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Great Lakes Update

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The Port of Detroit

The Port of Detroit is located within 500 miles of 45% of the United States population and 46% of its income, as well as 44% of Canada's population and 45% of its personal income. Its location on the St. Lawrence Seaway and Canadian border make it an important port for international trade. The Port has six privately-owned facilities with 10 berths on the Detroit and Rouge Rivers providing ocean access through the St. Lawrence River, some 618 miles away. Figure 1 shows a map of the Detroit River highlighting the transportation networks and foreign trade zones. An aerial view of the Detroit River is shown in Figure 2.

The Port of Detroit is completely equipped to handle all types of cargo from bulk to container, and heavy lift to roll on/roll off. It is internationally known for expert steel handling. During the 1991 shipping season, for which the most complete data is available, the Port handled about 17.7 million tons of cargo, of which 3.8 million tons is designated as from or for

foreign countries. The Port also provides: ship repair for work within the hull and above the water line, as well as a 2,000 ton floating dry dock; tug and barge services; mail services through the vessel Westcott, the only boat

in the United States with its own zip code; 24-hour service for oil and hazardous material spills; and, a fire boat for offshore and near-shore emergencies.

Heavy equipment for loading

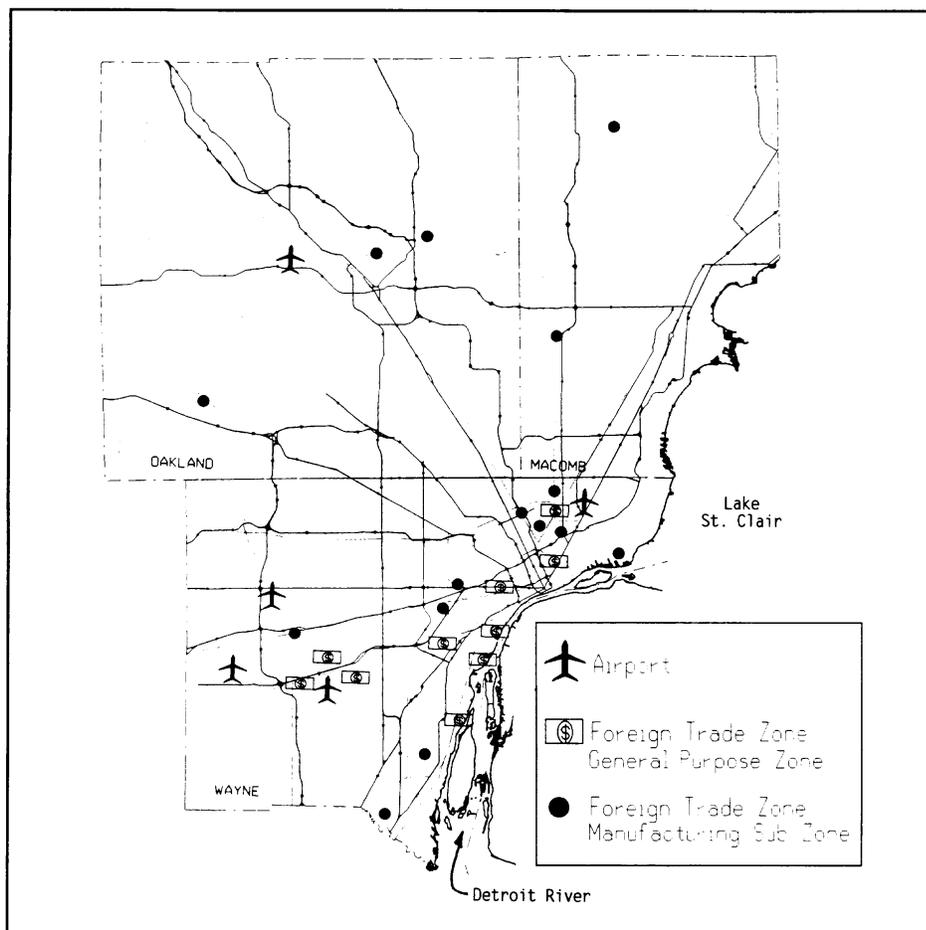


Figure 1. Layout of the Port of Detroit and its Transportation Facilities.



