

**Regional Airport System Plan** 



New England Business
GA Activity – Analysis of
FAA Flight Plan Data

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In Association With:
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Tasks D3 and D4 Report December 19, 2012



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**Regional Airport System Plan** 



#### Sections 1-4

- 1. Introduction
- 2. Summary of Findings
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#### Introduction

### Objective of Task D – Evolution of General Aviation in New England

A primary objective of Task D is to develop an in-depth understanding of the nature and characteristics of business general aviation (GA) flying in New England by analyzing available GA activity data and conducting structured surveys and interviews of business GA users and service providers.

This *Task Report* presents the findings from the analysis of FAA activity data (Subtasks D3 and D4). GA operations data was collected from the FAA's Traffic Flow Management System Counts (TFMSC, formerly ETMSC) and analyzed to document:

- The level of business GA activity in the region and at individual airports.
- The types of aircraft used to conduct business GA operations in the region.
- The major origin and destination points.
- The level of intra-regional activity.

Structured surveys and interviews of business GA users and service providers were also conducted to assess:

- The role and function of business GA activity in the region.
- The airport facilities and services required to support current and future business GA.
- The perceived strengths, weaknesses, and priorities for improvement across New England's system of GA airports.

The findings and results from the surveys will be reported in a separate task report (Subtask D5).



#### **Summary of Findings**

#### Level of New England Business GA Activity (pages 16 –18)

- There were 168,000 GA IFR departures from New England airports in 2011.
- 75% of the region's GA IFR departures occurred at the Primary and National airports, which account for only 16% of the airports in the New England airport system. Regional airports, which represent 10% of system airports, accounted for 17% of the GA IFR departures.
- Hanscom is by far the region's busiest airport for business aviation. In 2011, Hanscom accommodated more than 22,000 GA IFR departures compared to 12,700 at Boston Logan, the next busiest airport for GA IFR departures.

#### New England Business GA Activity by Aircraft Type (pages 19–21)

44% of the region's GA IFR departures were operated with business jet aircraft. The jet share is highest at the Primary and National airports, where 50% of the GA IFR departures were operated with jet powered aircraft. The jet share at Regional airports was 30%.

At airports other than the Primary and National airports, piston-powered aircraft accounted for the majority of GA IFR departures: 46% at the Regional airports; 55% at Local airports; 67% at Basic airports; and almost 90% at all other airports.

#### New England Business GA Destinations (pages 22–40)

- The average stage length for all GA IFR departures from New England airports was 322 nautical miles (nm). The average stage length varies by airport category: approximately 350 nm at Primary/National airports; approximately 235 nm at Regional/Local/Basic airports; and about 165 nm at the Not Classified/Non-NPIAS airports.
- The FAA ASSET study used the number of flights over 500 nm as a useful measure for the geographical area served by an airport. In New England, 18% of the GA IFR departures involved stage lengths over 500 nm. Primary and National airports had the highest share of flights over 500 nm at approximately 20%. At Regional/Local airports, approximately 12% of flights were to destinations over 500 nm and at the smallest airports, the share was less than 5%.
- More than half of New England's GA IFR departures (57.1%) were destined to other U.S. airports outside New England. The majority of these flights (70.6%) are to airports in the FAA Eastern region.
- The top domestic airport destinations outside of New England were concentrated in the New York metropolitan area.
   Teterboro and Westchester County airports were the most frequented destinations for New England business GA, each with more that 10,000 annual departures in 2011. The other top non-New England domestic destinations rounding out the



#### **Summary of Findings** (continued)

- There were more than 26,000 GA IFR departures to long range destinations (over 500 nm). These flights involved more than 7,000 unique flight O&D segments and highlight the types of destinations that are accessed with general aviation outside the Northeast region. Top long haul flight segments included: Hanscom-West Palm Beach (321 departures); Portland-Chattanooga (234 departures); Hanscom-Chicago Midway (188 departures); Portland-Rowan County, North Carolina (175 departures); and Hanscom-Charlotte and Hanscom-Raleigh/Durham (each with 145 departures).
- The most frequently flown international routes are dominated by Eastern Canadian destinations. All but three of the top 20 international flight O&D segments involved destinations in Eastern Canada. There were approximately 5,000 GA IFR departures from New England airports to airports in Canada spread over nearly 900 unique flight O&D segments. The top Canadian flight O&Ds were Portland-Yarmouth (188 departures), Hartford Bradley-Montreal Saint Hubert (177 departures) and Boston Logan –Toronto Pearson (171 departures).
- There were approximately 1,200 GA IFR departures to Europe spread over 470 unique flight segments. Many of the top European flights departed from Bangor International Airport. These flights may originate in other parts of the country and use Bangor as a technical stop for re-fueling purposes.

#### Trend in New England Business GA Activity Levels 2006 to 2011

- Business aviation activity in New England, as measured by GA IFR departures, has declined by approximately 15% from 2006 to 2011.
   This trend is consistent with an overall declining trend in itinerant GA operations (including those flown VFR and IFR) at New England airports with FAA Air Traffic Control Towers. Over the same period, itinerant GA operations at the towered airports fell by 18%.
- □ The trend in business GA in New England mirrors trends in the broader U.S. GA market. Nationally, GA declined sharply as the result of the 2007-2009 economic recession. The sluggish pace of economic recovery has also affected the recovery in GA, which has not yet rebounded to pre-recession activity levels. From 2006 to 2011, general aviation and air taxi hours flown have declined by 11.9%. \1
- Despite the declines in regional flight activity, several airports experienced an increase in flights between 2006 and 2011. The airport that posted the largest net increases in GA IFR flights include: Portsmouth International Airport at Pease (+1,294); Westfield Barnes Municipal (+913); Block Island State (+638); Hartford Brainerd (+304); Newport State (+239) and Belfast Municipal (+213).
- Many airports experienced double-digit percentage declines in GA IFR flights from 2006 to 2011. The airports that showed the largest net decline in activity include: Boston Logan (-3,857); Hartford Bradley (-3,585); Hanscom Field (-3,547); Nashua Boire Field (-2,157); and Bangor (-1,623).

\1 FAA, Aerospace Forecast FY 2012-FY 2032 – Table 29.



#### **FAA Flight Plan Data**

#### Overview

The FAA's Traffic Flow Management System Counts (TFMSC) consists of data compiled from IFR flight plans filed by pilots and/or flights detected by the National Airspace System RADAR. The TFMSC data captures the following flight level data:

- Airport or city pair
- Flight type: domestic or international
- Type of operator: air carrier, air taxi, GA, freight, military, other (self-reported)
- Aircraft type
- Aircraft class: piston, turbine, jet, helicopter, other
- Weight class: heavy, 757, large jets, medium, small, other
- Business jet or regional jet
- Number of seats (generic, based on FAA aircraft database)
- Stage length (based on great circle distance)

#### **Limitations of the Data**

#### VFR Flights are not Included

It is important to note that a significant amount of GA flight activity, in New England as well as nationally, is performed under visual flight rules (VFR) and these operations are not captured in the TFMSC flight plan data. Therefore the analysis presented in this report is limited to IFR flights only. However, these IFR flights account for a high proportion of business GA activity and are likely to have the greatest impact on the local and regional economies.

#### Arrival Data are Incomplete

The flight counts reported in TFMSC are obtained from electronic flight plan messages and do not constitute a complete accounting of flights. Arriving and departing flights at an individual airport are normally balanced. However, at individual airports the TFMSC counts for arriving flights are often less than the departing flight counts because pilots may elect to cancel flight plans at the arrival stage. Since arrival counts are incomplete, the analysis in this study is based on departing flights.

#### Operator Type is Inaccurate

Another limitation of the database is that the information available for operator type is self-reported and not reliable. For example, in several instances operations with business aviation aircraft were reported as "air carrier". As a result, this field could not be used to identify true general aviation activity. Instead of relying on the operator type field, the data was screened by aircraft type and only activity conducted



#### FAA Flight Plan Data (continued)

with non-commercial aircraft was included in the analysis. Flight plan activity by commercial aircraft type was compared to airline activity from the U.S. DOT T-100 database to ensure that true commercial airline flights were excluded.

### Data not Accessible for Airports with Recent Flight Identifier Changes

Departing flights for four airports could not be accessed from the FAA database because the airport identifiers were changed but the software for accessing the data had not yet been updated with the new flight identifiers. The airports affected by this are: Brunswick Executive (BXM) in Maine, Caledonia County (CDA) in Vermont, Danielson (LZD) in Connecticut, and Marshfield Municipal (GHG) in Massachusetts. However, departing flights from other New England airports to these four airports were accessible and included in the analysis.



#### **Scope of the Analysis**

The base year for the analysis is 2011 and additional data for 2006 is used for trend analysis. As described previously, the analysis includes flights operated with an IFR flight plan and does not reflect flights operated with a VFR flight plan. The analysis only reflects flight activity that was reported or determined to represent general aviation. Commercial airline and military flights were excluded. The analysis includes both fixed wing and rotor wing activity. IFR GA activity at all New England public use airports, including commercial service airports and non-NPIAS GA airports, is reflected in the analysis.

Flight plan data was found for 133 of the 156 New England public use airports (109 NPIAS and 47 non-NPIAS) included in the study. A comparison of the GA IFR departures to itinerant GA departures at towered airports \(^2\) indicates that the flight plan data captures, on average, approximately 27% of all GA itinerant departures (IFR + VFR) at the selected airports. For some airports, the flight plan data represents a higher share of itinerant GA departures (e.g., 44% for Hanscom Field) and for other airports the capture share is significantly lower (e.g., 12% for Lawrence Municipal).

Airport classifications from the FAA NPIAS and the FAA ASSET study (*General Aviation Airports: A National Asset*, May 2012) were used to summarize the data.

#### **Airport Classification**

The NPIAS classification for general aviation airports is limited to two categories: reliever airports and general aviation airports. The ASSET study recognizes that the nation's nearly

3,000 general aviation airports fulfill a broad range of aviation functions and make varying levels of economic contribution to the communities they serve. The study created four general aviation airport categories:

**National** airports support the national and state system by providing communities with access to national and international markets. They accommodate a full range of aviation activity, including large corporate jet and multi-engine aircraft operations, significant charter passenger services, or all-cargo operations. They often work in conjunction with, and in support of, hub airports serving the aviation needs of larger metropolitan areas.

**Regional** airports support regional economies by connecting communities to statewide and interstate markets. These airports accommodate a full range of regional and local business activities, limited scheduled passenger service, or cargo operations. They serve corporate jet and multi-engine aircraft, as well as single-engine propeller aircraft.

**Local** airports supplement communities by providing access to primarily intrastate and some interstate markets. These airports accommodate small businesses, flight training, emergency service, charter passenger service, cargo operations, and personal flying activities.

\2 Excludes airports with significant regional airline service since regional airline operations and air taxi operations are comingled in FAA Tower counts.



#### **Scope of the Analysis** (continued)

They typically accommodate smaller general aviation aircraft, mostly single-engine propeller and some multi-engine aircraft.

**Basic** airports support general aviation activities such as emergency service, charter or critical passenger service, cargo operations, flight training, and personal flying. These airports typically accommodate mostly single-engine propeller aircraft. They may be located in, and provide service to, remote areas of the United States with limited or no surface transportation options, and therefore may be critical to the transportation of goods required for local day-to-day life.

The criteria used to classify airports into one of the four categories were:

- Number of IFR operations
- Jet and total based aircraft
- Enplanements
- IFR International flights
- IFR Interstate flights
- IFR Flights over 500 nm
- Cargo landed weight
- Location relative to a metropolitan area
- Remote location
- Nearest NPIAS airport
- Commercial service

- Public interest supported by government agencies (e.g., airport accommodates critical government services such as (U.S. Forest Service); law enforcement (U.S. Marshals Service, U.S. Customs and Border Protection, U.S. Forest Service, etc.)
- New or replacement airport
- Ownership

See **Appendix A** for the specific criteria that apply to each of the four airport categories.

Nearly 500 of the public-use NPIAS GA airports did not meet the criteria for any of the 4 ASSET categories. The FAA will continue their research to create suitable categories for the airports. Until then, these airports are identified as "Non-Classified".

The analysis in this report includes IFR GA flights that depart from the Primary Commercial Service airports. In total, the New England airports in this analysis are grouped into 7 categories:

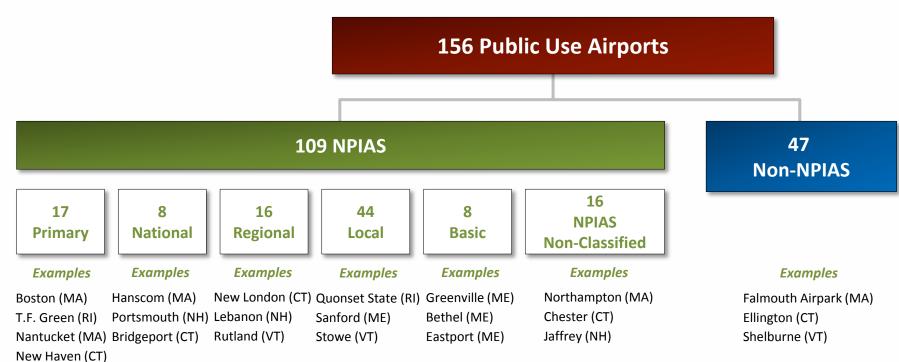
- National
- Regional
- Local
- Basic
- Non-Classified

A sixth category is used for the non-NPIAS airports:

Non-NPIAS



#### **New England GA Airports by Type**



Source: FAA ASSET Study May 2012 and FAA, 2011-2015 NPIAS Report.



## The Flight Plan Data Represents 27% of Itinerant GA Departures at New England's Towered Airports

### Comparison of Flight Plan Departures to GA Itinerant Departures from FAA Tower Counts

	2011 GA Departures					
			FAA	Flight	Flight Plan	
			Tower	Plan	as a Percent	
Airport	Code	State	Counts \1	Data \2	of Tower Counts	
Bedford/Hanscom	BED	MA	50,490	22,025	44%	
Danbury Municipal	DXR	CT	17,795	2,393	13%	
Hartford Brainard	HFD	CT	17,785	4,910	28%	
Bridgeport/Sikorsky Memorial	BDR	CT	16,322	4,891	30%	
Norwood Memorial	OWD	MA	15,692	4,103	26%	
Nashua Boire Field	ASH	NH	14,964	2,790	19%	
Waterbury-Oxford	OXC	CT	14,393	3,895	27%	
Beverly Municipal	BVY	MA	13,595	2,209	16%	
Lawrence Municipal	LWM	MA	13,566	1,563	12%	
Worcester	ORH	MA	13,357	1,539	12%	
Barnes Municipal	BAF	MA	12,132	2,945	24%	
Groton-New London	GON	CT	10,709	3,529	<u>33%</u>	
Total			210,797	56,792	27%	

Note: Excludes towered airports with significant commuter/regional airline services.

\1 Based on FAA, ATADS Tower Counts for Air Taxi and GA itinerant operations (times 0.5 for departures).

\2 FAA, ETMSC departures.



**Regional Airport System Plan** 

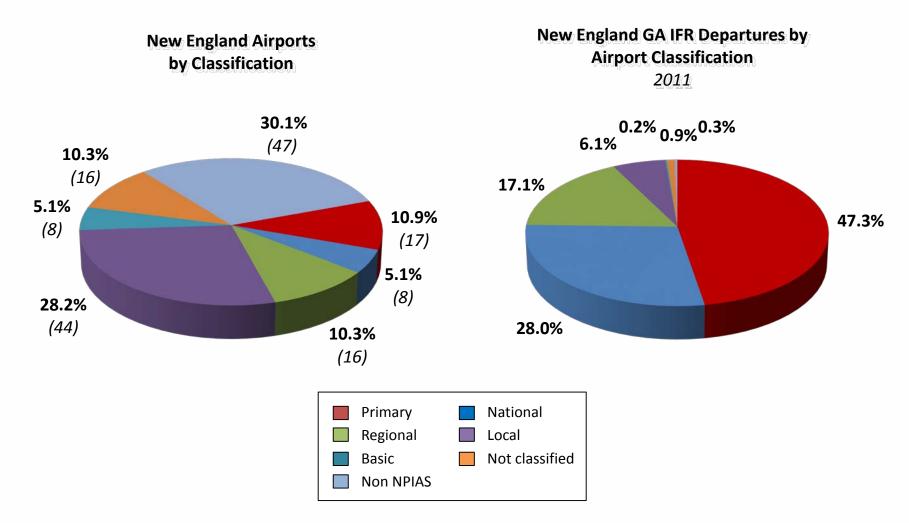


**Section 5** 

**Level of New England Business GA Activity** 



## Primary and National Airports Account for 16% of Facilities, But 75% of New England's GA IFR Flights



Source: FAA ASSET Study May 2012, FAA TFMSC Data and ICF SH&E Analysis



#### Hanscom is the Busiest New England Airport for GA IFR Flights

### Largest New England Airports Based on GA IFR Departures 2011

Rank	Airport	State	FAA Category	GA IFR Departures	Percent of Total NE	Cumm. % of Total
4	Dadfard/Ulasassas	B 4 A	NI-CI	00.005	40.40/	40.40/
1	Bedford/Hanscom	MA	National	22,025	13.1%	13.1%
2	Boston Logan	MA	Primary	12,735	7.5%	20.6%
3	Nantucket Memorial	MA	Primary	9,657	5.7%	26.3%
4	Hartford Bradley	CT	Primary	8,800	5.2%	31.5%
5	Manchester	NH	Primary	6,504	3.9%	35.4%
6	Burlington	VT	Primary	6,194	3.7%	39.1%
7	Portland Intl Jetport	ME	Primary	5,691	3.4%	42.4%
8	Martha's Vineyard	MA	Primary	5,196	3.1%	45.5%
9	Providence TF Green	RI	Primary	5,141	3.0%	48.6%
10	Bangor	ME	Primary	5,077	3.0%	51.6%
	All Other			81,702	48.4%	
	Total			168,722	100.0%	

