

**HOW DO WE MAKE THE TERRACE-KITIMAT AIRPORT  
FINANCIALLY VIABLE IN THE LONG TERM?**

by

**Carman Hendry**

PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF  
MASTERS OF BUSINESS ADMINISTRATION

THE UNIVERSITY OF NORTHERN BRITISH COLUMBIA

APRIL 2010

© Carman Hendry 2010

**UNIVERSITY of NORTHERN  
BRITISH COLUMBIA  
LIBRARY  
Prince George, B.C.**

## Acknowledgements

Terrace-Kitimat Airport Society Directors

Project Supervisors Dr. Richard Tallman, Dr. Robert Ellis

# Introduction

---

In 2010, Carman Hendry became the third Airport Manager since the transfer of the Terrace-Kitimat Airport from the Federal Government to local control. He had 20 years of airfield operational experience at five different airports in British Columbia and was looking forward to returning to Terrace after a 3-year appointment at the Abbotsford Airport as the Manager of Operations. Carman had worked at the Terrace-Kitimat Airport in the past as Supervisor of Operations and had built relationships with the staff and directors of the board. These relationships would prove to work in his favor, as he would need to utilize them to manage the current airport deficit of \$1.3m. When the airport was transferred 11 years ago, it was given \$1m, by Transport Canada, to help set up operations and give the airport a head start in creating its own capital fund for some much-needed infrastructure improvements. The previous two airport managers had used the money to install an Instrument Landing System to reduce the weather-related missed approaches by aircraft, to extend the runway from 6,000 feet to 7,500 feet in hopes of attracting larger aircraft, to expand the Air Terminal Building to accommodate the new security offices, and to rebuild the groundside parking facilities and Air Terminal Entrance road.

The Terrace-Kitimat airport was built by the Canadian Department of National Defence in 1943 as part of a defense network to defend the coast from hostile invasion, and as part of the airport system used to ferry American aircraft to Alaska (McGrath, 1991). The airport was transferred to the Department of Transport in 1946. In 1997, it was transferred to the Terrace-Kitimat Airport Society, an independent, non-governmental, not-for-profit Corporation formed under the British Columbia Society Act. The Society has no shareholders and therefore no

shareholder benefits. All profit was used to improve the airport. The Society has four members: The Terrace & District Chamber of Commerce, the Kitimat Chamber of Commerce, the Regional District of Kitimat- Stikine, and the City of Terrace. Each member of the society chooses one director; then these four together choose 3 directors-at-large. The directors all serve a maximum of 3 consecutive 2-year terms. These 7 directors are usually selected due to their influence in the communities as well as any skills they have that are relevant to the airport. Two of the current directors are retired businessmen from the city of Kitimat. One of these directors was chosen to advise on labour issues, while the other was chosen for his leadership skills and was named chair of the board. Two of the directors are accountants, and one of the two will be finishing the last year of his term 3 months from now. The latter two directors both assist and advise on financial matters. One director is the manager of a local equipment-sales-and-repair company; he advises on equipment purchases. One director is the operations manager of the highway maintenance company and advises in operational issues. The last director is an academic who advises on fund-proposal writing and management oversight. These directors hire an airport manager to lead the airport through its day-to-day operations and into the future while steering it through the regulatory bureaucracy of the federal government.

The Terrace-Kitimat airport has two paved runways; the main runway, named 15/33, is 7,500 feet long. The secondary, cross-wind runway, named 03/21, is 5,373 feet. Both are 150 feet wide. Runway 15/33 was rehabilitated with an overlay of asphalt in 2001. An Instrument Landing System was installed to improve the reliability of the airport in 2001 at a cost of \$1.5 million. This cost was shared between the Airport and Nav Canada, the organization that is responsible for the installation and maintenance of all aircraft navigational aids in Canada. This instrument landing system brought the missed-flight average from 220 per year to under 18 per



year. The reliability of the airport was now at 99.7% successful landings; however, the airport continued to suffer from the previous history, a reputation that was difficult to escape when many flight school's curriculum mention the airport by name and old reputation. The increased reliability drew interest from low-cost carrier Westjet Airlines; Westjet representatives suggested that if Terrace had a 7,500-foot runway, they would consider initiating service. In 2005, runway 15/33 was extended to 7,500 feet, and the cost of \$2.9 million was shared between the province of BC and the airport. To date, the extended runway has resulted in no increased traffic for the airport.

The crisis of 9/11 made it necessary for security to introduce new regulations. This resulted in a requirement for major expansion of the air terminal building. The funding for the security renovations came from the Federal government. Any extra renovations were the responsibility of the airport. This gave the airport an opportunity to enhance the profile of the terminal building to the community. The expansion included the redesign of the groundside, or terminal, access roads and parking lot. The total cost to the airport was \$500,000. The renovations and additional paving were completed in the spring of 2008. A customer-satisfaction survey of the airports in British Columbia was performed by Intervistas (a marketing group out of Vancouver, BC), and Terrace was ranked number 1 out of 15 airports with only a few unsatisfactory items (lack of taxi cabs, hourly pay parking and no gift store). A portable gift kiosk has since been purchased and is operated by the restaurant operator. The taxi cabs are owned by one local company that is not really interested in improving its image at the airport. The hourly parking remains a sore point.

Since the transfer, the airport has invested over \$13,000,000 in infrastructure improvements, from new plow trucks and snow removal equipment to runway re-paving. The Federal government funded \$7,408,080 through the Airports Capital Assistance Program (ACAP), while the remainder was financed through the cash flow of the airport over time and a \$1,500,000 credit line (see Appendix A). The airport chose to run the airport day-to-day operations as well as finance capital improvements through a line of credit; it was believed there was more flexibility for operations this way than there would be if the improvements were tied to fixed-term loans. Today the airport is carrying a debt of \$1,085,000. Hendry would like to pay this off and build up a surplus for future improvements. See **Appendix B** for Government-funded capital expenditures.

In 2009, 108,000 passengers used the airport. There were 14,002 aircraft take-offs and landings in 2009. Air transport is provided to the area by Air Canada Jazz, Central Mountain Air and Hawk Air. Flight-movement records also indicate substantial helicopter traffic in the area, largely involved in resource-based activity. As a provider of vital transportation services, the Northwest Regional Airport of Terrace-Kitimat contributes over \$46 million to the local economy annually. Activities at the airport sustain the equivalent of 246 full-time jobs.

The vision of the airport is to *“Provide a safe, reliable aviation facility for the use of all stake holders. This facility will be self supporting, will foster growth of the communities it serves and improve the overall economic value of the area”*.

## Staffing

---

Coming out of retirement, Laurie Brown became the second airport manager for Terrace in May of 2003. Brown has a Bachelor’s Degree in civil engineering and a Master’s in

Transportation from the University of New Brunswick. He had worked for Transport Canada for 30 years, the last 10 of which were as the Airport Manager of the Victoria Airport, before retiring in 2002. Brown was very active in the aviation industry. He was a member of the Canadian Airport Council and a director on the BC Aviation Council and the International Association of Airport Executives; as well, he taught 3 courses per year on Airport Operations and Air Terminal Design at the BCIT aviation campus.

In March of 2008, Brown implemented a succession plan for two major positions at the airport: his own and that of the current Supervisor of Operations, Lane Mitchell. Brown hired Carman Hendry for the position of airport manager and Dave Kumpolt for the position of Supervisor of Operations. Brown had convinced the board of directors that an overlap of a year and a half for the manager's position and 6 months for the Supervisor position would be worth the expense.

Mitchell, the outgoing Supervisor of Operations, was a long-time employee of the airport. In fact, as a child, his family lived on the airport grounds, where his dad was the mechanic. He started part-time work at the airport as soon as he could drive and eventually became a full-time employee. Mitchell qualified for full retirement at the age of 54 and was looking forward to it.

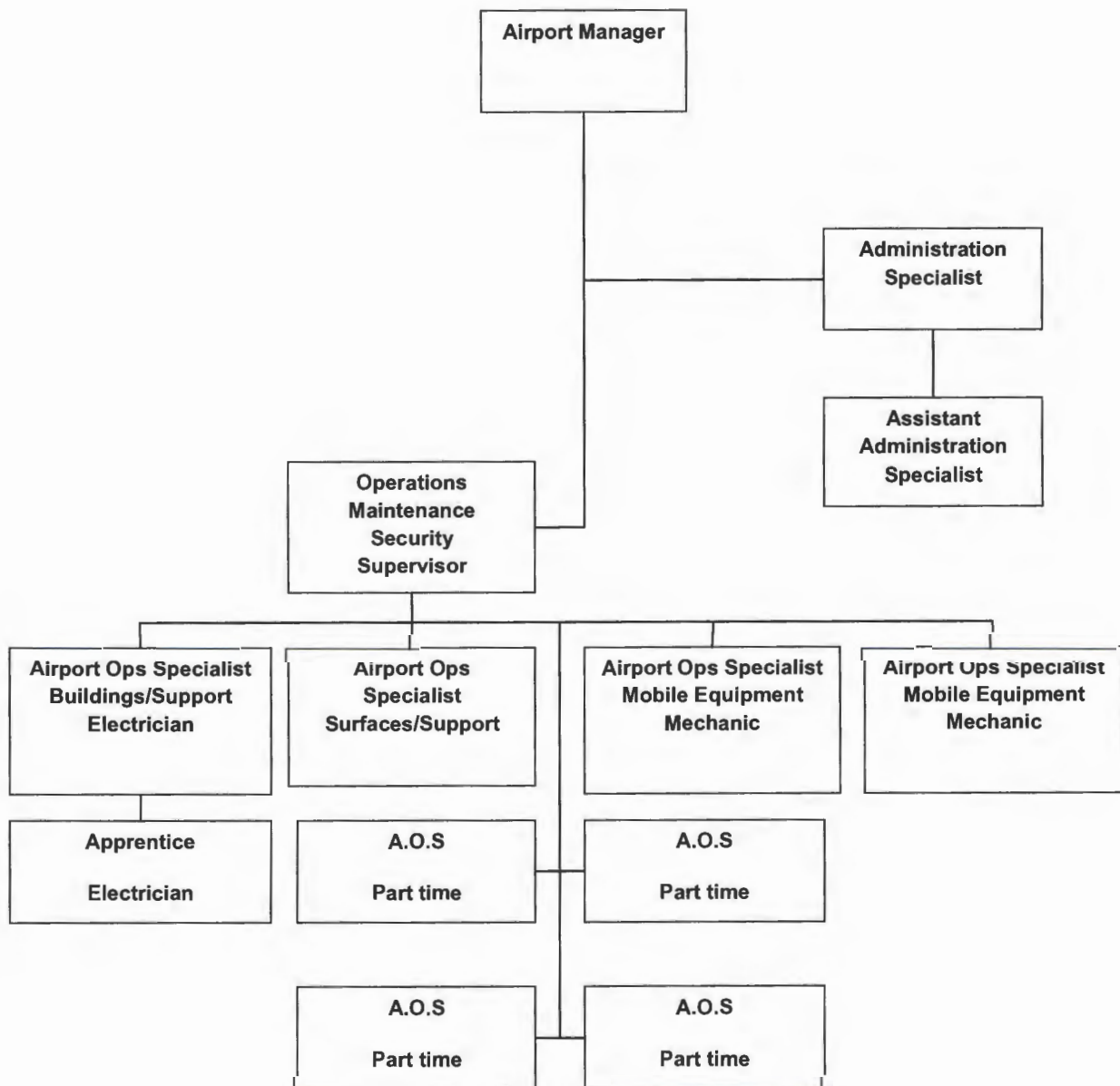
Mitchell's replacement, Dave Kumpolt, had many years' experience as a supervisor, working at the local Ford dealership as the manager of the fast-lane service department. He also had a keen business sense developed due to his ownership of a number of successful small businesses ranging from hotels to a tire shop. Kumpolt came to the airport in 1998 as a part-time equipment operator and had learned the operations from the ground up. Working at the airport

was exciting and brought new challenges every day, Kumpolt said this is what kept him interested in airport work.

Kumpolt has recently completed his first complete winter as supervisor without incident. The weather co-operated, and with his brand of supervising, his crew used less than 50% of the Urea for runway de-icing, less fuel and less wear and tear on the equipment. A perfect year to build his confidence, as Supervisor Operations and Maintenance.

All of the staff, except for the airport manager, are members of the Canadian Union of Public Employees. Please refer to Figure 1 for an organizational chart. The relationship between management and the union is extremely good, as both sides work towards the betterment of the airport and the community. The staff participates in the creation of each annual budget, and their ideas are considered with respect, as they are the front line of the organization. The staff has a very fair collective agreement; as a result, the manager gets commitment from everyone. The labour-relations atmosphere is excellent. There are two part-time administrative clerks, one Supervisor, one mechanic, one electrician and one electrician's apprentice, two equipment operators and four part-time seasonal equipment operators. The annual budget for salaries in 2009 was \$832,530.

