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Federal Initiatives Can Be at Odds with Regional Ones

Border Policy Research Institute

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As Canadian and U.S. federal officials begin to implement the “Beyond the Border” Action Plan, seeking to cure the ailments associated with our shared border, they must be mindful of the cardinal lesson learned by doctors: “First, do no harm.” There are many laudable tasks identified in the plan, but there are also some initiatives that are at odds with the conditions prevailing at the Cascade Gateway, or with successful initiatives already present in the region. Good communication must be maintained between the region and the capitals if harm is to be avoided.

Introduction. At the Cascade Gateway crossings that serve the I-5 corridor, vigorous initiatives aimed at improving border mobility have been underway for years. Strong cross-border forums exist, and through those forums a number of projects have been undertaken, resulting in changes to both inspection processes and infrastructure. Meanwhile, the Canada – U.S. federal “Beyond the Border” (BTB) initiative was launched 14 months ago, and the first BTB Action Plan was unveiled in December 2011. As regional stakeholders evaluate the content of the BTB Action Plan they find much to applaud. However, they also notice aspects of initiatives included in the plan that might be at odds with regional assets and/or realities. This article discusses four such aspects, as well as one instance in which a regional asset is threatened by other events unfolding at the federal level solely within the U.S.

Trusted-Trader Programs. The BTB Action Plan proposes enhancements to the suite of trusted-trader programs now in use. In the “model” arrangement under the current paradigm, a dedicated highway lane and inspection booth are available to a cross-border movement that is fully vetted, meaning that the shipper, the driver, and the trucking company are all enrolled in applicable programs. The suite of programs is colloquially referred to as FAST, and the Cascade Gateway region was among the first to provide dedicated FAST infrastructure in both the north- and southbound directions. Unfortunately, we came to find that our dedicated FAST facilities received little use. A number of studies were undertaken, providing insight into why this was so: i.e., though many of our region’s drivers and trucking companies had enrolled in the program, few of our shippers had done so, apparently finding that the associated benefit was insufficient. Ultimately, stakeholders directed their attention to a reallocation of facilities, and a pilot test revealed that overall freight mobility could be greatly improved by using all inspection booths to handle all trucks rather than reserving one booth for FAST trucks. Today, the B.C. Ministry of Transportation is engaged in the reconfiguration of the southbound truck plaza and highway lanes at the Pacific Highway crossing, seeking to optimize cross-border mobility for both FAST and non-FAST trucks.

† FAST is a unified binational program applicable to drivers; CSA and PIP are Canadian programs applicable to shippers and trucking companies; C-TPAT is a U.S. program applicable to shippers and trucking companies.
The BTB Action Plan acknowledges that FAST has not been well received in all regions and by all industry sectors. The plan therefore proposes to offer a new “Tier 2” option in addition to the current paradigm (now recast as “Tier 1”). The plan intends that Tier 2 will attract more shippers to FAST, and specific mention is made of extending new benefits to Tier 2 members. At the Cascade Gateway, we’ve just finished optimizing our ports to accommodate the traffic mix found under the existing FAST paradigm. Changes to FAST could conceivably lead to greater program uptake by regional shippers, thus altering that traffic mix. More importantly, if agencies decide to revise the eligibility criteria for use of the FAST lane (e.g., grant access to some subset of the new Tier 2 enrollees, or to movements in which driver and trucking company—but not shipper—are enrolled), the traffic mix could change dramatically. Under such scenarios, the newly optimized Pacific Highway port might soon exhibit deficiencies. Make no mistake—regional stakeholders know that changes to the current FAST paradigm are needed. But what also is needed is adequate advance knowledge of proposed program modifications so that stakeholders can understand possible ramifications and proactively make necessary changes.

RFID-Enabled Documents. The BTB Action Plan promotes the use of Radio Frequency Identification (RFID) technology as a means of facilitating cross-border travel. An RFID-enabled document contains a microchip that is queried by radio equipment positioned upstream of an inspection booth, with the result that information about the cardholder is displayed on the inspector’s computer screen by the time the car reaches the booth. The presence of that information reduces the need for the inspector to collect and scan documents, so the inspection process is more rapid. NEXUS is the “gold standard” RFID-enabled document because cardholders are vetted against criminal databases by both USCBP and CBSA, and these “trusted travelers” are thus subject to abbreviated questioning at the booth. No such vetting is required in order to obtain other RFID-enabled cards, such as state and provincial Enhanced Driver’s Licenses and the PASS card issued by the U.S. State Department. While the holders of such cards are subject to a normal interview at the booth, clearance is still more rapid than is achieved with non-RFID documents such as passports and birth certificates.

