Transportation Strategy

Newfoundland and Labrador to Alberta

Submitted to:

Government of Newfoundland & Labrador

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1.0 Executive Summary

This transportation strategy has the objective of providing fabricators in Newfoundland and Labrador information regarding the shipment of fabricated materials from this province to Alberta. The strategy consists of general information regarding shipping and specific information related to the issues associated with transport between Newfoundland and Labrador and Alberta.

The strategy starts with 10 steps for best practices for logistics. These steps provide shippers with recommendations on how to make the best use of the transportation network provided by carriers and freight forwarders.

One of the best practices is detailed further. INCOTERMS 2000 have been established by the international Chamber of Commerce to clarify trading terms between the seller and buyer. Specifically the terms identify cost and risk transfer points for seller and buyer while in transit from origin to destination.

Negotiating rates is never a simple task in the transportation world. In the same way that the airline industry has constantly changing passenger rates that make it difficult to budget in advance, the transportation industry also has little that remains the same in its tariff. Other complexities for transportation are all the service terms and components that need to be considered, including delivery times, packaging, protection and safety.

Road transport is a key component of the transportation industry in this province. With the road network reaching throughout our wide geography the trucking industry is able to pick-up and deliver in most parts of the province. Truck rates are highly volatile, particularly for destinations that are not routine. Alberta is problematic due to the lack of backhaul opportunities – similar to problems existing in Newfoundland. Trucking companies have indicated reluctance to truck full loads into Alberta because they will often have to drive back empty as far as Winnipeg or even southwest Ontario.

Quite often, air may not be thought of as a shipping route for fabricated materials, but it is used more frequently in the oil industry in Newfoundland than people might think. Its use is generally for short lead-time and emergency materials. One of the challenges for airfreight into and out of Newfoundland is the carrying capacity on aircraft. There is only one regularly scheduled cargo aircraft into Newfoundland. However there are numerous courier companies operating in this market that utilize this aircraft, often filling its capacity. The only other aircraft with significant lift is the Boeing 767 used on the London – St. John's – Halifax route. This is scheduled to eliminate the St. John' stop in September. A carrier is looking to introduce another freighter into Newfoundland, but no final decision has been made.

Neither rail transport nor ocean can do a complete delivery from Newfoundland and Labrador into Alberta, but they can be part of an intermodal service. Intermodal services can be very cost competitive from this province into Alberta. However there are challenges. Currently rail carriers do not want to ship their intermodal containers into Newfoundland and Labrador. Conversely, ocean carriers do not want to ship their containers by rail out to Alberta. Therefore there is a need for a cross docking operation, where the material is removed from an ocean container and placed in a

rail intermodal container. As a suggestion, this could take place in Halifax or Montreal.

Intermodal rates are very price competitive when compared truck rates into Alberta. However there is the additional complexity of the cross-dock move. Depending upon the fragility of the materials being shipped, this might not be undertaken without a good level of trust with the materials handler.

2.0 Recommendations Summary

1. Shippers should review the Best Practices for Logistics – this will provide to them approaches to maximize their use of the transportation network.

2. Shipping terms that might be suitable for shipments to Alberta might include EXW, FCA, CPT or CIP. These are explained in more detail in Section 4.

3. Negotiating rates is a task for almost every freight move. Freight rates vary by mode, by carrier within each mode, and more often than not by each instance for each carrier. Backhaul opportunities can have significant impact on freight savings. The rates included in this document should not be considered firm rates, as they would be only for a point in time and with a set of carriers. Rates should be obtained for every move except where a contract for routine and regular shipments has been established.

4. The shipper (in this case the fabricator) is responsible for the completion of the dangerous goods certificates. Although freight forwarders and carriers can assist in providing information regarding dangerous goods, fabricators should become familiar with the regulations and requirements.

5. Less than truck load LTL (or less than container load - LCL) is always an option, but does not provide an effective rate for shipping from Newfoundland and Labrador to Alberta.

6. Truck is a routine reliable method for the shipment of fabricated materials to Alberta. However shippers should ensure that the carrier has the permits (and experience) of shipping across the numerous provincial jurisdictions between this province and Alberta.

7. Full container load traffic for an intermodal service would consist of ocean freight to Halifax or Montreal, then a transfer of the materials from the ocean container to the rail container, then rail to Alberta. This service provides the most cost effective routing to Alberta, however it does include the transfer from one shipping container to another by a third party. A level of trust is required in the material handler that will do this transfer.

3.0 Transportation Best Practices

Best Practices Logistics- 10 steps

By adopting "best practices" in your transportation operations and supply chain management, your company can uncover savings while realizing synergies in terms of time, energy and the assessment of critical milestones.

Following these 10 steps should set you on the right path towards managing a sound transportation logistics program.

Step 1: Select Key Carriers/ Forwarders and Improve Freight Tariffs
When it comes to the number of carriers you hire to move your freight, reducing and consolidating the number of carriers or selecting a dedicated freight forwarder will benefit overall transport logistics. Using fewer dedicated "key" carriers enables you to:

- reduce the complexity of administration requirements,
- establish relationships and liaisons with supply partners,
- negotiate more favorable freight tariffs based on higher volumes for lower prices,
- transform your carrier/forwarder into a key partner,
- create a "vested interest" for the carrier/forwarder to retain your business,
- improve service levels,
- lower your overall transportation costs.

This process should also involve the establishment of firm contracts for base rates as well as establishing the most beneficial trade routes for the efficient movement of your goods. Make sure you set the terms for your transportation investment. Many carriers will negotiate freight at *their* terms, not yours, so considerable negotiating skills may be required. Good contracts help you control costs and avoid expensive add-ons.

Step 2: Assess Internal/External Resources for the Transportation Program
The resources and energy your firm expends on the administration of your transportation program must be carefully considered. The costs associated with selecting and communicating with carriers, dispatching shipping instructions, maximizing compliance, controlling costs, paying invoices, assessing efficiency of trade routes, tracking freight, and entering data into your systems can quickly spiral out of control. It is therefore vital to adopt best practices to *control* and *monitor* administrative expenses associated with your transportation program. Take a critical view of your significant expenditures and find out how you can minimize cost, whether through supply or client partners, or by using third party suppliers (some freight forwarders can, through an integrated approach to logistics, handle all of the above-noted aspects of your supply chain on your behalf for a reasonable fee), hiring

dedicated transportation staff, considering automated systems, web-based tracking and tracing options, systems to measure performance, etc.

Step 3: Freight Consolidations: Making the Best Transportation Choices
For many small to medium sized businesses moving freight, shipment volumes are not always sufficient to purchase freight in Full Truck Load (FTL) or Full Container Load (FCL) quantities. In terms of freight tariffs, smaller shipments tend to cost more and economies are realized through higher volume. It is therefore vital to consider your options for *shipment consolidation*. Do you consolidate smaller shipments headed the same way? Do you pool small parcels into "zones" and ship in bulk? Less than Truck Load (LTL) and Less than Container Load (LCL) shipments can be pooled through inbound or outbound consolidation hubs or combined into multi-stop truckload shipments. Truckload shipments can be moved intermodally or, in some cases, for Newfoundland & Labrador companies shipping goods across North America, they can be linked to national rail transportation on the mainland.

The savings to be realized through freight consolidations are considerable. As an example, the cost of shipping a single cubic meter crate on its own can exceed 4 times the cost of shipping the same crate within a consolidated container load. Why pay more?

Step 4: The Right Equipment for the Job
If your carriers supply small trailers based on their own "convenience", availability, etc., you may well be paying over 10% more for your freight than you would if a larger trailer were made available to you. Conversely, why ship in a 40' container when half that size would fit your order? Making sure your goods are being moved on the right equipment for the job is crucial to getting the best value for your transportation dollar. By using the right equipment and maximizing cube/weight capacity, you can recover significant cost from your transportation program. Be sure to ask the right questions and get comparative rates for the various equipment options available to you.

Step 5: Freight Bids and Spot Market
While it is certainly beneficial to have negotiated freight tariffs with dedicated carriers, you can complement your consolidated transportation strategy by going to the spot market to get competitive bids or by asking for comprehensive bids for your total annual freight volumes. While this approach may seem incompatible with Step 1 above, it is not. In essence, testing the marketplace not only allows you to best match your transportation requirements with true carrier capacity and reduce costs, but can ultimately provide your dedicated service partners with a better sense of your overall freight requirements and an opportunity to re-assess their own tariffs. It also allows you to take advantage of special one-time options and discounts based on availability, as when a carrier's urgent need to "fill a container" coincides with your particular volume and timing requirements.

Step 6: Import/Export Considerations- Maximize Compliance
Although shipments to Alberta from Newfoundland and Labrador would obviously not be considered an export/import, this best practices step is included for completeness. Also, it could happen that a fabricator in this province would need to include components from outside the country, thereby making this section relevant.

Managing and controlling the cost of your import/export program is crucial to success. Ensuring that duties and taxes are maintained at the legal minimum and that you are able to take advantage of any beneficial rebates, refunds, remissions etc. can make a substantial difference to your bottom line and your overall competitiveness.

In terms of risk management and compliance, the potential risk of ignoring customs considerations or carrying penalties is simply too costly in today's enforced compliance environment. The importance of expertise in this key management area cannot be overstated. The Canada Customs AMPS program issues penalties *per infraction,* ranging from $100 to $25,000. Can you afford to absorb these costs, or to be denied access to international markets through the enforcement of customs penalties?

If you do not have the human resources or skills to effect a compliant customs program in-house, find a trade services provider who can help you navigate the increasingly complex regulations associated with global trade.

Step 7: Consider Incoterms 2000 (Shipping Terms) with Suppliers and Clients
Since the cost of freight for goods received from foreign suppliers may be built right into the cost of the goods purchased, you may well have no idea what you pay for inbound freight. Vendors may add freight to your overall bill as an extra charge or, they may make a profit from internal mark-ups on any freight charges that are "included" in the price paid or payable.

Incoterms 2000 were established by the International Chamber of Commerce to define the international transaction/shipping terms between buyers and sellers. For example, you can better control your inbound freight costs by choosing to have inbound freight costs negotiated using FCA Vendor Shipping Point Incoterms 2000. Please refer to Part 5 of this manual for complete definitions of the Incoterms 2000 available to you. By controlling this aspect of your procurement operations, you can take advantage of consolidation opportunities and minimize warehousing costs by scheduling optimal arrival times for your shipments.

Step 8: Establish Strategic Partnerships
Freight Forwarders and carriers are, as stated above, critical supply chain partners. Establish a "partnering approach" with these suppliers by considering their service potential. Most importantly only contract with service partners whose approach to customer service is exemplary. By creating a strategic partnership, you can work towards your goals as a team. By transforming your forwarder/key carriers into crucial links within your supply chain, you can work together towards reducing administrative obstacles, establishing excellent lines of communication, sharing technologies (such as web-based tracking and tracing) and ultimately, of course, lowering costs.

By being strategic in your approach to these relationships, you can exploit myriad opportunities for improvement and enhancement of your overall transportation program.

Step 9: Optimize Freight- Think Strategically
By pre-planning and conducting early assessments of your overall freight requirements, you can consolidate freight not only in terms of destination, but across divisions and plants within your organization. Be strategic and establish an overall "big picture". Merge carriers where this is efficient. Decide on a management approach and implement it. Identify redundancies in terms of cost and effort. Minimize hassle and get the best "bang for the buck" by thinking ahead - not on a "shipment by shipment" basis. The savings that can be realized through strategic thinking and a pro-active approach are nothing short of remarkable.

Step 10: Link the Entire Supply Chain

The ultimate step in the establishment of best practices for transportation logistics involves adopting an "inclusive" approach to your total supply chain. For example, by working with your suppliers, you can take advantage of leveraging opportunities and logistics synergies. By approaching your customers to discuss transportation options, you can add value to your products and establish a unique customer service approach to delivering the goods, while also planning strategically to keep costs down and improve your overall competitiveness. A revolutionary approach being adopted by many forward-looking companies is to look outside their own supply chain for partnering opportunities with other shippers. A collective approach can be highly effective by maximizing transportation volumes and minimizing cost. Additionally, there are certainly e-commerce and web-based options available to help businesses forge new links along the supply chain.

