

Vermont Airport System Plan Update

Plan Update Overview & Process

COSTA PAPPIS, POLICY & PLANNING SECTION

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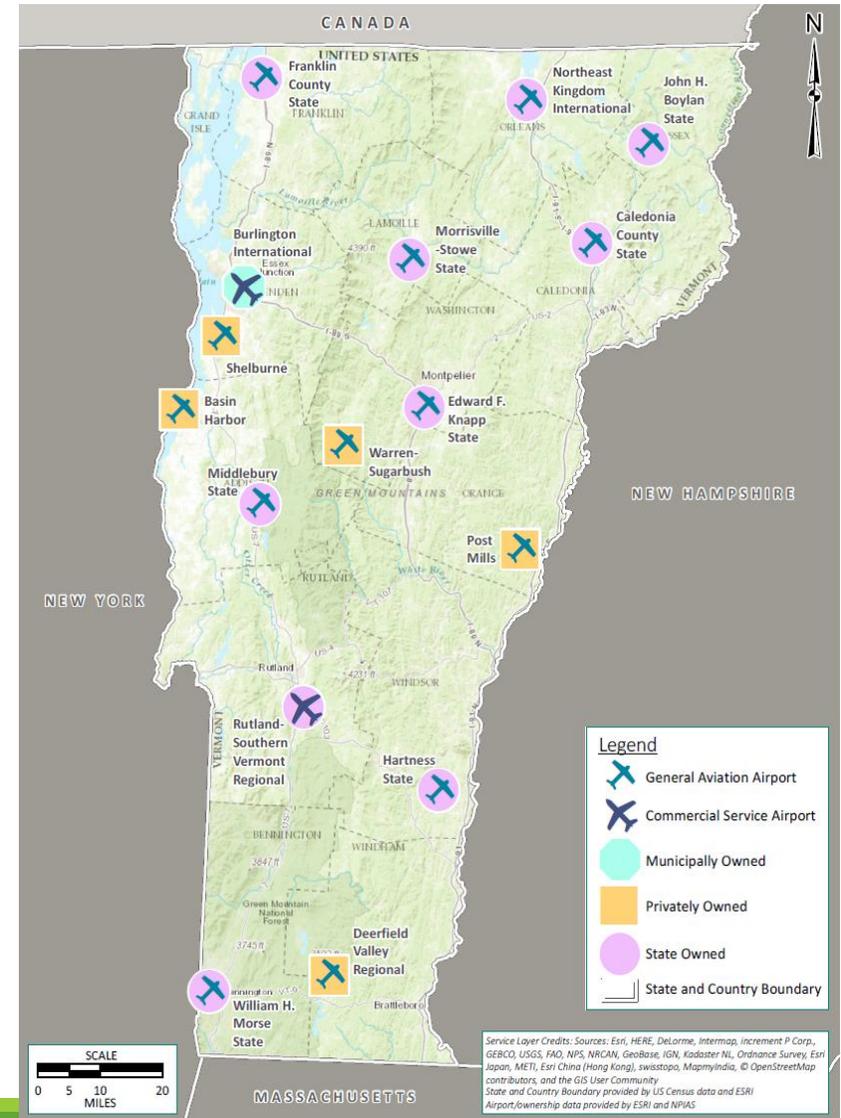
What is the Aviation System Plan?

A long-range 20-year plan to manage the development and operations of Vermont's public-use airports



16 Airports in Vermont are classified as public-use:

- 10 state-owned
- 1 municipal
- 5 private



Why Do We Need this Plan?

- To meet federal aviation requirements. States must maintain a Plan to be eligible for certain types of aviation funding.
- The current Plan is over 10 years old and may no longer reflect current system needs and priorities.



How Will We Develop the Plan?