Source: FAA ASSET Study May 2012, FAA TFMSC Data and ICF SH&E Analysis



**Regional Airport System Plan** 



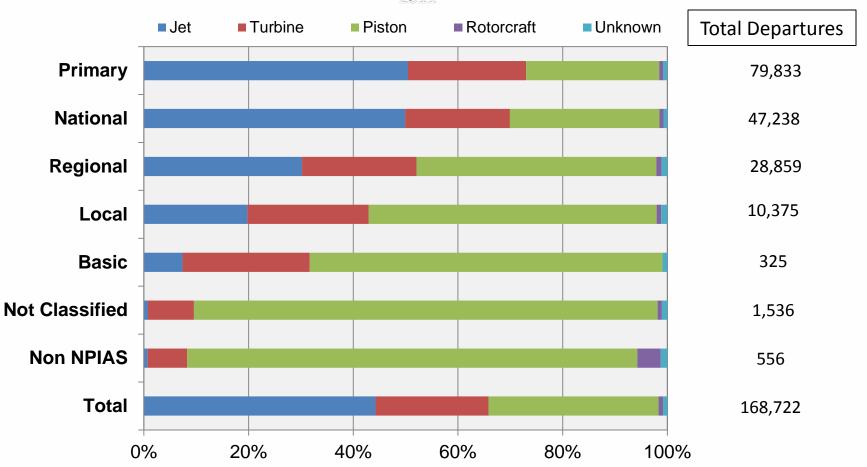
Section 6

**Business GA Activity by Aircraft Type** 



#### 44% of New England's GA IFR Flights are Operated with Jet Aircraft

### New England GA IFR Departures by Aircraft Class 2011



Source: FAA ASSET Study May 2012, FAA TFMSC Data and ICF SH&E Analysis



## **Top Aircraft Types by Aircraft Category for New England Business Aviation**

Jets Turboprops Pistons

Rank	Aircraft Type	GA IFR Departures	Cum. Share
1 2 3 4 5 6 7 8 9	Cessna Excel/XLS BAe HS 125/700-800/Hawker 800 Gulfstream IV/G400 Raytheon/Beech Beechjet 400/T-1 Bombardier Challenger 600/601/604 Cessna Citation X Cessna Citation V/Ultra/Encore Dassault Falcon 2000 Bombardier Challenger 300 Cessna Citation Sovereign All Other	8,058 6,561 5,111 4,677 4,512 3,792 3,368 3,321 3,057 3,047	10.8% 19.6% 26.4% 32.7% 38.7% 43.8% 48.3% 52.8% 56.9% 60.9%
	Total	74,665	

Rank	Aircraft Type	GA IFR Departures	Cum. Share
1	Pilatus PC-12	10,708	29.4%
2	Beech Airliner 99	4,975	43.1%
3	Piaggio P-180 Avanti	2,499	49.9%
4	Cessna 208 Caravan	2,456	56.7%
5	Beech 200 Super King	1,989	62.1%
6	Raytheon 300 Super King Air	1,885	67.3%
7	Beech King Air 90	1,592	71.7%
8	Beech King Air 100 A/B	1,375	75.5%
9	Beech Super King Air 350	1,232	78.8%
10	Socata TBM-850	1,113	81.9%
	All Other	6,594	100.0%
	Total	36,418	

Rank	Aircraft Type	GA IFR Departures	Cum. Share
1	Beech 58	5,862	10.7%
2	Cessna Skyhawk 172/Cutlass	5,543	20.8%
3	Cirrus SR 22	4,422	28.9%
4	Piper Navajo PA-31	3,265	34.9%
5	Piper Cherokee	3,225	40.7%
6	Cessna Skylane 182	3,041	46.3%
7	Beech Bonanza 36	2,862	51.5%
8	Piper Cherokee Six	1,625	54.5%
9	Mooney M-20C Ranger	1,421	57.1%
10	Piper PA-34 Seneca	1,375	59.6%
	All Other	22,133	100.0%
	Total	54,774	



**Regional Airport System Plan** 



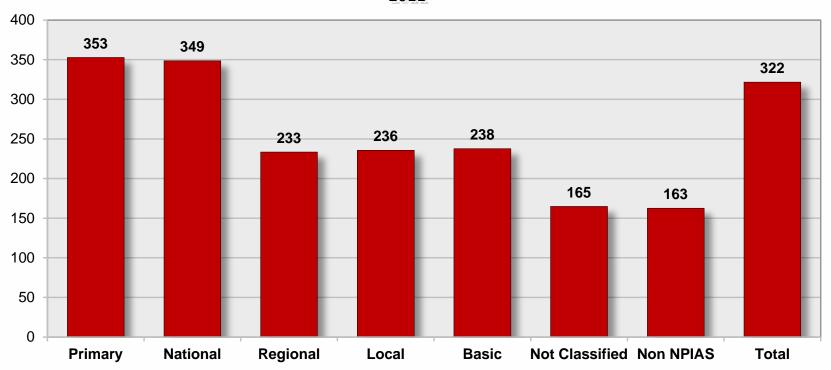
**Section 7** 

**Business GA Destinations** 



## The Average Stage Length for New England GA IFR Flights is 322 Nautical Miles

### Weighted Average Stage Length for New England GA IFR Departures 2011



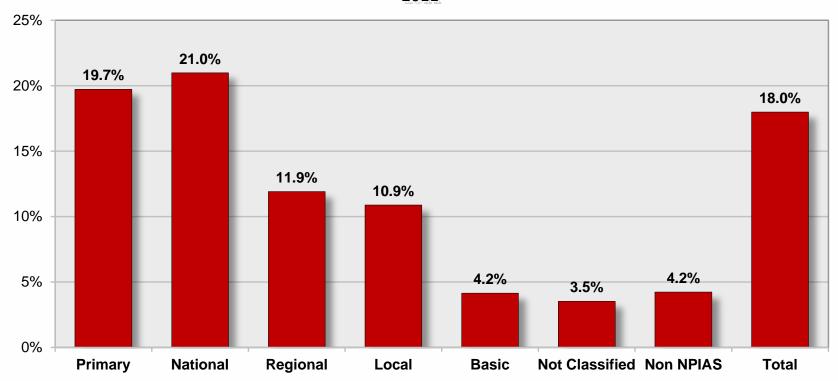
Note: Average Stage Length Weighted by Departures, Does Not Include Departures Where No Mileage Was Given

Source: FAA ASSET Study May 2012, FAA TFMSC Data and ICF SH&E Analysis



## 18% of the New England GA IFR Flights Have Stage Lengths Over 500 Nautical Miles

### Percent of New England IFR GA Departures Greater Than 500 Nautical Miles 2011

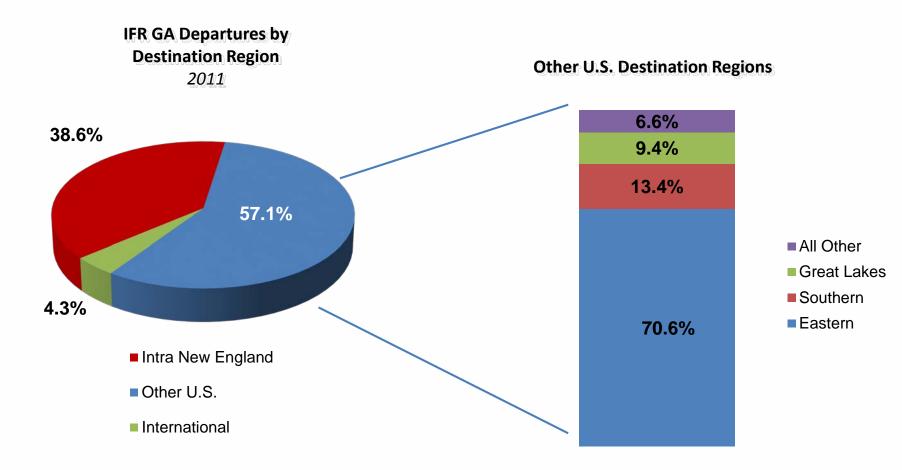


Note: Does Not Include Departures Where No Mileage Was Given

Source: FAA ASSET Study May 2012, FAA TFMSC Data and ICF SH&E Analysis



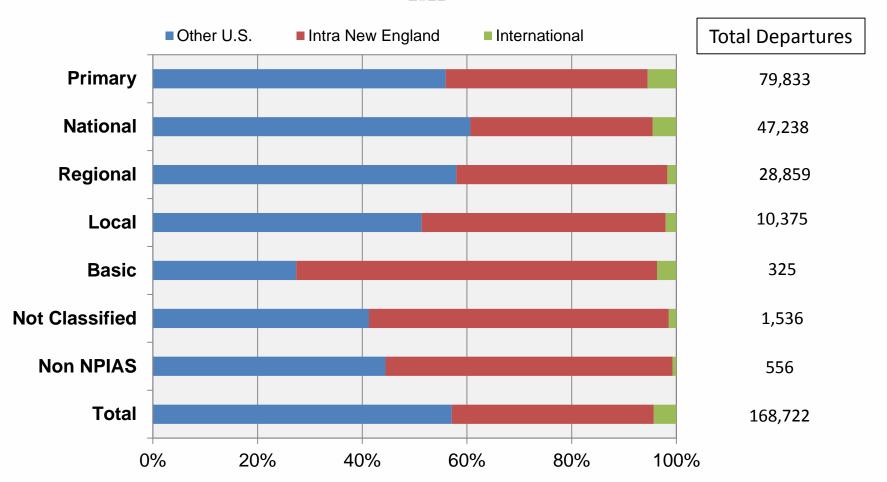
## 57% of GA IFR Flights are to Domestic Destinations Outside the Region and 39% are Intra-New England





# Over Half of the Flights from New England's Largest Airports are to Destinations Outside the Region

### New England GA IFR Departures by Destination Region 2011

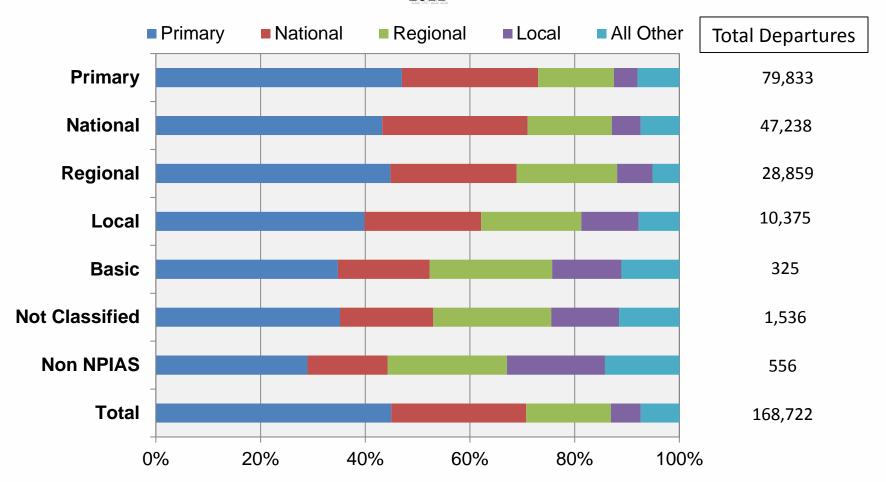


Source: FAA ASSET Study May 2012, FAA TFMSC Data and ICF SH&E Analysis



#### 45% of New England's Flights are to Primary Airports

### New England GA IFR Departures by Destination Airport Type 2011



Note: All Other Includes Basic, Non Classified, Non NPIAS and International Airports

Source: FAA ASSET Study May 2012, FAA TFMSC Data and ICF SH&E Analysis



## New York Metro Area Airports are the Top Domestic Destinations Outside New England

# All New England Airports Top Domestic Destinations Outside New England CY 2011

Rank	Airport	State	Region	GA IFR Arrivals	% of Total
1	Teterboro	NJ	Eastern	10,649	11.1%
2	Westchester County	NY	Eastern	10,336	10.7%
3	Farmingdale Republic	NY	Eastern	2,779	2.9%
4	Washington Dulles	DC	Eastern	2,716	2.8%
5	Morristown	NJ	Eastern	2,642	2.7%
6	Islip	NY	Eastern	1,624	1.7%
7	Philadelphia	PA	Eastern	1,229	1.3%
8	Albany	NY	Eastern	1,214	1.3%
9	East Hampton	NY	Eastern	1,212	1.3%
10	Trenton Mercer	NJ	Eastern	1,155	1.2%
	All Other			60,772	63.1%
	Total			96,328	100.0%



## For Primary Airports, Teterboro and Westchester County are the Top Domestic Destinations

# Primary Airports Top Domestic Destinations Outside New England CY 2011

Rank	Airport	State	Region	GA IFR Arrivals	% of Total
Ralik	Airport	State	Region	Allivais	76 OI TOLAT
1	Teterboro	NJ	Eastern	5,399	12.1%
2	Westchester County	NY	Eastern	5,106	11.4%
3	Washington Dulles	DC	Eastern	1,477	3.3%
4	Morristown	NJ	Eastern	1,199	2.7%
5	Farmingdale Republic	NY	Eastern	1,102	2.5%
6	Philadelphia	PA	Eastern	672	1.5%
7	Trenton Mercer	NJ	Eastern	600	1.3%
8	Caldwell Essex County	NJ	Eastern	534	1.2%
9	East Hampton	NY	Eastern	526	1.2%
10	Albany	NY	Eastern	516	1.2%
	All Other			27,513	61.6%
	Total			44,644	100.0%



## For National Airports, Teterboro and Westchester County are also the Top Domestic Destinations

# National Airports Top Domestic Destinations Outside New England CY 2011

Rank	Airport	State	Region	GA IFR Arrivals	% of Total
			_		
1	Teterboro	NJ	Eastern	3,198	11.2%
2	Westchester County	NY	Eastern	2,631	9.2%
3	Morristown	NJ	Eastern	899	3.1%
4	Farmingdale Republic	NY	Eastern	783	2.7%
5	Washington Dulles	DC	Eastern	750	2.6%
6	Islip	NY	Eastern	468	1.6%
7	West Palm Beach	FL	Southern	468	1.6%
8	Syracuse	NY	Eastern	453	1.6%
9	Trenton Mercer	NJ	Eastern	406	1.4%
10	East Hampton	NY	Eastern	365	1.3%
	All Other			18,235	63.6%
	Total			28,656	100.0%



## For Regional Airports, Westchester County and Teterboro are the Top Domestic Destinations

# Regional Airports Top Domestic Destinations Outside New England from Regional New England Airports CY~2011

Rank	Airport	State	Region	GA IFR Arrivals	% of Total
	<u> </u>		<u> </u>		
1	Westchester County	NY	Eastern	1,753	10.5%
2	Teterboro	NJ	Eastern	1,652	9.9%
3	Farmingdale Republic	NY	Eastern	659	3.9%
4	Islip	NY	Eastern	513	3.1%
5	Washington Dulles	DC	Eastern	422	2.5%
6	Albany	NY	Eastern	410	2.5%
7	Morristown	NJ	Eastern	398	2.4%
8	Newport News Hampton	VA	Eastern	344	2.1%
9	Northeast Philadelphia	PA	Eastern	226	1.4%
10	East Hampton	NY	Eastern	213	1.3%
	All Other			10,142	60.6%
	Total			16,732	100.0%



# For Local Airports, Westchester County and Teterboro are the Top Domestic Destinations

Local Airports

Top Domestic Destinations Outside New England

CY 2011

Rank	Airport	State	Region	GA IFR Arrivals	% of Total
1	Westchester County	NY	Eastern	740	13.9%
2	Teterboro	NJ	Eastern	365	6.9%
3	Farmingdale Republic	NY	Eastern	202	3.8%
4	Morristown	NJ	Eastern	131	2.5%
5	Caldwell Essex County	NJ	Eastern	107	2.0%
6	East Hampton	NY	Eastern	85	1.6%
7	Islip	NY	Eastern	85	1.6%
8	Northeast Philadelphia	PA	Eastern	67	1.3%
9	Washington Dulles	DC	Eastern	65	1.2%
10	Doylestown	PA	Eastern	58	1.1%
	All Other			3,421	64.2%
	Total			5,326	100.0%



### Top Domestic Destinations Outside New England for Basic, Not Classified and Non NPIAS Airports

# Basic, Not Classified and Non NPIAS Airports Top Domestic Destinations Outside New England CY 2011

Rank	Airport	State	Region	GA IFR Arrivals	% of Total
			J. J.		
1	Westchester County	NY	Eastern	106	10.9%
2	Islip	NY	Eastern	57	5.9%
3	Teterboro	NJ	Eastern	35	3.6%
4	Farmingdale Republic	NY	Eastern	33	3.4%
5	East Hampton	NY	Eastern	23	2.4%
6	Albany	NY	Eastern	19	2.0%
7	Somerset	NJ	Eastern	17	1.8%
8	Caldwell Essex County	NJ	Eastern	15	1.5%
9	Morristown	NJ	Eastern	15	1.5%
10	Newburgh Stewart	NY	Eastern	15	1.5%
	All Other			635	65.5%
	Total			970	100.0%



## Airports Serving Major Cities and Cape/Island Markets are the Top Intra-New England Destinations for GA IFR Flights

### Top Intra-New England Destinations from All New England Airports 2011

			GA IFR	
Rank	Airport	State	Arrivals	% of Total
1	Bedford/Hanscom	MA	5,541	8.5%
2	Nantucket Memorial	MA	4,650	7.1%
3	Manchester	NH	4,358	6.7%
4	Boston Logan	MA	2,866	4.4%
5	Martha's Vineyard	MA	2,834	4.4%
6	Portsmouth Intl at Pease	NH	2,386	3.7%
7	Burlington	VT	2,346	3.6%
8	Portland Intl Jetport	ME	2,215	3.4%
9	Hartford Bradley	CT	1,989	3.1%
10	Hyannis Barnstable Municipal	MA	1,837	2.8%
	All Other		34,099	52.4%
	Total		65,121	100.0%



#### **Top Destinations for Intra-New England Flights from Primary Airports**

# Primary Airports Top Intra-New England Destinations 2011

			GA IFR	
Rank	Airport	State	Arrivals	% of Total
1	Bedford/Hanscom	MA	2,843	9.2%
2	Manchester	NH	2,407	7.8%
3	Nantucket Memorial	MA	1,910	6.2%
4	Boston Logan	MA	1,431	4.6%
5	Burlington	VT	1,395	4.5%
6	Portland Intl Jetport	ME	1,233	4.0%
7	Portsmouth Intl at Pease	NH	1,172	3.8%
8	Martha's Vineyard	MA	1,152	3.7%
9	Bangor	ME	1,109	3.6%
10	Hyannis Barnstable Municipal	MA	1,031	3.3%
	All Other		15,136	49.1%
	Total		30,819	100.0%



# **Top Destinations for Intra-New England Flights from National Airports**

National Airports
Top Intra-New England Destinations
2011

Rank	Airport	State	GA IFR Arrivals	% of Total
1 2 3 4 5 6 7 8 9	Nantucket Memorial Bedford/Hanscom Martha's Vineyard Portsmouth Intl at Pease Nashua Boire Field Boston Logan Hartford Bradley Hartford Brainard Burlington Barnes Municipal	MA MA MA NH NH CT CT CT VT MA	1,584 1,383 942 664 652 641 581 544 512 472	9.6% 8.4% 5.7% 4.0% 4.0% 3.9% 3.5% 3.3% 3.1% 2.9%
	All Other		8,456	51.5%
	Total		16,431	100.0%