4.0 Incoterms 2000

What Are Incoterms?

The International Chamber of Commerce (ICC) established Incoterms as the official rules for interpreting trade terms. Incoterms clearly define, for both parties involved in an international transaction, the point at which risk and responsibility pass from the seller to the buyer.

Incoterms 2000 are the latest version of the ICC official rules for the interpretation of trade terms. Although originally designed for cross border sales, Incoterms are also applicable to domestic moves such as between Newfoundland and Labrador and Alberta.

Incoterms deal ONLY with the relationship between buyers and sellers under the contract of sale. Although they are often construed to do so, Incoterms do not apply to the contract of carriage.

As a manufacturer, you will have to consider best practices for a variety of contracts surrounding your domestic (or international) sales transactions, including your contracts of carriage (contracts between the shipper and carrier for the transportation of goods), contracts of insurance and contracts of financing.

When setting your transaction terms, Incoterms will relate only to the contract of sale and are a vital consideration in your processes.

That being said, Incoterms will often have some implications for other contracts. For example, a seller who has agreed to ship goods CFR or CIF *must* use ocean transport for the contract of carriage since these Incoterms require presentation of an ocean bill of lading or other maritime document to the buyer and *cannot* be used for any other mode of transportation.

Transfer of Liability

The point at which responsibility passes from one party in a transaction to another is known as the “liability point”. Each Incoterm will define the liability point for three main activities:

- Carriage: the Incoterm will identify which party is responsible for arranging carriage of the goods
- Risk: the Incoterm will identify the point along the journey where responsibility for risk to the goods will pass from the seller to the buyer
- Cost: the Incoterm will identify the point at which cost transfers from the seller to the buyer.

For some Incoterms the liability point will be the same for all three areas. For others, the Incoterm may state a different point at which liability passes from seller to buyer

for each of these three activities (for example, risk liability may be transferred at a different stage than liability for cost).

Incorporating Incoterms into the Contract of Sale

Because Incoterms are updated and subject to change form time to time, when you want to include Incoterms in your contracts of sale, be sure to indicate the version you are using. (i.e., cite Incoterms 2000 to use the current version).

Failure to make reference to the version being followed can result in disputes and misunderstandings between buyers and sellers.

How are Incoterms Structured?

Incoterms are divided into four categories, each of which describes the basic form of agreement between sellers and buyers. These four categories are defined in further detail in the following section:

The "E" terms (Departure)

Describe terms under which the seller only makes the goods available to the buyer at the seller's own premises:

Ex Works (….named place)

"E" terms provide the absolute minimum obligation to the seller of the goods. The seller literally has to make the goods available at its (the seller's) premises. While that is the theory behind EXW terms; however, in real practice, the seller will generally assist the buyer in loading the goods onto the buyer's vehicle. However, under international trade law, EXW terms protect the seller from being *obliged* to perform this function and the seller literally provides such assistance at its own discretion. If the buyer wants more service form the seller under these trade terms, the buyer will have to indicate its requirements explicitly in the contract of sale.

The "F" terms (Main Carriage Not Paid by Seller)

Describe cases in which the seller is called upon to deliver the goods to a carrier appointed by the buyer:

FCA Free Carrier (…named place)

FAS Free Alongside Ship (… named port of shipment)

FOB Free On Board (…named port of shipment)

"F" terms require the seller to deliver goods for carriage, as instructed by the buyer.

Sellers should note that the FCA term has posed certain difficulties resulting from the wide variety of circumstances which may surround this term. Under the FCA term, either of the following two scenarios might be played out:

- Goods might be loaded on a conveyance sent by the buyer for a pick-up at the seller's premises
- Goods might be unloaded from the seller's vehicle at a terminal named by the buyer

To cover these alternatives, Incoterms 2000 state that delivery is complete when the goods are loaded on the buyer's vehicle if the delivery place is the seller's premises and, in other cases, delivery is complete when goods are placed at the disposal of the buyer, not unloaded from the seller's vehicle.

With the FOB term, even though created for ocean transport, using the terms "across the ship's rail" to define the delivery point, the widespread use of these terms for a variety of modes is widely accepted and the delivery point is understood to apply across a variety of available loading facilities. That being said, FOB is incorrectly used by many merchants merely to indicate ANY point of delivery (FOB Factory, FOB Plant, etc.) thereby failing to acknowledge the fact that the abbreviation means Free on Board and should relate to a conveyance, as opposed to a delivery point. Such use of FOB terms should be avoided as it creates confusion and the term should be reserved only for use when goods are shipped by sea or inland waterway transport.

The "C" terms (Main Carriage Paid by Seller)

Describe cases wherein the seller has to contract for carriage, but without assuming the risk of loss or damage to the goods or additional costs due to events occurring after shipment dispatch.

CFR Cost and Freight (…named port of destination)

CIF Cost, Insurance and Freight (…named port of destination)

CPT Carriage Paid To (…named place of destination)

CIP Carriage and Insurance Paid To (…named place of destination)

"C" terms require sellers to contract carriage at their own expense. Like "F" terms, they are "shipment contracts". Therefore, after each C-term, a named point up to which the seller pays for transport costs must be indicated right after the term (for example CFR St. John's). Under CIF and CIP terms, the seller also bears responsibility for insurance costs.

Since the named port of destination is used for the division of transportation and insurance costs, C terms are often mistaken for "arrival contracts", in which the seller bears all risk and cost until the goods have arrived at the agreed point. This is not the case, however. The risk of loss or damage to the goods, as well as additional costs which may result *after goods were appropriately delivered for carriage*, fall upon the buyer.

"C" terms are therefore distinguished from all other terms because they contain two "critical" points:

Firstly, "C" terms indicate the point to which sellers must arrange and bear costs for the contract of carriage,

Secondly, "C" terms allocate the critical point at which risk transfers from seller to buyer. Sellers should beware of attempts to extend sellers' responsibilities under "C" terms into the vital area of risk. It is the very nature of "C" terms that the seller is relived of liability for risk once he has arranged and paid for carriage and insurance and handed the goods over to the carrier.

The "D" terms (Arrival)

Wherein the seller has to bear all cost and risk associated with bringing the goods to the place of destination

DAF DAF Delivered At Frontier (…named place)

DES Delivered Ex Ship (…named port of destination)
DEQ Delivered Ex Quay (…named port of destination)

Under each of the Incoterms listed, the respective obligations of the parties are grouped under 10 headings in which each heading on the seller's side is mirrored by the buyer's position with regard to the same risk, liability, obligation, etc.

“D” terms differ from "C" terms since the seller is responsible for the *arrival* of goods at the point of destination inside the country of import. "D" terms therefore constitute "arrival contracts"; whereas "C" terms are "shipment contracts".

Under all "D" terms, except DDP, the seller does not have to deliver goods cleared for import in the country of destination.

In former Incoterms under DEQ, the seller had to clear goods for import; however, since customs procedures have generally changed, it is now more appropriate for the party abiding in the country of import to affect customs clearance and pay duties and other charges. Hence, the obligation for customs clearance under the DEQ terms has been completely reversed in Incoterms 2000.

The DDU Incoterm was added in 1990 to allow for instances wherein the seller has to deliver goods to the country of destination without import clearance, duty or tax payment.

How Does Mode of Transport Relate to Incoterms?

The following chart summarizes the Incoterms that are appropriate to various modes of transport:

Mode of Transport	Incoterm from **Group E**	Incoterm from **Group F**	Incoterm From **Group C**	Incoterm From **Group D**
Any Mode of Transport can apply to:	EXW	FCA	CPT CIP	DAF** DDU DDP
Maritime and inland WATERWAY TRANSPORT only		FAS FOB	CFR CIF	DES DEQ

**Primarily used for rail transport

Incoterms 2000 In Detail

The following outlines each of the Incoterms 2000 in terms of three critical factors:

- Transport Obligations
- Costs
- Risks

Incoterms 2000 will not apply unless incorporated into the contract of sale by clearly specifying that the contract is governed by Incoterms 2000.

The "E" terms (Departure)

EXW Ex Works (…named place)

- **Carriage** arranged by buyer
- **Risk** transfer from seller to buyer when goods are at buyer's disposal
- **Cost** transfer from seller to buyer when goods at buyer's disposal

The "F" terms (Main Carriage Not Paid by Seller)

FCA Free Carrier (…named place)

- **Carriage** arranged by buyer or seller or buyer's behalf
- **Risk** transfer from seller to buyer when goods have been delivered to carrier at named place
- **Cost** transfer from seller to buyer when goods have been delivered to carrier at named place

FAS Free Alongside Ship (…named port of shipment)

- **Carriage** arranged by buyer
- **Risk** transfer from seller to buyer when goods have been placed alongside ship
- **Cost** transfer from seller to buyer when goods have been placed alongside ship

FOB Free On Board (…named port of shipment)

- **Carriage** arranged by buyer
- **Risk** transfer from seller to buyer when goods pass the ship's rail
- **Cost** transfer from seller to buyer when goods pass the ship's rail

The "C" terms (Main Carriage Paid by Seller)

CFR Cost and Freight (…named port of destination)

- **Carriage** arranged by seller
- **Risk** transfer from seller to buyer when goods pass the ship's rail
- **Cost** transfer at *port* of destination, buyer paying such costs as are not for the seller's account under the contract of carriage

CIF Cost, Insurance and Freight (…named port of destination)

- **Carriage and Insurance** arranged by seller
- **Risk** transfer from seller to buyer when goods pass the ship's rail
- **Cost** transfer at *port* of destination, buyer paying such costs as are not for the seller's account under the contract of carriage

CPT Carriage Paid To (…named place of destination)

- **Carriage** arranged by seller
- **Risk** transfer from seller to buyer when goods have been delivered to the carrier
- **Cost** transfer at *place* of destination, buyer paying such costs as are not for the seller's account under the contract of carriage

CIP Carriage and Insurance Paid To (…named place of destination)

- **Carriage and Insurance** arranged by seller

- **Risk** transfer from seller to buyer when goods have been delivered to the carrier
- **Cost** transfer at *place* of destination, buyer paying such costs as are not for the seller's account under the contract of carriage

The "D" terms (Arrival)

DAF Delivered at Frontier (…named place)

- **Carriage** arranged by seller
- **Risk** transfer from seller to buyer when goods have been delivered at the frontier
- **Cost** transfer from seller to buyer when goods have been delivered at the frontier

DES Delivered Ex Ship (…named port of destination)

- **Carriage** arranged by seller
- **Risk** transfer from seller to buyer when goods are at buyer's disposal on board the ship
- **Cost** transfer from seller to buyer when goods at buyer's disposal on board the ship

DEQ Delivered Ex Quay (…named port of destination)

- **Carriage** arranged by seller
- **Risk** transfer from seller to buyer when goods are at buyer's disposal on the quay
- **Cost** transfer from seller to buyer when goods at buyer's disposal on the quay

DDU Delivered Duty Unpaid (…named place of destination)

- **Carriage** arranged by seller
- **Risk** transfer from seller to buyer when goods are at buyer's disposal
- **Cost** transfer from seller to buyer when goods at buyer's disposal

DDP Delivered Duty Paid (…named place of destination)

- **Carriage** arranged by seller
- **Risk** transfer from seller to buyer when goods are at buyer's disposal
- **Cost** transfer from seller to buyer when goods at buyer's disposal

Which Incoterms would apply for transport to Alberta?

Assuming that the seller is in Newfoundland and Labrador and the buyer is in Alberta, we can also assume that marine transport would not be used for the destination portion of the transportation. This eliminates a number of Incoterms that apply specifically to marine transport.

The Incoterms that would most likely apply to transactions between Newfoundland and Labrador and Alberta would be the following, each provided with an example wording for a hypothetical shipment:

EXW *Sellers Plant, Stephenville NL* – the buyer would be responsible for arranging all transportation costs from the plant floor in Newfoundland and Labrador.

