

Strategic Freight Transportation Analysis

Regional Transportation Impacts as a Result of Reduced Container Services at the Port of Portland: Survey of Snake/Columbia River Ports

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Working Paper # 2

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SFTA Working Papers: Background and Purpose

This is the second of a series of working papers prepared from the Strategic Freight Transportation Analysis (SFTA) study, designed to address time-sensitive policy issues that arise within the freight transportation policy area. SFTA is a six year comprehensive research and implementation analysis that will provide information (data and direction) for local, state and national investments and decisions designed to achieve the goal of efficient and seamless freight transportation.

The overall SFTA scope includes the following goals and objectives:

- Improving knowledge about freight corridors.
- Assessing the operations of roadways, rail systems, ports and barges – freight choke points.
- Analyze modal cost structures and competitive mode shares.
- Assess potential economic development opportunities.
- Conduct case studies of public/private transportation costs.
- Evaluate the opportunity for public/private partnerships.

The five specific work tasks identified for SFTA are:

- Work Task 1 - Scoping of Full Project
- Work Task 2 - Statewide Origin and Destination Truck Survey
- Work Task 3 - Shortline Railroad Economic Analysis
- Work Task 4 - Strategic Resources Access Road Network (Critical State and Local Integrated Network)
- Work Task 5 - Adaptive Research Management

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Introduction

Historically, the Snake and Columbia Rivers have been an integral part of the agricultural business industry in the Pacific Northwest. Agricultural producers, brokerages and shippers have relied on these waterborne transportation conduits as the primary low-cost alternative for shipping agricultural products such as hay, peas, beans, lentils, potato products and forest products to foreign markets. Since 1975, the Port of Portland, which is approximately 104 miles inland on the Columbia River, has served as an intermediate destination and collection/assembly point for such containerized products before they travel overseas. Four inland ports situated along the Columbia/Snake system at Morrow and Umatilla, Oregon, Pasco, Washington and Lewiston, Idaho relay materials to the Port of Portland largely for export.

During the summer of 2004, two ocean-going container cargo liners, “K” Line America and Hyundai Merchant Marine, made public their decisions to discontinue container service to the Port of Portland. Hyundai announced plans to withdraw its shipping lines in September on July 14th. Less than a month later on August 12th, “K” Line also declared its decision to halt service in December, an announcement that director of the Port of Portland Bill Wyatt called a “tremendous surprise” (qtd. in Read and Brinckman, 2004). Both “K” Line and Hyundai exported primarily agricultural products from the United States to Asian markets. Up until its ended service in mid-September, Hyundai was the only direct container cargo liner to Japan, the largest foreign market for two of the largest containerized commodities exported via Pacific Northwest ports: hay and frozen potato products or French fries. Because there had been only three contract services exporting goods via the Port of Portland (“K” Line, Hyundai, and Hanjin Shipping), “K” Line’s and Hyundai’s withdrawn service reduced container space by what Wyatt (2004) described as about 120,000 boxes, leaving only one-third of the space previously available. For clients shipping materials through the Port of Portland, a port which a year previously had hit record highs for container shipment—37,563 containers as of May 2003 (Record, 2003)—this news had and continues to have significant effects.

As a result of this suspended service, agricultural producers, brokerages and shippers who once depended on “K” Line and Hyundai to export their products are now vying for space on Portland’s remaining container cargo line, Hanjin Shipping, to export agricultural goods to Asian markets. Or, alternatively, they ship their products via the Ports Tacoma or Seattle. In October of 2004, Hanjin added service to Japan as well as increased the size of its shipping vessels, allowing more than 1,000 TEU’s of extra space per week for products shipped from Portland (DiBenedetto and Leach “Ocean”). The loss of “K” Line and Hyundai service, however, continues to leave a substantial gap in the overseas transportation network as Hanjin’s improvements only recreated a fraction of the discontinued service.

Many agricultural producers/processors have expressed uncertainty about how this change will impact the costs of transporting their products to foreign markets and thus reflect poorly on their net profits. Similarly, port districts along the Snake and Columbia River systems rely on the revenue generated from freight traffic moving through the ports and foresee possible economic fluctuation. According to Columbia River Customs Broker, Terri Bartle, “alternatives” used to continue commodity movement in the wake of “K” Line’s and Hyundai’s missing Portland services include “loading containers on oceangoing barges in Portland for shipment to container yards in Tacoma, or shipping them by rail or truck to Tacoma”. While many agricultural producers and exporters anticipate sending containers by rail or truck to the Port of Tacoma where “K” Line and Hyundai will continue to provide service, as Bartle suggests, these two alternatives are expected to cost nearly twice as much as carrying the same container by barge to Portland for outbound shipment on a container cargo liner. Given the increased expenditures of alternative shipping methods, clearly this container service loss will have a sizeable economic impact on the ports along the Snake and Columbia Rivers as well as on

agricultural producers, brokerages and shippers who depend upon this transportation mode to access foreign markets.

Methodology

The following study explores the circumstances that influenced the withdrawal of K-Line's and Hyundai's services and provides insight into the ways that the absence of these services has affected the ports that send their products through Portland (Morrow, Umatilla, Pasco, and Lewiston), the Port of Portland itself, and finally the ports that have received the export traffic from Portland's reduced cargo lines (Seattle and Tacoma). As the year anniversary of the withdrawn services approaches, discussion of the influence of their absence both locally and in terms of national shipping trends remains necessary, especially as each of the ports must continue to alter its transportation modes and facilities to sustain profitable business and to maintain their clientele.

Information presented here has been gathered from both primary and secondary data sources, including personal interviews at port districts with port managers and operators who handle containerized cargo along the Snake and Columbia Rivers. Aaron Reimer conducted interviews with the following individuals during the **fall and winter of 2004**, interviews that provided information regarding the volume of agricultural produce, commodities and products that move up and down the Snake and Columbia Rivers, as well as alternative containerized cargo transportation routes and modes:

John Akre, Regional Marketing Manager – Marine Division, **Port of Portland**, Portland, OR

Greg Zanavich, Manager – Container Sales & Marketing, **Tidewater**, Vancouver, WA

Kim Puzey, General Manager, **Port of Umatilla**, Umatilla, OR

Mel Ray, President, **CRIS Inc.**, Umatilla, OR

Bryson Pomeroy, Terminal Manager, **NW Container Services Inc.**, Pasco, WA

Carrie Kelly, Traffic Coordinator, **Port of Lewiston**, Lewiston, ID

Howard Granger, Senior Representative, **Port of Seattle**, Seattle, WA

Doug Ljungren, Business Planning Manager, **Port of Tacoma**, Tacoma, WA

Because the withdrawal of "K" Line and Hyundai services garnered a wide range of media attention in both local and national arenas, we have also gathered information from regional and national news sources published before, during, and after the 2004 service suspension. Publications consulted most frequently include the *Oregonian*, the *Journal of Commerce*, the *Tri-City Herald* (Kennewick, WA), and the *Seattle Times*. Materials distributed online by each of the different ports have also provided useful information.

