

# Chapter 1: History

## 1.1 Introduction

Burlington International Airport's history began in 1920 when airport developers took a lease on a 72-acre cornfield. Leading the effort was a three-member committee—the forerunner of the Lake Champlain Regional Chamber of Commerce—consisting of John Burns, Mason Bee, and James Taylor. Leasing the land for \$100 the first year, the developers were then tasked to make an airport or landing field. Following the preparation of a landing field, on August 14, 1920, the airport saw its first landing; Captain H.S. Broad, who served in the air forces of Great Britain during WWI, landed at the airport in a British Avro. At that time, the airport was known as Burlington Municipal Airport.

The airport experienced significant growth over the next 10 years. Curtis-Wright Aviation settled at the airport and provided a full array of services including air rides. Next, the Champlain Transportation Company and Boston & Main/Central Vermont airways offered first short-haul then long-haul commercial passenger service.

In 1941, Burlington Municipal may have been the busiest airport in the world because with WWII going on, the airport was used as a pilot training center. Then on July 1, 1946, the Vermont Air National Guard was established at the airport. There was a strong link between the arrival of the military and the investment in the airfield, which in turn enabled a huge increase in commercial air service over the next 60 years.

Something that has not changed with the airport is its need for parking. In 1950, it was reported that 25,000 people had flown through the airport and needed places to park their cars. In response to this, the city and state combined to appropriate \$15,000 for a parking expansion. 60 years later, in 2010, with 1.5 million passengers coming through the airport, the voters of Burlington approved a \$21.5 million bond issue to expand the parking garage.

In 1969, Burlington Municipal Airport changed its name to Burlington International Airport to move away from the notion that the airport was a small, community airport. One year later, jet service was introduced to the airport when Mohawk Airlines scheduled a Burlington-Boston route. Then in 1973, the 40,000 ft<sup>2</sup> terminal building was constructed.

In the 2000s, increases in growth and service led to \$24 million in renovations and expansions. JetBlue entered Burlington in 2000, which launched a new era at BTV—and in the US—as a Low-Cost Carrier. Today, with flights operated by and/or under American, Delta, JetBlue, United, Porter and Frontier, passengers in the area, including the passenger base coming from Quebec, Canada, can fly to 13 different destinations.

## 1.2 Grant History

**Table 1-1** below shows the grant history of the airport, beginning in fiscal year 1982. Reading this list one can follow the growth progression at BTV.

*Table 1-1: Grant History*

Grant Number	Year	Project Description
<b>001-1982</b>	1982	Construct Apron
<b>002-1983</b>	1983	Acquire Aircraft Rescue & Fire Fighting Safety Equipment Install Runway Sensors Rehabilitate Runway Install Apron Lighting Groove Runway
<b>003-1984</b>	1984	Install Runway Sensors Install Apron Lighting Install Perimeter Fencing Extend Runway Rehabilitate Runway
<b>004-1984</b>	1984	Conduct Airport Master Plan Study
<b>005-1985</b>	1985	Groove Runway Install Weather Reporting Equipment Rehabilitate Runway Acquire Snow Removal Equipment
<b>006-1985</b>	1985	Rehabilitate Apron Expand Terminal Building
<b>007-1985</b>	1985	Improve Access Road Rehabilitate Taxiway Rehabilitate Apron Expand Apron
<b>008-1986</b>	1986	Rehabilitate Taxiway
<b>009-1987</b>	1987	Construct Apron Rehabilitate Apron
<b>010-1987</b>	1987	Conduct Noise Compatibility Plan Study
<b>011-1988</b>	1988	Rehabilitate Apron
<b>013-1988</b>	1988	Acquire Aircraft Rescue & Fire Fighting Safety Equipment Install Apron Lighting
<b>012-1989</b>	1989	Conduct Airport Master Plan Study
<b>014-1989</b>	1989	Expand Apron Acquire Snow Removal Equipment
<b>015-1990</b>	1990	Extend Taxiway Rehabilitate Taxiway Install Apron Lighting
<b>016-1990</b>	1990	Acquire Miscellaneous Land
<b>018-1991</b>	1991	Improve Building Acquire Snow Removal Equipment
<b>019-1992</b>	1992	Acquire Miscellaneous Land
<b>020-1992</b>	1992	Acquire Security Equipment