# **Top Destinations for Intra-New England Flights from Regional Airports**

Regional Airports

Top Intra-New England Destinations

2011

Doub	Alimo and	Ctata	GA IFR	0/ of <b>T</b> otal
Rank	Airport	State	Arrivals	% of Total
1	Manchester	NH	1,101	9.5%
2	Nantucket Memorial	MA	912	7.8%
3	Bedford/Hanscom	MA	847	7.3%
4	Boston Logan	MA	635	5.5%
5	Martha's Vineyard	MA	536	4.6%
6	Hartford Bradley	CT	402	3.5%
7	Norwood Memorial	MA	396	3.4%
8	Beverly Municipal	MA	335	2.9%
9	Portland Intl Jetport	ME	329	2.8%
10	Bridgeport Igor I Sikorsky Memorial	CT	325	2.8%
	All Other		5,809	50.0%
	Total		11,627	100.0%



#### **Top Destinations for Intra-New England Flights from Local Airports**

Local Airports

Top Intra-New England Destinations

2011

Rank	Airport	State	GA IFR Arrivals	% of Total
Nank	Allport	State	Ailivais	/6 01 10ta1
1	Manchester	NH	534	11.0%
2	Bedford/Hanscom	MA	415	8.6%
3	Nantucket Memorial	MA	194	4.0%
4	Burlington	VT	181	3.7%
5	Portsmouth Intl at Pease	NH	172	3.6%
6	Portland Intl Jetport	ME	169	3.5%
7	Martha's Vineyard	MA	153	3.2%
8	Bridgeport Igor I Sikorsky Memorial	CT	152	3.1%
9	Nashua Boire Field	NH	133	2.8%
10	Boston Logan	MA	132	2.7%
	All Other		2,600	53.8%
	Total		4,835	100.0%



## Top Destinations for Intra-New England Flights from Basic, Not Classified and Non NPIAS Airports

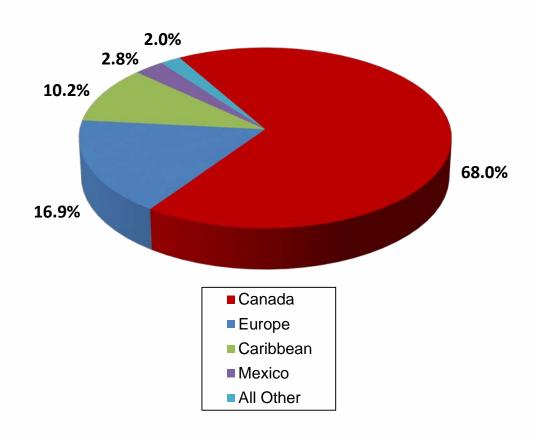
# Basic, Not Classified and Non NPIAS Airports Top Intra-New England Destinations 2011

Rank	Airport	State	GA IFR Arrivals	% of Total
1	Pangor	ME	103	7.3%
2	Bangor Portsmouth Intl at Pease	NH	57	4.0%
3	Bedford/Hanscom	MA	53	3.8%
4	Martha's Vineyard	MA	51	3.6%
5	Nantucket Memorial	MA	50	3.5%
6	Portland Intl Jetport	ME	48	3.4%
7	Hartford Brainard	CT	44	3.1%
8	Augusta State	ME	42	3.0%
9	Norwood Memorial	MA	42	3.0%
10	Northampton	MA	40	2.8%
	All Other		879	62.4%
	Total		1,409	100.0%



## Overall, 68% of International GA IFR Departures are Destined for Canadian Points

Top International Destination Regions for GA IFR Departures 2011





**Regional Airport System Plan** 



**Section 8** 

**Business GA Origin-Destination Segments** 



#### The Top Flight Segments Involve Boston and New York Area Airports

#### **Top GA IFR Flight O&D Segments**

2011

Rank	Origin	Destination	Nautical Miles	GA IFR Departures	% of Total
1	Bedford/Hanscom	Teterboro	157	1,892	1.1%
2	Boston Logan	Teterboro	164	1,625	1.1%
3	Nantucket Memorial	Westchester County	165	•	0.7%
4	Bedford/Hanscom	Westchester County	137	1,082	0.7 %
5	Hartford Bradley	Teterboro	90	815	0.5%
6	Boston Logan	Westchester County	143	755	0.4%
7	Bedford/Hanscom	Nantucket Memorial	91	685	0.4%
8	Martha's Vineyard	Westchester County	141	643	0.4%
9	Nantucket Memorial	Bedford/Hanscom	91	640	0.4%
10	Nantucket Memorial	Teterboro	182	627	0.4%
11	Hyannis Barnstable Municipal	Nantucket Memorial	27	610	0.4%
12	Manchester	Burlington	118	593	0.4%
13	Waterbury-Oxford	Westchester County	36	563	0.3%
14	Burlington	Manchester	118	549	0.3%
15	Nantucket Memorial	Hyannis Barnstable Municipal	27	533	0.3%
16	Bedford/Hanscom	Martha's Vineyard	71	507	0.3%
17	Bedford/Hanscom	Bedford/Hanscom	0	499	0.3%
18	Martha's Vineyard	Teterboro	159	472	0.3%
19	Hartford Bradley	Westchester County	70	467	0.3%
20	Manchester	Bangor	159	466	0.3%
	Subtotal Top 20			15,205	9.0%
	All Other			153,517	91.0%
	Total			168,722	100.0%

Note: There are 21,529 unique flight O&Ds.



# Bedford/Hanscom-Nantucket is the Top Flight Segment for Intra-New England GA IFR Activity

## **Top Intra-New England Flight O&D Segments 2011**

Rank	Origin	Destination	Nautical Miles	GA IFR Departures	% of Total
1	Bedford/Hanscom	Nantucket Memorial	91	685	1.1%
2	Nantucket Memorial	Bedford/Hanscom	91	640	1.0%
3	Hyannis Barnstable Municipal	Nantucket Memorial	27	610	0.9%
4	Manchester	Burlington	118	593	0.9%
5	Burlington	Manchester	118	549	0.8%
6	Nantucket Memorial	Hyannis Barnstable Municipal	27	533	0.8%
7	Bedford/Hanscom	Martha's Vineyard	71	507	0.8%
8	Bedford/Hanscom	Bedford/Hanscom	0	499	0.8%
9	Manchester	Bangor	159	466	0.7%
10	Bangor	Manchester	159	437	0.7%
11	Manchester	Portland Intl Jetport	65	427	0.7%
12	Martha's Vineyard	Bedford/Hanscom	71	421	0.6%
13	Boston Logan	Nantucket Memorial	79	419	0.6%
14	Portland Intl Jetport	Manchester	65	382	0.6%
15	Hartford Brainard	Manchester	90	365	0.6%
16	Manchester	Hartford Brainard	90	365	0.6%
17	Rutland-Southern Vermont Regional	Manchester	75	357	0.5%
18	Burlington	Burlington	0	354	0.5%
19	Nashua Boire Field	Nashua Boire Field	0	338	0.5%
20	Bedford/Hanscom	Hartford Bradley	70	331	0.5%
	Subtotal Top 20			9,278	14.2%
	All Other			55,843	85.8%
	Total			65,121	100.0%

Note: There are 5,003 unique intra-New England flight O&Ds.



# Bedford/Hanscom-Nantucket is the Top Segment for Intra-New England Flights

## **Top Intra-New England Flight O&D Segments 2011**

			Nautical	GA IFR	
Rank	Origin	Destination	Miles	Departures	% of Total
1	Bedford/Hanscom	Nantucket Memorial	91	685	1.1%
2	Nantucket Memorial	Bedford/Hanscom	91	640	1.0%
3	Hyannis Barnstable Municipal	Nantucket Memorial	27	610	0.9%
4	Manchester	Burlington	118	593	0.9%
5	Burlington	Manchester	118	549	0.8%
6	Nantucket Memorial	Hyannis Barnstable Municipal	27	533	0.8%
7	Bedford/Hanscom	Martha's Vineyard	71	507	0.8%
8	Bedford/Hanscom	Bedford/Hanscom	0	499	0.8%
9	Manchester	Bangor	159	466	0.7%
10	Bangor	Manchester	159	437	0.7%
11	Manchester	Portland Intl Jetport	65	427	0.7%
12	Martha's Vineyard	Bedford/Hanscom	71	421	0.6%
13	Boston Logan	Nantucket Memorial	79	419	0.6%
14	Portland Intl Jetport	Manchester	65	382	0.6%
15	Hartford Brainard	Manchester	90	365	0.6%
16	Manchester	Hartford Brainard	90	365	0.6%
17	Rutland-Southern Vermont Regional	Manchester	75	357	0.5%
18	Burlington	Burlington	0	354	0.5%
19	Nashua Boire Field	Nashua Boire Field	0	338	0.5%
20	Bedford/Hanscom	Hartford Bradley	70	331	0.5%
	Subtotal Top 20			9,278	14.2%
	All Other			55,843	85.8%
	Total			65,121	100.0%

## **Top Intra-New England O&D Market Pairs** *CY 2011*

Rank	O&D Market Pair	GA IFR Arr+Dep
1	Bedford/Hanscom-Nantucket Memorial	1,325
2	Hyannis Barnstable Municipal-Nantucket Memorial	1,143
3	Burlington-Manchester	1,142
4	Bedford/Hanscom-Martha's Vineyard	928
5	Bangor-Manchester	903
6	Manchester-Portland Intl Jetport	809
7	Boston Logan-Nantucket Memorial	742
8	Hartford Brainard-Manchester	730
9	Bedford/Hanscom-Portsmouth Intl at Pease	618
10	Hartford Brainard-Norwood Memorial	578
	Subtotal Top 10	8,918
	All Other	56,203
	Total	65,121

Note: Includes both directions.

Note: There are 5,003 unique directional flight O&Ds.



### Hanscom-Teterboro is the Top Segment for Domestic Flights Destined Outside New England

Top Other U.S. Flight O&D Segments 2011

Rank	Origin	Destination	Nautical Miles	GA IFR Departures	% of Total
1	Bedford/Hanscom	Teterboro	157	1,892	2.0%
2	Boston Logan	Teterboro	164	•	1.7%
3	Nantucket Memorial	Westchester County	165	,	1.7%
4	Bedford/Hanscom	Westchester County	137	, -	1.1%
5	Hartford Bradley	Teterboro	90	•	0.8%
6	Boston Logan	Westchester County	143		0.8%
7	Martha's Vineyard	Westchester County	141	643	0.7%
8	Nantucket Memorial	Teterboro	182		0.7%
9	Waterbury-Oxford	Westchester County	36	_	0.6%
10	Martha's Vineyard	Teterboro	159		0.5%
11	Hartford Bradley	Westchester County	70		0.5%
12	Bedford/Hanscom	Washington Dulles	351	465	0.5%
13	Providence TF Green	Teterboro	129		0.4%
14	Hartford Brainard	Teterboro	83	385	0.4%
15	Waterbury-Oxford	Teterboro	56		0.4%
16	Portsmouth Intl at Pease	Morristown	210	365	0.4%
17	Bedford/Hanscom	Syracuse	216	351	0.4%
18	Lebanon Municipal	Teterboro	184	324	0.3%
19	Bedford/Hanscom	West Palm Beach	1,040	321	0.3%
20	Groton-New London	Newport News Hampton	326	319	0.3%
	Subtotal Top 20			13,418	13.9%
	All Other			82,910	86.1%
	Total			96,328	100.0%

Note: There are 14,759 unique other U.S. flight O&D total segments



# Hanscom-West Palm Beach is the Top Segment for Domestic Flights with Stage Lengths Over 500 Nautical Miles

## Top Long Range Flight O&D Segments 2011

Rank	Origin	Destination	Nautical Miles	GA IFR Departures	% of Total
4	Dodford/Honocom	West Dalm Decah	4.040	204	4.00/
1	Bedford/Hanscom	West Palm Beach	1,040	321 234	1.2%
2 3	Portland Intl Jetport Bedford/Hanscom	Chattanooga	860 732	234 188	0.9% 0.7%
3 4		Chicago Midway	732 672		0.7%
4 5	Portland Intl Jetport Bedford/Hanscom	Rowan County Charlotte	672 626	175 145	0.7% 0.5%
5 6	Bedford/Hanscom		626 527	145 145	0.5% 0.5%
6 7	Bedford/Hanscom	Raleigh/Durham Boca Raton	1,058	145	0.5% 0.5%
, 8			745	127	0.5%
9	Boston Logan Bedford/Hanscom	Chicago Midway	1.105	100	0.5%
9 10	Bedford/Hanscom	Naples Municipal Columbus	543	87	0.4%
10	Bedford/Hanscom	Stuart Witham Field	1,015	84	0.3%
12		West Palm Beach	985	81	0.3%
13	Hartford Bradley Boston Logan	West Palm Beach	1,040	78	0.3%
14	Bedford/Hanscom	Savannah	779	78	0.3%
15	Boston Logan	Pontiac	548	76 74	0.3%
16	Bedford/Hanscom	Spirit of Saint Louis	909	74 71	0.3%
17	Boston Logan	Atlanta De Kalb Peachtree	806	70	0.3%
18	Boston Logan	Chicago Executive	749	68	0.3%
19	Bedford/Hanscom	Minneapolis	958	67	0.3%
20	Providence TF Green	West Palm Beach	998	66	0.2%
20	Subtotal Top 20	Woot Famil Boach	330	2,382	9.0%
	All Other			24,083	91.0%
	Total			26,465	100.0%

Note: There are total 7,135 unique long range flight O&Ds



# **Eastern Canada Airports are the Top Destinations for International Flights**

## **Top International Flight O&D Segments 2011**

Rank	Origin	Destination	Nautical Miles	GA IFR Departures	% of Total
1	Portland Intl Jetport	Yarmouth	183	188	2.6%
2	Hartford Bradley	Montreal Saint Hubert	217	177	2.4%
3	Boston Logan	Toronto	386	171	2.4%
4	Hartford Bradley	Ottawa	241	166	2.3%
5	Boston Logan	Montreal Dorval	221	157	2.2%
6	Bedford/Hanscom	Toronto	372	152	2.1%
7	Hartford Bradley	Montreal Dorval	216	146	2.0%
8	Bedford/Hanscom	Montreal Dorval	209	144	2.0%
9	Bangor	Goose Bay	607	141	1.9%
10	Bangor	Saint John's	686	106	1.5%
11	Bedford/Hanscom	Bermuda	698	93	1.3%
12	Bedford/Hanscom	Saint John	289	93	1.3%
13	Portsmouth Intl at Pease	Saint John	251	85	1.2%
14	Bangor	Halifax	226	69	0.9%
15	Nantucket Memorial	Toronto	448	61	0.8%
16	Hartford Bradley	Toronto	322	60	0.8%
17	Portland Intl Jetport	Halifax	302	60	0.8%
18	Bedford/Hanscom	Nassau	1,089	57	0.8%
19	Bangor	London Luton	2,659	56	0.8%
20	Bedford/Hanscom	Ottawa	255	51	0.7%
	Subtotal Top 20			2,233	30.7%
	All Other			5,040	69.3%
	Total			7,273	100.0%

Note: There are total 1,767 unique international flight O&Ds



### **Top Segments for Canadian Flights**

## **Top Canadian Flight O&D Segments** 2011

Rank	Origin	Destination	Nautical Miles	GA IFR Departures	% of Total
1	Portland Intl Jetport	Yarmouth	183	188	3.8%
2	Hartford Bradley	Montreal Saint Hubert	217	177	3.6%
3	Boston Logan	Toronto	386	171	3.5%
4	Hartford Bradley	Ottawa	241	166	3.4%
5	Boston Logan	Montreal Dorval	221	157	3.2%
6	Bedford/Hanscom	Toronto	372	152	3.1%
7	Hartford Bradley	Montreal Dorval	216	146	3.0%
8	Bedford/Hanscom	Montreal Dorval	209	144	2.9%
9	Bangor	Goose Bay	607	141	2.9%
10	Bangor	Saint John's	686	106	2.1%
11	Bedford/Hanscom	Saint John	289	93	1.9%
12	Portsmouth Intl at Pease	Saint John	251	85	1.7%
13	Bangor	Halifax	226	69	1.4%
14	Nantucket Memorial	Toronto	448	61	1.2%
15	Hartford Bradley	Toronto	322	60	1.2%
16	Portland Intl Jetport	Halifax	302	60	1.2%
17	Bedford/Hanscom	Ottawa	255	51	1.0%
18	Bangor	Saint John	128	50	1.0%
19	Burlington	Montreal Dorval	65	48	1.0%
20	Portsmouth Intl at Pease	Montreal Dorval	190	39	0.8%
	Subtotal Top 20			2,164	43.7%
	All Other			2,783	56.3%
	Total			4,947	100.0%

Note: There are total 893 unique Canadian O&Ds Source: FAA TFMSC Data and ICF SH&E Analysis



### **Top Segments for European Flights**

## **Top Europe Flight O&D Segments**2011

Rank	Origin	Destination		GA IFR epartures	% of Total
	_				
1	Bangor	London Luton	2,659	56	4.5%
2	Bedford/Hanscom	London Luton	2,828	50	4.1%
3	Bangor	Paris Le Bourget	2,822	37	3.0%
4	Bedford/Hanscom	Paris Le Bourget	2,988	30	2.4%
5	Bangor	Shannon	2,344	24	1.9%
6	Bangor	London Stansted	2,679	23	1.9%
7	Bedford/Hanscom	Mulhouse/Basel	3,209	22	1.8%
8	Bangor	Farnborough	2,656	20	1.6%
9	Bangor	Reykjavik Keflavik	1,915	19	1.5%
10	Boston Logan	Paris Le Bourget	2,981	17	1.4%
11	Boston Logan	London Luton	2,822	17	1.4%
12	Bangor	Zurich	3,081	16	1.3%
13	Bangor	Dublin	2,427	13	1.1%
14	Bangor	Nice	3,141	13	1.1%
15	Bedford/Hanscom	Dublin	2,597	12	1.0%
16	Bedford/Hanscom	Farnborough	2,824	12	1.0%
17	Bangor	Geneva	3,026	12	1.0%
18	Bangor	Munich	3,171	12	1.0%
19	Hartford Bradley	London Luton	2,896	11	0.9%
20	Hartford Bradley	Paris Le Bourget	3,057	10	0.8%
	Subtotal Top 20			426	34.6%
	All Other			805	65.4%
	Total			1,231	100.0%

Note: There are total 470 unique European O&Ds Source: FAA TFMSC Data and ICF SH&E Analysis