Figure 2. Aerial View of the Detroit River.

and unloading are available as follows: 250-ton crawler cranes; 40-ton gantry cranes; 40-ton locomotive cranes and 25-ton locomotive cranes with magnets; forklift trucks with up to 40-ton capacity; front end loaders with up to 12-yard capacity; overhead cranes; storage tanks; and, a car shredder. Figure 3 shows some heavy lift equipment in action at the Detroit Marine Terminal Inc. facility.

The Detroit/Wayne County Port Authority

The Detroit/Wayne County Port Authority was organized and incorporated, by Michigan State Law, in 1978. It has a five-

member board of directors appointed by the State of Michigan, Wayne County and the City of Detroit. The Port Authority's mission is to plan, develop and promote Detroit as a freight transportation and distribution hub for businesses in the mid-west U.S. and southwestern Ontario, their customers and vendors. The Port Authority also administers the Greater Detroit Foreign Trade Zone, Inc. and the Detroit Windsor Port Corporation.

Through Detroit

The Detroit/Wayne County Port Authority has developed a marketing strategy designed to

increase the use of Detroit's trade and transportation services called *Through Detroit*. The program focuses on more than just waterborne transportation; it includes all modes of cargo transportation, distribution and related trade services in the Detroit area.

The Port of Detroit provides direct access to Canada via the Ambassador Bridge, highway and rail tunnels which run under the Detroit River, and through the use of barges. There are comprehensive trucking services available through 150 trucking firms. Five major rail lines link Detroit to major markets in the United States, Canada and Mexico. Southeast Michigan's two largest airports, Detroit Metropolitan Wayne County Airport and Willow Run Airport, are expanding international facilities to service Europe, Asia, Canada, Mexico, and the Caribbean.

The Port also has distribution and warehouse facilities. They provide material handling, inventory control and transportation coordination, as well as secure indoor and outdoor storage, temperature controlled storage, hazardous material handling, and container storage.

International Trade

Detroit's close proximity to Canada and location in the St. Lawrence River system, as well as the ready availability of air, rail and trucking industries, are all supportive of international trade. Nearly 100 specialized firms handle the needs of



Figure 3. Heavy Lift Equipment in Action at the Detroit Marine Terminals, Inc.

international trade. Foreign freight forwarders, licensed by the Federal Maritime Commission, act as agents for exporters. Customhouse brokers, licensed by the U.S. Treasury Department, enter and clear goods through U.S. Customs. International air freight forwarders, licensed by the International Air Transportation Association, handle air cargo. Export packing and crating firms provide services for truck, air or ocean transportation. Foreign trade zones provide duty-free storage and value-added services on goods with immediate release capability.

Cargo Diversification

The Detroit/Wayne County Port Authority continually works to diversify the cargo base of the Port of Detroit. Cargo diversification and regular service are supported by computerized databases and the Port's own vessel

tracking system. Some recent examples of new cargos include: the shipment of an entire production line of stamping presses to the People's Republic of China on the first vessel from that country to call on Detroit; regular service to Northern Europe and roll on/roll off service to Russia; and, northern cherries, plywood, disposable diapers and used cars and vans.

The roll on/roll off shipment of new and used cars was reestablished in 1991. The Ivan Derbenev was the first Soviet vessel in the Port of Detroit since 1980 and the first roll on/roll off vessel since 1986. This service takes place monthly during the shipping season. Figure 4 shows a roll on/roll off vessel loading automobiles.

In 1993, the Detroit/Wayne County Port Authority established a Friendship Agreement

with the Port Authority of Thailand. Trade with Thailand is traditionally in steel, iron and steel scrap, and cobble plate. The best products for Michigan firms, for future trade with Thailand include: chemicals; steel bars; auto parts (especially for Japanese brands); construction equipment; machine tools; medical diagnostic equipment; engineering services; and, air conditioning equipment.

The Greater Detroit Foreign Trade Zone, Inc.

The Greater Detroit Foreign Trade Zone, Inc. (GDFTZ) is a non-profit corporation created to administer, promote and expand the foreign trade zone program in southeast Michigan. Detroit is the largest foreign trade zone program in the United States in terms of value of goods leaving the zone and number of zone sites. Products worth an estimated \$24.1 billion left the GDFTZ in the 1993 fiscal year. Exports to other countries from the zone were valued at nearly \$1 billion, up more than \$500 million from the previous year.