Factors Influencing Reduced Container Service

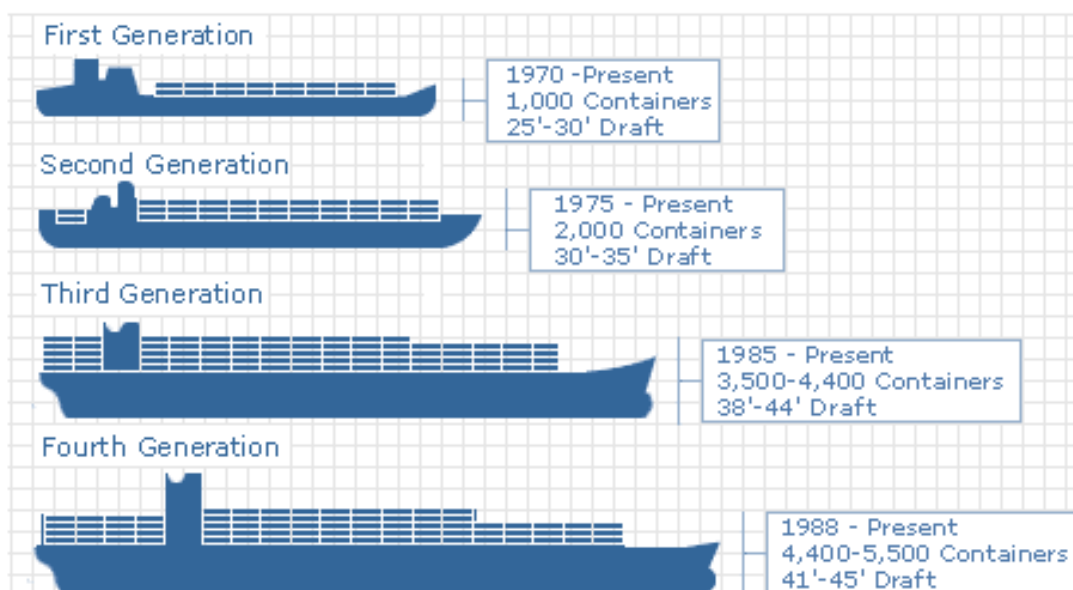
Before moving into an analysis of ways that the suspended services have influenced each of the ports along the Columbia/Snake system as well as the ports of Portland, Seattle and Tacoma, it is important to investigate possible reasons behind "K" Line's and Hyundai's decisions to end service to the Port of Portland. Although the suspended service announcements were unexpected, historically, they follow a pattern of fluctuating cargo carrier commitment at the Port of Portland which has continually relied on similar explanations of ended service.

One of the most prevalent speculations about the companies' surrendered cargo lines has to do with the depth and navigatability of the channel leading into the Port of Portland. Unlike heavily traveled ports in Long Beach, San Francisco, Seattle, and Tacoma that are easily accessed by cargo liners, Portland lies over 100 miles down the Columbia River. At this

location, the Port of Portland offers several important features, including the fact that it receives all waterborne traffic traveling down the Columbia/Snake River system barged from as far inland as the Port of Lewiston, the U.S. port furthest from the coast. The port's northern location also allows service outside the crowded southern California ports, and because the Port of Portland has immediate access to national rail lines Burlington Northern Santa Fe and Union Pacific, it allows for efficient product shipments to Midwestern hubs.

The inland location of the port necessitates travel down the Columbia River channel, however, which currently lacks the depth to accommodate newer cargo ships. According to the Columbia River Channel Coalition (CRCC) (Figure 1), requests have been made since 1988 to deepen the channel from its current depth of 40' to 43' in order that larger ships are able to navigate the

Figure 1: Evolution of Container Ships: Columbia River Channel Coalition, 2005



channel waters—these newer ships are designed to carry more cargo and, accordingly, require deeper draft depths. Currently, larger ships can travel through the channel, but they cannot be filled to capacity so that their draft depths remain shallow enough to safely pass through the channel. Based on reports made by the Army Corps of Engineers, the CRCC notes that a 43'-deep channel could save the nation \$18.8 million dollars as far as transportation costs go. Fully loaded ships increase the amount of goods available for import/export and allow for the most profitable use of cargo space for the shipping company.

While the depth of the Columbia River Channel does determine the feasibility of cargo liner movement, particularly in regards to the fill-weight of each ship, the project's complicated political history has increased its visibility in the public sphere so much so that need to dredge the channel has overshadowed other important factors that influence service withdrawal from the Port of Portland. For instance, the dredging project was made a primary political concern following "K" Line's announcement that it would stop calling on Portland. On August 13, 2004, the day after "K" Line disclosed its plans to end its service, President George W. Bush made a campaign stop in Portland announcing that he would allocate \$15 million dollars toward the

channel deepening project in his 2005 budget. Bush (2004) argued that, “the solution is clear: If you want more vibrant trade, if you want more navigable rivers, if you want busier ports, we need to deepen this channel. We need to make it deeper.” While Bush made no mention of “K” Line’s recent announcement, his speech, which emphasized the prosperity of Pacific Northwest farmers and growers, targeted the economic necessity of agricultural trade, and advocated environmental responsibility, spoke directly to Portland’s container service debacle. In pledging his monetary support, Bush not only offered a “solution” to the ensuing export problem, but in doing so, he also garnered campaign support by funding a controversial dredging project that had been on the table for over 15 years, during which time it was complicated by legal and environmental concerns. Bill Wyatt, executive director at the Port of Portland, noted that the timing of Bush’s announcement following the “K” Line withdrawal was coincidental, but he, too, fervently stated that the channel depth was the only factor that influenced their decision. “Nothing more clearly punctuates the need for this project than ‘K’ Line’s decision here,” he said, before continuing to declare his faith that were the channel deepened, the company would remain in Portland (qtd. in Read and Brinckman, 2004).

While rhetorically the channel’s depth—a problem that could be easily remedied with the dredging project—was the main, if only, factor that kept the Port of Portland at a disadvantage, spokespeople from “K” Line and Hyundai noted that the depth of the channel was not a primary concern that led them to pull out of Portland. According to Mamoru Mori, “K” Line’s vice president of line operations, the company needed to save time after adding service at Shanghai, time that could be cut if the company directed all Pacific Northwest container shipment to the larger Tacoma terminal. “It has nothing to do with the dredging,” he said (qtd in Read and Brinckman, 2004). Similarly, Hyundai added service to Kwanyang after cutting lines in Portland and Japan. Their vice president of sales, Kenny Moore, noted that the decision came as a result of efforts to maintain reliably scheduled shipping rotations and to lower expenses (Leach, “Hyundai,” 2004).

In the case of both lines, other markets, namely China, became available to if their ships no longer had to call on Portland. As noted, after stopping service at Portland, both lines added stops in China, a hot spot of international trade. “What’s happening in the trade routes is that the patterns and trade flows have substantively changed in the past, few years. It is all about China . . . ,” noted Port of Portland marine director, Sam Ruda, before continuing to explain the importance of increasing Portland’s inbound goods (qtd in Strom “State Investigates”). A mogul company like Wal-Mart provides a good example of the lure of China for shipping companies. When Wal-Mart draws 80 percent of its 6,000 suppliers out of China, of course it becomes more lucrative for companies like “K” Line and Hyundai to offer services between the larger coastal ports and China than to continue service at Portland, a smaller port suited more towards exports than imports (Sowinski “China’s Changed Everything”). Because the large container port of Tacoma is within a reasonable distance, these lines can still service the Pacific Northwest, but they can do so in ways that allow for more efficient trans-pacific shipping routes.

The economic possibilities of Chinese trade as illustrated by a company like Wal-Mart provide another reason why service at the port of Portland is suffering: Portland is not a community that has the capacity or the market for high levels of import goods that a country like China supplies to the United States. “With a relatively small local population, Portland doesn’t draw imports of consumer goods such as toys, athletic apparel and consumer electronics made in Asia,” explain Rivera and Rogoway (2004). Conversely, they note, these goods travel through easily accessible California ports located in more highly populated areas. While materials imported to California ports are shipped inland, the metropolitan populations in the

surrounding areas are large enough that they can market a sizeable amount of those goods as well as ship them to Midwestern markets.

In terms of shipping, importing materials and exporting materials is a contiguous process. When shipping companies import materials from Asia, they unload and are left with empty containers to fill on a return trip. The fewer the empty containers that arrive in Portland, the fewer empty containers exist to be refilled on a return trip. Diego Rivera (2004) writes, "The shipping lines are discontinuing Portland service in part because export volume far exceeds import volume." When there is such a disparity between export/import cargoes, the carriers lose money. According to the Columbia River Container Service Committee, cargo liners profit three times more off imported cargo than off of exported cargo, an average of \$2,400 and \$800 in respective revenues (CRCSC, 2005). Following the pull out of "K" Line in August, it was not surprising, then, that the Columbia River Vessel Service Summit pushed for an increase in importing products through Portland as a means to lure larger shipping lines. Companies like Nike, addidas/Salomon, and Columbia Sportswear, in particular were encouraged to commit to importing a certain percentage of their goods through Portland (Rivera, 2004). Rivera and Rogoway (2004) contend that the Port of Portland "largely remains in business to support the state's exporters"; what the withdrawal of "K" Line and Hyundai demonstrates is that ports will have a difficult time continuing profitable operation if they cannot develop steady import traffic to balance their export traffic. Staying alive for the exporters is not necessarily an option.

