

Capital Expenditures by Leading Port Authorities for 1996
(Thousands of Dollars)

Rank	Port Authority	Expenditures
1	Port of Los Angeles	\$407,099
2	Port of Long Beach	179,690
3	Port of Seattle	144,817
4	Port Authority of New York/New Jersey	60,619
5	Port of Tacoma	57,625
6	Alabama State Docks	46,842
7	Port of Oakland	45,269
8	Port of Miami	37,120
9	Hawaii DOT	32,222
10	Georgia Ports Authority	27,659
Total Top Ten Ports		\$1,038,962
Total Expenditures		\$1,301,152
Percent of Total		79.8%

Capital Expenditures by Leading Port Authorities for 1997 - 2001
(Thousands of Dollars)

Rank	Port Authority	Expenditures
1	Port of Los Angeles	\$1,079,182
2	Port of Long Beach	866,200
3	Port of Oakland	520,000
4	Port Authority of New York/New Jersey	498,663
5	Port of Seattle	391,483
6	Port of Houston	291,628
7	Georgia Ports Authority	263,840
8	Maryland Port Administration	237,147
9	Port of New Orleans	226,260
10	Port of Tacoma	221,798
Total Top Ten Ports		\$4,596,201
Total Expenditures		\$6,584,238
Percent of Total		69.8%

Port Financing Programs

Wisconsin Harbor Assistance Program (HAP)	Grant	Great Lakes or Mississippi River harbors where vessels take on or discharge over 10,000 tons of commercial cargo annually, where vessels are built, where commercial fishing vessels are unloaded, or where vehicle ferries operate	Dockwall and disposal facility construction, rehab, repair, or maintenance. Maintenance dredging. New dredging. Disposal of dredged materials. Other physical improvements to increase commercial capability.	20% (local share can increase to 50% on some Federal projects)	Monies sent biennially to a separate state fund and general-purpose bonds serviced by this fund	Limited only by state allocation to fund and prioritization criteria of projects. Maximum grant to date has been \$3.6 million. The smallest has been \$20,000.
Minnesota Port Development Assistance Program (PDAP)	Grant and Loan	Any political sub division or port authority which owns a commercial navigation facility	Loan: Expedites or improves movement; or enhances commercial vessel construction and repair Grant: Meets at least one of the loan criteria and promotes economic development at ports	20%	Port development revolving fund in state treasury	A maximum is not specified. The Mn/DOT commissioner sets the amount on a case-by-case basis.
Oregon Port Revolving Fund (OPRF)	Loan	The 23 legally formed port districts along the Pacific coast and the Columbia River	Business development projects. Port development projects. Flexible manufacturing space projects.	None	Originally state general fund. Now funded by lottery proceeds and interest earned on past loans.	A maximum of \$700,000 per project is available. No more than \$1.4 million to any port in one year. The maximum allowed for outstanding loans by any port is \$2 million.
Oregon Marine Navigation Improvement Fund (MNIF)	Grant	The 23 legally formed port districts along the Pacific coast and the Columbia River	Funding is approved only for federally authorized studies, dredging, and construction of new navigation improvement projects.	N/A	Allocations to separate fund from lottery proceeds or legislative action.	No maximum amount is set.
Louisiana Port Construction and Development Priority Program (LPCDPP)	Grant	All publicly owned ports	Construction, improvement, capital facility rehabilitation, or expansion of publicly owned facilities and marine-related infrastructure such as wharves, cargo handling equipment, utilities, railroads, access roads, and buildings	10%	Annual allocation from state Capital Outlay Bill	Each port may receive no more than 20% of the annual allocation. Presently this is \$# million per year based on a total annual allocation of \$15 million.
Florida Seaport Transportation and Economic Development Funding Program (FSTED)	Grant	All publicly owned ports	Transportation facilities Dredging Construction or rehab of facilities and equipment Acquisition of mechanized equipment Land Acquisition Required environmental projects	50%	Annual allocations from State Transportation Trust Fund or bonds serviced by such funds	Each port may receive up to \$7 million in matching funds during one year. No more than \$30 million in any five-year period. Total available statewide through bonding is \$222,320,000 million. Bond money is not subject to above yearly restrictions.
California Maritime Infrastructure Bank (CMIB)	Low-interest loans and bonds	Participating ports and harbor districts	Port infrastructure improvements	N/A	Maritime Infrastructure Bank Fund	Unknown at this time

