TRAINING PROGRAM

Surviving the Competitive Marine Terminal Industry – Economics of Marine Terminal Operations

PORT OF PORTLAND

Possibility. In every direction.

Port Infrastructure Development & Investment A Case Study

October 18, 2007

witz
anager – Container Marketing
tland

Agenda

- istory, Context and the Port's Terminal 6 Proj
- ort of Portland Terminal 6 Overview
- urrent Market
- reliminary Conclusions

Port Charter and Mission

1891, the Oregon legislature created the Port of Portland to dred
shipping channel from Portland to the sea.

e Port now owns four marine terminals, four airports, and seven
siness parks.

MISSION

Provide competitive cargo
passenger access to regional, natio
and international markets while enhan
the region's quality of

PORT OF PORTLAND

Port of Portland Marine Terminal Statistics, 1978 - 2006

Calendar Year	Vessel Calls	Total Tonnage	Breakbulk Tonnage	Container TEUs			Automobile Units	Grain Tonnage	Mineral Bulk Tonnage
				Export	Import	Total			
1978	N/A	4,715,677	964,207	48,954	35,067	84,021	226,164	2,387,686	340,079
1979	N/A	6,381,121	1,232,186	52,226	35,592	87,818	249,191	3,584,585	435,499
1980	N/A	7,026,976	1,119,712	51,731	41,284	93,015	266,578	4,419,674	293,873
1981	N/A	7,356,527	900,602	48,086	30,713	78,799	263,117	5,069,467	317,996
1982	N/A	6,482,768	664,011	46,274	26,745	73,019	260,238	4,505,017	327,506
1983	N/A	7,245,779	692,941	64,661	36,350	101,011	270,928	4,751,707	515,420
1984	N/A	8,268,386	804,187	84,211	41,551	125,762	308,884	5,226,227	524,314
1985	901	7,199,961	1,042,349	92,860	45,024	137,884	341,274	3,995,604	326,769
1986	893	7,042,011	916,902	86,669	38,329	124,998	411,608	3,915,913	296,039
1987	916	8,411,108	924,133	99,459	40,116	139,824	373,916	5,053,527	318,857
1988	1,001	9,779,216	1,276,900	115,421	49,175	164,606	392,212	5,292,648	869,217
1989	930	9,226,981	1,171,645	124,304	61,723	186,027	327,522	4,209,716	1,538,542
1990	896	9,498,326	942,443	107,901	55,032	162,933	302,652	4,717,519	1,796,879
1991	963	10,256,314	1,195,345	118,413	57,487	175,900	289,191	4,718,840	2,103,129
1992	1,017	10,768,718	1,050,743	149,075	68,347	217,422	272,958	4,646,490	2,361,791
1993	1,005	10,482,961	834,935	171,664	67,775	239,439	236,300	4,544,028	2,235,615
1994	1,024	11,788,821	666,096	221,142	96,819	317,961	294,145	5,250,964	2,131,859
1995	903	11,996,930	400,836	226,412	103,335	329,747	233,807	5,398,942	2,442,017
1996	818	10,552,558	345,952	200,693	101,478	302,171	204,542	4,160,264	2,575,454
1997	906	10,772,620	411,186	186,633	108,297	294,930	254,650	3,611,323	3,201,462
1998	984	11,330,619	575,179	176,719	82,589	259,308	245,821	3,814,156	3,756,917
1999	965	12,076,889	752,914	206,362	86,900	293,262	308,813	3,660,089	3,958,237
2000	913	11,804,776	644,362	221,481	69,462	290,943	345,772	3,218,310	4,219,040
2001	864	11,052,341	768,661	214,743	63,748	278,491	356,516	2,574,336	4,140,627
2002	800	10,676,519	772,966	200,298	55,447	255,745	394,776	2,628,578	4,032,277
2003	832	11,957,917	704,190	265,756	73,185	339,571	366,383	3,038,142	4,519,256
2004	773	12,581,370	892,115	203,385	71,224	274,609	358,682	3,911,093	4,457,176
2005	684	11,550,062	986,229	95,279	65,200	160,479	354,976	3,849,039	4,552,436
2006	793	11,965,669	1,059,486	124,791	89,693	214,484	463,557	3,705,953	4,319,450

