



The
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THE PORT OF CHURCHILL AND THE NORTHERN EAST-WEST CORRIDOR CONCEPT¹

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Overview

For some years the Paris-based Union Internationale des Chemins de fer (UIC, International Union of Railways) has been sponsoring the concept of moving freight from Asia to North America by rail to Europe and then across the Atlantic.²

The 'Northern East-West Corridor' (NEW) concept is set out in Map 1 on Page 4. The Port of Churchill is not presently featured in the NEW concept. How it could be is shown in the green shipping routes that have been added to Map 1, which was originally produced by UIC.

This document proposes a two-part examination of three things: (i) whether the NEW concept has promise from a business perspective; (ii) whether implementation of the NEW concept would represent progress towards sustainability; and (iii) whether Port of Churchill interests should seek to participate in the NEW concept.

The first part of the examination would involve a preliminary analysis of relevant issues. The product would be a report described below to be completed within three months at a cost of \$20,000 to \$25,000. The second part, subject to a favourable first part, would involve a more detailed analysis. It would include considerable input from numerous interests, take about nine months to complete and cost \$100,000-\$150,000. Details of this analysis would be proposed in the report on the first part.

The balance of this document provides a brief overview of some of the issues associated with inclusion of Churchill in the NEW concept, and an outline of the report that would be the deliverable for the first part of the proposed examination.

Trade patterns

Merchandise trade between Asia and North America almost doubled in dollar value during the 1990s, with little overall change in the prices of what was traded. The dollar total of this trade fell by 10 per cent in 2001 and then increased relatively slowly, likely passing the 2000 value in 2004. The composition of the trade has above all reflected China's growing dominance as the major Asian trader.³

West coast port congestion

Even with recent relatively modest increases in transpacific trade, North American west coast ports are in a state of chronic congestion. Here are recent remarks by Brian Conrad, deputy director of the

¹ Enquiries about this document should be made to Richard Gilbert at richardgilbert@sympatico.ca or 416 923 8839. Enquiries about The Centre should be made to Al Cormier at 905 858 9242. Information about The Centre, including its move to the University of Winnipeg later in 2005, is available at www.cstctd.org.

² For the June 2005 project newsletter, see http://www.transportutvikling.no/news_june2005.pdf. For UIC's 2004 report on the project, see http://www.transportutvikling.no/NEW_report_2004.pdf.

³ See World Trade Organization, *International Trade Statistics*, 2001 and 2004, and *Press Release on Latest International Trade Statistics*, April 2005, all available at http://www.wto.org/english/res_e/statis_e/statis_e.htm.

Transpacific Stabilization Agreement, a research and discussion group of major container shipping lines:⁴

[In December 2004], in the height of the peak transpacific shipping season, a record 94 ships were in Los Angeles-Long Beach harbor concurrently. A third of those vessels were container ships waiting at anchor to berth. After waiting some 4-5 days for a berth assignment, a shortage of trained longshore equipment operators led to additional waiting time of 4-5 days to discharge a ship.

Truck lines backed up on city streets outside terminals because many gates are just beginning to move from a manual entry process with marine clerks to faster entry using optical character scanning of truck license plates and container identifier tags or bar codes. Once inside the yard, a truck could spend hours waiting for yard crews to locate a container and provide a matching chassis. Most terminal gates continue to operate on the assumption of a single weekday shift, sometimes with extended overtime hours, and with night and weekend gates opened on demand, also at overtime rates. ...

The Panama Canal is operating at 95% capacity. Our members report ships backed up for days on the Pacific side waiting to transit, and bidding up of transit fees to get a preferential spot in line. ...

Plans to widen the Canal, expand overland transit and develop terminals and warehousing in the Canal region are a number of years out on the horizon. And the Canal Authority is moving forward with steep increases in transit fees to pay for it, including for the first time a charge per container, rather than per vessel.

Mr. Conrad's remarks suggest little promise of relief, even by time-consuming diversion to east coast ports.

Oil prospects and implications

At low speeds, movement by water can be the most fuel-efficient form of freight transport. Because above quite modest speeds (e.g., about 40 kilometres/hour, varying with hull configuration), the energy required to move through water increases with the sixth power of the speed,⁵ movement by water can become among the least efficient of freight transport modes. Shipping lines are under pressure to increase speeds to reduce shipment times generally and to compensate for port congestion.

