Airport Runway Extension Business Case

Alberni-Clayoquot Regional District and City of Port Alberni *16 February 2015*

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Checklist

The checklist below is provided in the Build Canada Program Guide. This table explains where each of these elements is addressed within this business case.

Checklist of Business Case Elements

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1. Overview

1.1. Problem Statement

An aerospace company based at the Alberni Valley Regional Airport (AVRA) has contracts to modify aircraft for international forest fire fighting and the company wants to `conduct this work at its AVRA base. However, the company cannot conduct the work at AVRA because the modified aircraft are too heavy for the existing runway. To complete this aerospace work at AVRA therefore requires a runway extension.

Without an extended runway, confirmed, high value aerospace work may be lost to another country, and the Alberni Valley will miss out on this and future significant opportunities.

This high value aerospace work will not take place at Port Alberni, and probably not in Canada, unless the runway is extended. This is because Coulson already has operations and relationships in the U.S. and Singapore and it would be easier (read more profitable) to utilize them than to develop a new operation in Canada. AVRA is also underutilized, and Port Alberni is the only mid-size community in B.C. without scheduled air service. The Alberni-Clayoquot Regional District (ACRD) and the City of Port Alberni have therefore developed this business case for the extension and improvement of the runway. (The airport is owned by the ACRD.) Letters of support for the initiative received from Steelhead LNG, Coulson Aircrane, and the City of Port Alberni are attached in **Appendix A**.

1.2. Project Objective

The project objective of the ACRD and the City is to extend the runway and retain and expand aerospace employment at AVRA, supporting the Canadian economy and its international competitiveness. Secondary objectives of this project include supporting other aerospace development at the site, tourism within the ACRD, regional economic development, and transportation services.

1.3. Project Rationale

If the project is not approved, Port Alberni will lose potential aerospace activity in coming years. This immediate loss will probably lead to the loss of other as yet unidentified opportunities because the proponent will expand its operations in another country to complete the contracts it has signed. The loss of this opportunity could therefore become a significant “missed opportunity.”

The aerospace company, Coulson Aviation, a member of the Coulson Group of Companies, has been clear that it cannot complete the aerospace contracts it has signed without a longer runway at AVRA. The company already has multi-year contracts in place for this work and is seeking somewhere to complete its work. The Coulson Group’s first choice of location is AVRA.

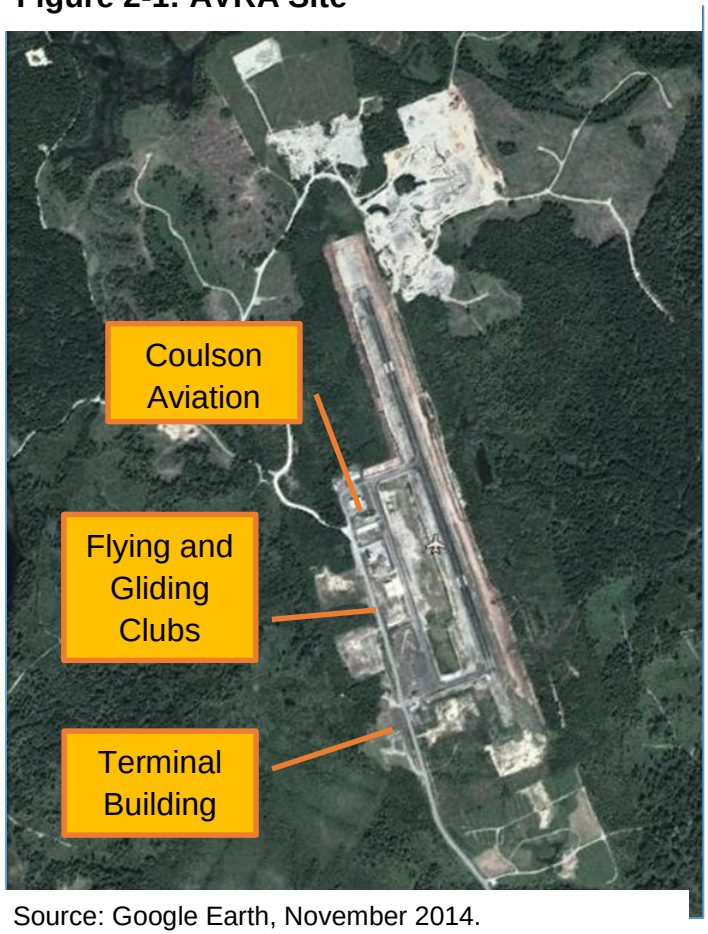
2. Current Situation

2.1. Alberni Valley Regional Airport

AVRA is a registered airport with a single 3,952 x 75 foot runway (1205 metres in length). There is no published instrument approach at this time. Activity at the site includes a BC Forest Service crew base, Coulson Aviation, and recreational activities, including the Alberni Valley Flying Club, the Vancouver Island Soaring Centre and the Alberni Valley Soaring Association. Avgas and Jet A are sold at the airport via a card lock system. The airport was opened in 1993.

An aerial view of the site is shown in **Figure 2-1**. The access road to Highway 4 is at the south end of the site.

Figure 2-1: AVRA Site



Source: Google Earth, November 2014.

2.2. Aerospace

Coulson Aviation is based at the north end of the airport taxiway. The Coulson Group of Companies, based in Port Alberni, includes the following divisions:

- Forest Products
- Lumber Manufacturing
- Coulson Cedar, and
- Other developments.

The Coulson Group of Companies has been active in forestry on Vancouver Island since the 1930s and diversified into aviation in the 1960s. Aviation companies owned by the group include Coulson Aircrane Ltd., Coulson Aircrane (U.S.A.) Inc., Coulson Flying Tankers, and Coulson Aero Technologies Ltd. The Group owns a fleet of fixed and rotary wing aircraft.

