily operations. In addition, nearly \$92.6 million was spent on construction-related activities at the installation, mostly due to the activity of the Army Corps of Engineers.

⁷ See Fort Devens website: https://www.devens.army.mil/For_the_Soldier/Installation_Overview.htm.

⁸ See “Businesses and Organizations Located in Devens, Massachusetts: Profile and Economic Contributions” by the UMass Donahue Institute, June 2012, available at http://www.devenscommunity.com/sites/default/files/devens_commercial_report_062012.pdf

⁹ This analysis includes data covering the garrison at Fort Devens and tenants who reported information upon request. Payroll data for non-reporting tenant employment were extrapolated from reporting tenant data. See Appendix A for data contact information.

Employment and Expenditures Summary: Fort Devens FY 2011

| | |
|---|---------------|
| Employment (full-time and part-time) | 1,895 |
| Gross Payroll (including salary and benefits) | \$98,651,575 |
| Value of All Contracts, Procurements, and Purchases | \$14,466,700 |
| Construction Expenditures | \$92,576,614 |
| Total Expenditures (Payroll, Contracts/Procurements, and Construction) | \$205,694,889 |

Source: Fort Devens

Fort Devens is a major contributor to the economy of the Commonwealth. Directly and indirectly, this military installation is responsible for nearly 3,180 jobs. The overall direct, indirect, and induced economic activity generated by the day-to-day operation of Fort Devens exceeded \$396.6 million in FY 2011.

Total Economic and Employment Contributions: Fort Devens FY 2011

| | Direct Effect | Indirect and Induced Effects | Total |
|------------|----------------------|-------------------------------------|---------------|
| Output | \$205,694,889 | \$190,952,522 | \$396,647,411 |
| Employment | 1,895 | 1,284 | 3,179 |

Sources: Fort Devens and UMDI IMPLAN analysis.

Hanscom Air Force Base

Overview

Hanscom Air Force Base (AFB) occupies 846 acres in a light industrial area of eastern Massachusetts adjacent to Massport's LG Hanscom Field. The site occupies land in the Towns of Bedford, Concord, Lexington, and Lincoln. As a major military installation, Hanscom hosts several key entities.

U.S. Air Force Electronic Systems Center

Hanscom AFB serves as the headquarters of the U.S. Air Force Electronic Systems Center (ESC).¹⁰ ESC, which manages approximately 200 programs, serves as the Air Force's center for the development and acquisition of electronic command and control (C2) systems. ESC itself does not design or manufacture the systems; instead, it facilitates the development of systems by civilian contractors to meet operational needs. ESC employs teams of professionals – engineers, managers, acquisitions specialists, and computer experts – to supervise the design, development, testing, production, and deployment of C2 systems.

The activities of the ESC create a wide range of formal and informal opportunities and relationships with private companies and research institutions. As an outgrowth of one of its most important, long-term relationships, the Massachusetts Institute of Technology is proposing to build a \$450 million research facility at Hanscom AFB that MIT's Lincoln Laboratory will run.¹¹ MIT plans to replace outdated facilities on the base to provide new facilities for 3,200 MIT employees and 500 contractors who work at Hanscom. Private firms could also lease parts of the facility.

66th Air Base Group

While serving as a critical technical hub, Hanscom AFB also serves a central role in service provision for military personnel and retirees. The 66th Air Base Group (ABG), Hanscom's host unit, provides services to all the active-duty, Reserve, and National Guard military personnel; DoD civilians; and contractors who work and live at Hanscom AFB. The 66th ABG provides support to more than 4,000 military and civilian personnel at more than 35 Geographically Separated Units across New England and New York, to include ROTC detachments, Recruiting Detachments, Rome Labs, and military personnel studying at various graduate schools in the area. The 66th ABG also supports more than 100,000 retired military personnel and spouses living in New England and New York.

Massachusetts National Guard Joint Force Headquarters

Hanscom AFB, will serve yet another centralizing role, as host of the new Massachusetts National Guard Joint Force Headquarters, an administrative complex now under construction that when completed in December 2012 will support state and federal missions required of the state's National Guard.¹² Once finished, this \$44 million federally-funded complex will employ approximately 200 full-time military and civilian personnel during the week. Once a month, during assembly weekends, the complex will employ an additional 200 military-only personnel.

