AIR FREIGHT: Providing Critical Lift for Logistics

PLUS:
CITA Supply Chain Executive of the Year
Airships — The Sixth Mode of Transportation

www.cita-acti.ca
Take your business further

In business, your success is a reflection of the decisions you make. Choosing shorter transit times between Europe and central Canada or the American Midwest, and high-efficiency intermodal transfer can make all the difference. Success is a choice.

Let the Port of Montreal be your guide.
The Shipper ADVOCATE

Official Publication of the Canadian Industrial Transportation Association

content

5 President’s Message
6 The Wheat King
8 Profile of Transport Canada’s Marine Policy Branch
10 Air Freight: Providing Critical Lift Off for International Logistics Operations
13 Dynamic Supply Chains are Here to Stay
15 Airships — The Sixth Mode of Transport
18 Canada’s FTZ Future — Could It Become a Reality?
20 Supply Chain Canada 2012
21 Index to Advertisers
22 Recent News Items Focusing on Freight Transportation
25 The Shipper ADVOCATE — Future Issues

Cover photo courtesy of Parrish and Heimbecker Limited.
SCL & CITA’S 45TH Annual Conference & Trade Show

MAY 8 – 9, 2012
INTERNATIONAL CENTRE
6900 AIRPORT ROAD
TORONTO • ON • CANADA

BOOK YOUR BOOTH NOW!

Denise Fata,
Show Manager
Call (613) 599-3283
or email
defata@cita-acti.ca

Your Customers are at Supply Chain Canada
Are You?
Book your space Today

Visit us at supplychaincanada.com to book
In a recent conversation with the executives of the U.S. National Industrial Transportation League (NITL), they mentioned that they spend more time on rail issues than on all other modes. I can’t make up my mind if I’m comforted or alarmed by that.

If the NITL experience was different than ours, we could possibly learn from the U.S. rail/shipper relationship. But it isn’t, and so our rail discussions with NITL tend to be on how to re-balance the relationship between the buyers and sellers in the rail freight market on both sides of the border. The governing laws in the two countries are not the same, the political systems have different characteristics and dynamics, and the economies of the U.S. and Canada are not identical, so the way forward will not be the same.

During a recent NITL webinar on rail issues, one of the participants highlighted the Canadian Regulated Inter-switching Regulations as something that U.S. shippers would like to see. The NITL legal advisor pointed out the significant changes that would be needed in the U.S. law to allow this and noted the difficulty in getting significant Bills through the U.S. Congress in any reasonable time. However, there is momentum building in the U.S. for changes in railway law and regulation. Changes are also afoot in Canada. I’ve reflected on why this is so at this time and what follows are some personal thoughts.

In Canada there are only two large transcontinental railways and this has been the case since about 1920 when CN was created as a crown corporation from several bankrupt railways. For most of the past century, Canadian railway law from earlier versions of the Railway Act to the current governing law, the Canada Transportation Act, have all recognized that rail freight is not a normally functioning competitive market. Because there are only two major suppliers, the normal market balance between the buyers and sellers doesn’t exist.

While the current Canadian law gives the railways considerable pricing freedom, there are a number of provisions designed to protect shippers and to act as a surrogate for real competition. One of the more successful provisions is the above-mentioned regulated inter-switching regime that regulates the rates that railway “A” can charge from the shipper’s siding to the interchange with railway “B”, as long as the distance from the shipper’s siding to railway “B” is no more than 30 km. There are other provisions to assist shippers disputing rates and experiencing service problems.

There was a series of much-needed railway reforms in both countries from about 1967 to 1996 that reduced much of the burdensome regulation on the railways. While no one wants to go back to those bad old days, those burdensome regulations in both countries were a response to monopoly behaviour by big railways in the 19th and early 20th centuries. In the U.S. the Interstate Commerce Commission (ICC), regulating railroads, was the first regulatory agency established by the U.S. government.

In the period after World War II, U.S. railway fortunes declined, culminating in the merger of the New York Central and Pennsylvania Railroads to create the Penn Central, which subsequently went bankrupt and led to the temporary nationalization of that rail property. At the time of the Penn Central failure, it was the biggest bankruptcy in the entire history of the world. Deferred maintenance was so bad that there were reports of freight cars derailing while standing still. Working through that bankruptcy was painful and very expensive for the U.S. government and economy. It was an early example of a government involvement and bailout of an enterprise “to big to fail”.

In Canada, the CPR continued to make modest profits throughout its history and at the end of World War I, the Canadian government nationalized several railways, primarily the Grand Trunk, Inter-Colonial, and Canadian Northern, to create the CNR. CN was finally returned to the private sector in 1996.

While there were many factors in play in this long-running drama, near-monopoly behaviour of railways was a factor in their long, dark night of heavy regulation. With the rise of long-distance trucking, and commercial aviation, the landscape has changed. Despite these changes, the shipper community needs profitable railways.

North America needs profitable, viable, innovative, and customer-focused railways.

The shipper community needs profitable railways.
ARMAN, MANITOBA, is about as far away from North America’s tidewaters as someone can get. It may not be the geographic centre of the continent—though that honour belongs to Rugby, North Dakota—but you can drive between the two communities in less than four hours. “That’s an honourable thing if you’re a Manitoban,” says Rob Bryson. “It’s a lousy thing if you’re trying to get commodities to a market.”

And it is a reality that helped to shape his career choices. The Carman native had planned to work on the family farm after graduating from the University of Manitoba, but there was no denying the ongoing changes in a region which had long prided itself as a gateway to the east. Rail subsidies of the Crow Rate were coming to an end. Wooden grain elevators that once stretched across the Prairies were being abandoned. In Carman’s case, the last wooden grain elevator actually burned to the ground.

“It was really evident this was a changed world,” he says. “I was curious about what else was out there.”

Rather than returning to the farm, Bryson accepted a job with Cargill, which was one of the first companies to build a massive concrete terminal to replace local grain elevators. Most of all, he became fascinated by the way the business was able to use the Mississippi River to move fertilizer and grain. Dredging a canal from Winnipeg to Minneapolis, Minnesota was obviously out of the question, but he began to think about the way freight could move through the St. Lawrence Seaway and Great Lakes, and reach as far as Thunder Bay, Ontario. “That,” he says, “is what started my interest in being involved in the shipping industry.”

It was a learning process which eventually led to his current role as vice-president of the grain group at Parrish and Heimbecker, a business involved in everything from procuring grain to merchandising, milling, animal nutrition programs, poultry farming and food processing. Here, he has been able to find new ways to combine the capabilities of waterways, road and rail. And it is the type of thinking which has helped to earn him the honour of Canadian Industrial Transportation Association (CITA) Supply Chain Executive of the Year.

The company itself has been in business for more than a century, establishing a network of terminals, marine shipping services and rail terminals that form a virtual pipeline between the wheat fields of the Prairies and domestic processors in the east. Under Bryson’s watch, the business has revitalized the Great Lakes Grain Company elevator in Owen Sound, Ont., and is making a massive investment into Lake Ontario’s Port of Hamilton. Each asset has helped to make a reality of Parrish and Heimbecker’s Eastern Canadian Gateway Strategy and Short Sea Shipping initiatives. In fact, many pieces of this puzzle were the results of a thesis that Bryson developed for an MBA, when he decided to return to university after several years in the workplace.

“I really got to learn how to dig a little deeper into the stuff going on and learn how to research,” he says of that experience at the University of Guelph. His studies involved the supply chain for Ontario’s flour milling industry, following the path of wheat from farms to consumers, examining the costs of mill locations and shipping methods alike. What emerged was the idea for a system where smaller shipments could be moved by water.

The timing of Bryson’s arrival at the company was actually a twist of fate. When he approached the business as an employee of the Ontario Ministry of Agriculture, promoting the ideas...
developed in his thesis, Herb Heimbecker had recently died. Bryson was offered the chance to fill the vacant job.

It was undeniably a daunting opportunity. “Herb was a legend in our industry,” Bryson explains. But the supply chain executive has been making a mark of his own ever since.

Short sea shipping has been promoted by different levels of government for years, but Parrish and Heimbecker has found a way to make it a reality, notes the CITAs Bob Ballantyne. “The work Rob has done is really an outstanding example of what is possible in trying to use the Great Lakes and St. Lawrence system to greater commercial advantage.”

The work in Owen Sound, for example, created a modern site to accept ships of wheat for inland flour mills. Parrish and Heimbecker enhanced that with an inland shuttle rail terminal. The needs for larger inventories disappeared because just in time delivery methods kept vessels on the move.

“He entirely revitalized Owen Sound,” stresses Parrish and Heimbecker transportation manager Brad Wallaker, adding that it would have been easy to allow the site to languish and move to another port. “He recognized it as an influential piece in the overall model he wanted to generate.”

The changes have involved more than infrastructure. “If you want to get the maximum efficiency out of both rail and marine, you have to step up and make some commitments,” Bryson explains, referring to the need for concise forecasts and tight operating schedules. “We were able to drive out a lot of costs. We took on risk doing that, but that’s our job.”

