<u>The Cumulative Impact of U.S. Import Compliance Programs at the Canada/U.S. Border on the Canadian Trucking Industry</u>

Donald A. McKnight, President, DAMF Consultants Inc.
and
Louis-Paul Tardif, Principal, L-P Tardif & Associates Inc.

1. INTRODUCTION

In 2004, total trade with the United States was approximately $557 billion. Over one-third of Canada's gross domestic product or $348 billion is dependent upon export trade to the United States or 85% of Canada's total exports in 2004. Trucks hauled 62% of Canada-U.S. trade in 2004 (53% of exports, 78% of imports). There are about 14 million truck crossings a year across the Canada-U.S. border, 75% of which represent Canadian trucks. About 67% of this trucking activity goes through the top six border crossings in the country. Thus, any programs or measures affecting the flow of trucks across the Canada-U.S. border can have significant impacts on the Canadian trucking industry as well as on the Canadian economy as a whole.

Following the tragic events of September 11, 2001, the Canada-U.S. Smart Border Declaration was signed on December 12, 2001. Often referred to as the Manley - Ridge Accord, the Declaration outlined a 30-point Action Plan that provides for ongoing collaboration between Canada and the United States in identifying and addressing security risks while efficiently expediting the legitimate flow of people and goods across the Canada-U.S. border.

Several measures and programs have been put into place by both the United States and Canada since September 11, 2001 affecting trade flows and potentially impacting on motor carriers and drivers crossing the border. In the United States, the USA Patriot Act, the Homeland Security Act and the U.S. Trade Act are all examples of security legislation that have been enacted since 9/11.

The key U.S. security measures emanating from U.S. security legislation/regulations/policies that are presently in place and impact upon the Canadian trucking industry are:

- **Advanced Electronic Presentation of Cargo Information under the U.S. Trade Act**. Except for some very specific cargo release processes, pre-arrival information became mandatory (i.e., one hour in advance) in late 2004 and early 2005 before trucks arrive at the U.S. border. The key cargo release mechanism under this regime is PAPS (Selectivity Pre-Arrival Processing System). PAPS is a U.S. Customs and Border Patrol (CBP) border cargo release mechanism that utilizes barcode technology to expedite the release of commercial shipments. A mechanism that was actually available prior to the events of 9/11, PAPS provides importers or shippers a module to electronically transmit entry summary data to CBP via customs brokers.

- **Customs-Trade Partnership Against Terrorism (C-TPAT).** C-TPAT is a joint U.S. government-business initiative to build cooperative relationships with the owners of the supply chain: importers, carriers, brokers, warehouse operators and manufacturers. C-TPAT is a fundamental pre-requisite to become FAST approved.

- **Free and Secure Trade (FAST).** FAST is one of the initiatives of the Manley-Ridge Accord. It is a voluntary program to facilitate trade between Canada and the United States and is not in itself a security measure. However, FAST plays an integral role in many of the security measures.

- **United States Food and Drug Administration (FDA) prior notice arrival.** The Public Health Security and Bio-Terrorism Preparedness and Response Act of 2002 (Bio-Terrorism Act) requires that FDA receive prior notice of two hours for food imported or offered for import into the United States.

2. STUDY OBJECTIVE AND SCOPE

The objective of this study was to assess the cumulative impact of U.S. freight transportation security measures on Canadian motor carriers operating into the United States. The study attempted to be as representative as possible across the broad spectrum of the various Canadian trucking industry segments (i.e., for-hire carriers, private carriers and owner-operators) as well as to reflect a representative sample of carriers making border crossings across Canada's major regions, namely, Atlantic Canada, Quebec, Ontario and Western Canada.

3. STUDY APPROACH AND METHODOLOGY

The study relied extensively on a consultative process with a broad spectrum of industry stakeholders that involved primarily motor carriers, but also shippers, industry associations, customs brokers and government officials. A structured interview process was carried out for each of the three main trucking segments: for-hire carriers, owner-operators and owners of private fleets as well as with some key shippers representing various economic sectors. This consultation took place over the January to March 2005 time period. A literature review and an extensive examination of all applicable U.S. import compliance and security programs were also carried out as part of the research work program.