FCA *Midland Transport Corner Brook, NL* – the seller will arrange to bring the material to Midland Transport Terminal in Corner Brook. The buyer assumes risks

and costs from that point. Note that this term might apply to the seller arranging transportation to an intermediate point, for example CN Rail terminal in Montreal.

CPT *Buyer's Plant Edmonton, AB* – the carriage is arranged and paid for by the seller, however the risk is assumed by the buyer once the goods are delivered to the carrier.

CIP *Buyer's Plant Edmonton, AB* – this is much the same as CPT, but in addition an insurance coverage is arranged by the seller for the buyer's benefit. Note however that the insurance need only be minimum cover.

5.0 Negotiating Rates

Negotiating Rates

As stated in Step 1 of the Best Practices identified in the Introduction, establishing contracts with a limited number of "key carriers" is an important aspect of any transport logistics program.

Checklist for Carrier/Mode Selection

Before you consider the nuts and bolts of rate negotiation, you might want to take some time to make sure you're making the right choices in terms of the best carrier(s)/ forwarder(s) and how your goods should be shipped. Freight tariffs, delivery schedules and service quality can differ greatly between carriers. The following checklist will help you to decide if you are choosing the right "key carrier" for your transportation program.

Ask the Carrier About Service:

Do you offer different levels of service?
How does each service level meet my requirements for price, transit times, guarantees and quality?
Do you offer a consolidation service?
Will you review your complete handling and shipment process with me?

Ask the Carrier About Price:

What are the rate categories within your tariff? What weight/dimensions limits apply?
How do categories and maximums differ between countries?
What is the total rate for the package to the destination?
Where is the nearest rate break? Are discounts available?
Do rates include pick up and delivery?
Are there extra costs for customs brokerage, local handling, documentation, pick-up, delivery, etc?
If shipping C.O.D., are there extra charges?
Is insurance included in the rate? What is the cost of extra insurance? What is covered?
What is the maximum value and are there limits imposed by package destination?

Ask the Carrier About Size Limits:

What are the maximum dimensions/weights permitted?

How do weight/dimension maximums vary by destination?

Ask the Carrier About Transit Time:

How long will the package take to get to its destination?
Will you guarantee a delivery date?

Ask the Carrier About Packaging:

Do you require a specific packaging system to be used?
Can you provide packaging? Can you offer me any guidance on packaging?
If so, what guidance can you provide about export packaging?
Do you keep current with international/federal legislation for export packaging? (For example: Is your packaging facility certified with the Canadian Food Inspection Agency (CFIA) to meet the special packaging requirements established by the European Union for wood packaging?)

Ask the Carrier About Service Quality:

How frequently does your firm lose or damage goods in transit? (May I see your safety/claims records?)
If goods are lost or damaged, what insurance claims process does your firm use?
Do you track changes in foreign regulations that may affect my goods? (documentation packing regulations, etc.)
Are you an ISO accredited company? If not, do you possess any other accredited quality assurance program?

Important Contract Considerations

Following are some important points to consider when negotiating rates with carriers (or freight forwarders) and entering into contracts. It may be useful to create a checklist based on the following considerations prior to contacting your potential supply chain partner(s) to ensure you have "all the bases covered" before the negotiating process begins.

- Risk Transfer: at what point will the carrier/forwarder have discharged its responsibilities.
- Sub-contracting: define the entitlement for sub-contracting/ sub carriers and ask for references for any sub-carriers to be used.
- Methods and routes of transportation: define all possible routes and alternatives available.
- Equipment: ask for an overview of equipment available through the carrier.
- Description of goods and packing: provide carrier with detailed product descriptions, including any special instructions for packaging, perishable goods, etc. Define responsibilities for crating, packaging, materials handling, etc.
- Dangerous Goods: if applicable, identify any respective responsibilities for dangerous goods handling. Ensure that carriers are certified/trained in Dangerous Goods handling.
- Inspection of goods: reserve the right to inspect goods and correct insufficient packaging.
- Trade Regulations: identify responsibilities for duties, taxes, possible fines, expenses or losses resulting from illegal or incorrect carrier operations.

- Freight Forwarder and Carrier Liability: define and identify maximum liability.
- Delay and Consequential Losses - Identify maximum liability timeframes.
- Notice of loss or damage: identify an acceptable procedure.
- Failure to Notify: establish a clearly defined notification process.
- Hindrances affecting Performance: Specify where possible.

Once the appropriate preliminary terms are established, you are ready to start talking about freight and charges. By thinking strategically and looking at your proposed transportation requirements for a set timeframe, you can prepare an accurate assessment of freight volumes, anticipated shipment weights and dimensions, delivery timeframe requirements, etc. In short, the more accurate and complete information *you* can provide to the carrier about *your* specific needs, the easier it will be for the carrier/forwarder to provide "custom tailored" rate schedules based on the volume, value and frequency of your shipments.

Finally, be sure to ask the forwarder/carrier about consolidation opportunities. There may be opportunities to partner with another shipper (please refer to Step 10 in Best Practices) to consolidate loads. There may also be "back haul" opportunities when carriers have trucks delivering to a particular destination and seek to fill them for the return trip, etc. The more knowledge you can demonstrate about these options, the better the deal you can ultimately negotiate.

Back haul traffic could be considerable for an ongoing working relationship between companies in Newfoundland and Labrador and those in Alberta. There may be opportunities for raw materials or components to be shipped from Alberta, incorporated into a fabricated unit, and then shipped back to Alberta. However these backhaul opportunities will not be easy to find, and might be best sourced as part of an established relationship with an Alberta company. In discussion with carriers they have said that backhauls are very difficult to find out of Alberta, even for destinations into Ontario.

Insurance and Liability

Another important element to consider as part of your overall transportation strategy is the terms for insurance. Insurance will protect both you and your customer/supplier in case of theft, loss, or damage to your shipment.

6.0 Dangerous Goods

Shipping Dangerous Goods By Truck

As is the case for dangerous goods being carried by air or ocean freight, the responsibility for identifying, classifying and documenting dangerous goods shipments rests with the Shipper. When arranging carriage of dangerous goods, the Shipper MUST:

- Prepare all documentation for dangerous goods, including:
  - Shipper's Dangerous Goods Declaration
  - Material Safety Data Sheet
  - Emergency Response Form
- Pre-alert carrier that dangerous goods are being shipped
- Sign and date the Truck Bill of Lading
- Supply dangerous goods placards*
- Ensure all cartons, packages, etc are marked, labeled and packaged properly in accordance with Dangerous Goods regulations

* *Generally, the trucking company will supply placards, but the shipper must pay associated fees.*

Shipping Dangerous Goods by Air Freight

Dangerous goods are articles or substances posing a significant risk to health, safety and property, and are divided into the following categories:

Class 1	Explosives
Class 2	Gases, compressed, liquefied, dissolved under pressure
Class 3	Flammable liquids
Class 4	Flammable solids
Class 5	Oxidising substances, organic peroxides
Class 6	Poisonous or infectious substances
Class 7	Radioactive materials
Class 8	Corrosives
Class 9	Miscellaneous

These goods, depending on their specific risk factors, are divided into the following packing groups:

Packing Group I	Great Danger
Packing Group II	Medium Danger

Packing Group III Minor Danger

The Shipper is responsible for declaring Dangerous Goods by completing the "Shipper's Declaration of Dangerous Goods" form in English (at least 2 copies, each with an original signature) and ensuring that the commodities are packaged and labeled in accordance with the strict requirements established by IATA. Handling can only be performed by IATA Dangerous Goods certified handling personnel.

It is therefore recommended that shippers advise the airline when booking airfreight consignments containing dangerous goods and arrange delivery at a time when Danger Goods Handling personnel are available a the airline to load the shipment.

Moving Dangerous Goods by Rail

In light of the obvious hazards of moving chemical shipments and other dangerous goods by rail, CN and CP have heightened hazardous goods handling requirements. Dangerous goods moving by rail must travel in cars especially designed and coded to carry dangerous goods.

In addition to internal company regulations imposed by the railroads, two sets of government regulations now control the shipment of dangerous goods by train. Railway employees are extensively trained in documentation and handling requirements for dangerous goods and railway inspectors are experts in decontamination and emergency response.

Transport Canada and the Canadian Transportation Commission (CTC) classify about 3,400 commodities as dangerous goods and regulate packaging, handling and documentation for this group. When arranging carriage of dangerous goods, Shippers must co-ordinate the transport with the specialized Dangerous Goods handlers at the railway line well in advance of arranging the shipment.

Moving Dangerous Goods by Ocean

Because the improper shipping of dangerous materials can not only lead to severe penalties, but can seriously risk the health and safety of ships' crews, it is vital to follow all proper guidelines for the handling of dangerous goods being shipped by vessel.

Shippers must advise forwarders and carriers the following details about dangerous goods:

- Exact cargo description:
- U.N. Number
- Class Number (IMDG)/ Packing Group
- Flash point, if applicable
- All dangerous goods forms required, including the shipper's declaration

As for dangerous air cargo, only certified dangerous goods handlers may take charge of a dangerous goods shipment. It s therefore vital to pre-alert your forwarder/carrier about the planned loading ties for such cargo to ensure that the qualified personnel are available to handle your shipment.

The Class Number IMDG Code/ Packing Group related to standards established under the International Maritime Dangerous Goods Code and covers the

recommended instructions on packaging, marking, stowage, compatibility with other cargoes, etc. for dangerous goods. The main classes of Dangerous Goods are as follows. Please bear in mind that each major class will contain various sub-classes to more accurately reflect the nature of the hazardous material:

Class 1 Explosives
Class 2 Gases, compressed, liquefied, dissolved under pressure
Class 3 Flammable liquids
Class 4 Flammable solids
Class 5 Oxidising substances, organic peroxides
Class 6 Poisonous or infectious substances
Class 7 Radioactive materials
Class 8 Corrosives
Class 9 Miscellaneous

Flash Point is the temperature at which a liquid or volatile solid gives off a vapor sufficient to form an ignitable mixture with the air near the surface of the liquid.

Packing groups:

Packing Group I Great Danger
Packing Group II Medium Danger
Packing Group III Minor Danger

Shippers must sign and submit an original Shipper's Declaration for Dangerous Goods detailing all particulars of a given dangerous goods shipment. This form must contain a 24-hour emergency contact name and telephone number and must be signed by the shipper only. The declaration cannot be signed "on your behalf" by your forwarder or agent.

When You Place Hazardous Goods in Containers…

The rules for hazardous goods being shipped break bulk are the concern of the local port authority, stevedores and shipping companies. Where containers are used, the responsibility for strictly adhering to hazardous goods regulations rests with whoever stuffs the container (i.e., the freight forwarder, warehouse operator, cargo agent or shipper).

The ocean carrier's permission is always required prior to booking hazardous cargo. Detailed descriptions and packing instructions, etc., must be provided to the ocean carrier who will generally take responsibility for distributing this information to overseas ports for further clearance.

The basic rule of thumb for containerizing hazardous goods is "one class is placed in one container" as the mixing of incompatible hazardous materials creates the most danger.

Labeling and Marking rules for hazardous goods will apply to the container itself and a "Declaration of Compliance" will be required to indicate that goods were loaded according to IMO (International Maritime Organization) rules. The party who physically performs the lading and bracing must sign this declaration.

When You Place Hazardous Goods on Deck….

It is often safest to ship hazardous cargo on deck. It is often quite difficult for shippers sending break-bulk hazardous material to even obtain an "under deck" bill of lading from the ocean carrier.

As a result, hazardous goods shipments may be at greater risk of exposure and damage.

With respect to goods shipped LCL, the ocean freight carrier does not have to specify whether they will be stowed on deck or not.

In terms of consolidations, it is often difficult for freight forwarders to arrange consolidations for hazardous materials in light of the special containerizing requirements stated above.