Typically, the bread-producing “hard wheat” from Western Canada came into Owen Sound, where vessels were reloaded the next day with “soft wheat” for cookies and crackers made by producers in Toledo, Ohio or Buffalo, N.Y. “Then we asked how can we extend this?” he recalls of the logistics model. “How could we move products around the Great Lakes more efficiently?”

The next phase of the work involved finding ways to move Southern Ontario products to Montreal or Halifax, where they could be processed or exported elsewhere in the world. That led to ongoing investments at the Port of Hamilton. An aging warehouse at the port’s Pier 10 –so out of date that it was used as a Depression-era backdrop in the film Cinderella Man –is being replaced by a state-of-the-art terminal. There, it will be possible to unload inbound vessels such as bulkers and fast-loading lakeers at 1,500 tonnes per hour. Loads will be transferred for shipping up the St. Lawrence Seaway or the rails of CN or CP. Berthing positions will support four 745-foot vessels at a time, and connect to a 25-car rail train.

Rather than asking a customer to take all 25,000 tonnes of products on a full vessel, however, the company has developed ways for ship holds to be divided into individual lots. “It’s a tremendous value,” he says. And it is a strategy that will be supported by the port’s new flat storage domes to hold proteins, and the segregated silos for wheat, soy beans and corn. The first few domes for outbound freight include automated equipment to receive Ontario trucks and rail cars, and load the vessels.

“It’s realistic that, over the next decade, Parrish and Heimbecker could have 1 million tonnes of grain passing through every year,” observes Ian Hamilton, vice president of business development and marketing at the Port of Hamilton.

One of the biggest advantages may come in the way this supply chain combines road, rail and water. The shipments are not held hostage by the seasonal closures of the St. Lawrence Seaway, since the approach to logistics still includes rails. And even though a 35,000-tonne vessel cannot make it all the way to Hamilton, the loads can be split between a 25,000-tonne laker and 100 rail cars, and then recombined in Quebec City. The diverse approach offers a hedge against issues like labour disruptions, or rail assets tied up in Western Canada’s seasonal moves of potash, coal and grain.

“A lot of this is not anything we invented. It’s using the resources that are there strategically,” Bryson insists. In fact, he stresses that the changes are only possible because of his employer’s strong reputation. With that background, customers are inclined to accept a change in business models. And the company was ultimately responsible for the investments.

While some critics suggested Ontario already had too many grain elevators, he was able to point out that they were still in the wrong place and lacked the supporting infrastructure. “Building an asset when there are a lot of older assets around takes a lot of will,” Bryson says, referring to the role of his company’s Board of Directors. “It would have been very easy not to invest.”

Those who have worked with Bryson may think he’s being modest. They refer to him as a strategic thinker who pays attention to every detail. “He dealt with every issue, whether it is big or small,” Wallaker, a Prairie native himself, has worked with Bryson for 15 years and nominated him for the CITAs award. When asked to describe Bryson, words

Continued on page 26
TRANSPORT CANADA’S mandate is to promote a national transportation system that is safe, secure, environmentally sustainable and efficient. The department’s Marine Policy Branch contributes significantly to these objectives through its domestic and international policies. It is also responsible for the Canada Port Authorities, the St. Lawrence Seaway Management Corporation, Marine Atlantic Inc., Ridley Terminals Inc. and international shipping protocols.

The branch is made up of three directorates: Seaway and Domestic Policy; Ports Policy; and International Marine Policy and Liability. The three areas adopt a uniform approach to policy development to ensure proper integration across the branch.

Tim Meisner has been the director general of Marine Policy Branch since April 2008. During that time, he has overseen a number of files that are important to Canadian marine shippers. “Our main focus is efficiency,” he says. “We want to help Canadian importers and exporters remain competitive globally because that is what benefits our economy most. Facilitating trade is a priority for us.”

Marine Policy Branch collaborates with the Marine Safety and Security Branch, as well as the Environmental Policy Branch. As Mr. Meisner says, “We work closely with those branches to ensure consistency and compatibility in our approach. We also maintain a good working relationship with other government departments and agencies, such as the Canadian Coast Guard, on files affecting Canadian shippers and shipowners.”

One issue the branch is currently focusing on is ballast water requirements on the Great Lakes. A patchwork of regulations has emerged, with inconsistent requirements in different areas. American regulatory programs involve both the U.S. Coast Guard and the U.S. Environmental Protection Agency. In addition, the State of New York has indicated that by 2013 it will introduce measures affecting ballast water that are drastically more stringent than those of other jurisdictions. For example, what New York is proposing greatly exceeds the International Maritime Organization’s requirements.

If New York implements these measures, there could be serious consequences for shippers using the Great Lakes and St. Lawrence Seaway. Two of the Seaway’s locks are located in New York, meaning that most ships entering the system would be affected. Mr. Meisner notes that today there are no ballast water treatment systems that meet New York’s requirements and it is unlikely any will be developed by 2013. “This is causing a lot of uncertainty for our marine industry,” he continues, “particularly when it comes to investing in new ships. Roughly 44 million tonnes of cargo are shipped between ports in Canada and New York every year, so there’s a lot at stake.”

To address this issue, Marine Policy Branch is leading an interdepartmental working group of experts in environmental protection, ship safety, and international trade and relations. Through this working group, Transport Canada heads advocacy efforts on behalf of Canadian shippers. These efforts target the state and federal levels in the U.S., and seek to remove unilateral restrictions on transiting ships. Together with the Canadian embassy in Washington and our consulates in American states bordering on the Great Lakes, the working group is trying to build consensus that would benefit the shipping industry by harmonizing requirements.

Through the Seaway and Domestic Policy Directorate, Transport Canada is also developing policies to support shortsea shipping – the movement of people or goods along coastlines, through lakes and river systems, and to or from nearby islands. From a Canadian perspective, this involves trade with the continental U.S., Mexico and the Caribbean. Further developing shortsea shipping could reduce congestion, increase trade
and lower greenhouse gas emissions. In short, it could potentially increase the overall efficiency of marine transportation by optimizing use of waterway capacity.

Mr. Meisner points out that Transport Canada has been working with marine stakeholders, as well as other federal departments and agencies, including those in the U.S. and Mexico, to look at better integrating shortsea shipping into the North American transportation system.

Marine transportation in Canada’s North is another concern for the branch. The region relies heavily on the delivery of goods by water, particularly during summer, to supply remote communities and the developing resource sector. There is a need for appropriate facilities, personnel and services, such as marine terminals, navigation charts, seafarers and ice-breaker support. Other services such as ice, weather and sea-state forecasting, search and rescue, and environmental response are also required, along with marine communication and traffic control. All of this would require significant capital investment. Mr. Meisner observes, “We must develop a comprehensive marine policy before proceeding, to be certain that transportation in the North is safe, secure, efficient and environmentally responsible, and that it meets the same criteria we apply elsewhere.”

The Ports Policy Directorate is responsible for the policy and legislative frameworks that govern the 17 Canada Port Authorities (CPAs) across the country. CPAs were first established under the Canada Marine Act in 1998. Under the Act, CPAs must, among other requirements, be linked to major rail lines or highway infrastructure to facilitate intermodal movement of goods. They play a major role in achieving Canada’s national and international trade objectives. Collectively, they handle over 280 million tonnes of freight annually, with a value of more than $162 billion.

Mr. Meisner says that creating the CPAs allowed these ports to respond to user needs that ultimately led to the construction of infrastructure that has proved essential to the development of Canada’s trade gateways and corridors. The CPAs have also made port operations more efficient and have fostered a more flexible, commercially based financial environment with greater accountability. These measures encourage investment in port infrastructure and make it possible for CPAs to respond better to ongoing market demands. All of this increases trade and helps build Canada’s economy.

The Ports Policy Directorate has also been involved in supporting the Asia-Pacific Gateway and Corridor Initiative (APGCI). As part of that effort, the unit has established the Asia-Pacific Gateway Performance Table. This brings together stakeholders specifically to examine ways to increase the efficiency, effectiveness and reliability of the supply chains on which the gateway relies. The performance table actively engages all major players in the APGCI, including shippers, international carriers, ports, terminals and labour groups. The table is currently focusing on container movements through the supply chain and has started to examine shipping of grain and bulk commodities.

From a broader perspective, the Ports Policy, and International Marine Policy and Liability directorates work together to assist Canadian exporters and importers. Mr. Meisner emphasizes that “the Marine Policy Branch aims to ensure Canada has the right market-based economic policies and legislation that will facilitate the infrastructure and expertise we need to develop in order for shippers to have reliable marine transportation services at a competitive cost. We have to balance the interests of shippers and the marine industry to achieve that.”

The International Marine Policy and Liability Directorate represents Canada on international bodies such as the International Maritime Organization and the United Nations Committee on International Trade Law (UNCITRAL). These organizations draft conventions and international laws that govern the economic aspects of shipping. The directorate also monitors the shipping laws of Canada’s major trading partners to ensure Canadian laws remain compatible. This allows Canadian businesses to operate more efficiently.