Figure 1  
Northwest Regional Airport Terrace-Kitimat  
Organizational Chart as of April 2010



# Market Research

---

Despite the current period of weak economic growth, the Northwest Regional Airport Terrace-Kitimat can capitalize on the many significant opportunities in the travel industry that appeal to the outdoor enthusiast. Summer brings fisherman and hikers for wilderness adventures, while winter brings helicopters and back-country skiing.

Terrace, being a resource-based economy, suffers through the cyclical ups and downs of the economy. Over the course of the last 5 years, Terrace has experienced a steady downturn in the economy with the closure of its two saw mills, the closure of the pulp mill in Kitimat, and the postponement of a major upgrade to the Alcan Smelter operation in Kitimat. The disposable income for the region has been in a steady decline.

## **Regional Transportation Network**

The Terrace-Kitimat area is currently accessible by road, rail, sea and air. The main road access is provided by the Trans-Canada Yellowhead Highway, which extends from Winnipeg, MB to Prince Rupert, BC. There are additional extensions to the Queen Charlotte Islands and from Tete Jaune Cache down to the Coquihalla #5 Highway, which connects to Vancouver via the Trans-Canada #1 Highway. The Yellowhead highway also intersects with Highway 37, which provides a gateway to the Yukon and Alaska.

Greyhound Canada offers bus service to the area. Greyhound bus lines have two scheduled routes that run between Vancouver and Prince Rupert daily. The trip is approximately 23.5 hours long, with stops in Prince George and Terrace (Employee, 2010).

The Canadian National Railway (CN) provides rail access. CN has freight service with a transport time of 105 hours from MAHER Terminal in Prince Rupert to Memphis, Tennessee (Whiteley, 2007). An additional line runs between Terrace and Kitimat. This line runs more or less parallel to Highway #37. Via Rail also runs a passenger service connecting communities in between Prince Rupert and Jasper.

Kitimat boasts a private international port and one of the deepest natural harbors in North America. The port has 16 km of usable waterfront and is able to handle vessels up to 325,000 tons deadweight. The shipping terminals are privately owned and operated, and the channel depth is 100 to 300 fathoms (190 to 570 m) (*Invest Canada, Invest Kitimat*, 2010).

Prince Rupert has the 3<sup>rd</sup> deepest natural port in the world capable of hosting the newest supertankers (Inc., 2007). Prince Rupert hosts the BC Ferries port that has connections between Prince Rupert, the Queen Charlotte Islands, Vancouver Island, and a number of stops in between. Prince Rupert also hosts a base for the United States Ferries that connect Seattle with stops in Alaska.

## **Competitive Environment**

There is competition to provide local air service from the airports at Prince Rupert and Smithers. Prince Rupert is located 145 km west of Terrace. Its airport is owned and operated by the city of Prince Rupert. It has a 6000-ft runway with an Instrument Landing System and a 16-

hour-a-day Remote Aerodrome Advisory Service (RAAS) for aircraft, provided from Terrace by Nav Canada. The Airport is located on Digby Island, a 30-minute ferry ride across the harbor from the city of Prince Rupert. Groundside facilities are negligible, and there has been no groundside development to date. The weather conditions, combined with difficult terrain, limit the airport-expansion capabilities at Prince Rupert Airport. At present, there are five full-time maintenance employees, one staff janitor, and one full-time and one-part time office clerk, as well as a full-time Airport Manager. The Prince Rupert Airport presently accommodates Air Canada Jazz and Hawkair, with a total of 58,000 passengers a year.

Smithers is located 212 km east of Terrace. The Smithers Airport is owned and operated by the town of Smithers. It has a 7500-foot runway with no precision Instrument Landing System and a 16-hour Flight Service Station. Groundside facilities include a network of roads and utilities supporting tenant business operations. At present, there are three full-time maintenance employees, one administrative employee, and one part-time airport manager. Smithers and area are serviced by Air Canada and Hawkair, which offer 2 flights each daily to and from Vancouver. Central Mountain Air offers one flight daily to Prince George via Terrace, and Highland Helicopters and Northern Thunderbird Air provide charter services. Smithers presently accommodates 65,000 passengers a year. Smithers has in the past enjoyed being the muster point for the mining industry. Smithers is the home base of Central Mountain Air, the holder of the contract for moving the staff in and out of a number the mine sites.

Prince George is located 600 km east of the Terrace-Kitimat Airport and has the low-cost Westjet service and seasonal, direct sun destinations throughout the winter. The more frugal



residents of the Northwest will drive the 600 km to Prince George for low cost air travel and on their return stop for the shopping that Prince George offers.

## **Market Description**

### **The Traveler**

In 2009, the Northwest Regional Airport accounted for approximately 46% of the regional aircraft movements, with Prince Rupert at 19% and Smithers at 35%. This illustrates Terrace's position as the central hub for the Northwest. (Nav Canada, 2010)

The passengers that presently utilize the Terrace-Kitimat airport can be categorized into four groups: business and corporate travelers (35%), outgoing local vacationers, (30%), incoming vacationers indulging in activities such as heli-skiing and fishing (20%), and people traveling for the sake of medical services (15%).

The Terrace-Kitimat airport is situated in the North Coastal region of the province of British Columbia. Areas with the most significant populations (e.g., Prince Rupert, Smithers, and Kitimat) are strategically located to feed into airline service located out of Terrace. Generally, airlines can draw from towns and cities located within a three-hour drive of the airport, as long as the cost structure is appealing to passengers. Kitimat is located 45 km from Terrace. The communities of Prince Rupert and Smithers are located, respectively, 150 and 200 km from Terrace. The airport becomes more appealing if the fares are reasonable and passengers can also access faster air service (i.e., jet service). Although the airport is currently well served by its carriers, the extension of the runway may attract new entrants to the regional market. The

strategic location of Terrace, and the anticipated positive business climate and regional population growth, will stimulate the catchment area.

With regards to a given catchment area, it is important to consider the distance between the airport providing a particular service and the potential market. The extension of the existing runway could attract a new low-cost carrier into the regional market. In consideration of low airfares that would be offered by this new carrier, a passenger must weigh a number of variables: distance, potential weather conditions, value of travel time (business travel vs. leisure travel), air travel time, etc. It has been shown at other airports that, depending on the airfare, air travelers will drive up to three hours to benefit from lower airfares. People already leave the northwest region to drive to Prince George (6 hours from Terrace) to benefit from lower-cost airline services offered by Westjet.

## **Cargo**

At the present time, there are no major cargo operations at the Terrace-Kitimat airport; however, 10 years ago, Canadian Airlines operated a cargo facility. Following the takeover of Canadian Airlines by Air Canada, the cargo facility was sold to the Airport, and it became home to a car-wash facility for one of the car rental companies, through a month-to-month rental agreement. As of late, the airport has been approached by Maher Terminals in Prince Rupert, who have been enquiring about the possibility of beginning an adhoc cargo delivery for containers. Occasionally, a shipper from China will contact Maher and ask that a particular container be put on a rushed delivery basis due to a shortage of that particular shipment at the manufacturer. The shipper will request that the container be directed to airfreight instead of the

normal cross-country train. Unfortunately, there is no infrastructure to make that happen as of yet. With the Prince Rupert Airport located on an island, the transportation time to get it to the airport from the terminus is approximately 3 hours, depending on tide and local weather conditions for barge service. The Terrace-Kitimat airport is 2 hours from the terminus, regardless of the tide and weather conditions. Reliability would be a key issue in procuring this service.

There are twelve mines in the area, seven of which are proposed and awaiting environmental approval to proceed. If the economic outlook of the region is accurate, the completion of a new electrical transmission line from Kitimat to Alaska will bring an infusion of investment dollars to the local mining industry. With a supply of reliable electric power, many mines in the area would be developed. The geographic position of Terrace makes it an important link in the supply chain for parts being shipped in and product being shipped out. This would drive a requirement for a freight-forwarding facility.

## **Long-Term Opportunities**

### **Land Leases**

Terrace-Kitimat airport has one asset in plenty, and that is land. In cooperation with the city of Terrace, the Terrace-Kitimat airport has been successful at increasing its property holding by 474 hectares through a free Crown land grant. The grant was originally sought to secure the properties within the approaches to the end of each runway. Because it was desirable to control what was built in the approach areas, thus possibly affecting aircraft, it was deemed prudent that the airport own the property. In order to acquire those lands, the airport had to sign an agreement with the province for a number of restrictions the land use, all of which were related to aviation use. If there had been a customer who proposed to use the property for other than an aviation-

related use, the property would then have had to be re-evaluated against market value and sold, with the proceeds going to the province.

### **Trans-Border / International**

Route development into United States tourist destinations is difficult and, so far, has not been successful. The main stumbling block is that the Canada Border Services Agency (CBSA) does not have an office in Terrace. There are international shipments via the marine ports of Kitimat and Prince Rupert; however, getting the customs agents to travel to Terrace to clear an incoming aircraft has become impossible since the 9/11 crisis. The CBSA has stated that due to budgetary and staffing constraints, representatives will not travel from their main office in Prince Rupert to Terrace to service an aircraft; however, they will travel to Kitimat to clear a ship. Hendry has begun lobbying through the Chambers of Commerce in Kitimat and Terrace as well as the Union of British Columbia Municipalities to put pressure on the federal government to supply this service to all regional airports, including Terrace. Hendry has engaged the Airport Association of British Columbia and the Canadian Airport Council to lobby all of the Chambers of commerce and municipalities across Canada to put this on their agendas for discussion.

### **Local Businesses**

For tenants leasing land, the Terrace-Kitimat airport presently has 2 helicopter companies that seem to be holding their own in the existing depressed market, Quantum Helicopters and Canadian Helicopters. Quantum has the largest land lease and is the largest employer of the two.

Hawkair is a small regional airline that just celebrated its 10<sup>th</sup> year in service. Hawkair is the largest employer in Terrace, with 99 employees, including pilots, flight attendants, reservation clerks, and maintenance staff. Hawkair competes directly with Air Canada Jazz for

the commercial passenger traffic and holds a significant 35% market share, with Jazz and Central Mountain Air sharing the remainder.

The Provincial Forestry Department has a fire base located at the Terrace-Kitimat airport. Besides being a very dependable financial tenant for the airport, the base provides 3 full-time jobs and approximately 20 seasonal jobs in the community.

Executive Flight Center (EFC) operates a Fixed Base Operator (FBO) on site; it caters to private and corporate aircraft. EFC also supplies the airport fueling service. The airport has an agreement with EFC to operate a fuel service for \$18,000 per year. Most other airports have their agreements based on a fee per liter of fuel sold; however, since a large portion of the fuel EFC sells is to offsite Helicopter companies, the airport and EFC have come to this agreement to encourage EFC to maintain its location at the airport. EFC employs 2 full-time and 1 part-time employees.

A Market Survey of the leased lands was performed in October of 2009; it revealed that the airport-leased lands were priced below market value by 35%. The comparators considered were the commercial properties in both Terrace and Kitimat, as well as the existing land leases at Smithers, Prince George, Quesnel, and Williams Lake Airports. Prince Rupert Airport was not considered due to the fact it has no land to lease.

## **BUSINESS STRATEGY**

As Frank Hamilton, the first Chairman of the Board of Directors stated at the transfer of ownership in 1998 “Our business strategy is to work with and support the local industries and businesses to ensure a safe and reliable portal to the northwest. The community comes first

because, without the community, there would be no need for an airport.” We will be ready and able to supply the services required by any aviation business that chooses to locate in Terrace, and we will support those that are already here.

## **Customer Incentives**

Some airports have incentives for airlines in the way of cost cuts for the first 12 months that they operate a new route. At the present time, Terrace does not offer any incentives for airlines to relocate or expand here into the Terrace market.

## **Advertising and Promotion**

The airport advertising and promotions revolve around several strategies. First of all, it provides a Website that offers up-to-the-minute schedule changes, traveler trip-planning advice, and information on community news stories; it also takes out advertisements in major mining magazines, and it is working in cooperation with the Terrace and Kitimat Economic Development offices. The airport pursues public relations through the Terrace Drag Race Association, which holds 5 events a year, and the annual Music and Friends Festival, which runs for 3 days in the summer.

# **Financial Overview**

---

The airport is fully self-sufficient and does not receive any funds from the local tax base. Its revenue is derived from three areas, defined as:

- Groundside – the area in which the public can access tenants and other related facilities.