7.0 Road Transport

7.1 Introduction

Introduction to Road Transport

Many advantages are available to manufacturers and exporters by moving their shipments via road transport. One advantage is the availability of a wide variety of trucking options, carriers and specialized equipment, capable of handling many different cargoes. Truck transport links with all other modes, so moving goods intermodally, from truck to ocean to truck (ro/ro, etc.), from air to truck or from truck to rail ("piggy backs") etc. creates a considerable variety of choices for door-to-door shipping. In terms of meeting scheduling demands, trucks are generally available to move your goods with flexible scheduling and fast delivery timeframes. In addition, trucks are able to get your goods to your buyer's door, regardless of whether that destination is served by rail, air or water transport, along a free choice of routes.

While the advantages are certainly considerable, truck transport has some inherent disadvantages, too. These include the fact that licensing and other regulations governing truck transport are imposed differently across North America: from province to province in Canada and from state to state in the U.S.A. Additionally, goods moved by truck are at higher risk of damage and delay resulting from the frequency of highway accidents. Weather is certainly a delay factor, too. Finally, trucks are limited in terms of the size of shipments they can carry and are not generally suited to carry oversized and bulk cargo.

Provincial Jurisdiction: Trucking & Highway Regulations

Since 1954, the regulation of the trucking industry in terms of licensing, road restrictions and overall equipment and highway regulation has been in the hands of each provincial government. As a result, Canada has no unified regulatory control of its trucking industry, unlike the European model, in which one set of rules governs all EU countries. Intra-provincial and inter-provincial truck transport in Canada are controlled by different motor transport authorities in each and every province and territory.

The results can be confusing and frustrating for shippers who have to consider allowable routings, licensing requirements as well as vehicle weight, height and length limitations for each province, en route to the ultimate destination. For example, in Ontario there are numerous different licensing requirements for

commercial truckers, meaning you might need a trucking company with a separate license to move heavy-duty machinery through Ontario. Due to variations in allowable weights and lengths, a trailer loaded in B.C. for example, might be allowed to unload in Ontario, but not allowed to pass through Alberta, Saskatchewan and Manitoba.

To address some of the inconsistencies and legislative obstacles placed on Canadian shippers using our highway system, a National Task Force on Vehicle Weights and Dimension Policy was established by the Council of Ministers Responsible for Transportation Highway Safety in 1984. This Task Force, comprised of officials from all jurisdictions, reporting to the Council of Deputy Ministers Responsible for Transportation and Highway Safety, is responsible for developing strategies for pursuing greater national unity of weight and dimension standards. The Task Force reports annually to the Council of Ministers and recommends changes wherever consensus has been developed.
Road transport regulations are constantly evolving; therefore, it is highly recommended that you contact your trade services specialist to ensure that your truck shipments are compliant with all applicable provincial legislative limitations and regulations for axles, oversized loads, licensing, weights and lengths, etc. Permits may be required to move oversize loads, trucks may be prevented from moving under or over certain bridges, vehicles may be stopped at weigh scales or truck inspection stations along the highway and serious delays may result from non-compliance in this regard. Additional information regarding weight and dimension limits is provided in section 7.3.

If using truck transportation, there is no other way to get from Newfoundland and Labrador into Alberta without crossing other provincial borders. This section has identified some of the complexities of truck transport through other provinces. As a shipper, never assume that a carrier has the legislative knowledge and required permits to make an expeditious cross country delivery. The delays (or refusals) at provincial borders could be considerable.

7.2 Documentation

Like airfreight and ocean freight shipments, the standard package of commercial documentation is required when you ship your goods internationally by truck. Options include the following, most of which apply to exports and not for shipments into Alberta:

- Commercial Invoice (or Canada Customs Invoice for Imported Goods)
- Packing List, if available (not mandatory)
- Certificate of Origin (if eligible for NAFTA or required by foreign legislation)
- Export/ Import Permits, if required
- Revenue Canada Export Documents, if required

The other key document for truck transport is the **Truck Bill of Lading.**

The Truck Bill of Lading

As stated above, there are many different provincial licensing laws which regulate not only licensing, but the form and content of Truck Bills of Lading (TB/L) as well. While each T B/L issued by different carriers may look somewhat different, the following sample T B/L contains all required fields. The T B/L constitutes a receipt of goods for shipment and a contract of carriage. Unlike the Ocean Bill of Lading, however, the T B/L does not confer title of ownership. Additionally, due to the higher liability factors

Book Date: 07/02/2003 (dd/mm/yyyy)	Origin: NL, CA	Pickup Date:
Service:	Destination:	Delivery Date:

Shipper:	PO No.:	Consignee:
3rd Party Billing:	Custom's Broker to beNotified:	Agent:
COD Amount:	Paid By:	Collect Fund:
Terms : Prepaid		

Clause:

RECEIVED, from shipper named herein, the perishable property described below, in apparent good order and condition, except as noted below (contents and condition of contents of packages unknown), market, consigned, and destined as indicated below, pursuant to an agreement, arranged by truck broker, if any, whereby the carrier shown below (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract), in consideration of the transportation charges to be paid, agrees to carry it to its usual place of delivery at said destination, if on its route, or otherwise to deliver to another carrier on the route, said property to the cosignee, subject to the terms and conditions of this contract printed or written on the face andback hereof, which are hereby agreed to by the carrier, the shipper, and the truck broker, if any.

Special Remarks:

Shipper's Signature:	Date: Time:	Forwarder's Signature:	Date: Time:
Consignee's Signature:	Date: Time:	Trailer No.:	
Carrier:	Date: Time:	Location of Goods: Shipper's Door	

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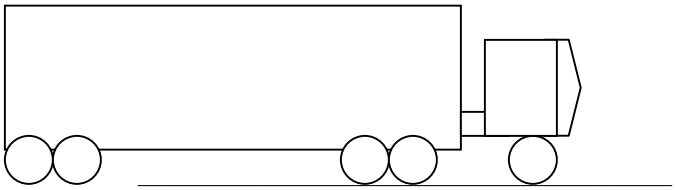
faced by the trucking industry, the T B/L will differ from the Ocean Bill of Lading and the Air Waybill in the standard terms and conditions of carriage and other liability considerations. One vital best practice for shippers involves closely reviewing the terms of truck transport contracts to ensure adequate protection from liability risk.

7.3 Trucking Considerations

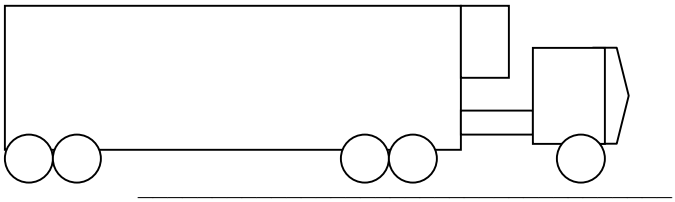
Standard Trucks

For standard truck shipments, most carriers offer one, some or all of the following six basic trailer types:

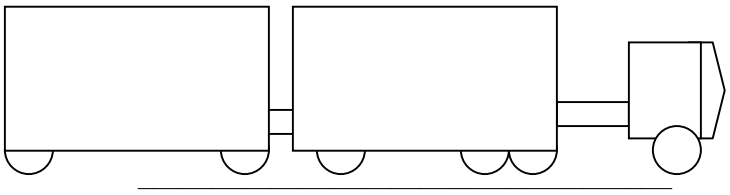
Dry Van
Tandem axle L 45 ' x W 8'6"
Smallest inside dimensions L 44'xW8'2"xH8'5"



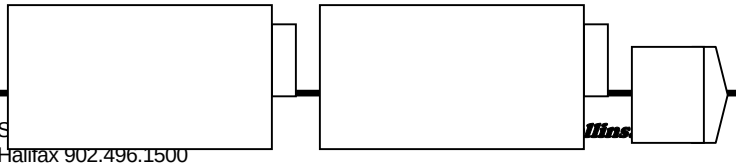
Refrigerated or Heated Van
Tandem axle L 45 ' x W 8'6"
Smallest inside dimensions L 43'3"xW7'8""xH7'8"

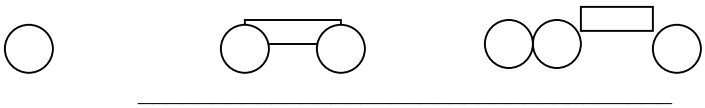


Pup Dry Van
Single axle L 26' x W8'6"
Smallest inside dimensions L25'5"xW8'1"xH8'5"

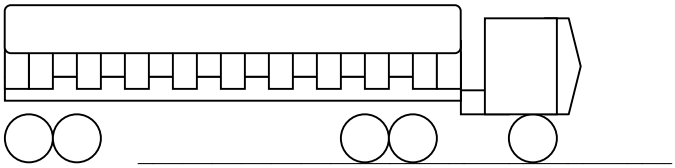


Pup Refrigerated or Heated Van
Single axle L 26' x W8'6"
Smallest inside dimensions L25'5"xW7'10"xH8'4"

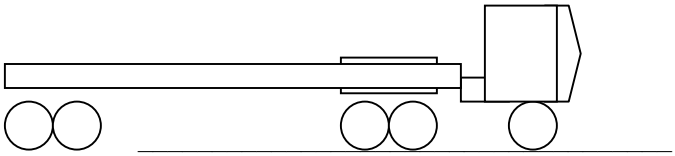




Flat Deck Stake and Rack Trailer
Tandem axle includes tarpaulins and hoops (bows) sides are78" High
L45'xW8'6" 54" off the ground- Removable sides and top.



Drop Deck Trailer
Tandem axle L46', 40" off the ground
Extends to 10 feet wide and 65 feet long



Specialized Trucks

A variety of specialized trailer and truck types are also available to meet the particular demands of specific cargo types.

For example, low flat beds, tank trailers, high cube containers, 27' tandem dry vans.

Shippers should consider fitting the particular equipment to your specific needs. For instance, if you are handling a high cube container, you will require a special low bed trailer to keep height within maximum headroom requirements.

Other Trailer Types

Ocean Carriers' Chassis: some ocean carriers provide their own chassis to correspond to their particular containers for inland transport, thereby converting the marine container into its own trailer. Otherwise ocean containers are placed on a flat bed.

Railway Carriers' Trailers: railway companies may offer trailers, known in the industry as "piggyback" trailers for their ability to move from rail to road.

Service Options for Truck Transport

Highway carriers in Canada provide a variety of service options, depending on your particular freight requirements. Here are some examples:

Specialty Shipments: Some carrier companies will have special departments dedicated to the movement of specialized cargo which is unusual in size, requires heavy lift, or has awkward handling requirements.

Expedited or Rush Deliveries: offers a speedy service for urgently required cargo or "rush" shipments. (For example, some trucking companies will offer a 24-hour service from Halifax to St. John's). Rates for these services are usually based on weight with fair minimum prices to enable the trucking company to compete with air courier services.

Small Parcel Service: To create competition with courier companies, some trucking companies offer small parcel service and will use either expedited ground freight or a combination of ground and airfreight for small packages and parcels.

In Newfoundland & Labrador: your carrier's connections with ferry service at Argentia or Port aux Basques to and from North Sydney are a crucial service component, especially when shipping perishable or time-sensitive goods. Make sure to factor in ferry scheduling, seasonality and waiting times when scheduling your truck shipments.

LTL/FTL Shipments

LTL (Less than Trailer Load) shipments and FTL (Full Trailer Load) shipments will be priced differently under carrier's tariffs, with greater savings to be realized by shipping higher volumes. Wherever possible, exporters and manufacturers are encouraged to consolidate truck shipments to take advantage of the significant savings that may be realized. By consulting with a freight forwarder, you may be able to avail of consolidation opportunities. Less than Truck Load (LTL) shipments can be pooled through inbound or outbound consolidation hubs or combined into multi-stop truckload shipments. Truckload shipments can be moved intermodally or, in some cases, for Newfoundland & Labrador companies shipping goods across North America, they can be linked to national rail transportation on the mainland. As stated in our Top 10 Best Practices, the savings to be realized through freight consolidations are considerable. As an example, the cost of shipping a single cubic meter crate on its own can exceed 4 times the cost of shipping the same crate within a consolidated container load.