- Evaluate the adequacy and performance of the State's public use airports
- Develop a vision
- Assess needs
- Develop goals and recommendations to support airport development

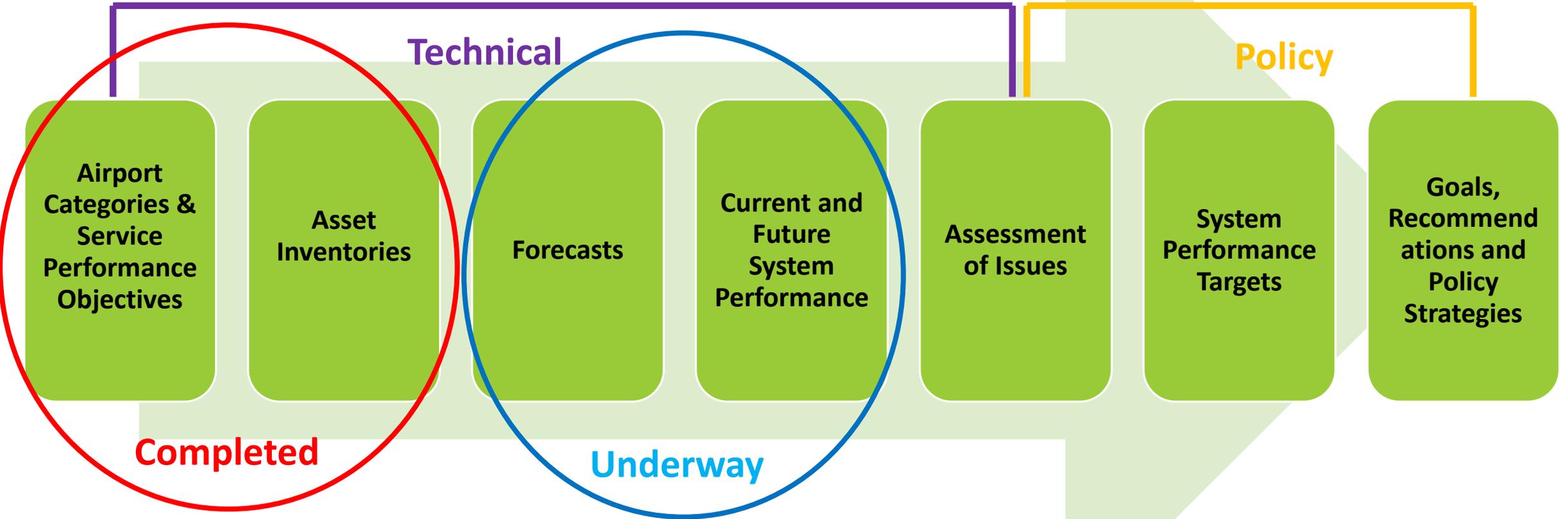


- Aviation Advisory Council
- FBOs / stakeholders
- Public comments

What's Changed Since 2007

- Federal aviation policies and funding
- New FAA standards and guidelines, including updated Advisory Circular on systems planning
- Rapidly evolving aviation technology
- Updated State Long Range Transportation Plan