The above figures apply to Port of Portland public terminals. All tonnage is in short tons. Automobiles are measured in number of units, and containers are measured in twenty-foot equivalent units (TEUs). The volumes reflect cargos loaded to or discharged from ocean-going vessels; cargos received or shipped via inland barge are not included

Current Status

- /e are exploring the opportunity to engage, with a partner
  long term terminal lease or concession project.
- ort of Portland characteristics
  - Only container facility on the USWC using a Port Authority operating model
  - Low container volume, but “fastest growing” container port on the US West Coast
  - River port, channel deepening underway with completion in 2009 – 2010
  - Import and export cargo in balance – recent development
  - West Coast terminal capacity constraints
  - Presents a significant long term lease or concession opportunity resulting from current s term carrier contracts
  - Superior rail and highway connectivity, with minimal congestion

Project Requirements/Results

sitive and stable return on assets (land, facilities, equipment)

lume growth - improved facility utilization

mmitment to invest in future expansion

ovide improved international access to regional shippers

olumbia River Navigation Channel

Channel Deepening Project

- Deepen from 40 feet to 43 feet
- Construction started: 2005
- Planned completion in 2010

Port Facilities

Terminal 6


1
2
3
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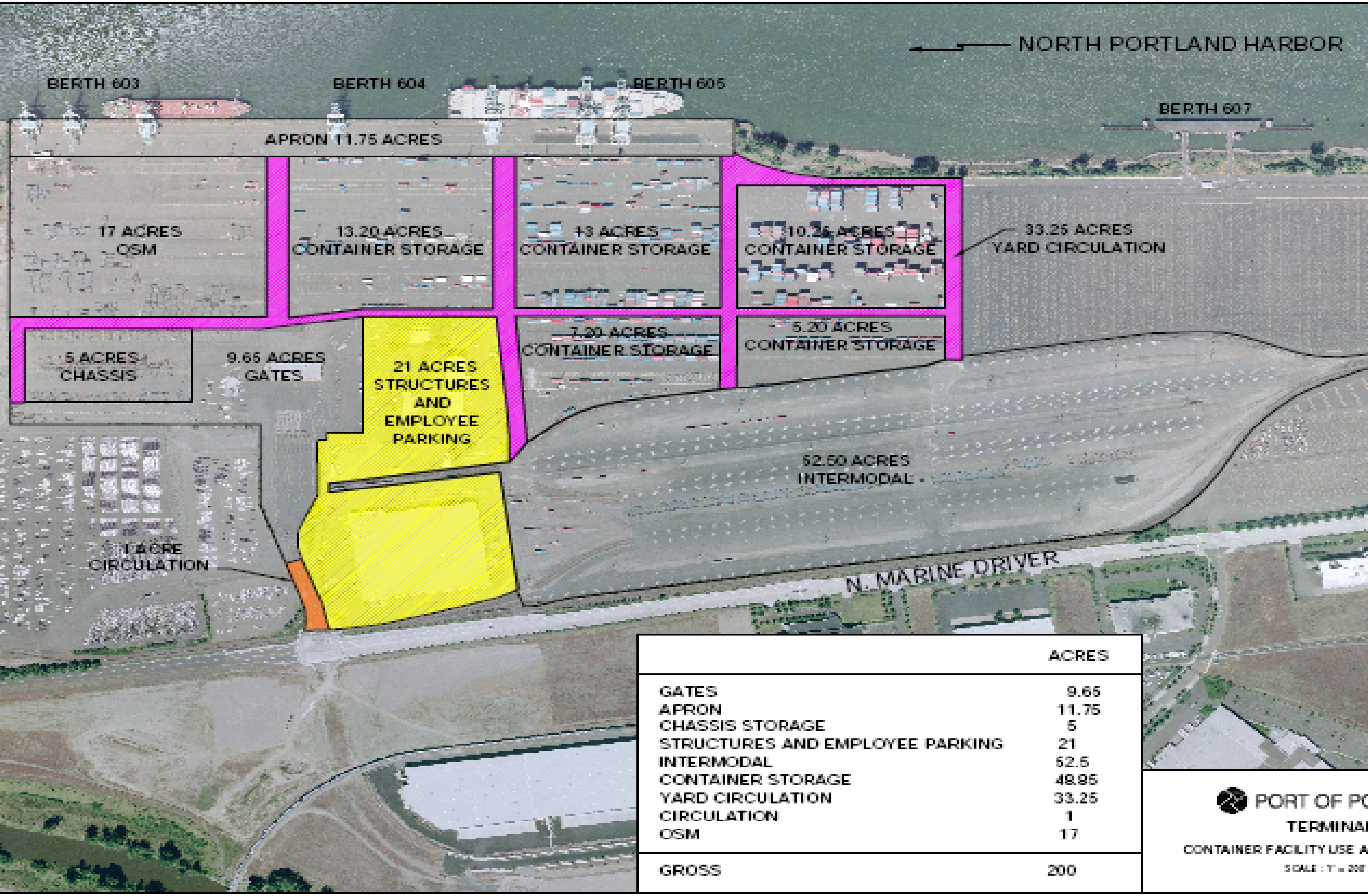
7
1 AWC Lease
2 Oregon Steel Mills
3 Container Facility
4 Honda Lease
5 AWC Lease
6 BNSF/UP Lease
7 Auto Facility Overflow
8 BNSF/UP Trackage
9 Suttle Road Site
10 Intermodal Rail Yard