- Terminal – the area associated with the movement of the traveling public; this area includes both long- and short-term public parking, space rental inside the terminal building, and concessions from the rental-car agents and restaurant facility.
- Airside – the area inside the fence, restricted from public access and used by aircraft for the purposes of parking, taxiing, landing, and taking off. Those areas on tenant leases that have direct access to these facilities are also included.

There is some Federal funding available through the Airport Capital Assistance Program (ACAP). This program has an annual funding level of \$35,000,000 and is intended to assist 128 small and regional airports in funding infrastructure related to essential services such as runway asphalt, snow removal, and emergency services equipment. This program is severely oversubscribed by the 128 airports and therefore very much underfunded. With the average runway overlay costing \$2.5 million and the average snow-plow truck \$500,000, the \$35 million cap does not go far, especially as all 128 airports want a share.

## **Revenue**

Air transport is provided to the area by Air Canada Jazz, Central Mountain Air, and Hawkair. Flight-movement records also indicate substantial helicopter traffic, largely involved in resource-based activities, in the area.

## **Airside**

For arriving passenger aircraft, there are two methods of collecting revenue. If a given aircraft is a scheduled one and its airline is participating in our per-passenger fee, the aircraft is not charged terminal or landing fees but is billed \$12 per passenger. Those airlines that choose not to participate in the per-passenger fee pay both a landing and a terminal fee (see Appendix C for rates).

Passenger fees make up the majority of the revenue at 66% (see Appendix D: Revenue / Expense Breakdown). The fee of \$12 per passenger is charged for every passenger boarding and deplaning. These fees are set by the Airport Society and are collected by the airlines on behalf of the airport. An increase in these fees from \$11 per passenger was executed in 2009. Hawkair normally uses a De Havilland Dash 8-100 with 37 seats, while Air Canada usually employees a De Havilland Dash 8-300 with 50 seats, and Central Mountain Air (CMA) provides Beech 1900 service with 19 seats. There are 6 scheduled flights in and out each day, including 5 round trips to Vancouver (2 Hawkair and 3 Air Canada) and 1 round trip to Prince George with CMA.

The remainder of the Airside revenue comes from Government of BC medivacs, corporate jet traffic, fuel concession, and snow removal for Nav Canada.

## **Groundside**

Revenue from groundside activities is mainly from tenant land leases. The tenants are Executive Flight Center (aircraft fuel supplier), Quantum Helicopters, TK Air Charters, Canadian Helicopters, Hawkair, Terrace Hangers Association, and British Columbia Forest Services. The lease rates are determined through a market review process that is completed every 5 years. As a result of this review, leases are adjusted up or down. The overall value is minimal, and growth in this area would be beneficial.

## **Terminal**

Fifty-four percent of the revenue from the terminal activities is derived equally from the parking-lot fees and the car-rental agencies. A decrease in this revenue has been seen in the past two years. As a result, fees for parking have been raised from \$4 to \$6 per day. Another increase is being contemplated for 2011.



Advertising space in the terminal building makes up a considerable amount of revenue, bringing in \$24,000 a year. These rates have not changed since 2005, and all available rental spaces are occupied.

The boardroom has been fitted with the latest technology in presentation equipment, such as a sound system, a video projector, and customized lighting; the furniture can be used to reconfigure the room into a classroom. The boardroom has become a very good source of revenue, fetching \$65 a day, and is in use approximately 100 days a year.

The remainder of the revenue in the terminal is made up of office and counter-space rental to the airlines.

## **Expenses**

### **Airside**

Due to snow and ice control, airside facilities represent the highest expense. Terrace is located 60 kilometers from the Pacific Ocean and therefore has relatively mild winters. Unfortunately, the mild winter temperatures result in a lot of snow, and the temperature often hovers around 0 degrees Celsius. The airport consequently contends with a lot of ice. The preferred method of dealing with ice on the runways is to apply a chemical called Urea, the cost of which fluctuates with the cost of oil, as it has a petroleum base. For example, in 2008, the airport paid \$849 per ton and used 220 tons for ice control, whereas in the 2009 season it paid \$560 a ton and used under 120 tons. Urea is the airport's second-highest consumable cost. The third-largest cost, during winter operations, is of the bristles used on our high-speed sweepers. These machines are pulled behind the plow trucks and sweep away the snow and slush that is left behind by the plows. The purpose is to get as close to dry pavement as possible. Each broom

core holds \$2,700 worth of wire bristles and operates for about 70 hours before needing to be replaced. Each year, depending on the conditions, the airport will go through approximately 9 broom cores. Labour is, by far, the highest cost for the operations. The majority of these costs occur in the winter due to overtime and extra staff to ensure the airport's reliability. The airport has created 4 permanent seasonal positions that have a guaranteed 5 – 6 months of work. They have had to do so to ensure that trained, reliable winter staff are available, year after year. Airport management tried training a number of casuals and using them on an on-call basis. This worked well until one of the on-call staff was lost to full-time work.

Runway maintenance is relatively minor during summer months, except for repainting of the lines and some crack sealing. The average runway requires a new overlay of asphalt every 10 to 15 years. The last time Terrace's main runway was done was in 2001 at a cost of \$2.3 million. The secondary runway 03-21 has not received an overlay in the last 25 years because Transport Canada does not feel that Terrace requires a secondary runway. While airport management disagrees, without the cooperation and funding of Transport Canada, the Terrace Airport cannot afford to do this on its own. The secondary runway is, at the present time, only used when there is maintenance work being done on the main runway, or the odd time when the wind is favoring it. The secondary runway is also used for the Terrace Drag Race Association. It holds 5 weekend-long events a year and pays a fee of \$500 per event. It is the goal of the airport to support this event for the community rather than as a revenue-generating activity. The proceeds cover the maintenance costs for the area the drag race club uses.

## **Groundside**

There has not been a lot of investment into the groundside facilities. The sewage and water systems have had continued upgrading and are operating at about 30% of their capacity. There is ample room for expansion of these facilities. However, the road and parking network requires some attention. There has been little investment in the long-term parking and road system for the past 20 years, and the surfaces are showing their age. The tenants of the airport that lease lands along Bristol Road have complained for years about the lack of attention the roads have gotten for the amount of taxes they have paid. The taxes are collected by the airport on behalf of the city of Terrace; however, tax revenue directly benefits the city of Terrace, not the airport itself. As the Airport Society owns the airport and lands, it must support the maintenance of the facilities without public funding.

## **Air Terminal**

The Air Terminal is in exceptional condition for its age. The airport took advantage of the major renovations to the security area, funded by Transport Canada, to piggyback some needed modifications of its own, including the installation of an air-conditioning system, new flooring, and the conversion of the old security room into a boardroom.

A high-speed Internet service to the airport and its tenants is also provided by the airport for a fee of \$100 per month. Due to the location of the airport in relation to the city of Terrace, the airport had to purchase a satellite system to gain high-speed Internet service, at a cost of \$10,000 with an ongoing \$1,000 monthly fee. The airport sells this service to 6 tenants. The airport also provides a free wireless service to the traveling public in support of customer service.

Utilities are a major cost for the terminal facility at an average of \$127,000 per year (including natural gas and electricity).

## **Financing Requirements**

### **Long-Term Parking Lot Expansion**

The long-term parking is in real need of an overlay or rebuild. The facility is 50 years old, and the asphalt surface is broken in so many directions that repair through crack sealing would be ineffective and wasteful. The costs for this project range from between \$750,000 and \$1,000,000 at the present time, and the airport is not able to fund this type of expenditure. The long-term lot brings in revenues of \$100,000 per year.

### **Reservoir Expansion and Water System**

The reservoir holds 365,000 gallons. According to the City of Terrace Fire Department and AON Insurance, this is not adequate to successfully fight a structural fire, should the airport be unfortunate enough to experience one. Thus, the insurance costs are at a premium for airport tenants. A partnership with the city of Terrace has been investigated, whereby the construction of a new water reservoir on airport property to service both the Airport and the outer edges of the city boundaries has been discussed the project has yet to be initiated.

### **Groundside Service Road Construction**

The service roads are in better condition than the long-term parking lot, as they were overlaid 30 years ago and are maintained annually. Some small sections have had to be completely rebuilt, but no major problems have surfaced as of yet. There is a plan, and drawings prepared, to rebuild the groundside road system completely. The cost of the rebuilding will be

\$1.5m; however, the airport is not in a position to fund this. Without some work done to the road infrastructure, it will be difficult to attract property lease contracts.

## **Groundside Buildings**

The maintenance building was constructed in 1991 and fitted with the latest technology for equipment repair. It houses the operations and maintenance department as well as the emergency coordination center. There are 7 bays for parking of equipment, 2 of which are drive-through bays for the truck-sweeper combinations. Throughout the winter season, all equipment is kept inside to ensure reliability of operation.

There are two cold-storage buildings that were built in 1950. One building (the blower bay) has been re-sided and roofed. It houses the summer equipment (tractors, mower, tar kettle) throughout the winter. This building is capable of lasting another 20 years with proper maintenance.

The second cold-storage building used to be the maintenance garage before the new garage was built in 1991. It has been rented out, since the transfer in 1998 to 2010. The tenant got fed up with the state of the economy and decided to close up shop and move south. This building requires approximately \$80,000 worth of repairs, which include minor structural repairs, new siding, and a new roof. The airport used to rent it out for \$1,000 per month but is expected to get \$1,500 monthly from the next tenant.

The Air Terminal Building was originally constructed in 1961 and has since been expanded three times. The heating system was just refurbished in 2008, complete with digital control for all areas. This building is in great shape and should be able to go another 10 years before any major repairs are needed.

## **Extension of Services (Water and Sewage)**

The water system was rebuilt in 2003 with a new pump, and the reservoir was drained and cleaned. The system is more than capable of keeping up to the domestic demand and is presently operating at 30% of its capacity.

The sewage system is a septic field, which was rebuilt in 1989 and is fully capable of servicing the present loads. The septic field is presently operating on only 1 of 3 fields that are available.

## **Airside infrastructure**

The main runway 15/33 was resurfaced in 2001, and the length was extended from 6,000 feet to 7,500 feet in 2005. Resurfacing will not be required for another eight years. The secondary runway is in poor shape and may have to be abandoned this year due to the fact that fluctuations in the runway are beginning to exceed acceptable tolerance.

## **Heavy Equipment Replacement**

A 10-year heavy equipment replacement plan has been established and can be found in Appendix E. The budget for each of the years is directly tied into the main budget figure in appendix A. The budget numbers are estimates based on experience and best guesses from the staff; the figures are without any funding assistance to show where the airport would be if funding were not approved. It does not make sense to show funding when there is a possibility it could be denied. Therefore, any funding for equipment replacement will be bonus revenue.

## Aprons and Taxi Ways

In 2004, the apron underwent an expansion of 10 meters to the south, bringing the size of apron space from 18,900 square meters to 21,900 square meters. It is now capable of servicing one 737 jet on each of the three parking areas while having another 737 aircraft taxi behind each one. The taxi ways had a resurfacing of asphalt, new lighting, and drainage system rehabilitation in 2004.

## Options

---

Some of the options Hendry is looking at instituting are as follows:

He would like to increase passenger fees from \$12 per passenger to \$15 per passenger. This would increase the revenue from this source by \$300,000 a year; however, an increase in fees is a political hot potato that could backfire if the airlines decide to use it against the airport and raise their ticket prices. Hendry is considering removing the fees for the short-term parking lot at the same time, concluding that this would buy him some community support due to the fact that when people come to the airport to drop someone off, they hate to pay for the one or two hours of parking they use. The income from the short-term lot is \$28,000 per year; nonetheless, it costs \$18,000 per year in policing and collection on parking fines for those who refuse to pay.

An increase in the rate for vehicle long term parking fees, from \$6 per day to \$8, would raise approximately \$50,000 a year.

Hendry is pursuing the designation of "Trans-shipment" for the Terrace-Kitimat airport. This designation would allow goods shipped via container to Prince Rupert to be trucked to Terrace and loaded onto a waiting aircraft that would take the shipment to its final location.

Many times, there is a requirement for containers to be moved faster than rail to their final destinations, as in a Just In Time inventory system. There is no cost, and the airport would only gain from the landing fees. However, it would give the airport and the communities a higher profile and possibly spawn other ideas for industry. This may require some political support, and the directors would need to become involved in this issue.

Runway 03/21 is an old runway that is not lit and has had very little maintenance over the years. It is used very little by aircraft for take-offs and landings. Transport Canada will not fund any work that is required on that runway; however, the expenses to keep it open to aircraft cost the airport \$8,000 annually. The main user of the runway is the Terrace Drag Race Club, which makes use of the strip 5 weekends, thus providing the airport with \$2,500 in rent.