4. CARRIER SURVEY RESULTS

4.1 Profile of Respondents

The assessment of the cumulative impact of the U.S. security measures was based mainly on the responses received from 28 for-hire carriers, 13 owner-operators, 2 private carriers and 7 shippers. For-hire carrier transborder revenues in the sample represented on average 48% of their total revenues, almost identical to the overall industry average of 47% as reported by Statistics Canada. The respondents represented all regions across the country and a wide range of fleet sizes from one tractor (i.e., owner-operators) to some of the largest fleets in the country. The total fleet size of the for-hire carriers in the sample was close to 6,400 tractors; 68% were truckload (TL) carriers, 14% were less-than-truckload (LTL) carriers and 18% of the carriers had operations carrying a mix of TL and LTL freight.

4.2 Participation in C-TPAT and FAST Programs

With respect to the U.S. security measures, over 80% of the for-hire carriers had been FAST approved by CPB at the time the survey was carried out. Some of the remainder were in the process or had been given conditional approval. For their drivers, the number dropped to about 60% although the vast majority of the remaining drivers were in the application process. In contrast, only about 10% of their clients were FAST approved on average. About one-third of the carriers had no shippers that were FAST approved. This result has of course serious implications for those FAST approved carriers that want to use the more expeditious FAST lanes at the border. The situation is even more serious for LTL carriers who must have all their shipments inside a van (which on average could represent on average 10 different shippers) involve FAST approved shippers in order to use a FAST lane at the border.

4.3 Participation in U.S. Border Customs Clearance Procedures

Carriers were asked what percentages of their southbound transborder shipments make use of each of the various U.S. customs procedures before and after the requirement that all cargo manifests must to submitted electronically to CBP at least one hour before trucks arrive at the U.S. border.

In addition to the PAPS program described earlier in this paper, there are two other principal U.S. customs procedure programs involving the advanced electronic presentation of cargo:

- **The National Customs Automation Program (NCAP)** that is used primarily by the automotive industry. It allows the processing of 50 shipments on one barcode that is tied to specific shipments and a specified piece of motor carrier equipment. Under NCAP, importers and their designated brokers apply to the CBP to establish accounts. NCAP was first introduced in 1998 with a 15-minute pre-arrival notification rule. This was extended to 30 minutes when NCAP was placed under the FAST program.

- **The QP/WP Transaction** is available for all in-bond shipments when the shipment is not released at the port of entry but at an inland U.S. custom port where it is destined. QP/WP allows customs brokers to transmit in-bond transactions electronically and receive authorization directly from the CBP. The information must be transmitted one hour in advance of arriving at the U.S. border.

There are also two U.S. customs cargo release processes that are still exempt from the advance electronic cargo information requirement:

- **Border Release Advanced Screening And Selectivity (BRASS)** that is designed for high-volume, repetitive shipments of the same product with importers, shippers and brokers of highly compliant cargo (largely automotive parts) from companies that have been pre-approved and assigned alphanumeric identification bar codes. The product or products moved by a given importer-shipper-broker group must be approved for that group. Under BRASS, no other information (e.g., carrier, driver) is required by CBP if everything in order. As of May 1, 2005 any BRASS shipment not hauled by a FAST registered driver was denied entry into the United States and into Canada. If shippers are unable to secure a FAST driver to get the BRASS load across the border, BRASS shippers are switching over to PAPS and following pre-notification procedures. The CBP are not now accepting any new BRASS applications.

- **Customs Automated Forms Entry System (CAFES)** is a CBP service that allows parties authorized by CPB, the use of standard barcodes and scanners to expedite the processing of in-bond documentation. CAFES provides the necessary information that allows edit checks within seconds of scanning the barcode document. This allows CBP to release CAFES shipments from the primary booth almost instantaneously.