Program	Type of Funding	Port Eligibility Within State	Project Eligibility	Local Matching Fund Requirement	Funding Source	Amount Available
Planning/Marketing Programs						
Florida Trade Data Center (FTDC)	N/A	Services available to in-state and out of state clients including both ports and businesses	Access to a variety of trade information including agent lists, import/export data, and market and industry reports	N/A	Yearly grant from state legislature and profits earned	N/A
Oregon Port Planning and Marketing Fund Grant Program (PPMP)	Grant	The 23 legally formed port districts along the Pacific coast and the Columbia River	Accounting and financial assistance on port operations. Site development planning. Marketing studies/plans. Specific project consultation. Regional coordination. Strategic business planning.	25%	Appropriated funds from the legislative assembly and grants/transfers from the OPRF	The grant will not exceed \$25,000 or 75% of the total cost of the project (whichever is the lesser amount)

Source: State Programs for Financing Port Development, Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin, Special Project Report, 1997

Worldwide Containership Orders

Vessel Size (in TEUs)	Number	Percent of Orders	Year of Delivery*		
			1997	1998	1999
Less than 1,000	110	26.1%			
1,000 to 1,999	134	31.8%			
2,000 to 2,999	93	22.0%			
3,000 to 3,999	28	6.6%			
4,000 to 4,499	22	5.2%	6	13	3
4,500 to 4,999	9	2.1%	3	6	
5,000 to 5,499	10	2.4%		1	9
5,500 to 5,999	4	1.0%	1	3	
6,500 to 6,999	4	1.0%		4	
8,500 to 8,999	8	1.8%	1	4	3
Total	422	100.0%	11	31	15

* Applies to vessels over 4,000 TEUs

Source: Fairplay Solutions, Jan., 1998

Characteristics of a Megaship Terminal

Category	Characteristic
Acres	150
Berths	2 - 1,250' for Megaships 3 - 1,000' for Mixed Vessel Sizes
Cranes	6-10 Beyond Post-Panamax Cranes
Water Depth	50' Channel/Berth 800' - 1,00' Channel Width 1,430' - 1,650' Turning Basin
Projected Yearly Throughput*	450,000 TEUs/Yr. Minimum (3,000 TEUs/Acre) 900,000 TEUs/Yr. Maximum (6,000 TEUs/Acre)
Rail Connections	On-Dock or Adjacent Intermodal Railyard 2-4 Unit Train Calls/Day (Assumes 40% by Rail)
Truck Traffic (Daily)	1,730 - 3,460 Trips/Day (Assumes 40% by Rail) 2,880 - 5,770 Trips/Day (Assumes 0% by Rail)
* Through the gate - excludes possible transshipment	
Source: VZM/TranSystems	

U.S. Army Corps of Engineers Dredging Program
Summary of Corps and Industry Activities: 1970 - 1997
(Dollars and Cubic Yards in Millions)