## The Question

---

As Hendry sits in his office and thinks about the different options that exist, he considers”

“What can be done to make the Terrace-Kitimat Airport financially viable for the long term?”

“Does the airport need to clear off the debt?” “Should the airport form some sort of coalition with neighboring airports?” “What should be the priorities of the airport for increasing revenue?”

“Should the airport play a more visible role with the community and how would this help?”

“What strategy should he follow to keep the airport viable?”



# Appendices

**10 year forecast**
**Appendix A Ten Year Forecast**

	Forecast 2009-2010	Proposed 2010-2011	Forecast 2011-2012	Forecast 2012-2013	Forecast 2013-2014	Forecast 2014 - 2015	Forecast 2015-2016	Forecast 2016-2017	Forecast 2017-2018	Forecast 2018-2019	Forecast 2019-2020
Passengers	106,000	100,000	103,000	108,150	113,558	119,235	121,024	122,839	124,682	126,552	128,450
Fee per Passenger	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>REVENUE</b>											
Contributions											
Passenger Fees	1,272,000	1,200,000	1,236,000	1,297,800	1,362,690	1,430,825	1,452,287	1,474,071	1,496,182	1,518,625	1,541,404
Landing & Other Aircraft Fees	55,200	60,110	62,000	63,900	65,900	67,900	70,000	72,100	74,300	76,600	78,900
Rentals & Concessions	151,800	140,491	143,400	150,600	158,200	166,200	168,700	171,300	173,900	176,600	179,300
Lease & License	384,475	379,231	386,900	394,700	402,600	402,600	402,600	402,600	402,600	422,800	444,000
Parking	135,094	175,173	180,500	186,000	191,600	194,500	200,400	206,500	212,700	219,100	225,700
Other	49,815	53,000	54,100	55,200	56,400	57,000	57,600	58,200	58,800	59,400	60,000
	<b>2,048,384</b>	<b>2,008,006</b>	<b>2,062,900</b>	<b>2,148,200</b>	<b>2,237,390</b>	<b>2,319,025</b>	<b>2,351,587</b>	<b>2,384,771</b>	<b>2,418,482</b>	<b>2,473,125</b>	<b>2,529,304</b>
<b>EXPENSES</b>											
Accounting	8,000	8,000	9,000	9,000	9,000	9,000	9,500	9,500	9,500	9,500	10,000
Bad Debts	2,600	6,100	0	0	0	0	1	2	3	4	5
Legal	1,000	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,800	1,900
Marketing	25,000	20,000	20,400	20,900	21,400	21,900	22,400	22,900	23,400	23,900	24,400
Bank Charges & Interest	30,000	30,000	30,600	31,300	32,000	32,700	33,400	34,100	34,800	35,500	36,300
Loan Payments	0	0				prime - .1%					
Directors' Expenses	1,500	2,000	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900
Dues, Licenses, Subscriptions	7,000	6,300	6,500	6,700	6,900	7,100	7,300	7,500	7,700	7,900	8,100
Office Supplies	6,000	6,000	6,200	6,400	6,600	6,800	7,000	7,200	7,400	7,600	7,800
Postage & Courier	1,000	910	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,800
Liability Insurance	47,931	50,000	51,000	52,100	53,200	54,300	55,400	56,600	57,800	59,000	60,200
Telephones & Internet	16,000	18,000	18,400	18,800	19,200	19,600	20,000	20,400	20,900	21,400	21,900
Cell Phones	3,800	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400	4,500
Pagers	10	0	0	0	0	0	0	0	0	0	0
Janitor	105,000	127,000	132,100	137,400	142,900	148,700	154,700	160,900	167,400	174,100	181,100
Consultant Services	35,000	42,000	42,900	43,800	44,700	45,600	46,600	47,600	48,600	49,600	50,600
Professional Services	114,275	38,750	40,000	40,800	41,700	42,600	43,500	44,400	45,300	46,300	47,300
Utilities	110,000	127,500	130,100	132,800	135,500	138,300	141,100	144,000	146,900	149,900	152,900
Garbage Removal	5,000	5,040	5,200	5,400	5,600	5,800	6,000	6,200	6,400	6,600	6,800

Travel/Training	40,000	35,976	36,700	37,500	38,300	39,100	39,900	40,700	41,600	42,500	43,400
Photocopier	1,200	1,440	1,500	1,600	1,700	1,800	1,900	2,000	2,100	2,200	2,300
Total Payroll Expense	832,530	837,238	860,262	883,920	908,227	933,204	958,867	985,236	1,012,330	1,040,169	1,068,773
Property Tax	79,804	79,804	79,804	79,804	79,804	79,805	79,806	79,807	79,808	79,809	79,810
<b>ADMIN. &amp; OVERHEAD</b>	<b>1,472,650</b>	<b>1,446,658</b>	<b>1,478,566</b>	<b>1,516,524</b>	<b>1,555,431</b>	<b>1,595,409</b>	<b>1,636,874</b>	<b>1,678,945</b>	<b>1,722,241</b>	<b>1,766,682</b>	<b>1,812,788</b>
<b>SURFACE</b>	<b>314,000</b>	<b>319,750</b>	<b>336,000</b>	<b>347,800</b>	<b>360,000</b>	<b>372,600</b>	<b>385,700</b>	<b>399,200</b>	<b>413,200</b>	<b>427,700</b>	<b>442,700</b>
<b>BUILDINGS</b>	<b>40,000</b>	<b>53,235</b>	<b>55,100</b>	<b>57,100</b>	<b>59,100</b>	<b>61,200</b>	<b>63,400</b>	<b>65,700</b>	<b>68,000</b>	<b>70,400</b>	<b>72,900</b>
<b>EQUIPMENT</b>	<b>80,000</b>	<b>84,950</b>	<b>88,000</b>	<b>91,100</b>	<b>94,300</b>	<b>97,700</b>	<b>101,200</b>	<b>104,800</b>	<b>108,500</b>	<b>112,300</b>	<b>116,300</b>
<b>ELECTRICAL</b>	<b>15,000</b>	<b>14,300</b>	<b>14,600</b>	<b>14,900</b>	<b>15,200</b>	<b>15,600</b>	<b>16,000</b>	<b>16,400</b>	<b>16,800</b>	<b>17,200</b>	<b>17,600</b>
<b>NET INCOME FROM OPERATIONS</b>	<b>1,921,650</b>	<b>1,918,893</b>	<b>1,972,266</b>	<b>2,027,424</b>	<b>2,084,031</b>	<b>2,142,509</b>	<b>2,203,174</b>	<b>2,265,045</b>	<b>2,328,741</b>	<b>2,394,282</b>	<b>2,462,288</b>
Allocation to Capital Reserve Fund											
<b>CAPITAL FUNDING</b>											
From Operating Reserve	232,003	99,500	359,000	578,750	200,000	25,000	200,000	0	200,000	765,000	200,000
Capital Reserve Fund			0	0	0	0	0	0	0	0	0
Government Assistance	308,977	0	0	1,721,250	0	0	0	0	0	0	0
Financing											
Total	540,980	99,500	359,000	2,300,000	200,000	25,000	200,000	0	200,000	765,000	200,000
<b>Small Projects</b>											
Computer Hardware/Software	3,200	0									
Hazard Beacon Repairs/Upgrade	3,000	0									
Digital Security Recording System	6,500	0									
Runway Condition Sensor	157	0									
Surge Protection Equipment-Lighting	21,000	0									
Board Room Reno	2,290	0									
Phone System Upgrade	3,600	0									



Assume no ACAP funding assistance after 2011  
Assume government funding assistance of 75% for runway overlay  
Assume 1.5% per year increase in passengers starting 2016  
Some line objects have increased on a yearly basis from 1.5% to 3%  
Government assistance is funding from the ACAP

**Appendix B**  
**Airports Capital Assistance Program - Projects Approved**

<b>News Release Date</b>	<b>Funding</b>	<b>Project</b>
Apr 05, 2000	\$163,000.00	Replacement runway sweeper
Jul 04, 2000	\$164,300.00	Rwy 33 ODALS
Sep 14, 2000	\$570,500.00	Heavy airside mobile equipment - self-propelled snow blower \$405,600 and replacement runway sweeper (originally hydrostatic and changed to mechanical) \$164,900
Apr 10, 2001	\$2,331,000.00	Runway 15/33 overlay
Mar 05, 2002	\$1,925,000.00	Apron rehabilitation and reconfiguration
Apr 24, 2003	\$756,200.00	Pavement rehabilitation - Taxiway A
Apr 07, 2005	\$908,069.00	Snowplow truck (\$232,628), dry/liquid spreader (\$92,340), electrical distribution upgrade (\$583,101). Overall TEC = \$955,863 w/ Society share = \$47,794 (5% Society cost share & 95% ACAP cost share)
Mar 27, 2006	\$232,628.00	Purchase snowplow truck / TEC = \$244,872 w/ 95% ACAP cost share and Society = \$12,244 (5% cost share)
Feb 06, 2009	\$357,383.00	Purchase self-propelled snow blower
<b>Total Funded since transfer</b>	<b>\$7,408,080.00</b>	

**Appendix C**  
**SCHEDULE OF AIRCRAFT FEES**

LANDING FEES	
Minimum Jet/Turbo-prop	\$11.50
Weight	\$ per 1000 kg
<21,000 kg	\$5.25
21,001 kg – 45,000 kg	\$6.61
>45,000 kg	\$7.87

GENERAL TERMINAL FEES	
SEATS	DOMESTIC CHARGES
0-9	\$12.00
10-15	\$23.99
16-25	\$36.95
26-45	\$64.78
46-60	\$95.52
61-89	\$148.12
90-125	\$203.76
126-150	\$240.80

AIRCRAFT PARKING			
WEIGHT in (kg)	DAILY	MONTHLY	ANNUAL
<2,000	\$7.00	\$50.00	\$350.00
2,001 – 5,000	\$7.00	\$50.00	\$400.00
5,001 – 10,000	\$15.00	\$225.00	
10,001 – 30,000	\$20.00	\$400.00	
30,001 – 60,000	\$35.00	\$650.00	
60,001 – 100,000	\$50.00	\$1,000.00	

# Appendix D

## Revenue / Expense Breakdown

	Groundside	Airside	Terminal	Total
Revenue	\$ 193,112	\$ 1,359,700	\$ 495,572	\$ 2,048,384
Passenger Fee		\$ 1,272,000		62%
Land		\$ 76,943		4%
Car Rental			136,000	7%
Car Parking			135,094	7%
% of Total	9%	66%	24%	
Expenses	\$ 433,804	\$ 1,120,605	\$ 368,131	\$ 1,922,540
Payroll		\$ 832,530		43%
Surfaces		\$ 314,000		16%
% of Total	23%	58%	19%	
Net Revenue				\$ 125,844



Application (Current Vehicle)	Current Year/Mo del	2010-2011	2011- 2012	2012- 2013	2013-2014	2014- 2015	2015-2016	2016- 2017	2017- 2018	2018-2019	2019 - 2020	2020 - 2021
Plow Truck #1 Sing. Axl. 4X4 Flt. Dk. (#87)	2007-Intl.											
Plow Truck #2 Sing. Axl. 4X4 Flt. Dk. (#82)	2006-Intl.											
Plow Truck #3 Sing. Axl. 4X4 w Dump (#88)	1995- W. Star						\$200,000					
Del/Anti-Icing Tandem Dump Truck (#80)	1982-Intl.									\$215,000		
Sand Truck (#106)	1982-Intl.											
Sweeper #2 (#517) Vohl	2000										\$200,000	
Sweeper #1 (#515) Vohl	2000		\$200,000									
Sweeper #3 (#709) Sweepster	1997				\$200,000							
Loader (# 164)	1994- Case											
John Deere												
Chemical spreader (Epoke)	2006											
Hard Surface Snow Blower (#124)	2000											
Soft Surface Snow Blower (#126)	1983											
Tractor (#168)	1985											
New Large Tractor and Mower Deck		\$180,000										
Primary Operations 4x4 3/4 ton (#60)	2001-1/2 ton		\$45,000									
Secondary Operations 4x4 3/4 ton (#62)	2006-3/4 ton									\$50,000		
Electrician Van 1ton (#28)	1993 -1 ton											
Airport Manager (#20)	2002- Honda					\$25,000						
Sand truck/Summer Student Work (#61)	1994-3/4 ton											
Special Purpose Equipment*		\$16,000			\$	-	\$	-	\$	-	\$	-
Other Projects				\$300,000								
	total	\$196,000	\$245,000	\$300,000	\$200,000	\$25,000	\$200,000	\$	\$	\$265,000	\$200,000	\$

Replacing sweeper 709 (sweepster) with a new sweeper, possibly a larger 48" sweeper  
 Replace Airport Manager vehicle every 6-7 years