One issue of current interest to this unit is the Marine Liability Act (MLA), which establishes the liability of shipowners or carriers following marine accidents. These include accidents that cause the loss of or damage to cargo. This is currently based on the 1968 Hague-Visby Rules, which are narrow in scope and apply only to the movement of cargo across international waters and to domestic movements only when shippers and carriers agree to issue a bill of lading. In December 2008, UNCITRAL adopted the United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea, which is also known as the “Rotterdam Rules.” The Rotterdam Rules are much broader in scope than the Hague-Visby Rules and may replace them if ratified by a sufficient number of countries.

Canada is monitoring this situation closely. Mr. Meisner says, “Canada will do whatever our industry requires to facilitate trade. For now, we are waiting to see how our major trading partners – the U.S., China, the European Union and Japan – proceed. We will take every reasonable action to support Canadian marine shipping.”

The Shipping Conferences Exemption Act (SCEA) is also important to shippers. This Act permits exemptions from the Competition Act for associations of shipping companies (known as “shipping conferences”) to agree on rates and terms of service. Under section 21 of the SCEA, the Minister of Transport has designated the Canadian Industrial Transportation Association (CITA) to represent the interests of shippers for the purposes of the Act. Mr. Meisner says, “Transport Canada continues to support CITA in that role. For example, we recently arranged for CITA to meet with the Canadian Transportation Agency regarding mediation of disputes. This process would allow shippers to raise concerns either directly or anonymously through a shippers’ association like CITA. It would be less cumbersome than the current complaint mechanism.”

Under Mr. Meisner’s capable direction, Transport Canada’s Marine Policy Branch is working hard to advance Canadian marine shipping by developing policies that respond to the industry’s needs, while balancing the interests of all parties for the benefit of Canadians.

This article was provided by the Marine Policy Branch of Transport Canada.
BUSINESSES TODAY are impacted by a number of global trends that are challenging their international logistics operations. Uncertainty around the global economy has made it difficult for businesses to predict demand and assess appropriate inventory levels, while the search for more cost-efficient manufacturing and labor has required many companies to explore new markets for their products. All of these challenges present opportunities for air freight operations, since the speed, reach and infrastructure considerations of air freight offer businesses extreme flexibility when compared to alternative transportation modes.

Companies that focus on air freight operations expansion as a key business and supply chain strategy stand to benefit from an immediate lift in their international logistics capabilities. Air freight operations can quickly expand to meet the needs of emerging markets.

Gaining Ground in Infrastructure and Speed

One of the greatest proof points of the flexibility of air freight operations centers on infrastructure. Compared to alternative transportation modes that require the development and maintenance of roads or rail systems, air freight and package operations pose a less significant long-term investment in infrastructure systems. By developing adequate runway and distribution center space, air freight operations can quickly expand to meet the needs of emerging markets. Additionally, manageable capacity levels for air freight mean that a cargo plane can quickly be filled with freight to address changing inventory levels.

Unlike ocean cargo operations, air is not limited by proximity or access to ports, though the speed offered by air cargo still proves useful in many established port cities. Recently, we’ve seen
South East Asia taking on more air freight volume, even with its proximity to ports. Take Hong Kong for example, one of the busiest port cities in the world. According to the International Air Transportation Association, Hong Kong is projected to be one of the fastest growing international freight markets in the next few years with a projected 12.3 percent growth rate between 2009 and 2014.

To address the demands of the projected growth in this market, UPS recently launched a Next-Day Air small package and freight service from Hong Kong to Europe. These new flights significantly reduced transit time between Hong Kong and Europe, providing companies with a fast and efficient option when doing business with European trading partners. The rapid speed to market of this air freight service allows companies to respond faster to shifting market demands and in turn, helps them better serve their customers.

Now shipments from Hong Kong can be delivered in one day to 18 countries and 39 cities across Europe, including Paris, Milan, Prague, Frankfurt, Madrid, Barcelona and Copenhagen. Hong Kong is a strategically important market with its proximity to mainland China and well-established trade connections with the rest of the world. With the European Union becoming an important trading partner for many Asian markets, the launch of these flights provided Asian businesses with additional and faster options on these trade lanes.

Leaving Nothing up in the Air for Time-Sensitive and High-Value Goods

In addition to providing extreme flexibility, air freight operations are ideal for time-sensitive and high-value shipments. Air freight can accommodate one-to-three business day, door-to door service for international shipments, including customs clearance and, in some cases, can incorporate on-time performance guarantees. This level of speed and service helps ensure the fast transport and protection of products with special requirements in industries such as healthcare, high-tech and automotive. In order to address the needs of these markets, UPS recently expanded its UPS Express Freight service into two emerging hubs for high-tech, industrial and automotive companies: Israel and Slovakia.

Israel is a key destination in the high-tech sector with major players in the industry maintaining operations in the country. Nearly half of Israel’s exports...
come from the high-tech sector, however the country imports and exports everything from automotive parts to jewelry and precious gems.

Now fully integrated with the EU, Slovakia has developed as a key center for automotive and industrial manufacturing, representing manufacturing operations of some of the world’s largest auto makers. These industries in particular benefit from the time-definite services offered by air freight.

**Air Freight Demand Takes Off in Asian Markets**

When it comes to labor and manufacturing, China is of course a major global player, though recent regional shifts in manufacturing have resulted in the growth of air freight and logistics operations in new areas.

Many international businesses have utilized China’s ‘Go West’ program to move production facilities to attractive alternative locations outside of the coastal cities. For example, the western city of Chengdu is one of China’s fastest growing regions and a focal point for a number of high-profile high-tech manufacturing operations. With the establishment of the Chengdu Chongqing Economic Zone in May 2011, the region is expected to become a major economic center of Western China by 2015 and was included on *FORTUNE’s* 2011 list of 15 best new cities for business.

Currently, Chengdu Shuangliu International Airport is the business airport in Western China and the sixth busiest airport in China, handling 432,153.2 tons of cargo in 2010, a 15.7 percent increase over 2007. Seeing the growth in this region outside of China’s port cities, UPS recently became the first international express carrier to operate out of Chengdu, operating a daily flight connecting Chengdu with the UPS air hub in Cologne.

Air freight is utilized for intra-Asia trade as well. With an eye on the developing trade flows of intra-Asia business originating from the North Asian region, UPS moved its intra-Asia hub from the Philippines to Shenzhen, China in May of 2010. Since relocating, the Shenzhen Asia Pacific hub has strengthened the entire UPS intra-Asia network by operating more than 5,000 flights to and from this hub within the first year and adding significant capacity and service improvements to meet the growing needs of businesses.

**Rising Above Air Freight Challenges**

While air freight plays a major role in international logistics operations, the mode is not without its challenges. Fuel costs and the balancing act between changing capacity levels and rates are two central issues that can be addressed by working with an air freight partner with access to a large global network, cutting-edge technologies and overall efficiencies.

There are a number of flight planning technologies such as Automatic Dependent Surveillance – Broadcast (ADS-B) and LIDO flight planning systems that can be utilized to reduce fuel consumption and increase efficiencies of air freight operations. At UPS, the incorporation of these technologies has resulted in an estimated savings of one million gallons of fuel a year. Also, continued advancements in paperless invoicing, visibility and controls technologies, will continue to streamline the process of global air operations for businesses.

Companies must continue to keep a finger on the pulse of the economy in order to position themselves for success in the coming decades, specifically when it comes to expanding to new global markets. The extreme flexibility of air freight operations make this transportation mode well-suited to continue to play a major role in expanding companies’ global reach in emerging markets and reacting to them first. This is how air freight can deliver a major competitive advantage for companies starting the next chapter of their international expansion.

Scott Aubuchon is director of international air freight marketing for UPS.


---

**Your Customs Broker Speaks Many Languages to Smooth Your International Trade Needs.**

**SIMA** Tariffs change by the minute. Customs Rulings change by the hour. Borders can change daily. Your customs broker never stops keeping you ahead of change. Red tape is our territory; clear thinking is our remedy. Trucks, trains, planes and boats move your goods but your professional customs broker smooths the path.

**CITES**

**D&T**

**EEC**

**FTA**

**GATT**

**GST**

**ISO**

**NAFTA**

Having problems with the 75,392 import tariffs and their regulations? Get professional help and with it, peace of mind and an improved bottom line.

---

**Squamish TERMINALS**

Choose us as your West Coast break-bulk terminal.

www.squamishterminals.com

Squamish, British Columbia
Dynamic Supply Chains are Here to Stay

BY SCOTT W. HADLEY

ONE ARE THE DAYS of legacy supply chains that remain virtually unchanged from one year to the next. The factors pressuring supply chains to become more agile and flexible are many – from the ever-increasing power of the customer to and the rapid globalization and growing complexity of supply chains.

Increased competition continues to put more power into the customers’ hands. This manifests itself in many ways. At one level, lead times are shorter than ever before. Being able to immediately commit to a customer order, then instantly initiating the fulfillment process is no longer a competitive advantage; rather it is merely a requirement of doing business today. At a higher level, the proliferation of the number and variety of products, on top of very short product life-cycles puts additional demands on the supply chain. The traditional focus of supply chain efficiency and cost minimization is no longer enough. Today, and even more so into the future, your supply chain must be flexible, agile, and responsive.