The Group has a long history of success and exports. The Group has been used by BDC (Business Development Bank of Canada) as a model which "positions itself as a global player."[1] The example used by BDC is the project which requires the extended runway, modifying L100 (C130) Hercules to be water bombers.[2] The company also sold its successful helicopter maintenance operations to CHC Helicopter and CHC developed the operations into Heli One. CHC Helicopter is the Canadian-based, largest helicopter operator in the world. Heli-One is the largest helicopter support company in the world.

2.3. C130 Initiative

The Group's current initiative driving the need for an extended runway is the conversion of military C130 aircraft into water tankers. The Company has contracts with Lockheed Martin to compete the work and owns the Type Certificate for the C130. A type certificate is issued by a regulator such as the FAA or Transport Canada to show that a design is considered airworthy. Only companies that own a type certificate may modify an aircraft significantly.

The Coulson Group has signed contracts to complete the aerospace work. It is seeking a location for the work. The first aircraft was modified in the U.S.

[1] BDC, "Testimonial: Coulson Group of Companies," provided in **Appendix B**.
[2] Civil versions of the aircraft are L100s and military versions are C130s.

The major activity that Coulson plans to undertake at AVRA is the manufacturing and installation of tanking systems on C130 aircraft, transforming them into water bombers. The 4,000 US gallon tanks were designed by the Coulson Group and are manufactured in Port Alberni. There are also opportunities to do similar work for Airbus aircraft. Installing one tank kit requires 8,000 hours of labour. Each tanker install would be completed within 90 days. There are approximately 2100 C130s in the world and a significant number of these may be transformed into tankers in coming years. **Figure 2-2** shows the modified aircraft in flight.

Figure 2-2: Modified C130 Water Bomber

Source: The Coulson Group

Coulson already has three to five years of signed contracts (depending on how quickly they can be fulfilled) to complete aircraft modifications. The Group already has completed the first install and is planning the second; neither of these first two modifications will be done in Canada. The first C130 work was done at San Bernardino, California and a second project will be completed in Singapore. The company already has the approvals to do the work in the U.S. if it cannot complete it in Canada.

> The development could quickly generate up to 15 high paying aerospace positions in the Alberni Valley.

If Coulson can complete the work at AVRA, it would generate up to 15 new Aircraft Maintenance Engineer (AME) positions each paying approximately $70,000 annually. The training of these new positions would create demand for services from North Island College (NIC) which would supports the college's ongoing operations, as well.

3. Potential Activity

3.1. Aerospace

The proposed development at AVRA by the Coulson Group will generate up to 15 AME full-time equivalent jobs.

AME Description. The average Canadian Aircraft Maintenance Engineers earn approximately $65,000 annually, before overtime. AMEs are highly trained and must pass Transport Canada certified tests to be rated as M1 or M2 AMEs.[3] Minimum requirements for both designations include 1000 hours of theory (usually via college), 48 months of work experience, and a log of all maintenance tasks completed. After meeting these requirements, AME candidates take tests for federal certification. AMEs are skilled and high tech jobs, and Canada and B.C. have both initiated programs to attract aerospace jobs.

AMEs are skilled, high tech workers earning $65,000 or more annually.

Additional Opportunities. In addition to the Coulson Group C130 program, other aerospace opportunities may be created by the proposed infrastructure improvement. Coulson has spoken with other aerospace companies who have expressed an interest in completing work at AVRA if Coulson expands its operations there. These additional opportunities have not been included in the economic or taxation estimates in the Multiple Accounts Evaluation (MAE) in **Section Five**. Successful B.C. aerospace firms and potential targets for activity include companies like Viking Air, Kelowna Flightcraft, Cascade Aerospace, and CHC.

[3] https://www.tc.gc.ca/eng/civilaviation/standards/maintenance-aarpb-general-general-2535.htm

3.2. Other

The proposed infrastructure could also support the following potential regional developments:

- **Alternate Airport**. With the additional runway length, AVRA will be better able to act as an alternate airport for the Long Beach Airport (CYAZ) on the West Coast. CYAZ has developed strongly in recent years, supporting the growing tourism cluster in the Tofino-Ucluelet region. The airport suffers from seasonal fogging. When this occurs, aircraft cannot land at CYAZ negatively impacting tourists. With the proposed improvements, AVRA will be better positioned to act as an alternate airport seasonally.
- **New Courier Service**. Coulson Aviation is already FedEx's third largest client on Vancouver Island. FedEX has advised Coulson that if it develops its proposed aerospace activity, FedEx may initiate a new non-stop courier service to AVRA. This new courier capacity would be a benefit to all economic activity in the region.
- **Tourism**. Local tourism operators have complained about difficulties flying aircraft into AVRA. The extended runway would improve the usability of the site for tourism operators.
- **Transportation Services**. Improvements to the airport will support the development of scheduled air transport from AVRA to destinations such as Vancouver. This will assist the social and economic development of Port Alberni.
- **Container Terminal Development.** The proposed Port Alberni Transshipment Hub (PATH), an Alberni Inlet container terminal development, would benefit from improved airport and aviation services in the region. Projects and operations of this type require significant aviation support for the construction phase and ongoing operations.
- **LNG Terminal.** The proposed LNG terminal in Alberni Inlet would also benefit from an improved airport. Moving crews in and out of a project site is a concerns for LNG plant construction. The proposed infrastructure improvements would facilitate this. On November 29, 2014, the Huu-ay-aht First Nation voted in favour of continuing to explore the benefits arising out of a proposed LNG plant and offered the Steelhead

LNG proponent the opportunity to lease the Huu-ay-aht's Sarita Bay Treaty Settlement Lands for the project. Project capital costs are estimated at $30 billion.