The most pressing concern that contributed to the disappearance of Portland's cargo services was—simply put—expense. Both "K" Line and Hyundai cited economic concerns influenced their decision to leave the port. Certainly, it cannot be overlooked that for cargo liners, it is more cost-effective to barge materials out of Tacoma or either of the major California ports than it is to load them in Portland. High expenses figure in for several reasons. First, liners must be conscious that they make Portland an early Pacific coast port stop so that they do not load cargo that weighs their ship to a depth of more than 40 feet. Because Portland does not import a mass of unloadable goods, liners cannot arrive at the port with a full load of containerized imports ready for distribution. Geographically, stopping in Portland first for a company like Hyundai whose major routes included stops in Tacoma and Oakland took quite a bit of extra time, time that, as it accumulated, incurred profit loss.¹ Despite disadvantages of time spent navigating the channel, the fees and charges for using the Port of Portland are much higher than those at the Port of Tacoma.

Service commitment was an issue at the Port of Portland before the summer of 2004. In fact, even Hanjin shipping, the only remaining line servicing Portland, had had an inconsistent history there. In 1993, Hanjin began service at the port, but by 1996, it withdrew service citing that the channel depth was too shallow. Despite this problem, the company rejoined the Port of Portland fleet the following year and provided service until 2001 when, this time, citing economic concerns, it ended service for a second time. In the same way that the dredging project came up for dispute after the withdrawal of "K" Line's services, so too did dredging supporters propagate the "marine setback as ammunition in its ongoing fight," wrote Shelly Strom for the *Business Journal* (2001). Unlike Bill Wyatt, who was at that point only recently appointed, however, port spokesman Aaron Ellis made a more balanced response to Hanjin's 2001 withdrawal of service, a response which helps illuminate the current issue.

¹ See maps of Hyundai's shipping service routes at the Hyundai Merchant Marine website:

<http://www.hmm21.com/hmm/jsp/eng/service/container/service/index.jsp>

Hanjin made two decisions that are mutually exclusive. In order to save costs on a global level, they had to take a vessel out of the current six vessel rotation. That's a global decision that didn't have anything to do with the Columbia River channel however, that decision then prompted them to make another decision. . And that was 'which port do we suspend vessel service to?' They needed to remove one port out of rotation. They looked at all three ports and we believe that the channel was the deciding factor in selecting Portland instead of Seattle or Vancouver" (qtd. in Strom).

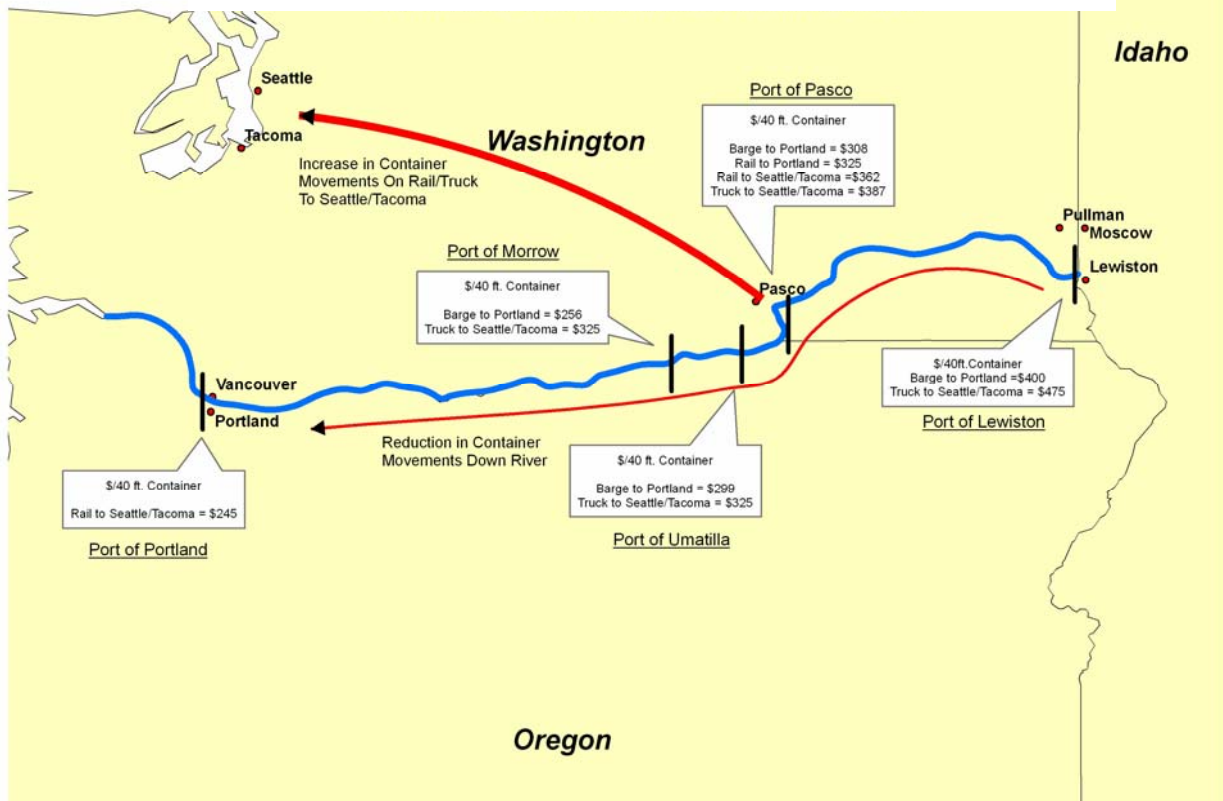
Here, Ellis sees the convergence of several economic factors in relation to the channel depth issue. Certainly the depth issue is one that may inhibit a company from choosing to use Portland's services. As it was three years ago, however, it was initially global trade cost benefits that encouraged the cargo liners to consider and subsequently accept the use of another port other than that of Portland. Tactically, to target the channel, however, is to target a remediable problem, or so it seems, whereas trade patterns and economics largely remain out of individual port control.

Because "K" Line's and Hyundai's withdrawn service depends on factors associated more generally with the Columbia River channel, the Asian trade market, and the Portland-area community, the ports along the Columbia and Snake Rivers and the clientele that depends on services provided at those ports face setbacks that remain out of their control. Certainly the ports of Lewiston, Pasco, Umatilla, and Morrow continue to deal with the influence of the missing carrier services even a year later.

Post-Suspension Shipping Overview

Several significant changes occurred following the withdrawal of "K" Line's and Hyundai's shipping services, changes that affected transport of exported goods across the board. Because the service withdrawal cut shipping capabilities out of Portland by two-thirds, upriver ports had to make swift decisions to ship their materials by alternate routes. While Hanjin continues to provide service, the space on their lines is limited and clients who used to rely on Portland's services must make decisions about how to transport materials most efficiently if their goods are to remain marketable. While several companies continue to barge their materials down the Columbia/Snake Rivers to the Port of Portland via Foss Maritime or Tidewater Barge Lines, others have chosen to use alternate modes of transportation including moving their containerized materials by truck or by rail to the Ports of Seattle or Tacoma where Hyundai and "K" Line continued their trans-pacific service.