\*Special Purpose Equipment:

Runway Painting Machine	\$15,000
Sidewalk Sander for ATB	\$ 1,000
	<hr/> \$16,000

Other projects electrical upgrade

300000

- rt divestiture status report. (December 21, 2009). *Transport Canada*. Retrieved December 21, 2009 from <http://www.tc.gc.ca/programs/airports/status/menu.htm>
- on, R., & Frank, D. (1997). *Charting the course: Developing a business plan for Terrace Kitimat Airport*. Vancouver, BC: Horizon Pacific
- n, L. (2009 09 01). Airport Consultant. (C. Hendry, Interviewer)
- s, D. M. (February 10, 2005). Case study analysis and case study method. *Teaching and learning unit faculty of economics and commerce* . Melbourne, Australia: University of Melbourne
- er, K., & Buono, A. F. (2005). Rethinking organizational change: reframing the challenge of change management. *Organization Development Journal* , 23-38.
- omand, A. (2004). Writing teaching cases: a quick reference guide. *Communications of the association for information systems*. Retrieved March 10, 2010 from <http://www.acrc.org.hk/casemethod/doc/case.writing.guide.pdf>
- y outlook for winter travel. *Tourism intelligence bulletin*. Canadian Tourism Commission, 15-16
- , J. (2009). The case teaching note. *EECH: The case for learning*. Retrieved February 27, 2010 from <http://www.ecch.com/uploads/teachingnote.pdf>
- er, D. J., & Wheelen, T. L. (1941). *Essentials of strategic management* (4<sup>th</sup> ed.).. New Jersey, NY: Pearson Prentice Hall.
- t Canada, invest Kitimat. (2010, 02 21). *Kitimat: A Marvel of Nature and Industry*. Retrieved February 28, 2010, from <http://www.kitimat.ca/assets/Business/PDFs/invest-canada-kitimat-brochure.pdf>
- p, A. (2000). Breaking up old marriages: The political process of. *Technology Analysis & Strategic Management*, 12(1), 75 - 90.
- Canada. (2010, 03 12). Aircraft Movement Statistics: NAV CANADA Towers and Flight Service Stations: Annual Report. Retrieved 03 15, 2010, from Statistics Canada: <http://www.statcan.gc.ca/pub/51-209-x/51-209-x2010001-eng.htm>
- estad, T.-O. (2008). Safety cultural preconditions for organizational learning in high risk organizations. *Journal of Contingencies and Crisis Management*, 154 - 163.
- le, J. (2007). Case study research. *Case study research, design and methods*. Retrieved April 4, 2010 from [http://www.coe.uga.edu/syllabus/qual/QUAL\\_8530\\_PreissleJ\\_Fall07.pdf](http://www.coe.uga.edu/syllabus/qual/QUAL_8530_PreissleJ_Fall07.pdf)

- Ikow, N. (2007). Persuasion with case studies. *Academy of Management Journal* , 20-24.
- R. E. (1951). *Airport development, management, and operations in Canada*. Scarborough: Prentice-Hall Canada
- T. A. (1986). *Airport planning & management* (2<sup>nd</sup> ed.). New York, NY: McGraw-Hill.
- ley, D. (2007). Prince of ports. *BC Business Magazine* , 1-7. Retrieved from  
[http://www.rupertport.com/pdf/media/bc%20business-prince%20of%20ports%20july%202007\\_web%20full%20article.pdf](http://www.rupertport.com/pdf/media/bc%20business-prince%20of%20ports%20july%202007_web%20full%20article.pdf)
- ls, D. (2003). Lack of vision imperils U.S. aviation. *Front Line*, 14.

# Teaching Notes

---

## HOW DO WE MAKE THE TERRACE-KITIMAT AIRPORT FINANCIALLY VIABLE FOR THE LONG TERM?

### Case Synopsis

This case study is based on research conducted at the Terrace-Kitimat airport. It provides information pertaining to the revenue stream and expenses (financial statements are attached). It describes the financial position that the airport has arrived at 10 years after privatization. Funds that were given to the airport as part of the transfer negotiations with the Terrace-Kitimat Airport Society have long since been utilized; therefore, the airport has elected to finance capital projects through a \$1.5m line of credit rather than long-term financing. This has resulted in a \$1m deficit. The reliability of the airport has been improved with the installation of an instrument landing system, which has made it the most reliable airport facility in the Northwest. The airport has invested a significant sum of monies (\$13 million in total) in improving the infrastructure with the purchase of equipment, renovation of the terminal building, and runway overlay and extension, as well as a major upgrade to the short-term parking lot. There are three main areas from which the airport obtains revenue and, conversely, where expenses are incurred:

- Groundside – the area in which the public can access tenants and other related facilities.
- Terminal – the area associated with the movement of the traveling public; this area includes both long- and short-term public parking, space rental inside the terminal building and concessions from the rental-car agents and restaurant facility.
- Airside – the area inside the fence, restricted from public access and used by aircraft for the purposes of parking, taxiing, landing and taking off. Those areas on tenant leases that have direct access to these facilities are also included.

This case study details the financial requirements for the day-to-day operation of the Terrace-Kitimat Airport, as well as its future capital expenditures and present revenue sources. The Terrace-Kitimat airport is owned and operated by the Terrace-Kitimat Airport Society, which is an independent, non-governmental, not-for-profit Corporation formed under the British Columbia Society Act. The Society has no shareholders and therefore no shareholder benefits. Any profit is used to improve the airport, and no financial assistance from any of the municipalities or regional districts is provided. The case study calls for an examination of the financial statement, the competitive environment, and the strategic direction of the airport.

### **Learning Objectives**

This case was created for the first-year MBA and Airport Operations student. It will build on student learning from previous strategic cases studies. The students will learn to understand the complexities of managing a regional airport in a small resource-based community. The student will apply theories of strategic analysis to a not-for-profit society.

### **Teaching approach**

1. Pre-reading assignment – *Essentials of Strategic Management*, Fourth Edition, chapter 6. This chapter explains the Stability Strategies.
2. Assign a 500-word analysis in which the class must identify the issues and make recommendations.
3. A classroom discussion following the assignment to review the issues in the case, such as:

- **The sensitivity of the politics in the communities** of Terrace, Kitimat, Prince Rupert and Smithers. How the relationship between the airports and the communities grows and expands. At present, there is a cooperative arrangement between airports whereby advice and skills are traded freely between them. Yes, there is a friendly amount of competition, but it would not take much to create friction between the communities in this economic climate, when everyone is competing for investment dollars and jobs.
- **The costs of infrastructure:** how the communities were unprepared, when they first took over the airports from the federal government, for the costs involved in maintenance and/or upgrading. These items were overlooked because, at the time, the federal government stated that if no one accepted the airports, they would be closed, which put a few communities into a panic. Nonetheless, there are roads to be upgraded, as well as water systems, sanitary systems, and mobile equipment to replace, and buildings get old. Without continual capital investment, the facilities would deteriorate beyond possibility of economic repair. The airport capital assistance program (ACAP) was established by the government to assist in funding projects, according to priority, for small airports. This fund has \$35m each year to be shared among 128 small regional airports.
- **The importance of diversification** for even an organization as small as an airport, to maintain financial stability, requires several independent revenue sources. Airports are like any other organization; they must diversify. At the present time, the land tenants (the groundside portion of the operation) are

being subsidized by the airside part of the operation. If there is a major blow to air travel, as we have seen in the recent past, the airport would not be able to survive a hard winter without going deeper in debt. It is important that the airport not depend solely on the airlines to cover all the costs.

- **The restrictions encountered by not having the Canadian Border Services Agency (CBSA) on-site.** Without this service, cross-border and seasonal travel to sun destinations such as Mexico and Hawaii is restricted to the larger airports. This would not be a large revenue source for the Terrace-Kitimat Airport. In fact, the airport would be lucky to break even. This would be a loss-leader, to supply the service to the community in an attempt to attract passenger traffic from other catchment areas that would normally patronize Prince Rupert and Smithers airports. This is a battle faced by many small regional airports. Hendry is seeking assistance through the Canadian Airport Council and local political organizations.
- **The long-term opportunities available** to the Terrace-Kitimat Airport are tied directly to the communities and the economic future of the region. This part of the province has been hit hard by the closure of the two saw mills in Terrace, the closure of Eurocan pulp and paper mill in Kitimat, and the downsizing of the Alcan smelter, all within the past 5 years. The city of Terrace has become a resource center for government, as well as retail, for the area. Prince Rupert seems to be making some headway with its transportation industry. It has Maher Terminals for container shipping, Ridley Island coal, and the Canadian Grain Terminals. Terrace is counting heavily on the



development of the Highway 37 electrification project to open up the mining industry. Whether or not that will have a positive effect on the Terrace-Kitimat Airport remains to be seen.

- **The competitive environment that affects the airports** despite the fact they are considered, by many, to be a monopoly. Airports are in close contact and share ideas on lease rates, passenger fees, parking fees, regulatory affairs.

### **Suggested Assignment Questions**

- Put yourself in Hendry's shoes. The major runway asphalt needs to be overlaid in 10 years; explain how you would go about ensuring the airport has the 15% share it requires after subscribing to the airport capital assistance plan?
- If you had the ability to increase fees, which fees would you increase, for how long and by how much?
- Through a SWOT analysis, identify and explain the Strengths, Weaknesses, Opportunities and Threats.
- The board of directors is unhappy with the direction the revenue is taking.
- Perform a Porter's Five Forces analysis to show the strategic position and competitive advantage of the Terrace-Kitimat airport.

### **Analysis**

This analysis will provide information that will help make informed recommendations for a strategic direction that the airport may take to improve its financial position for future success. Perform SWOT and Porter's Five Forces analyses to assess the airport's existing position, financially and strategically.

## SWOT

### Strengths

- Location: it is in the center of the region between Smithers and Prince Rupert, and it potentially draws passengers and business from all three areas, if a low-cost carrier such as Westjet can be convinced to initiate service
- 7,500 foot runway with instrument landing system: an airport with a runway this long can accommodate aircraft as big as a Boeing 757, whereas Prince Rupert cannot. The Terrace-Kitimat Airport would be able to handle cargo-type aircraft sooner.
- The transport time of a container from the terminal at Prince Rupert to Terrace-Kitimat Airport is shorter than that to the Prince Rupert airport: when time is of the essence, the Terrace-Kitimat Airport would be quicker.
- A large amount of land is available for development: an abundance of airside-accessible lots are available for development to accommodate any kind of tenant. The Prince Rupert Airport has no land available for development. At the time of transfer from the Federal government, it had requested only a small footprint of land. Smithers has plenty of land; however, it has neither the runway length nor the landing system that Terrace-Kitimat has.
- Good relationship with employees: Employees and management work well together, and both have the airport's best interests at heart.
- Reliable equipment and infrastructure: neither the Smithers nor the Prince Rupert Airports have invested as much in their infrastructure as the Terrace-Kitimat Airport.

Prince Rupert, in particular, has not invested any money in its facilities and is, as a result, in poor condition to handle the traffic it has.

- A knowledgeable and cooperative board of directors: The directors work closely with the communities they represent and all are very much respected in their fields. The directors are proud of the airport and the employees that operate it.
- Buildings for rent: cold storage or for use as freight forward facility, both airside access (7,500 square feet) and non-airside access (4,500 square feet).

## **Weaknesses**

- The deficit it carries restricts the amount of capital investment that might attract more carriers: there are some capital investments that should be done, such as upgrading and extending the groundside access road and resurfacing the long-term parking lot. These investments will have to be planned carefully so as not to put the airport in a more precarious financial position.
- No customs service: with no customs service, there will be no chance of bringing in sun destination charters. The airport has requested service and has offered to pay all expenses incurred, but still the Customs Service refuses to work with the airport. This service would raise the profile of the airport considerably.
- History of unreliability: before 2001, the average winter saw 210 of its winter flights cancelled due to poor weather. Now, with the instrument landing system added, the average winter has 18 cancelled flights; however, the reputation is lingering and affects the perception of future customers.

## **Opportunities**

- Trans-shipment designation: if this designation can be obtained, the airport could become a major player in the supply chain of Maher Terminals
- Low-cost carriers: these carriers supply no-frills travel at rock-bottom prices; however, they use large aircraft so that they can make up profit through volume.
- Land development: there is an abundance of undeveloped land at the airport. The advantage is that it is all flat (located on a plateau), which makes it very attractive.
- Establishing a freight-forwarding tenant: this is a small but significant part of the future of the airport that would definitely work in our favour in acquiring customs service.
- Economic recovery revitalization of the mining industry: there is a push for the electrification of the Highway 37 Corridor to supply cheap electricity to the northern mining area. Funding is in place for the project, and it is awaiting environmental approval. This project will definitely be a kick-start to the mining industry for the northwest.