¹⁰ See Hanscom website: <http://www.hanscom.af.mil/>

¹¹ Bryan Bender. "MIT seeks to invest \$450m at Hanscom." *The Boston Globe*, April 20, 2012.

¹² See Hanscom website: <http://www.hanscom.af.mil/>

Economic Contribution Analysis¹³

In FY 2011, Hanscom AFB employed 3,628 military (active-duty and Reservists), DoD, and non-DoD civilians who together received nearly \$589.0 million in salaries and benefits. In FY 2011, Hanscom AFB spent more than \$112.7 million on contracts, procurements, and purchases for daily operations. In addition, nearly \$49.7 million was spent on construction-related activities. Research and development and acquisition activities made up nearly \$5.5 billion in Hanscom spending.

Employment and Expenditures Summary: Hanscom Air Force Base FY 2011

| | |
|---|-----------------|
| Employment (full-time and part-time) | 3,628 |
| Gross Payroll (including salary and benefits) | \$588,964,553 |
| Value of All Contracts, Procurements, and Purchases | \$112,705,283 |
| Construction Expenditures* | \$49,683,635 |
| Research & Development and Acquisition Activities Expenditures | \$5,473,458,711 |
| Total Expenditures (Payroll, Contracts/Procurements, and Construction) | \$6,224,812,183 |

* Includes \$23M for MA National Guard JFHQ Building, funded by MA National Guard.

Source: Hanscom Air Force Base

Hanscom Air Force Base is a major contributor to the economy of the Commonwealth. Directly and indirectly, this military installation is responsible for more than 18,100 jobs. This includes direct employment of 3,628 full- and part-time personnel on the installation's payroll, and approximately 2,200 contractor personnel who also work on-base at Hanscom daily.¹⁴ The overall direct, indirect, and induced economic activity generated by the operational and procurement activities of Hanscom AFB exceeded \$8.4 billion in FY 2011. Significantly, much of this activity involves technology and other innovative activities, a key sector of the Massachusetts economy, with an impact in communities and industries across the Commonwealth.

Total Economic and Employment Contributions: Hanscom Air Force Base FY 2011

| | Direct Effect | Indirect and Induced Effects | Total |
|------------|----------------------|-------------------------------------|-----------------|
| Output | \$6,224,812,183 | \$2,217,003,547 | \$8,441,815,729 |
| Employment | 3,628 | 14,507 | 18,135 |

Sources: Hanscom Air Force Base and UMDI IMPLAN analysis.

¹³ This analysis includes data covering the Electronic Systems Center, 66th ABG, and AFCAA Hanscom OL. These data do not include geographically separate units also considered part of the Center. See Appendix A for data contact information.

¹⁴ These approximately 2,200 contract personnel are funded through some of the Research, Development & Acquisitions contracting expenditures, and are therefore considered part of the indirect employment associated with Hanscom AFB.

Massachusetts Military Reservation

Overview

The Massachusetts Military Reservation (MMR) is a joint-use base that covers about 22,000 acres of land, or about 30 square miles, on the upper western portion of Cape Cod. The MMR includes parts of the Towns of Bourne, Mashpee, and Sandwich, and abuts the Town of Falmouth. This major military installation is home to four military commands including the Massachusetts Army National Guard (MARNG), the Massachusetts Air National Guard (MANG), the U.S. Coast Guard (USCG), and the U.S. Air Force (USAF). Major missions located at the MMR revolve around training for domestic and international operations; emergency response and airborne search and rescue missions; and intelligence command and control.¹⁵ Key units that carry out these missions include the Camp Edwards Training Site (MARNG), the 6th Space Warning Squadron (Pave PAWS) (USAF), the 102nd Intelligence Wing (MANG), and the Coast Guard Air Station Cape Cod (USCG). Numerous additional tenants (military, governmental, and non-profit) are also residents at the MMR (see Appendix B for more detail on tenant organizations).