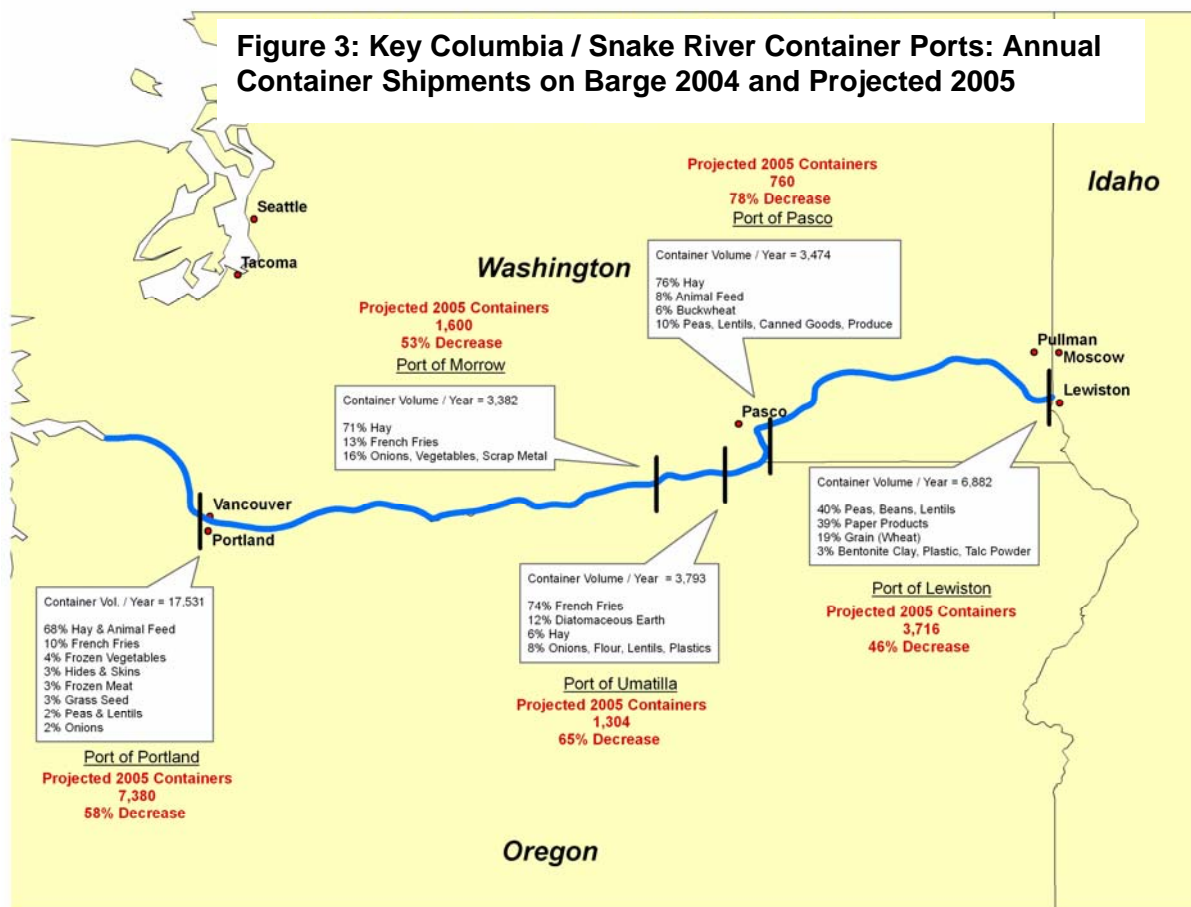
Figure 2: Approximate Truck, Rail and Barge Rates at Key Columbia / Snake River Container Ports



As Figure 1.2 shows, choosing to ship materials using alternative methods increases shipment costs from anywhere between 5 percent and 27 percent. Given that these cost increases occur at the container level, the profit margins on export products are likely to decrease as costs of moving goods within the Pacific Northwest has increased. Interestingly, it is those clients who had previously shipped internationally directly out of Portland who are in for the largest cost increase. Whereas they previously had to pay minimal amounts to transport their product to the Port of Portland, now, if they are unable to load their containers on Hanjin ships, they have to pay \$245 to move their products by rail to Seattle or Tacoma. Alternative methods of shipping are also complicated by access to multi-modal transportation routes. The Port of Pasco, for instance, is situated near rail and interstate access. The Port of Lewiston, on the other hand, does not sit along any major railways, and therefore must truck products to the Puget Sound, truck travel that takes place for significant distances on state highways. Morrow and Umatilla are situated near I-84 and could more easily truck products to Seattle or Tacoma although shipment costs vary. Whereas it costs only \$25 more per 40' container to ship products by truck from Umatilla, it costs \$69 more to do the same from Morrow. Finances aside, while trucking products is a feasible option, it counters movements in both Washington and Oregon to maintain the quality of state roadways and by redirecting heavy trailer traffic on either rail or barge.

Because only a limited amount of trans-Pacific shipping service is available out of the Port of Portland, clients who cannot ship with Hanjin must redirect their products despite extra costs. This compulsory redirection results in dramatic reduction of containers moving through the ports along the Columbia/Snake Rivers. Figure 1.3 illustrates 2004 container shipment alongside projected 2005 shipments. One of the factors that influence the amount of containers that are likely to pass through the ports in 2005 is whether or not the products shipped through the ports are destined for international export. As mentioned earlier, frozen potatoes and hay are the two largest exported products that leave the Pacific Northwest. Accordingly, Pasco, Umatilla, and Portland, those ports which see high percentages of these products, face the greatest projected container losses at 78%, 65%, and 58%, respectively.

Here, too, it is important to consider the accessibility of alternate transportation routes for those clients who had been using the Columbia/Snake River ports. The Port of Lewiston faces the most conservative projected reduction in container shipment among the other ports at a 46% loss. The projected container decrease at the Port of Pasco, however, is 78%. The variation in these 2005 losses can be attributed to the fact that it is much easier to ship products via rail or truck out of Pasco and thus most clients will choose those options more readily than might those clients shipping out of Lewiston, for whom the options are not only more costly but less readily available.



The Port of Morrow provides a good example of the ways in which product, cost, and transportation accessibility converge. The port relays high amounts of hay and frozen potatoes as Fig. 1.3 suggests, and it is located near Interstate 84. However, as Fig. 1.2 suggests, the cost to transport materials by truck rather barge is quite high: it costs 27% more to truck materials than to barge them, an increase that clients might be hard pressed to pay despite the importance that they make their products available for export.

While general trends and shipping statistics are useful in developing big-picture impact statements, the circumstances that contribute to these trends and statistics at each port are unique and suggest important reactions to the withdrawn shipping services at the Port of Portland. The following sections trace individual port responses to the “K” Line and Hyundai exit, illustrating the local effects of a shipping setback that occurred miles and miles down the river.

Columbia / Snake River Port Impacts

Port of Lewiston

The Port of Lewiston in Lewiston, Idaho lies 360 miles up the Columbia River, what the Port of Portland estimates at around 47 hour journey by barge. Carrie Kelly, Traffic Coordinator for the Port of Lewiston’s container yard, was interviewed in order to obtain information about impacts to the Lewiston port following the suspension of services by K-Line and Hyundai at the Port of Portland. Port clients including Spokane Seed, Genesee Union, George Brocke & Sons, Columbia Grain and Potlatch all use containerized shipments to transport their products—grain, peas, Garbanzo beans, lentils, and paper products—from an inland location to export markets overseas.

The abovementioned clients who use containerized cargo services at the Port of Lewiston have felt the effects of the suspended lines at the Port of Portland because markets once accessible through K-Line and Hyundai steam ship services previously provided there are now inaccessible. The Port of Lewiston had used “K” Line’s services for the shipment of 20 percent of its containerized freight (Williams, 2004), and while Hanjin began calling on ports in Japan and Taiwan at the beginning of February 2005 and opened up some shipping options for Port of Lewiston, comparatively the help is minimal. Clients who ship their products on Hanjin steam ship lines are also affected by the line’s inability to fill the void of service left by “K” Line and Hyundai, and due to the increased transportation costs of moving their products by truck and rail to the Ports of Tacoma and Seattle, they also suffer because they cannot bid on overseas business as effectively as they could beforehand. Because of the reduced volume of containers moving through the Port of Portland, “barge gangs” or the workforce required to off-load a barge at port, are only working one day weekly, whereas prior to the suspension of services at the Port of Portland they were working four days a week. Ultimately, the elimination of “K” Line and Hyundai movement in Portland results in less flexibility for up-river ports and effects their ability to accommodate clientele through more rigid shipping schedules.