## **Threats**

- Maher terminals being forced politically to use Prince Rupert Airport: there is always the threat that no matter how attractive it is to use the Terrace-Kitimat airport, the local community of Prince Rupert and their politicians will want the work to go to their own airport, no matter what the cost.
- Continued economic downturn: it is always possible the electrification of the Highway 37 Corridor could be cancelled, and the north will continue on in its economic slump.

- Hard winters eat up the revenue through cost of runway maintenance: the weather has a direct effect on the cost of runway maintenance in the winter. A dry winter that is very cold has less ice to contend with. A wet winter that is very cold will use up the entire profit for the year on chemicals to fight the ice on the runway. The cost of fuel is also a large factor, as the equipment uses it, and the runway de-icer is a derivative of fuel.

## **PORTER'S FIVE FORCES**

### **Threat of Substitute Products - Threat is Medium**

One threat is the fact that helicopter companies do not have to locate at an airport, and in Terrace, there are two companies (Lakelse Air and White River Helicopters) that do not operate out of the airport. These companies, at the time they were founded, chose to locate outside the airport, due in part to a fee that Transport Canada charged for each take off and landing of an aircraft. Helicopters do a lot of take off and landings, so the cost of locating at the airport was prohibitive. The airport has since eliminated this fee as part of long-term lease negotiations.

During the last round of lease negotiations, Quantum Helicopters, a long-time tenant of the airport, mentioned the possibility of being based at an off-airport site. The company's reasoning was that the leases the airport was offering for land were unfair. Leases available for airport lands state that the length of term available is based on the investment made by the tenant. Once this lease has expired, the improvements made to the leased area vest to the airport unless the tenant can negotiate a new lease. The Terrace-Kitimat Airport has adopted the common practice of requiring the tenant to invest a certain amount of money in their leasehold in order to ensure a certain length of lease renewal. If this investment were not made, the lease would end,

and the assets would vest to the airport. Quantum did attempt negotiations; however, the Airport Society held fast to the existing lease structure. Quantum decided to remain at the airport, invest more capital into the property, and sign a long-term lease of 20 years.

Another threat is the Prince Rupert Airport. It is possible it could overcome the logistical problem it has regarding getting containers to the airport from Maher Terminals more quickly than trucking them to Terrace, or the political atmosphere could be such that Maher Terminals is forced to use the Prince Rupert Airport regardless of the time constraints. This threat is medium.

Another threat is a result of the Terrace-Kitimat Airport's reputation of cancelled flights. Smithers Airport is a direct threat to the mining traffic for the region. During better economic periods when the mining industry was productive, companies were afraid to use the Terrace-Kitimat Airport because of its unreliability. Now, with the installation of the instrument landing system and the extended runway, Terrace-Kitimat Airport is far more reliable than Smithers. However the reputation is difficult to overcome.

One last threat is the possibility of either Prince Rupert or Smithers acquiring a low-cost carrier. This would cause many travelers to pursue the more cost-effective alternative.

#### **Threat of New-Entry Competitors - This Threat is Low**

There is no threat of new entrants in the area. The cost of the infrastructure and the unavailability of land create a very high barrier to new entrants. **The existing competitors, however, are Prince Rupert, Smithers and Prince George Airports.**

Prince Rupert Airport is 140 kilometres away from Terrace and accessible only by ferry. People who travel out of Prince Rupert do so now only out of necessity. Large low-cost carriers see the ferry access as a major barrier.

Smithers Airport is 212 kilometres away from Terrace. The distance alone is a deterrent for residents of Terrace. Smithers has no instrument landing and therefore is not a destination for any large low-cost carriers.

Prince George Airport is also a minimal threat; however, it is more of a threat than either Smithers or Prince Rupert. Prince George has low-cost carrier Westjet, which does draw travelers from all over the northwest.

### **Rivalry - Threat is Medium**

Prince Rupert Airport, located on the coast of Northern British Columbia, home of Maher Terminals, Ridley Island Coal, and the Canadian Grain terminal, is the main rivalry for Terrace-Kitimat. As all three of those industries require Customs and Border services, there is an office located in the city of Prince Rupert. Terrace-Kitimat would like to be able to offer a customs service; however, there is a need to convince the Federal Government to supply it. Users of the service would be willing to pay the costs, but to date, the service has been difficult to attain.

The rivalry with the Prince George airport is low; however, with the acquisition of the designation of Trans-shipment, this rivalry could increase.

### **Bargaining Power of Customers - Threat is Medium**

The customers of the Terrace-Kitimat airport are the Air Carriers and tenants. This power is medium. The Airport is a monopoly; however, the airlines are fighting the battle of competition themselves, and every dollar counts for them. If the cost of utilizing the Terrace-Kitimat airport becomes too great, it is possible they could pull or reduce service in favour of another airport.

The tenants are made up of both fixed-wing aircraft (airplanes) that require an airport to operate and rotary-wing aircraft (helicopters) that do not require airport infrastructure. In order for the airport to retain the helicopter companies, there must be a benefit for them, either in cost or operational efficiency. Currently, the airport offers very competitive land-lease rates in order to keep the tenants.

### **Bargaining Power of Suppliers – Low**

Suppliers have no bargaining power in this industry. The consumables that the airport uses are available from many different suppliers.

## **Discussion**

### **The Infrastructure**

Runways, taxiways, aprons, and snow-removal equipment have been kept up to date, as per industry and Transport Canada standards. **Appendix D** shows how much equipment the airport has purchased utilizing the ACAP funding. The 10-year equipment replacement plan of the case study (Appendix E) shows the life cycle of each piece of equipment and the anticipated year of replacement. The budgeting reflects no government funding for equipment replacement. All ACAP funding requires application, so there is always that possibility of funding being declined, if the application is approved, then it is a bonus to the airport.

The maintenance building was constructed in 1991 and was fitted with the latest technology for equipment repair. It houses the operations and maintenance department as well as the emergency coordination center. There are 7 bays for parking of equipment, 2 of which are



drive-through bays for the truck-sweeper combinations. Throughout the winter season, all equipment is kept inside to ensure reliability of operation.

There are two cold-storage buildings that were built in 1950. One building (the blower bay) has been re-sided and roofed. It houses the summer equipment (tractors, mower, tar kettle) throughout the winter. This building is capable of lasting another 20 years with proper maintenance.

The second cold-storage building used to be the maintenance garage. It has been rented out, since transfer 1998, to 2010. The tenant got fed up with the state of the economy and decided to close up shop and move south. This building requires approximately \$80,000 worth of repairs which would include minor structural repairs, new siding, and a new roof. The airport used to it out for \$1,000 per month but is expected to get \$1,500 monthly from the next tenant.

The Air Terminal Building was originally constructed in 1961 and has since been expanded three times. The heating system was just refurbished in 2008, complete with a digital control for all areas. This building is in great shape and should be able to go another 10 years before any major repairs are needed.

The water system has just gone through a major control system upgrade, which has resulted in a well utilization level of 30% its previous usage and consequently, ideally, a longer life for the well pumps and domestic distribution system. The sewage system has been completely rebuilt. It is a septic field, and at present, it is being used at only 30% of its capacity. There is plenty of room for increased demand on both the water and sewage services.

### **Staffing**

In 2008, Laurie Brown implemented a succession plan that would see the holders of the main positions replaced with trained, competent people. Not many organizations would invest in

staffing to this extent. In fact, during conferences, when people would see Carman Hendry and Brown there together and Brown would explain what they were doing with mentoring, they would be impressed, commenting on what a great idea it was and saying they wished their boards of directors would be as flexible. Yes, there is a lot invested in this methodology, but it does pay off. For example, Dave Kumpolt has just completed his first full winter in his new role, and there have been no problems. Furthermore, the airport has saved money as a result of him coming up with some new cost-saving ideas. As for the mentoring for the Airport Manager Position, Hendry took over the position formally on December 1, 2009, and Brown has stayed on in a mentoring position to assist while Hendry finishes his MBA.

The union-management relationship is very good. Hendry's relationship with the employees is based on trust and the knowledge that everyone works towards the betterment of the company. They all expect to be here until they retire, and they will make sure the airport stays open and reliable. The management includes the staff in the budgetary processes, so the employees know when the airport is doing well, as well as when the belt needs to be tightened. This is done collaboratively between the staff and management.

## **Market**

In 2009, the Terrace-Kitimat Airport accounted for approximately 46% of the regional aircraft movements, with Prince Rupert at 19% and Smithers at 35%. This illustrates Terrace's position as the central hub for the Northwest. (Nav Canada, 2010)

The cities of Terrace and Kitimat, being a resource-based economy, suffer through the cyclical ups and downs of the resource industry. Over the course of the last 5 years, the region has experienced a steady downturn in the economy with the closure of two saw mills in Terrace,

and the closure of the pulp mill in Kitimat, and the postponement of a major upgrade to the Alcan Smelter operation in Kitimat. The disposable income for the region has been in a steady decline.

The Terrace-Kitimat Airport offers three different service-oriented markets: Airside, Groundside, and Terminal (retail). Keep in mind Transport Canada mandates that the airport be ready for any aircraft that flies during published operational hours.

### **Airside**

“Airside” constitutes the area used for the operation of aircraft—including the runways, taxiways, and aprons—as well as access to these areas for tenant leases. The airport receives income from airlines, charter and corporate aircraft, government medevacs, and helicopter movements. The 24-hour Nav Canada Flight Service Station keeps track of all aircraft movements (take offs and landings) for the airport and sends a list to the airport at the beginning of each month for billing. Airside is responsible for 66% of total revenue and 58% of total expenses (see Appendix D). Service fees are billed out.

Airlines must pay a fee of \$12 per passenger for enplaning and deplaning. This fee takes the place of the landing and general terminal fee that is charged to all other aircraft. Airlines do pay extra for a delayed flight, but only what it costs the airport to ensure a safe runway (snow clearing) and a parking fee if the craft is left overnight on the apron.

All other aircraft are charged a landing fee that is calculated according to their weight (see Appendix A), a parking fee if they stay overnight (also based on their weight), and a general terminal fee for use of the terminal building. This fee is automatically charged to every aircraft that lands.

Each tenant with access to airside pays a premium for this access and a higher premium dependant on the tenant's location relative to the main apron beside the terminal building. The contractor that takes care of the ground services (airline baggage and de-icing) does rent a small area to store his equipment.

Nav Canada, once called Air Navigation Services, owns all of the navigational equipment in Canada. As part of its transfer from the Federal government, it was given free rent in perpetuity for the facilities located at the airport at the time of the transfer. In exchange, the airport was given control over maintenance issues, renovation projects, and year-round outside maintenance. This meant that the airport was responsible for setting the schedule for maintenance on all aspects of the Nav Canada buildings and would bill the costs directly back to Nav Canada. Similarly, the airport was responsible for the summer and winter maintenance of the properties (Instrument Landing System) in which Nav Canada operated (some of which were very large), and the airport would perform maintenance such as snow removal and grass cutting and charge Nav Canada. Nav Canada was not allowed to hire outside contractors unless the airport agreed, so this is how the airport went about receiving its rental income from Nav Canada.

### **Analysis of Airside**

Expenses for airside are the highest of the budgetary items. They include the maintenance and repairs to the mobile equipment, the asphalt surfaces, and the infield areas. In the summer, the infield has to be mowed, the asphalt surfaces need to be crack sealed to prevent accelerated water damage, painted lines have to be redone, and any repairs from the previous winter have to be dealt with. In the winter, the snow and ice control consumes approximately 40% of the budget alone. Anti and de-icing materials, because they are a by-product of fossil

fuel, are very costly, and price is directly tied to the fossil-fuel market. Equipment repairs and parts, as well as the de-icing materials, are all directly correlated to the weather. The more precipitation the airport gets in the winter, the more the equipment is used, and the more it will require maintenance. There is not a lot of flexibility in this area due to these uncontrollable variables.

### **Options for airport airside**

One possibility is that the airport could create a reward program for the maintenance staff to encourage them to think outside the box and come up with new, better ideas to work smarter, not harder. The reward would be directly tied to the realized savings of any project that could be implemented.

The airport could restrict the airlines to certain hours, thus shortening the work day and reducing the staff required for the running of the airport. This is not a realistic plan because Transport Canada, as the regulator, states that the airport must consult and work with the airlines to ensure they have access when they need it. Split shifts for employees are possible; however, getting the employees to agree to this would be very difficult. It would not go over well and would, most likely, degrade the relationship between union and management.