The responses of the Canadian for-hire carriers to the use of these U.S. customs border procedures are presented below. The results have been weighted based on the number of southbound transborder trips that each carrier made in 2004. Figure 1 below presents the percentage use of U.S. customs procedures prior to the requirement that all cargo manifests be submitted electronically. Bonded shipments include both customs broker bonded shipments (QP/WP) and carrier bonded shipments (CAFES).

Figure 1: Usage of U.S. customs procedures prior to requirement to submit cargo manifests electronically

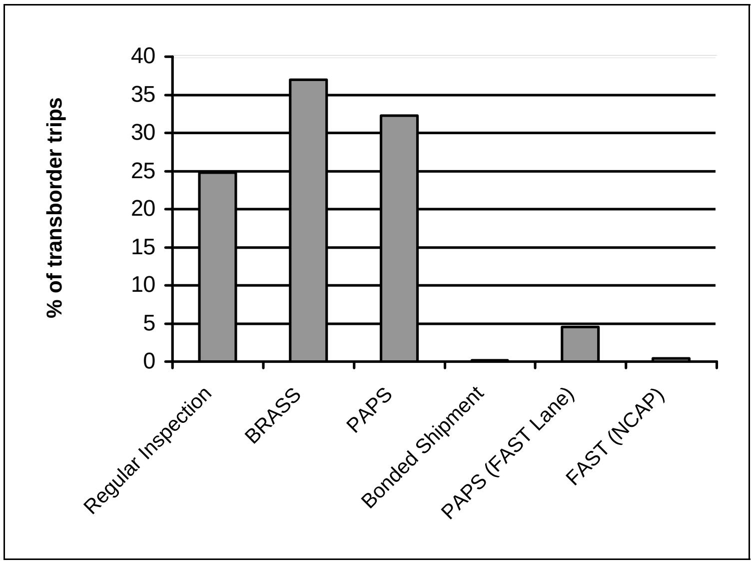
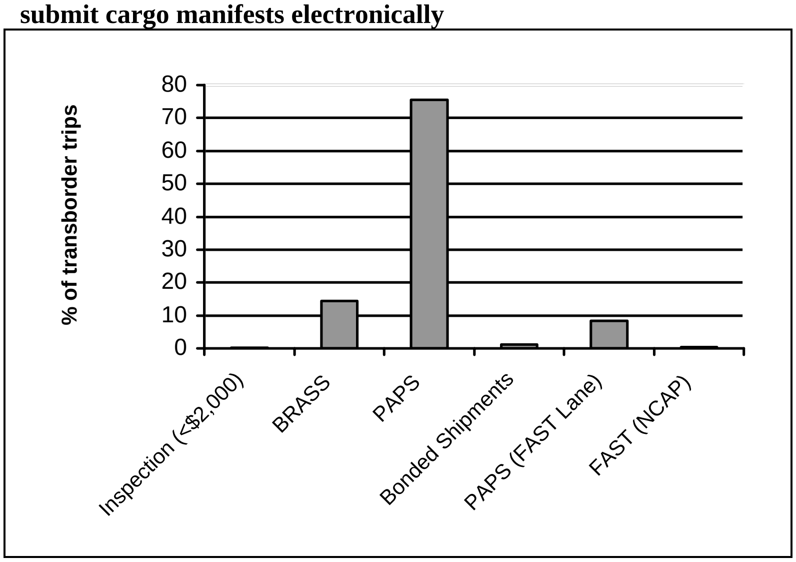


Figure 2 below presents the projected use in 2005 of the various U.S. customs procedures with the requirement that all cargo manifests be submitted electronically if the cargo value is over $2,000 (U.S.).

Figure 2: Usage of U.S. customs procedures with requirement to submit cargo manifests electronically



The most striking difference between the two figures is the dramatic increase in the use of PAPS and a similar decrease in the use of BRASS (which requires the use of FAST drivers as of May 1, 2005).

Prior to the electronic requirements for manifest submission, BRASS was used more than PAPS (37% to 33%) for the sampled carriers. Under the new procedures, the use of PAPS more that doubles to 75% while BRASS (using FAST drivers) drops to a 14% usage.