By consulting with your trade services specialists prior to booking, you may be able to take advantage of special one-time options and discounts based on availability, as when a carrier's urgent need to "fill a trailer" on an empty truck returning to or leaving Newfoundland coincides with your particular volume and timing requirements.

Trucking Rates & Tariffs

Truck rates can be negotiated in either of two ways, as follows:

The One-Time Freight Rate**,** in which you call your freight forwarder or trucking company and request a rate for a specific shipment moving to a specific destination at a specific time. Your rate will be provided, together with a written quotation, if required.

Freight forwarders will generally quote a comprehensive, start-to-finish price for the overall freight movement, whereas carriers will generally quote one-time freight rates in cents per cwt over 500 lbs and broken down into the following weight breaks, with rate per cwt decreasing as the volume being shipped increases.

Standard Weight Breaks for Truck Shipments, in lbs:

500
1,000
2,000
5,000
10,000
20,000
30,000
40,000

For shipments of up to 20 feet of trailer length, rates are usually based on 10lbs/cu ft.

For shipments over 20' of trailer length, rates are based on 1,000 lbs per lineal foot of trailer.

The Published Tariff: Highway Carriers will generally have a published tariff outlining specific routings, weight breakdowns and commodities. Each commodity will be assigned its own commodity number and different areas of the country will have different tariffs. Calculating costs through this method can be quite complicated, so exporters are advised to consult their freight forwarder or trade services partner to obtain the most competitive rate in this regard.

A Checklist of Trucking Considerations

- Ensure Truck/Ferry Schedule/Airline Schedule/Ocean Freight Scheduling compatibility (i.e., - all lined up and ready to move with minimal wait times).
- Carrier is authorized to move goods to destination (i.e., meets all provincial/ inter-state licensing and regulatory requirements).
- Highway regulations will allow shipment to move along desired routing (i.e., no bridge restrictions, weight/ height restrictions along proposed route).
- All required equipment is available for loading, offloading, etc. and is scheduled to be available as required along the route.
- Trucking company image reflects my company's image (i.e., my consignee will receive an acceptable level of service from this trucking company upon arrival of the goods at their destination?).
- Investigate all international highway requirements for ocean freight or airfreight being forwarded to ultimate destination by trucking company in foreign country.
- Advance notice has been given relative to dangerous goods.

7.4 Example Rates & Transit Times

The following rates are provided as examples. They should be used only as a guideline, as the rates do change frequently and fuel surcharges even more so.

The rates for LTL traffic had the greatest variation amongst the carriers that were contacted for rate quotations. The quotations went from $690 to over $2,000. Some of the rate quotations provided were less than the carrier's published tariffs. The lesson – always get a quotation from a number of sources.

The rates for full truckload had variations, but they were based upon an assumption by the truck carrier regarding the difficulty of getting loads out of Alberta heading east. Therefore an empty backhaul cost is factored into the rates below. It would

always be worthwhile to obtain a number quotations for Alberta bound traffic, as the carrier may submit a lower price as they may be aware of a backhaul opportunity.

Stephenville to Fort McMurray – Truck Load (TL)

Closed unit – 53 foot van	$7,700.0 + Fuel Surcharge 27%
Total, inclusive of Fuel Surcharge	$9,779.00
Flatbed trailer – 53 foot	$7,450.00 + Fuel Surcharge 27%
Total, inclusive of Fuel Surcharge	$9,461.50

Transit time – 7 to 8 working days

Goose Bay to Fort McMurray – Truck Load (TL)

Closed unit – 53 foot van	$7,700.00 + Fuel Surcharge 27%
Total, inclusive of Fuel Surcharge	$9,779.00
Flatbed trailer – 53 foot	$10,500.00 + Fuel Surcharge 27%
Total, inclusive of Fuel Surcharge	$13,335.00

Transit time – 7 to 8 working days

Stephenville to Fort McMurray – Less than Truck Load (LTL)

Assumed 2,000 lb shipment	$614.51 + Fuel Surcharge 12.3%
Total, inclusive of Fuel Surcharge	$690.09

Transit Time – 11 Days

St. John's to Fort McMurray – Less than Truck Load (LTL)

Assumed 2,000 lb shipment	$682.79 + Fuel Surcharge 12.3%
Total, inclusive of Fuel Surcharge	$766.77

Transit Time – 10 Days

Backhaul Opportunities

In discussion with a number of truck carriers, they are hesitant to be trucking loads out to Alberta. There is not a large manufacturing base in Alberta, and it is difficult to get loads out of the province that are heading east. Many of the trucks have to run empty from Alberta until they get at least as far east as Winnipeg. Therefore the rates that are quoted include a cost factor for the empty backhaul.

We asked carriers to provide round trip rates. These would represent a guaranteed backhaul resulting in a price saving.

Stephenville to Fort McMurray and return – Truck Load (TL)

Closed unit – 53 foot van	$12,800.0 + Fuel Surcharge 26%
Total, inclusive of Fuel Surcharge	$16,128.00

Transit time – 15 to 18 working days

7.5 Dimension and Weight Limits on Canadian Highways

Table 1 and Table 2 provide the dimension and weight limits on Canadian highways. For practical purposes, these limits would also

apply to rail traffic, as the routing to final destination would also include a truck delivery of a rail carried container.

There does exist a Memorandum of Understanding (MOU) between all provinces regarding size and weight limits, but most provinces have variations from the standard. The Atlantic Provinces are consistent amongst themselves, but the limits are generally higher than the MOU amounts. Ontario also has exceptions, which are generally for higher weight limits. For a truck to travel across the country its weight limit must be no higher than the lowest weight limit of any province being traversed.

As an example, the weight limit of the MOU for a tractor semitrailer with 5 axles (3 on the tractor, 2 on the trailer – this being the "classic" 18-wheeler) is 41,500 Kg from Newfoundland and Labrador up to Quebec, 44,100 Kg in Ontario and 39,500 Kg from Manitoba to Alberta. Therefore the practical limit on a through load would be 39,500 Kg out of Newfoundland or Labrador.

Aside from the weight and dimension limits there are other than those shown on Table 1 and Table 2. There are detailed restrictions that vary by province for items such as wheelbase, axle spread, kingpin setback and rear overhang.

Highway regulations across the country are very complex. They are summarized in this document to provide general information to shippers such that they can ask informed questions to their carrier or freight forwarder. Shippers should only utilize carriers that have experience dealing with the complexities of interprovincial trucking licenses and the weight and dimension limits across the country.

Table 1 - Summary of Truck Dimension Limits in Canada (in metres)

Source - Heavy Truck Weight and Dimension Lmits in Canada - RAC - 2003

	MOU	BC	ALTA	SASK	MAN	ONT[12]	ONT[13]	QUE	NB	NS	PEI	NFLD	Yukon	NWT
Overall Height	4.15	*	*	*	*	*	*	*	*	*	*	*	4.2	4.2
Overall Width	2.6	*	*	*	*	*	*	*	*	*	*	*	*	*
Overall Length														
Straight Truck	12.5	*	*	*	*	*	NA	*	*	*	*	*	*	*
Truck & Full Trailer	23	*	*	*	*	*	NA	*	*	*	*	*	*	21
Truck & Pony Trailer	23	*	*	*	*	*	NA	*	*	*	*	*	*	21
Tractor Semitrailer	23	*	*	*	*	*	*	*	*	*	*	*	*	25
A Train Double	25	*	*	*	*	23	*	*	*	*	*	*	*	*
B Train Double	25	*	*	*	*	23	*	*	*	*	*	*	26	*
C Train Double	25	*	*	*	*	23	*	*	*	*	*	*	*	*
Trailer Length														
Full Trailer	12.5	*	*	16.2	*	*	NA	14.65	*	*	*	*	*	NR
Semitrailer	16.2	*	*	*	*	14.65	*	*	*	*	*	*	*	NR
Box Length														
Truck & Full or Pony Trailer	20	*	*	*	*	NR	NA	NR	*	*	*	*	*	NR
A Train Double	18.5	20.0	20.0	20.0	20.0	*	*	*	20.0	20.0	20.0	20.0	*	NR
B Train Double	20	*	*	*	*	18.5	*	*	*	*	*	*	*	NR
C Train Double	20	*	*	*	*	18.5	*	*	*	*	*	*	*	NR
Effective Rear Overhang														
Straight Truck	4	*	*	*	NR	NR	NR	*	*	*	*	*	*	*
Semitrailer	35% of wb	*	*	*	*	NR	*	*	*	*	*	*	*	*
Wheelbase														
Tractor (min)	3	*	*	*	*	NR	*	*	*	*	*	*	*	*
Tractor (max)	6.2	*	*	*	*	NR	*	*	*	*	*	*	NR	*
Full Trailer (min)	6.25	*	*	*	*	NR	NA	NR	*	*	*	*	*	NR
Semitrailer (max)	12.5	*	*	*	*	NR	*	*	*	*	*	*	*	NR
Semitrailer (min)	6.25	*	*	*	*	NR	NR	NR	*	*	*	*	*	NR

Legend: * = Same as MOU NR = Not regulated NA = Not Applicable

Task Force on Vehicle Weights and Dimensions Policy, Council of Ministers Responsible for Transportation and Highway Safety.

[12] Ontario's generally applicable dimension limits.

[13] Dimension limits applicable to specific vehicle configurations under Ontario Regulation 32-94.

Table 2 - Summary of Truck Weight Limits in Canada (in Kilograms)

Source - Heavy Truck Weight and Dimension Lmits in Canada - RAC - 2003

Gross Vehicle Weight	MOU	BC	ALTA	SASK	MAN	ONT[14]	ONT[15]	QUE	NB	NS	PEI	NFLD	Yukon	NWT
Truck - 3 axles	24,250	26,000	24,300	*	24,300	28,100	NA	25,300	26,000	26,000	26,000	26,000	26,000	*
Tractor Semitrailer														
- 3 axles	23,700	*	*	*	*	26,300	26,300	*	*	*	*	*	25,500	*
- 4 axles	31,600	32,800	*	*	*	35,800	34,800	*	32,600	32,600	32,600	32,600	34,600	*
- 5 axles	39,500	*	*	*	*	44,100	43,100	41,500	41,500	41,500	41,500	41,500	43,700	*
- 6 axles	46,500	*	*	*	*	50,500	49,500	49,500	49,500	49,500	49,500	49,500	48,600	*
A Train														
- 5 axles	41,900	38,000	*	*	*	45,500	*	*	41,900	41,900	41,900	41,900	45,500	37,500
- 6 axles	49,800	*	*	*	*	54,500	*	*	50,800	50,800	50,800	50,800	53,500	*
- 7 axles	53,500	*	*	*	*	61,700	*	*	*	*	*	*	*	*
- 8 axles	53,500	*	*	*	*	63,500	*	*	*	*	*	*	*	*
B Train														
- 6 axles	48,600	*	*	*	*	54,500	NA	*	50,600	50,600	50,600	50,600	53,700	*
- 7 axles	56,500	*	*	*	*	61,700	60,300	59,000	59,500	59,500	59,500	59,500	62,800	*
- 8 axles	62,500	63,500	63,500	*	*	63,500	63,500	*	*	*	*	*	63,500	*
C Train														
- 5 axles	41,900	*	*	*	*	45,500	*	*	*	*	*	*	45,500	40,700
- 6 axles	49,800	*	*	*	*	54,500	*	*	50,800	50,800	50,800	50,800	54,600	43,500
- 7 axles	54,600	*	57,700	*	*	61,700	*	55,500	55,600	55,600	55,600	55,600	60,500	57,200
- 8 axles	58,500	60,500	60,500	60,500	60,500	63,500	*	*	*	*	*	*	60,500	*
Truck & Pony Trailer														
- 6 axles	45,250	47,000	45,300	*	45,300	56,000	NA	49,500	47,000	47,000	47,000	47,000	50,400	46,500
Truck & Full Trailer														
- 5 axles	41,250	43,000	42,500	40,700	41,300	47,500	NA	43,500	43,000	43,000	43,000	43,000	45,500	40,700
- 7 axles	53,500	57,000	55,300	*	55,300	63,300	NA	55,500	*	*	*	*	57,400	*
Axle loads														
Steering Axle – Tractors	5,500	*	*	*	*	9,000	6,000	*	*	*	*	*	*	7,300
Steering Axle – Trucks	7,250	9,100	7,300	*	*	9,000	NA	*	8,000	8,000	8,000	8,000	7,300	7,300
Single Axle - dual tires	9,100	*	*	*	*	10,000	10,000	10,000	*	*	*	*	10,000	*
Tandem - 1.2 m spread	17,000	*	*	*	*	18,000	18,000	18,000	18,000	18,000	18,000	18,000	17,900	*
Tandem - 1.8 m spread	17,000	*	*	*	*	19,100	19,100	18,000	18,000	18,000	18,000	18,000	19,100	*
Tridem - 2.4 m spread	21,000	24,000	*	*	*	21,300	21,300	*	*	*	*	*	24,000	*
Tridem - 3.0 m spread	23,000	24,000	24,000	*	*	*	*	24,000	24,000	24,000	24,000	24,000	24,000	*
Tridem - 3.7 m spread	24,000	*	*	*	*	25,500	25,500	26,000	26,000	26,000	26,000	26,000	*	*

Legend: * = Same as MOU NR = Not regulated NA = Not applicable
Task Force on Vehicle Weights and Dimensions Policy, Council of Ministers Responsible for Transportation and Highway Safety.

