



# A SELF-GUIDED TOUR OF THE SEATTLE CONTAINER TERMINALS

## The Port of Seattle & the Northwest Seaport Alliance... A working waterfront

The Port of Seattle performs a critical function in U.S. international trade. A large percentage of inbound cargo crossing Seattle's docks is bound for destinations in the Midwest and East Coast, and Seattle is a top export gateway.

The four container terminals cover over 500 acres. Container line customers operate services to/from Asia, Europe, Latin America, Oceania, Africa, the Caribbean, Hawaii and Alaska.

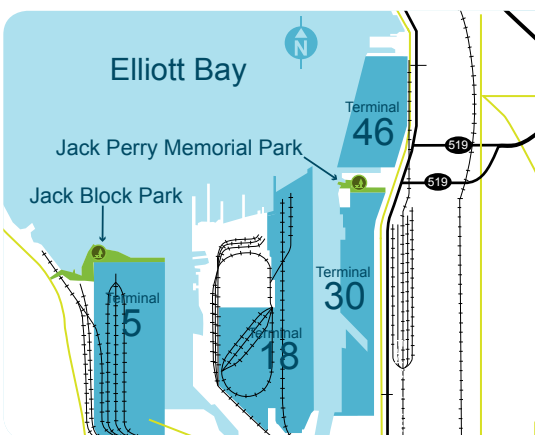
You can reference the ship schedule on our website at [www.nwseaportalliance.com/operations/vessels](http://www.nwseaportalliance.com/operations/vessels) to determine if a vessel is due in port the day of your visit.

### The working waterfront

A strong working port is vital to the economic health of King County and Washington state. The Port of Seattle seaport generates 8,902 direct jobs with \$2 billion of personal income, 5,863 indirect jobs and 8,644 induced jobs resulting in \$1.8 billion of business revenue and \$183.7 million state and local taxes. In addition, the port is a critical link connecting Washington businesses with global markets, and supports the 40 percent of jobs in our state that depend on trade.

### The Port of Seattle, the Green Gateway to Asia

Seattle is the closest U.S. port to Asia. Seattle offers a low carbon footprint for cargo from Asia to markets in the midwest & beyond.



Best viewpoints for the working waterfront:

#### Jack Perry Memorial Park

**1700 East Marginal Way S.**

**Seattle, WA 98134**

Hours: 6:00 a.m. to 11:00 p.m.

- View of Terminals 18, 30 and 46
- 1.1-acre park
- 120 feet of shoreline access
- View of U.S. Coast Guard station
- Benches and parking

#### Jack Block Park

**2130 Harbor Ave SW**

**Seattle, WA 98126**

Hours: 6:00 a.m. to 9:00 p.m.

- 15-acre park
- Walking pier, Children's play area
- 45-foot high observation tower
- Views of Terminal 5, downtown Seattle skyline and Mt. Rainier
- Benches, restrooms and parking

## From our parks, you can view a world-class port in action.

### What is happening on the terminal?

#### Container ships from around the world are being loaded and unloaded by ILWU local 19.

- The largest ships calling the West Coast carry up to 18,000 TEUs. Seattle sees ships from 1,600-10,000 TEUs right now, and our terminals are prepared to handle larger.
- The amount of time a ship is in port depends on how much cargo is being loaded/unloaded. Most ships in Seattle stay for 24-48 hours.
- In 2015, 441 container vessels called at the port, and we handled 1.4million TEUs. (TEU = 20' equivalent unit (one 20' container)).

#### Trucks are picking up and dropping off containers.

- Hundreds of trucks transit port facilities every day.
- Drivers entering through automated-gate systems receive instructions about pick up or drop off locations for their container.
- Containers are moved to/from Eastern Washington, nearby warehouse and distribution centers, and rail yards near the container terminals.
- Most import containers carry consumer items like clothing, electronics, toys, furniture and auto parts.
- Export containers are filled with cargo such as fruits, hay and grains, machinery, fish, chemicals and forest products.

#### Terminal operations are complex.

- Orange and white gantry cranes load and unload containers from ships.
- Yard equipment including top picks, rubber-tired gantry cranes and yard hostlers are operated by longshoremen to move containers between ship and around the terminal.
- Local import containers are put in a stack when they come off the ship to wait for delivery to local warehouses.
- Export containers are stacked to wait for loading to a specific vessel.
- Many containers move from vessel to on-dock or near-dock rail, then speed quickly to consumer markets in the Midwest or East Coast.