4. Proposed Infrastructure Improvement

4.1. Options Development

The ACRD contracted with Tetra Tech EBA Inc. to complete an options analysis.[4] The report identified five options to serve the identified demand. After considering the options, the Alberni-Clayoquot Regional District has voted in support of extending Runway 30 by 324m and extending it to 30m.[5]

4.2. Proposed Activities

Activities proposed within this option include

- Extending the south end of the runway by 324m,
- Expansion of the runway width to 30m, and
- Related civil engineering work.

4.3. Timelines and Milestones

With proper phasing, the proposed project can be completed in 2015.

The proposed project could be completed in 2015.

[4] Tetra Tech EBA Inc., "Runway 12-30 Extension Pre-Design Report, Alberni Valley Regional Airport (AVRA)," September 2014.
[5] For those who may be unfamiliar with airport terminology, there is only one physical runway but from an operational perspective there are two runways because a pilot can approach the runway from either direction. The runway numbers represent the compass bearing of the runway's orientation.

4.4. Performance and Progress Measures

The project is a relatively small capital project. It will require phasing but no interim progress measures should be required.

4.5. Project Risks

No significant risks for the project have been identified. The ACRD conducted geo-tech and soil testing which established that the conditions are suitable for the planned runway structures.

4.6. Project Budget

Tetra Tech completed a Class A estimate for the proposed project. The summary is shown in **Figure 4-1**. The total project cost is ~ $6.0 million.

Figure 4-1: Class A Project Estimates

Line Item	Value
Estimated Construction Costs	$ 5,533,220
Contingency (8%)	$ 425,600
TOTAL	**$5,958,820**

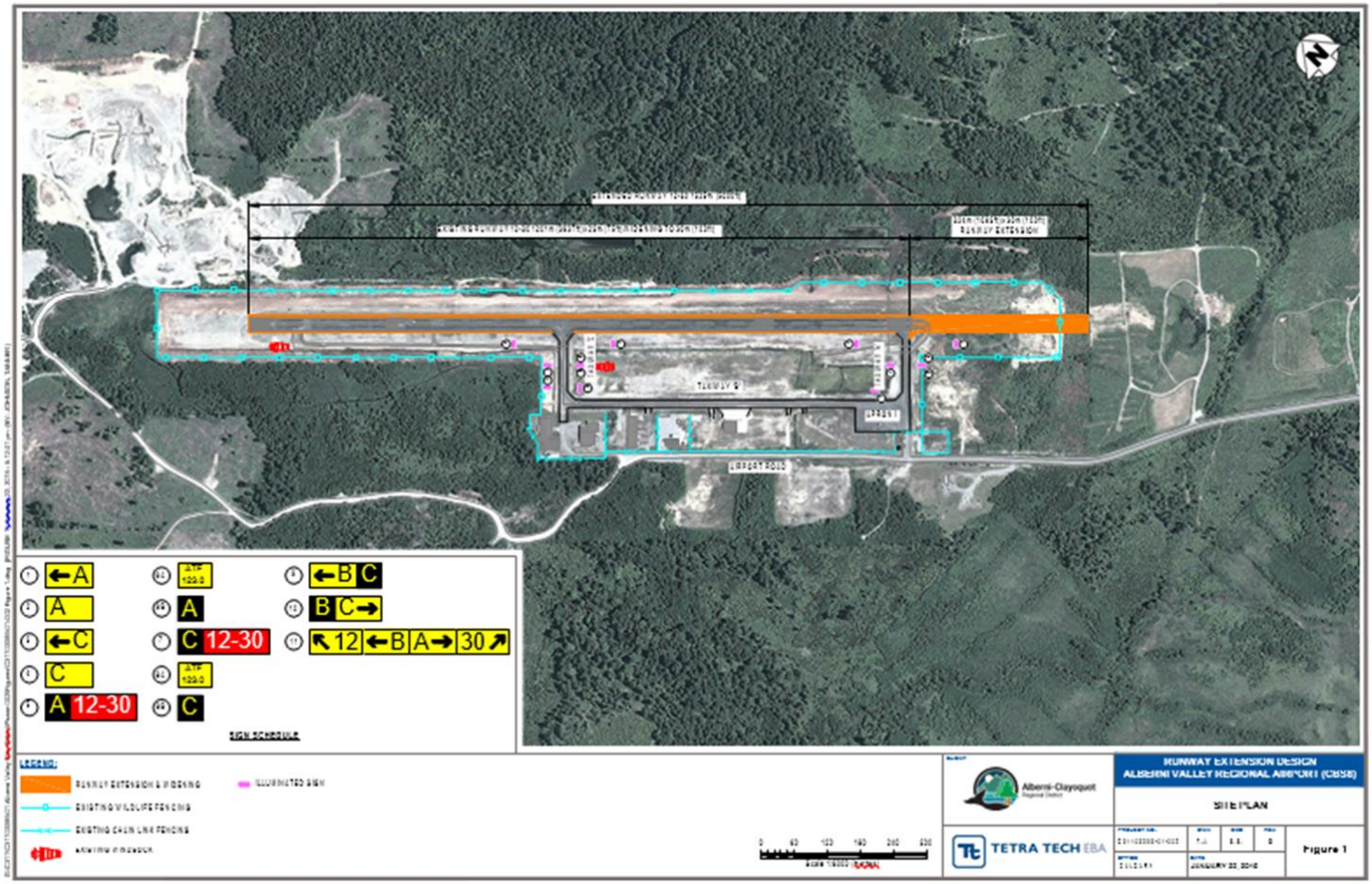
Source: Tetra Tech EBA

An illustration of the airport showing the proposed runway extension is shown in **Figure 4-2**. The proposed extension is displayed in orange.