[14] Ontario's generally applicable weight limits.

[15] Weight limits applicable to specific vehicle configurations under Ontario Regulation 32-94.

8.0 Air Freight Transport

8.1 Introduction

Since the late 1940's, the airfreight industry has witnessed steady growth in response to innovations in aircraft design, an increasing demand for speedy transit times and the widespread growth of wide-bodied jets and all-cargo aircraft options for commercial cargo shipments.

With growing industry expectations for quick delivery times and the preference for the kind of personal attention to cargo shipments now offered by air carriers, many companies, large and small, are willing to take on the added expense of air cargo for their shipments.

With proper scheduling of production and fabrication, inclusive of proper lead times, airfreight should not be required for shipments from Newfoundland and Labrador into Alberta. Airfreight tariffs will never compete surface rates. However air freight could still be an option for components perhaps required for repair or for smaller items that are required with a short lead time.

One challenge for airfreight shipments out of Newfoundland and Labrador is capacity. The freight capacity of an aircraft is not directly related to its size but more so to its freight handling system. All wide-body passenger aircraft and larger cargo aircraft utilize a containerized freight system, where passenger baggage and/or cargo are placed into containers, which are loaded by specialized equipment into the aircraft. However narrow-body aircraft may or may not have containerized cargo. All regional jets and prop aircraft do not have containerized cargo.

The distinction between containerized and non-containerized is significant. Containerization allows the cargo to be handled by a forklift into the container. The container is then placed onto the aircraft using material handling equipment. The weight limits vary according to the container size and the aircraft capacity, but is generally into the thousands of pounds. For a non-containerized aircraft, the weight limit is what one person is able to physically lift onto the loading ramp, which is generally 80 pounds.

Most narrow body aircraft flying into the province, which includes the Boeing 737 used by Westjet and Canjet and Airbus 319 of Air Canada, are hand loaded. The Airbus 320 and 321 of Air Canada do accept LD3 containers and are able to accept loads up to 2,500 pounds. These aircrafts fly into St. John's only.

Currently there is one heavy lift cargo aircraft that services Newfoundland, a Boeing 727 freighter that services St. John's five days per week. This aircraft is shared by a number of couriers.

The only wide body aircraft flying into St. John's is the Boeing 767. However this flight to and from London England is due to end in September 2006.

There is a carrier that is considering a cargo aircraft to service the Newfoundland market, however no final decisions have been made.

8.2 Documentation

Domestic airfreight shipments are generally accompanied by a packing list and an air waybill.

The Cargo Control Document: The Air Waybill

As the bill of lading for goods being shipped by air, the air waybill is the most important cargo control document issued by the airline, carrier or agent when shipping commercial goods. It serves the following functions:

- to document the contract of carriage
- to prove receipt of goods for shipment
- certificate of insurance (if goods insured under carrier policy)
- it serves as a customs declaration
- it is a waybill (i.e. it guides carrier personnel in the handling and delivery of the goods)

The contract of carriage commences when the air waybill is signed by the shipper and the carrier and expires when the shipment is delivered to the consignee.

It is the Shipper's responsibility to prepare the air waybill. The shipper is ultimately responsible for the correctness of particulars and statements made on the air waybill and will be liable for any damages that might result from inaccuracies therein.

As such, your air waybill should always be prepared carefully and legibly. As a customs compliance issue, you should also check for consistency of the information included on the air waybill against your letter of instruction, commercial invoice, packing lists, certificates, permits, etc. as any discrepancies may result in search and seizure, costly fines or delays.

The shipper's responsibility for providing accurate information for the air waybill is generally carried out by way of a **Shipper's Letter of Instruction**, prepared by the shipper and forwarded to the carrier, which must include the following 17 items:

1. Shipper
2. Consignee
3. Airport of departure
4. Airport of Destination
5. Requested Routing/ booking
6. Marks and numbers
7. Number and kind of packages
8. Description of goods
9. Gross Weight
10. Measurement
11. Air Freight and Charges/ Other charges at origin (i.e.: prepaid or collect)
12. Declared Value for Carriage
13. Declared Value for Customs
14. Insurance amount requested
15. Handling Information and remarks (i.e. notification instructions etc)
16. Date completed
17. Signature

In addition, where required, the following documents should accompany the shipper's letter of instruction:

- Certification for dangerous goods
- Certification for live animals

Sample of an Air Waybill:

3 letter code of airport of departure and IATA airline code and serial

YYT | 014-12345678 | 014-12345678

Shipper's Name and Address / Nom et adresse de l'expéditeur
ENTER SHIPPER'S NAME HERE
ADDRESS, COUNTRY, TEL #

Shipper's Account Number / Numéro de compte de l'expéditeur

Not Negotiable / Non Négociable

Air Waybill / Lettre de transport aérien: 014-12345678

Issued by / Émise par: Air Canada

Copies 1,2 and 3 of this Air Waybill are originals and have the same validity. / Les exemplaires 1,2 et 3 de cette lettre de transport aérien sont originaux et ont la même validité.

Consignee's Name and Address / Nom et adresse du destinataire
ENTER CONSIGNEE'S NAME HERE
ADDRESS, COUNTRY, TEL #

Consignee's Account Number / Numéro de compte du destinataire

It is agreed that the goods described herein are accepted in apparent good order and condition (except as noted) for carriage SUBJECT TO THE CONDITIONS OF CONTRACT ON THE REVERSE HEREOF. ALL GOODS MAY BE CARRIED BY ANY OTHER MEANS INCLUDING ROAD OR ANY OTHER CARRIER UNLESS SPECIFIC CONTRARY INSTRUCTIONS ARES GIVEN HEREON BY THE SHIPPER, AND SHIPPER AGREES THAT THE THE SHIPMENT MAY BE CARRIED VIA INTERMEDIATE STOPPING PLACES WHICH THE CARRIER DEEMS APPROPRIATE.
THE SHIPPER'S ATTENTION IS DRAWN TO THE NOTICE CONCERNING CARRIER'S LIMITATION OF LIABILITY. Shipper may increase such limitation of liability by declaring a higher value for carriage and paying a supplemental charge if required.

Issuing Carrier's Agent Name and City / Nom et ville de l'agent du transporteur émetteur
Test
Montreal, Quebec
CANADA

Accounting Information / Renseignements comptables
B4-000087-AE

Agent's IATA Code / Code IATA de l'agent: 00000000

Account No. / Numéro de compte

Airport of Departure (Addr. of First Carrier) and Requested Routing / Aéroport de départ (Adresse du premier transporteur) et itinéraire demandé
Halifax NS Halifax Internation YYT

To / à	By First Carrier / Par premier transporteur	Routing and Destination / Routage et destination	to / à	by / par	to / à	by / par	Currency / Monnaie	CHGS Code / Frais	WT/VAL PPD / Payé	WT/VAL COLL / Dû	Other PPD / Payé	Other COLL / Dû	Declared Value for Carriage / Valeur déclarée pour le transport	Declared Value for Customs / Valeur déclarée pour le douane
IAH							CDN		P	0.0	P	0.0	NVD	NCV

Airport of Destination / Aéroport de destination: Houston TX George

Flight/Date Vol./Date: / / **Flight/Date** Vol./Date

For Carrier Use Only / Réservé au transporteur

Amount of Insurance / Montant de l'assurance: NIL

INSURANCE – If carrier offers insurance, and such insurance is requested in accordance with the conditions thereof, indicate amount to be insured in figures in box marked "Amount of Insurance". ASSURANCE – Si le transporteur propose une assurance et que l'expéditeur en fait la demande conformément aux présentes conditions indiquer le montant à assurer en chiffres dans la case "Montant de l'assurance".

Handling Information/Renseignements pour le traitement de l'expédition

SCI

No. of Pieces RCP / Nombre de colis RCP	Gross Weight / Poids brut	kg / lb	Rate Class / Classe du tarif	Commodity Item No. / N° d'article de la marchandise	Chargeable Weight / Poids de taxation	Rate/Charge / Tarif/Montant	Total	Nature and Quantity of Goods (Incl. Dimensions or Volume) / Nature et quantité des marchandises (y compris dimensions ou volume)
1	58.51	K			59			1 BOX 10 X 50 X 100 CM SAID TO CONTAIN WIDGETS
1	58.51							

Prepaid / Port payé | Weight Charge / Taxation au poids | Collect / Port dû

Valuation Charge / Taxation à la valeur

Tax / Taxe

Total Other Charges Due Agent / Total des autres frais dus à l'agent

Total Other Charges Due Carrier / Total des autres frais dus au transporteur

Other Charges /Autres frais

Shipper certifies that the particulars on the face hereof are correct and that **insofar as any part of the consignment contains dangerous goods, such part is properly described by name and is in proper condition for carriage by air according to the applicable Dangerous Goods Regulations.**
L'expéditeur certifie que les indications portées sur le présent document sont exactes et **que dans la mesure où une partie quelconque de l'expédition contient des marchandises dangereuses, cette partie d'expédition est correctement dénommée et bien préparée pour le transport par air conformément à la réglementation applicable.**

Signature of Shipper or his Agent / Signature de l'expéditeur ou de son agent

Total Prepaid / Total port payé | Total Collect / Total port dû

Currency Conversion Rates / Taux conversions monnaie | CC Charges in Dest. Currency / Port dû en monnaie du pays de destination

Executed on (date) / Fait le (date): 10/07/2002 at (place) / à (lieu): St. John's

Signature of Issuing Carrier or its Agent / Signature du transporteur émetteur ou de son agent: Mr. / Ms. Smith

For Carrier's Use only at Destination / Réservé au transporteur à destination | Charges at Destination / Frais à l'arrivée | Total Collect Charges / Total dû

014-12345678

8.3 Dimension & Weight Limits

The Size of Your Shipment: Before you consider airfreight as an option, you will have to assess the size and weight of the goods being shipped. As summarized above in Section 8.1, there are limited aircraft that can handle loads greater than 80 pounds. Due to the obvious limitations of aircraft in terms of loading capacity, the actual size and weight of the shipment are also vital concerns. If your shipment is too large or heavy to be placed on the aircraft, it cannot be shipped by regular airfreight. Distribution of weight is of further concern for dense shipments that may need to be palletized so as not to place dangerous stress on the aircraft.

Additionally, the dimensions of your packages will have to conform to the configurations of the Unit Load Device (ULD) employed by the aircraft. "Unit Load Device" describes the full range of air cargo loading equipment used to group shipments together (unitization): containers, aircraft pallets (with nets or igloo-like structures) and specialized containers (e.g. horse stalls). ULDs offer air cargo shippers major advantages when it comes to efficiently grouping, assembling, moving, disassembling and redistributing packages with a wide variety of shapes. Air transport efficiency is greatly improved through the appropriate use of ULDs. Benefits include easier handling of shipments on arrival, in close cooperation with consignees.