Massachusetts Army National Guard, Camp Edwards Army National Guard Training Site

Camp Edwards, comprising about 15,000 acres in the northern section of the MMR, remains the largest user of MMR land and serves as the primary military training facility for National Guard and Army Reserve soldiers throughout New England. Camp Edwards prepares soldiers for combat missions overseas as well as domestic missions.

Massachusetts Air National Guard, Otis Air National Guard Base/102nd Intelligence Wing

The Massachusetts Air National Guard's 102nd Intelligence Wing remains on the MMR at Otis Air National Guard base after the BRAC realignment of the 102nd Fighter Wing. The 102nd Intel Wing provides world-wide precision intelligence and command and control, and trained and experienced Airmen, for combat support and homeland security missions.¹⁶

U.S. Coast Guard Air Station, Cape Cod (ASCC)

The U.S. Coast Guard operates several programs on the MMR, including Air Station Cape Cod, the only Coast Guard aviation facility in the northeast. This unit provides search and rescue, and fisheries and law enforcement from Sandy Hook, New Jersey to the Canadian border.

U.S. Air Force, Cape Cod Air Force Station, 6th Space Warning Squadron

The 6th Space Warning Squadron, a geographically separated unit of the 21st Space Wing, Peterson Air Force Base, Colorado, mans the Cape Cod Air Force Station. The Air Force Station is the only land-based radar site providing missile warning for the eastern coast of the United States and southern Canada against sea-launched and intercontinental ballistic missiles. "TEAM 6" includes active duty U.S. and Canadian Air Force troops; DoD civilians; and BAE Systems employees.

¹⁵ This information comes from the MMR website: <http://states.ng.mil/sites/MA/MMR/index.htm>

¹⁶ For more information see <http://www.102iw.ang.af.mil/main/welcome.asp>

Economic Contribution Analysis¹⁷

In FY 2011, the major missions at the Massachusetts Military Reservation employed 2,262 military (active and reserve), DoD, and non-DoD civilians who together received more than \$117.5 million in salaries and benefits. In FY 2011, the major tenants of the Massachusetts Military Reservation spent nearly \$37.1 million on contracts, procurement, and purchases for daily operations. In addition, nearly \$34.9 million was spent on construction-related activities.

Employment and Expenditures Summary: Massachusetts Military Reservation FY 2011

| | |
|---|---------------|
| Employment (full-time and part-time) | 2,262 |
| Gross Payroll (including salary and benefits) | \$117,540,506 |
| Value of All Contracts, Procurements, and Purchases | \$37,077,564 |
| Construction Expenditures | \$34,899,523 |
| Total Expenditures (Payroll, Contracts/Procurements, and Construction) | \$189,517,594 |

Source: Massachusetts Military Reservation major missions

The Massachusetts Military Reservation is an important contributor to the economy of the Commonwealth, especially within the Upper Cape region¹⁸ but also more widely. Directly and indirectly, this military installation is responsible for more than 3,600 Massachusetts jobs. The overall direct, indirect, and induced economic activities generated by daily MMR operations exceeded \$405.7 million in FY 2011.

Total Economic and Employment Contributions: Massachusetts Military Reservation FY 2011

| | Direct Effect | Indirect and Induced Effects | Total |
|------------|----------------------|-------------------------------------|---------------|
| Output | \$189,517,594 | \$216,231,619 | \$405,749,213 |
| Employment | 2,262 | 1,428 | 3,690 |

Sources: Massachusetts Military Reservation major missions and UMDI IMPLAN analysis.

¹⁷ This analysis includes data covering the 102nd Intelligence Wing and 253/267 Combat Commands at Otis AFB; 6th Space Warning Squadron of the Cape Cod AFS; U.S. Coast Guard Air Station Cape Cod and MMR Coast Guard tenant commands; and Camp Edwards of the Massachusetts Army National Guard. See Appendix A for data contact information.

¹⁸ Basile Baumann Prost Cole & Associates, Inc., *Massachusetts Military Reservation Economic Impact Study*, August 2009.