4.7. P3 Participation

The ACRD seeks a partnership agreement with the federal and provincial governments to complete the proposed project. The RD has committed to $2 million in funding. The Community Forest Legacy Fund has committed $180,000 to the project which will allow some tree clearing that is not part of the extended runway project. The proposed cost sharing would be one third each from both the federal and provincial governments, or approximately $2.0 million each.

Figure 4-2: Proposed Runway Extension



5. Multiple Accounts Evaluation

5.1. Methodology

Multiple account evaluation (MAE) is a decision matrix tool designed to provide a balanced perspective to infrastructure decision making. The BC Ministry of Transportation has a formal MAE process it uses for highway development projects for example.

All MAEs are a simplified form of cost-benefit analysis. True cost-benefit requires that all costs and benefits be accurately assigned a dollar value, so that costs can be subtracted from benefits to determine the cost-benefit. The higher the resulting value the higher the value of the project, but it is very difficult to convert many accounts such as the environment into dollar values.

MAE analysis is a method of cost benefit analysis in which not all values are monetized. Accounts are compared in different scenarios so the potential impacts of projects can be understood.

5.2. Evaluation

Table 5-1 offers a matrix evaluation of the proposed development by examining different accounts. The table compares the current situation with the potential impacts from the proposed airport expansion. In this evaluation, the following accounts are discussed:

- Capital Investment;
- Economic Impact;
- Aerospace
- Trade;
- Tourism;

- First Nation;
- Government Revenues;
- Regional Development;
- Environment;
- Social;
- Training;
- Transportation; and
- Political.

Figure 5-1: MAE Analysis

ACCOUNT	CURRENT SITUATION	AIRPORT DEVELOPMENT SCENARIO
CAPITAL INVESTMENTS	No capital investment	Up to $ 6.0 million in one-time capital investment. This estimate is for extending the main runway, constructing runway and taxiway lighting, and related preparatory work. The Coulson Group will be able to complete work at AVRA, work it has already contracted for, if these improvements are completed. The proposed construction would generate one-time direct impacts of up to: ▪ 34 FTEs ▪ $1.99 million in wages

ACCOUNT	CURRENT SITUATION	AIRPORT DEVELOPMENT SCENARIO
		▪ $2.6 million in GDP and ▪ $3.1 million in economic output
ECONOMIC IMPACTS	Limited economic impact currently.	The development of proposed C130 modification at AVRA would result in a variety of economic impacts in the region as well as making other opportunities possible. Jobs resulting from this would be primarily at the airport and support activities for aerospace activities. The activity generated by the Coulson Group directly and related activity would generate direct annual activity including up to □ 15 FTEs; □ $1.0 million in wages; □ $1.4 million in GDP; and □ $4.3 million in economic output. Total economic outputs would be greater. A scenario for scheduled air services to AVRA from Vancouver has also been

ACCOUNT	CURRENT SITUATION	AIRPORT DEVELOPMENT SCENARIO
		developed. Assuming 70% loads on an 8-seat aircraft and two flights per weekday (one on weekend days), 8,176 one-way passengers per year would be served. In Port Alberni, the equivalent of 5 FTEs would be created by this activity. The impacts of this would be: □ 5 FTEs; □ $193,000 in wages; □ $276,000 in GDP; and □ $480,000 in economic output. The total direct impacts of the aerospace and air transportation estimates are: □ 20 FTEs; □ $1.2 million in wages; □ $1.7 million in GDP; and □ $4.8 million in economic output. The total economic impacts of the initiatives would be greater still including

ACCOUNT	CURRENT SITUATION	AIRPORT DEVELOPMENT SCENARIO
		multiplier analysis. (Total economic impacts include direct, indirect, and induced impacts.) Total impacts from these scenarios could be as high as : □ 48 FTEs; □ $3.0 million in wages; □ $3.5 million in GDP; and □ $8.4 million in economic output.
AEROSPACE	The BDC says Coulson "positions itself as a global partner in forest fire fighting." See Appendix B Coulson will complete the planned C130 refits in the U.S. or overseas.	The proposed development will further numerous federal and provincial goals and initiatives. The proposed runway expansion will help retain high skill, high paying jobs in Port Alberni, which might otherwise got to another country. Coulson has already held talks with other B.C. aerospace firms who may contract additional work, that they have been unable to take on up to this point, to Coulson if the runway is extended.

ACCOUNT	CURRENT SITUATION	AIRPORT DEVELOPMENT SCENARIO
		The B.C. government identified and committed to supporting the potential of aerospace and supporting it in the 2014 Budget by entering into a $5 million partnership agreement with the Aerospace Industry Association of Canada (AIAC) Pacific.[6] Development of aerospace trade opportunities is an explicit goal of the federal government and supported by the federal government's mandated 2012 aerospace review.[7] Aerospace development is an explicit goal of the B.C. government's 2012 Aviation Strategy.[8]
TRADE	Limited impact.	The proposed aerospace activity is planned for trade to foreign countries. This activity would therefore support reducing Canada's current account balance deficit.
TOURISM	AVRA airport supports gliding activity.	A longer runway would allow larger aircraft to use the airport which may make it more attractive to charter tourism operators.

[6] http://bcbudget.gov.bc.ca/2014/highlights/2014_Highlights.pdf
[7] Aerospace Review mandated by the Government of Canada, "Beyond the Horizon: Canada's Interest and Future in Aerospace," November 2012.
[8] BC Ministry of Transportation and Infrastructure, "Connecting with the World."