FY	Corps of Engineers						Industry						Corps of Engineers and Industry					
	Dollars			Cubic Yards						Cubic Yards								
	Maint	New Work	Total	Maint	New Work	Total	Maint	New Work	Total	Maint	New Work	Total	Maint	New Work	Total	Maint	New Work	Total
1970	\$43.0	\$6.0	\$49.0	143.0	13.0	156.0	\$49.0	\$30.0	\$79.0	160.0	76.0	236.0	\$92.0	\$36.0	\$128.0	303.0	89.0	392.0
1971	46.0	6.0	52.0	145.0	13.0	158.0	47.0	42.0	89.0	133.0	66.0	199.0	93.0	48.0	141.0	278.0	79.0	357.0
1972	49.0	6.0	55.0	145.0	13.0	158.0	49.0	37.0	86.0	111.0	46.0	157.0	98.0	43.0	141.0	256.0	59.0	315.0
1973	50.0	6.0	56.0	145.0	8.0	153.0	62.0	39.0	101.0	131.0	28.0	159.0	112.0	45.0	157.0	276.0	36.0	312.0
1974	63.0	7.0	70.0	183.0	7.0	190.0	77.0	29.0	106.0	155.0	41.0	196.0	140.0	36.0	176.0	338.0	48.0	386.0
1975	75.0	7.0	82.0	157.0	7.0	164.0	71.0	54.0	125.0	110.0	58.0	168.0	146.0	61.0	207.0	267.0	65.0	332.0
1976	86.0	4.0	90.0	132.0	3.0	135.0	87.0	68.0	155.0	123.0	43.0	166.0	173.0	72.0	245.0	255.0	46.0	301.0
1977	85.0	1.0	86.0	127.0	1.0	128.0	90.0	56.0	146.0	126.0	43.0	169.0	175.0	57.0	232.0	253.0	44.0	297.0
1978	90.0	2.0	92.0	92.0	3.0	95.0	124.0	91.0	215.0	118.0	68.0	186.0	214.0	93.0	307.0	210.0	71.0	281.0
1979	87.0	8.0	95.0	87.0	3.0	90.0	154.0	75.0	229.0	147.0	45.0	192.0	241.0	83.0	324.0	234.0	48.0	282.0
1980	92.0	3.0	95.0	81.0	1.0	82.0	213.0	95.0	308.0	162.0	53.0	215.0	305.0	98.0	403.0	243.0	54.0	297.0
1981	104.0	-	104.0	88.0	-	88.0	240.0	115.0	355.0	174.0	97.0	271.0	344.0	115.0	459.0	262.0	97.0	359.0
1982	76.0	-	76.0	60.0	-	60.0	234.0	135.0	369.0	157.0	55.0	212.0	310.0	135.0	445.0	217.0	55.0	272.0
1983	64.0	1.0	65.0	48.0	1.0	49.0	291.0	88.0	379.0	206.0	32.0	238.0	355.0	89.0	444.0	254.0	33.0	287.0
1984	80.0	1.0	81.0	49.0	-	49.0	376.0	93.0	469.0	245.0	52.0	297.0	456.0	94.0	550.0	294.0	52.0	346.0
1985	73.0	-	73.0	65.0	-	65.0	313.0	63.0	376.0	208.0	30.0	238.0	386.0	63.0	449.0	273.0	30.0	303.0
1986	80.0	-	80.0	64.0	-	64.0	242.0	64.0	306.0	218.0	33.0	251.0	322.0	64.0	386.0	282.0	33.0	315.0
1987	66.0	0.3	66.3	47.7	0.3	48.0	222.3	98.9	321.2	167.4	42.8	210.2	288.3	99.2	387.5	215.1	43.1	258.2
1988	73.4	-	73.4	58.2	0.1	58.3	222.0	177.9	399.9	154.6	73.0	227.6	295.4	177.9	473.3	212.8	73.1	285.9
1989	68.5	-	68.5	58.7	-	58.7	249.6	164.0	413.6	222.4	52.7	275.1	318.1	164.0	482.1	281.1	52.7	333.8
1990	61.8	-	61.8	35.0	-	35.0	244.2	187.0	431.2	174.7	63.3	238.0	306.0	187.0	493.0	209.7	63.3	273.0
1991	99.6	-	99.6	62.4	-	62.4	323.4	89.4	412.8	209.2	28.4	237.6	423.1	89.4	512.5	271.6	28.4	300.0
1992	89.2	-	89.2	52.4	-	52.4	280.3	116.2	396.5	164.0	27.8	191.8	369.5	116.2	485.7	216.3	27.8	244.1
1993	75.1	0.7	75.8	38.3	0.1	38.4	335.2	103.9	439.1	197.2	33.4	230.6	410.2	104.7	514.9	235.5	33.5	269.0
1994	84.3	-	84.3	52.5	0.0	52.5	342.4	100.8	443.2	212.2	37.0	249.2	426.7	100.8	527.5	264.7	37.0	301.7
1995	88.8	6.5	95.3	53.8	7.9	61.7	319.4	116.3	435.7	163.4	26.1	189.5	408.2	122.9	531.0	217.1	34.0	251.1
1996	85.4	0.0	85.4	52.5	0.0	52.5	339.6	89.7	429.3	181.8	24.4	206.2	425.0	89.7	514.7	234.3	24.4	258.7
1997	95.9	0.2	96.1	67.8	0.0	67.8	398.5	127.3	525.8	185.0	32.2	217.2	494.5	127.5	622.0	252.7	32.2	284.9

Source: U.S. Army Corps of Engineers, Navigation Data Center

Great Lakes Dredging Team

All Great Lakes ports are concerned with the frontline issue of dredging. The Great Lakes Dredging Team (GLDT) was formed to contribute to the national goal of assuring that the dredging of U.S. harbors and channels is conducted in a timely and cost effective manner, while meeting environmental protection, restoration, and enhancement goals. The primary functions are to facilitate the resolution of local and regional dredging issues among the participating Federal and state officials. There are many dredging-related concerns in the Great Lakes: stagnated dredging due to contaminated sediment questions, limited and nearly filled confined disposal facilities (CDF), questions of liability, and inconsistent state and Federal regulations. Soil erosion, contaminated sediments, and dredged material uses are just some of the areas being worked on by the ports.

The GLDT was established in 1997 and membership includes representatives from the eight Great Lakes states, six Federal agencies, and the Great lakes Commission. The Team has been focusing on the issue of dredged material disposal because a number of Great Lakes states prohibit open-water disposal, which can create an impasse with Corps of Engineers (Corps) disposal policy. The Team is also preparing a white paper to highlight the complicated nature of the dredging decision process. Another priority area is public outreach in the form of case studies, educational information, and public involvement.