**Regional Airport System Plan** 



Section 9

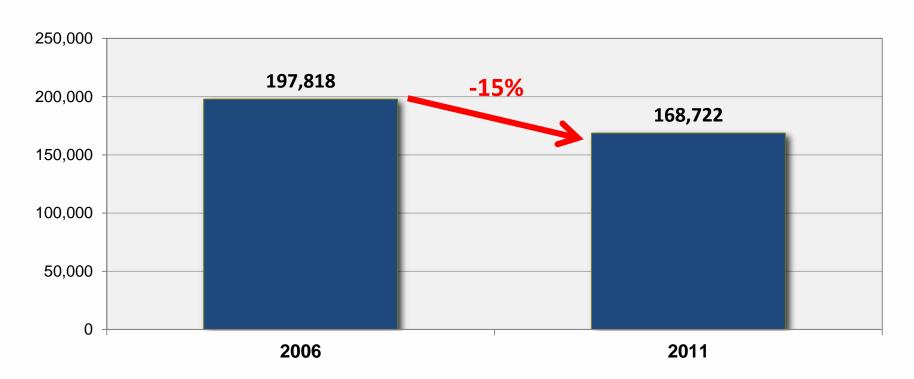
**Business GA Activity Trends 2006 to 2010** 



## New England's GA IFR Departures Declined by 15% from 2006 to 2011

#### **GA IFR Departures from New England Airports**

2006 vs. 2011



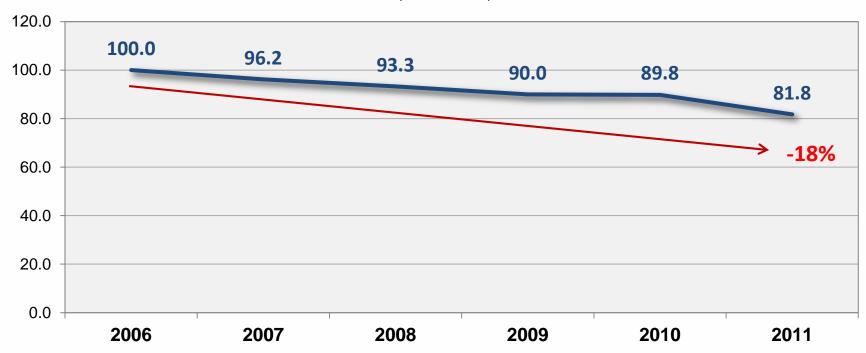
Source: FAA, TFMSC departures



## Total GA Itinerant Operations (IFR+VFR) at Towered Airports Have Declined at a Similar Rate

### Index of Itinerant GA Operations at New England Towered Airports 2006 to 2011

(2006 = 100.0)



Note: Includes BAF, BED, BVY, BDR, DXR, GON, HFD, LWM, ASH, OWD, OXC, ORH

Source: Based on FAA, ATADS Tower Counts for Air Taxi and GA itinerant operations for airports without significant commuter/regional airline services.



#### Despite the Overall Decline in Activity, Several Airports Have Shown Growth

Top 20 Airports Showing the Increases in GA IFR Flights 2006 to 2011

			FAA _		GA IFR De	epartures	
Rank	Airport	State	Category	2006	2011		% Change
1	Portsmouth Intl at Pease	NH	National	3,756	5,050	1,294	34.5%
2	Barnes Municipal	MA	National	2,032	2,945	913	44.9%
3	Block Island State	RI	Regional	553	1,191	638	115.4%
4	Hartford Brainard	CT	Regional	4,606	4,910	304	6.6%
5	Newport State	RI	Local	582	821	239	41.1%
6	Belfast Municipal	ME	Local	82	295	213	259.8%
7	Beverly Municipal	MA	Regional	2,035	2,209	174	8.6%
8	Westerly State	RI	Primary	530	702	172	32.5%
9	Meriden Markham Municipal	CT	Local	235	376	141	60.0%
10	Laconia Municipal	NH	Regional	1,531	1,617	86	5.6%
11	Tweed-New Haven	CT	Primary	2,774	2,843	69	2.5%
12	Northampton	MA	Not Classified	253	312	59	23.3%
13	Minute Man Air Field	MA	Not Classified	195	245	50	25.6%
14	Falmouth Airpark	MA	Non NPIAS	113	149	36	31.9%
15	Windham	CT	Local	227	258	31	13.7%
16	Middlebury State	VT	Local	49	76	27	55.1%
17	Fitchburg Municipal	MA	Local	440	459	19	4.3%
18	Twitchell	ME	Non NPIAS	8	26	18	225.0%
19	Chatham Municipal	MA	Local	380	396	16	4.2%
20	Biddeford Municipal	ME	Local	122	138	16	13.1%



## The Busiest Airports for GA IFR Flights, Have Had the Steepest Declines

**Top 20 Airports Showing Declines in GA IFR Flights 2006 to 2011** 

			FAA _		GA IFR De	epartures	
Rank	Airport	State	Category	2006	2011	Change	% Change
1	Boston Logan	MA	Primary	16,592	12,735	-3,857	-23.2%
2	Hartford Bradley	CT	Primary	12,385	8,800	-3,585	-28.9%
3	Bedford/Hanscom	MA	National	25,572	22,025	-3,547	-13.9%
4	Nashua Boire Field	NH	National	4,947	2,790	-2,157	-43.6%
5	Bangor	ME	Primary	6,700	5,077	-1,623	-24.2%
6	Manchester	NH	Primary	7,957	6,504	-1,453	-18.3%
7	Providence TF Green	RI	Primary	6,428	5,141	-1,287	-20.0%
8	Hyannis Barnstable Municipal	MA	Primary	5,496	4,222	-1,274	-23.2%
9	New Bedford Regional	MA	Primary	2,791	1,607	-1,184	-42.4%
10	Martha's Vineyard	MA	Primary	6,301	5,196	-1,105	-17.5%
11	Portland Intl Jetport	ME	Primary	6,771	5,691	-1,080	-16.0%
12	Auburn Lewiston Municipal	ME	Regional	2,161	1,126	-1,035	-47.9%
13	Groton-New London	CT	Regional	4,499	3,529	-970	-21.6%
14	Bridgeport Igor I Sikorsky Memorial	CT	National	5,656	4,891	-765	-13.5%
15	Nantucket Memorial	MA	Primary	10,387	9,657	-730	-7.0%
16	Rutland-Southern Vermont Regional	VT	Regional	1,716	1,155	-561	-32.7%
17	Augusta State	ME	Regional	1,488	963	-525	-35.3%
18	Burlington	VT	Primary	6,679	6,194	-485	-7.3%
19	Presque Isle Northern Maine Regional	ME	Primary	1,284	882	-402	-31.3%
20	Pittsfield Municipal	MA	Regional	1,922	1,522	-400	-20.8%



**Regional Airport System Plan** 



**Appendix A** 

**FAA ASSET Study Airport Classifications** 



#### **FAA ASSET Study Classifications**

#### National Airports (84 nationwide):

- 5,000+ instrument operations, 11+ based jets, 20+ international flights, or 500+ interstate departures; or
- 10,000+ enplanements and at least 1 charter enplanement by large certificated air carrier; or
- 500+ million pounds of landed cargo weight

#### Regional Airports (467 nationwide):

- Located in MSA (Metro or Micro) and 10+ domestic flights over 500 miles, 1,000+ instrument operations, 1+
   based jet, or 100+ based aircraft; or
- The airport meets the definition of commercial service

#### Local Airports (1,236 nationwide):

- 10+ instrument operations and 15+ based aircraft; or
- 2,500+ passenger enplanements

#### **Basic Airports** (668 nationwide):

- 10+ based aircraft; or
- 4+ based helicopters, or the airport is located 30+ miles from nearest NPIAS airport or identified and used by U.S.
   Forest Service, U.S. Marshals or U.S. CBP or U.S. Postal Service or has EAS; or
- Is new/replacement facility after Jan. 1, 2011 and designated as reliever with minimum of 90 based aircraft



#### **New England Airports by Size and ASSET Study Category**

### Number of New England Airports by ASSET Study Category 2011

2011 IFR	Non-GA	New England Airports by FAA Category GA GA Airports							
Dept Category	Primary	National	Regional	Local	Basic	Non-Classified	Subtotal	Non NPIAS	Total
umber of Airports									
5,000 and Over	9	2	0	0	0	0	2	0	1
500-4,999	7	6	16	6	0	0	28	0	3
50-499	1	0	0	28	4	11	43	3	4
1-49*	0	0	0	7	4	4	15	25	4
None*	0	0	0	3	0	1	4	19	2
Total	17	8	16	44	8	16	92	47	15
nare of Total									
5,000 and Over	81.8%	18.2%	0.0%	0.0%	0.0%	0.0%	18.2%	0.0%	100.09
500-4,999	20.0%	17.1%	45.7%	17.1%	0.0%	0.0%	80.0%	0.0%	100.09
50-499	2.1%	0.0%	0.0%	59.6%	8.5%	23.4%	91.5%	6.4%	100.09
1-49*	0.0%	0.0%	0.0%	17.5%	10.0%	10.0%	37.5%	62.5%	100.09
None*	0.0%	0.0%	0.0%	13.0%	0.0%	4.3%	17.4%	82.6%	100.09
Total	10.9%	5.1%	10.3%	28.2%	5.1%	10.3%	59.0%	30.1%	100.0

Note: Departures Only

<sup>\* 4</sup> airports show no or very few departures because airport codes changes and data is not accessible in FAA TFMSC database – Brunswick, Caledonia, Danielson & Marshfield, 5 departures were found for Brunswick under its old code (NHZ)



### **New England Airports by ASSET Study Category**

2011 Dep Rank	t Airport	Code	State	2011 IFR Departures	2011 Dep Rank	ot Airport	Code	State	2011 IFR Departures
Primary					Regional				
2	Boston Logan	BOS	MA	12,735	12	Hartford Brainard	HFD	CT	4,910
3	Nantucket Memorial	ACK	MA	9,657	17	Groton-New London	GON	CT	3,529
4	Hartford Bradley	BDL	CT	8,800	20	Lebanon Municipal	LEB	NH	2,829
5	Manchester	MHT	NH	6,504	22	Danbury Municipal	DXR	CT	2,393
6	Burlington	BTV	VT	6,194	24	Beverly Municipal	BVY	MA	2,209
7	Portland Intl Jetport	PWM	ME	5,691	26	Laconia Municipal	LCI	NH	1,617
8	Martha's Vineyard	MVY	MA	5,196	28	Lawrence Municipal	LWM	MA	1,563
9	Providence TF Green	PVD	RI	5,141	30	Pittsfield Municipal	PSF	MA	1,522
10	Bangor	BGR	ME	5,077	32	Dillant-Hopkins	EEN	NH	1,224
14	Hyannis Barnstable Municipal	HYA	MA	4,222	33	Block Island State	BID	RI	1,191
19	Tweed-New Haven	HVN	CT	2,843	34	Rutland-Southern Vermont Regional	RUT	VT	1,155
23	Hancock County-Bar Harbor	BHB	ME	2,320	35	Auburn Lewiston Municipal	LEW	ME	1,126
25	Rockland Knox County Regional	RKD	ME	1,874	36	Plymouth Municipal	PYM	MA	1,123
27	New Bedford Regional	EWB	MA	1,607	37	Augusta State	AUG	ME	963
39	Presque Isle Northern Maine Regional	PQI	ME	882	38	Concord Municipal	CON	NH	910
42	Westerly State	WST	RI	702	43	Springfield/Chicopee Westover	CEF	MA	595
49	Provincetown Municipal	PVC	MA	388					
					<u>Local</u>				
<u>National</u>					31	Quonset State	OQU	RI	1,333
1	Bedford/Hanscom	BED	MA	22,025	40	North Central State	SFZ	RI	824
11	Portsmouth Intl at Pease	PSM	NH	5,050	41	Newport State	UUU	RI	821
13	Bridgeport Igor I Sikorsky Memorial	BDR	CT	4,891	44	Sanford Regional	SFM	ME	591
15	Norwood Memorial	OWD	MA	4,103	45	Edward F Knapp State	MPV	VT	577
16	Waterbury-Oxford	OXC	CT	3,895	46	Waterville Robert Lafleur	WVL	ME	547
18	Barnes Municipal	BAF	MA	2,945	47	Fitchburg Municipal	FIT	MA	459
21	Nashua Boire Field	ASH	NH	2,790	48	Chatham Municipal	CQX	MA	396
29	Worcester	ORH	MA	1,539	50	Meriden Markham Municipal	MMK	CT	376

Note: Departures Only



### **New England Airports by ASSET Study Category** (continued)

2011 Dep Rank		Code	State	2011 IFR Departures	2011 Dep Rank		Code	State	2011 IFR Departures
Local					Local				
51	Morrisville-Stowe State	MVL	VT	368	100	Gardner Municipal	GDM	MA	24
52	Willam Morse State	DDH	VT	358	101	Maine Airport of Norridgewock	OWK	ME	23
53	Robertson Field	4B8	CT	349	104	Plymouth Municipal	1P1	NH	17
55	Belfast Municipal	BST	ME	295	106	Dexter Regional	1B0	ME	13
56	Wiscasset	IWI	ME	265	110	Lincoln Regional	LRG	ME	10
57	Windham	IJD	CT	258	138	Caledonia County	CDA	VT	0
60	Mansfield Municipal	1B9	MA	238	140	Danielson	LZD	CT	0
61	Harriman-and-West	AQW	MA	218	149	Marshfield Municipal	GHG	MA	0
63	Eastern Slopes Regional	IZG	ME	196		•			
64	Pittsfield Municipal	2B7	ME	196	<u>Basic</u>				
65	Springfield Hartness State	VSF	VT	165	73	Greenville Municipal	3B1	ME	110
67	Biddeford Municipal	B19	ME	138	87	Northern Aroostook Regional	FVE	ME	63
68	Skyhaven	DAW	NH	136	89	Bethel Regional	0B1	ME	56
69	Berlin Regional	BML	NH	126	90	Eastport Municipal	EPM	ME	55
71	Mount Washington Regional	HIE	NH	119	102	Princeton Municipal	PNN	ME	23
72	Houlton International	HUL	ME	112	115	Newton Field	59B	ME	8
74	Newport State	EFK	VT	105	121	Dean Memorial	5B9	NH	5
75	Taunton Municipal-King Field	TAN	MA	100	123	Sugarloaf Regional	B21	ME	5
76	Orange Municipal	ORE	MA	99					
77	Turners Falls	0B5	MA	95	Not Classifi	<u>ied</u>			
78	Middlebury State	6B0	VT	76	54	Northampton	7B2	MA	312
80	Southbridge Municipal	3B0	MA	75	58	Minute Man Air Field	6B6	MA	245
81	Dewitt Field/Old Town Municipal	OLD	ME	73	59	Chester	SNC	CT	241
83	Millinocket Municipal	MLT	ME	69	62	Walter J. Koladza	GBR	MA	211
84	Franklin County State	FSO	VT	65	70	Caribou Municipal	CAR	ME	124
96	Claremont Municipal	CNH	NH	42	79	Islesboro	57B	ME	75
97	Parlin Field	2B3	NH	28	82	Oxford County Regional	81B	ME	71

Note: Departures Only

3 airports show no departures because airport codes changes and data is not accessible in FAA TFMSC database – Caledonia, Danielson & Marshfield



#### **New England Airports by ASSET Study Category** (continued)

2011 Dep Rank		Code	State	2011 IFR Departures	2011 Dep Rank	t Airport	Code	State	2011 IFR Departures
Not Classi	fied				Non NPIAS	;			
85	Simsbury	4B9	CT	64	122	Deblois Flight Strip	43B	ME	5
86	Jaffrey-Silver Range	AFN	NH	63	124	Tanner-Hiller	8B5	MA	5
91	Steven A. Bean Municipal	8B0	ME	55	125	Candlelight Farms	11N	CT	4
93	Machias Valley	MVM	ME	50	126	Littlebrook Air Park	3B4	ME	4
111	Stonington Municipal	93B	ME	10	127	Richmond	08R	RI	4
117	Warren-Sugarbush	0B7	VT	8	128	Cape Cod	2B1	MA	3
120	Brunswick Executive	BXM	ME	5	129	Limington-Harmon	63B	ME	3
130	Charles Chase Memorial Field	44B	ME	2	131	Newfound Valley	2N2	NH	2
151	Post Mills	2B9	VT	0	132	Shelburne	VT8	VT	1
					133	Twin Mountain	8B2	NH	1
Non NPIA	<u>s</u>				134	Blue Hill	07B	ME	0
66	Falmouth Airpark	5B6	MA	149	135	Bowdoinham Merrymeeting Field	08B	ME	0
88	Katama Airpark	1B2	MA	58	136	Bowman Field	B10	ME	0
92	Skylark Airpark	7B6	CT	51	137	Brewer	0B2	ME	0
94	Moultonboro	5M3	NH	49	139	Cutler Regional	ME2	ME	0
95	Ellington	7B9	CT	46	141	Dixfield Swans Field	3S2	ME	0
98	Twitchell	3B5	ME	26	142	Errol	ERR	NH	0
99	Hampton Airfield	7B3	NH	25	143	Franconia	1B5	NH	0
103	Basin Harbor	B06	VT	21	144	Gifford Field	4C4	NH	0
105	Plum Island	2B2	MA	15	145	Gillespie Field	66B	ME	0
107	Hopedale Industrial Park	1B6	MA	12	146	Gorham	2G8	NH	0
108	Salmon River Airfield	9B8	CT	12	147	John H Boylan State-Island Pond	5B1	VT	0
109	Mount Snow	4V8	VT	11	148	Lubec Municipal	65B	ME	0
112	Waterbury	N41	CT	10	150	Myricks	1M8	MA	0
113	Marlboro	9B1	MA	9	152	Putnam Toutant	C44	CT	0
114	Goodspeed	42B	CT	8	153	Saco Greaton Airfield	98M	ME	0
116	Sterling	3B3	MA	8	154	Spencer	60M	MA	0
118	Cranland	28M	MA	7	155	Swans Island Banks	ME5	ME	0
119	Hawthorne-Feather Airpark	8B1	NH	7	156	Wales	ME6	ME	0

Note: Departures Only

Departures found for Brunswick Executive airport using old code (NHZ), airport code changes but data is not accessible in FAA TFMSC database for new code BXM



## Departure Data for Four Airports with Changes in Identifier Codes Could Not be Accessed

#### Airports with Missing Departure Data for 2011

Airport	Code	State	FAA Category	2006 IFR GA Departures
Marshfield Municipal	GHG	MA	Local	158
Brunswick Executive	BXM	ME	Not Classified	151
Caledonia County	CDA	VT	Local	114
Danielson	LZD	CT	Local	62

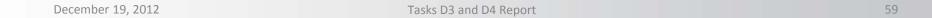
Note: Five (5) departures can be found from Brunswick Executive using the old identifier code (NHZ) . While departure data for these four airports is not accessible, these airports do show up as detonations for flights that originate at other New England airports.