Containerized cargo once barged downriver through the Port of Portland is now trucked directly from the Port of Lewiston to the Ports of Tacoma and Seattle. Despite the fact that the commodities which move through the Port of Lewiston have remained the same, shipment volumes have decreased to a large degree. Projections for the Port of Lewiston in 2005 suggest a 46% decline in container needs, from 6,882 containers in 2004 to 3,716 containers in 2005 (Figure 1.3). Consequently, revenue at the port generated from container handling fees has decreased proportionately with the reduced volume of containers. Transportation costs to

move one 40 foot long container to Portland by barge are approximately \$400 round trip; for the same container to be shipped to Seattle/Tacoma by truck is \$475. For a load of only 10 containers, clients would have to expect to pay \$750 more to transport their goods to a coastal port where they can be shipped. Also, the port loses a profit share of the \$4000 that the client would have paid to have its products shipped through the port if appropriate export lines were available in Portland. Not only do transportation costs increase when clients are forced to use this alternative shipping method, but as port profits decrease, employment opportunities are affected. In the container yard alone at the Port of Lewiston positions have been reduced by 50%. Lastly, following the suspension of services at the Port of Portland, no additional capital investments on behalf of the port or any of its operators have been made on new facilities to date.

Thus far Potlatch, a shipper of paper products, has been the individual client that has been most dramatically impacted by the suspension of services at the Port of Portland. In turn, Potlatch has chosen to move the majority of their products to the Puget Sound ports via truck rather than to continue to use barge services at the Port of Lewiston. Potlatch representative, Mark Benson told the *Lewiston Morning Tribune*, "Our use of the Snake-Columbia system is hamstrung by the inefficiencies at Portland" (qtd. in Williams, 2005). Their decrease in materials barged began as early as 2002 but increased rapidly following "K" Line's and Hyundai's withdrawal last year. In April of 2004, Potlatch shipped 548 containers through the Port of Lewiston; in the same month this year, the company shipped only 46 containers. Potlatch's decreased use of the port has caused an economic backlash: officials at the Port of Lewiston foresee a \$410,000 revenue loss, one which will be dealt with through raising rental rates at the port, assigning shared job duties among port employees, and the possibility of introducing of a property tax levy worth \$450,000 (Williams, 2005). Curiously, because the problems associated with Potlatch's inability to barge their materials are not associated with inefficiencies at the Port of Lewiston, those speaking of Potlatch's shipment woes cited the dredging of the channel as the prime culprit (Oxley, 2005 and Williams, 2004, 2005). "Once the channel deepening is done, and the Port of Portland recruits new steamship lines, Potlatch will begin utilizing the river again. It's still the most economic means of transportation," David Doeringsfeld, manager of the Port of Lewiston, told the Associated Press (Oxley, 2005).

In the same way that the cost-effectiveness of each of the modes differs, so too does the timeliness of these modes of shipments leaving Lewiston. When asked how the suspension of Portland's "K" Line and Hyundai lines influenced the delivery times for various commodities, Kelly said that she "did not know for certain." Kelly did mention, however, that "Potlatch products were very time sensitive shipments and that they were most likely to have been inconvenienced if there were any delivery time increases." Kelly also said that "the reduced barge service provided at Portland and Lewiston requires producers/brokerages/shippers to get their products to Lewiston much earlier than previously required for specific loading dates." Overall, upriver ports have been inconvenienced by the discontinuation of services at the Port of Portland because it requires greater coordination efforts on their behalf to secure a full loaded barge of 100 containers bound for Portland.

Kelly was unsure as to what extent the lost services of Hyundai and "K" Line might be regained, but overall she was optimistic that some fleet would fill the void left at the Port of Portland by the elimination of these two lines. Her optimism echoed that of Doeringsfeld who is confident that the dredging project will solve the problems related to Lewiston's waning revenue.

Port of Pasco

The Port of Pasco's containerized facilities are leased and operated by Northwest Container Services, Inc. Terminal Manager Bryson Pomeroy provided information about issues faced by the Port of Pasco and their containerized cargo operations resulting from the suspension of services at the Port of Portland. According to Pomeroy, everything that goes out by container at the Pasco port is exclusively for export. Approximately 99% of the containerized shipments are agricultural commodities, including hay, animal feed, and buckwheat. These shipments reach foreign markets either by barge through the Port of Portland or by rail via the Ports of Tacoma and Seattle.

Pomeroy made it clear that the suspension of services had certainly impacted port clients who use containerized cargo shipments in that the lacking "K" Line and Hyundai lines have changed their options for shipping. According to Wayne Plaster, general manager for Northwest Container Services, the Port of Pasco worked largely with Hyundai before it discontinued service (St. John, "Shipping," 2004). Pomeroy stated that due to the alternate routing of container shipments "container shipments are down 60% to 70% and rail movements out of the port have increased 300%." In the case of Pasco, rail movement has increased dramatically because the town sits along the Burlington Northern Santa Fe rail line. The Port of Pasco is inclusive of the Big Pasco Industrial Center a warehouse site which sits on 600 acres and offers 25 miles of rail lines that link up with the BNSF. With these rail connections, Pasco is in a more advantageous position to offer multi-modal alternatives in the wake of the international line cuts at Portland.

Pomeroy commented, however, that there have been "problems" with the rail service at the Port of Pasco following the increased volume of container shipments arriving by rail. He estimated that delivery times for various commodities have increased by 40% to 60% due to the problems associated with the rail service at the Port of Tacoma. Rail traffic in Pasco is also slowed down at times due to the fact that the spur or the piece of track that links the port with the BNSF is short, and thus while trains are loading and unloading at the port, they stick out onto the main line and halt traffic, explained Jim Toomey, the port's executive director (qtd. in St. John, "Pasco," 2005). Plans to remedy this disadvantage include lengthening spurs by connecting them to less frequently traveled BNSF rail lines north of Pasco that will allow trains to load without interrupting movement on the main line. Because of the importance of rail travel that occurred in the wake of the "K" Line and Hyundai withdrawal, the port is concerned with keeping its rail lines efficient and being able to handle heavy rail traffic. The plan to improve rail lines in Pasco will cost around \$4 million dollars, but given the traffic that passes through Pasco, these improvements are necessary. According to the Freight Mobility Strategic Investment Board's 2004 Activities and Recommendations Report, the Port of Pasco cited that following the discontinued "K" Line and Hyundai services, the port was already shipping 1,000 more containers per month than it had been. Already by April, movement had increased from 40 to 400 containers per month (St. John, "Shipping," 2004).

Large scale economic worries at the Port of Pasco are much less prominent than at the Port of Lewiston and other ports because of Pasco's rail line advantage. According to Pomeroy, while the volume of overseas bound container cargo remains unchanged, the route and modes by which this cargo travels to overseas' markets differs from the way in which it arrived there prior to the suspension of services at the Port of Portland. Transportation costs for shippers "will vary," Pomeroy said, but he continued to state that he had "no concrete figures available." Wayne Plaster, the general manager for Northwest Container Services working out of Portland, noted similar to Pomeroy that the costs would vary, he estimated that while by barge it might

cost \$350 to transport a container to Portland, it may cost considerably more to transport it to Seattle or Tacoma by rail (St. John, "Shipping," 2004). Given that containers barged down the river through the Port of Pasco had decreased from 400 per month to 100 per month as of April 2005, it is apparent that clients must be willing to pay more upfront to realize the profit earned by exporting their products (St. John, "Pasco," 2005). According to Figure 1.3, rail traffic from Pasco to the Puget Sound area increases shipment costs by 18%, which remains more cost effective than trucking products to the same area which costs 24% more than when it is shipped by barge. As to where cargo is originating from and its specific alternate routing, Pomeroy said he had no answer; as a result, attempts were made to contact individual shippers. Alfalfa hay cubes and compressed bales comprise approximately 95% of the containerized shipments through the port. Subsequently, hay has been the commodity which has seen the greatest change in volume of movement down river and its shippers have realized the greatest inconvenience due to the suspension of services at the Port of Portland.

When asked about the impact to revenue income from container handling fees at the Port of Pasco's facilities, Pomeroy said that "he could not release that information." The container yard of Northwest Container Services, Inc. continues to employ the same number of people as it did prior to the suspension of services at the Port of Portland. Following the suspension of services at the Port of Portland, however, no additional capital investments on behalf of the port or any of its operators have been made on new facilities to date.

When questioned about his opinion regarding the return of previously lost steam ship line services at the Port of Portland, Pomeroy said that "there is simply too much going on surrounding the loss of the services to make any optimistic prediction." He stressed that "the export market in Portland is very large and diverse, and [that] there are too many unknowns associated with that vastness and diversity of export markets" to accurately comment on the likelihood of steam ship lines returning to Portland.