Issue: USCBP has begun to offer a “Ready Lane” (in addition to NEXUS) at Peace Arch. Meant to aid cross-border mobility, the lane is available only to vehicles in which all occupants possess RFID-enabled documents. Unlike NEXUS, no dedicated highway lane leads to the Ready Lane (think of it as a “Ready Booth”), so the booth doesn’t constitute a huge time-saver, but users at Peace Arch can shave a few minutes off the normal wait-time. The booth is an incentive that might lead to the uptake of RFID-cards by the traveling public, and if a large fraction of the public were to use the technology, modeling has shown that wait-times would be greatly reduced. However, RFID uptake in the region (other than NEXUS) is low at this time—less than 5%. At times of peak congestion, mobility through Peace Arch would therefore likely be best achieved by reverting the Ready Lane to normal use. USCBP must closely monitor the Ready Lane at Peace Arch to ensure that it doesn’t hinder mobility during this era of low RFID usage.

Border Wait-Time Measurement. One BTB Action Plan task is the deployment of wait-time measurement systems in the coming three years at 20 busy crossings that currently lack such systems. This task builds upon the work of an ongoing binational wait-time measurement project that began in 2008. Pursuant to that project, competing technologies were evaluated on a pilot basis and a preferred technology was selected. The preferred technology is based upon the Bluetooth short-range radio communication protocol used by electronic devices (smart phones, tablet PCs) often carried by the traveling public. Figure 1 shows the conceptual methodology underlying a Bluetooth system. Two Bluetooth readers are needed—one at the inspection booths, and the second at a point so far upstream that essentially all border lineups are contained within the stretch of highway between the reader and the border. Cars traveling past the readers serve as a continuous stream of “probe vehicles.” When a car containing an active Bluetooth device passes the upstream reader, the unique electronic address of the device is recorded, together with a timestamp. If the downstream reader
successfully records a second timestamp associated with that same device, the difference between the two timestamps yields the travel-time between the readers. After accounting for the free-flow travel-time between the readers, a direct measurement of the wait-time experienced by the car is produced at the point when it reaches the booth (i.e., exits the queue).

At the Cascade Gateway, a complete wait-time measurement system is already in place, installed over a period of 9 years at a cost of more than $11 million. The system uses a technology in which wire loops are embedded within the pavement of highway lanes. As a car passes over a given loop, magnetic induction generates an electric pulse which is counted by a computer. As seen in Figure 1, loops are installed immediately upstream of each booth and at regularly spaced intervals up the highway. Wait-times are indirectly computed via an analysis of the vehicle-counts collected by the loops. Essentially, a running estimate is kept of how many cars are present in the queue. Coupled with knowledge of how many booths are in operation and the average service-time per booth (i.e., the time spent inspecting a single car), the system estimates the wait-time that will be experienced by a car entering the rear of the queue. Good traffic channelization is needed so that all cars travel over the stationary loops. While more costly and complex than a Bluetooth system, a loop system generates a continuous record of the traffic stream arriving at the crossing. Such data is useful for staff management at the port, modeling of operational alternatives (e.g., constructing a new booth or converting a general-purpose booth to NEXUS), and transportation planning.

**Issue:** Pursuant to BTB, federal agencies will soon invest significant sums installing Bluetooth systems at busy crossings elsewhere on the border. At the same time, minor actions that are needed to improve operation of the existing Cascade Gateway system have hit bureaucratic roadblocks. One example is the provision of information regarding booth-usage. USCBP can vary the function of a booth, having it handle NEXUS one hour and general traffic the next. Both the Bluetooth and loop systems achieve best results if they are provided with real-time knowledge of booth status (i.e., open vs. closed, NEXUS vs. standard). Agencies are in the midst of discussions about how to provide data to the new Bluetooth installations, but requests to provide