Increases in ships' speeds are being constrained by rising oil prices and will be constrained more as world oil production peaks within ten years.⁶

Rail, which comprises the largest part of transport between Asia and North America in the NEW concept, can achieve much higher speeds without severe fuel penalty. Moreover, electrified rail can make use of numerous sources of renewable energy using existing technology for power generation and motive power.

Churchill's availability

The historic four-month shipping season (July-November) between Churchill and Europe is rapidly increasing as the world's climate changes, more rapidly in Arctic regions. According to OmniTRAX, owner and operator of the Port of Churchill, there could be year-round shipping in the Arctic by 2050.

The Atlantic and Arctic Oceans from southern Greenland to Murmansk/Arkhangelsk (Archangel) are already mostly ice-free throughout the year. However, these routes could become more ice-bound if climate change were to alter ocean circulation patterns and produce cooling of north-west Europe.⁷

This and several other matters require considered analysis.

⁴ Presentation at the TSA's Women in Transportation Outlook 2005 Meeting, Newport Beach, California, February 2005, available at http://www.tsacarriers.org/pf_040104.html.

⁵ See the U.S. Naval Academy document at <http://www.usna.edu/NAOE/courses/en200/ch07.pdf>.

⁶ For a discussion of this point see the 96-page document *Energy and Transport Futures*, prepared in 2005 for the National Round Table on the Environment and the Economy and available on request from the authors.

⁷ For an informed discussion of this point see <http://www.realclimate.org/index.php?p=159>.

Churchill's interest

In 2002, Manitoba signed a letter of intent with the Russian oblast (administrative region) of Murmansk to increase marine links between the two provinces. Discussions about the Murmansk-Churchill Arctic Bridge project were a feature of the visit to Churchill of the Russian ambassador to Canada in September 2004. In 2005, the Governments of Canada and Manitoba each contributed \$1 million to the Churchill Gateway Development Corporation towards marketing of the Port of Churchill over the period until 2010, including establishment of the Churchill-Murmansk Arctic Bridge.

Murmansk, like Churchill, is presently not part of the NEW concept, but could be through the existing Murmansk-St. Petersburg rail line. This line intersects the recently constructed, electrified line from Arkhangelsk to Oulu in Finland, which is being included as an alternative route in the NEW concept (see Map 1). Arkhangelsk provides an alternative to Murmansk, although it is presently less ice-free.

Proposed report

Several options exist for putting Churchill 'on the map' as a gateway for new, mostly rail-based trade routes between Asia and North America. Some of these are illustrated in Map 1 on Page 4. Additional matters to be considered, to enhance the sustainability of the routes, could include electrification of the rail line from Churchill to Winnipeg and beyond and the prospects for wind assistance of ships plying between Churchill and Europe.⁸ The initial report on inclusion of the Port Churchill as a North American gateway in the NEW concept could address the following topics:

- Present status and feasibility of the NEW concept
- Present availability of the Port of Churchill and its rail link
- Advantages and disadvantages of a Churchill route vs. current NEW concept routes
- Opportunities and challenges posed by climate change
- Sustainability issues: energy futures and arctic vulnerability
- Prospects for Asia-North America freight movement until 2030 and beyond
- Potential relevance of the Manitoba-Murmansk accord
- Should Churchill seek to join the NEW proposal and, if so, how?

The report would be prepared by Richard Gilbert, The Centre's research director, Anthony Perl, Professor of Political Science at Simon Fraser University and a long-time Board member of The Centre, and Al Cormier, The Centre's president and CEO.

As part of the preparation for the report, Al Cormier would participate in the Canada-Russia Arctic Transportation working group meeting in Khanty Mansiisk, Russia, in October 2005. During the same trip he would visit the International Union of Railways in Paris and the project office for the NEW concept in Narvik, Norway. The overall cost of this trip would be in the order of \$5,000, of which Foreign Affairs and International Trade Canada could provide about \$2,000. The balance of the requested funds would be for staff time and for travel to and from Manitoba.

If funding for the initial report could be approved in mid-September, the report would be completed by mid-December 2005.

⁸ For a report on wind-assisted shipping see <http://www.newscientist.com/channel/mech-tech/mg18524881.600>.

Map 1. NEW concept with Churchill and Murmansk/Arkhangelsk (Archangel) options