ACCOUNT	CURRENT SITUATION	AIRPORT DEVELOPMENT SCENARIO
		A scheduled air service to AVRA would further support tourism activity.
FIRST NATION	No impact.	Improvement of the airport is anticipated to be beneficial to initiatives local First Nations are partnering in, such as the development of the proposed PATH container and LNG terminals. The proposed runway extension is not on land subject to comprehensive treaty negotiations.
GOVERNMENT REVENUES	Airport supports limited tax revenue.	The planned aerospace activity at AVRA would generate significant tax revenue for the federal and provincial governments paid by employees and employers. Estimated annual ongoing incremental tax increases from the 20 direct employees by level of government would be ▪ Federal: $150,000; and ▪ Provincial: $54,000. This includes CPP and EI but does not include other forms of direct taxation, but does not include other forms of taxation such as corporate income tax.

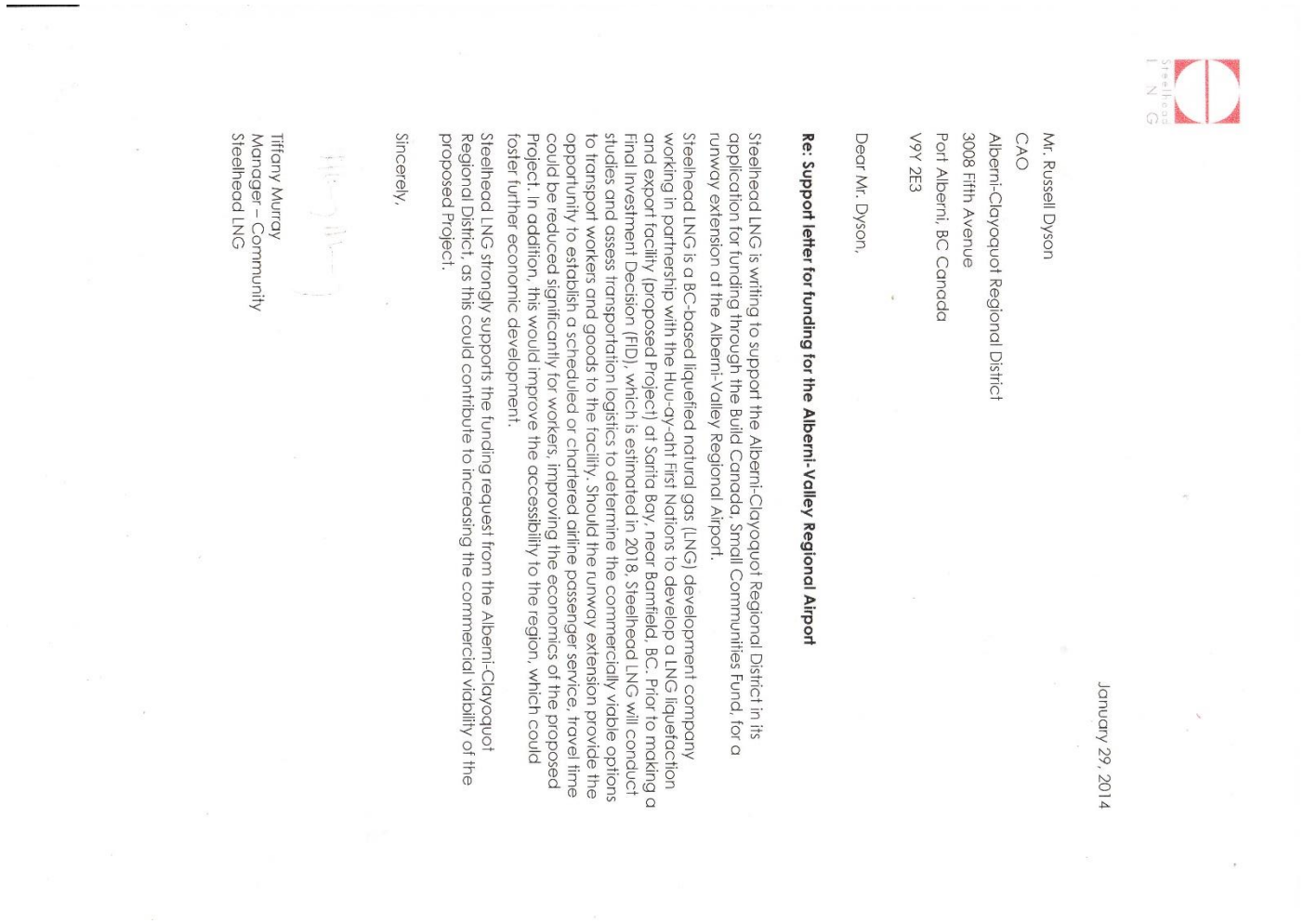
ACCOUNT	CURRENT SITUATION	AIRPORT DEVELOPMENT SCENARIO
REGIONAL DEVELOPMENT	Limited impact.	The proposed infrastructure improvements will create new opportunities for aerospace development at AVRA by the Coulson Group, a company with decades of recognized success in this sector. Other B.C. aerospace companies have said in confidence that they may contract additional work to companies at AVRA if there is improved infrastructure. This improvement will ensure high tech aerospace jobs in a region struggling with unemployment and with a desperate need for high paying jobs.. The activity generated by Coulson may result in a direct daily courier service from FedEx which will support other opportunities in the region. Coulson is FedEx's third largest client on Vancouver Island today. The proposed airport development would support the development of the proposed LNG and container terminals in Alberni Inlet by making transportation to and from the area easier.