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<b>021-1992</b>	1992	Conduct Miscellaneous Study
<b>022-1993</b>	1993	Conduct Miscellaneous Study
<b>023-1993</b>	1993	Conduct Miscellaneous Study
<b>024-1993</b>	1993	Rehabilitate Runway Acquire Aircraft Rescue & Fire Fighting Safety Equipment Install Runway Sensors Install Airfield Guidance Signs Rehabilitate Taxiway Lighting
<b>025-1993</b>	1993	Install Perimeter Fencing Conduct Miscellaneous Study Improve Service Road
<b>026-1994</b>	1994	Install Runway Lighting
<b>027-1994</b>	1994	Acquire Land for Development
<b>029-1995</b>	1995	Conduct Airport Master Plan Study
<b>028-1996</b>	1996	Environmental Mitigation Remove Obstructions
<b>030-1996</b>	1996	Acquire Miscellaneous Land
<b>031-1996</b>	1996	Conduct Airport Master Plan Study
<b>032-1996</b>	1996	Acquire Snow Removal Equipment
<b>033-1997</b>	1997	Improve Runway Safety Area
<b>034-1998</b>	1998	Acquire Land for Development Acquire Land for Noise Compatibility within 70-74 DNL
<b>035-1999</b>	1999	Rehabilitate Runway Improve Service Road
<b>036-2000</b>	2000	Conduct Airport Master Plan Study
<b>037-2000</b>	2000	Acquire Miscellaneous Land
<b>038-2000</b>	2000	Acquire Snow Removal Equipment
<b>039-2001</b>	2001	Acquire Snow Removal Equipment
<b>041-2001</b>	2001	Acquire Land for Noise Compatibility outside 65 DNL
<b>042-2001</b>	2001	Conduct Environmental Study
<b>040-2002</b>	2002	Rehabilitate Runway
<b>043-2002</b>	2002	Security Enhancements
<b>044-2002</b>	2002	Update Airport Master Plan Study
<b>045-2002</b>	2002	Acquire Snow Removal Equipment
<b>046-2002</b>	2002	Acquire Land for Noise Compatibility within 65 – 69 DNL
<b>047-2002</b>	2002	Security Enhancements
<b>049-2003</b>	2003	Acquire Land for Noise Compatibility within 65 – 69 DNL
<b>050-2003</b>	2003	Acquire Snow Removal Equipment
<b>051-2003</b>	2003	Security Enhancements
<b>052-2003</b>	2003	Update Airport Master Plan Study
<b>053-2004</b>	2004	Acquire Land Development
<b>054-2004</b>	2004	Improve Runway Safety Area
<b>055-2005</b>	2005	Acquire Land for Noise Compatibility within 65 – 69 DNL
<b>056-2005</b>	2005	Acquire Miscellaneous Land
<b>057-2005</b>	2005	Expand Terminal Building Construct Apron