5. IMPACTS OF U.S. BORDER SECURITY MEASURES

The U.S. border security measures have had a direct and negative impact on the costs and operations of Canadian motor carriers since 9/11. Time delay was the key factor both at the border as well as inland due to the pre-notification procedures and the additional processing time taken by customs brokers. The authors have estimated that between one hour and one and a half hours have been added to the average transit time for truck movements crossing the U.S. border due to the U.S. security measures after reviewing and considering all the evidence and research carried out.

Other factors could play a role in truck delay such as lack of bridge capacity, too few processing stations open, etc. However, truck volumes crossing the border have actually decreased since the year 2000 as illustrated in the table below.

Table 1. Two-way Cross Border Truck Traffic

Two-Way Border Crossings for Trucks (millions)[1]					
Year	2000	2001	2002	2003	2004
Total	13.64	13.18	13.46	13.20	13.45

Therefore, one has to question what other factors could have come into play that would contribute to an increase in border delay. At this stage, the conclusion of the authors is that the increase in border delay estimated in this study since 9/11 should be attributed to the U.S. security measures.

The cost of truck delay on an hourly basis has been cited in a number of previous research reports. Until further research can be carried out, the authors selected a minimum-maximum cost range of $60 to $75 per hour for the purposes of this study.

Other more visible costs that have also been incurred are:

- Driver costs including training, acquisition of FAST cards, bonuses for border crossings, etc.

[1] Source: Transport Canada, adapted from Statistics Canada, International Travel Section.

- Investment in installations (e.g., security cameras, lighting, fencing) to become C-TPAT compliant.

- Administrative and data transmission costs related principally to using PAPS.

- Additional investments in programming and computer system costs.

On the other hand, carriers have not yet perceived any concrete benefits from the U.S. border security measures. However, some carriers are charging shippers a security surcharge to account for increased border delay and other security costs. This has helped certain carriers to offset some of the costs caused by the U.S. security measures.

In 2004, there were 13.45 million two-way truck movements or about 6.73 million one-way truck trips[2]. This number includes both U.S. and Canadian carriers, full and empty trailers and private trucking fleets. It is estimated that Canadian for-hire carriers generated about 3.85 million loaded one-way trips or about 57 % of the total one-way truck trips in 2004 based on the following assumptions:

1. Loaded trucks are estimated to represent about 83% of total truck movements (i.e., 17 % of the southbound trips are empty trucks)[3].

2. Private trucking fleets are estimated to represent about 7.5 % of total truck transborder movements[4].

3. Trucks belonging to Canadian trucking firms represent about 74.5 % of the total truck crossings[4].

The for-hire carriers in the sample generated over 207,000 southbound transborder trips in 2004 or about 5% of all for-hire

[2] Source: Transport Canada, adopted from Statistics Canada, International Travel Section.
[3] This is an average of two sources: 1) the Bureau of Customs and Border Protection, Department of Homeland Security, *Regulatory Impact Analysis Advanced Electronic Filing System*, November 13, 2003 at 10% and 2) Ontario Ministry of Transportation based on Ontario data from the Commercial Vehicle Survey/Transport Canada National Roadside Survey at 24%.
[4]Ontario Ministry of Transportation based on Ontario data from the Commercial Vehicle Survey/Transport Canada National Roadside Survey.

Canadian trucks crossing the border in that year. Based on this sample size, the cost impacts on the entire Canadian for-hire trucking industry for transborder shipments were estimated.

The table below summarizes the cost impacts on an annual basis incurred to-date by the Canadian trucking industry as a result of the U.S. security measures. The cost impacts were based on the responses and the sample size of the for-hire carriers in this study. Due to the variations in the cost estimates provided by the responding carriers as well as between the numbers presented in other studies, cost ranges (i.e., minimum-maximum) have been introduced for the purposes of this preliminary, "order of magnitude" assessment of the cost impacts.