The following chart provides the weight capacity and dimensions of standard Unit Load Devices for most aircraft:

Characteristics of Typical ULD's

Container	Dimensions (inches)			Volume (Cu ft)	Capacity (lbs)
	L	W	H		
108" pallet with net	88	108	78	350	7,500
125" pallet with net	88	125	78	410	9,500
108" igloo	88	108	78	340	7,000
125" igloo	88	125	78	404	9,000
LD7 pallet (lower deck)	88	125	62	340	7,700
LD7 igloo (lower deck)	88	125	62	340	7,200
LD3 container (lower deck)	79	60	64	158	2,500

Source: CIFFA Professional Education Course, Volume 1

Each aircraft may have unique configurations and requirements, especially in terms of the limitations of dimensions so that packages can pass through cargo doors, so it is recommended that you contact your air carrier for the specific capacity issues you will face for the particular type of cargo aircraft you will have to deal with.

8.4 Labeling and Marking

Because the weight of goods is such an important consideration for airfreight shipments, the risk of having your shipment split is highest in airfreight. It is therefore recommended that you label each and every package of airfreight clearly and legibly. Your label should contain the following:

- Air Waybill No
- Destination
- Total No of Pieces
- Total Weight of Consignment

- Weight this piece
- Handling Information
- Transfer stations (i.e. any airport(s) through which the shipment passes en route to its ultimate destination)

Special labels should be affixed for dangerous goods, in accordance with IATA standards. IATA standard labels are also available for special consignments such as live animals and perishables.

8.5 Rates

Aircraft Chartering

In certain instances where goods must be shipped urgently or cannot be accommodated through available commercial flights, shippers may wish to consider the option of chartering aircraft. In such cases it is recommended that you avail of the services of an experienced air cargo agent or freight forwarder to ensure you are using the right equipment, at the lowest available price, for the job.

Pricing Considerations: Courier vs. Airfreight

When deciding whether it is more economical to ship goods via courier or airfreight, you should be equipped with a full listing for the price breaks for each service provider.

You can then conduct a careful assessment about the point at which it becomes more economical to choose one service provider over the other. This is called a break point analysis and is an important part of your transportation planning.

Types of Cargo Rates:

The following hierarchy of cargo rates applies to the various classes of air cargo rates, with top precedence indicated first, etc
Specific Commodity Rates
Class rates
General Cargo Rates

The only exception occurs when the quantity rate for a certain weight breakpoint is lower than the specific commodity rate, in which case the lower of the 2 rates is applied.

The following describe the types of cargo rates applicable to airfreight:

- Minimum Charges – charges for any shipment shall be no less than this charge
- GCR General Cargo Rates- normally apply to shipments up to 45kg, depending upon country of shipment
- SCR Specific Commodity Rates - lower than GCR, available for specific commodities and specific destinations, points of origin
- Class Rates- exception to GCR offering discounts or surcharges, depending on commodity
- Unit Load Device Rates (ULD)- for shipment loaded by the shipper on the aircraft ULD and delivered by shipper to the airline at airport of departure. Apply only when shipment carried entire journey on ULD
- Basic Rate per Kilogram- available between selected points in Europe

Other rates to anticipate when booking Air Cargo include

- NavCan Service Fees
- Fuel Surcharges
- A.I.S. (Airline Insurance Security)
- Add-on amounts such as terminal fees, etc.
- Airport Improvement Fees

8.6 Example Rates & Transit Times

The following rates are provided as examples. They should be used only as a guideline, as the rates do change frequently and fuel surcharges even more so.

St. John's to Edmonton – 45 kg (~100 Pounds)

Airport to airport service
$170.00 All in

St. John's to Edmonton – 1,000 kg (~2,200 Pounds)

Airport to airport service
$3,770.00 All in

9.0 Rail Transport

9.1 Introduction

For manufacturers and exporters on the island of Newfoundland, rail transport is a rarely used option due to the lack of a provincial railway service. For Labrador companies, the Quebec North Shore and Labrador Railway runs from Sept Iles Quebec to Wabush Mines, Labrador City and Schefferville Quebec.

In general, rail transport is an option used more frequently for commodities such as wheat and grains, coal, potash, sulphur, copper, nickel and iron ores, sand and stone, piggyback and container traffic.

However rail transport is rarely used for cargo coming out of Newfoundland. Rail carriers will not ship their intermodal containers into Newfoundland. Also shipping lines into Newfoundland will not send their containers out to Alberta. The solution is to transport containers into Halifax or Montreal and do a cross-docking from an ocean container into a rail-intermodal container at one of these ports.

The pricing of this option is summarized in section 9.3.

The solution is to do a transfer from 1 container to another in either Halifax or Montreal. This de-stuffing and re-stuff of the container will be dependant upon the materials loaded, but will average between $300 and $500.

CN, CP and Other Railway Lines

CN (Canadian National) is Canada's largest railroad linking the Atlantic, Pacific and Gulf of Mexico. Having established alliances with US and Mexican rail lines, CN is able to serve a number of NAFTA markets for Canadian exporters. For overseas shipments, CN serves the West Coast through the Port of Vancouver and Price Rupert and the East Coast, serving Saint John, Quebec City and the Port of Halifax. On the Gulf of Mexico, CN provides access to ports in New Orleans and Mobile. With hubs and satellites near most major urban centres, CN is well positioned to provide an intermodal service.

CP (Canadian Pacific) rail serves all Canadian provinces except Newfoundland & Labrador and Prince Edward Island. It operates 34,000 km of track extending from Atlantic to Pacific and through its subsidiary, the Soo Line, in the USA it operates in 12 states. CP Rail has also established special agreements with several US railroads to reach USA southwest, south and west coast markets.

In **Eastern Canada**, some examples of smaller railroads include:

- The Quebec North Shore and Labrador Railway (QNSL) which runs from Sept Iles Quebec to Wabush Mines, Labrador City and Schefferville Quebec.
- The Ontario Northland Railway (ONR) which runs from North Bay, ON to Moosonee on James Bay

In **Western Canada**, some examples of smaller railroads include:

- The Northern Alberta Railway (NAR) from Edmonton to Waterways, Ft MacMurray to Tar Sands
- The Great Slave Railway (GSL) connecting with NAR at Roma Junction then going north to Pine Point from which various barge services serve Arctic regions

- The Alberta Resources Railway (AR) running from the CN line near Hinton, AB to connect with NAR at Grand Prairie
- The British Columbia Railway (BCR) from North Vancouver to Fort Jon BC, connecting with NAR at Dawson Creek, BC.

9.2 Documentation

The Railway Bill of Lading

Railways may not move cargo to/from the island of Newfoundland on a single rail freight bill of lading, but normally provide service based on a separate bill of lading for the water and land portions of the move.

Major railways now offer services enabling shippers and forwarders to complete the Bill of Lading online. The following fields must be completed in this document:

Shipper	Consignee
Description of goods	HS Tariff Code
Piece Count	Package type
Hazardous Goods	Weights and Dimensions
Unit Price	Value
Intermodal service type	Origin
Destination	Routing

Shipment pick-up date and time
Equipment initial/ number (ID number for railcar, trailer, container, etc.)
Contract # tariff quotation # steamship booking # (to ensure you pay the right charges)
Bill of Lading or Shipper's reference number
Bill Freight Charges to: Prepaid or Collect

9.3 Dimension & Weight Limits

Rail Equipment

The following provides a brief summary of rail equipment available:

Trailers: (Trailers being loaded on Flat Cars or TOFC): usually 20' to 45' long with racks, open tops and special use available. This equipment is used for intermodal transport in which trailers units are lifted, complete with wheels and placed "piggyback" on a flatbed trailer.

Flat Cars: (for Container on Flat Car or COFC movements) wherein a marine container is stuffed at the exporter's premises, shipped overland by road or rail to the port of exit, shipped overseas to Canada then moved by rail to an inland depot. Flat Car equipment may include machinery, bulkhead, log carriers and special use equipment as well. These are not practical for movements from Newfoundland into Alberta as the marine carriers will allow their containers to be shipped to Alberta and rail carriers will not allow their containers to be shipped into Newfoundland.

The following are other rail car type, but these would not be used for shipped fabricated materials out of Newfoundland.

Box Cars: ranging in length from 40' to 52' can be insulated, heated, refrigerated, compartmentalized or special use.

Gondolas: top-loading containers from bulk cargo

Hopper Cars*:* enclosed bulk and liquid cargoes

Stock Cars: for live animals

Automobile Cars: usually double or triple-deckers

9.4 Rail Pricing

As any rail carrier used to provide a freight solution out of Newfoundland into Alberta would have to be a part of an intermodal approach, the pricing for this is included in Section 9.3, Intermodal Example Pricing.

10.0 Ocean Transport

10.1 Introduction

Ocean Freight, for Atlantic Canadians in general, and Newfoundland & Labrador manufacturers and exporters in particular, is an effective transportation option, given our ocean geography.

Today, shippers have access to a variety of ocean transportation service providers with global networks capable of effectively handling cargo shipments of any size to any destination in the world. Full Container Load (FCL) shipments allow ocean carriers to offer lower cost and improved service resulting in overall savings of both time and money. Less than Container Load (LCL) shipments can be consolidated to take advantage of reduced tariffs for your ocean freight consignments. For manufacturers and/or exporters to compete more effectively in the global marketplace, ocean freight can provide a logical transportation solution.

However ocean freight will not deliver into land-locked Alberta. The information in this section is for the general interest of shippers. However ocean can be a component of a combined freight solution into Alberta that would use an ocean carrier into Halifax or Montréal and then rail service into Alberta. The example pricing for these solutions are shown in Section 9.3.

10.2 Documentation

Like airfreight shipments, the standard package of commercial documentation is required when you ship your goods by vessel. You must complete the following:

- Commercial Invoice (or Canada Customs Invoice for Imported Goods)
- Packing List, if available (not mandatory)
- Certificate of Origin (if eligible for NAFTA or required by foreign legislation)
- Export/ Import Permits, if required
- Revenue Canada Export Documents, if required

Two other key documents for ocean freight are known as the **Ocean Bill of Lading and the Ocean Waybill.**

The Ocean Bill of Lading

The Ocean Bill of Lading (OB/L) is evidence of the delivery of goods to the carrier as well as constituting a contract of carriage between the shipper and the ocean freight carrier.

The Ocean Bill of Lading, when fully executed, constitutes the actual deed to the goods being shipped and is an official "document of title". Essentially, this means that the Ocean Bill of Lading can be used to meet banking requirements in issuing letters of credit as the bank may use this document to retain control over the merchandise.

Three Originals: Ocean Bills of Lading are traditionally completed with three signed originals being issued. These are distributed as follows:

2 copies are forwarded to the **Consignee** under separate cover

1 copy is retained by the **Shipper** as a back-up document

The consignee surrenders one original B/L to the **Ocean Carrier** at final destination in order to effect release of the shipment.

There are three possible instructions on an O B/L depending on how the goods are to be transferred from shipper to consignee for the shipment:

Straight Bill of Lading: States the Consignee's actual name, meaning that the when the consignee or its agent present any one of the original bills of lading, the carrier must deliver the shipment into the consignee's possession.

"To Order" Bill of Lading: Consigns the goods to the shipper, title of the goods only being transferred through the shipper's (or in some cases, the bank's) endorsement by stamp or signature. Once this O B/L is properly endorsed, the holder or named party becomes owner of the goods.

"The Bearer" Bill of Lading: This rare option states that the goods must be delivered by the carrier to the party with the original bill of lading. This option might be used in the case of goods sold on a commodity exchange.

It is important to note that the copy of the O B/L first given to the ocean carrier takes precedence from a legal perspective and renders the other two copies null and void.

Due to the complexities of the Bill of Lading as a commercial document, it is recommended that you consult with your freight forwarder or trade services provider to ensure that your documents are prepared to best suit your specific transportation and transaction requirements.