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<b>058-2005</b>	2005	Construct Taxiway
<b>059-2005</b>	2005	Security Enhancements
<b>060-2006</b>	2006	Conduct Noise Compatibility Plan Study
<b>062-2006</b>	2006	Construct Apron Construct Taxiway
<b>063-2006</b>	2006	Environmental Mitigation
<b>064-2006</b>	2006	Acquire Land for Noise Compatibility within 65 – 69 DNL
<b>065-2006</b>	2006	Rehabilitate Runway
<b>066-2007</b>	2007	Acquire Land for Noise Compatibility within 75 DNL
<b>067-2007</b>	2007	Conduct Noise Compatibility Plan Study
<b>068-2007</b>	2007	Acquire Land for Development
<b>069-2008</b>	2008	Construct Apron
<b>070-2008</b>	2008	Acquire Land for Noise Compatibility within 65 – 69 DNL
<b>071-2008</b>	2008	Construct Apron
<b>072-2008</b>	2008	Update Airport Master Plan Study
<b>073-2009</b>	2009	Rehabilitate Runway
<b>074-2009</b>	2009	Acquire Land for Noise Compatibility within 65 – 69 DNL Conduct Noise Compatibility Plan Study Noise Mitigation Measures
<b>075-2009</b>	2009	Rehabilitate Taxiway
<b>076-2009</b>	2009	Rehabilitate Taxiway
<b>078-2009</b>	2009	Acquire Land for Noise Compatibility within 65 – 69 DNL
<b>079-2009</b>	2009	Install Airfield Guidance Signs Install Taxiway Lighting
<b>080-2009</b>	2009	Rehabilitate Taxiway
<b>081-2010</b>	2010	Acquire Land for Noise Compatibility within 65 – 69 DNL
<b>082-2010</b>	2010	Rehabilitate Runway
<b>083-2010</b>	2010	Rehabilitate Runway Extend Runway
<b>084-2010</b>	2010	Acquire Land for noise Compatibility within 65 – 69 DNL
<b>085-2010</b>	2010	Rehabilitate Taxiway
<b>086-2011</b>	2011	Wildlife Hazard Assessments
<b>087-2011</b>	2011	Acquire Land for Noise Compatibility within 65 – 69 DNL
<b>088-2011</b>	2011	Acquire Land for Noise Compatibility within 65 – 69 DNL
<b>089-2012</b>	2012	Acquire Land for Development
<b>090-2012</b>	2012	Rehabilitate Taxiway Rehabilitate Apron
<b>091-2012</b>	2012	Conduct Noise Compatibility Plan Study
<b>092-2012</b>	2012	Acquire Land for Noise Compatibility within 65 – 69 DNL
<b>093-2012</b>	2012	Rehabilitate Apron
<b>094-2012</b>	2012	Acquire Land for Noise Compatibility within 65 – 69 DNL Acquire Land for Noise Compatibility within 70 – 74 DNL
<b>095-2013</b>	2013	Rehabilitate Taxiway
<b>096-2013</b>	2013	Rehabilitate Apron
<b>097-2013</b>	2013	Security Enhancements
<b>098-2013</b>	2013	Acquire Land for Noise Compatibility within 65 – 69 DNL

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099-2014	2014	Rehabilitate Apron
100-2014	2014	Rehabilitate Apron
101-2014	2014	Security Enhancements
102-2014	2014	Construct Taxiway
103-2015	2015	Rehabilitate Apron
104-2015	2015	Construct Taxiway
105-2015	2015	Acquire Land for Noise Compatibility within 65 – 69 DNL
106-2016	2016	Rehabilitate Apron
107-2016	2016	Rehabilitate Apron
108-2016	2016	Acquire Land for Noise Compatibility within 70 – 74 DNL
109-2016	2016	Conduct Noise Compatibility Plan Study Acquire Land for Noise Compatibility within 70 – 74 DNL
110-2016	2016	Conduct Noise Compatibility Plan Study
111-2017	2017	Rehabilitate Airport Beacons
112-2017	2017	Reconstruct Taxiway
113-2018	2018	Airport Master Plan Update

### 1.3 Proposed Projects from the Vision 2030 Master Plan Update

In January 2012, the BTV's *Vision 2030 Airport Master Plan Update* was completed, and it recommended many development projects for the airport to be completed over the course of 20 years. Phase 1 projects were anticipated to happen from 2010-2014, Phase 2 projects were anticipated to happen from 2015-2019, and the final phase's projects were anticipated to happen from 2020 and on. **Table 1-2** highlights the key projects in each phase. Many of the projects from the Vision 2030 Master Plan Update have been complete, particularly the initial phases of the noise mitigation plan, including the purchasing property surrounding the airport that was in the 65 DNL. Following this acquisition, the airport undertook an update to the Land Re-Use Plan to determine how to re-use the noise properties.