#### Customs & Border Protection (CBP) has offices at each terminal and inspects containers.

- All containers pass through Radiation Portal Monitors (RPMs) before leaving the terminal.
- Targeted containers are also inspected by x-ray Vehicle and Cargo Inspection System (VACIS) machines on the terminal.
- CBP also performs some “tailgate” exams at the terminal; intensive exams are performed off site.



Containers being loaded from a ship onto yard equipment.



Trucks delivering containers to rail yards, distribution centers or to Eastern Washington.



A longshoreman supervises the terminal operations.

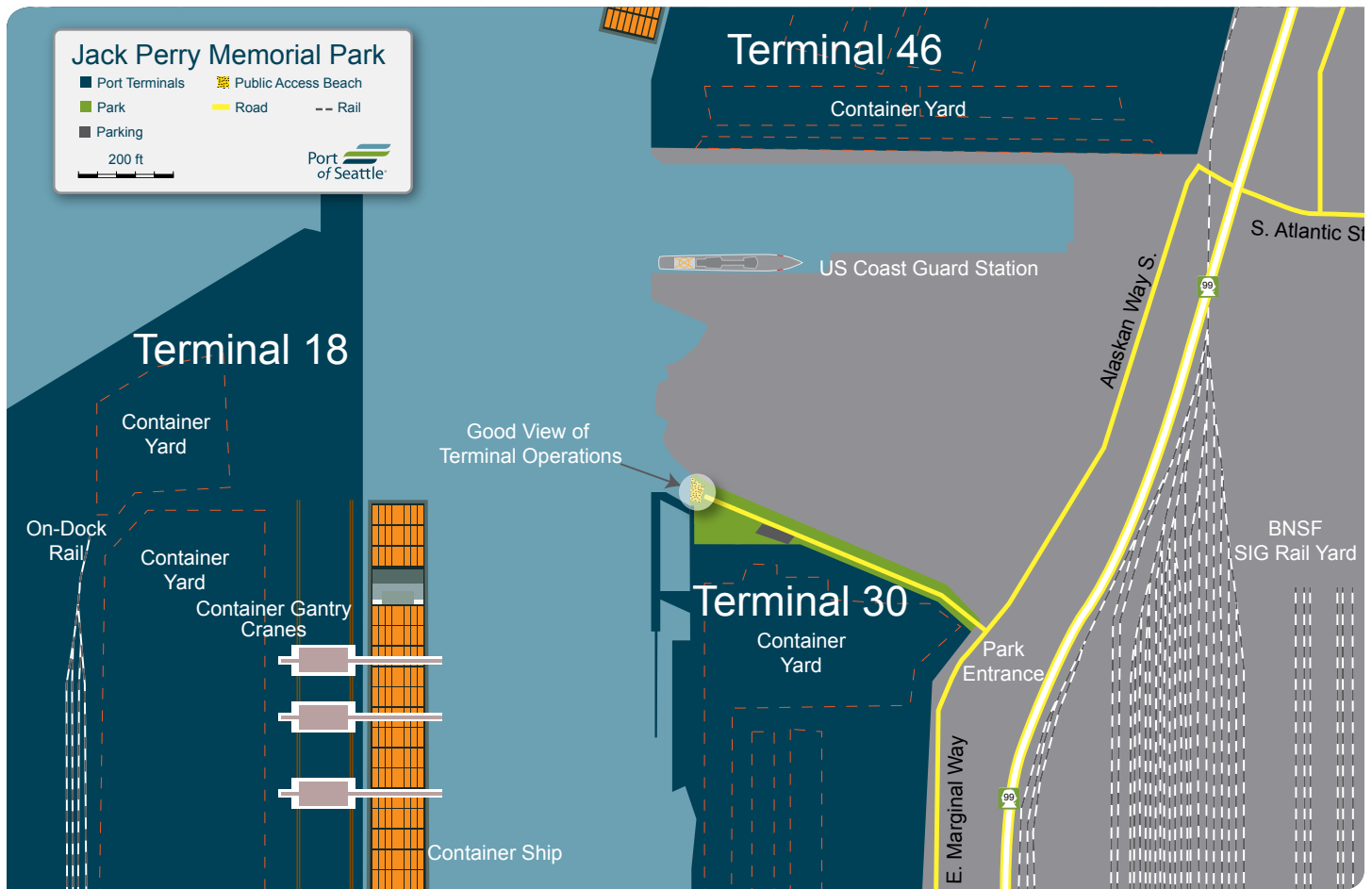


A Customs and Border Patrol agent examines containers going through Radiation Portal Monitors.

\*TEU = 20' equivalent unit (one 20' container).

## Views from Jack Perry Memorial Park

This one-acre park is located east of Terminal 18. The park offers 120 feet of shoreline access, provides great views of the operations on Terminal 18. To your right will be able to see cranes on Terminal 46 to your left you will be able to see the yard activity on Terminal 30.