Terminal 6 – Container Facility



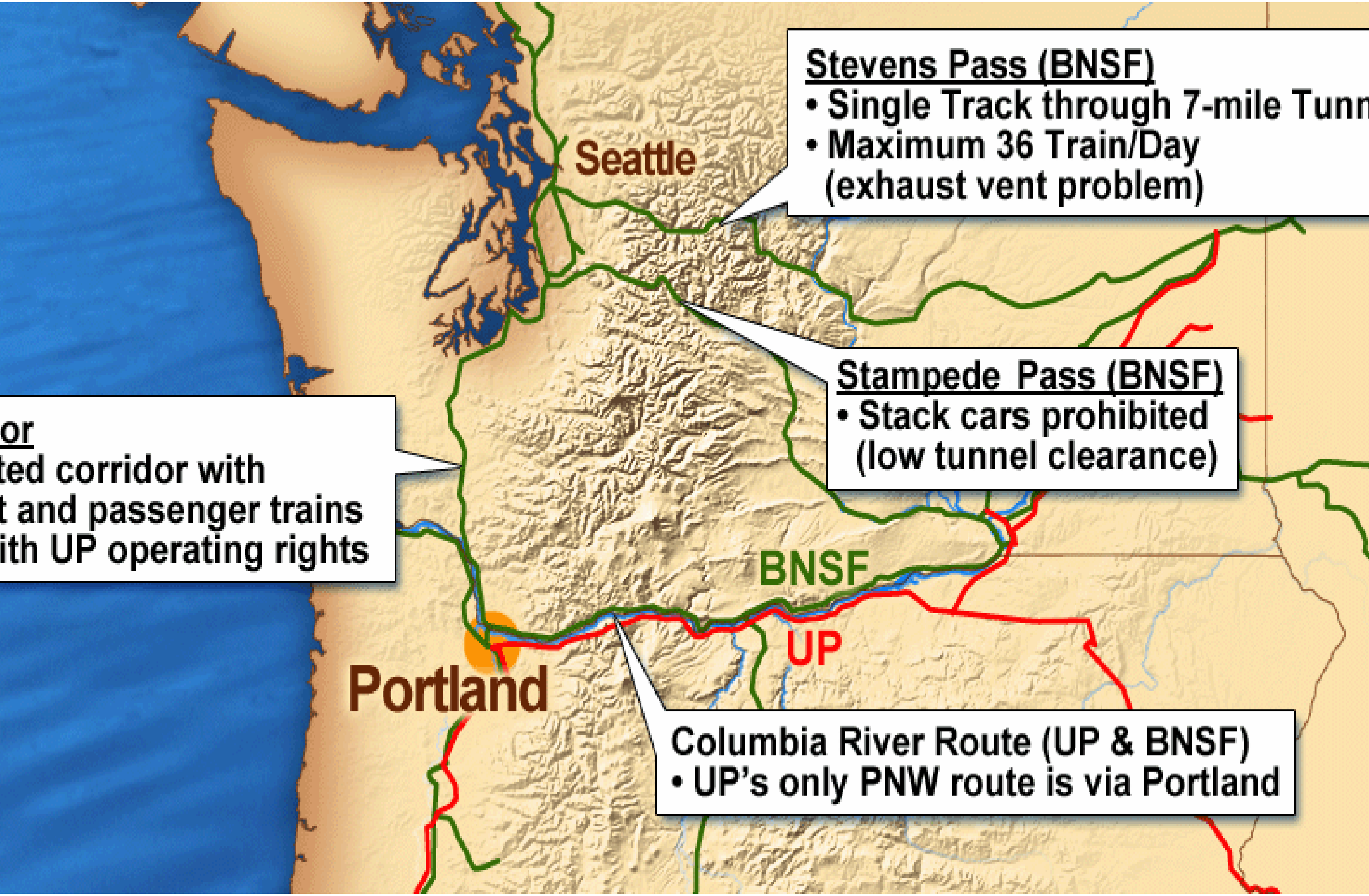
Terminal 6 – Container Facility

Terminal 6 Rail Advantage

n-dock intermodal facility served
UP and BNSF

nly PNW river-grade interstate
ghway and rail route to interior

rect access to north/south
st/west interstate highways



ct BNSF and UP on-dock service
river grade rail corridor in the Pacific Northwest

Current Container Carrier Contracts

- 5 carriers / 3 services (Zim/China S departed Sept 12)
- Existing contracts up for renewal b 2008 - 2010

Current Market - Containers

06 Total Region TEU

Imports: 160,000 TEU / (90,000 @ T-6)

Exports: 223,000 TEU / (125,000 @ T-6)