Runway 1-19 was extended and other airside improvements, including constructing Taxiway K, relocating Taxiway G, constructing Taxiway E were completed. An Airport Hotel study was completed as well.

### 1.4 SWOT Analysis

As part of the Master Plan process it is important to survey the users of the airport and the surrounding community to understand the airport's **Strengths**, **Weaknesses**, **Opportunities**, and **Threats** (SWOT). BTV management established the Technical Advisory Committee (TAC) and the Regional Advisory Committee (RAC) to help guide the development of the master plan. A survey was electronically submitted to the invitees to determine their preliminary identification of strength, weaknesses, opportunities and threats, followed up by in-person meetings.

#### 1.1.1 TAC SWOT Analysis Results

The TAC consists of users/tenants of the airport, including representatives from the Federal Aviation Administration (FAA), Airlines and Cargo Operators. General and Corporate Aviation, Fixed Base Operators and tenants, rental care and parking companies, Transportation Security Administration (TSA), local community and regional planning, National Guard units are also on the TAC.

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On August 28<sup>th</sup>, 2018, the TAC met in the conference room at the Burlington International Airport Terminal Building to conduct a SWOT analysis for this Airport Master Plan. The preliminary findings from the electronic survey were presented to the TAC, and then they openly discussed which strengths, weaknesses, opportunities, and threats they identified may be more significant than others.

After the discussion, four boards, one for each SWOT category, were placed around the room so participants could vote on which specific strengths, weaknesses, opportunities, and threats are most important. Each participant was provided with four colored dots per board to vote. A red dot equals four points, a yellow dot equals three points, a green dot equals two points and a blue dot equals one point. **Tables 1-2 thru 1-5** are the findings, based on the dot placement.

*Table 1-2: TAC Identified Strengths*

Strengths	
Category	Votes
Partnership with Vermont Air National Guard (VTANG)	65
Operations: Snow Removal/Remaining Open	42
Existing Airline Service	38
Training: ATC/Maintenance/Pilots	26
Convenience: Airport Location/Destination	12
Customers/Canadian \$	9
Funding Sources: FAA	9
Strong FBO	8
ATC not at Capacity	3

*Table 1-3: TAC Identified Weaknesses*

Weaknesses	
Category	Votes
Terminal Congestion	71
Location of Tenants vs. Taxiway Configuration	57
Ground Access	33
1-19 Configuration	31
ATC Hours / Physical Taxiway	18
Lack of Vendors	12
Lack of Funding	11

*Table 1-4: TAC Identified Opportunities*

<b>Opportunities</b>	
<b>Category</b>	<b>Votes</b>
<b>Community Relations</b>	49
<b>Access Road Improvements</b>	38
<b>Grow General Aviation</b>	36
<b>Separate Cargo Operations Area</b>	27
<b>TSA Central Location</b>	27
<b>Infrastructure Meeting FAA Design</b>	25
<b>Inline Baggage Screening</b>	14
<b>Improved Communication Between ATC and Airlines</b>	9
<b>Taxiway G Relocation / Apron Development</b>	7

*Table 1-5: TAC Identified Threats*

<b>Threats</b>	
<b>Category</b>	<b>Votes</b>
<b>Space for Tenants</b>	55
<b>Terminal Space</b>	52
<b>Rehabilitate 15-33</b>	35
<b>Parking</b>	31
<b>Security</b>	30
<b>Ground Access</b>	27
<b>Environment</b>	14
<b>Staffing</b>	1

### 1.1.2 RAC SWOT Analysis Results

Similarly, on September 25<sup>th</sup>, 2018, the RAC convened to undergo the in-person SWOT analysis, which was conducted in the same manner as the TAC meeting. **Tables 1-6** through **1-9** summarize the RAC meeting results.

The RAC consists of community membership, including Legislative representatives, Chittenden County Regional Planning Commission, City of Burlington, City of South Burlington, City of Winooski, Town of Colchester, Town of Essex, Town of Williston, local higher-level education and the National Guard.

