Port of Oakland Scenario Planning

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 The Port of Oakland is the fifth busiest container terminal in the US with an annual volume of 2.24 million TEUs. Container traffic is measured in *twenty foot equivalent* units (TEU), as if all containers were 20 feet long. In fact, the most common size worldwide is 40 feet, although 45 and 53 feet models are used in America. A typical cargo vessel pulling up to the Oakland docks in 2012 has 800 to 1,000 TEU capacity and can be unloaded and reloaded in about 20 hours.

 In the last several years, the large ocean-going shipping companies have placed orders for a new generation ships which are dramatically larger. So-called “E-class” ships can handle 14,700 TEUs (picture at left). These can sail from Asia to the US with the equivalent of 3.6 *billion* iPads (boxed and crated) on a single ship. Unloading all of the containers from one of these ships would fill 30 freight trains. To accommodate the new ships, the Port of Oakland, like its competitors Los Angeles, Long Beach and Seattle, dredged a new 50-foot deep channel in the San Francisco Bay. In March, 2012 The Maersk *Fabiola* with a capacity of 12,562 TEUs successfully docked in Oakland, albeit only 75 percent full.

 E-class boats can serve the most popular trans-Pacific routes such as Shanghai – Long Beach, but they cannot serve smaller ports in China and elsewhere in Asia. Additionally, they practice “slow steaming1” but this means their Pacific transit time is typically 18 days, compared to 12 to 14 days for conventional ships. However, once port-side, shipping companies expect them to be unloaded and reloaded in less than 24 hours2, so ports have had to install new, larger cranes.

 Containers entering the Oakland port can be destined for Northern or Southern California, or for the interior of the Western and mid-Western United States. The port business is surprisingly competitive. Containers destined for Northern California can unloaded in Lost Angeles or Long Beach and trucked north—at the expense of the trucking, a shipping firm avoids the cost of having a trans-Pacific container ship dock in Southern California, then sail to Oakland, before returning to Asia. While the Southern California ports suffer from considerable traffic congestion, the Port of Oakland has a comparatively poor reputation for efficiency and labor harmony—small disputes not infrequently lead to shut downs.

 Oakland also faces competition from new, smaller ports in Canada and Mexico3. Goods destined for the mid-West could be transshipped by rail to inland US states.

 The Panama Canal is undergoing a major expansion that is on-track to be completed in 2015. Once completed, E-class boats will be able to go directly from Asia to East Coast US ports without delivering goods to the West Coast ports (Long Beach/Los Angeles [7.9\*], Oakland [2.2] and Seattle [1]).

 It is uncertain whether the E-class ships will prefer to dock in Gulf Coast ports such as Charleston [< 1] and Savannah [1.7] and ship goods onwards by rail to major population centers or whether they will head straight for Norfolk, VA [1.7], Baltimore [<1] or the ports of New York [5.3] (which are largely in New Jersey) with onward delivery being by truck. At present, all of these ports, with the exception of New York, do not have major rail freight connections. If the mid-West Asian-importing trade moves to the Gulf Coast ports, there would need to be enormous investment in new rail-freight lines.

 Oakland has one considerable advantage: it has 322 acres of abandoned World War II Army land immediately adjacent to the Port. Developing this land with better rail access will cost $500 million. A further $700 million could fund the development of a major logistics center with new warehouses to pack containers for the export market. Exports of wine, fruit, chicken and beef in refrigerated containers could be a major growth opportunity for the Port.

\* Figures in [square brackets] are approximate 2012 million TEU volume.