Port of Umatilla

Of the 23 Oregon ports, geographically the Port of Umatilla district is the largest, encompassing some 3200 square miles. In 1991, J.R. Simplot Corporation began leasing the Port of Umatilla's containerized cargo facility and equipment to ship its potato products. From general manager Kim Puzey's viewpoint, given Simplot's use of the port, "it was a facility which predominantly handled frozen potato products." By 1994, Simplot had turned operational management back over to the port, and since 1995, CRIS, Inc. has operated the containerized cargo facilities. Currently there are several clients of the Port of Umatilla who utilize containerized cargo shipments. Shipments downriver are comprised largely of frozen potato products (French fries) destined for Asian markets. Double compressed hay bales and pellets originating in the Columbia Basin make up another significant portion of the downriver shipments. Other commodities that move out of the port by container include dried corn, peas and lentils, frozen vegetables, diatomaceous earth originating in southeast Oregon, scrap iron destined for China, and a small amount of beef.

The producers and shippers of hay and frozen potato products have been impacted the greatest by the suspension of services on behalf of "K" Line and Hyundai. Shipments of hay and frozen potato products are now alternately routed to the Ports of Tacoma and Seattle via rail and truck. Naturally, the volume of overseas bound container cargo leaving the Port of Umatilla bound for export through the Port of Portland is down significantly. The suspension of services at the Port of Portland has also impacted revenue income from cargo handling fees generated at Port of Umatilla facilities. Mel Ray, president of CRIS, Inc. commented, "We are now back in red ink," indicating that the loss of shipments through the Port of Portland has

negatively impacted their operations. In fact, Ray said, "We have had to subsidize operations in order to serve some of our customers." Ultimately, Ray suggested, the key "is to spread the fixed costs of operating the facilities over the greatest number of containers possible to increase profitability."

Concerning impact of "K" Line's and Hyundai's discontinued service for shippers, Mel Ray provided information about how much the delivery times of various commodities had changed. Ray said only that "commodity shipping times from point A to point B have not changed as a result of the operations at the Port of Umatilla's dock." Transportation costs for shippers vary by the types of commodities being shipped and also by the mode of transportation. Currently, Port of Umatilla clients who once shipped their products via barge to Portland are now trucking their products directly to the Port of Seattle or Tacoma; or they truck their products to the Port of Pasco and then send them via rail to the Port of Tacoma or Seattle. Whereas it used to cost \$299 to barge a 40 foot container to Portland, it costs \$325 to truck the same sized container to Seattle or Tacoma. Transporting commodities by rail from Pasco is more expensive yet: it costs \$362 to move a 40 foot container by rail to Seattle/Tacoma from Pasco plus the additional cost of transporting those containers from Umatilla to Pasco by truck.

No changes have been made to date concerning employment at CRIS, Inc. Similarly, no additional capital investments on behalf of the port or any of its operators have been made on new facilities to date as a result of the suspension of services at the Port of Portland. However, General Manager Kim Puzey said that "the Oregon state legislature is examining the possibility of a \$2 million appropriation for an intermodal trans-loading facility that would be entirely funded by the state." Oregon governor Ted Kulongoski is advocating a program called *ConnectOregon* which is intended to lure companies to allocate their shipping business to the Columbia River waterway. In an interview with the *Columbian*, Puzey remarked that he hope the governor's legislation might lead the way for a railroad siding, costing \$3.6 million (Beggs, 2005). The overarching goals of the program are to diversify roadway transport with accessible barge/rail opportunities to lessen highway congestion that is particularly bad in the Columbia River gorge.

The *ConnectOregon* plan was presented in the wake of the addition of a new crane at the Port of Umatilla. The \$4.8 million crane will replace the preexisting 64-year old crane and un/load containerized cargo much more efficiently, hopefully making Umatilla a more attractive port stop for clients looking to ship their products. As of April 2005, crane construction was nearing completion, and while operators had hoped it would be in use as early as May, reports of its working condition have not yet been reported by local news sources. In comments made to the *Tri-City Herald* in March of 2004, Puzey explained that he hoped the crane, the only crane of its size allocated at a shallow barge-port worldwide, would attract business from trucking companies in Caldwell, Nampa and Boise, Idaho, companies who might consider barging their goods to Portland in order to lessen trucking stress on Oregon roadways. The larger crane would be able unload containers from these trucks quickly, decreasing not only the time they would spend at the port of Umatilla but also the overall time it would take for them to transport their goods to Portland (Gilstrap, 2004).

Given that the plans for the introduction of the new crane were made before the withdrawal of Hyundai and "K" Line shipping services, it is hard to know whether or not the port felt the economic boost it was hoping to after the crane addition. Depending on the kinds of products that Idaho companies were trucking to Portland, it may or may not have been an economical choice for those companies to transport their products through Umatilla, especially if they were Asian-export products that would need to be alternatively routed to the Ports of Tacoma or Seattle. Even before "K" Line's and Hyundai's decision to leave Portland, the

addition of the Umatilla crane was particularly important to the life of the port following the closure of Simplot's Hermiston, Oregon facility in November of 2004, a closure that was also announced after the plans for the crane were underway. As of March 2004, Simplot shipments accounted for only 25 percent of the products moved through the port, surprising given the previously Simplot products had been the primary cargo passing through the port (Gilstrap, 2004). At the time, Puzey told the *Tri-City Herald* that while the loss of the Simplot business was serious, it was not as devastating as it might have been if it had happened in previous years.

Puzey is hopeful that the current situation at the Port of Portland is just a "glitch" and that Portland will be successful in the near future at securing the steam ships needed to transport Pacific Northwest agricultural exports to their respective foreign markets. However, Puzey maintained that the Port of Umatilla is not "married" to the Port of Portland and that they are currently looking at solutions to bypass the Port of Portland completely. If the *ConnectOregon* program is successful, it might be one of the solutions that will aid the port's success.

Port of Morrow

Container cargo facilities at the Port of Morrow in Boardman, Oregon have been operated and managed by Tidewater Barge Lines of Vancouver, Washington since 1991. Greg Zavanich, Manager of Container Sales & Marketing for Tidewater Barge, offered insights about impacts to the port resulting from the suspension of services by K-Line and Hyundai at the Port of Portland. Approximately 99% of the containerized cargo shipments from the Port of Morrow are outbound, destined for Japan in particular. A majority of this cargo includes dairy quality hay. Three main shippers – Oregon Hay, Western Alfalfa and Circle C – sell hay through a variety of exporters. Of the inbound shipments for the year 2004, all were shipments returned due to undesirable shipment quality. Other agricultural commodities that are shipped in containers through the Port of Morrow include frozen potato products (French fries), dehydrated potato products, dehydrated onions and frozen vegetables including corn, beans and peas.

Although Zavanich had no concrete numbers to describe the effects of the loss of services at the Port of Portland, he commented that it "definitely" impacted clients who make use of containerized cargo shipments. Containerized cargo shipment volume one year ago (February 7, 2004) was approximately twice what has recently been moved downriver to the Port of Portland. The remainder of shipments no longer barged has been alternately routed to the Ports of Tacoma and Seattle by truck.

Regarding agricultural commodities, the hay industry has experienced the greatest changes concerning volume of containerized cargo shipments barged to the Port of Portland. Zavanich said, "The first barge of containerized cargo moved down the river last week without a single container being loaded with hay. Typically the shipment is approximately 80% hay." Other agricultural commodities consistently continue to move downriver from the Port of Morrow towards the Port of Portland by barge. "These commodities are export bound on Hanjin containerized cargo liners and continue to move because they pay higher rates than hay," Zavanich explained. He explained the selective movement of commodities through comparing hay shippers and steam ship lines such as Hanjin to Wal-Mart and their suppliers. Because Wal-Mart has many suppliers of the same product, they can "squeeze" their suppliers to achieve lower rates for customers. In this same fashion, steam ship lines such as Hanjin have many suppliers for agricultural commodities. Just as Wal-Mart can be selective about their suppliers, so too can Hanjin be selective about the exports they transport.