Over the past five years and more, studies of senior executives have consistently reported that effective management of growing (global) supply chain complexity is of increasing importance to enterprise success. They same executives see improvements in supply chain visibility as well as supply chain network design as critical factors in addressing these challenges. In a recent research study of Chief Supply Chain Officers published by the Aberdeen Group, a substantial portion of respondents have plans for either supply chain visibility (84%) and/or supply chain network design (82%) investments (see Figure 1). The majority of those initiatives are planned to take place within the next six to 24 month timeframe.

The Aberdeen results support the prediction (found in a January 2011 McKinsey report) that supply chains of the future are going to be much smaller and agile than the traditional monolithic supply chain. Companies will develop separate supply chains for products depending on the supply and demand attributes of the particular products and markets. The driving force for splintering the supply chains is to enable visibility and agility in daily operations, as well as mitigating risks associated with the ever-changing global economic landscape.

As supply chains become more global and complex the associated risks also increase significantly. Sources of risk come from all fronts including: global and national economics, political unrest, natural disasters, etc. As a supply chain manager, how could you have predicted any of the following recent events: the Arab Spring, earthquakes in Japan and New Zealand, labour unrest in China, the on-going European economic debt crisis? More importantly, how could you have predicted and planned for the supply chain implications of these events?

Some events, such as weather disruptions are temporary and short-lived. Dealing with these situations requires the ability to assess immediate options (e.g. re-routing a shipment, rebalancing

Figure 1: Planned Supply Chain Initiatives (Source: Aberdeen Group January 2011)
existing inventory in the vicinity of the final destination) and respond accordingly. Other events have long term implications. For example, rising wages in a low cost country may change the competitiveness of an existing supplier, making other suppliers (including local) more desirable. To deal with this scenario effectively, one must be able to reconfigure their supply chain network on the fly.

So we may ask – “Where does the transportation/logistics industry fit into this? What are the impacts?”

Supply Chain Visibility

Basically speaking, supply chain visibility refers to the ability to easily access and use information that is related to the execution of the supply chain. For instance: access to in-transit information, inventory levels and production plans of suppliers, sales forecasts and promotion plans of our customers, transportation schedules and rates of various carriers, current wait times at ports and border crossings. At the operational level we don’t argue that having access to this information is very useful. What benefit does the executive see in supply chain visibility? Let’s explore a few examples.

In-transit Visibility

Having visibility, ideally real-time, into in-transit status of individual movements enables operational flexibility in areas such as: cross docking, re-routing instructions to improve likelihood of on-time delivery, bottleneck monitoring and workload smoothing, redirecting orders to areas of higher demand, and DC bypass.

Benefits of this visibility-enabled flexibility include:

- **Lower inventory requirements.** Especially for lengthy (e.g. ocean and trans-continental) shipments the ability to redirect the shipment essentially reduces the time from allocation of, to the receipt of the inventory. This in turn reduces uncertainty which positively impacts the amount of safety stock that must be held across the enterprise. From the executive perspective, working capital is reduced and cash-to-cash cycle times are shortened, resulting in a freeing up of cash. For retailers this can also result in reducing mark-downs and obsolete inventory.

- **Fewer stock-outs, and improved services levels.** For the same reasons as above, it is easier to make sure the correct inventory is in the correct location. This translates into: increased revenue and market share, reduced expediting cost, and lower cost of goods sold (e.g. due to fewer production disruptions due to raw material stock-outs).

- **Reduced lead times.** Shorter lead times in turn reduce uncertainty which again will lower safety stock requirements. It also provides the ability to attract customers which in turn increase revenue and market share.

- **Coordination of multi-carrier hand-offs.** This will reduce idle/waiting time of resources and manpower. From the financial perspective it also reduces demurrage and detention fees.

- **Automated Inventory and Billing.** Having visibility to shipments it becomes possible to bill according to the terms of sale (e.g. as soon as the ownership of the goods has changed hands). This can reduce cash-to-cash cycle times through lowering days sales outstanding and/or inventory.

Supplier/Customer Visibility

Having visibility into the operations, inventory levels and events of suppliers and/or customers can translate into smoother distribution planning and execution. For example:

- **Prioritizing actions to recover from unexpected events.** For instance, if a delivery is delayed for any reason, having access to the inventory levels, material handling schedule, production plans at the destination can provide input into the impact of the delay. If the delay will cause a stock out, then one course of action may be required, it the delivery timing is not as critical then a less costly course of action may follow. This positively impacts: expediting costs, customer satisfaction, cost of goods sold, and selling, general and administrative (SG&A) costs.

- **Expose consolidation opportunities.** Having a broader view, beyond that of individual shipments, can expose opportunities to consolidate and plan transportation more effectively. In turn this can lead to reduced costs of goods sold, and administration costs.

Visibility enabled Innovation in the Industry

In the Spring 2011 issue of The Shipper Advocate Jim Eckler discussed the need to reinvent logistics outsourcing. One example of innovation cited in the article is the creation by a logistics service provider of a service to a group of hospitals. This service manages key activities in the procure-to-pay process including purchase order creation, just-in-time fulfilment, client billing, and payment to vendors. Obviously a service such as this requires high levels of visibility across multiple parties (e.g. suppliers, customers, as well as internal visibility at the logistics service provider).

So, what is the value proposition for such a service?

**For the customer (e.g. hospital):**

- **Consolidated billing.** This lowers the administration and effort which directly reduced SG&A expenses.

- **Consolidated deliveries.** By consolidating deliveries from multiple vendors, congestion in the receiving area is reduced and receiving efficiencies are improved. This in turn reduces Cost of Goods Sold.

- **Reduced order cycle times.** By improving coordination order cycle times can be reduced. In many cases, automation can be enhanced which will result in further reductions. This lowers SG&A expenses while at the same time reduces risk.

**For the supplier:**

**Consolidation of outbound shipments.** Having larger and fewer outbound shipments will improve material handling as well as administration productivity. This will positively impact SG&A expenses.

**For the Logistics Service Provider:**

**Provide higher margin services.** Assuming a large portion purchasing process and the associated transactions, the logistics service provider is able to generate high margin revenue, over and above transportation revenue. Further, they are able to improve transportation efficiencies thereby lowering costs.

Supply Chain Network Design

As discussed in the McKinsey article, splintering a supply into multiple smaller,
Advances in transportation technology are game changers. The barriers of time and distance diminish, trade volumes increase and entirely new industries emerge that drive economic growth and employment. The advent of steam railways made it economic to cultivate crops and ship them to distant markets. This opened up the centres of the continents to settlement and led to the founding of giant cities like Chicago. The development of jet airplanes created worldwide tourism. It became possible for the masses to afford a holiday in the sun or a trip to visit an exotic location. The introduction of ISO sea containers spurred international trade, which directly resulted in the globalization of manufacturing.

Without container ships, China would still be a backward, impoverished nation, instead of the world’s second-largest export economy. The next great game changer in transportation is cargo-carrying airships.

Despite 200 years of industrial progress, large areas of the globe remain inaccessible except by air. The implications of transport airships for Canada’s trade and economic development are significant. Only 30 percent of Canada’s land mass has surface infrastructure. Swamp, muskeg and permafrost block development of Canada’s natural resources and create third-world living standards in remote northern communities. Transport airships would connect Canada’s northern hinterland to the world economy and change our view of remoteness.

Airships are most competitive in continental areas that lack road or rail infrastructure, but as airships get large, they will alter trade flows and corridors now blocked by seas and oceans.

This will not be done in a vacuum. Airships will become a sixth mode of transport and be integrated into a multimodal network. Transport airships will hand off freight at the railheads and to trucks for final delivery to achieve the lowest total cost.

Skeptics often wonder why the skies are not already filled with transport airships, if this technology is so great. The answer is complicated, but the slow introduction of transportation is typical. It took 50 years for the railways to reach the level of development where freight trains became economic. There were enormous infrastructure costs of land acquisition, rail lines to build, and terminals to construct. It all took time and capital, plus research to create steel rails, signaling systems and reliable locomotives.

Passenger airplanes were considered too dangerous for most intercontinental flights during their first 40 years of operation. Their lucky break came with the Second World War, when the combatants built 500,000 airplanes in five short years. Airplane technology leaped from flying boats to high-altitude bombers and jet engines that were quickly adapted to the civilian jet airliners.

Airships — The Sixth Mode of Transport*

By Barry Prentice

*Can you name the other five? Answer on p. 26.
we have today.

Similarly, containerization was tried several times over 30 years before a system emerged that became widely adopted. Growth occurs when the problems are solved and money invested is no longer at risk. With container ships, the development of fast cranes and double-stacked trains provided a way to quickly move containers to and from ports. Cargo ships that used to languish for weeks in the ports loading and unloading are now turned around in 24 hours.