ACCOUNT	CURRENT SITUATION	AIRPORT DEVELOPMENT SCENARIO
ENVIRONMENT	Limited impact.	Limited environmental impact has been identified, including increased noise and emissions. The airport may be required to prepare an Environmental Screening (ES) for the proposed project.
SOCIAL	Limited impact.	The lengthened runway and new lighting will make it more likely that medevac flights could fly directly into AVRA with fixed wing aircraft, resulting in significant savings from the current helicopter medevac operations.
TRAINING	Limited	The new aerospace workers at AVRA would require ongoing training. This demand for training would support aerospace training activity at North Island College, and help ensure that program's sustainability. The program already works with Coulsons.
TRANSPORTATION	Limited impact.	Based on the proposed improvements, the airport's importance to transportation in the Alberni Valley would develop significantly. A scenario for scheduled air services to AVRA from Vancouver is two flights per weekday (one on weekend days) with 70% loads on an 8-seat aircraft. This would

ACCOUNT	CURRENT SITUATION	AIRPORT DEVELOPMENT SCENARIO
		transport 8,176 one-way passengers per year. This activity would support the social and economic development of the region.
POLITICAL	Regional political support for airport development.	The City of Port Alberni and the Alberni-Clayoquot Regional District support the proposed runway expansion. Regional First Nations and the Port Alberni Port Authority also support the initiative.

Appendix A: Letters of Support

Steelhead LNG Letter



January 29, 2014

Mr. Russell Dyson
CAO
Alberni-Clayoquot Regional District
3008 Fifth Avenue
Port Alberni, BC Canada
V9Y 2E3

Dear Mr. Dyson,

Re: Support letter for funding for the Alberni-Valley Regional Airport

Steelhead LNG is writing to support the Alberni-Clayoquot Regional District in its application for funding through the Build Canada, Small Communities Fund, for a runway extension at the Alberni-Valley Regional Airport.

Steelhead LNG is a BC-based liquefied natural gas (LNG) development company working in partnership with the Huu-ay-aht First Nations to develop a LNG liquefaction and export facility (proposed Project) at Sarita Bay, near Bamfield, BC. Prior to making a Final Investment Decision (FID), which is estimated in 2018, Steelhead LNG will conduct studies and assess transportation logistics to determine the commercially viable options to transport workers and goods to the facility. Should the runway extension provide the opportunity to establish a scheduled or chartered airline passenger service, travel time could be reduced significantly for workers, improving the economics of the proposed Project. In addition, this would improve the accessibility to the region, which could foster further economic development.

Steelhead LNG strongly supports the funding request from the Alberni-Clayoquot Regional District, as this could contribute to increasing the commercial viability of the proposed Project.

Sincerely,

Tiffany Murray
Manager – Community
Steelhead LNG

Coulson Aircrane Letter, page 1

COULSON AIRCRANE LTD.
4890 CHERRY CREEK ROAD
PORT ALBERNI, B.C.
V9Y 8E9

January 29, 2015.

To whom it may concern:

Please accept this letter in support of the proposed **Alberni Valley Regional Airport (AVRA) expansion project**.

Coulson Aircrane Ltd. ("Coulson") is a privately owned Aviation company based in Port Alberni, B.C. Coulson's international operations include forest fire suppression, aerial construction, passenger transport, logging, heavy lift operations, and aircraft leasing. The company performs repairs and upgrades for their aircraft fleet at dedicated maintenance facilities located at the Alberni Valley Regional Airport. Housed in 2 hangars comprising approximately 14,000 sq. ft., the Company employs over 30 Aircraft Maintenance Engineers and personnel.

Figure 1 – Martin Mars

Coulson's business continues to evolve. Leveraging nearly a decade of operating Martin Mars water bombers on firefighting missions around the world, Coulson acquired a Lockheed C-130 "Hercules" from NASA in 2011 and began the 30,000 man hour task of converting it to the world's most technologically advanced "Next Gen Airtanker".

Figure 2 – Hercules

Coulson designed the RADS XL, a 4,000 USG tank. By 2013, the tanking system was installed and tested on the Herc and the Company was awarded a multi-year contract with the US Forest Service (USFS). During the 2014 fire season in which the Herc performed exceptionally well fighting fires throughout the US, the C-130 was called to action under emergency provisions by the Australian National Aerial Firefighting Centre (NAFC) to join their fleet for the Dec/14 – Mar/15 fire season. The Hercules was brought home to Port Alberni in November of 2014 for upgrades before departing for Australia.

The Coulson RADS XL is quickly becoming TTIE tanking system for the Airtanker industry. The Company is planning on adding a second RADS XL equipped C-130 for the 2015 USFS fire season and numerous additional opportunities exist. Besides C-130's, other OEM's and operators have shown interest in the Coulson airtanker retrofit for their

Coulson Aircrane Letter, page 2

aircraft. To fulfill these orders, Coulson has plans to double its hangar space at the AVRA and hire as many as 20 additional engineers and skilled labour to manufacture and install the tanks.

The first Coulson RADS XI. tank was manufactured in Port Alberni and installed in California. Moving forward, the ideal plan would be to exploit production efficiencies by both manufacturing *and* installing Coulson tanks at the AVRA. The installation facility is required to have a significant amount of tooling, from a cost perspective, it makes sense to manufacture the parts at the same location. The proposed 1000 ft. runway extension, Precision GPS Approach, and Lighting Upgrade would enable larger aircraft to easily land at the AVRA and keep this work local. In addition, the airport expansion has the potential to bring a whole new customer base of large aircraft maintenance contracts to the Valley. Without the expansion, we cannot continue to grow our business in Port Alberni and will be forced to contract this work out to another facility. If Coulson has to re-locate the manufacturing and installation of our tanks, it would not only cost the community new jobs, but more than likely we would also have to reduce our current workforce by up to 8 people.