U.S. Army Natick Soldier Systems Center

Overview

The U.S. Army Natick Soldier Systems Center (NSSC), known locally as Natick Labs, occupies 124 buildings located on 174 acres in the Towns of Natick, Wayland, Needham and Hudson. NSSC facilities include administration, laboratory, maintenance, storage, and housing facilities. As the Army's center for research and development in support of soldiers in the field, NSSC is home to numerous additional tenants, some military and some civilian (see Appendix B for more detail on tenant organizations).

U.S. Army Natick Soldier Systems Center

The NSSC, representing one of seven key technology areas under the U.S. Army Research, Development and Engineering Command (RDECOM), is a Department of Defense installation responsible for technology research and development; engineering; field testing; and sustainment of the food, clothing, shelter, airdrop systems, and soldier support items. The NSSC maintains 459,000 square feet of lab space and has several specialized R&D facilities. These specialized facilities include a Climatic Chamber; an Altitude Chamber; a Textile Facility; a Combat Rations Production and Packaging Facility; a Biomechanics Lab; a 3-D Anthropometrics Lab; a Water Immersion Laboratory; a Fiber Center of Excellence; a Thermal Test Facility; and a Polymer Film Center of Excellence. NSSC also runs and mans a Base Camp Integration Lab at Fort Devens.

Natick Labs is located just 17 miles west of Boston, which gives the NSSC convenient access to many world-renowned universities and research hospitals. The region is also home to many technology-based private IT and nanotech companies that provide additional opportunities for NSSC research and development teams to network and share technology. The NSSC uses a variety of mechanisms to contract and partner with many types of organizations including universities, hospitals, and private companies. Some examples include grants; Small Business Innovative Research awards; cooperative research and development agreements; testing services agreements; patent license agreements; and education partnership agreements. These mechanisms help the NSSC leverage technology and resources to accelerate technological development and get improved products to the military more quickly.¹⁹

In FY 2011, the Natick Contracting Division closed on 5,104 contracts for goods and services, of which roughly 730 were awarded to Massachusetts vendors.

¹⁹ This information was compiled from the Natick SSC website: <http://www.natick.army.mil/>. See especially *Presentation to the MetroWest Chamber of Commerce*, BG John J. McGuinness, Deputy Commanding General, US Army Research, Development and Engineering Command and Senior Commander, US Army Natick Soldier Systems Center. January 27, 2012. <http://www.natick.army.mil/about/command/2-MetroWestChamberofCommerceJan2012presentation-compressed.pdf>

Economic Contribution Analysis²⁰

In FY 2011, Natick SSC employed 1,612 active-duty military and DoD civilians who together received nearly \$167.5 million in salaries and benefits. In FY 2011, Natick SSC spent more than \$717.4 million on contracts, procurements, and purchases for daily operations. In addition, \$5.4 million was spent on operations and maintenance-related construction. Research and development and acquisition activities made up more than \$1.6 billion in Natick SSC spending.

Employment and Expenditures Summary: U.S. Army Natick Soldier Systems Center FY 2011

| | |
|---|-----------------|
| Employment (full-time and part-time) | 1,612 |
| Gross Payroll (including salary and benefits) | \$167,474,380 |
| Value of All Contracts, Procurements, and Purchases | \$717,447,643 |
| Construction Expenditures | \$5,400,000 |
| Research & Development and Acquisition Activities Expenditures | \$1,609,151,264 |
| Total Expenditures (Payroll, Contracts/Procurements, and Construction) | \$2,499,473,287 |

Source: U.S. Army Natick Soldier Systems Center

Natick Soldier Systems Center is a major contributor to the economy of the Commonwealth. Directly and indirectly, this military installation is responsible for more than 14,500 jobs. The overall direct, indirect, and induced economic activity generated by the operational and procurement activities of Natick SSC exceeds \$4.4 billion. Significantly, much of this activity involves technology and other innovative activities, a key sector of the Massachusetts economy, with an impact in communities and industries across the Commonwealth.