In each case, once a tipping point occurred, the growth of the new transport system became exponential.

Large, modern airships could have been built anytime in the past 25 years, but only now is the combination of supply and demand creating a tipping point. The rise in oil prices and taxes on carbon emissions are set to increase the cost of transportation significantly. In transport airships, the lift is free and pollution is negligible. Granted, these airships will have to be larger than any currently in use to achieve lower costs for airfreight, but there are no technological barriers. What has held the airship industry back is the lack of business confidence. Shippers are uncertain of the performance of airships, and airship builders are uncertain whether or not there is a market.

The game changer that is creating business confidence is the acquisition of large airships by the U.S. military for surveillance, communications and cargo in Afghanistan. The costs and commercial risks are comparatively irrelevant when no other means exists to detect IEDs (improvised explosive devices). Two projects to develop surveillance airships, the LEMV of the U.S. Army and the Blue Devil 2 of the U.S. Air Force, are being funded because they can save soldiers lives. The Office of the Secretary of Defense is funding the Pelican project, through which a cargo airship is being developed because truck convoys are too susceptible to IEDs.

These projects are set to deliver the largest airships since the massive Zeppelins of the 1930s. Once these new giants take to the air, any doubts about the reliability of lighter-than-air vehicles should be put to rest. We will not have to wait long to see these new airships. The military contracts call for delivery of the surveillance airships at the end of 2011. Like the warplanes of earlier conflicts, the airship manufacturers are already designing civilian cargo models that could serve the Canadian North.

These three projects represent different approaches to lighter-than-air transport. Here is how the basic design elements differ. The LEMV, being built by Hybrid Air Vehicles (HAV), combines elements of buoyancy, and aerodynamic and propulsive lift into a non-rigid structure. When empty, this hybrid aircraft is more than 20 percent heavier than air, so it needs no ballast and minimum ground support.

The Blue Devil 2, built by Mav6, LLC, is a traditional cigar-shaped, non-rigid airship. Mav6 has not revealed its ballasting system, but water is the most likely candidate. The Pelican project airship, which is being built by Worldwide Aeros, has a rigid structure and an innovative helium compression system to compensate for cargo exchange. It also has a flattened body designed to take advantage of aerodynamic lift.

At this point, the dominant airship design has not emerged, but these three vehicles will provide a good opportunity to evaluate the technical and economic trade-offs for transport airships.

The British company HAV has signed an agreement with Discovery Air Innovations of Canada to deliver a 50-ton, lift hybrid aircraft based on the LEMV contract. This vehicle is expected to take flight in 2015. One company that is obvious by its absence in the military airship contracts is Lockheed Martin. That company produced and flight-tested the P-791 hybrid aircraft, which is similar to the HAV hybrid, in 2006. Lockheed Martin has a commercial contract with Aviation Capital Enterprises (Calgary) to develop a freight vehicle called SkyTug. A 20-ton lift version of the SkyTug could be available as soon as 2013.

What commercial shippers want to know is whether transport airships are economic for them to use. The answer is undoubtedly yes for shippers that must construct all-weather roads that end up

Illustration courtesy of Discovery Air Innovations
as stranded assets when their resource
find is exhausted. The mining industry
is particularly prone to this problem,
which makes them a prime market for
the introduction of transport airships.
Research at the University of Manitoba
shows that airships with over 30 tons of
lift will be able to compete directly with
ice roads on a ton-mile basis.

How would the advent of large
transport airships change the North?
Remote areas would become accessible
for mining, oil and gas exploration,
and forestry. New mines or petroleum
developments based on airships would
have very small footprints. The advantage
of air transport is its minimal impact on
the terrain and wildlife. Airships would
reduce the opposition of First Nations
and environmentalists that worry about
the damage to the delicate balance of
nature caused by all-weather roads.
Many communities in the North would
emerge as logical operational bases.
Employment in flying the transport
airships and in related service industries
would create new jobs in natural-resource
developments throughout the North.

As the airships become larger, their
economic range of operations increases.
Once airships exceed 100-to-150-ton
lift capacity, they will begin to carry
goods across the North Pole to markets
worldwide. Large transport airships will
require new locations for transshipment
and generate economic opportunities
that do not exist today. Just as other
modes of transport spawned an array of
input suppliers, the construction of large
transport airships will create the need
for new materials, engines, pilots and
avionics, and provide work for many large
and small input suppliers.

In the famous words of former
Canadian Prime Minister William Lyon
Mackenzie King, “If some countries
have too much history, we have too
much geography.” Few countries of the
world have as much to gain from the
introduction of transport airships as will
Canada. Like the economic impact of
railways, airplanes and trucks, transport
airships will alter the fabric of the
Canadian economy in ways that are
positive, but generally unforeseen. Large
 expanses of the North that are isolated
Continued on page 26

**Modes of Airship Operation**
*Diagram courtesy of Aeroscraft Corporation. LTA: lighter than air; HTA: heavier than air.*

---

**AIRSHIP**

**HYBRID AIRSHIP**

**AEROSCRAFT**

---

**continued on page 26**
A NEW chapter in Canada’s competitiveness could soon begin. A coalition of shippers, transportation providers, economic-development agencies, provinces and associations has been steadily pushing Parliament and the Prime Minister, to create a world-class opportunity through a comprehensive recasting of Canadian duty programs. If taken to heart, Canada, which currently does not have a robust foreign-trade zone, or FTZ, program compared with the US and other global free zones, could leapfrog over its competitors with the best-in-class program proposed by the coalition and others within the industry.

The new program has specific, designated and expected outcomes to foster economic development and job creation in Canada. This incentive-based manufacturing and distribution program would elevate Canada’s position in the G8 to best-in-class in terms of trade facilitation and growth. Significant public benefits would accrue across Canada as a result of the program.

Within the new FTZ locations, companies would be able to operate in a more competitive global manner by accessing new duty, tax and trade benefits. These benefits would equip the Canadian businesses that locate within the zones with special tools and incentives that they would normally have access to only if they operated offshore or in the US. One key outcome, therefore, of the new FTZ program would be to increase domestic economic development by providing for the use of the program by domestic Canadian companies that sell products into Canada. This would create new jobs and increase revenue to the nation where today these jobs are moving into the US and Mexico.

The proposed FTZ program would provide a new development protocol for local municipalities that would utilize land-based incentives to generate new growth in jobs and industries. An FTZ would be a tool for municipalities to enhance industrial development within specific industrial sites, thereby providing a layered benefit platform for companies within the manufacturing, distribution, and related service sectors to compete with the US and other G8 nations. These layered incentives would further strengthen the local economies, enhance property values and create new investment opportunities in the region and throughout Canada. Canada already uses Gateway Development Zones within provinces; this enhanced FTZ initiative would follow that same paradigm.

A legislative framework has already been created to provide a simple means to gain approval for a new FTZ in a municipality or province using a streamlined process for applying and enrolling in the program. A regulatory protocol that would be utilized to manage and administer the New FTZ program is also being formulated.

Canada’s FTZ program would be different from the current multi-agency duty-deferral programs, which are cumbersome to manage and not well utilized by Canadian companies. The new program’s land-based employment incentive would help to improve Canada’s global trade standing, by not only retaining jobs in Canada, but also serving as a foundation for creating new industries, new companies and new investment opportunities in Canada. This initiative would elevate Canada onto the global trade platform and enhance the country’s overall trade competitiveness.

The Proposed Federal Benefits of the New FTZ Program to Businesses

Companies that are located inside a new designated FTZ industrial park would be afforded the following benefits from the federal government:

1. The ability to import, store and distribute any goods, and perform manufacturing using those goods. These finished goods can then be sold to retailers in Canada or other world markets without paying customs duties and taxes until the goods are actually removed from the Zone.
Canadian government could level the playing field with the US and Mexico as it relates to manufacturing, without onerous regulations that can easily be circumvented by moving to the US or Mexico and then sending goods into Canada for further processing. The time to move ahead with this initiative is now.

PRESIDENT continued from page 5

there is considerable freight that will always be moved by rail and there is no viable option in any foreseeable future for competition for this traffic by truck or any other mode. This means that the possibility for carrier dominance continues to exist, and the pressures from the investment community on railway managers to take advantage of this pricing power become irresistible.

Just to complete the history lesson, in Canada, the National Transportation Act of 1967 gave Canadian railways considerable pricing freedom. After Penn Central failure, the U.S. Congress finally addressed the problems and passed the Staggers Act in 1980. This gave the U.S. railroads considerable pricing freedom, ended the industry rate bureaus and allowed confidential contracts for the first time. To put Canadian Railways on the same footing, the National Transportation Act of 1987 allowed the Canadian railways to enter into confidential contracts and ended collective ratemaking.

The Staggers Act led to railroad mergers in the U.S. culminating in two large Class 1 railroads in the eastern U.S. (Norfolk Southern and CSX) and two in the west (BNSF and UPSP).