Cost Impact Summary
($ millions/annum)

Cost Impact Item	**Minimum Cost**	**Maximum Cost**
Truck delay	231.0	433.0
Driver compliance	3.4	6.8
C-TPAT compliance	5.0	10.0
Computer systems	2.5	5.0
Administration	14.0	28.0
Cost impact sub-total	255.9	482.8
Less: Border surcharges	77.0	77.0
Net cost impact	178.9	405.8

Therefore, the resultant annual cost impacts of the U.S. border security measures on the Canadian trucking industry is estimated to range from $179 million to $406 million in 2005 dollars. A mid-range number would be in the order of $290 million per year. To put this in perspective, this figure represents about 4% of total Canadian for-hire, long-distance trucking industry transborder expenses assuming an operating ratio of 0.95 on transborder revenues of $8 billion in 2003[5].

[5] Source: Statistics Canada, Trucking in Canada, 2003

6. CONCLUSIONS AND RECOMMENDATIONS

The other major conclusions of this study and associated recommendations that pertain directly to the Canadian trucking industry are as follows:

- **Increased truck delay is the key factor in the cost impact of the U.S. security measures on Canadian trucking operations.** Truck delay at the border and inland due to the pre-filing requirement of the CBP have had the greatest cost impact on Canadian trucking operations as determined by this study. A number of issues have been identified by this study that are contributing to this factor. Aside from the continued need to improve infrastructure and processing facilities at the border, it is recommended that: 1) the pre-processing initiatives already commenced by some bridge authorities and some third party commercial vehicle processing centers be encouraged and expanded for other gateways across the country where feasible; and 2) the customs broker industry continue to improve and standardize the procedures for the processing of invoices and its communications with carriers.

- **The U.S. security measures are still in a period of evolution at this time**. The Automated Commercial Environment or ACE program for example, whereby carriers will send electronically truck manifests directly to the CBP is still in the early stages of adoption. Some carriers are already certified ACE participants but full implementation is not expected before 2007. ACE will be a major shift for carriers in the way data is transmitted to the CBP. It is recommended that an update of this study be undertaken once ACE has been fully implemented.

- **There is a serious lack of FAST approved shippers that is hindering the ability of Canadian carriers to take advantage of potential benefits from the U.S. security regime.** It is recommended that appropriate strategies and programs be developed in a collaborative effort between industry and government to encourage, train and assist small and medium size businesses to become C-TPAT compliant and FAST approved.

- **The U.S. security measures are exacerbating the driver shortage for transborder traffic.** There are a number of reasons for this situation. From a security point of view, it is recommended that every effort be made by customs officials to accommodate drivers to become FAST approved and appropriate training programs be developed here in Canada regarding the U.S. security measures and the implications for drivers.

- **The measurement of time delay and associated costs needs refinement.** The biggest cost impact of the U.S. security measures as determined in this study is due to truck delay. However, the main variables in the equation: the true economic cost per hour of a typical truck movement from the perspective of the motor carrier and the actual delay that is occurring, are only rough estimates at present. It is recommended that further research be carried out on a more rigorous basis to: 1) measure time delays that are actually being incurred by trucking companies both at the border and inland; and, 2) determine the true economic costs of these delays**.**

- **The economic impacts of the U.S. security measures extend beyond the trucking industry.** It is recommended that every effort should be made by all sectors of the Canadian economy to conform (e.g., become C-TPAT compliant and FAST approved) to the U.S. security measures as soon as possible.

ACKNOWLEDGEMENTS

Transport Canada, the Ontario Ministry of Transport and the Federation of Québec Chambers of Commerce in collaboration with the Ministry of Transport Québec, provided funding for this study. In addition to the funding partners, two other provincial transportation departments- New Brunswick and Manitoba as well as two other industry associations- the Canadian Trucking Alliance and the Owner-Operators' Business Association of Canada participated on the Steering Committee established for this study.

The opinions contained in this paper are solely the responsibility of the authors and do not necessarily reflect the views of the above-named organizations. The authors and sponsors are grateful for the assistance of the firms who participated in the surveys.

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