Total Economic and Employment Contributions: U.S. Army Natick Soldier Systems Center FY 2011

| | Direct Effect | Indirect and Induced Effects | Total |
|------------|----------------------|-------------------------------------|-----------------|
| Output | \$2,499,473,287 | \$1,913,989,269 | \$4,413,462,556 |
| Employment | 1,612 | 12,892 | 14,504 |

Sources: U.S. Army Natick Soldier Systems Center and UMDI IMPLAN analysis.

²⁰ This analysis includes data covering the U.S. Army Natick Soldier System Center including Garrison-Natick, RDECOM HQ, RDECOM –NSRDEC, TACOM-ILSC Natick, CHRA-Natick, ACC-NCD, NEC, West Point-Health Clinic, and PM-FSS. See Appendix A for data contact information.

Westover Air Reserve Base

Overview

Westover Air Reserve Base (ARB) is located in Chicopee and Ludlow. Westover is the largest U.S. Reserve facility²¹ and home to the 439th Airlift Wing, which provides worldwide air movement of troops, supplies, equipment, and medical patients. The 337th Airlift Squadron is the Wing's flying unit and operates the C-5 aircraft that specializes in missions involving outsized and oversized cargo that no other aircraft can carry. Westover also houses ten Army Reserve, two Navy Reserve, and four Marine Corps Reserve units²² (see Appendix B for more detail on tenant organizations).

Westover is a joint-use, military-civilian airport. Westover Metropolitan Airport, the civilian component, is owned and managed by a non-profit organization and enjoys military-grade air traffic control and firefighting/rescue services provided by the U.S. Air Force. Westover Air Reserve Base serves as an Incident Support Base for emergency management teams; in 2011, Westover hosted hundreds of FEMA trucks, trailers, and generators for Hurricane Irene relief. The installation has been involved in Operations Desert Shield, Storm, Enduring Freedom, Iraqi Freedom, and New Dawn; and relief efforts in New Orleans following Hurricane Katrina, Houston following Hurricane Rita, Haiti following its earthquake, and Japan following its earthquake and tsunami. Westover is located one hour closer to European NATO members than the next nearest logistics base. In addition to combat involvement, installation tenant missions during peacetime include recruiting and training personnel to ensure readiness.²³

Economic Contribution Analysis²⁴

Westover ARB employed 3,931 active-duty and reserve personnel; DoD employees; and other civilians in FY 2011. These personnel together received nearly \$140.2 million in salaries and benefits. In FY 2011, Westover ARB spent more than \$33.1 million on contracts, procurements, and purchases for daily operations. In addition, more than \$16.8 million was spent on operations and maintenance-related construction.

Employment and Expenditures Summary: Westover Air Reserve Base FY 2011

| | |
|---|---------------|
| Employment (full-time and part-time) | 3,931 |
| Gross Payroll (including salary and benefits) | \$140,154,269 |
| Value of All Contracts, Procurements, and Purchases | \$33,105,921 |
| Construction Expenditures | \$16,830,397 |
| Total Expenditures (Payroll, Contracts/Procurements, and Construction) | \$190,090,587 |

Source: Westover Air Reserve Base

²¹ Wilbur Smith Associates, LLC., *Massachusetts Statewide Airport Economic Impact Study*, Massachusetts Department of Transportation, Aeronautics Division, 2010 http://www.massdot.state.ma.us/portals/7/docs/mass_exec_summary_CML.pdf

²² According to data collected by MassDevelopment in late 2011, tenant commands include an additional 1,753 military and 319 civilian personnel.

²³ Westover Air Reserve Base, Mass. 15 Fast Facts <http://www.westover.afrc.af.mil/news/story.asp?id=123291758>

²⁴ This analysis includes data covering the 439th Airlift Wing. These data do not include any non-Air Force Reserve tenants at Westover. See Appendix A for data contact information.

Westover Air Reserve Base is a major contributor to the economy of the Commonwealth. Directly and indirectly, this military installation is responsible for more than 5,300 jobs. The overall direct, indirect, and induced economic activity generated by daily Westover operations was nearly \$393.7 million in FY 2011.