**Regional Airport System Plan** 

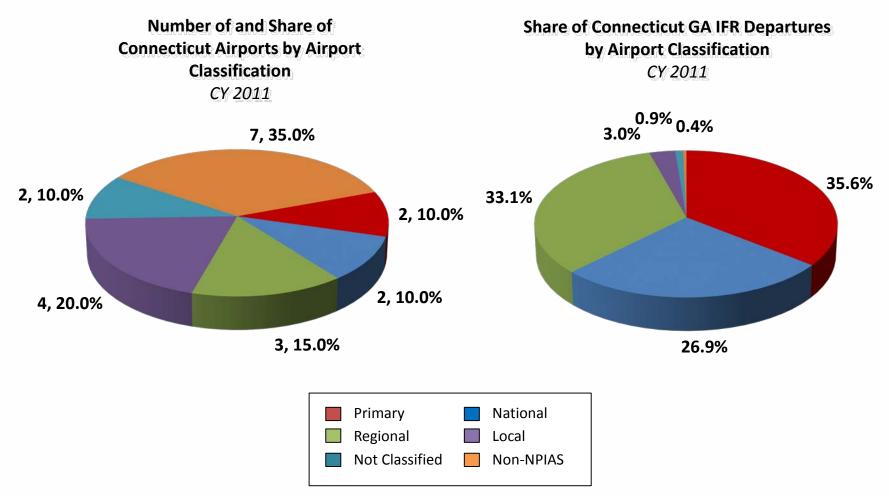


### **Connecticut Data**





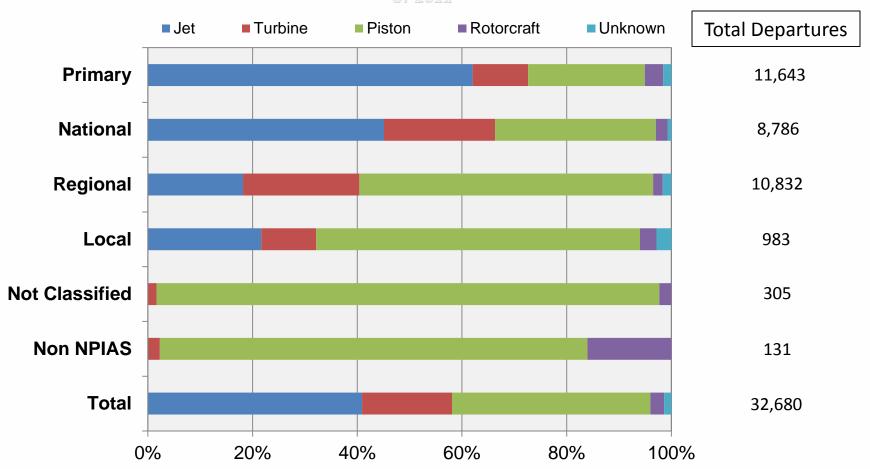
# Primary, National and Regional Airports Account for 96% of Connecticut's GA IFR Flights





### 41% of Connecticut's GA IFR Flights are Operated with Jet Aircraft

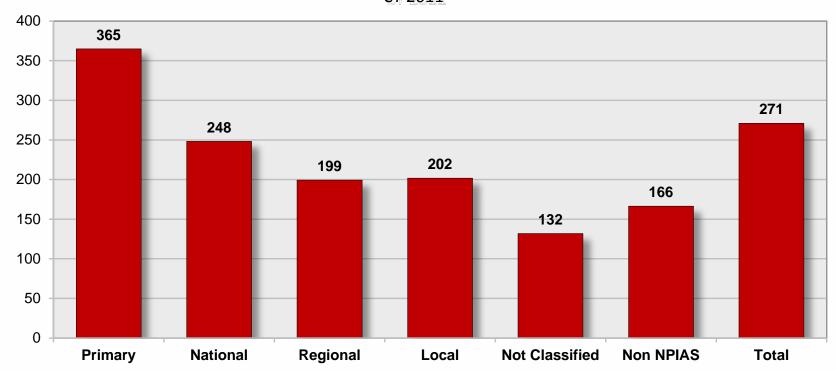
### Connecticut GA IFR Departures by Aircraft Class CY 2011





## The Average Stage Length for Connecticut GA IFR Flights is 271 Nautical Miles

#### Weighted Average Stage Length for Connecticut GA IFR Departures CY 2011

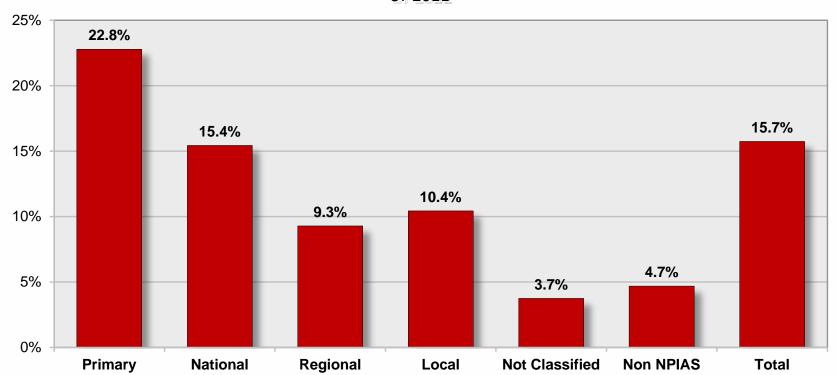


Note: Average Stage Length Weighted by Departures, Does Not Include Departures Where No Mileage Was Given



#### 16% of the Connecticut GA Flights Have Stage Lengths Over 500 nm

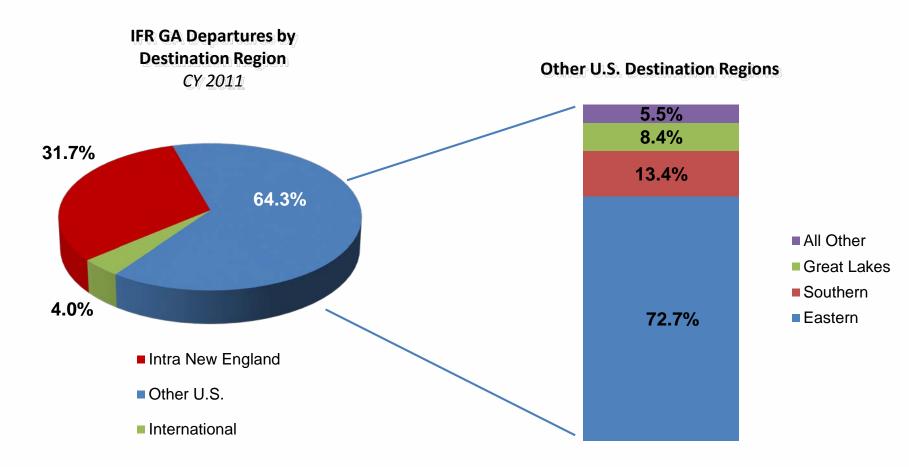
## Percent of Connecticut IFR GA Departures Greater Than 500 Nautical Miles CY 2011



Note: Does Not Include Departures Where No Mileage Was Given



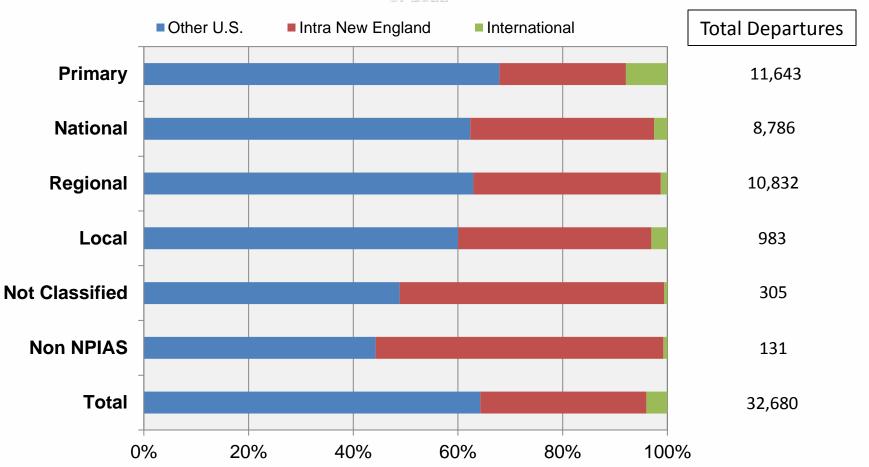
## Intra New England Operations Account for 32% of IFR GA Flights from Connecticut Airports





# 64% of Connecticut's GA IFR Flights are Flown to U.S. Destinations Outside New England

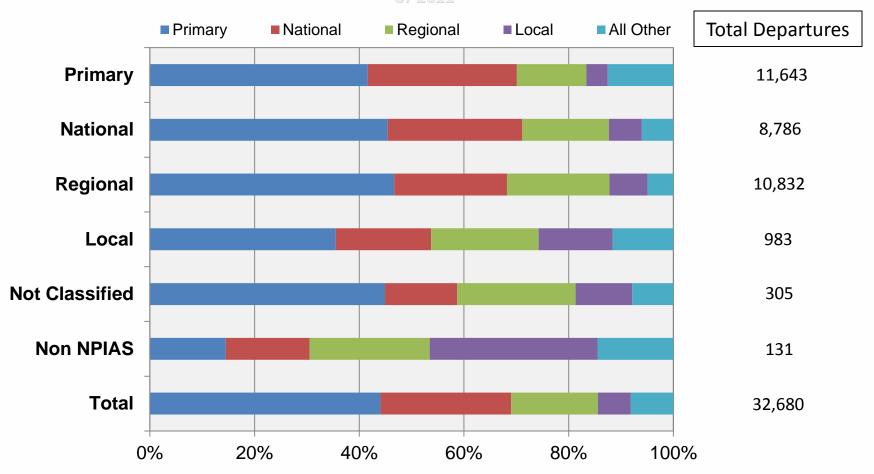
### Connecticut GA IFR Departures by Destination Region CY 2011





#### 44% of Connecticut's Flights are Flown to Primary Airports

### Connecticut GA IFR Departures by Destination Airport Type CY 2011



Note: All Other Includes Basic, Non Classified, Non NPIAS and International Airports



# **Top Domestic Destinations Outside New England from Connecticut Airports**

## Top Domestic Destinations Outside New England from Connecticut Airports CY 2011

Rank	Airport	State	Region	GA IFR Arrivals	% of Total
1	Westchester County	NY	Eastern	2,089	9.9%
2	Teterboro	NJ	Eastern	2,062	9.8%
3	Farmingdale Republic	NY	Eastern	715	3.4%
4	Washington Dulles	DC	Eastern	618	2.9%
5	Islip	NY	Eastern	611	2.9%
6	Albany	NY	Eastern	398	1.9%
7	Newport News Hampton	VA	Eastern	375	1.8%
8	Morristown	NJ	Eastern	321	1.5%
9	Trenton Mercer	NJ	Eastern	294	1.4%
10	East Hampton	NY	Eastern	285	1.4%
	All Other			13,230	63.0%
	Total			20,998	100.0%



#### **Top Segments for Connecticut International Flights**

## Top Connecticut International O&D Segments for GA IFR Departures CY 2011

Rank	Origin	Destination	Nautical Miles	GA IFR Departures	% of Total
1	Hartford Bradley	Montreal Saint Hubert	217	177	13.5%
2	Hartford Bradley	Ottawa	241	166	12.6%
3	Hartford Bradley	Montreal Dorval	216	146	11.1%
4	Hartford Bradley	Toronto	322	60	4.6%
5	Bridgeport Igor I Sikorsky Memorial	Toronto	325	22	1.79
6	Hartford Bradley	Bermuda	707	17	1.3%
7	Waterbury-Oxford	Montreal Dorval	241	17	1.3%
8	Hartford Bradley	Burlington Airpark	328	14	1.19
9	Groton-New London	Toronto	363	13	1.0%
10	Tweed-New Haven	Montreal Dorval	255	13	1.09
11	Bridgeport Igor I Sikorsky Memorial	Montreal Dorval	260	12	0.9%
12	Groton-New London	Montreal Dorval	259	12	0.9%
13	Tweed-New Haven	Bermuda	682	12	0.9%
14	Hartford Bradley	London Luton	2,896	11	0.89
15	Hartford Bradley	Nassau	1,041	11	0.89
16	Hartford Bradley	Montreal Mirabel	232	11	0.89
17	Waterbury-Oxford	Ottawa	255	11	0.89
18	Hartford Bradley	Paris Le Bourget	3,057	10	0.89
19	Hartford Bradley	Toronto Hamilton	328	10	0.89
20	Waterbury-Oxford	Toronto	315	10	0.89
	Subtotal Top 20			755	57.4%
	All Other			560	42.69
	Total			1,315	100.09

Note: There are total 315 unique international flight O&Ds



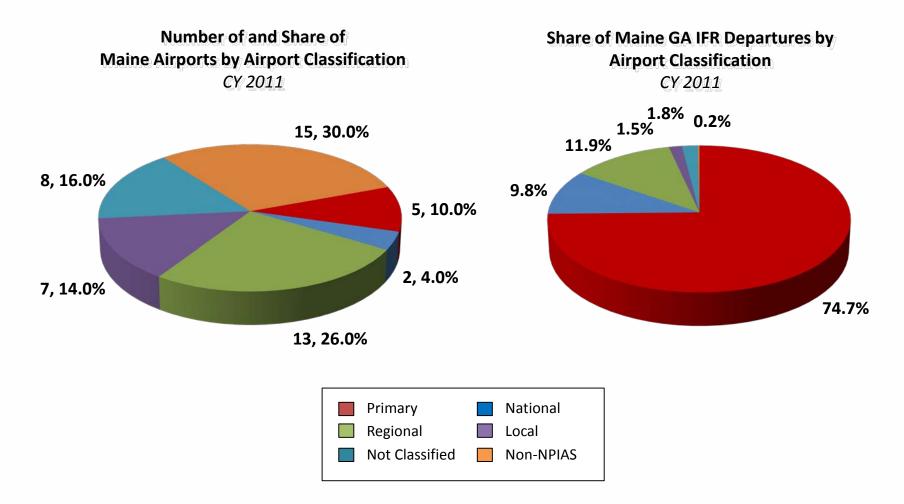
**Regional Airport System Plan** 



**Maine Data** 



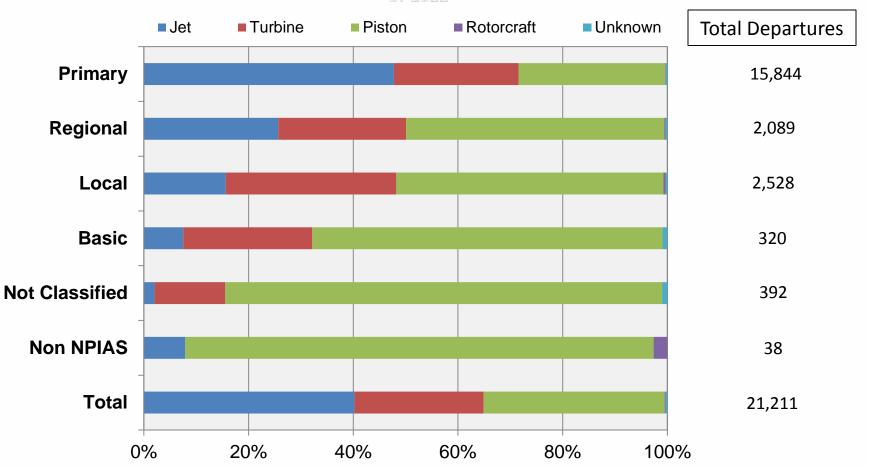
#### **Primary Airports Account for 75% of Maine's GA IFR Flights**





#### 40% of Maine's GA IFR Flights are Operated with Jet Aircraft

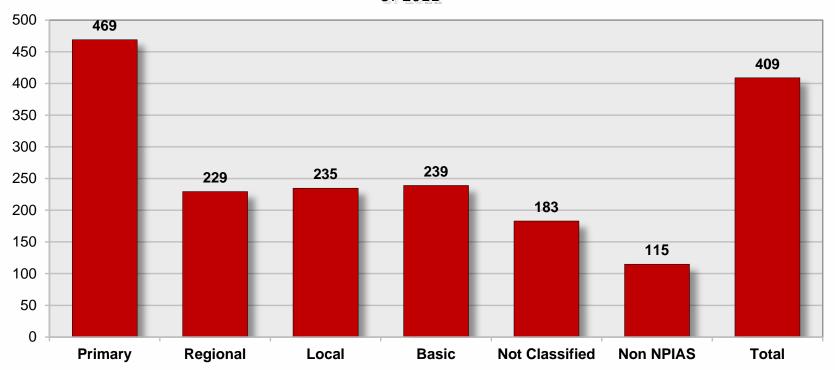
### Maine GA IFR Departures by Aircraft Class CY 2011





## The Average Stage Length for Maine's GA IFR Flights is 409 Nautical Miles

### Weighted Average Stage Length for Maine GA IFR Departures CY 2011

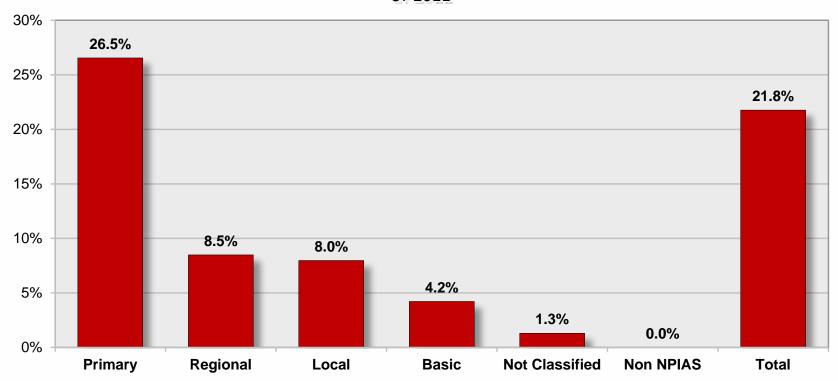


Note: Average Stage Length Weighted by Departures, Does Not Include Departures Where No Mileage Was Given