- You are in a prime location to see a vessel being worked at T18 across the waterway.
- The white cranes at the end of Terminal 18 are the largest cranes in our harbor. They are capable of reaching across a ship 24 containers wide – the largest ships in the world.
- You may see a vessel being piloted to berth by a tug boat assisting.
- The East and West waterways around Harbor Island are active salmon fisheries for Native American tribes. If it is salmon season, you may see fishermen netting salmon. The port and tribes work together to coordinate net placements and vessel activity during fishing season.
- This location gives you a good view of the crane operator’s cab moving along the beam of the crane.
- The ships at berth burn low sulfur fuels, reducing emissions by over 80%.
- To your right you may see one of the U.S. Coast Guard vessels that are based in Seattle.
- As you exit the park, look east across Alaskan Way S. and Highway 99, and you will see the BNSF Railway Seattle International Gateway Yard. This rail yard, along with the Union Pacific’s Argo Yard, is where much of the cargo that flows in and out of the Port of Seattle is loaded/unloaded from/to destinations across the United States.
- To the north you may also see ships being worked at Terminal 46.
- Seattle’s largest ships, those carrying 18,000 TEUs, call Terminals 18.

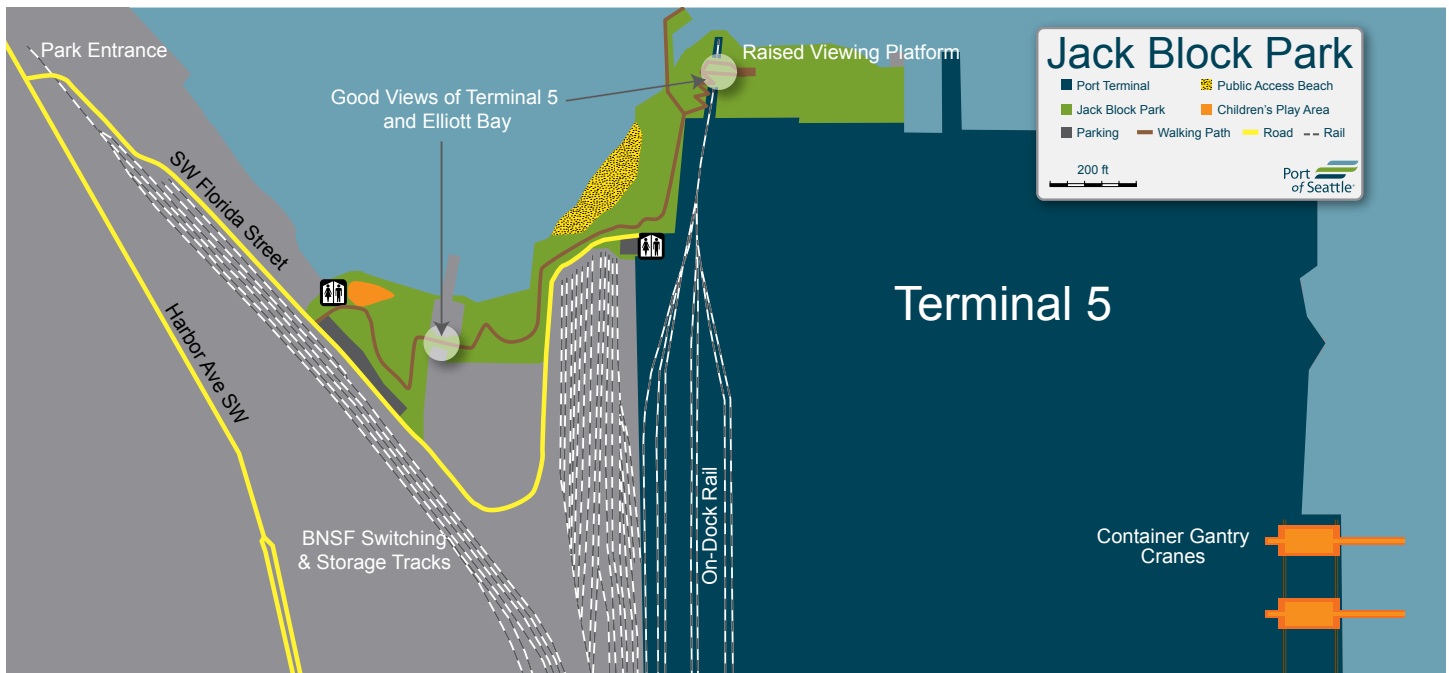
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Container ship arrives at T-18. Cranes from T-46 in the distance. View from Jack Perry Memorial Park.

