time at terminal entrances and GHG emissions, the Port of Montreal is also launching an app for container trucking companies this year that will turn real-time traffic information collected in the port into information truckers can use to better plan their routes.

Complementing this, road work is being done to make more direct routes between the Autoroute 25 and the Port, to speed truck turnaround times. "On the competitive side, this is very important for fluidity. Just coming into the Port it will save some 13 minutes," says Matthieu Charbonneau, executive director, CargoM. Improved access and egress from the Port should save truckers 15-20 minutes, at least.

While past performance is no guarantee of future performance, the work on Phase II of the Port of Prince Rupert's intermodal terminal speaks to a powerful optimism about the future of container shipping. Container volumes jumped 26% in 2015, to 776,412 TEUs, and the Phase II project, scheduled for completion in 2017, will increase throughput capacity to 1.3M TEUs.

Deltaport is working on a \$280 intermodal yard reconfiguration, which includes the delivery this year of two megamax ship-to-shore cranes capable of handling the largest container ships in the world. They will be ready for action next year. Deltaport's GTC Canada also ordered eight other cranes to increase train handling speed. A rail densification project will increase intermodal year capacity by over 50%, to 1.9M TEU within the existing footprint.

And if and when the Canada and European Union Comprehensive Economic and Trade Agreement, is ratified, many thousands more TEU are expected to enter into the intermodal system – as many as 250,000 TEU from Central Canada eastward, according to Shannon Blanchard, manager of cargo development, Port Saint John.

Says Tony Boemi, vice-president, growth and development, Montreal Port Authority, "Obviously, we are going to see a benefit."



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espite the recent expansion of the cargo theft reporting program to the western provinces of Canada and other efforts, cargo theft is \$5 billion annual problem in Canada that isn't going away easily.

According to Walt Swietlik, director of customer relations and sales support for Rite-Hite, as cargo theft continues to evolve into a more organized form of crime, thieves are looking for any holes they can find in supply chain security.

An increasing number of thefts are happening in seemingly secure areas, like warehouse yards and loading docks. One common practice that puts companies at risk is when the security seal on a trailer is broken, or put in place by non-company personnel on the approach. Security or surveillance may not be as present on the drive approach, which means goods can more easily be stolen.

With the Panama Canal expansion expected to be completed by the end of June, facility managers of warehouses, 3PLs and virtually any building with a loading dock should start preparing for an influx of these intermodal containers, Swietlik noted. Because intermodal containers use a different type of chassis than traditional semi-trailers (often with an obstructed rear-impact guard, or RIG),

securing these trailers to a facility is more challenging than conventional trailers.

He offered the following tips for establishing better supply chain security in shipper facilities:

## 1 | Use automatic vehicle restraints.

Restraints that automatically secure a trailer or vehicle when it backs up to the dock are the first step in establishing supply chain security. Automated restraints enhance employee safety by ensuring the trailer can't be mistakenly pulled away when a forklift is still inside, and they also help prevent theft and reduce contamination, Swietlik said. An automatic restraint wraps around a trailer's RIG, securing the trailer to the loading dock. The most advanced automatic vehicle restraints offer a RIG/restraint vertical engagement range of 22 cm to 76 cm, with some models having the capability to secure intermodal overseas container chassis.

Some automatic restraints can be integrated into building management or security systems, providing another level of security. These automatic vehicle restraints will also re-fire into a locking position if the trailer begins pulling away from the building or there is external tampering.

## 2 | Bridge the gap from dock to trailer.

When linking the gap between the loading dock floor and the trailer bed, the "gold standard" is considered to be a vertical-storing dock leveler. Unlike a pit-style leveler, a vertical leveler (when in the stored position) allows the loading dock door to close directly on the pit floor – rather than the leveler itself – minimizing points of entry at the loading dock. This helps maintain security and improve environmental control. The vertical design makes it easy to clean or wash down the pit floor when the leveler is in the upright and stored position, as well.

A "drive-thru" application, which allows trailer doors to be opened inside the facility, is one of a variety of specific features facility managers should consider before committing to an installation. Opening and closing trailer doors inside the loading dock, rather than on the drive approach, allows loading dock staff to



place or remove the trailer's seal from inside the building – greatly reducing the chance of theft or tampering.

## 3 | Properly seal the dock perimeter.

The connection of a dock seal or shelter between the back end of a semi-trailer and the inside of a loading dock provides an environmental barrier to keep wind, rain, dust, bugs and other contaminants outside the building. Besides environmental benefits and energy savings, the best systems can also contribute to theft deterrence by sealing gaps that could otherwise be passageways for thieves to move product.

For maximum protection, it is important to equip all dock door openings with a system that closes the gaps that are created when a trailer is backed in for loading or unloading – top, sides and bottom. Foam compression dock seals, or full-access dock shelters that seal trailer door hinge gaps, along with a full-coverage, under-leveler sealing system are recommended in most applications.

Some of the newest dock shelters

have been specifically designed for drivethru applications, which complement vertical storing dock levelers. This allows the trailer doors to be opened inside the building for security purposes, while still maintaining a tight, consistent seal on all four sides of the trailer. Special design features ensure tight sealing against trailer sides, across the full width of the trailer top and at the corners, without interfering with trailer doors being opened and closed after the trailer has been parked at the dock.

## 4 | Protect the supply chain at the loading dock.

In most instances, a systematic approach that incorporates automatic vehicle restraints, vertical dock levelers, appropriate seals/shelters, and the proper sequence of operation is the best way to secure a loading dock. These products – working together as a system – enhance cargo security, protect employees, reduce contamination and improve environmental conditions within a building and throughout a given supply chain, Swietlik said.