On behalf of the GLDT, MARAD's Great Lakes Region staff initiated a "case study" of Waukegan Harbor, IL, in March 1997. After participating in several Waukegan Citizen Advisory Group (WCAG) meetings, it became apparent that a special review of the harbor's 29-year history of dredging problems could provide an opportunity to resolve the concerns and provide new direction to WCAG and the Corps.

The case study provided the Corps with an update of lake vessels serving the port and a profile of port users with an economic impact in a surrounding five state area. Also, the Port's shallow draft of 17 feet is extremely restrictive for vessel operators. Since the water level for Lake Michigan is presently 31 inches above low water datum, commercial traffic is possible, but vessels have a 60 percent reduced capacity. If the Lake level drops, commercial navigation may be halted and cause extensive local unemployment for five port connected industries.

MARAD technical assistance included publishing a case study and slide presentation which have been shown at numerous meetings. The case study status brought new attention to Waukegan and the Corps on a national level, since the venture was presented to the National and Regional Dredging Team along with the International Joint Commission. In addition, the project was presented at a special workshop of local, state, and Federal regulatory agency representatives to gain acceptance for the project.

The Corps is presently examining two confined disposal facility sites, one in Lake and one upland at the Johns Manville Super Fund site. The Corps provided guidance in determining a "share in kind" service that can offset up to 18 percent of the local sponsor's cost. Members of WCAG, both regulatory, and local businesses are supportive of "doing as much as we can to reduce the local sponsors cost share of the project."

MARAD assistance in finding an upland CDF at a Super Fund site is expected to save at least \$2 million in project cost. In addition, the study identified other business opportunities to the Port District including a Foreign Trade Zone, passenger vessel service, and coordinated a ONE-DOT project with the USCG and Federal Transit for harbor improvements and a downtown transit center tying the harbor to the downtown district. During the case study, the Waukegan Port District purchased two harbor-side properties from the EJE Railroad in order to improve the Port's long term revenue flow and the management of the harbor. The Corps Feasibility Study is expected to be completed by the end of FY 1999 with construction starting early in year 2001.

The Waukegan Harbor Dredging Case Study has provided new direction to a once stalled project. A number of additional benefits for recreation and environmental enhancement for wildlife are being included in the project to broaden public support, find additional funding sources, and benefit the local community.

Water Resources Development Act of 1996 - Project Authorizations

Project Authorizations	Total Cost	Funding	
		Federal Share	Non-Federal Share
Deep-Draft Projects			
Humbolt Harbor and Bay, CA	\$15,180,000	\$10,000,000	\$5,180,000
Port of Long Beach, CA	37,288,000	14,318,000	22,970,000
Santa Barbara Harbor, CA	5,840,000	4,670,000	1,170,000
Atlantic Intracoastal Waterway, St. Johns County, FL	15,881,000	15,881,000	-
Port Fourchon, Lafourche Parish, LA	4,440,000	2,300,000	2,140,000
Cape Fear, Northeast (Cape Fear) Rivers, NC	221,735,000	132,936,000	88,799,000
Wilmington Harbor, Cape Fear River, NC	23,953,000	15,572,000	8,381,000
Charleston Harbor, SC	116,639,000	71,940,000	44,699,000
GIWW, Aransas National Wildlife Refuge, TX (Nav/Env)	18,283,000	18,283,000	-
Houston-Galvaeston Navigation Channels, TX (Nav/Env)	298,334,000	197,237,000	101,097,000
(Ave annual cost for environmental restoration over 50-year life)	786,000	590,000	196,000
Sub-total	\$758,359,000	\$483,727,000	\$274,632,000
Chignik, AL*	10,365,000	4,282,000	6,083,000
Cook Inlet, AK*	5,700,000	3,700,000	2,000,000
St. Paul Island Harbor, St. Paul, AK*	18,981,000	12,239,000	6,742,000
Lake Worth Inlet, FL (Nav/Shoreline Protection)*	3,915,000	3,915,000	-
Miami Harbor Channel, FL*	3,221,000	1,800,000	1,421,000
Chesapeake and Delaware Canal, MD/DE*	82,800,000	53,852,000	28,948,000
Sub-total	\$124,982,000	\$79,788,000	\$45,194,000
Inland Waterway Projects			
Kentucky Lock and Dan, Tennessee River, KY	\$393,200,000	\$196,600,000	\$196,600,000
Marmet Lock, Kanawha River, WV	229,581,000	114,790,500	114,790,500
Sub-total	\$622,781,000	\$311,390,500	\$311,390,500
Total	\$1,506,122,000	\$874,905,500	\$631,216,500

* Authorization subject to completion of COE final report by 12/31/96