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Table 1-6: RAC Identified Strengths

Strengths	
Category	Votes
VTANG Partnership (\$2-\$3 million ARFF, \$4.9-\$5.5 million savings – 2 <sup>nd</sup> Responder)	31
Business Economic Driver	30
Travelers to Region/Spending of Money – North Connection	21
Resource for Vermonters to Travel	16
Diversity of Air Service	12
Amazing Employer	10
Convenience	7
Can Live in Vermont but Work Elsewhere	4
Venue Resource (Good Neighbor)	3
Local Business Support for Shipping (Air Cargo)	2
Educational/Shared Leadership	0
Excellent Venue for Local Art Display	0
Infrastructure	0
Well Maintained Facility	0

Table 1-7: RAC Identified Weaknesses

Weaknesses	
Category	Votes
Governance/Skewed Ownership and Management Structure to Community it Affects	29
Ground Access – Local/Highway	29
Community Relations	27
Single TSA – Disjointed Configuration	23
Location – Encroaching Proximity to Dense Population	20
Lack of Cultural Competence	10
Commercial and Military Airport	5
Ancillary – Hotel, Customs, Conference Center, Marketing, Food Vendors, Baggage Service	4
Flight Schedules/Destinations – Limited and Expensive Fares	4
Limited Comparison – Uniqueness of Facility	4
Airfield – Terminal/ Taxiway A Too Close, Noise, Traffic, Concourse Too Small, Undeveloped Real Estate	2
Clarity of Facility – Who/What It Is	0
General Aviation – Fuel Costs, Aging Infrastructure, Collaboration with Stakeholders	0

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Table 1-8: RAC Identified Opportunities

Opportunities	
Category	Votes
<b>Economic Driver of Growth</b>	30
<b>Continue to Improve Communication with Communities such as South Burlington and Other Locals to Further Engage Them</b>	28
<b>Governance</b>	23
<b>What Economic Impact is and Local Resources from Communities</b>	20
<b>Increase Safety/Reduce Risk – e.g. Additional Flight Hours for Military Jets Before Basing, Critical Event Planning</b>	14
<b>Improve/Enhance Leadership/Shared Experiences with Communities</b>	12
<b>Access Road Improvements</b>	9
<b>Expanded Service – BOS, Mainline Carriers, International, Curbside Check-in</b>	7
<b>Market Control - Usership</b>	6
<b>General Aviation – Fuel Costs, Fresh Facilities, Growth, Flight Training</b>	2
<b>Infrastructure – Physical, Operational, Quarry Land for Development, New Maintenance Facility</b>	2
<b>TSA Improvements – Consolidated</b>	1
<b>Community Relations – Marketing, Sell VT, More Public Transportation</b>	0

Table 1-9: RAC Identified Threats

Threats	
Category	Votes
<b>Funding – Maintenance of Facility</b>	42
<b>Anything that Threatens VTANG Presence</b>	33
<b>Terminal Congestion</b>	27
<b>International Changes – Exchange Rate, International Flight Rules, Border Customs</b>	20
<b>Increased Airline Fees</b>	13
<b>Climate Change</b>	11
<b>TSA Congestion</b>	11
<b>Community Relations/Regionalization – Lack of Local Support</b>	9
<b>Plattsburgh</b>	5
<b>Adverse Effects of Employment Loss</b>	0
<b>Loss of Tenants</b>	0
<b>Terminal Congestion – Parking Too Close to Building, No Room in Front of Ticket Counters, Not Enough Waiting Room</b>	0
<b>Terrorist Threat</b>	0

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Based on the individual SWOT analysis from the TAC and RAC, the following areas were clearly identified to be addressed in this Master Plan. Key points that are part of this master plan include:

- Terminal related/ancillary issues
- Airside constraint issues
- Ground access/parking issues
- TSA congestion/security issues
- Runway 1-19 Configuration
- Cargo development issues
- Rehabilitation of Runway 15-33 issues
- Environmental impacts
- Economic Impacts

Other elements that were identified under the SWOT analysis but will not be directly addressed in the Master Plan, can be used by Airport Management for consideration in future operations of the airport.