Revenue generated from container handling fees has been impacted negatively by the suspension of service. Historically the Port of Morrow has moved approximately 80 to 90 containers on a weekly basis. Now, approximately only 30 to 40 containers are moved weekly. Despite this decline in containerized cargo shipments, employee numbers at the Port of Morrow have remained static. Zanavich explained, "We (Tidewater Barge) are not wholly dependent upon export shipments for business. We are diversified in that we also barge bulk wood chips and refuse."

No additional capital investments on behalf of the port or any of its operators have been made on new facilities to date as a result of the suspension of services at the Port of Portland. Zanavich said, "The only investments that have been on behalf of hay shippers who are now shipping a majority of their product over the road by truck. Investment in 4-axle chassis trucks have been made in order to haul a greater payload."

Concerning delivery times of commodities moving through the Port of Morrow, Zanavich reported that "it takes relatively equal amounts of time for containerized product to move by barge from the Port of Morrow to the Port of Portland as it does by truck from the Port of Morrow to the Port of Tacoma." Bottom line Zanavich said was that "delivery times have not decreased." On average, transportation costs for hay shippers per container have gone up, however. Zanavich approximated that "it costs \$500 to \$600 to truck a single container from the Port of Morrow to the Portland where it can be loaded for transport by rail to the Port of Tacoma. On the other hand, it costs only \$300 to barge a single container from the Port of Morrow to the Port of Portland." At a minimum Zanavich said, "shippers of hay have experienced an increase of \$250 to \$300 per container." Zanavich emphasized that, "the shippers experiencing the greatest inconvenience are the hay shippers."

Zanavich is not optimistic about container cargo services being regained at the Port of Portland in the short term. He believes there will be no "quick fix," certainly not within the year 2005. Zanavich commented that, "Hanjin has picked up the limited import market at the Port of Portland and has a well balanced import-export ratio." Until there is an expanded import market, he is doubtful about the return of K-Line or Hyundai to the Port of Portland.

Port of Portland

John Akre, Regional Marketing Manager of the Port of Portland's Marine Division, was interviewed concerning information about influences on the port of Portland itself resulting from the suspension of services by K-Line and Hyundai there. Akre commented, "Many of the port's clients utilize containerized shipments that are primarily exported overseas." These clients include agricultural commodity shippers of which, as dually noted by Zanavich, hay shippers are experiencing the greatest inconvenience overall. A majority of hay cargo originates at the Port of Pasco in Pasco, Washington and at the Port of Morrow in Boardman, Oregon. Frozen potato products (French fries) also experienced a major decrease in movement through the Port of Portland as result of K-Line's and Hyundai's suspended services. A majority of frozen potato products originate at the Port of Umatilla and are moved through the Port of Portland on K-Line vessels.

Akre said that clients who move containerized shipments from upriver locations along the Snake and Columbia Rivers have experienced the most changes following the suspension for the following reason. "Barge gangs," or the workforce required at ports to unload materials, must be hired to handle incoming barges transporting containerized shipments. Now that Hanjin is the primary steam ship line that exports container shipments of agricultural cargo, "barge gangs" are hired only one day weekly which is down from an average of three days a

week previously. Consequently, this reduction of man hours restricts the flexibility of service the port can provide to upriver clients when the barge shipments can only arrive on a single day of the week. Upriver clients include those shippers who move products through the Ports of Lewiston, Pasco, Umatilla and Morrow.

Agricultural commodities which have experienced the greatest change in volume movement through the port in descending order from greatest to least are hay, frozen potato products, paper products and peas/beans/lentils. Decreases in revenue from container handling fees have approximately “decreased in proportion with volume,” said Akre. During the month of January 2004, a total of 3,750 containers of cargo were moved through the Port of Portland on three steam ship lines: K-Line, Hyundai, and Hanjin. During January 2005, only 1,373 containers of cargo were moved through the Port of Portland on Hanjin vessels.

The Port of Portland has experienced a reduction in the number of employees directly resulting from the loss of services provided by K-Line and Hyundai. Overall, a 10% decrease in staff was realized at the Port of Portland with a 20% decrease in the marine department alone. Akre said, “50 employees and a total of 80 positions were eliminated.” Not surprisingly, no additional capital investments on behalf of the port or any of its operators have been made on new facilities to date as a result of the suspension of services at the Port of Portland. Akre suggested, however, that, “the Port of Morrow at Boardman, Oregon and the Port of Umatilla, Oregon have been contemplating an investment in rail spurs to facilitate movement of containerized cargo along alternate transportation modes and routes.”

While volume of shipments has decreased substantially, according to Akre, “delivery time for frozen potato and paper products have not increased.” The only agricultural commodity which has experienced a delivery time increase is hay due to the fact that Hanjin had not been calling on the Port of Tokyo, Japan. However, Akre noted that “Hanjin did begin calling on Tokyo beginning February 2005.” Transportation costs for shippers of various containerized agricultural commodities are difficult to generalize because shipping rates differ from commodity to commodity and also from shipper to shipper. Akre said that “approximately a 30% to 40% increase in transportation cost would be realized utilizing inland transportation as opposed to water transportation by barge.”

According to Akre, the containerized shipments for export handled at the port are approximately “2 to 3 times greater” than the volume of containerized shipments for import. Akre explained that “the key to returning the services of K-Line and Hyundai to the port was to match the volume of outgoing exports with the volume of incoming imports.” In other words, import business at the port must be recruited from the places where the majority of exports are destined. Akre stated, “48% of the containerized exports in 2004 went to Japan.”

Akre is optimistic about the port’s plan to return the services and business to the Port of Portland. He stated that “the ports primary goal is to retain the Hanjin cargo line.” Secondly, the port will focus on re-acquiring trans-pacific carriers. Additionally, the port would like to acquire a secure stream of import business in South America.

Puget Sound Port Impacts

Port of Tacoma

Business Planning Manager of the Port of Tacoma, Doug Ljungren, was contacted concerning the changes which have occurred at the port following the suspension of services by K-Line and Hyundai at the Port of Portland. When asked about the destination of containerized shipments at the port he replied that "95% of the shipments are export bound." As to their origination and final destination, Ljungren said that "it is difficult to track those movements and that it is not of extreme interest to the port." Consequently, Ljungren was unable to provide any concrete break down as to where shipments were originating from and destined for. Ljungren commented, however, that "many empty containers were arriving by rail from the Port of Portland with approximately 40% of these coming from the Midwestern United States."

Direct influences on the Port of Tacoma include the fact that larger ships are imposing on the port than did so previously, requiring some adjustments and necessitating planning to accommodate these larger vessels. Approximately 130,000 more 20-foot equivalent units (TEUs), or 65,000 more 40-foot long containers, are now passing through the Port of Tacoma on K-Line and Hyundai ships that had not previously done so in the past. Regarding increased overseas bound container volume at the Port of Tacoma, Ljungren said that "approximately 123,000 of the 130,000 TEUs" appeared as a result of the suspension of services at the Port of Portland.

The products which move through the Port of Tacoma are now more heavily oriented towards agricultural commodities than they were prior to the suspension of services at the Port of Portland. Ljungren stated that the product mix is relatively equal between agricultural commodities, forestry products, and manufacturing products. When asked about the volume of agricultural commodity shipments, Ljungren stated that "the Port of Tacoma is not concerned about analyzing what is in the containers," but he did say that following the suspension of services at the Port of Portland, "hay was the number one commodity acquired by the port in terms of volume."

Ljungren could not provide rates on container handling fees because of confidentiality associated with that information. He did, however, comment that "overall revenue has increased due to the increased volume of containers moving through the port." The revenue generated from increased container volumes also varies depending on which steam ship carrier is picking up the business. For example, Ljungren explained, "K-Line operates from a port owned facility whereas other steam ship lines own and operate their container handling facilities." This of course translates into different lease agreements between the port and steam ship lines and associated revenue margins that differ with activity. When containers arrive by rail on either the Burlington Northern Santa Fe or the Union Pacific, there is simply an unloading fee charged on a per container basis.

Employment at the Port of Tacoma has certainly increased. Ljungren provided a crude estimation of the impact, stating that "the number of longshoremen working the container yards had increased 5% or 35 employees." Additionally, he said, "maintenance of equipment was certainly up" therefore creating more labor hours needed to maintain terminal equipment. Increases in container volume arriving by rail have created labor opportunities at the Port of Tacoma as well.