Total Economic and Employment Contributions: Westover Air Reserve Base FY 2011

| | Direct Effect | Indirect and Induced Effects | Total |
|------------|----------------------|-------------------------------------|---------------|
| Output | \$190,090,587 | \$203,586,677 | \$393,677,264 |
| Employment | 3,931 | 1,392 | 5,323 |

Sources: Westover Air Reserve Base and UMDI IMPLAN analysis.

Bibliography

Additional key resources consulted by EPPR include:

UMass Donahue Institute and the Center for Policy Analysis UMass Dartmouth. *More than Dollars Alone: The Economic and Security Significance of Hanscom Air Force Base and the Natick Soldier Systems Center*. September 2004. <http://www.massbenchmarks.org/publications/studies/pdf/hanscom04.pdf>

UMass Donahue Institute for Steven Wolf Associates, LLC. *Otis Air National Guard Economic Impact Study*. July 2005. <http://www.massbenchmarks.org/publications/studies/pdf/otis05.pdf>

Appendix A – Data Contacts

Barnes Air Force Base

Brigadier General Gary Keefe, MANG
Massachusetts Air National Guard
Assistant Adjutant General for Air

Fort Devens

Lieutenant Colonel Warren F. Bacote
U.S. Army Garrison, Commander

Richard G. Brackett
U.S. Army Garrison, Devens
Executive Officer

Sandy Burson
U.S. Army Garrison, Devens
Assistant to the Commander

Dianna Baker
7th Battalion, 98th Regiment

Lieutenant Colonel Paul Brickley, USMC
25th Marine Regiment
Inspector-Instructor

Vincent DeSalvo
Special Agent
Boston Fraud Branch Office
U.S. Army Criminal Investigation Division

Commander Helen Furbush
Navy Reserve Joint Intelligence Center Central Command

Captain Kevin M. Henderson
U.S. Army, NEARISC, Detachment 1

Major Adam Hollick
Northeast Information Operations Center

Roy C. Kempf
Chief, OPS North
U.S. Army TMDE Support - Region East

James A Morocco
Resident Engineer
U.S. Army Corps of Engineers

Hanscom Air Force Base

Lieutenant Colonel Romero Reid, USAF
66th Air Base Group
Deputy Commander

Brian Fersch
Chief, Acquisition Cost Research, Studies & Training
Air Force Electronic Systems Center

Massachusetts Military Reservation

Camp Edwards Training Site
Colonel Thomas A. Devine, MARNG
Joint Force Headquarters
Director, U.S. Property and Fiscal Office

Major A. Keith Childress, MARNG
Joint Force Headquarters
Comptroller, USPFO-MA

Cape Cod Air Force Station
Lieutenant Colonel Shawn A. Smith, USAF
6th Space Warning Squadron
Commander

Gregory Williams
Legislative Liaison

Otis Air National Guard Base
Brigadier General Gary Keefe, MANG
Massachusetts Air National Guard
Assistant Adjutant General for Air

U.S. Coast Guard Air Station Cape Cod
Captain John Newby, USCG
Executive Officer

Natick Soldier Systems Center

Christine Marsh
Deputy to the Commanding General

Lieutenant Colonel Brian Wood, USA
Executive Officer to the Commanding General

Jeffrey Vorce
Operations Officer

Westover Air Force Base

Colonel Bruce E. Finley, USAFR
439th Mission Support Group
Commander

Daniel McCarthy, CDFM
439th AW/FMC



Appendix B – Tenant Organizations by Installation

Barnes Air National Guard Base

104th Fighter Wing

Fort Devens

Army

U.S. Army Garrison

Facility Engineer Team 21

98th Division Units

4th Chemical Battalion

6th Military Intelligence Battalion

7th Ordnance Battalion

11th Health Service Battalion

Drill Sergeant School #3

Regional Training Site Maintenance

655th Regional Support Group

174th Infantry Brigade, First Army Division East

2/310th Regiment

3/313th Logistics Support Battalion

E. Co., 1/304th Regiment, 95th Division

366th Military Police Detachment (Criminal Investigation Division)