Plan Development Process



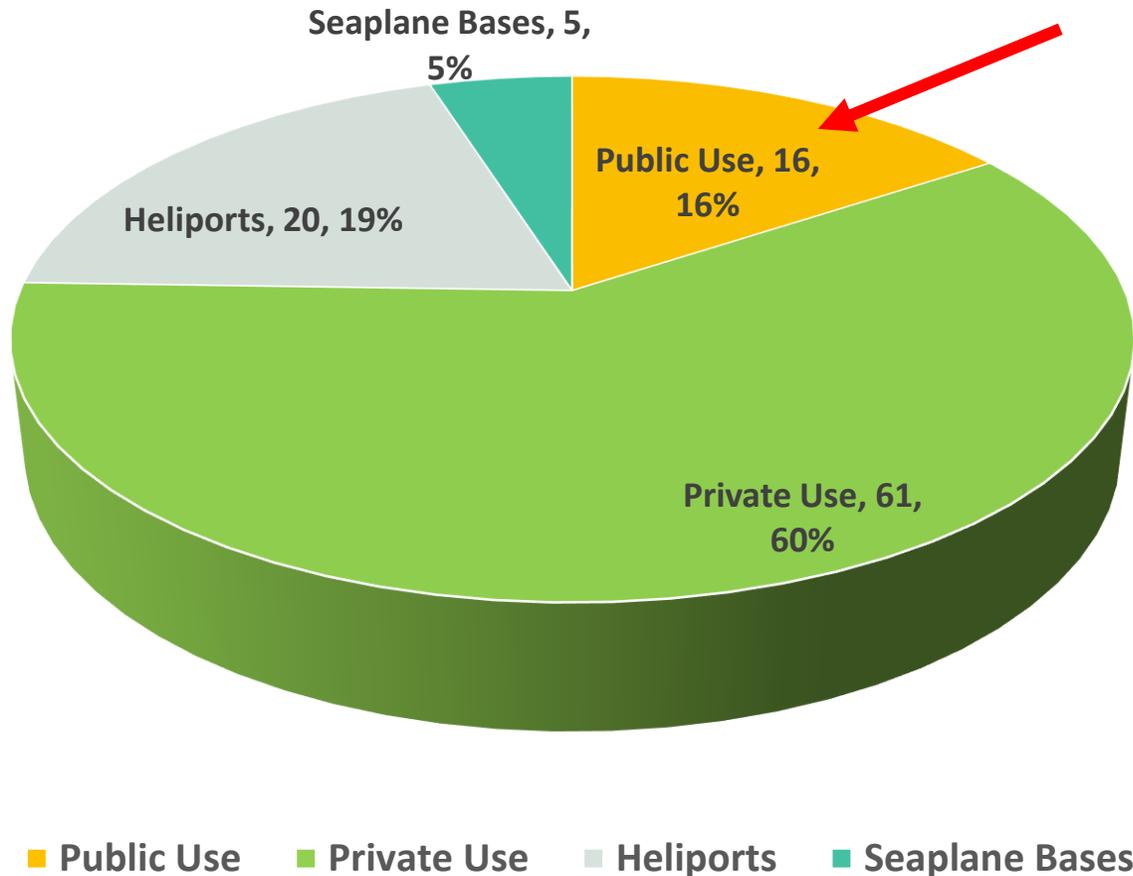
H.620 Marketing of State Airports

Requires that the Agency of Commerce and Community Development:

1. Update the State's Economic Development Marketing Plan to incorporate the marketing of State-owned airports.
 - A. shall consider the State Aviation Systems Plan
 - B. shall address economic development opportunities with respect to each State-owned airport, including the recruitment and expansion of businesses involved in the development and commercialization of next-generation aeronautics technologies
2. Evaluate the feasibility of:
 - A. the installation of electric vehicle charging stations at the airport;
 - B. the installation of electric aircraft charging stations at the airport; and
 - C. the siting of one or more renewable energy generating plants at the airports.

Vermont Airports Profile

Total Airports, Airstrips & Air Bases in Vermont



Economic Impact of Vermont's Public-Use Airports Study (currently underway)

- Will update the 2003 Economic Impact Study:
 - Quantify direct, indirect, and induced jobs and wages.
 - Determine what economic sectors are represented among on-airport businesses.

Rutland Southern Vermont Regional Airport



Recent Improvements

- Full parallel taxiway
- Runway extension
- Runway safety area

Identified Needs

- Apron rehabilitation
- Hangar space
- Improved snow removal equipment building

Rutland Southern Vermont Regional Airport – Status of Master Plan

- Just received federal funding for full update to the RSVRA Master Plan, including the Airport Layout Plan
- Last full Master Plan was in 2009
- Several amendments made to the Airport Layout Plan over the years (i.e. taxiway, runway projects)
- New official Airport Layout Plan will be developed as part of the Master Plan

Airport Operations (2017)

Airport Name	Air Carrier	Air Taxi	GA Local	GA Itinerant	Military	Total
Basin Harbor	-	-	-	2,120	62	2,182
Burlington International	12,972	12,131	19,720	19,736	6,241	70,800
Caledonia County State	-	-	5,800	1,280	300	7,380
Deerfield Valley Regional	-	-	1,800	1,300	-	3,100
Edward F. Knapp State	-	625	14,500	8,000	1,000	24,125
Franklin County State	-	-	5,780	2,815	1,500	10,095
Hartness State	-	222	3,752	2,487	150	6,611
John H Boylan State	-	-	127	264	12	403
Middlebury State	-	-	7,200	2,900	800	10,900
Morrisville- Stowe State	-	127	5,023	954	254	6,358
Northeast Kingdom International	-	-	7,234	1,980	238	9,452
Post Mills	-	10	2,920	1,400	-	4,330
Rutland - Southern Vermont Regional	-	1,104	6,187	5,061	30	12,382
Shelburne	-	-	3,820	416	-	4,236
Warren-Sugarbush	-	-	16,520	1,100	-	17,620
William H. Morse State	-	-	5,625	8,627	125	14,377
Total	12,972	14,219	106,008	60,440	10,712	204,351