The Coulson Group of Companies is proud to call the Alberni Valley home. Thank you for allowing us the opportunity to voice our support for the Alberni Valley Regional Airport expansion project. As our business continues to expand and we explore new opportunities, our hope is that the Airport will mirror these initiatives.

Sincerely,

WAYNE COULSON, President & CEO
The Coulson Group of Companies
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Port Alberni, B.C.
V9Y 8E9
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BRITTON COULSON, VP Aviation
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City of Port Alberni Letter

CITY OF PORT ALBERNI
Office of the Mayor
City Hall
4850 Argyle Street,
Port Alberni, BC V9Y 1V8
Telephone: 250-723-2146 Fax: 250-723-1003
www.portalberni.ca

January 14, 2015

Mayor Josie Osborne, Chair
Alberni-Clayoquot Regional District
3008 5th Avenue
Port Alberni, BC
V9Y 2E3

Dear Chairperson Osborne:

RE: Build Canada Application – Alberni Valley and Long Beach Airport Improvements

On behalf of Council for the City of Port Alberni, I am writing in support of the Alberni-Clayoquot Regional District's application to the Build Canada Fund for improvements to the Alberni Valley Regional Airport (AVRA) and the Long Beach Airport (CYAZ).

The west coast of Vancouver Island is a region rich in natural resources and in resulting business opportunities. Our strategic location is generating considerable developments in the trade and transportation sector that are aligned closely with the Asia-Pacific Gateway and Corridor Initiative.

Improvements to both regional airports support this growth and the direct expansion of aviation activities, employment and other investment. In addition, our current infrastructure in the Alberni Valley has constrained our ability to secure a scheduled airline passenger service. This has negatively impacted our efforts to attract businesses, tourists and new residents.

Efficient and effective transportation infrastructure is vital to our region's growth and continued prosperity through the movement of people and goods. Support and cooperation from federal and provincial governments is vital to establishing such networks, and as such, it is our sincere hope that this application is fully considered.

Thank you for advancing this proposal and I look forward to further cooperating with the Alberni-Clayoquot Regional District on this important initiative.

Yours truly
CITY OF PORT ALBERNI

Mike Ruttan
Mayor

J:\Clerks_Confidential\Administration\Mayor\Letters\2015\Support Letter_Airport Improvements_ACRD_Jan2015.doc

Appendix B: BDC Coulson Testimonial

TESTIMONIAL

BDC
Entrepreneurs first

COULSON GROUP OF COMPANIES

THE COMPANY POSITIONS ITSELF AS A GLOBAL PLAYER IN FOREST FIRE FIGHTING

PROFILE

The Coulson Group of Companies is a privately owned family business based in Port Alberni, British Columbia. The company began operations in 1960 with forestry and then expanded into aviation and lumber manufacturing. Coulson Aircrane Ltd. in Canada has been in the aviation business for over 25 years and operates a fleet of light and heavy lift helicopters, and aircraft such as the Martin Mars and the C130 Hercules. The Coulson Group also has companies registered in the U.S. and Australia.

Need

The company needed financing to purchase a C130 Hercules and refit the aircraft to convert it into a next generation air tanker for use in fire fighting efforts. This was crucial for the company, which was looking to partner with the U.S. Forest Service and develop this new market initiative.

Solution

The Corporate Financing team, a business line of BDC, provided long-term high ratio financing to the Coulson Group of Companies for both the purchase and refitting of the aircraft. BDC also ensured that the terms and conditions of the sizeable loan, such as postponing capital payments at the start of the loan, protected Coulson's cash flow during a critical growth period.

Results

The Coulson Group of Companies was able to purchase and refit the aircraft, positioning itself as a global leader in fire fighting technologies. Today, the company carries out fire fighting operations in Canada, the U.S., Mexico and Australia. This initiative has helped the company develop business in new markets and set the stage for further growth. The repayment terms and conditions of the loan also helped the company retain vital capital for growth opportunities.

Converting the C130 Hercules into a next generation air tanker was a real game changer for us. The Corporate Financing team recognized how important this project was for our business. They came through with the financing, which showed their confidence in our excellent track record and our vast experience in this field. BDC gave us the breathing room we needed to reposition ourselves and grow our business. That's invaluable for any entrepreneur!

WAYNE COULSON
President
Coulson Group of Companies

www.coulsongroup.com

FINANCING | CONSULTING > **BDC.CA** | 888 INFO-BDC

Canada

TM: COULSONGROUP-E 409

Appendix C: Tetra Tech Estimates

Tetra Tech Class A Estimates are provided on the following pages.

Alberni Valley Regional Airport (CBS8)
Runway Extension
Class 'A' Estimate of Probable Costs

Runway 30 Extension 324m (1063 ft)

January 22, 2015

Item	Estimate of Probable Costs Summary				Total
1.00	Civil General Requirements				$ 360,000
2.00	Civil Site Works - Runway Extension (324m x 30m)				$ 4,960,420
	Total Estimate of Probable Construction Costs				**$ 5,320,420**
3.00	Estimated Engineering Costs - Design, Construction Inspection (rounded)			4%	$ 212,800
4.00	Project Contingencies (rounded)			8%	$ 425,600
	Total Estimate of Probable Project Costs				**$ 5,958,820**