The airport could increase the rates for landing and general terminal fees, as well as increasing the per-passenger fees, instituting a fuel surcharge on each liter sold by the fuelling agent, and/or increasing lease rates to all tenants with airside access. These are all possibilities. Increasing the passenger fees to \$20 per passenger would allow the airport to be in the black within 4 years; it would also allow the creation of an operating reserve.

The airport could offer incentives for new route development, one such as—incentive would be for all airport expenses directly related to new routes—reimbursement at 50% for the

first year, to encourage new airlines or existing ones to expand. This would include low-cost carriers and charter services.

The airport could also secure the trans-shipment designation to allow access to foreign markets so that new airlines could utilize the airport as a stopover or fuelling station. This is doable and is being worked on now, but the CBSA may be a stumbling block.

The CBSA should be encouraged to supply services to the airport even if it is on a cost-recovery basis. This would allow the airport to improve its profile to airlines and the communities it serves. The airport should continue to lobby by every means available. For instance, it should cultivate its relationship with the Mayor, the MLA, the chamber of commerce of Terrace and Kitimat, and the union of British Columbia Municipalities. It should also make direct contact utilizing the skills of the directors of the board.

### **Groundside**

Groundside constitutes the portion of the airport accessible to the public, such as all access roads, tenant leases, frontages, and services for tenants. This area supports the main infrastructure of the airport. Therefore, when there is a problem, it is very costly to repair; however, these services are expected to be in place as part of the airport. Taxes are usually responsible for the maintenance of these items. Yet the airport does not receive the taxes that are paid. The taxes get paid to the city, and the airport receives none of this income, nor does the airport receive any other benefit from the taxes. In essence, there is only one revenue source from groundside, and that is tenant leases. In 2009, a market survey was performed by the airport to establish its position in the leased property market. The survey took into account other airports similar in size to Terrace-Kitimat; it also considered the local property-management services in the two communities of Terrace and Kitimat. The survey showed that the lease rates the airport

was implementing were 35% below market value. The rates at the airport had not been adjusted since 2000. A plan has since been established to catch up with the market. and it is being implemented on all renewed leases. At the present time, the leases do not come due for review at the same time. This will also be changed to a common review date for all leases, thus reducing workload and concentrating the work into a short period, resulting in a more stable rate structure. Groundside is responsible for 9% of total revenue and 23% of total expenses.

### **Options for airport groundside**

The airport could negotiate a compromise from the city, securing a share of the tax revenue in order to support the infrastructure of the airport. It is in the best interest of the city to have reliable services at the airport.

Leases could be increased to market rate. This is being done now; however, an annual increase, with a five-year review, would go a long way towards ensuring that the airport does not fall behind the market rates again.

The airport could openly advertise the availability of land to develop. It could also work with the city's economic-development department to get more aviation-related tenants by offering incentives to relocate, such as tax breaks and land-lease rates.

The continual mowing of certain areas takes time and burns fuel. An agriculture lease for growing hay would put the maintenance into someone else's hands and create a revenue stream.

### **Air Terminal**

The air terminal consists of the areas accessible to the public and associated with air traveler, including areas such as the short- and long-term parking lots, the restaurant, retail kiosks, rental car concessions, airline counters, and the security room. This area is responsible for 24% of the total revenue and 19% of the expenses.

The expenses for this area come from removal of snow from roads and parking lots. Because of the complexity of the areas, it takes just as long to clear groundside as it does to clear the runway. Sand is used to fight the ice and assist the public in maneuvering around the site. Crack sealing of the long-term parking lot is extensive due to its age; however, the short-term lot is 3 years old and requires no crack sealing as of yet. There is a plan for upgrading the long-term parking area, but it has been shelved until the economy picks up or funding can be arranged.

The terminal building is vintage 1961 and has had three major renovations over the years, with the latest one being the addition of a security-hold room in response to the 9/11 terrorist attack. This renovation was partially funded by the federal government, and the airport took advantage of having the use of an architect and the mobilization of contractors to do extra renovations such as the addition of air conditioning to the terminal, the expansion of the arrival baggage system, and new flooring throughout; as well, the board room was relocated and its size increased. The majority of the maintenance involves minor activities such as repairing the plumbing, adjusting doors, and fixing lights. The heating system is boiler heat, and a major refit, which included the installation of a digital control system, was completed in 2008. Nav Canada's Flight Service Station is located on the top floor of the terminal building. The maintenance that is performed in that area is all billed back to Nav Canada at airport cost plus 10%. All in all, the entire terminal building itself is in great shape and should be able to go another 10 years before any major expenses will be incurred.

Revenues are generated from long-term parking. The rates there have just been increased from \$4 per day to \$6 per day, a total increase of 50%. Long-term parking is expected to produce \$177,000 this fiscal year. Rental-car concessions are responsible for 7% of the total revenue and are directly correlated to passenger volume. The car rentals are given preferential treatment for



parking facilities and location in the arrivals area of the terminal building. There are three companies that vie for market share: National, Hertz, and Budget. A bid process is done on a regular basis to allow for change of competitors; however, these three seem to come out on top each time. The restaurant is more of a customer service, and though it does not significantly contribute financially, it is convenient for passengers and provides 4 full-time jobs in the community. The board room has been developed into and is marketed as a meeting room. It has been equipped with state-of-the-art audio/visual equipment, a speaker phone for conference calls, high-back leather office chairs, a cherry-wood board table, and both hardwire and wireless Internet. It provides a small amount of revenue and is continuing to grow in popularity. Executives can go to the airport website and book the meeting room online with a confirmation within hours. When an executive is in town and needs to have a meeting just before a flight, he can hold it at the airport and not have to rush off early to catch his flight. Rio Tinto Alcan utilizes this room often. Leasing space is the final method whereby the airport collects revenue from the terminal. There are three major tenants: Air Canada Jazz, Hawkair, and Central Mountain Air. These lease contracts are also under review and will be likely increased at the next renewal date.

### **Options for the Terminal**

Long-term parking rates could be increased another 33% to \$8, allowing the airport to get back into the black sooner. Parking is automatically the worst experience for the traveling public, and since it has been said that the passengers are going to complain no matter what is charged, parking should be made worth the airport's while. (Brown, 2009)

Parking fees for cabs, fishing lodges, ski lodges, and couriers could be increased from \$75 per year to \$125 per year.

Car-rental tenants could have their office space increased, or a fourth rental agent could be added (the airport could offer the choice to the existing companies, it knows what the customers will probably decide but wants to avoid the complaints that a lack of choice would cause. The airport feels that the existing tenants would rather increase their cost of operating than have a low-cost supplier enter the market. Fewer complaints would result if the tenants were persuaded to agree to the decision beforehand.

There is not much that can be done with the restaurant. The concessionaire has requested more equipment; however, the restaurant would not be serving more customers, just the same number of customers faster. If the restaurant cannot carry the cost of the new equipment, then it should not be provided. A retail kiosk has been added since the survey, but it is operated by the same concessionaire as the restaurant and does not seem to be doing well. The lease for the retail kiosk should be offered to the public and include requirements that the kiosk be open during flight times and offer magazines, souvenirs, and trinkets.

A review of leased areas compared to market value should be done for 2010, and rates should be adjusted accordingly. If the land leases were 35% behind market value, the terminal leases will most likely be behind as well.

Pay-per-use Internet could add some value to the revenue mix. At the present time it is being offered as a customer service for the passengers' convenience.

## **Competitive Environment**

Competition consists of ground, air and sea. Ground competition is with Via Rail, which offers twice-weekly service to Prince Rupert and all points East such as Prince George, Edmonton, Calgary, and beyond. The limitation that rail faces is not only the frequency but the

travel time. It is a 12-hour trip to Prince George, and to get to Vancouver, it is another 20 hours through Calgary.

Greyhound bus lines also offer a twice daily service to Prince Rupert and Prince George. Again, its disadvantage is time to travel, 10 hours to Prince George and 20 hours to Vancouver.

Travel by personal car is 6 hours to Prince George and another 8 to Vancouver.

BC Ferries, although it may be romantic, is a 12-hour trip from Prince Rupert to the northern tip of Vancouver Island alone.

For air-travel competition, there are three main competitors: Prince Rupert, Smithers, and Prince George Airports.

Airport	Pros	Cons
Prince Rupert – located 145 km west of Terrace	6,000 foot runway capable of landing a Boeing 737 aircraft	No aviation gas service
	Instrument landing system	Remote airport access via ferry or boat only
	Access to customs	Physical plant aging and unreliable
	Ocean dock located in town	Remote flight service
	Industry (Ridley Island coal, grain, and Maher Terminals)	58,000 passengers a year
	Alaskan Ferry base	No low-cost carrier
	BC Ferry base	No car parking
	Fishing industry, both commercial and recreational	
Smithers – located 200 kms east of Terrace	7,500 foot runway	No instrument landing system
	Home base for Central Mountain air, the main air transporter for the mining industry	Aging infrastructure (terminal building, water and sewage system)
	Home of Hudson Bay Mountain Ski resort	65,000 passengers per year
	2 hours closer to Prince George than Terrace	No low-cost carrier
	Staffed 16-hour flight service	No customs service

	station	
	Mining industry	
	Car parking 100 spaces	
Prince George – located 600 kms east of Terrace	Low-cost carrier (Westjet)	Expensive parking fees
	Shopping centers	6-hour drive from Terrace
	Hunting, fishing, skiing	
	11,450-foot runway	
	Trans-shipment designation	
	Customs facility with bonded area	
	300,000 passengers per year	
	16-hour air traffic control tower	
	Instrument landing system	
	New air terminal building	
	Relatively new field equipment for snow removal	
	Industry	
Terrace-Kitimat	108,000 passengers per year	No customs service
	Relatively new infrastructure, buildings, and snow-removal equipment	No low cost carrier
	Car-parking facilities (300 spaces)	Lingering bad reputation
	Central to the northwest region between Smithers and Prince Rupert	66% of revenue from airside activities: there is a need to diversify product offering
	Home of 24-hour flight service station for region: serves Sandspit and Prince Rupert as well as Terrace	\$1,085,000 in debt
	Developable land 774 ha	
	Union-management relationship Three scheduled air carriers	

The Terrace-Kitimat airport's major competition would be Prince George first and Prince Rupert second. The main advantages they have are customs service and industry. Smithers is competitive but is hampered by the aging infrastructure and limited instrument approaches.

### **Financial overview**

For the 2010 – 2011 fiscal year, which will be Hendry's first budget year, the Airport's financial statement, in brief, is shown below. The only thing that is controllable on this budget would be the capital expenditures, and this budget is trimmed to include only those projects that are required for maintenance or that will result in an increase in the revenue stream.

Forecasted passengers will be 100,000 down from 106,000 in 2009, due to the closure of the Eurocan Pulp Mill in Kitimat. The exact impact is unknown at this time.

**Line of Credit** – the airport has chosen to operate the airport on a line of credit and fund it from the cash flow instead of taking out long-term loans for capital projects. The airport feels that a line of credit is easier and more flexible. The TD Bank is on side with this arrangement and has agreed to a prime -1% interest rate, reviewed annually.

Finances at the end of the fiscal year 2010 – 2011 with fees unchanged:

Revenue	\$2,008,006
Expenses	\$1,918,893
Net income from Operations	\$89,112
Capital expenditures small projects	\$99,500
Balance owing to the line of credit	\$904,132

In the following years, with no changes made to the 10-year capital plan or the fee structure, the balance owing on the line of credit will continue to grow.

Line of credit at end of fiscal year ending	
2012	\$1,172,498
2013	\$1,630,471
2014	\$1,677,113

2115	\$1,525,597
2016	\$1,577,184
2017	\$1,457,457
2018	\$1,567,715
2019	\$2,253,872
2020	\$2,386,856

In the table above, showing the line-of-credit balance, the 10-year equipment-replacement plan is the major driver of the increasing debt. This does not include any projects for buildings or other infrastructure improvements. It is imperative that the airport find new long-term sources of revenue, which will, most likely, include increasing fees.

### Options

As the cost of operations increases with collective agreements, fuel prices for equipment and runway de-icer, metal prices for broom bristles, utilities, and so on, the airport needs to increase its revenue to keep up. It is important that the airport find new ways to increase revenue. Some ideas are:

- The existing rates for advertising were last adjusted in 2008. These could be adjusted upwards. The methodology for figuring out what to charge was based on larger airports, taking into consideration their fees and their numbers of passengers and prorating our rates accordingly.
- The airport can adjust rates for passenger fees up, from \$12 to a number that would be able to cover the shortfall. This is a little on the edge and should be thought out carefully. Airlines will question why, and for how long. Then they will put in an increase on the ticket of their own, attempting to conceal it by blaming the airport fee increase.
- Leases need to be reviewed and brought to market value. To eliminate the possibility of falling behind, the airport should implement an annual increase tied to a third-party-generated number such as the cost of living.