Runway, Taxiway Facilities & Approach Facilities

Airport Name	Primary Runway		Runway Lighting	Taxiway Type / Lighting (Type/N)	Best Approach
	Length	Width			
Basin Harbor	3,000	90	N/A	N / N	Visual
Burlington International	8,319	150	HIGH / ALS	Full Parallel (Dual) / MITL	Precision
Caledonia County State	3,300	60	MED / REIL	Partial, Stubs / N	Non-Precision
Deerfield Valley Regional	2,650	75	MED	Stubs / N	Visual
Edward F. Knapp State	5,002	100	MED / REIL	Full Parallel /	Precision
Franklin County State	3,000	60	MED / REIL	Partial, Stubs, Turnaround / N	Non-Precision
Hartness State	5,501	100	MED / REIL	Stubs, Turnaround / N	Non-Precision
John H Boylan State	2,650	120	N/A	N / N	Visual
Middlebury State	2,500	50	N/A	Full Parallel / N	Visual
Morrisville- Stowe State	3,700	75	MED / REIL	Turnaround / N	Non-Precision
Northeast Kingdom International	5,000	100	MED / REIL	Partial, Turnaround / N	Non-Precision
Post Mills	2,900	80	N/A	N / N	Visual
Rutland - Southern Vermont Regional	5,003	100	MED / REIL	Partial / MITL	Precision
Shelburne	3,077	60	N/A	N / N	Visual
Warren-Sugarbush	2,575	30	N/A	Turnaround / N	Visual
William H. Morse State	3,704	75	MED / REIL	Stubs / N	Non-Precision

Based Aircraft by Type

Airport Name	Single Engine	Multi-Engine	Jet	Helo	Other	Military	Total
Basin Harbor	-	-	-	-	-	-	0
Burlington International	62	3	14	1	-	28	79
Caledonia County State	18	-	-	-	-	-	18
Deerfield Valley Regional	5	2	-	7	-	-	7
Edward F. Knapp State	50	2	-	1	-	-	52
Franklin County State	68	1	-	-	5	-	69
Hartness State	19	-	-	-	8	-	19
John H Boylan State	3	-	-	-	2	-	3
Middlebury State	32	1	1	1	1	-	34
Morrisville- Stowe State	18	1	-	-	8	-	19
Northeast Kingdom International	19	1	-	-	-	-	20
Post Mills	-	-	-	-	9	-	0
Rutland - Southern Vermont Regional	29	-	-	-	1	-	29
Shelburne	53	-	-	-	4	-	53
Warren-Sugarbush	-	-	-	-	50	-	0
William H. Morse State	23	2	-	1	6	-	25
Total – VTSASP Airports	399	13	15	11	94	28	427
Additional – Non-VTSASP Airports	-	-	-	-	-	-	68

Airport Categories

Category 1 Airports - provide a *basic level of facilities and services* that are best suited to serve single engine piston and light twin engine aircraft.

Category 2 Airports: Category 2 Airports are facilities that *offer a higher level of facilities and services* than Category 1 Airports. Typically have equipment that enhances safety of use during inclement weather, and complimentary facilities and services that may be able to accommodate smaller jet aircraft during favorable conditions.

Category 3 Airports - can *accommodate jet activity* during a broader range of weather conditions, and serve as regional gateways for activities such as corporate aviation, charter services and small cargo-feeder operations.

Category 4 Airports - Facilities with *the most robust compliment of facilities, equipment, and services* that can accommodate the full-range of aircraft in the active fleet – from small, single engine piston aircraft to passenger aircraft and airlines that operate them.