Sample Ocean Bill of Lading

Shipper		Document No. Export References
Consignee		Forwarding Agent
Notify Party		Agent at Destination
Pre-carriage by	Place of Receipt	Bill of Lading No.
Vessel/Voyage	Port of Loading	Point and Country of Origin
Port of Discharge	Place of Delivery	Onward Inland Routing

Container & Seal Number Marks & Numbers	No of Pkgs	Description of Package and Goods	Gross Weight	Measurement
			----------	----------

JURISDICTION AND LAW CLAUSE The contract evidenced by or contained in this Bill of Lading is governed by the laws of Canada and any claim or dispute arising hereunder or in connection herewith shall be determined by the Federal Court of CANADA and no other Court.	Excess Value Declaration: Refer to clause 6(4) (B) + (C) on reverse side
FREIGHT AND CHARGES: Ocean Freight Destination Terminal	RECEIVED by the Carrier the Goods as specified above in apparent good order and condition unless otherwise stated, to be transported to such place as agreed, authorised or permitted herein and subject to all the terms and conditions appearing on the front and reverse of this Bill of Lading to which the merchant agrees by accepting this Bill of Lading, any local privileges and customs notwithstanding. The particulars given above as stated by the shipper and the weight, measure, quantity, condition, contents and value of the Goods are unknown to the Carrier. In WITNESS whereof 0 (zero) bills of lading all of this tenor and date have been signed, one of each being accomplished, the others to stand void. If required by the Carrier one(1) original Bill of Lading surrendered duly endorsed in exchange for the Goods or delivery order. By _____ Date 01/01/1900

The Contract of Carriage: The Ocean Waybill

The Ocean Waybill is a carrier control document governing the movement of goods by ocean freight from their origin to destination ports. Unlike the O B/L, the Ocean Waybill is not a document of title, so no "originals" are issued. Other terminology used to describe the Ocean Waybill is "Data Freight Receipt", "Express Cargo Bill of Lading" or "Sea Waybill".

The format of the Ocean Waybill is identical to that of the O B/L, except for its designation as the document of title for the goods.

The use of an Ocean Waybill provides certain efficiencies as it does not necessitate endorsement, banking, or any of the other legal procedures associated with documents of title. The waybill can therefore move quickly to its destination and, at the point of destination, the Ocean Waybill allows for direct delivery of your goods by the carrier without holding up shipments awaiting receipt of an "Original" Ocean Bill of Lading.

"Clean" and "Unclean" Bills of Lading

A "Clean" Bill of Lading is a formal acknowledgement by the ocean carrier that your goods have been received on board the vessel in apparent good order and condition. The law sees this document as representing to the consignee that the goods were inspected by the carrier and that no fault was found in them. The consignee can therefore hold the carrier liable for any damages to the goods upon receipt.

If, however, the carrier has concerns about packaging or packing having been incorrectly performed, assesses problems with the nature of the goods or finds evidence of damage when the goods are received on board, the carrier may write, stamp or superimpose the bill of lading with a notation indicating the nature of the goods, as received.

Such stamps or marks on the Bill of Lading constitute an "unclean" Bill of Lading and allow the consignee the legal right to refuse the shipment. Should the consignee accept goods with an "unclean" bill of lading, he no longer has the full liability of the carrier for damages.

For you, as the shipper of an ocean consignment, an "unclean" bill of lading may also pose problems with letters of credit, as banks will generally refuse shipping documents with such clauses or notifications.

It is therefore imperative that shippers/freight forwarders take utmost care to prevent the issuance of "unclean" bills of lading. Such steps may include improving or modifying the packaging used, blocking, bracing, dunnage or other measures that may be required to assure the carrier that the goods have been received in a "clean" state.

10.3 Dimension & Weight Limits

Ocean Freight Containers and FCL/LCL Shipments

For exporters, the standard containerization of ocean freight provides greatly reduced risk of damage. Containerization also reduces packing costs and handling requirements and can therefore make ocean freight an attractive cargo option when pricing your overseas shipments.

Shipping by container is also an obvious choice for intermodal shipping, which essentially involves the transfer of cargo form one mode of transport to another. In the case of ocean freight, containers are typically offloaded from the vessel and transferred directly onto trucks for furtherance to inland destinations. At exit and entry ports, shippers should make sure that a variety of road transportation is available for furtherance of your goods. When booking your ocean cargo shipment, make sure to consider not only the ocean portion of the voyage, but the road transport and container services options available at the port of destination. Your freight forwarder or transportation and logistics consultant can offer valuable advice and guidance in this regard.

Ocean freight containers are generally constructed from either aluminum or steel and must conform to ISO standards for quality of construction. Below are listed the typical specifications for the various containers used by ocean carriers.

Standard Container Types

The majority of ocean freight is moves in standard 20' and 40' containers with the following specifications:

	20’	40’
Inner Length	19’5”	39’6”
Inner Width	7’8”	7’8”
Inner Height	7’8”	7’8”
Inner Door Height	7’5”–3/4”	7’6”

Additionally, there are many different container styles and types available to shippers, depending on the specific nature of the cargo you are shipping overseas. Examples are provided below:

Specialized Container Equipment:

Open Top 2 end doors, side hinge, tarpaulin top, generally for heavy lift cargo and over-dimensional pieces requiring crane to lift into container. 8' height.

Interior Dims(L/W/H): 20' container 19'5"x7'8"x7'6"
Door Opening : 7'6'x7'5.5"
Interior Dims(L/W/H): 40' container 39'6"x7'8'x7'5 1/4"
Door Opening : 7'5.5"x7'5 1/4"

High Cube Containers similar to the standard box container, but with a greater outside height of 9'6" in either 40' or 45' lengths. Intended for volume cargoes and loads which have a greater length or height. These containers require a specialized truck chassis so as not to exceed maximum road heights.

Flat Rack Have end walls, but no side walls or top. End walls can be folded down (collapsible model). Used for extremely large pieces (project type cargo) which is lashed down, lashed together. These containers are intended for cargoes that exceed standard container door dimensions in height and/or width.

Dims(L/W/H): 20' flat rack 18 8 1/2"x8'x7'7 1/2"

Dims(L/W/H): 40' flat rack 38'9 3/4"x7'5 x 6'10 1/2"
Dims(L/W/H): 40' collapsible flat rack 39' 7 1/2" x6' 11 1/2" x 6'8 1/4"

Platform Containers Not really a container, but a platform for lashing heavy cargo. Also called "Artificial Tweendeck" and used for cargo that is over length, over width and over height.
Dims(L/W): 40' artificial tweendeck 39' 7 1/2" x 7' 3 1/4"

Bulk Container Used largely for grains and loaded by special equipment such as a vacuvator.

Tank Container Used to transport bulk liquids.

Insulated Container Standard box with insulation to minimize temperature fluctuation. Insulated standard containers that are temperature controlled (either hot or cold) are used in specialized trade lanes.

Refrigerated Container The reefer is an insulated container with a refrigeration (Reefer)device, generally used for frozen goods or perishables.

FCL vs. LCL Shipments:

FCL is an abbreviation for Full Container Load. Ocean carriers will base FCL rates on a fixed rate per container, depending on the containerization method required.

LCL is the abbreviation for Less than Container Load. Ocean carriers will base LCL rates on the greater of the actual weight or the volume weight of your shipment. The volume weight is determined by the dimensions of the shipments LxWxH in metres.

Due to the obvious savings to be realized by shipping Full Container Loads, consolidating ocean freight shipments is, as with any mode of transportation, a desirable option from a cost perspective.

10.4 Ocean Pricing

As any ocean carrier used to provide a freight solution out of Newfoundland into Alberta would have to be a part of an intermodal approach, the pricing for this is included in Section 9.3, Intermodal Example Pricing.

11.0 Intermodal Transport

11.1 Introduction

Intermodal transport is the combination of at least two modes of transport - by road, rail, sea or air - in a single transport chain. Typically, when you book freight with a single carrier or forwarder, your service supplier will arrange for all legs of the journey, from start-to-finish and will facilitate the co-ordination of all intermodal requirements on your behalf.

Shipping Goods Intermodally: To and From Newfoundland and Labrador

The most common forms of intermodal transport for Newfoundland businesses would involve moving goods by sea for subsequent road or rail transport to their ultimate inland destination. Similarly, for some shippers to North American markets, the long distance is covered by rail, whereas the distribution from the terminal to the final destination takes place by road.

Unaccompanied Shipments:
The following example illustrates an intermodal freight movement that is "unaccompanied":

- A full truckload is driven to a terminal for intermodal transshipment.
- The loading unit - a container, a swap body or a semi-trailer - is put on the train or ocean carrier
- The unit travels by rail or ocean to the destination terminal.
- At the destination terminal, it is unloaded and picked up by a traction vehicle.
- The truck travels by road to final destination.

Accompanied Transport
Some carriers offer the option of accompanied transport, wherein entire trucks or articulated vehicles are transported by rail on special low-loader wagons. The drivers travel on the same train in a sleeping car.

11.2 Documentation

Individual Bills of Lading will normally be issued by the carriers for the portions of an intermodal shipment; however, the goods will move on a master document known as a "Through Bill of Lading" which is a single bill of lading covering both the domestic and international carriage of an export shipment. An air waybill is essentially a through bill of lading used for air shipments. However, ocean shipments usually require two separate documents -- an inland B/L for domestic carriage and an ocean B/L for international carriage. Through bills of lading are insufficient for ocean shipments.

11.3 Example Rates and Transit Times

The example rates below were built as intermodal rates from Newfoundland into Alberta, combing movements out of Newfoundland into mainland Canada, a cross docking to transfer the units out of the sea container and into a rail container and then a rail shipment to Alberta.

The cross docking operations is the only way to have this type of movement done at this time. Rail carriers will not position their containers into Newfoundland and ocean carriers will not position their containers into Alberta. Therefore the materials have to be transferred from one container to another.

St. John's to Alberta –Container 48 foot
Via Halifax

	48 foot	
Ocean - St. John's to Halifax	$775.00	
Fuel Surcharge – 21%	162.75	
Ocean Subtotal		$937.75
Cross Docking – Estimate		$400.00
Rail - Halifax to Edmonton	$4,054.00	
Fuel Surcharge – 12.75%	516.88	
Rail from Halifax to Edmonton		$4,507.88
Total		$5,845.63

St. John's to Alberta –Container 48 foot
Via Montreal

	48 foot	
Ocean - St. John's to Montreal	$1,370.00	
Fuel Surcharge – 21%	287.70	
Ocean Subtotal		$1,657.70
Cross Docking – Estimate		$400.00
Rail - Montreal to Edmonton	$3,304.00	
Fuel Surcharge – 12.75%	421.26	
Rail from Halifax to Edmonton		$3,725.26
Total		$5,782.96

Corner Brook to Alberta –Container 48 foot
Via Halifax

	48 foot	
Ocean - Corner Brook to Halifax	$760.00	
Fuel Surcharge – 21%	159.60	
Ocean Subtotal		$919.60
Cross Docking – Estimate		$400.00
Rail - Halifax to Edmonton	$4,054.00	
Fuel Surcharge – 12.75%	516.88	
Rail from Halifax to Edmonton		$4,507.88
Total		$5,827.48

Transit Times:

The transit time may include the wait time for the next vessel. Out of St. John's to both Halifax and Montreal the service is every 2 or 3 days. Out of Halifax the service is once per week, currently on Wednesdays.

St. John's via Halifax to Edmonton:

Vessel wait time – 1 to 3 days – Assume 1	1
Voyage time St. John's to Halifax	2
Transfer container to container	1
Rail time Halifax to Edmonton	6
Total transit Time	10 Days

St. John's via Montreal to Edmonton:

Vessel wait time – 1 to 3 days – Assume 1	1
Voyage time St. John's to Montreal	3
Transfer container to container	1
Rail time Halifax to Edmonton	5
Total transit Time	10 Days

Corner Brook via Halifax to Edmonton:

Vessel wait time – 1 to 7 days – Assume 3	3
Voyage time Corner Brook to Halifax	2
Transfer container to container	1
Rail time Halifax to Edmonton	6
Total transit Time	12 Days