Item	Description	Unit	Est Quantity	Unit Price	Total Price
1.00	**Civil General Requirements**				
1.01	Temporary Facilities - Mob / Demob, Survey etc.	Lump Sum	1	$ 150,000	$ 150,000
1.02	Tree Clearing/Felling for Obstacle Limitation Surface (OLS) Compliance	Hectare	50	$ 3,700	$ 185,000
1.03	Conduct Testing & Commissioning	Lump Sum	1	$ 25,000	$ 25,000
				Subtotal General Requirements	**$ 360,000**
2.00	**Civil Site Works - Runway Extension (324m x 30m)**				
2.01	Clearing, Grubbing for Rwy Strip Along Extension	m^2	35,000	$ 4	$ 140,000
2.02	Topsoil Stripping and Stockpile for future reuse	m^3	4,200	$ 13	$ 54,600
2.03	Milling Existing HMAC (Approx. 50mm) for Butt Joint	m^2	60	$ 17	$ 1,020
2.04	Removal and Dispose On-Site - Drag Strip Asphalt Facilites - (Full Depth)	m^2	780	$ 16	$ 12,480
2.05	Common Excavation and Dispose On-Site - Runway Footprint (710mm structure) and Graded Strip - Depth Varies Based on Existing Ground	m^3	104,000	$ 12	$ 1,248,000
2.05	Place and Compact Fill	m^3	1,400	$ 40	$ 56,000
2.06	Granular Subbase Course (GSBC) - 420mm thick	m^2	4,100	$ 55	$ 225,500
2.07	Granular Base Course (GBC) - 200mm thick	m^2	2,000	$ 60	$ 120,000
2.07	3.5m Granular Shoulder - 90mm thick	m^3	220	$ 60	$ 13,200
2.08	Hot-Mix Asphalt Concrete Paving (HMAC) - 90mm thick	Tonne	2,200	$ 160	$ 352,000
2.09	Eradicate All Existing Runway 12-30 Centerline Pavement Markings, Runway 30 Threshold and Aiming Point Marking, Runway 12 Threshold and Aiming Point Marking (Black Paint)	Lump Sum	1	$ 20,000	$ 20,000
2.10	New Runway 12-30 Centerline Painting, Runway 30 Threshold, Aiming Point and Touchdown Zone Marking, Runway 12 Threshold, Aiming Point and Touchdown Zone Marking	Lump Sum	1	$ 20,000	$ 20,000
2.11	Geotextile fabric, Non-woven (Provisional Item)	m^2	5,000	$ 4	$ 20,000
2.12	Geogrid (Provisional Item)	m^2	5,000	$ 4	$ 20,000
2.13	Finish Grading	m^2	28,000	$ 5	$ 140,000
	3.5m Runway Widening Each Side (Total RWY Width of 30m) Runway Strip 75m Each Side of Centerline				
2.14	Clearing, Grubbing for Rwy Strip	m^2	81,000	$ 4	$ 324,000
2.15	Topsoil Stripping and Stockpile for future reuse	m^2	840	$ 13	$ 10,920
2.16	Milling Existing HMAC (Approx. 50mm) for Butt Joint	m^2	4,500	$ 17	$ 76,500
2.17	Common Excavation (81,000cu.m) and Place as Common Fill (50,000cu.m) - Runway Footprint (710mm structure) and 150m Graded Strip - Depth Varies Based on Existing Ground	m^3	130,000	$ 10	$ 1,300,000
2.17	Granular Subbase Course (GSBC) - 420mm thick	m^2	3,600	$ 55	$ 198,000
2.18	Granular Base Course (GBC) - 200mm thick	m^2	1,700	$ 60	$ 102,000
2.19	Hot-Mix Asphalt Concrete Paving (HMAC) - 90mm thick	Tonne	1,900	$ 160	$ 304,000
2.20	Eradicate Existing Pavement Markings	Lump Sum	1	$ 3,000	$ 3,000
2.21	New Pavement Markings (Edge Marking)	Lump Sum	1	$ 3,000	$ 3,000
2.21	New 600mm dia. CSP Extension	Lin.m.	85	$ 140	$ 11,900
2.22	New 900mm dia. CSP Extension	Lin.m.	110	$ 180	$ 19,800
2.23	Supply and Install 1200mm DIA. MH c/w Bedding and Backfill, including Frame and Grate	Lump Sum	1	$ 6,000	$ 6,000
2.24	Geotextile fabric, Non-woven (Provisional Item)	m^2	1,500	$ 4	$ 6,000
2.25	Geogrid (Provisional Item)	m^2	1,500	$ 5	$ 7,500
2.26	Finish Grading	m^2	29,000	$ 5	$ 145,000
				Subtotal Civil Works	**$ 4,960,420**

Notes:

1.0 Costs noted above are estimates based on similar works completed over the past five years. It is not to be interpreted as a guarantee by Tetra Tech of the actual project costs. The actual project cost shall be determined by the tender and construction process.

2.0 The estimates include 2-5% contingency to account for fluctuations between assumptions made and actual ground conditions.

3.0 Quantity under item 1.02 is an estimate to cover costs associated with clearing OLS protrusions as surveyed by SNC Lavalin. It has been extrapolated to include additional clearing for the runway extension options. Some localized clearing efforts may be required for areas of taller trees outside the main clearing footrpint.

4.0 Item 1.03 is intended to esimate the cost of replacing the existing deteriorated wildlife fence along the all sides of the airfield as well as to extend it to the new runway strip limits as dictated by a Code D Runway. Should a chain link security fence be explored, the lineal metre unit cost per metre is esimated at $ 140 per lineal metre.

5.0 Quantity under item 2.03 is based on the cut required for the runway extension plus the required runway strip and OLS allowances beyond the current lease of the airport. Due to a lack of survey beyond the fence of the airport, 20% has been added to this value to account for what is expected to be additional ground cut on the tree farm property.

6.0 Temporary Facilities have been estimated at 3%(rounded) of the Subtotal Civil Site Works.

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