Proposed Facility & Service Standards by Airport Categories: Consultant Recommendations

Category 1

Minimum Facility & Service Standard	Recommended Facilities & Services
Primary Runway Length ($\leq 2,500'$) - Paved or Turf	Primary Runway ($\geq 4,000'$) - Paved
Part-Time Airport Manager on Site (Seasonal OK)	Full-Time Airport Manager on Site (Seasonal OK)
Mogas or 100LL Fuel on Site	100LL Self-Service Aviation Fuel on Site
Basic Terminal Building/Shelter	Part-time Operations Staff on Site or Contracted
	Single-Service SASO or Full-service FBO on Site at Least Part-Time
	Lighted Windsock
	GPS Instrument Approach Procedure

Proposed Facility & Service Standards by Airport Categories: Consultant Recommendations

Category 2

Minimum Facility & Service Standard	Recommended Facilities & Services
Primary Runway (≥4,000') – Paved	Primary Runway (≥5,000')
100LL Self-Service Aviation Fuel on Site	100LL AND Jet-A Self-Service Aviation Fuel on Site
Full-Time Airport Manager on Site (Seasonal OK)	Full-Time Airport Manager on Site
Part-time Operations Staff on Site or Contracted	Full-Time Operations Staff on Site
Single-Service SASO or Full-service FBO on Site at Least Part-Time	One Full-Service FBO on Site Full-Time
Lighted Windsock	Runway and Taxiway Edge Lights
GPS Instrument Approach Procedure	GPS Instrument Approach Procedure with Vertical Guidance
	Terminal Building with Pilot and Visitor Amenities
	Own/Operate Snow-Removal Equipment
	Aircraft/Avionics Maintenance Services on Site
	Rotating Airport Beacon

Proposed Facility & Service Standards by Airport Categories: Consultant Recommendations

Category 3

Minimum Facility & Service Standard	Recommended Facilities & Services
Primary Runway (≥5,000')	On Site Concessions or Restaurant
Full-Time Airport Manager on Site	Precision Instrument Approach (ILS /CAT I)
Full-Time Operations Staff on Site	Rental Cars
Terminal Building with Pilot and Visitor Amenities	No recommended Facilities & Service Objectives related to Scheduled Passenger Service.
100LL AND Jet-A Self-Service Aviation Fuel on Site	
One Full-Service FBO on Site Full-Time	
Runway and Taxiway Edge Lights	
Rotating Airport Beacon	
Own/Operate Snow-Removal Equipment	
Aircraft/Avionics Maintenance Services on Site	
GPS Instrument Approach Procedure with Vertical Guidance	

Proposed Facility & Service Standards by Airport Categories: Consultant Recommendations

Category 4

Minimum Facility & Service Standard	Recommended Facilities & Services
Terminal Building - Full-Time Passenger and/or Cargo Handling Capabilities (TSA, Customs, etc.)	<p>There are no recommended Facilities & Service Objectives for Category 4 Airports. Most appropriate for Airport Master Plans to address requirements based on passenger service demand.</p>
Scheduled Air Passenger/Cargo Service	
Intermodal Transportation Connections at/near Site	
On Site Concessions or Restaurant	
Airport Security Measures (SIDA, Badging, Staff etc.)	
Aircraft Rescue and Firefighting (ARFF)	
Precision Instrument Approach (ILS/CAT I)	
Aircraft/Avionics Maintenance Services on Site	
Rental Cars	

Next Steps - Forecasts & Needs Identification

- What is a likely growth scenario for public-use airports?
- What types of facilities and services will airports require to meet current and future demand?
- What recommendations and strategies will we need to implement identified needs.