apidly growing import market

gh percentage of Portland cargo

oves through Puget Sound

any new DC's built, or planned in

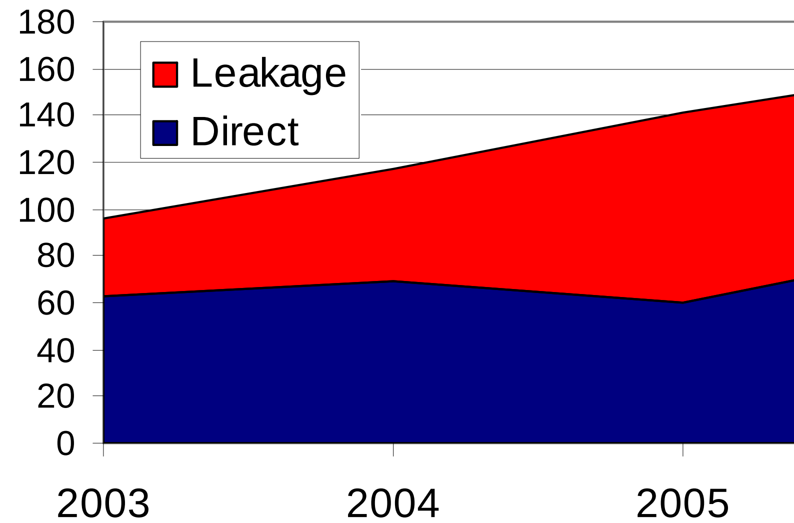
ose vicinity to Portland

current intact container rail

ermodal at Terminal 6

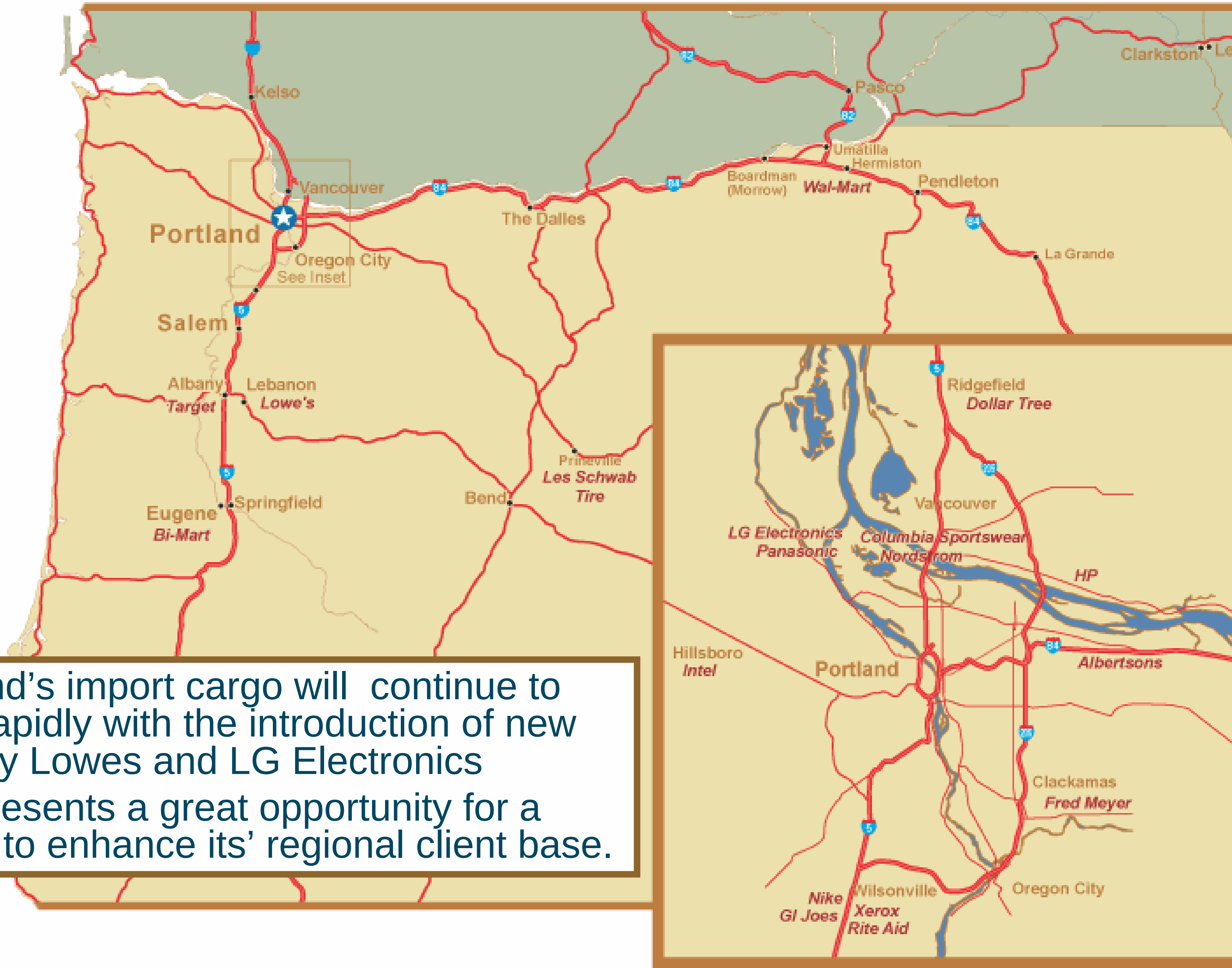
Local Import Market

(000's of TEUs)



2006 Local Imports – nearly half of local cargo moved through Seattle or Tacoma

2006 Local Exports – Two-Thi local cargo moved through Seat Tacoma



tland's import cargo will continue to
w rapidly with the introduction of new
s by Lowes and LG Electronics

s presents a great opportunity for a
rier to enhance its' regional client base.

Market and Facilities Analysis – Prelimina

Growth Opportunities

- ocus on import intermodal gateway
  - Portland is cost competitive to Midwest destinations
  - Portland costs are on par with Puget Sound

- ocus on re-gaining local import & export market currently usin
  uget Sound ports
  - Could offer competitively priced fixed cost lease/concession compared to wes
    coast competitors
  - Potential to add intermodal rail service
  - Shipping line without terminal interest in PNW
  - Growing capacity constraints on the west coast to meet growing Asian import
    demand

Preliminary Report - Facilities Review

- esign vessel is Post-Panamax 5,000 to 6,000 TEU
- erminal would be more attractive to shipping lines if 2 Pos anamax ships could be accommodated
- ould require 700 additional feet of wharf
- dditional CY acreage will likely be needed to balance the creased berth capacity
- rade separation would prevent interruption of gate perations, improving service quality

Estimated Terminal Capacity

urrent:	580,000+ TEU
hase I:	830,000+ TEU
hase II:	1.19 million+ TEU

World Containership Fleet 2007 - 201

	New ships added	Total vessels	<6000 TEU	>6000TEU
07	---	4002	3729 (93.2%)	273 (6.8%)
07	391	4393	4069 (92.6%)	324 (7.4%)
08	395	4788	4389 (91.7%)	399 (8.3%)
09	251	5039	4557 (90.4%)	482 (9.6%)
10	74	5113	4600 (90.0%)	513 (10.0%)
11	2	5115	4600 (89.9%)	515 (10.1%)