No specific improvements requiring investment on behalf of the port or any of its operators have been made to handle the increased container volume. Railway and highway

infrastructure continue to be expanded to handle traffic created by the increased container volume, but Ljungren was hesitant to attribute this expansion to the suspension of services at the Port of Portland. Truck unloading gates are built by the Port of Tacoma for the various terminals that unload containers, however, Ljungren said that “if additional unloading gates were required the port simply raises terminal rent to cover the cost of construction if so requested by terminal operators.” Roads surrounding the port that support the truck traffic are improved on behalf of the City of Tacoma in partnership with the Port of Tacoma and county and state governments. Railroad services, of which there are only two including Burlington Northern Santa Fe and the Union Pacific, use their own capital resources to make necessary improvements to accommodate increased container shipments.

According to Ljungren, delivery times of the agricultural commodities have not significantly changed from when they moved through the Port of Portland. Approximately one train load of containers, of which the standard unit train carries 350, is unloaded weekly arriving from Pasco, Washington. Ljungren emphasized that from a shipping standpoint, there is a low value associated with agricultural commodities. He stated, “agricultural products are not time sensitive to value.” Therefore, he reiterated, “one has to accept the fact that with a low value commodity a steam ship line examines the amount of resources it will take to get that commodity to its destination hurriedly.”

Ljungren is definitely optimistic about the return of lost services to the Port of Portland. Ljungren elaborated, “demand for port facilities on the West Coast United States have been increasing at an average annual rate of 7% over the last 20 years. Overall trade volume is expected to double in the next 10 years, and therefore because growth is so rapid no facility will go underutilized. Ultimately steam ships will be driven to Portland.”

Port of Seattle

Senior Representative for the Inland Northwest Regional Office of the Port of Seattle, Howard Granger, was contacted to discuss the changes that occurred at the Port of Seattle after K-Line and Hyundai suspended their services at the Port of Portland. Granger introduced issues associated with remedying the lack of cargo lines at Portland by explaining that “the Port of Seattle and the Port of Tacoma share the same railroad service so there have been problems matching the capacity of rail and trucking services with the capacity of the steam ship lines.” More specifically, it has been challenging to meet the demands of the increased volume of containers originating in the Pacific Northwest which are now moving on larger capacity vessels through the Ports of Seattle and Tacoma. In fact, the Port of Seattle has begun a project to expand the port’s capacity to accommodate three million TEUs annually within five years. The only way the Port of Seattle can increase its cargo volume, however, is to boost productivity because it has no excess land to expand cargo terminals.

Clientele located in Eastern Washington who now utilize the Port of Seattle as a shipping point include larger corporations such as J.R. Simplot and Lamb Weston of ConAgra Foods. Smaller manufacturers such as Maviga, D.J. Irvin and Robsen trade agricultural commodities and act as middlemen between producers and markets. Granger explained that in terms of impact and inconvenience, “the smaller entities such as Robsen have been most severely impacted” due to the suspension of services at the Port of Portland. While the larger companies like J.R. Simplot are able to move their points of final production closer to the shipping source in order to reduce transportation costs of the final product, these smaller companies cannot.

When evaluating impacts directly to the Port of Seattle, it is important to note that the increased container volume resulting from the suspension of services at the Port of Portland is

approximately 65,000 containers between both the Ports of Tacoma and Seattle. Of this increased volume, Granger estimates the Port of Seattle “receives half” of the containers. The increased container shipments are received predominantly by truck, a method that is “preferred because the railroads are not interested in short hauls (<750 miles) as they need to spread fixed costs over large mileages to be profitable,” Granger explained. Delivery times of various commodities shipped to their destination through the Port of Seattle, Granger commented, “is quicker only by truck directly to Seattle.”

The suspension of services at the Port of Portland has not changed the mix of products which move through the Port of Seattle. It still remains largely agriculturally-oriented and 30% of the export cargo continues to originate in the Inland Northwest. The agricultural commodity which provides the highest added revenue at the port from a shipping standpoint is frozen and processed potato products, the most competitive agricultural product from a shipping viewpoint.

To date, no additional capital investments on behalf of the port or any of its operators have been made on new facilities following the suspension of services at the Port of Portland. Granger emphasized, however, that “money for the Port of Seattle is no problem as the Port of Seattle is supported by the taxpayers of King County.” The port’s biggest potential problem which would require large capital investments would be construction of new infrastructure in the form of road and rail access to the port.

Granger is optimistic that the Port of Portland’s efforts to regain lost services will be successful. He expressed that “dredging of the Columbia River would certainly expedite the process.” Granger said, “West Coast ports will eventually reach capacity and that Portland will be utilized out of necessity, even if it is by smaller steam ship lines calling with smaller ships.”

Summary Findings

After examining the responses of all interviewees, several common effects appear to have resulted from the suspension of services by K-Line and Hyundai at the Port of Portland. First, Pacific Northwest agricultural producers, brokerages and shippers have been forced to utilize different forms of transportation to move their products overseas to Asian markets, a change that has resulted in an approximated transportation cost increase of 30% to 40%. Second, producers, brokers and shippers of hay and frozen potato products have experienced the greatest inconvenience resulting from the suspension of container steam ship line services at the Port of Portland. Third, all container handling ports and their respective container terminal operators along the Columbia and Snake Rivers have been negatively impacted by the reduced container movement in the form of revenue generation and/or employment. Lastly, Columbia and Snake River port manager and operator optimism regarding acquisition of previously lost services at the Port of Portland is high for the future. Generally, this was overwhelmingly attributed to the interviewees’ recognition of a constantly growing demand for West Coast United States port facilities.

Author's Notes:

["The impact varies by commodity and profit margin, but they worry that sending fruit to Puget Sound will cost more and could make their products too expensive to compete in a global market." . . . "It's an old problem that continues today because the Port draws few importers, which bring the empty containers, Hedaa said." (Owen "Fruit Exporters")]

"Two obstacles facing the Port of Portland are beyond its control: a relatively small population to buy the goods being imported and the time needed to navigate the Columbia River. The Port hopes to eliminate a third hurdle – the river's depth – by proceeding this year with plans to dredge the Columbia to 43 feet. The depth would accommodate many vessels but not the largest containers ships. In any case, the carriers that withdrew from Portland said the river's depth was not a main cause."

"For example, processors and exporters say trucking crops to Seattle or Tacoma instead of barging them to Portland adds as much as \$20 to the cost of shipping a ton of alfalfa. Farmers, processors and exporters split margins as small as 7 percent on alfalfa that sells for \$290 a ton - so any added cost can turn it into a break- even operation, at best.

"For a lot of the crops, a lot of these sectors, that can be the difference between being profitable and unprofitable," said Dalton Hobbs, administrator of the Agricultural Development and Marketing Division of the state Department of Agriculture. Even so, he said, "I don't think you're going to see wholesale bankruptcies or closures."

Growers can shift their mix of crops and change shipping methods to minimize the damage, Hobbs said, though it will eat into their profits." (Riviera and Rogoway "Oregon's One Two Punch")

"Today, we are actively engaged -- with the support of the entire regional congressional delegation, the governors of Oregon, Washington and Idaho, and a bipartisan business/labor coalition -- in deepening our shipping channel so existing and larger vessels can carry more cargo. And we are aggressively marketing Portland as an import gateway to many of the shipping companies involved in the Asian container trade.

Portland's long-term opportunity lies not in attempting to replicate the container model of our neighbors to the north and south. Rather, Portland's path to prosperity lies in prudent and rational investments that will enhance the value of our existing container facility." (Bill Wyatt "In My Opinion")

Be sure in this section to discuss the solution that the government sees necessary of boosting imports. Check out the Zvi Raanan editorial response to Bill Wyatt's editorial. He suggests that the only hope for the Port of Portland and Oregon export overall is to beef up exporting capabilities at the inlet to the Columbia river.

Discuss that the possibility of dredging has been opened up but that the depth factor is one that will limit service despite dredging. Tacoma has a 51 foot port depth – makes more sense for the big ships to head there.]