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**Figure 1. Comparison of Wait-Time Technologies**

<table>
<thead>
<tr>
<th>Bluetooth</th>
<th>Magnetic Loops</th>
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<tbody>
<tr>
<td><img src="image" alt="Bluetooth Diagram" /></td>
<td>System knows that 12 cars are present in the monitored region of highway (not counting the ones at the booths). It also knows that 3 “normal” booths are open. Based upon a programmed service-rate parameter of 1 min. per inspection at a normal booth, system concludes that the car entering from above will face a wait of 4 min. If booth no. 3 is opened, wait-time is adjusted to 3 min.</td>
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Car containing Bluetooth device at booth no. 2 is queried by downstream reader. Timestamp of 12:14 is recorded. Database search reveals that the same device passed the upstream reader 6 min. earlier at 12:08. Free-flow travel-time is 2 min., so a wait-time of 4 min. is calculated.

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Downstream reader
similar information to the Cascade Gateway system are as yet fruitless. Similarly, the loops at the newly constructed USCBP facility at Peace Arch are not operating with the best possible accuracy because of channelization issues immediately upstream of the booths. Better striping is needed within the federally controlled plaza to ensure that vehicles pass directly over the loops. This small project has been pending for months.

Binational Port Operations Committees (BPOCs). Federal agencies have begun to form port-specific committees intended to “play an important role in improving how we manage travel and trade flows and expedite the processing of travelers and goods” (Part II, BTB Action Plan). Twenty BPOCs were formed at major land crossings in 2011, and eight more will soon be formed at major Canadian airports. A BPOC meets at least four times per year and consists of USCBP, CBSA, and other transportation and law enforcement partners. At the Cascade Gateway, the International Mobility and Trade Corridor (IMTC) forum has been in existence for 15 years and is widely credited as a major force behind the success of regional initiatives. In contrast to a BPOC, the IMTC is independently facilitated, meets 10 times per year, and consists of additional members, including NGOs, the private sector, academia, trade associations, and other governmental agencies.

Issue: The BTB Action Plan validates a particular structure for a BPOC, which is at odds with the one in use by the IMTC. A degree of attentiveness has always been needed in order to maintain the momentum of the IMTC in the face of challenges such as turnover of federal personnel or loss of a prior funding source. Validation of a competing structure may weaken the IMTC, as agency officials become invested in the new BPOC. Digressing for a moment, we also note that BPOCs are unlikely to be as effective as the IMTC, for reasons noted in an earlier Brief.

U.S. Funding for Border Mobility. Through two successive rounds of U.S. federal highway legislation spanning a period of 14 years, there has always been a funding program dedicated to border-mobility improvements. The Coordinated Border Infrastructure (CBI) program is the current iteration, and it provides annual appropriations to states abutting the border. CBI funds have been pivotal in the completion of major projects at the Cascade Gateway (e.g., the highway approaches and the wait-time system) and have also provided constant support to the IMTC forum.

Issue: The U.S. Congress is currently drafting legislation for the next multi-year highway funding program. None of the drafts now in consideration contains a border-mobility program. Absent such a program, progress in the Cascade Gateway may be slowed. Regional proposals would obviously be pursued through the broad competitive funding categories contemplated in draft legislation, but there is the possibility that funding will be less forthcoming than in recent years. With regard to the IMTC itself, even a temporary loss of funding might prove harmful. Regional entities should prepare fallback funding options by which the IMTC can be perpetuated.

Conclusion. As Canadian and American federal officials begin to implement the BTB Action Plan, striving to address some ailments associated with our shared border, they must be mindful of the cardinal lesson learned by doctors: “First, do no harm.” There are many laudable tasks identified in the plan, but aspects of some of the initiatives are at odds with the conditions prevailing at the Cascade Gateway, or with successful initiatives already present in the region. As federal agencies develop new programs, they must simultaneously respect and support existing regional processes and assets that have been key to prior improvements in mobility. Good lines of communication must be maintained between the region and the capitals.

Endnotes
2. At our website, see Border Policy Brief, Vol. 7, No. 1, “Is RFID the Answer to Resurgent Border Traffic?”
3. At our website, see Border Policy Brief, Vol. 5, No. 2, “How DHS Might Address the Mission of Trade Facilitation.”