Next Steps - Policy Issues

Aviation's Integration with Other Transportation Modes

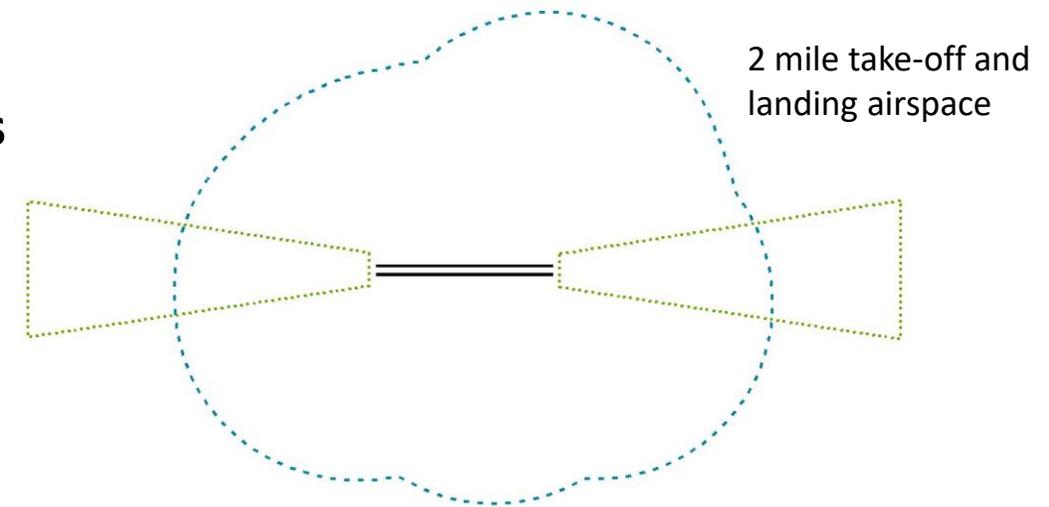
- Passenger connections and interlining
- Freight needs

Land Use-Built Environment Linkages

- Growth of airports and impacts to surrounding communities and environments
- Protecting airports from encroachment

Economic Development

- Economic impacts of airports on local and regional economies, and the state's economy.
- Airport development opportunities



What Comes Next? Policy Issues

Financial Sustainability

- Funding for aviation projects
- Private sector involvement in financing airport improvements

Project Prioritization

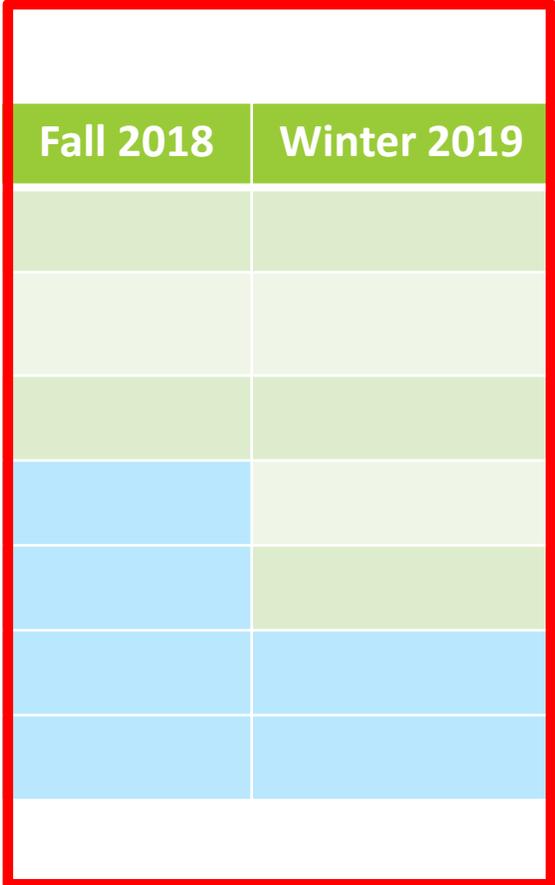
- Addressing FAA priorities and requirements with other priorities, such as economic development.

Technological Developments

- Preparing for evolving technologies such as Next Generation Aircraft System (NextGen)
- Support for emerging technologies

Plan Update Timeline

Task	Spring 2018	Summer 2018	Fall 2018	Winter 2019
Airport Categories & Service / Performance Objectives				
Asset Inventories				
Forecasts				
Current & Future System Performance				
Policy Issues Review				
Goals, Recommendations, and Strategies				



Questions / Comments?

Contacts

Paul Libby, Project Manager
VTrans Rail & Aviation Bureau
E: paul.libby@vermont.gov

Costa Pappis, Planning Support
VTrans Policy & Planning Section
E: costa.pappis@vermont.gov

Project website - <http://vtrans.vermont.gov/aviation/vermont-airport-system-plan>