A foreign trade zone is a secured area legally outside U.S. Customs territory that allows several advantages to importers. While goods are in the zone they can be tested, repaired, relabeled, repackaged, or destroyed. Manufacturing and assembly may take place in specified zones as well. Other advantages include: cash-flow savings by delaying payment of duties and excise taxes until goods leave the zone, lowering overall inventory costs; no



Figure 4. Automobiles Loading onto a Roll On/Roll Off Vessel

time limit placed on goods stored in a foreign trade zone; firms which manufacture or assemble within a zone may qualify for a lower duty rate on the finished article; and, no duty is paid on value added in the United States.

Nine general purpose foreign trade zones sites are available throughout southeast Michigan, providing a variety of locations and services. In addition, Detroit has 20 approved foreign trade subzone sites in automotive manufacturing facilities. Sub-zones are specialized, single-user facilities. The GDFTZ recently received approval for three new general purpose zone sites and applications for two new sub-zones are pending approval by the Foreign Trade Zones Board of the U.S. Department of Commerce in Washington, D.C.

General-purpose zones are multi-purpose public facilities

serving many users. They are located at international port terminals, at the international airport, near the Ambassador Bridge and tunnel to Canada, in manufacturing centers and at major interstate highway access. They customize services and spaces to meet the needs of the user, are equipped with computerized inventory and release systems, and provided the services listed above. The zones received 88 different commodities from 26 different countries during 1993.

The Detroit Windsor Port Corporation

The Detroit-Windsor Port Corporation (DeWin) is an international port corporation jointly owned by the Detroit/Wayne County Port Authority and the Windsor Harbour Commission to promote projects of mutual benefit to both ports. One issue being reviewed by DeWin is the

Detroit/Windsor rail tunnel. The existing tunnel is considered inadequate for current transportation needs. It cannot accommodate double-stack containers, auto tri-level rail cars or high cube box cars. DeWin believes that a new rail tunnel is required for Detroit, in addition to the new tunnel currently under construction between the cities of Port Huron, Michigan and Sarnia, Ontario.

Acknowledgment

Many thanks to the Detroit/Wayne County Port Authority for much of the information and photographs used in the preparation of this article.

Meetings With the Public

The International Lake Superior and St. Lawrence River Boards of Control held their annual meetings with the public the evenings of June 14 and 21, respectively. A total of about 40 people attended. International Joint Commission Co-Chairs Thomas Baldini and Claude Lanthier attended and spoke at the June 14 and 21 meetings, respectively. If you wish these meetings to take place in your area next year please send us your suggestions.