## Views from Jack Block Park

The 15-acre park is located northwest of Terminal 5 in West Seattle. The park has a walking path, observation tower, 120 feet of shoreline access and a play area for children. From Jack Block Park, you will get stunning views of the Seattle skyline, Mount Rainier and Terminal 5 which is currently closed for modernization.



## Equipment you might see on our container terminals

### Bomb Cart



A special chassis used only on a terminal to move containers around the yard.

### Container



A container is a standardized, reusable steel box used for the safe, efficient and secure movement of freight worldwide. "Intermodal" means that the container can be moved from ship to rail to truck without unloading and reloading the contents. Containers come in several lengths including 20', 40' and 45'. Some containers are refrigerated to carry commodities like seafood, meat, fruits and vegetables.

### Chassis



A wheeled trailer used to transport a container.

### Container Gantry Crane



The large orange and white cranes are operated by a crane driver and used to lift containers to/from the ship. The crane spreader locks into the corner castings of a container to lift it. These cranes are mounted on rails and move up and down the dock.

### OCR



Optical Character Reader: Enters information about the truck and cargo into a computer automatically as the truth passes by

### Radiation Portal Monitor



A specialized scanner which detects radiation. All containers pass through an RPM before leaving the terminal by rail or truck.

### Rubber Tired Gantry Crane (RTG)



Cranes mounted on wheels and used to move containers from a stack to a chassis or to a rail car. They are operated by a crane driver.



### Top Pick

Equipment capable of lifting a container by means of a spreader locking the corner castings of a container.

### Yard Hostlers (Semi's)



Specialized semi-trucks for moving containers around the terminal yard.

### VACIS Machine



"Vehicle and cargo inspection system" is a special machine that uses gamma rays to examine the interior of containers to detect explosives, weapons, drugs -- even people -- and whether the cargo matches a manifest.

## About our Terminals



### Terminal 18

Operated by SSA Terminals

**Acres:** 196  
**Berths:** 4  
**Berth length:** 4,440 feet  
**Cranes:** 7 super post-Panamax, 3 post-Panamax  
**Carriers:** ANL-US Lines, APL, China Shipping, CMA CGM, COSCO, Hamburg Süd, Hapag-Lloyd, Hyundai Merchant Marine, Matson, MOL, OOCL, NYK Line, PIL, UASC, Yang Ming, ZIM  
**Depth:** -50 feet  
**Rail:** On-dock



### Terminal 30

Operated by SSA Terminals

**Acres:** 70  
**Berths:** 2  
**Berth length:** 2,700 feet  
**Cranes:** 3 super post-Panamax, 3 post-Panamax  
**Carrier:** ANL-US Lines, China Shipping, CMA CGM, COSCO, Hamburg Süd, PIL, UASC  
**Depth:** -50 feet  
**Rail:** Near-dock



### Terminal 46

Operated by Total Terminals International

**Acres:** 88  
**Berths:** 2  
**Berth length:** 2,300 feet  
**Cranes:** 3 super post-panamax, 2 post-panamax  
**Carriers:** China Shipping, COSCO, Hanjin, "K"-Line, Maersk, MSC, Safmarine, Yang Ming  
**Depth:** -50 feet  
**Rail:** Near-dock

## Terminal 5 Berth Modernization



### Terminal 5

**Acres:** 172  
**Berths:** 3  
**Berth length:** 2,900 feet  
**Depth:** -50 feet  
**Rail:** On-dock

Terminal 5 is currently closed for modernization. The Port of Seattle is investing in Terminal 5 in order to sustain cargo volumes and maritime jobs. Improvements to the dock, vessel berths and electrical system will help the port attract larger container ships and associated cargo. Alternative uses of the terminal will be considered during the interim.

## Why a working waterfront is important - its all in the numbers

Washington state exports the most on a per capita basis, with shipments totaling \$64.6 billion in 2011. Exports are a key driver of job growth and economic prosperity, with 8,000 Washington companies in the export business. The Port of Seattle is Washington's export gateway to the world.

# 40%

Washington state jobs are tied to international trade



### Impact of Port of Seattle Marine activity\*:

**23,409 Jobs**

generated by Port of Seattle

**\$1.8 billion**

of business revenue created

**\$2 billion**

in personal income and local consumption

**\$200 million**

raised in state and local taxes

\*source: Economic Impact of the Port of Seattle, 2013 Martin & Associates

## The Global Supply Chain

The port is an important link in the chain of global commerce that underlies modern civilization. This graphic gives a good overview of the basic logistics global trade and the critical role that ocean cargo and ports play.