- The city should either return a portion of the taxes collected for infrastructure maintenance and capital improvement or consider performing that work itself. The airport would much rather coordinate the work as required than depend on someone else's schedule, which may not fit into the airport's plan.
- A reduction in staffing could take place. The end of the succession plan will see one mechanic leaving and Brown leaving as well, and salaries will realize a saving of \$140,000.

Some ideas that other airports have come up with are:

---

- Aircraft hangars for small aircraft, with groundside access and homes on top for those who are real airplane buffs. The tenants could live at the airport with their planes below their homes and with airside access so they could just jump in their planes and go for after-dinner rides.
- Establish a cargo facility. A plan should be in place so that when the economy turns around, the request for proposals will have a head start.
- Through the use of an incentive plan, develop new routes with existing or new airlines. A low-cost carrier would go a long way towards improving revenues.
- Develop trans-border service. This would be a cost recovery and not a revenue source. This service would help put the airport on the map and entice passengers from surrounding communities.
- Continue to increase reliability through the use of new technologies such as the Global Positioning System (GPS) landing system.

## **Real Alternatives**

Usually, the first item an organization will look at cutting is staff or salaries. Yes, the airport could look at re-opening the collective agreement and forcing a roll-back in salaries; however, this would create a rift between the management and staff that would take a very long time to repair. The staffing levels are satisfactory, and the wage scales are fair.

If trans-shipment designation were to be granted, the airport would not see immediate payback. It would take time to develop clientele. Maher would have to take a chance on one shipment and, based on that result, determine if it were viable to use the Terrace-Kitimat airport. If customs service could be secured, the region would definitely see an influx of private aircraft traveling to and from Alaska. There would also be a market for sun destinations in the winter.

Developing the groundside lands and upgrading the road access for the existing tenants will show these tenants that they are important and help diversify the revenue generation for the airport. Through tax incentives, non-aviation-related business could be attracted to the available lands around the airport. This could allow the airport to provide incentives for new route development and create a more secure atmosphere for the tenants.

A low-cost carrier would definitely entice traffic away from Prince Rupert and Smithers Airports. The Terrace-Kitimat Airport would become even more of a regional center than it is now.

The Terrace-Kitimat airport is successful and has had some growth; however, the success has always synchronized with the economy and will likely continue to do so. A pause-and-proceed-with-caution strategy, in which a business emphasises "Stability over growth by continuing its current activities without any significant change in direction" (Hunger & Wheelen, 1941), will help it here. A pause strategy is, in effect, a timeout: an opportunity to rest before continuing growth or retrenchment. This will enable the airport to consolidate its



resources, pay down some of its line of credit, and build up an operating reserve for the future.

This strategy could be followed for the short term (say 5 years), with the airport keeping a close eye on the economy and the communities while being ready for expansion if it is required.

### **Solution**

How can we make the Terrace-Kitimat airport financially viable for the long term? The information given above suggests that at the present time, the airport is in a fairly stable position so long as no major projects are taken on before a capital reserve can be established. The airport will not be able to create a capital reserve plan unless it increases its revenue source. There are not a lot of ways to do this without raising fees, which will cause some backlash from both the traveling public and the airlines. Hendry suggests the following strategy:

- Follow a stability strategy, a pause-and-proceed-with-caution (Hunger & Wheelen, 1941). The airport is in a fair position with its infrastructure and could put off any capital purchases that were not absolutely necessary (i.e., it could delay the equipment-replacement plan). The airport should notify the airlines that due to increasing costs, there may be a need to increase the per-passenger fee by approximately \$3 per passenger. In August, the airport should announce the increase in fees to \$15 per passenger and give the airlines until January to implement.
- Adjust all leases to market value and incorporate an annual increase tied to the cost of living, with a review every 5 years to ensure the airport does not fall behind again.
- Continue with existing staffing levels less Brown and Mitchell
- Complete a thorough review of all fees the airport charges and ensure they are all up to date and cover the cost of providing the service.
- Contact the City of Terrace and discuss the possibility of retaining any of the taxes it collects from the tenants of the airport.

- Pursue the trans-shipment designation
- Create a plan for future development of a cargo facility
- Issue an RFP for an agriculture lease to make use of the property that is not for development if a contract for the growing of hay can be established. Then the airport would not have to maintain that area.
- Establish an incentive plan for all staff in order to encourage the continued search for new and more efficient ways of doing work.

Appendix F shows a 10-year forecast that incorporates an increased passenger fee from \$12 to \$15.

## Appendix F 10 Year Forecast

	10 Year Forecast											
	Forecast 2009-2010	Proposed 2010-2011	Forecast 2011-2012	Forecast 2012-2013	Forecast 2013-2014	Forecast 2014 - 2015	Forecast 2015-2016	Forecast 2016-2017	Forecast 2017-2018	Forecast 2018-2019	Forecast 2019-2020	
Passengers	106,000	100,000	103,000	108,150	113,558	119,235	121,024	122,839	124,682	126,552	128,450	
Fee per Passenger	12	12	15	15	15	15	15	15	15	15	15	
REVENUE												
Contributions												
Passenger fees	1,272,000	1,200,000	1,545,000	1,622,250	1,703,363	1,788,531	1,815,359	1,842,589	1,870,228	1,898,281	1,926,755	
Landing and other aircraft fees	55,200	60,110	62,000	63,900	65,900	67,900	70,000	72,100	74,300	76,600	78,900	
Rentals and concessions	151,800	140,491	143,400	150,600	158,200	166,200	168,700	171,300	173,900	176,600	179,300	
Lease & License	384,475	379,231	396,900	394,700	402,600	402,600	402,600	402,600	402,600	422,800	444,000	
Parking	135,094	175,173	180,500	186,000	191,600	194,500	200,400	206,500	212,700	219,100	225,700	
Other	49,815	53,000	54,100	55,200	56,400	57,000	57,600	58,200	58,800	59,400	60,000	
	2,048,384	2,008,006	2,371,900	2,472,650	2,578,063	2,676,731	2,714,659	2,753,289	2,792,528	2,852,781	2,914,655	
EXPENSES												
Accounting	8,000	8,000	9,000	9,000	9,000	9,000	9,500	9,500	9,500	9,500	10,000	
Bad debts	2,600	6,100	0	0	0	0	1	2	3	4	5	
Legal	1,000	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,800	1,900	
Marketing	25,000	20,000	20,400	20,900	21,400	21,900	22,400	22,900	23,400	23,900	24,400	
Bank Charges & Interest	30,000	30,000	30,600	31,300	32,000	32,700	33,400	34,100	34,800	35,500	36,300	
Loan Payments	0	0				prime - .1%						
Directors' Expenses	1,500	2,000	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900	
Dues, Licenses, Subscriptions	7,000	6,300	6,500	6,700	6,900	7,100	7,300	7,500	7,700	7,900	8,100	
Office Supplies	6,000	6,000	6,200	6,400	6,600	6,800	7,000	7,200	7,400	7,600	7,800	
Postage & Courier	1,000	910	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,800	
Liability Insurance	47,931	50,000	51,000	52,100	53,200	54,300	55,400	56,600	57,800	59,000	60,200	
Telephones & Internet	16,000	18,000	18,400	18,800	19,200	19,600	20,000	20,400	20,900	21,400	21,900	
Cell Phones	3,800	3,600	3,700	3,800	3,900	4,000	4,100	4,200	4,300	4,400	4,500	
Pagers	10		0	0	0	0	0	0	0	0	0	
Janitor	105,000	127,000	132,100	137,400	142,900	148,700	154,700	160,900	167,400	174,100	181,100	
Consultant Services	35,000	42,000	42,900	43,800	44,700	45,600	46,600	47,600	48,600	49,600	50,600	
Professional Services	114,275	38,750	40,000	40,800	41,700	42,600	43,500	44,400	45,300	46,300	47,300	
Utilities	110,000	127,500	130,100	132,800	135,500	138,300	141,100	144,000	146,900	149,900	152,900	
Garbage Removal	5,000	5,040	5,200	5,400	5,600	5,800	6,000	6,200	6,400	6,600	6,800	
Travel/Training	40,000	35,976	36,700	37,500	38,300	39,100	39,900	40,700	41,600	42,500	43,400	
Photocopier	1,200	1,440	1,500	1,600	1,700	1,800	1,900	2,000	2,100	2,200	2,300	
Total Payroll Expense	832,530	837,238	860,262	883,920	908,227	933,202	958,867	985,236	1,012,330	1,040,169	1,068,773	
Property tax	79,804	79,804	79,804	79,804	79,804	79,805	79,806	79,807	79,808	79,809	79,810	
ADMIN. & OVERHEAD	1,472,650	1,446,658	1,478,566	1,516,524	1,555,431	1,595,409	1,636,874	1,678,945	1,722,241	1,766,682	1,812,768	
SURFACE	314,000	319,760	336,000	347,800	360,000	372,600	385,700	399,200	413,200	427,700	442,700	
BUILDINGS	40,000	63,235	66,100	67,100	68,100	69,100	70,100	71,100	72,100	73,100	74,100	
EQUIPMENT	80,000	84,950	88,000	91,100	94,300	97,700	101,200	104,800	108,500	112,300	116,300	
ELECTRICAL	15,000	14,300	14,600	14,900	15,200	15,600	16,000	16,400	16,800	17,200	17,600	
	1,921,650	1,918,893	1,972,266	2,027,424	2,084,031	2,142,609	2,203,174	2,265,045	2,328,741	2,394,282	2,462,288	
NET INCOME FROM OPERATIONS	126,734	89,112	399,634	445,225	494,031	534,222	511,485	488,244	463,787	458,500	452,367	

Allocation to Capital Reserve Fund  
**CAPITAL FUNDING**  
From Operating Reserve  
Capital Reserve Fund  
Government assistance



## References

- Airport construction & development. (2005). *Montego Bay Jamaica, Sangster International Airport*. Retrieved March 4, 2010 from [http://www.mbjairport.com/English/Airport\\_Construction.aspx](http://www.mbjairport.com/English/Airport_Construction.aspx)
- Beynon, R., & Frank, D. (1997). *Charting the course: Developing a business plan for Terrace Kitimat Airport*. Vancouver, BC: Horizon Pacific.
- Brown, L. (2009 09 01). Airport Consultant. (C. Hendry, Interviewer)
- Davies, D. M. (February 10, 2005). Case study analysis and case study method. *Teaching and learning unit faculty of economics and commerce*. Melbourne, Australia: University of Melbourne.
- Farhoomand, A. (2004). Writing teaching cases: a quick reference guide. *Communications of the association for information systems*. Retrieved March 10, 2010 from <http://www.acrc.org.hk/casemethod/doc/case.writing.guide.pdf>
- Frosty outlook for winter travel. *Tourism intelligence bulletin*. Canadian Tourism Commission, 15-16.
- Heath, J. (2009). The case teaching note. *EECH: The case for learning*. Retrieved February 27, 2010 from <http://www.ecch.com/uploads/teachingnote.pdf>
- Hunger, D. J., & Wheelen, T. L. (1941). *Essentials of strategic management* (4<sup>th</sup> ed.). New Jersey, NY: Pearson Prentice Hall.
- Invest Canada, invest Kitimat. (2010, 02 21). *Kitimat: A Marvel of Nature and Industry*. Retrieved February 28, 2010, from <http://www.kitimat.ca/assets/Business/PDFs/invest-canada-kitimat-brochure.pdf>
- Preissle, J. (2007). Case study research. *Case study research, design and methods*. Retrieved April 4, 2010 from [http://www.coe.uga.edu/syllabus/qual/QUAL\\_8530\\_PreissleJ\\_Fall07.pdf](http://www.coe.uga.edu/syllabus/qual/QUAL_8530_PreissleJ_Fall07.pdf)
- Safety management systems. (2009). *Transport Canada*. Retrieved from <http://www.tc.gc.ca/civilaviation/sms/menu.htm>
- Siggelkow, N. (2007). Persuasion with case studies. *Academy of Management Journal*, 20-24.
- Syme, R. E. (1951). *Airport development, management, and operations in Canada*. Scarborough: Prentice-Hall Canada.
- Wells, T. A. (1986). *Airport planning & management* (2<sup>nd</sup> ed.) New York, NY: McGraw-Hill.
- Whiteley, D. (2007). Prince of ports. *BC Business Magazine*, 1-7. Retrieved from [http://www.rupertport.com/pdf/media/bc%20business-prince%20of%20ports%20july%202007\\_web%20full%20article.pdf](http://www.rupertport.com/pdf/media/bc%20business-prince%20of%20ports%20july%202007_web%20full%20article.pdf)