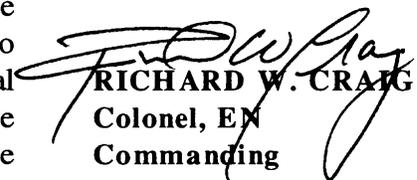

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Commanding

Table 1

**Possible Storm Induced Rises (in feet) at Key Locations on the Great Lakes
July 1994**

	Degrees of Possibility				
	20%	10%	3%	2%	1%
LAKE SUPERIOR					
Duluth	0.6	0.6	0.7	0.7	0.8
Grand Marais	0.4	0.5	0.6	0.7	0.8
Marquette	1.0	1.1	1.4	1.5	1.7
Ontonagon	0.7	0.9	1.1	1.3	1.5
Point Iroquois	0.7	0.9	1.1	1.3	1.5
Two Harbors	0.5	0.7	0.9	1.2	1.4
LAKE MICHIGAN					
Calumet Harbor	1.1	1.4	1.9	2.3	2.7
Green Bay	1.6	1.8	2.1	2.3	2.5
Holland	0.4	0.5	0.6	0.7	0.8
Kewaunee	0.6	0.7	0.8	0.8	0.9
Ludington	0.6	0.7	0.8	0.9	0.9
Milwaukee	0.7	0.8	0.9	1.0	1.1
Port Inland	0.8	0.9	0.9	1.0	1.0
Sturgeon Bay	0.6	0.8	1.2	1.5	1.8
LAKE HURON					
Detour Village	0.3	0.4	0.5	0.5	0.6
Essexville	1.1	1.3	1.5	1.6	1.7
Harbor Beach	0.6	0.7	1.0	1.1	1.3
Harrisville	0.4	0.4	0.5	0.5	0.5
Lakeport	0.7	0.8	1.0	1.0	1.1
Mackinaw City	0.5	0.7	0.8	0.9	1.1
LAKE ST. CLAIR					
St. Clair Shores	0.3	0.3	0.4	0.4	0.5
LAKE ERIE *					
Barcelona	1.0	1.1	1.4	1.6	1.7
Buffalo	1.9	2.2	2.5	2.7	2.9
Cleveland	0.9	1.1	1.3	1.4	1.5
Erie	0.8	1.0	1.1	1.2	1.4
Fairport	0.6	0.6	0.7	0.8	0.9
Fermi Power Plant	1.1	1.3	1.5	1.7	1.9
Marblehead	0.8	0.9	1.0	1.1	1.1
Sturgeon Point	1.2	1.4	1.5	1.7	1.8
Toledo	1.6	1.9	2.3	2.6	2.9
LAKE ONTARIO					
Cape Vincent	0.4	0.5	0.7	0.8	0.9
Olcott	0.4	0.5	0.6	0.7	0.8
Oswego	0.5	0.6	0.7	0.8	0.9
Rochester	0.5	0.5	0.6	0.7	0.7

* The water surface of Lake Erie has the potential to tilt in strong winds, producing large differentials between the ends of the lake.

Note: The rises shown above, should they occur, would be in addition to the still water levels indicated on the Monthly Bulletin. Values of wave runup are not provided in this table.

Great Lakes Basin Hydrology

During the month of June precipitation on the Lake Superior and Lake Ontario basins was below average. The basins of Lakes Michigan-Huron and Erie experienced above average precipitation. For the year to date, precipitation is about 7% below average for the entire Great Lakes basin. The net supply of water to Lakes Superior and Michigan-Huron was below average in June, while that to Lakes Erie and Ontario was above average. Table 2 lists June precipitation and water supply information for all of the Great Lakes.

In comparison to their long-term (1918-1993) averages, the June monthly mean water level of Lake Superior was at its long-term average. The levels of Lakes Michigan-Huron, St. Clair, Erie and Ontario were 5, 9, 8 and 2 inches above average respectively. Shoreline residents on Lakes St. Clair and Erie are cautioned to continue to be alert to possible adverse weather conditions, as these could compound an already high lake level situation. Further information and advice will be provided by the Corps of Engineers should conditions worsen.

**TABLE 2
GREAT LAKES HYDROLOGY¹**

PRECIPITATION (INCHES)								
BASIN	JUNE				YEAR-TO-DATE			
	1994 ²	Average (1900-1991)	Diff.	% of Average	1994 ²	Average (1900-1991)	Diff.	% of Average
Superior	2.1	3.3	-1.2	64	11.3	13.1	-1.8	86
Michigan-Huron	3.2	3.1	0.1	103	13.5	14.6	-1.1	92
Erie	4.0	3.4	0.6	118	16.7	17.0	-0.3	98
Ontario	3.0	3.1	-0.1	97	17.2	16.7	0.5	103
Great Lakes	3.0	3.2	-0.2	94	13.8	14.8	-1.0	93

LAKE	JUNE WATERSUPPLIES ³ (CFS)		JUNE OUTFLOW ⁴ (CFS)	
	1994 ²	Average (1900-1989)	1994 ²	Average (1900-1989)
Superior	134,000	158,000	84,000	78,000
Michigan-Huron	162,000	204,000	196,000 ⁵	193,000
Erie	41,000	30,000	221,000 ⁵	214,000
Ontario	45,000	42,000	289,000	261,000

¹Values (excluding averages) are based on preliminary computations.

²Estimated.

³Negative water supply denotes evaporation from lake exceeded runoff from local basin.

⁴Does not include diversions.

⁵Reflects effects of ice/weed retardation in the connecting channels.

CFS = cubic feet per second.

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