804th Medical Brigade

Test, Measurement & Diagnostic Equipment Training Support Center - NE

Northeastern Army Reserve Intelligence Support Center Devens Detachment

Joint Reserve Intelligence Center

Northeast Information Operations Center

99th RSC East

99th RSC East Education Office

Equipment Concentration Site #65

308th Military Intelligence Battalion

Army Criminal Investigation Command, 701st MP Group Boston Fraud Resident Agency Major Procurement Fraud Unit

U.S. Army Corps of Engineers, New England District Office

Western Resident Field Offices

Boston Resident Field Offices

BRAC Environmental

Total Army School System Training Center

A Company, 325th Military Intelligence Battalion

C Company, 3/319th Regiment, 800th Brigade, 80th Division

Detachment 1, U.S. Central Command

B Company, 533rd BSB

2200th Military Intelligence Group, Military Intelligence Readiness Command

Detachment 1, 3200 Strategic Intelligence Group, Military Intelligence Readiness Command

Army and Air Force Exchange

Clothing Sales

Class VI

Marine Corps

Hqs 25th Marine Regiment, 4th Marine Division USMCR
1st Bn. 25th Marine Regiment, 4th Marine Division, USMCR
Contact Team, 4th Maintenance Bn. 4th Marine Logistics Group

Navy

Reserve Navy Information Operations Command – NRNIOC Devens
Reserve Intelligence Program Office 18
 Joint Forces Intelligence Command 0197
 Office of Naval Intelligence 0397
 Naval Criminal Investigative Service 0297
 Office of Naval Intelligence 1897
 Defense Intelligence Agency 0797

Hanscom Air Force Base

Electronic Systems Center
66th Air Base Group
 319th Air Force Recruiting Squadron
 439th USAF Reserve Recruiting Squadron, Detachment 1
 46th Test Squadron, Detachment 1
 Air Force Audit Agency (AFAA)
 Detachment 102, AF Office of Special Investigations (OSI)
 Defense Commissary Agency (DECA)
 US Air Force – Civil Air Patrol Liaison Office
 Joint Personal Property Shipping Office (JPPSO)
 Army and Air Force Exchange Service (AAFES)
 Defense Contract Audit Agency (DCAA)
 Defense Metropolitan Area Telephone System (DMATS-Boston)
 United States Postal Service (USPS)
 Hanscom Federal Credit Union (HFCU)
 Lincoln Public Schools
 Commission for the Blind
 Caritas Health Services at Brighton Marine
 TRICARE Service Center (Managed Health Care Facility)
 MA National Guard
 MIT Lincoln Laboratory (MIT/LL)

Massachusetts Military Reservation

Camp Edwards Training Site

Cape Cod Air Force Station

6th Space Warning Squadron

Otis Air National Guard Base

102nd Intel Wing

253/267 Combat Communications Group

U.S. Coast Guard Air Station Cape Cod

Coast Guard Exchange

PSU 301

COMMSTA Boston

Electronic Support Detachment
FORECOM Armory/Range
Northeast Regional Fisheries Training Center
Auxiliary Flotilla 11-8

Natick Soldier Systems Center

U.S. Army Soldier System Center
U.S. Army Garrison
U.S. Army Natick Soldier Research & Development Engineering Center
U.S. Army Research Institute for Environmental Medicine
Product Manager – Force Sustainment Systems
Product Manager – Soldier Clothing and Individual Equipment
U.S. Navy Clothing and Textile Research Facility
U.S. Coast Guard Clothing Design and Technical Office
U.S. Army TACOM, Integrated Logistics Support Center
Army Contracting Command - APG, Natick Contracting Division
Document Automation and Production Service
U.S. Army Medical Command Occupational Health Clinic
U.S. Army NETCOM, Network Enterprise Center – Natick
Civilian Personnel Advisory Center

Westover Air Force Base

439th Airlift Wing
Air Force Auxiliary
Westover Composite Squadron, NER-MA-015, Massachusetts Civil Air Patrol
Army
302nd Maneuver Enhancement Brigade
287th Medical Detachment, 804th Medical Brigade
226th Transportation Company (Railway Operating)
Navy
Naval Mobile Construction Battalion-27
Marine Corps
Marine Wing Support Squadron, Detachment B
Marine Air Support Squadron 6
Machine Gun Platoon, Support Company, Anti-Terrorism Battalion, 4th Marine Division
All Services
Springfield Military Entrance Processing Station

Appendix C – Employment Detail

Data limitations do not allow us to report this level of detail for each installation, but where available we have included the breakdowns by employment or service membership below.