What does all this mean for today? As noted above, the Canadian railway scene is dominated by two carriers, it is not a normally functioning competitive market, and as a result, the law and regulations have generally constrained railway actions. The U.S. rail industry appears to have taken merger activity one step too far resulting in only two significant Class 1 carriers in most parts of the United States. The result, surprise, surprise, is that the pressure on the U.S. Congress to limit the market power of the remaining four major Class 1 carriers is growing and the U.S. Administration, the Congress, and the regulator, the Surface Transportation Board, are beginning to listen.

In Canada, the 2008 revisions to the Canada Transportation Act, the subsequent Transport Canada Rail Service Review, and the announced government actions to implement the review’s recommendations are examples of effective push-back from shippers and other stakeholders to the market dominant behaviour of the railways.

The monopoly-like behaviour of 19th century railroads, who were often described as “robber barons”, led to heavy-handed regulation that almost destroyed the railways. It is not clear that the current crop of North American railway managers, and the investment community, which brings pressure on railway managements have learned the lessons of the 19th century. The stress on “the next quarter’s results” leads to very short-term decision making that is not likely in the best long-term interest of the railways, their customers, their employees, their suppliers, or their all-important shareholders. It appears to be a policy of “short term gain for long term regulatory pain”.

North America needs profitable, viable, innovative, and customer-focused railways. The shipper community needs profitable railways. Shippers sometimes feel the railways don’t exhibit their need for viable and profitable customers. There is, at this time, considerable conflict between the railways and large segments of their customer base on both sides of the border. It will require statesmanship of a very high order by railway leadership and some pushback on the investment community pressure. Only then will mutual trust be restored and will it be possible for railways and their customers to kiss and make up!

R.H. Ballantyne, P.Eng.
MANY ORGANIZATIONS and supply networks are still mired in hierarchical, fragmented, and top-down approaches to supply chain management. Now firmly established as a strategic necessity, successful supply chain management requires a fully integrative approach: employees, processes, technology, functions, and even supply network partners need to be fully aligned and synchronized in order to build capability and thereby gain sustainable competitive advantage.

Squeezed between recession and recovery, supply chain executives need this integrated approach to achieve optimal efficiency and agility in their supply chains. With global commodity and materials costs rising much more rapidly than consumers’ willingness and ability to pay higher prices, the supply chain executive needs new approaches to cost reduction to prevent a further squeeze on already-strained supply chains.

The Supply Chain Canada conference and trade show is co-produced by the Canadian Industrial Transportation Association and Supply Chain & Logistics Association Canada and will be held May 8 and 9, 2012 at the International Centre, Toronto. It uses a peer-to-peer education approach where fellow supply chain professionals share best practices and case studies to equip you with a deeper understanding of the success factors and how to avoid pitfalls.

Building on its record attendance and exceptional program in 2011, the Supply Chain Canada program committee, led by Amanda Tolhurst of Whirlpool Canada, is in the midst of putting together the speaker slate for the 2012 event.

Our keynote lineup includes Chris Mathers, an expert on how recent world events have created security challenges for Canadian businesses. He will explain what you can do to identify threats to your business and address these challenges, protecting your corporate and human assets.

Chris spent most of his adult life working undercover for the Royal Canadian Mounted Police, US Drug Enforcement Administration and the US Customs Service, posing as a gangster, a drug trafficker and a money launderer. He is the author of CRIME SCHOOL: Money Laundering.

As a speaker, Chris’ controversial style describes the secret underworld of gangsters and terrorists, explaining the terms and identifying the characters, in candid, no-punches pulled style.

While today’s professionals think that supply chain is a modern business phenomenon, the military activity known as logistics is probably as old as war itself. The men who provided support to fighters constituted the first logistics organization.

In the early history of man when the first wars were fought, each man had to find his own food, stones, and knotted clubs. Each warrior was responsible for foraging for his own food and firewood. Not until later, when fighters joined as groups and fighting groups became larger, was there any basis for designating certain men to specialize in providing food and weapons to the troops.

From these early beginnings, the true strength of military logistics was born. No conference on supply chain and logistics would be complete without the knowledge and expertise from our armed forces.

In Ontario, we are both proud and humbled by the renaming of parts of the major highway 401 to the Highway of Heroes. Toronto is the final destination for too many fallen soldiers. At the 2012 Supply Chain Canada conference we will welcome a senior military officer who will speak to the logistics of repatriating our troops from the war in Afghanistan. We are sure there will be lessons to be learned about the massive undertaking of bringing home not just the troops, but the infrastructure that supports them.

At the end of the day, every logistics...
undertaking relies on human talent. Robert Martichenko, CEO with Leancor will address the conference on People: Key Aspects of Becoming a Lean Leader. His premise is that organizations have spent significant time and resources implementing Lean principles in their supply chains and businesses at large. However, the focus on process and Lean tools has left some organizations struggling to see long term sustained results. Robert will discuss the most important part of any Lean initiative, the importance of creating Lean Leaders who understand and focus on the power of people.

SCL has undertaken several initiatives over the year to open itself and the doors to the profession to the student body. A reinvigorated student membership paved the way to more students becoming involved. Our student paper competition, supported by SCI Group Inc., has been a long standing annual event encouraging young people to present a paper to the profession. In 2012, we will host our first half day student track with the help of Schulich School of Business and the Canadian Supply Chain Sector Council.

Bob Ballantyne and his team will put together a full day transportation track covering issues, trends and developments in the modes. Tran track topics will include presentations on Ending Shipping Conferences, Fuel Forecasting, Transportation Buying Trends, The Smart Corridor Project and an update on the Canada – US Border.

With many more topics to be covered in themed tracks, our goal is to make Supply Chain Canada the best conference for supply chain management to learn practical information that can be implemented on their return to work. Our cocktail reception, sponsored by the Halifax Gateway Council, will be themed as “an evening in the Halifax Gateway”.

Our conference would not be possible without support from the industry media and sponsors. We are thrilled that Canadian Transportation and Logistics Magazine, Materials Management and Distribution Magazine along with Purchasing B2B have stepped up to the plate as media sponsors for the 2012 event. Through their multiple voices, they will help us develop and drive the content to a broader audience to open the path to dialogue, discussion and learning.

We have also welcomed back many long-term supporters of our sponsorship program. However, we still have a variety of opportunities waiting for you. Whether you take a sponsorship, and advertisement in one of the conference publications or a trade show booth, your support is appreciated.

Please visit us at www.supplychaincanada.com to learn about the event and how you can engage.

We look forward to seeing you at the show.

Bob Armstrong is president of SCL Canada.

INDEX TO ADVERTISERS

AIRSHIPS
Discovery Air Innovations .......... 26

ASSOCIATIONS
Ontario Trucking Association .... IBC
Supply Chain Canada .................. 4

CUSTOMS BROKERS
Summit Custom Brokers .............. 12

FREIGHT SERVICES
ACL ........................................ OBC

PORTS AND TERMINALS
Port of Montreal ......................... IFC
Squamish Terminals ................. 12

Bob Armstrong (SCL) and Bob Ballantyne (CITA)
Recent News Items Focusing on Freight Transportation

CITA President to Head Global Shippers’ Forum

Leipzig, Germany, May 28, 2011

Following the successful meeting of the International Transport Forum (ITF) in Leipzig, Germany, the Global Shippers’ Forum (GSF) announced today it has been incorporated under the laws of the United Kingdom. Today’s decision fundamentally transforms the GSF from an informal alliance of shippers into a better organized, coordinated and consistent global voice for shippers on key issues impacting global transport.

Founding board members of the GSF are James Hookham, Managing Director of Policy and Communications of the UK Freight Transport Association (FTA); Bob Ballantyne, President of the Canadian Industrial Transportation Association; John Lu, Chairman of the Asian Shippers’ Council; and Bruce Carlton, President and CEO of the U.S. National Industrial Transportation League. Chris Welsh of the FTA was appointed as Secretary General of the GSF.

At the meeting of the Board of Incorporation on May 28, the Directors elected Bob Ballantyne, President of the Canadian Industrial Transportation Association as the first chairman of the newly incorporated global body.

“This is a great honour for me personally and it speaks to the important role that Canada plays in the global trading system”, said Mr. Ballantyne. “I look forward to working with my colleagues on the GSF Board of Directors to communicate the concerns of shippers throughout the world to international agencies and government organizations. Our goal is to promote a safe, secure and competitive freight transportation system that will enhance global trade and prosperity” he added.

CITA Supports the Government’s First Step to Re-balance Shipper-Railway Relationship

Ottawa, ON, November 4, 2011

On October 31, the Hon. Denis Lebel, the Minister of Transport, Infrastructure and Communities announced the appointment of Mr. Jim Dinning of Alberta as the facilitator to work with shippers, railways and other supply chain stakeholders. Mr. Dinning’s task will be to develop a template for rail service agreements that will be available to rail shippers. This announcement follows from the government’s March 18 statement where they accepted the Rail Service Review Panel’s recommendations and announced their implementation initiatives.

In their final report, the Panel quoted from the CITA submission that: “Railway freight is not a normally functioning competitive market and this is the fundamental issue underlying all price and service problems encountered by rail shippers”. The government’s actions will help re-balance the commercial relationship between the railways and their customers.

