

PORT-RAIL INTERFACE AND CONTAINER SYSTEMS
AT THE PORT OF HALIFAX

By
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There have been recent references to on-dock transfer, near-dock transfer and off-dock transfer of containers. The Canadian system is based on a system using on-dock transfer of containers between vessels and rail cars.

Halifax, Nova Scotia, is a major container port serving the East Coast of Canada. Halifax lies close to the Great Circle Route from Europe to the East Coast of the U.S. Vessels traveling the route pass within a few hours sailing time of Halifax, so there is no delay to vessels that stop off at the port.

Most of containers handled by Halifax originate at or are heading to the Montreal and Toronto markets. Very little of the traffic is to the U.S. Midwest. It is 1,150 miles between Halifax and Toronto and 810 miles from Halifax to Montreal.

On-dock transfer of containers from the vessel to the rail car involves direct transfer from the wharf to the rail car. There is no placement of containers on chassis and the containers do not pass through a gate. Canadian National (CN) and Canadian Pacific railroads have dedicated container car fleets which serve the Port of Halifax.

This presentation is based on the Halterm terminal in the Port of Halifax which has three ship-side cranes and four rail transfer tracks. These four tracks are each 1,800 feet in length and can handle 17 standard container flat cars per track. The CERES terminal in the port has two ship-side cranes and has just added another berth, and there are 6 rail transfer tracks each of which can hold 13 to 14 standard container flat cars.

At Halterm, the rail classification yard is located about one-half of a mile from the wharf. It is critical that rail support be located as close to the wharf as possible. The containers are moved from the wharf to the rail track by a hostler and an internal chassis, and the front-end loader places the container on the rail cars. The containers are blocked on rail cars going to Toronto or Montreal and to western points. Generally, there is no ground storage of inbound containers except for some refrigerated containers or for Customs inspections.

It is imperative that the terminal operations not cause delays for vessels or have the ship-side crane just sitting while waiting for a chassis to return for a pickup. Three people are critical to an efficient operation.

1. Deck checker. The person on the vessel who controls the crane on the vessel side. He directs the crane to the proper bay and passes the information as to which box is coming off the ship.
2. Separator. The person who dispatches the hostlers and indicates where each box is to go, to the rail tracks or storage.

3. Yard checker. The person who makes sure that the chassis goes to the appropriate rail track. The chassis are not assigned to a particular rail car, only to a particular track. The containers are arriving at the rail tracks at a rate of up to 75 per hour.

With each ship-side crane, there are generally 3 to 4 hostlers with chassis to serve the crane. Each box operation involves a 5 or 6 minute cycle that includes getting the box out of the vessel, running it over to the rail car, putting it on the rail car and returning the hostler to the ship-side crane. If the vessel is also handling export containers, the hostler will run from the train to the storage yard to pickup a container to bring to ship-side.

If a terminal has 2 or 3 ship-side cranes, the operation can be run manually without the need for a computer system. However, once a terminal goes to 3 or 4 ship-side cranes, then a computer system will be necessary.

DEEPER PORTS
INCREASE THE COMPETITIVENESS OF
U.S. COAL EXPORTS

By

T. Parker Host, Jr.
T. Parker Host, Inc.

Our success in achieving the recent start-up of our 50-foot outbound channel in Hampton Roads was not an easy task, and I think it is appropriate to quote Assistant Secretary of the Army (Civil Works), Robert K. Dawson's remarks made at the Hampton Roads Deepening Ceremony on April 6, 1987. "The project getting underway today is a highly successful example to how the Corps and other federal and state agencies, and non-governmental organizations such as the Hampton Roads Maritime Association, can join in a team effort to serve our nation."

Hampton Roads has always been the bread basket for coal users worldwide. Our exports in the early 1980's was over 50 million tons. Last year this figure was over 40 million tons. Fostering deeper water in Hampton Roads, we committed to our overseas coal buyers that we would reduce their delivery cost of coal and waiting time for loading by achieving in the future a 55-foot channel. A first phase improvement of a 50-foot outbound reach is now underway.

Some years ago when oil was selling at \$45.00 per barrel, the cry from our coal buyers was, "You get the authorization and we'll pay for the harbor deepening." Clearly their interest was understandable.

A Panamax vessel (a vessel that can transit the canal that has less than 105-foot breadth and loads approximately 80,000 tons at a draft of approximately 40 feet) had a freight rate of about \$24.00/\$26.00 per ton to Japan from Hampton Roads. A Cape sized vessel at that time (a vessel that cannot transit the Panama Canal which loads up to 160,000 tons) had a freight rate of \$14.00/\$16.00 per ton to Japan from Hampton Roads. There was a savings in the coal transportation to Japan of about \$10.00 per ton by using a larger size vessel. Our draft at the coal pier in Hampton Roads is 46 1/2 feet sailing on high water with a vessel's cargo of approximately 120,000/130,000 tons.