Barnes Air National Guard Base Employment and Payroll

| Employment Data | # Active Military Full-Time & Part-Time | # Reserve Force Military Full-Time & Part-Time | # DOD Civilian Full-Time & Part-Time | # Non-DOD Civilian Full-Time & Part-Time |
|--|---|--|--------------------------------------|--|
| Total Employment or Service Membership (full-time and part-time) | 169 | 785 | 290 | 73 |

| Payroll Data | \$ Active Military Full-Time & Part-Time | \$ Reserve Force Military Full-Time & Part-Time | \$ DOD Civilian Full-Time & Part-Time | \$ Non-DOD Civilian Full-Time & Part-Time |
|---|--|---|---------------------------------------|---|
| Total Gross Payroll (including salary and benefits) | \$13,095,541 | \$15,508,191 | \$27,146,900 | \$3,815,462 |

Hanscom Air Force Base Employment and Payroll

| Employment Data | # Active Military Full-Time & Part-Time | # Reserve Force Military Full-Time & Part-Time | # DOD Civilian Full-Time & Part-Time | # Non-DOD Civilian Full-Time & Part-Time (NAF) |
|--|---|--|--------------------------------------|--|
| Total Employment or Service Membership (full-time and part-time) | 922 | 92 | 2,037 | 577 |

*These employment data do not include approximately 2,200 contractor personnel on base. (NAF) stands for non-appropriated fund.

| Payroll Data (DP & FM) | \$ Active Military Full-Time & Part-Time | \$ Reserve Force Military Full-Time & Part-Time | \$ DOD Civilian Full-Time & Part-Time | \$ Non-DOD Civilian Full-Time & Part-Time (NAF) |
|---|--|---|---------------------------------------|---|
| Total Gross Payroll (including salary and benefits) | \$203,006,033 | \$1,753,520 | \$346,000,000 | \$38,205,000 |

Employment by State of Residence

In a follow-up to our original data request, we asked the military installations if they could provide us additional detail on the location of residence for their employees. The following table shows these estimates for FY 2011.

| Employment by Residence | Total | Barnes ANG Base | Fort Devens | Hanscom AFB | MMR | Natick SSC | Westover ARB |
|---|---------------|----------------------------|------------------------|------------------------|--------------|-----------------------|-------------------------|
| <i>CT</i> | 599 | 72 | | 8 | 22 | 5 | 493 |
| <i>ME</i> | 73 | 9 | | 15 | 6 | 4 | 39 |
| <i>MA</i> | 9,125 | 1,133 | | 2,902 | 1,869 | 1,512 | 1,709 |
| <i>NH</i> | 905 | 23 | | 680 | 46 | 22 | 134 |
| <i>RI</i> | 231 | 7 | | 23 | 42 | 34 | 125 |
| <i>VT</i> | 44 | 12 | | 0 | 2 | 0 | 29 |
| <i>Other</i> | 589 | 61 | | 0 | 93 | 35 | 399 |
| <i>Unknown</i> | 3,080 | 0 | 1,895 | 0 | 181 | 0 | 1,003 |
| Total New England Resident Employees | 10,977 | 1,256 | | 3,628 | 1,988 | 1,577 | 2,529 |
| Total Employees | 14,646 | 1,317 | 1,895 | 3,628 | 2,262 | 1,612 | 3,931 |

Notes:

These are estimates derived from partial data reported by the installations to UMDI. Actual employment by state is reported when available and otherwise estimates are based on approximate ratios provided by the installations.

Employment by state of residence for Fort Devens could not be completed in time for this analysis.

MMR only includes the Coast Guard and Otis. The Air Force did not report any employees residing out of state, and Camp Edwards did not respond.