“CITA advocated for changes to the rail provisions of the Canada Transportation Act, which were made in 2008; joined with others in asking for the Rail Service Review as a follow-up to the legislative changes; provided input to the Review Panel; supported the Panel’s recommendations and the government’s implementation plan”, said Bob Ballantyne, President of CITA. “CITA and its member companies look forward to working with Mr. Dinning as he begins this important task”, he added.

CITA is also encouraged by the Minister’s commitment to table legislation that will ensure the right of shippers to a service agreement and appropriate dispute resolution mechanisms.

The CITA has been in existence since 1916 representing the transportation interests of Canadian industry. The 110+ members include companies, both large and small, from most industrial sectors and from all across the country. The CITA member companies contribute approximately $100 billion annually to the Canadian economy and purchase approximately $7 billion in freight services by truck, rail, marine, courier and airfreight.

Global Shippers’ Forum officially Open for Business

July 7, 2011

The newly re-organised Global Shippers’ Forum (GSF) is now officially open for business, with the Freight Transport Association providing its secretariat and Chris Welsh as Secretary General.

The GSF’s brand new website can be found at www.globalshippersforum.com, providing information on GSF and how it represents shippers, how it is run, the board and secretariat, members, services, events, how to join and much more.

The GSF also has its own dedicated telephone number (+44 (0)1892 552384) and fax number (+44 (0)1892 552325) and email addresses. Chris Welsh can be emailed at cwelsh@globalshippersforum.com

Chris Welsh, said: “We are delighted with the enthusiastic reception we have received from governments and other bodies following the re-organisation of GSF. These changes should put it in a better position to participate in the key international bodies where decisions are taken which have an impact on shippers everywhere.”

Founding board members of the GSF are: James Hookham, Managing Director of Policy and Communications of the UK Freight Transport Association; Bob Ballantyne, President of the Canadian Industrial Transportation Association; John Lu, Chairman of the Asian Shippers’ Council; and Bruce Carlton, President and CEO of the U.S. National Industrial Transportation League. Chris Welsh of the FTA was appointed as Secretary General of the GSF.
Bob Ballantyne was elected as the first Chairman of the GSF Board of Directors.

**Bubble Rises on the Water**

*August 4, 2011*

It seemed to come out of nowhere. Last week, there was nothing unusual about the patch of land where Wellington Street North meets the waterfront. Then, almost overnight, a giant, pearlescent bubble suddenly popped up on the skyline.

Residents began calling *The Spectator* asking about the mysterious dome. Is it a soccer field? An industrial storage facility? Some sort of spaceship?

Turns out the dome is the first of two high-tech grain storage units being built by Parrish & Heimbecker, a Canadian agribusiness firm.

“It really does make a striking change to the landscape,” said Ian Hamilton, vice-president of the Hamilton Port Authority. “It looks neat.”

The dome, which is about nine storeys high and about the width of a football field in diameter, was inflated over the weekend. It’s currently made of fabric infused with plastic, but the final product will be concrete. Crews have already begun spraying concrete on the inside of the bubble.

The second bubble will be inflated at the end of April, and the two domes will be ready to store grain by early August.

Each dome can handle 28,000 tonnes of grain and the pair is expected to handle more than one million tonnes in the next decade, Hamilton said.

Parrish & Heimbecker signed a long-term lease with the port authority in August last year for 380,000 square feet of land on Pier 10. The company is spending more than $30 million on this project.

**By the numbers:** Diameter: 58 metres. Height: 27 metres

**Founding Members Sign Basic Principles for New Global Air Cargo Advisory Group (GACAG) and Are “Ready to Go to Work”**

*March 15, 2011*

Air cargo security and e-commerce will be the priorities of the newly formed Global Air Cargo Advisory Group (GACAG) after its four founding member associations finalised and signed the basic principles of the Group at the IATA World Cargo Symposium in Istanbul.

FIATA, the International Federation of Freight Forwarders Associations, the International Air Transport Association (IATA), The International Air Cargo Association (TIACA) and the Global Shippers’ Forum (GSF) also agreed to address the issues of Customs and trade facilitation and sustainability of the global air cargo industry.

Completing the formation of the new group ahead of the original time schedule, the founding members said the advisory group’s role is to establish a vision and strategy for the global air cargo supply chain and to present joint industry positions to third parties, including intergovernmental organizations such as WCO and ICAO. Chairmanship of GACAG’s new Steering Committee will rotate among the members on an annual basis, commencing with TIACA for 2011. They have also agreed that TIACA will serve as the Secretariat for GACAG.

Each member will designate two representatives onto the GACAG Steering Committee, which will direct, supervise and assist Task Forces of technical experts responsible for addressing GACAG’s objectives in relation to security, e-commerce, Customs and sustainability. The individual Task Forces will report back to the committee with recommendations.

In relation to air cargo security, the Security Task Force will focus on four areas:

- Advance electronic information process and timelines to improve aviation security risk assessment
- Consignment security declaration process and layout to provide aviation security regulators with an audit trail of who secured what, how and when
- Supply chain security program guidelines to introduce supply chain security in countries where there is none
- Ad hoc supply chain security issues

The Steering Committee will work on a similar set of objectives for e-commerce, Customs and facilitation, and sustainability of the global air cargo industry. These will be published in due course.

In a joint statement, the heads of the four founding member Associations stated: “The high level of co-operation and commitment from all members has ensured a faster formation of the Not-so-tiny Bubble. Looking like a gargantuan golf ball in a giant water hazard, this grain-storage dome appeared almost overnight on Hamilton’s waterfront. — Barry Gray/ The Hamilton Spectator
Global Air Cargo Advisory Group than was originally anticipated. We believe this reflects the need for such a strong industry-wide voice to address the challenges and opportunities facing everyone in the air cargo supply chain and, ultimately, businesses across the globe that rely on the speed, safety and efficiency of air cargo for their own growth and development. We are now ‘ready to go to work’ with a clear agreement on the prime areas we must focus on and the supporting structure to achieve our goals."

FIATA, IATA, TIACA and GSF commenced the process that has led to the formation of GACAG last November at the TIACA Air Cargo Forum and Exposition in Amsterdam. During the conference, Michael Steen, Chairman of TIACA, Des Vertannes, Global Head of Cargo of IATA, Jean-Claude Delen, President of FIATA, and Peter J. Gatti, Executive Vice President of the U.S.-based shipper organization, The National Industrial Transportation League (NITL) on behalf of the Global Shippers’ Forum (GSF), signed a letter of intent committing to work towards the formation of an industry advisory group to ensure the air cargo industry had a strong, unified voice in its dealings with worldwide regulatory authorities and other bodies whose decisions directly impact on air cargo.

Neil Berry

**Ballast Water and the Great Lakes-St. Lawrence Seaway System**

**November 2011**

What is ballast water? Ballast is defined as any solid or liquid that is brought on board a vessel to increase the draught, change the trim, regulate the stability or maintain stress loads within acceptable limits.

With the introduction of steel-hulled vessels and pumping technology, water became the ballast of choice. Water can easily be pumped in and out of ballast tanks, requires little manpower and, as long as tanks are kept full, poses little to no stability problems.

**A History of Binational Co-operation.**

*DYNAMIC continued from page 14*

more focussed, supply chains a company can improve competitiveness while simultaneously lowering risk.

As an example: for high volume products with relatively stable demand, one can configure a supply chain that is focussed very much on cost minimization. This is a supply chain that can leverage low cost country sourcing, and use inventory to buffer against the risks associated with long lead times and highly variable transportation factors. On the other hand, low-volume products, or those with unpredictable demand, require a more responsive supply chain. Responsiveness can be achieved through the use of local suppliers, local flexible manufacturing facilities, faster transportation modes etc. The McKinsey article describes how, by splintering its monolithic one-size-fits-all supply chain, into four separate focussed supply chains one US-based consumer durable manufacturer was able to improve service levels, reduce lead times from an average of ten days down to three, while at the same time reduce cost of goods sold by 15%. Additionally quality measures improved across the entire product line.

**Conclusion**

We all know and accept that supply chains are undergoing continual metamorphosis and will continue to do so at faster and faster rates. Understanding the increasing importance of visibility, network design and how your role fits into the mix will equip you for the exciting ride into the future.

Scott W. Hadley, Ph.D. is a professor at the Sheridan Institute of Technology and Advanced Learning, Oakville, Ontario.

**Endnotes**


Ballast water uptake is known to pick up plants and animals. The unloading of unmanaged ballast water in Great Lakes ports is one way that potentially invasive species can be introduced into the waters Canada shares with the United States of America (U.S.). For this reason, our two countries have co-operated closely in establishing regulations to manage ballast water discharges and reduce the risk of invasions. All vessels arriving from overseas are required to exchange ballast water in mid-ocean before arrival. This practice involves replacing ballast water picked up in port with saltwater from the open ocean. Ballast water exchange reduces the number of potential invaders in ballast tanks and also reduces their survival after they are discharged into the freshwaters of the Great Lakes. Even if ships are not carrying ballast, they are still required to flush residual tank contents with open ocean water to reduce the number of seeds, spores and eggs. These binationally compatible regulations have provided safety for ships, crews and the environment while ensuring consistency with international treaties.