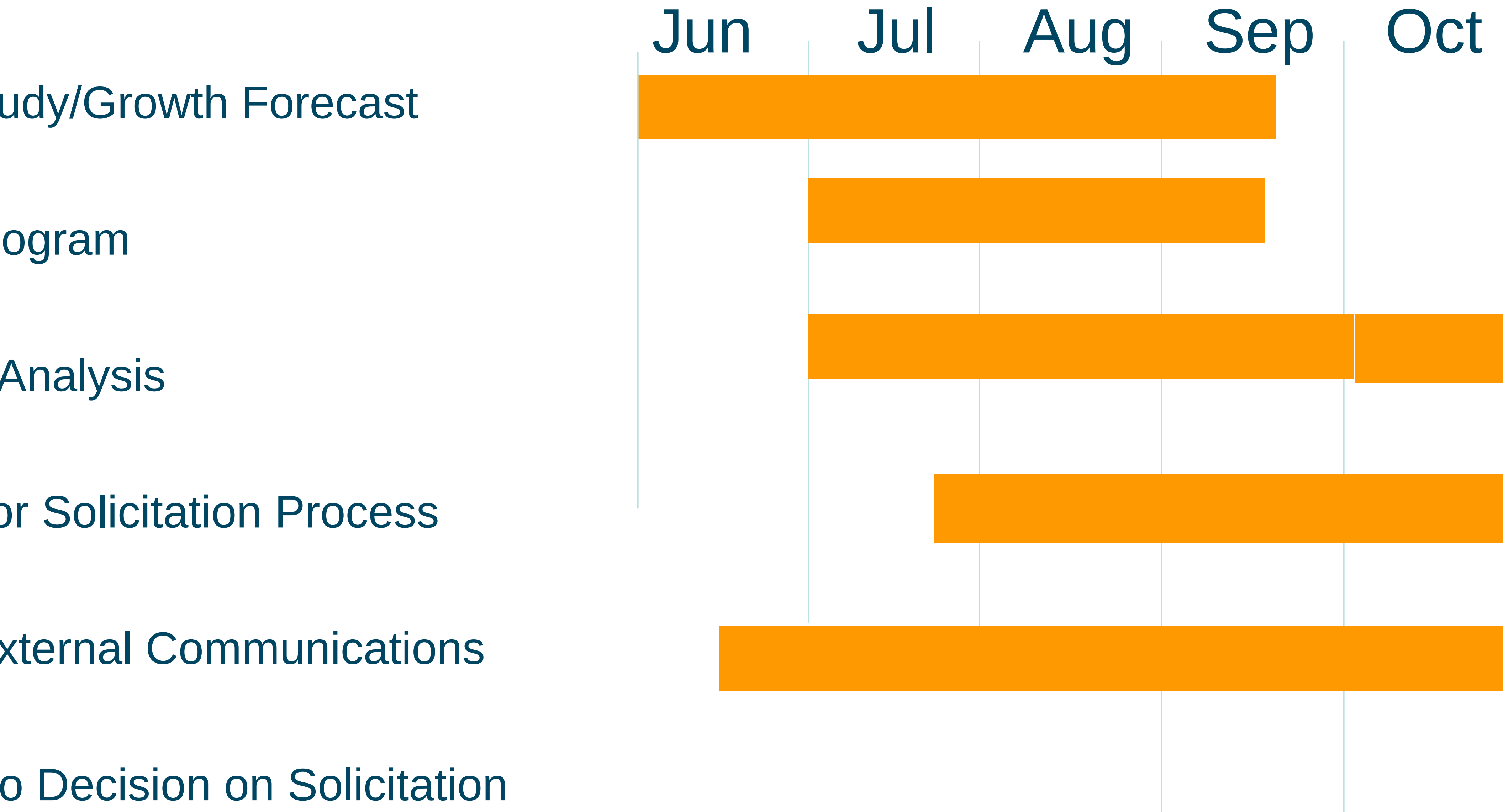
ssume all vessels remain in service during this time frame
on available data most ships of 8000+ teu are expected to be deployed on Asia – Europe services

apted from *Containerisation International,* May 2007 issue
urce: Liner Intelligence

Desired Outcomes

- nimum 20 – 30 year ground lease commitment (or farther out 50-75 years under concession terms)
- tity that will commit to capital improvement plan – short and ng term
- tity that will attract and sustain multiple carrier services and **prove access to local and regional shippers**
- cilitate intermodal growth
- nancial return on assets

Phase I - Schedule



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