#### 22% of the Maine GA Flights Have Stage Lengths Over 500 nm

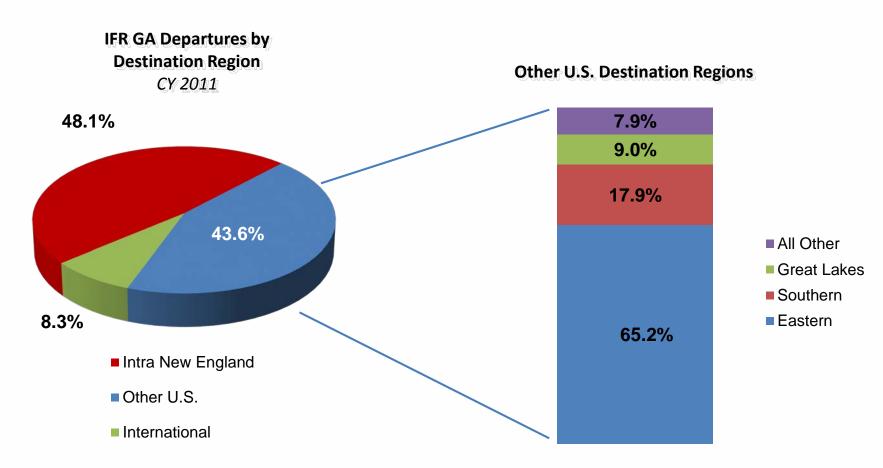
### Percent of Maine IFR GA Departures Greater Than 500 Nautical Miles CY 2011



Note: Does Not Include Departures Where No Mileage Was Given



## Intra New England Operations Account for 48% of IFR GA Flights from Maine Airports





# 44% of Maine's Flights are to Domestic U.S. Destinations Outside New England

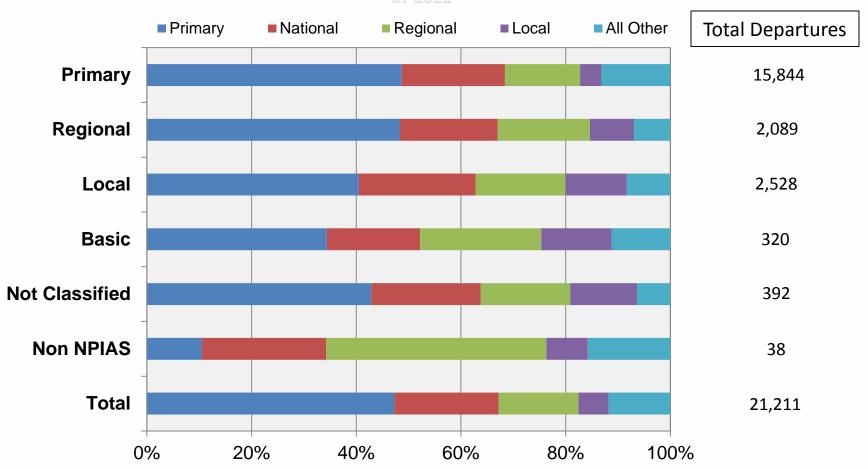
#### Maine GA IFR Departures by Destination Region CY 2011





#### 47% of Maine's Flights are to Primary Airports

## Maine GA IFR Departures by Destination Airport Type CY~2011



Note: All Other Includes Basic, Non Classified, Non NPIAS and International Airports



# **Top Domestic Destinations Outside New England from Maine Airports**

## Top Domestic Destinations Outside New England from All Maine Airports CY 2011

Rank	Airport	State	Region	GA IFR Arrivals	% of Total
1	Westchester County	NY	Eastern	993	10.7%
2	Teterboro	NJ	Eastern	771	8.3%
3	Washington Dulles	DC	Eastern	260	2.8%
4	Chattanooga	TN	Southern	243	2.6%
5	Farmingdale Republic	NY	Eastern	195	2.1%
6	Rowan County	NC	Southern	176	1.9%
7	Morristown	NJ	Eastern	173	1.9%
8	Albany	NY	Eastern	135	1.5%
9	East Hampton	NY	Eastern	134	1.4%
10	Baltimore	MD	Eastern	114	1.2%
	All Other			6,055	65.5%
	Total			9,249	100.0%



### **Top Segments for Maine International Flights**

## Top Maine International O&D Segments for GA IFR Departures CY~2011

Rank	Origin	Destination	Nautical Miles	GA IFR Departures	% of Total
1	Portland Intl Jetport	Yarmouth	183	188	10.7%
2	Bangor	Goose Bay	607	141	8.0%
3	Bangor	Saint John's	686	106	6.0%
4	Bangor	Halifax	226	69	3.9%
5	Portland Intl Jetport	Halifax	302	60	3.4%
6	Bangor	London Luton	2,659	56	3.2%
7	Bangor	Saint John	128	50	2.8%
8	Portland Intl Jetport	Toronto	404	39	2.2%
9	Bangor	Paris Le Bourget	2,822	37	2.1%
10	Portland Intl Jetport	Montreal Dorval	182	35	2.0%
11	Bangor	Gander	633	31	1.8%
12	Bangor	Santa Maria	2,008	26	1.5%
13	Bangor	Shannon	2,344	24	1.4%
14	Portland Intl Jetport	Saint John	214	24	1.4%
15	Bangor	London Stansted	2,679	23	1.3%
16	Bangor	Farnborough	2,656	20	1.1%
17	Bangor	Reykjavik Keflavik	1,915	19	1.1%
18	Bangor	Fredericton	116	17	1.0%
19	Bangor	Montreal Dorval	211	17	1.0%
20	Bangor	Zurich	3,081	16	0.9%
	Subtotal Top 20			998	56.8%
	All Other			760	43.2%
	Total			1,758	100.0%

Note: There are total 361 unique international flight O&Ds

Source: FAA TFMSC Data and ICF

SH&E Analysis



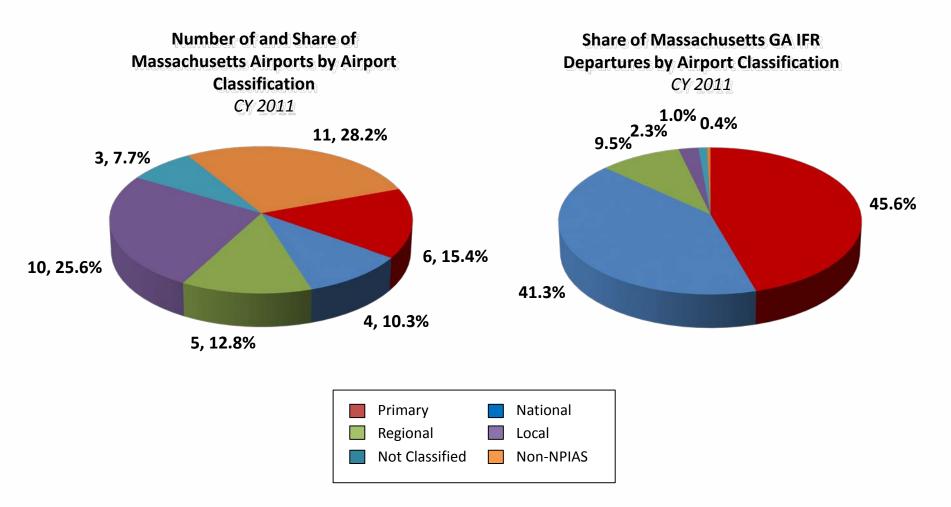
**Regional Airport System Plan** 



### **Massachusetts Data**



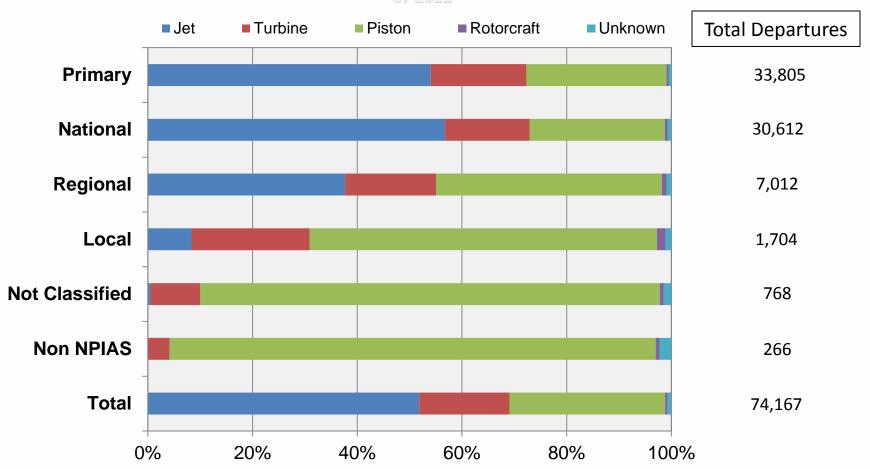
## Primary and National Airports Account for 87% of Massachusetts' GA IFR Flights





### 52% of Massachusetts's GA IFR Flights are Operated with Jet Aircraft

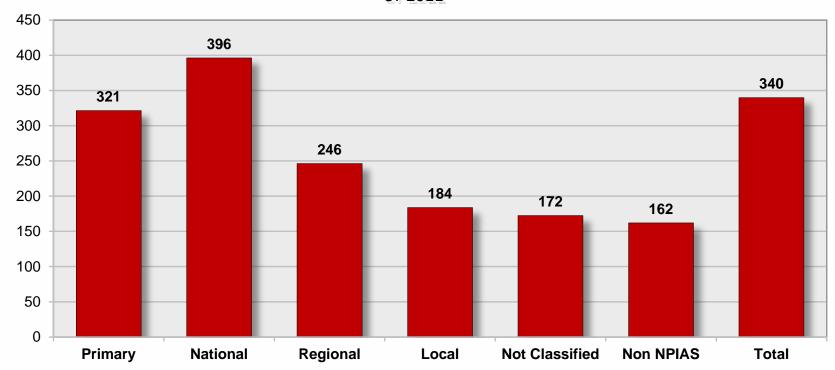
### Massachusetts GA IFR Departures by Aircraft Class CY 2011





## The Average Stage Length for Massachusetts' GA IFR Flights is 340 Nautical Miles

#### Weighted Average Stage Length for Massachusetts GA IFR Departures CY 2011

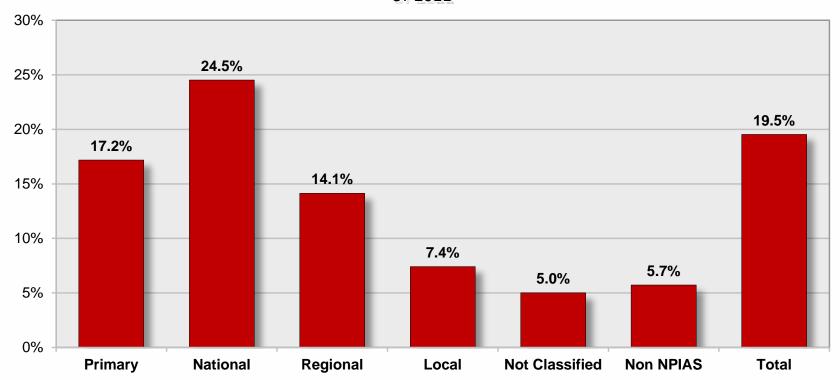


Note: Average Stage Length Weighted by Departures, Does Not Include Departures Where No Mileage Was Given



## 20% of the Massachusetts GA Flights Have Stage Lengths Over 500 nm

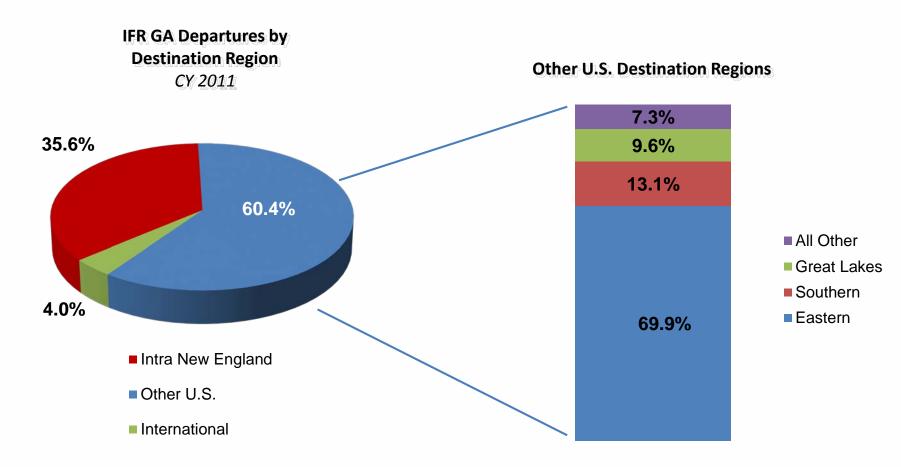
### Percent of Massachusetts IFR GA Departures Greater Than 500 Nautical Miles CY 2011



Note: Does Not Include Departures Where No Mileage Was Given



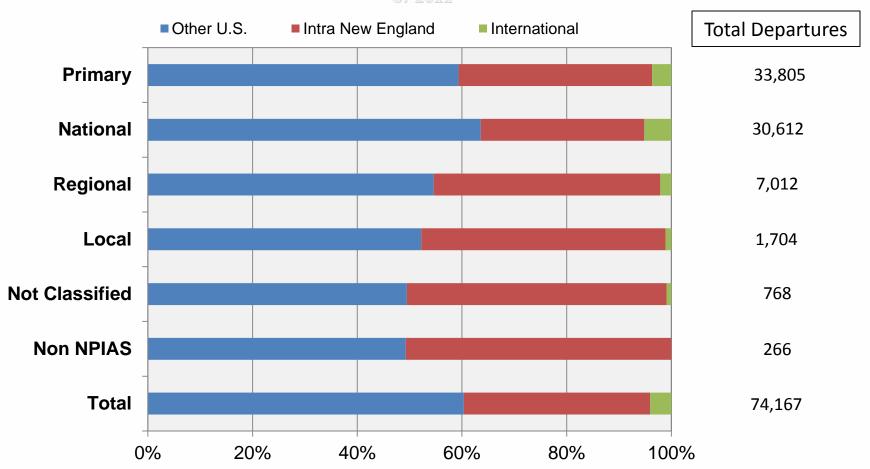
## 60% of Massachusetts Flights are to Other U.S. Destinations and 36% are Intra-New England





# Approximately 50% of Flights from Massachusetts' Smaller Airports are to Destinations Outside New England

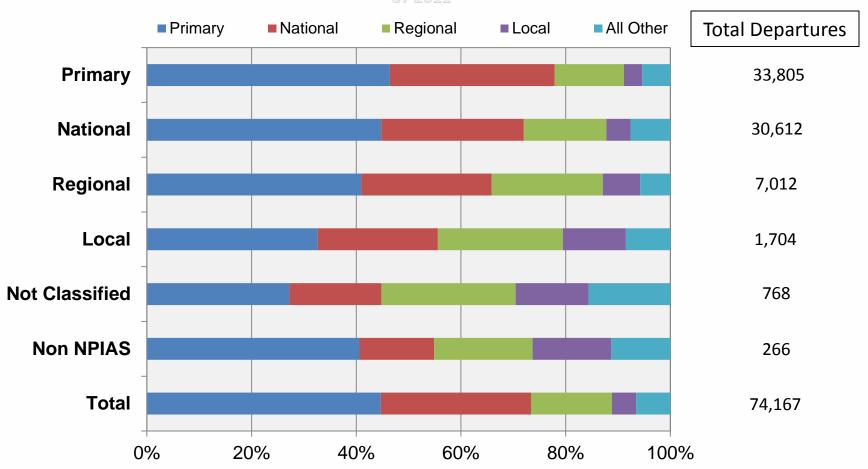
#### Massachusetts GA IFR Departures by Destination Region CY 2011





#### 45% of Massachusetts' Flights are to Primary Airports

### Massachusetts GA IFR Departures by Destination Airport Type CY 2011



Note: All Other Includes Basic, Non Classified, Non NPIAS and International Airports



# **Top Domestic Destinations Outside New England from Massachusetts Airports**

## Top Domestic Destinations Outside New England from Massachusetts Airports CY 2011

Rank	Airport	State	Region	GA IFR Arrivals	% of Total
1	Teterboro	NJ	Eastern	5,923	13.2%
2	Westchester County	NY	Eastern	5,077	11.3%
3	Washington Dulles	DC	Eastern	1,324	3.0%
4	Morristown	NJ	Eastern	1,311	2.9%
5	Farmingdale Republic	NY	Eastern	1,144	2.6%
6	Philadelphia	PA	Eastern	639	1.4%
7	Trenton Mercer	NJ	Eastern	585	1.3%
8	West Palm Beach	FL	Southern	572	1.3%
9	East Hampton	NY	Eastern	553	1.2%
10	New York La Guardia	NY	Eastern	553	1.2%
	All Other			27,083	60.5%
	Total			44,764	100.0%



#### **Top Segments for Massachusetts International Flights**

## Top Massachusetts International O&D Segments for GA IFR Departures CY 2011

Rank	Origin	Destination	Nautical Miles	GA IFR Departures	% of Total
1	Poston Logan	Toronto	386	171	5.7%
2	Boston Logan	Montreal Dorval	221	17 1	5.7% 5.2%
3	Boston Logan Bedford/Hanscom	Toronto	372	157	5.2% 5.1%
4	Bedford/Hanscom	Montreal Dorval	209	152	
			209 698		4.8%
5	Bedford/Hanscom	Bermuda		93	3.1%
6	Bedford/Hanscom	Saint John	289	93	3.1%
7	Nantucket Memorial	Toronto	448	61	2.0%
8	Bedford/Hanscom	Nassau	1,089	57	1.9%
9	Bedford/Hanscom	Ottawa	255	51	1.7%
10	Bedford/Hanscom	London Luton	2,828	50	1.7%
11	Boston Logan	Bermuda	686	41	1.4%
12	Boston Logan	Saint John	283	37	1.2%
13	Bedford/Hanscom	Halifax	367	35	1.2%
14	Boston Logan	Ottawa	269	35	1.2%
15	Worcester	Ottawa	246	32	1.1%
16	Bedford/Hanscom	Paris Le Bourget	2,988	30	1.0%
17	Bedford/Hanscom	Toronto Buttonville	363	27	0.9%
18	Bedford/Hanscom	Quebec	259	27	0.9%
19	Bedford/Hanscom	Antigua	1,595	24	0.8%
20	Bedford/Hanscom	Muskoka	378	24	0.8%
	Subtotal Top 20			1,341	44.8%
	All Other			1,655	55.2%
	Total			2,996	100.0%