Today, all vessels entering the St. Lawrence Seaway from outside Canada’s exclusive economic zone are inspected under a binational program before they enter the Great Lakes. This enforcement action ensures full compliance with exchange and flushing requirements, as ships must either already meet the regulatory requirements or take corrective action to meet them. Scientific research has shown that this program is effective, and recommended it for other freshwater ecosystems around the world. Since this binational inspection system was implemented in 2006, no new non-native species attributed to ships’ ballast water has been reported in the Great Lakes.

**Overview.** The Government of Canada wants to reduce the risk of aquatic species invasions from ships’ ballast water. This is of particular concern in the Great Lakes and St. Lawrence Seaway System. This binational trade route supports tens of thousands of jobs on both sides of the border. It serves as a critical transportation corridor for commodities such as iron ore, coal, minerals and grain. Canada’s strong and effective ballast water regulations recognize both the...
environmental and economic importance of the Seaway.

The State of New York’s upcoming unachievable requirements are delaying installation of protective treatment systems and threatening to stop traffic on the St. Lawrence Seaway. Canada continues to strengthen its ballast water regulations, having ratified an international ballast water convention. Canada invites New York to join international efforts that are increasing environmental protection through rules that are compatible across jurisdictions and can be implemented now.

Canada’s Concerns with New York’s Requirements. In 2008, in response to a court action in the United States, the Environmental Protection Agency (EPA) began regulating ballast water discharges under the Clean Water Act. The Act requires U.S. states to approve the EPA’s ballast water requirements and allows states to add conditions that apply to vessels while in their waters. This has resulted in a patchwork of inconsistent requirements for the Great Lakes.

New York’s upcoming requirements, which take effect in 2013, are at least 100 times more stringent than those of the International Maritime Organization. Canada has three main concerns with these unachievable requirements.

1. Approved ballast water treatment systems are not available to meet the required standard. The EPA Science Advisory Board recently concluded that no current treatment system types will be able to meet New York’s standard. The requirements are therefore creating uncertainty for shipowners and delaying installation of available ballast water treatment systems. This in turn delays environmental protection.

2. It is not possible to test systems to the level required. There is no approval protocol to test the operation of ballast water treatment systems beyond the International Maritime Organization’s standard. Testing these systems is a complex and difficult process, requiring significant laboratory work and large volumes of water. The EPA Science Advisory Board recently concluded that current available methods prevent testing of New York’s standard.

3. The requirements apply to all vessels operating in New York waters, regardless of whether they plan to discharge ballast water. As two Seaway locks near the entrance to the Great Lakes lie within New York waters, enforcement of the requirements on transiting ships would stop commercial traffic on the Seaway, including domestic ships travelling between Canadian ports. Additionally, Canadian shipments to and from the Port of New York and New Jersey would be curtailed.

The economic impact of New York’s requirements would be substantial. A recent economic study concluded that closure of the St. Lawrence Seaway at New York’s locks could affect almost $11 billion in business revenue and over 72,000 jobs in Canada and the U.S. Of these jobs, over 31,000 are directly at risk in marine services and in industries that depend directly on ports. A closure of the Seaway and the Port of New York and New Jersey would disrupt the shipment of approximately 44 million metric tonnes of cargo (annual average), representing the inputs and outputs of key industries such as agriculture and steel.

Canada’s Approach. As invasive species do not recognize international boundaries, scientists advise that an ecosystem approach, rather than a patchwork of requirements, is the best way to protect the Great Lakes. Canada has recognized that strong new international rules are needed to ensure timely adoption of treatment systems by the global fleet that carries North America’s trade. Thus Canada is working closely with other nations to strengthen its rules and require vessel operators to adopt internationally accepted measures and use approved ballast water treatment systems. For that reason, Canada recently ratified an international ballast water convention that requires vessels to be equipped with treatment systems that “effectively, reliably, and dramatically remove live organisms from ballast water under the challenging conditions found on active vessels.”

Canada would like to see approved ballast water treatment systems installed on ships as soon as possible so that they can begin to increase environmental protection in the Great Lakes and around the world. This would also improve safety for ships and crews. An estimated 68,000 ships are expected to install treatment systems before 2016 in order to comply with the convention. Acting now will create the certainty that will make it possible for shipowners to finance capital investment – estimated at $1 million per ship on average – in systems that are designed to last decades. In light of this, Canada has asked New York to adopt an internationally compatible approach, especially for transiting ships.

Canada values the long-standing co-operation we have enjoyed with the U.S. in managing our navigable boundary waters. Now we must work together to find a compatible approach to ballast water regulation that is practical and protective, and that satisfies all regulators.
Like driven, focused, highly motivated, energetic and dynamic begin to emerge. “Not many theses ever leave the pages and become a fruitful business,” he adds, referring to the thesis that Bryson began to develop at the University of Guelph. “If there are issues that require attention, he’s not one to sit idly by and let someone else try to solve it.”

That is the type of commitment which led Bryson to commit time to the CITA, recently serving as the organization’s chair. He suggests the initial involvement was for selfish reasons, so he could learn how systems would work; how rail, truck and marine would interact; whether long-combination vehicles would be allowed to run from Windsor to Halifax. “They were a terrific resource,” he says. “The more time I spent asking questions, the more I became engaged.” It was the type of information that made it possible to conduct real research, and not rely on assumptions.

“It was pretty obvious he was a pretty innovative guy,” Ballantyne says of his early impressions. When Bryson comes to a boardroom table, the supply chain executive is analytical, but he still respects the need of an individual.

One common theme that emerges when talking to people who have worked with the award winner is that he is never willing to settle for the status quo. “It’s what haunts me every day,” Bryson says with a chuckle. “There are a lot of times I wish I could relax and accept things as they are, but the fun in it is just looking for the better way.”

The focus came through when Bryson was chair of the CITA, and led a coalition of rail shippers who were able to introduce changes to rail provisions in the Canada Transportation Act. “That was a once in a lifetime opportunity,” he adds, referring to how the preparation, research and meetings led to changed laws. “That was huge to a little Prairie boy.” The individual changes under Bill C8 may not have been revolutionary on their own, but collectively they helped to introduce more dialogue than ever before, he suggests. More shippers are engaged. Transport Canada officials understand the industry better. “There was no silver bullet. It was 100 little things,” he says. “We learned how to learn.”

The learning is hardly about to stop. Bryson is now looking at markets across the world, to see how their different transportation models might work in Canada. Europe tends to be more advanced when it comes to short-sea shipping on a small scale. There are coastal terminals which receive salt water vessels and then reship everything inland by water, with almost no rail or truck movements at all. Different vessel sizes range from those that carry 100 tonnes of feed grain to the equivalent of a full-sized laker. “There are 100 different sized vessels that are designed in servicing the need, not defining the vessel size first and trying to get it to fit every application,” Bryson says. The smaller barges that travel down the Rhine River in Germany may not have any place in the middle of Lake Superior, but maybe there is something to be learned in the way shipments are loaded and unloaded.

Wallaker says that ongoing curiosity makes working for Bryson so enjoyable. “It’s refreshing. It keeps you energized. It’s never dull, and at the end of the day you’re continually learning and growing as a company, as individuals. And I think his drive, his motivation, his energy, his creativity is contagious,” he says.

“It’s hard not to be motivated by him.”

Article courtesy of Canadian Transportation & Logistics magazine – April 2011.

AIRSHIPS continued from page 17 and ignored will become the economic drivers of the new economy.

Modern airships are set to annihilate the barriers of space and distance that have constrained the population of Canada to a narrow strip of land huddled along its southern border with the United States. No one will look at a world map the same way once airships take their rightful place as a sixth mode of transport.

Barry Prentice is a professor of supply chain management at the University of Manitoba.

Answer: air, rail, ship, truck and pipeline.
What is a penny worth to you?

Not much you say? You probably take them for granted and throw them into a jar somewhere. There’s even talk of getting rid of them. But, if you are lucky enough to own a rare 1936 “dot” Canadian penny – there are only three known to exist – you have something very valuable. In fact, at a recent auction in New York, one of these pennies fetched $400,000.

What is truck service worth to you?

Some shippers may think that trucking service is as ubiquitous as the common penny. And, like the penny they may take truck service and their carriers for granted. But, even with a modest turnaround in economic activity, capacity in the trucking industry is starting to tighten. Over the longer-term, the demographics of the trucking industry and tighter rules on safety performance and driving hours guarantee a critical shortage of truck drivers and even tighter capacity. Like the 1936 penny, available trucking capacity will become like gold to shippers wanting to ensure their goods get to market. Your relationship with your carrier will become more important than ever.
Safe  Secure  Spacious

FIVE STAR
SERVICE

RORO and Container Service to Europe, West Africa, Mediterranean and the World.

ACL
800-ACL-1235 • www.ACLcargo.com