

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 ft² 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
001-1982	1982	Construct Apron
002-1983	1983	Acquire Aircraft Rescue & Fire Fighting Safety Equipment Install Runway Sensors Rehabilitate Runway Install Apron Lighting Groove Runway
003-1984	1984	Install Runway Sensors Install Apron Lighting Install Perimeter Fencing Extend Runway Rehabilitate Runway
004-1984	1984	Conduct Airport Master Plan Study
005-1985	1985	Groove Runway Install Weather Reporting Equipment Rehabilitate Runway Acquire Snow Removal Equipment
006-1985	1985	Rehabilitate Apron Expand Terminal Building
007-1985	1985	Improve Access Road Rehabilitate Taxiway Rehabilitate Apron Expand Apron
008-1986	1986	Rehabilitate Taxiway
009-1987	1987	Construct Apron Rehabilitate Apron
010-1987	1987	Conduct Noise Compatibility Plan Study
011-1988	1988	Rehabilitate Apron
013-1988	1988	Acquire Aircraft Rescue & Fire Fighting Safety Equipment Install Apron Lighting
012-1989	1989	Conduct Airport Master Plan Study
014-1989	1989	Expand Apron Acquire Snow Removal Equipment
015-1990	1990	Extend Taxiway Rehabilitate Taxiway Install Apron Lighting
016-1990	1990	Acquire Miscellaneous Land
018-1991	1991	Improve Building Acquire Snow Removal Equipment
019-1992	1992	Acquire Miscellaneous Land
020-1992	1992	Acquire Security Equipment

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

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058-2005	2005	Construct Taxiway
059-2005	2005	Security Enhancements
060-2006	2006	Conduct Noise Compatibility Plan Study
062-2006	2006	Construct Apron Construct Taxiway
063-2006	2006	Environmental Mitigation
064-2006	2006	Acquire Land for Noise Compatibility within 65 – 69 DNL
065-2006	2006	Rehabilitate Runway
066-2007	2007	Acquire Land for Noise Compatibility within 75 DNL
067-2007	2007	Conduct Noise Compatibility Plan Study
068-2007	2007	Acquire Land for Development
069-2008	2008	Construct Apron
070-2008	2008	Acquire Land for Noise Compatibility within 65 – 69 DNL
071-2008	2008	Construct Apron
072-2008	2008	Update Airport Master Plan Study
073-2009	2009	Rehabilitate Runway
074-2009	2009	Acquire Land for Noise Compatibility within 65 – 69 DNL Conduct Noise Compatibility Plan Study Noise Mitigation Measures
075-2009	2009	Rehabilitate Taxiway
076-2009	2009	Rehabilitate Taxiway
078-2009	2009	Acquire Land for Noise Compatibility within 65 – 69 DNL
079-2009	2009	Install Airfield Guidance Signs Install Taxiway Lighting
080-2009	2009	Rehabilitate Taxiway
081-2010	2010	Acquire Land for Noise Compatibility within 65 – 69 DNL
082-2010	2010	Rehabilitate Runway
083-2010	2010	Rehabilitate Runway Extend Runway
084-2010	2010	Acquire Land for noise Compatibility within 65 – 69 DNL
085-2010	2010	Rehabilitate Taxiway
086-2011	2011	Wildlife Hazard Assessments
087-2011	2011	Acquire Land for Noise Compatibility within 65 – 69 DNL
088-2011	2011	Acquire Land for Noise Compatibility within 65 – 69 DNL
089-2012	2012	Acquire Land for Development
090-2012	2012	Rehabilitate Taxiway Rehabilitate Apron
091-2012	2012	Conduct Noise Compatibility Plan Study
092-2012	2012	Acquire Land for Noise Compatibility within 65 – 69 DNL
093-2012	2012	Rehabilitate Apron
094-2012	2012	Acquire Land for Noise Compatibility within 65 – 69 DNL Acquire Land for Noise Compatibility within 70 – 74 DNL
095-2013	2013	Rehabilitate Taxiway
096-2013	2013	Rehabilitate Apron
097-2013	2013	Security Enhancements
098-2013	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 28th, 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

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

Table 1-5: TAC Identified Threats

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

1.1.2 RAC SWOT Analysis Results

Similarly, on September 25th, 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 – 2nd 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
Economic Driver of Growth	30
Continue to Improve Communication with Communities such as South Burlington and Other Locals to Further Engage Them	28
Governance	23
What Economic Impact is and Local Resources from Communities	20
Increase Safety/Reduce Risk – e.g. Additional Flight Hours for Military Jets Before Basing, Critical Event Planning	14
Improve/Enhance Leadership/Shared Experiences with Communities	12
Access Road Improvements	9
Expanded Service – BOS, Mainline Carriers, International, Curbside Check-in	7
Market Control - Usership	6
General Aviation – Fuel Costs, Fresh Facilities, Growth, Flight Training	2
Infrastructure – Physical, Operational, Quarry Land for Development, New Maintenance Facility	2
TSA Improvements – Consolidated	1
Community Relations – Marketing, Sell VT, More Public Transportation	0

Table 1-9: RAC Identified Threats

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