Note: There are total 649 unique international flight O&Ds

Source: FAA TFMSC Data and ICF

SH&E Analysis



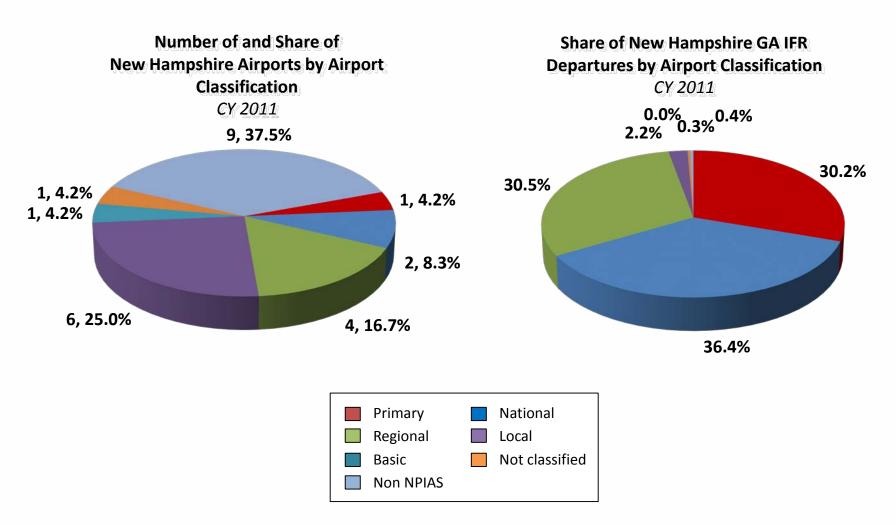
**Regional Airport System Plan** 



### **New Hampshire Data**



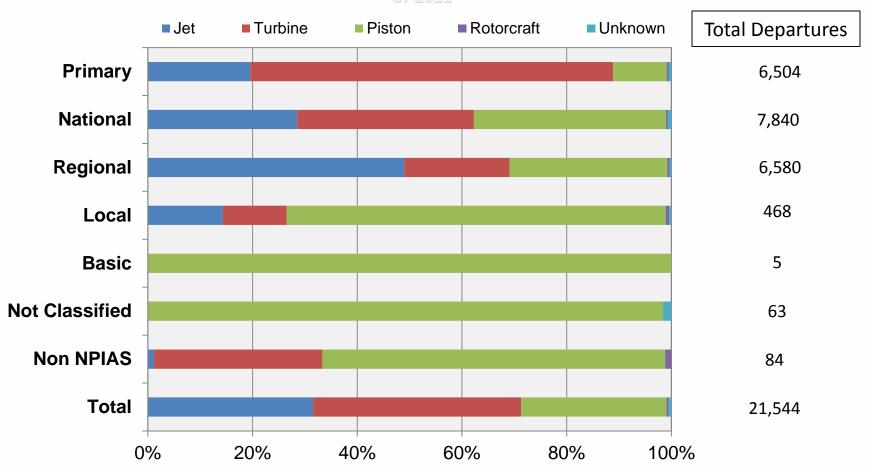
## Primary, National and Regional Airports Account for 97% of New Hampshire's GA IFR Flights





## 32% of New Hampshire's GA IFR Flights are Operated with Jet Aircraft

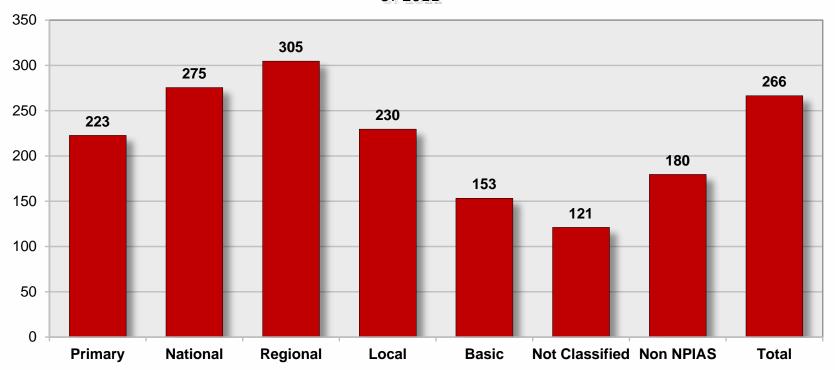
### New Hampshire GA IFR Departures by Aircraft Class CY 2011





## The Average Stage Length for New Hampshire's GA IFR Flights is 266 Nautical Miles

### Weighted Average Stage Length for New Hampshire GA IFR Departures CY 2011

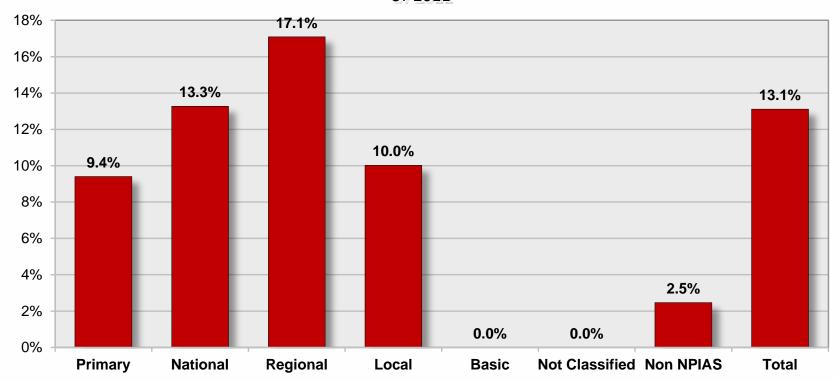


Note: Average Stage Length Weighted by Departures, Does Not Include Departures Where No Mileage Was Given



## 13% of New Hampshire GA IFR Flights Have Stage Lengths Over 500 nm

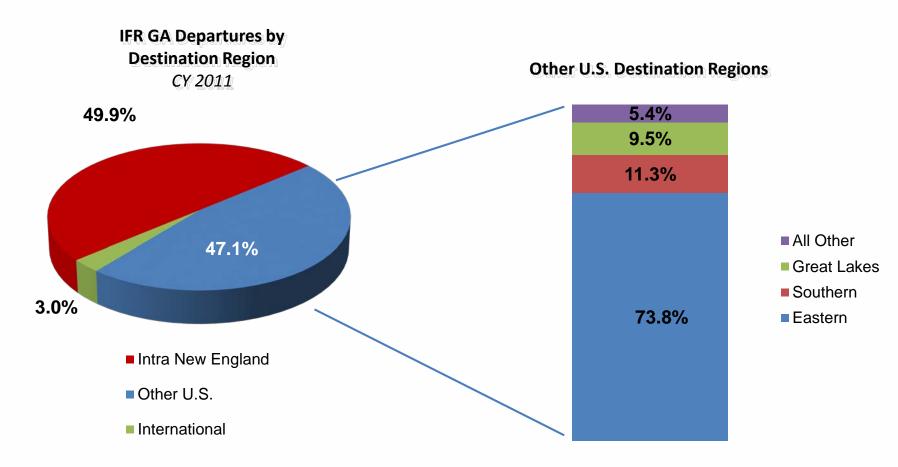
## Percent of New Hampshire IFR GA Departures Greater Than 500 Nautical Miles CY~2011



Note: Does Not Include Departures Where No Mileage Was Given



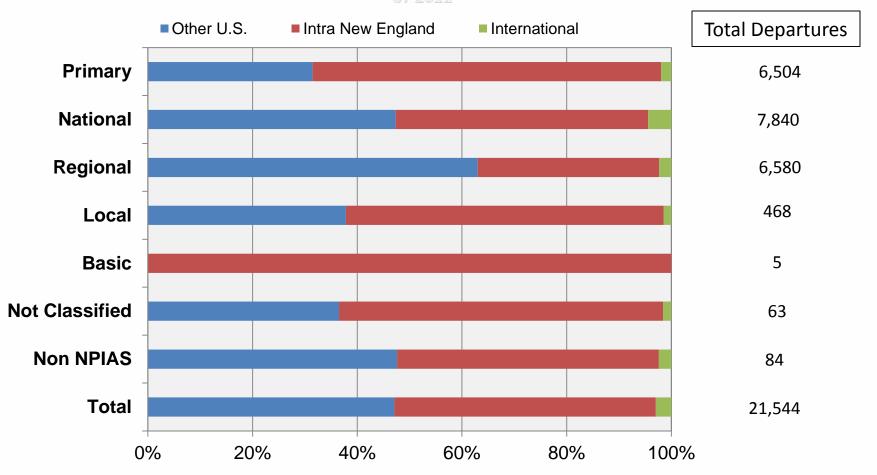
# Intra New England Operations Account for 50% of IFR GA Flights from New Hampshire Airports





# 63% of Flights from New Hampshire's Regional Airports are to Domestic Destinations Outside New England

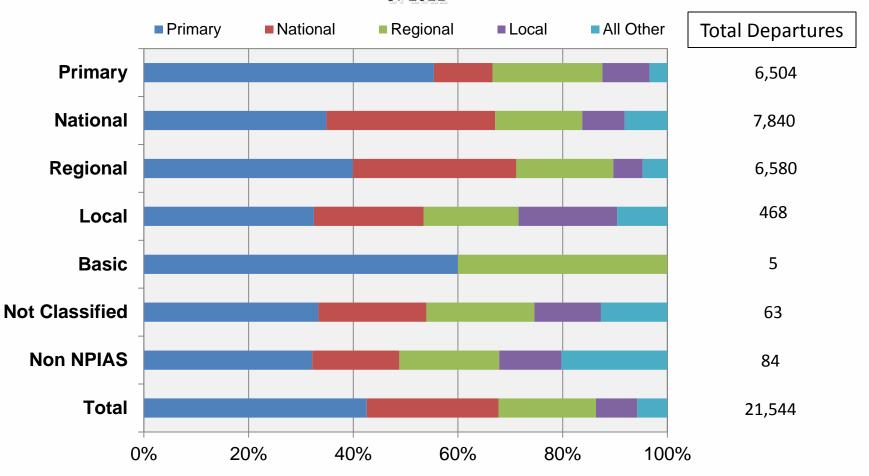
#### New Hampshire GA IFR Departures by Destination Region CY 2011





#### 43% of New Hampshire's Flights are to Primary Airports

### New Hampshire GA IFR Departures by Destination Airport Type CY 2011



Note: All Other Includes Basic, Non Classified, Non NPIAS and International Airports



# **Top Domestic Destinations Outside New England from New Hampshire Airports**

## Top Domestic Destinations Outside New England from New Hampshire Airports CY 2011

Rank	Airport	State	Region	GA IFR Arrivals	% of Total
1	Teterboro	NJ	Eastern	963	9.5%
2	Westchester County	NY	Eastern	886	8.7%
3	Morristown	NJ	Eastern	573	5.6%
4	Farmingdale Republic	NY	Eastern	287	2.8%
5	New York Newark	NJ	Eastern	239	2.4%
6	Washington Dulles	DC	Eastern	239	2.4%
7	Albany	NY	Eastern	224	2.2%
8	Islip	NY	Eastern	202	2.0%
9	Northeast Philadelphia	PA	Eastern	148	1.5%
10	Newburgh Stewart	NY	Eastern	131	1.3%
	All Other			6,253	61.6%
	Total			10,145	100.0%



### **Top Segments for New Hampshire International Flights**

## Top New Hampshire International O&D Segments for GA IFR Departures CY~2011

Rank	Origin	Destination	Nautical Miles	GA IFR Departures	% of Total
4	Portsmouth Intl at Pease	Saint John	251	85	42.20/
1 2	Portsmouth Intl at Pease	Montreal Dorval	251 190		13.3% 6.1%
3	Manchester	Montreal Dorval	182		3.6%
4		Montreal Dorval	126		2.8%
5	Lebanon Municipal Manchester	Toronto	360		2.8%
6	Portsmouth Intl at Pease	Toronto	385		2.3%
7	Nashua Boire Field	Montreal Saint Hubert			2.2% 1.7%
8	Nashua Boire Field	Montreal Dorval	183 188		1.7%
9			780		1.6%
_	Lebanon Municipal	Bermuda			,
10	Portsmouth Intl at Pease	London Luton	2,789	_	1.6%
11	Portsmouth Intl at Pease	Montreal Saint Hubert	183		1.6%
12	Lebanon Municipal	Montreal Saint Hubert	123	•	1.4%
13	Portsmouth Intl at Pease	Lutselke/Snowdrift	1,803	_	1.4%
14	Nashua Boire Field	Toronto City Centre	348	_	1.3%
15	Concord Municipal	Toronto	355	_	1.3%
16	Lebanon Municipal	Toronto	318	_	1.3%
17	Portsmouth Intl at Pease	Paris Le Bourget	2,950		1.3%
18	Laconia Municipal	Toronto Buttonville	345	6	0.9%
19	Manchester	Fredericton	274	ū	0.9%
20	Portsmouth Intl at Pease	Bermuda	719	6	0.9%
	Subtotal Top 20			313	49.0%
	All Other			326	51.0%
	Total			639	100.0%

Note: There are total 241 unique international flight

O&Ds



**Regional Airport System Plan** 

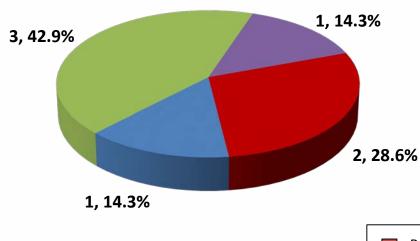


### **Rhode Island Data**

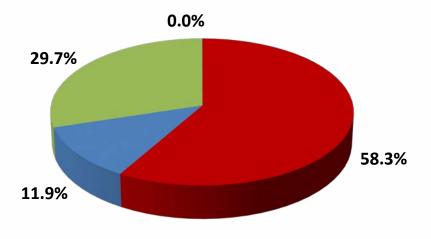


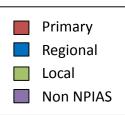
## Primary and Local Airports Account for 88% of Rhode Island's GA IFR Flights





#### Share of Rhode Island GA IFR Departures by Airport Classification CY 2011

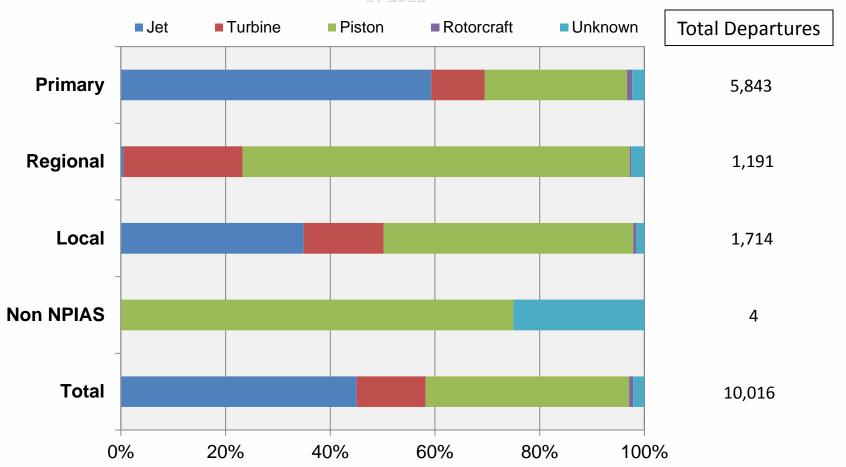






### 45% of Rhode Island's GA IFR Flights are Operated with Jet Aircraft

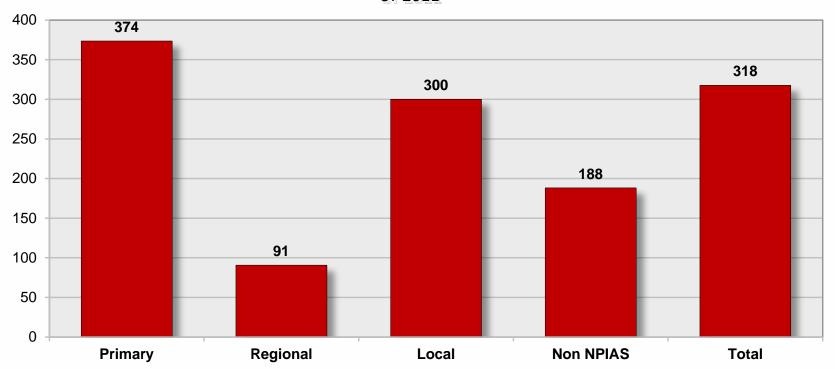
### Rhode Island GA IFR Departures by Aircraft Class CY 2011





## The Average Stage Length for Rhode Island GA IFR Flights is 318 Nautical Miles

### Weighted Average Stage Length for Rhode Island GA IFR Departures CY 2011

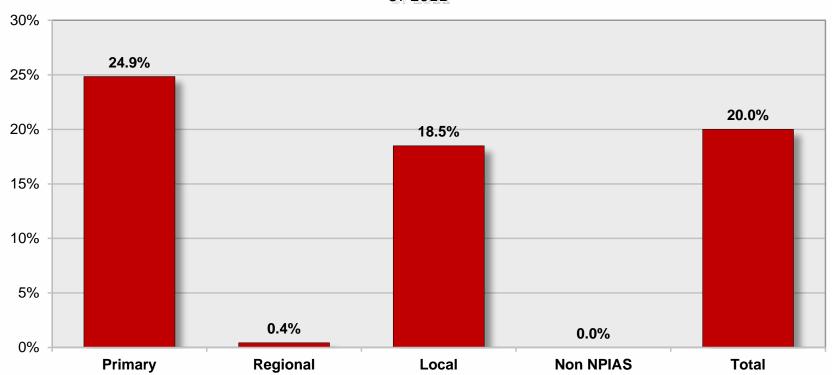


Note: Average Stage Length Weighted by Departures, Does Not Include Departures Where No Mileage Was Given



#### 20% of the Rhode Island GA Flights Have Stage Lengths Over 500 nm

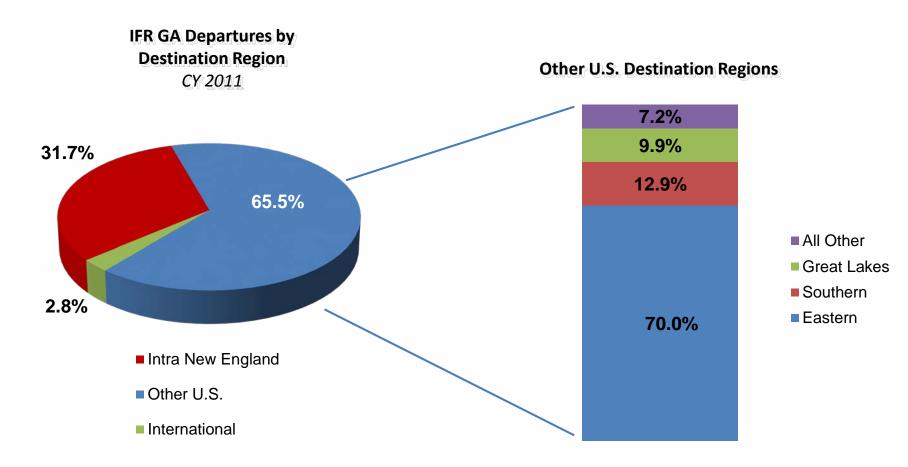
### Percent of Rhode Island IFR GA Departures Greater Than 500 Nautical Miles CY 2011



Note: Does Not Include Departures Where No Mileage Was Given



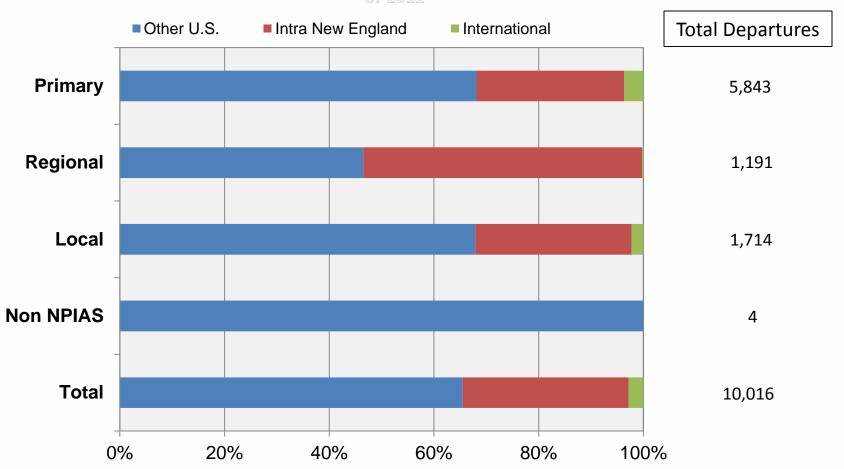
## Nearly Two-Thirds of Rhode Island's GA IFR Flights are to Domestic Destinations Outside New England





# 32% of Rhode Island's GA IFR Flights are Destined to Other New England Airports

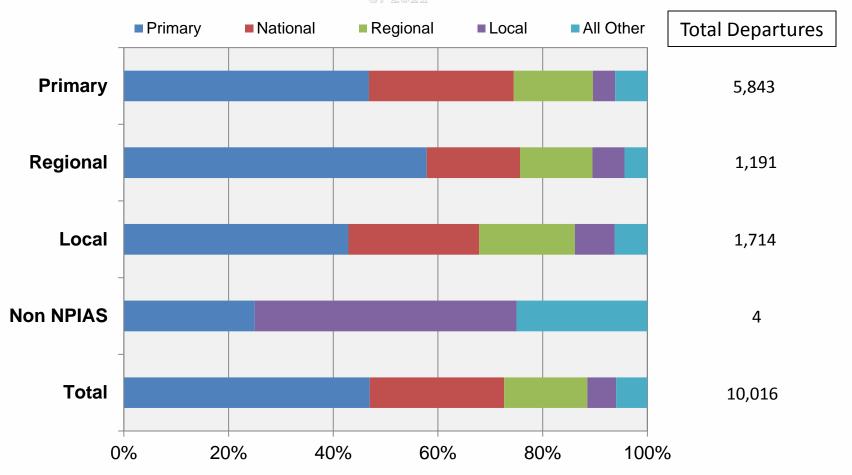
### Rhode Island GA IFR Departures by Destination Region CY 2011





#### 47% of Rhode Island's Flights are to Primary Airports

## Rhode Island GA IFR Departures by Destination Airport Type CY 2011



Note: All Other Includes Basic, Non Classified, Non NPIAS and International Airports



## **Top Domestic Destinations Outside New England from Rhode Island Airports**

## Top Domestic Destinations Outside New England from Rhode Island Airports CY 2011

				GA IFR	
Rank	Airport	State	Region	Arrivals	% of Total
		<b>.</b>			44.007
1	Westchester County	NY	Eastern	758	11.6%
2	Teterboro	NJ	Eastern	572	8.7%
3	Farmingdale Republic	NY	Eastern	337	5.1%
4	Washington Dulles	DC	Eastern	218	3.3%
5	Morristown	NJ	Eastern	157	2.4%
6	Islip	NY	Eastern	142	2.2%
7	East Hampton	NY	Eastern	93	1.4%
8	West Palm Beach	FL	Southern	92	1.4%
9	Philadelphia	PA	Eastern	88	1.3%
10	Westhampton Beach F Gabreski	NY	Eastern	77	1.2%
	All Other			4,026	61.4%
	Total			6,560	100.0%



#### **Top Segments for Rhode Island International Flights**

## Top Rhode Island International O&D Segments for GA IFR Departures CY/2011

Rank	Origin	Destination	Nautical Miles	GA IFR Departures	% of Total
1	Providence TF Green	Montreal Dorval	246	34	12.0%
2	Providence TF Green	Toronto	380	30	10.6%
3	Westerly State	Kingston	272	9	3.2%
4	Quonset State	Toronto	383	7	2.5%
5	Quonset State	Bermuda	657	6	2.1%
6	Providence TF Green	Ottawa	283	6	2.1%
7	Providence TF Green	Quebec	304	6	2.1%
8	North Central State	Montreal Dorval	234	6	2.1%
9	Providence TF Green	Dublin	2,629	5	1.8%
10	Providence TF Green	Bermuda	664	4	1.4%
11	Providence TF Green	Guadalajara	2,052	4	1.4%
12	Providence TF Green	London Luton	2,860	4	1.4%
13	Providence TF Green	Saint Maarten	1,482	4	1.4%
14	Providence TF Green	Saint John	323	4	1.4%
15	Providence TF Green	Toronto City Centre	369	4	1.4%
16	Newport State	St. Stephen	n/a	4	1.4%
17	Quonset State	Beef Island	1,432	3	1.1%
18	Quonset State	Toronto Buttonville	375	3	1.1%
19	Quonset State	Saint John	328	3	1.1%
20	Providence TF Green	Beef Island	1,439	3	1.1%
	Subtotal Top 20			149	52.7%
	All Other			134	47.3%
	Total			283	100.0%

Note: There are total 113 unique international flight O&Ds

Source: FAA TFMSC Data and ICF

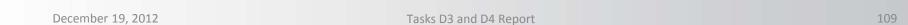
SH&E Analysis



**Regional Airport System Plan** 

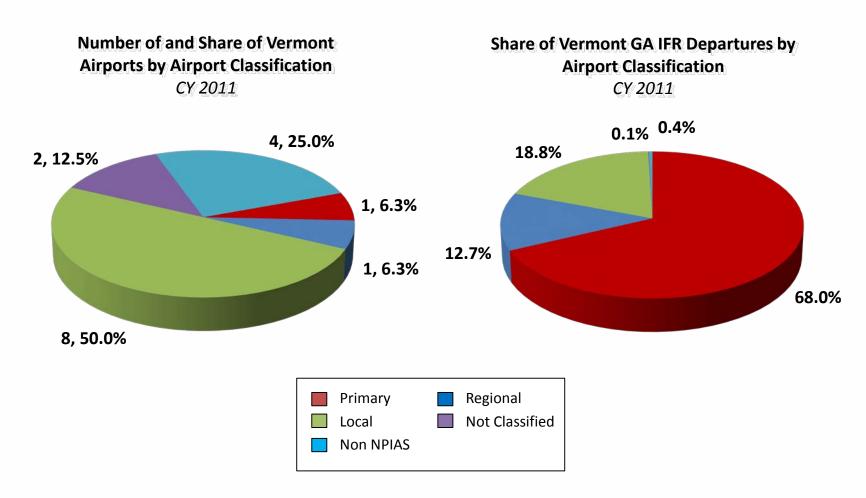


### **Vermont Data**





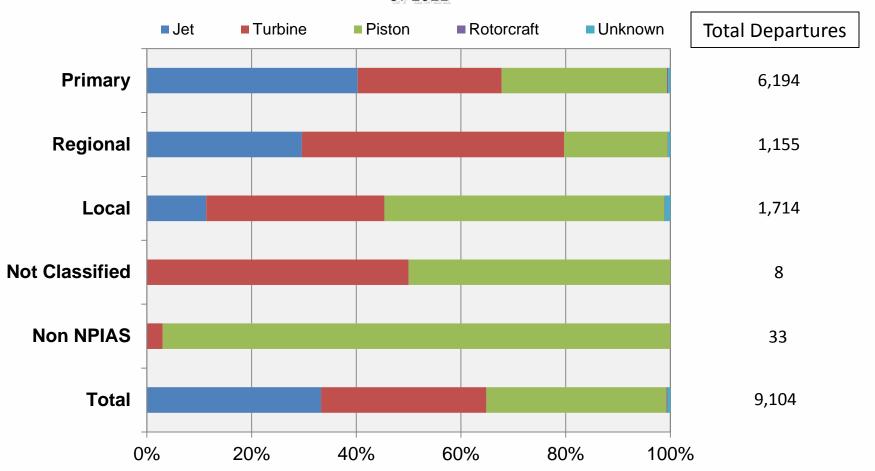
#### **Primary Airports Account for 68% of Vermont's GA IFR Flights**





#### 33% of Vermont's GA IFR Flights are Operated with Jet Aircraft

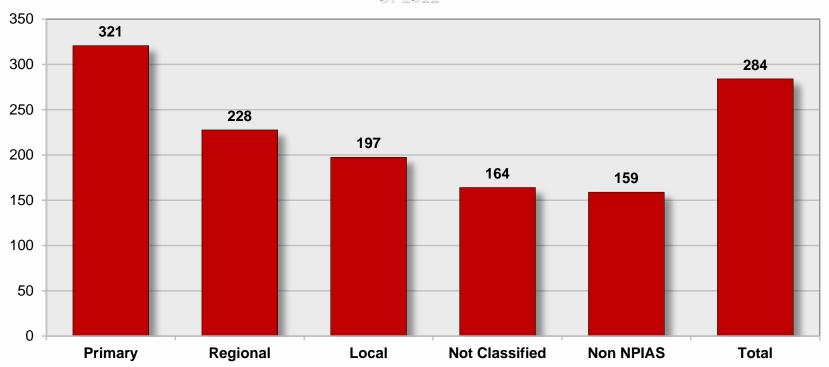
### Vermont GA IFR Departures by Aircraft Class CY 2011





## The Average Stage Length for Vermont's GA IFR Flights is 284 Nautical Miles

### Weighted Average Stage Length for Vermont GA IFR Departures CY 2011

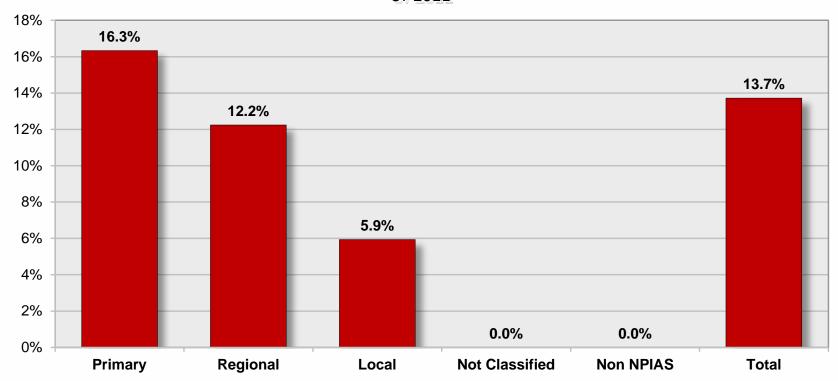


Note: Average Stage Length Weighted by Departures, Does Not Include Departures Where No Mileage Was Given



#### 14% of the Vermont GA Flights Have Stage Lengths Over 500 nm

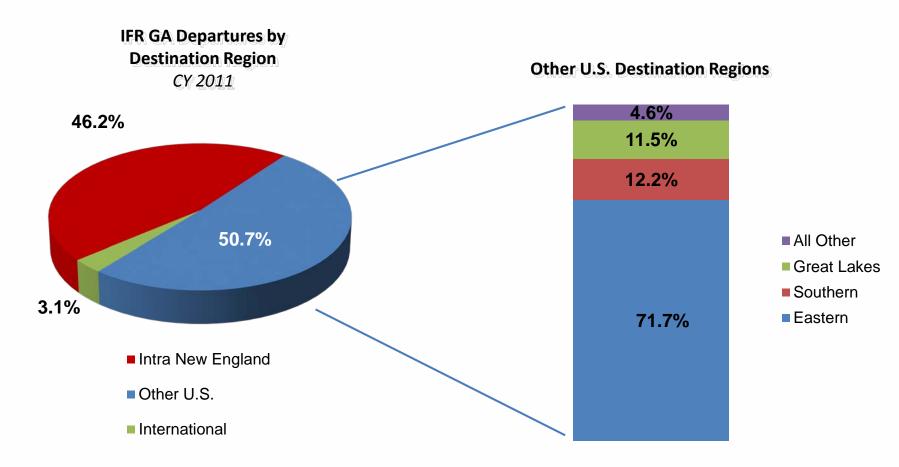
### Percent of Vermont IFR GA Departures Greater Than 500 Nautical Miles CY 2011



Note: Does Not Include Departures Where No Mileage Was Given



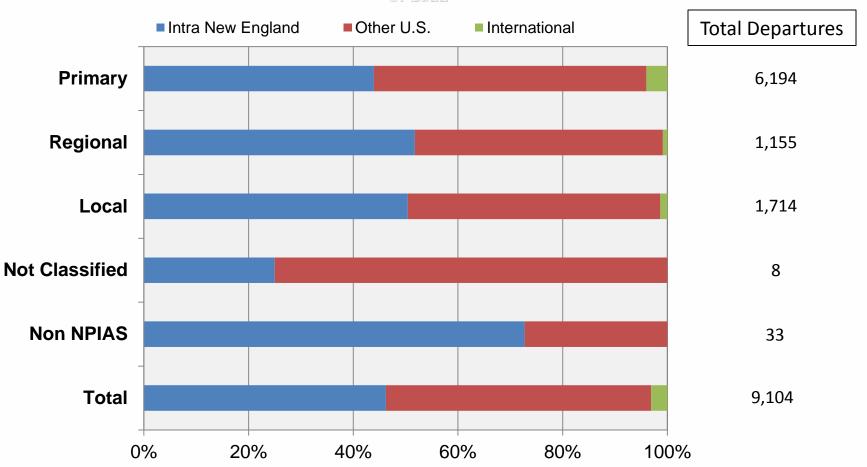
# More than 50% of Vermont's IFR GA Flights are to Domestic Destinations Outside the Region





### 46% of Vermont's GA IFR Flights are to Other New England Airports

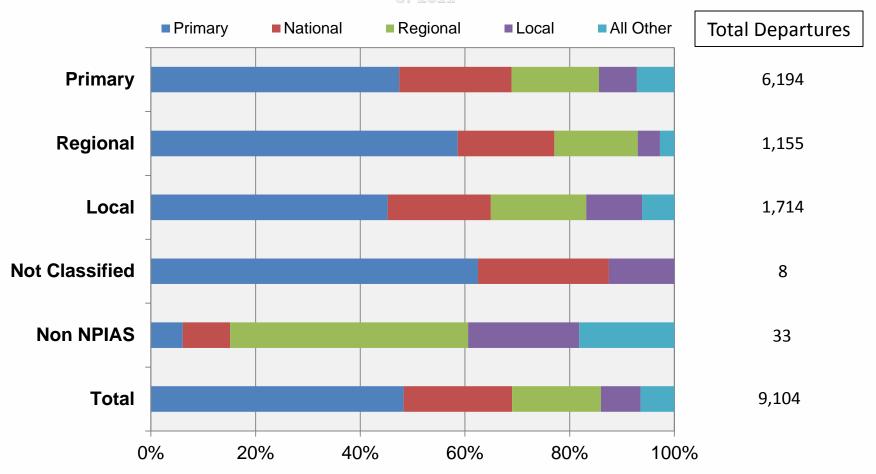
## Vermont GA IFR Departures by Destination Region CY 2011





#### 48% of Vermont's Flights are to Primary Airports

## Vermont GA IFR Departures by Destination Airport Type CY 2011



Note: All Other Includes Basic, Non Classified, Non NPIAS and International Airports



# **Top Domestic Destinations Outside New England from Vermont Airports**

## **Top Domestic Destinations Outside New England from Vermont Airports** *CY 2011*

Rank	Airport	State	Region	GA IFR Arrivals	% of Total
1	Westchester County	NY	Eastern	533	11.6%
2	Teterboro	NJ	Eastern	358	7.8%
3	Caldwell Essex County	NJ	Eastern	115	2.5%
4	Morristown	NJ	Eastern	107	2.3%
5	Farmingdale Republic	NY	Eastern	101	2.2%
6	Albany	NY	Eastern	70	1.5%
7	Leesburg Executive	VA	Eastern	67	1.5%
8	Islip	NY	Eastern	64	1.4%
9	Washington Dulles	DC	Eastern	57	1.2%
10	Monmouth Executive	NJ	Eastern	54	1.2%
	All Other			3,086	66.9%
	Total			4,612	100.0%



#### **Top Segments for Vermont International Flights**

## Top Vermont International O&D Segments for GA IFR Departures CY/2011

Rank	Origin	Destination	Nautical Miles	GA IFR Departures	% of Total
1	Burlington	Montreal Dorval	65	48	17.0%
2	Burlington	Toronto	283	33	11.7%
3	Burlington	Toronto Buttonville	270	19	6.7%
4	Burlington	Bermuda	842	11	3.9%
5	Burlington	Ottawa	118	10	3.5%
6	Burlington	Goose Bay	728	9	3.2%
7	Burlington	Saint John's	867	9	3.2%
8	Burlington	Montreal Saint Hubert	63	8	2.8%
9	Burlington	Toronto City Centre	274	8	2.8%
10	Burlington	Quebec	157	7	2.5%
11	Burlington	London Luton	2,821	5	1.8%
12	Burlington	Peterborough	193	5	1.8%
13	Burlington	Hermosillo	2,016	3	1.1%
14	Burlington	Paris Le Bourget	2,988	3	1.1%
15	Burlington	Nice	3,313	3	1.1%
16	Burlington	Toronto Hamilton	303	3	1.1%
17	Burlington	Muskoka	263	3	1.1%
18	Burlington	Gander	807	3	1.1%
19	Burlington	Saint John	313	3	1.1%
20	Burlington	Sept-lles	444	3	1.1%
	Subtotal Top	20		196	69.5%
	All Other			86	30.5%
	Total			282	100.0%

Note: There are total 88 unique international flight O&Ds

Source: FAA TFMSC Data and ICF SH&E

Analysis