

Chicago, Oakland had 2 trains to Chicago and Los Angeles/Long Beach had 8 trains weekly to Chicago, 2 trains to St. Louis and 3 trains to Houston and New Orleans with one train on to Savannah. On the east coast, New York had 4 trains weekly to Chicago.

Defining Strategic Issues

A critical step in the strategic planning process for a port, or for any agency, involves a determination of strategic issues that confront it and an analysis of the external environment and the internal strengths and weaknesses of the organization. External issues of concern may include such factors as trade trends; cargo forecasts, regulatory shifts, competitive advantages of other modes and ports, inland services, economic development opportunities, legal constraints and funding sources.

Trade Trends and Cargo Forecasts

An analysis of trade trends involves a compilation of past markets served and commodities handled and a determination of future markets. Identifying future markets to be served by the port should include analyses of those world markets in which the port can compete, how the port can exploit its advantages to serve those markets and the resources required to market the port.

Estimation of future markets and the development of cargo forecasts is both a science and an art. As a science, cargo forecasting involves the use of econometrics, regression analyses, statistics and other mathematical models. As an art, cargo forecasting involves sound judgement and competitive evaluations.

A recently developed tool to assist ports in developing trade forecasts is the International Trade Forecasting System, by Temple, Barker & Sloane and Data Resources, Inc. (DRI). The system includes DRI trade forecasts for 47 countries by the value and volume of flows of imports and exports. A total of 40 different commodities are included in the trade forecast system. For each country or world region, the system analyzes time series factors that affect trade such as changes in demand, relative prices of goods and exchange rates. Also, the system analyzes the relative wealth, market size, internal economic structure and certain non-economic factors for each country or region and develops an estimate of the ability of the U.S. to serve the market. The final product of the trade forecast system involves both an assessment of the overall volume and value of future trade and the number of containers that may be involved in such trade.

State Database on Waterborne Commerce

by

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Introduction

Good data is essential to good decision-making by government agencies, port authorities and the shipping industry. The availability of good data is important in determining the need for capital investments, for developing strategic plans and for formulating policies on maritime issues.

This presentation on development of a water transportation database is divided into two parts: The first part involves a discussion of ongoing efforts by The American Association of State Highway and Transportation Officials (AASHTO) to obtain state-specific data on the tonnage of cargoes handled in deep-draft ports and on inland and intracoastal waterways that encompass or border more than one state. The second part of the presentation involves a program by the Illinois DOT to develop a comprehensive database on waterborne commerce that includes direct shipments to and from Illinois on the Great Lakes and St. Lawrence Seaway system and on the inland waterways.

State-Specific Water Transport Data

The need for state-specific data on waterborne commerce was initially discussed by AASHTO's Standing Committee on Water Transportation, at the AASHTO Annual Meeting on December 10, 1984. The Standing Committee requested that the Illinois Department of Transportation (IDOT) make a formal request to the Corps of Engineers for state-specific waterborne commerce data, and that IDOT report back to the Committee.

A letter was prepared by IDOT, approved by AASHTO, and sent on April 11, 1985 to David Penick, Chief of the Waterborne Commerce Statistics Center in New Orleans. The letter requested the Corps to prepare annual state-specific tonnage and commodity data reports for cargoes shipped at deep-draft ports and on inland and intracoastal waterways and to publish the data in conjunction with the annual Waterborne Commerce of the United States reports.

In a response letter dated May 3, 1985, Mr. Penick stated that the Corps is not specifically required by federal statute to compile state-specific data, nor does the Corps have the resources to comply with a request for such data for all the states. However, the Corps is investigating the feasibility of compiling a "public domain database" that would provide shipping and receiving tonnages for selected waterway segments. Following this initial effort, the Corps may investigate the feasibility of developing further disaggregated databases such as state-to-state and county-to-county shipments. He indicated that 66 waterway segments would be used initially for the public domain database, most of which would not be specific to individual states.

Mr. Penick noted that one major problem with the development of public domain databases is the concern of private companies with the potential for release of confidential data on company shipping activities. To guard against this, the Corps imposes a "Rule of Three" to prevent disclosures of private companies.

For the Corps to release commodity tonnage data for shipments to or from a specific area of origin or destination, the Rule of Three establishes the following requirements:

1. Three or more vessel operating companies must carry the commodity from an area of origin to an area of destination.
2. There exists three or more facilities that load the commodity within the area of origin.

3. There exists three or more facilities that unload the commodity within the area of destination.

In a followup conversation with Mr. Penick, he indicated that he expected to release an origin-destination type database by the end of the current federal fiscal year. For most commodities, the database will identify the shipments of commodities between each of the 66 waterway segments. However, to meet the "Rule of Three" requirement for some commodities, such as petroleum, it will be necessary to reduce the number of segments and thereby to increase the geographic areas covered by the remaining segments. Prior to release of the database, the Waterborne Commerce Statistics Center will provide draft copies to those private companies that have objected to the development of a public domain database.

Additionally, Mr. Penick provided a copy of a publication entitled "Products and Services Available to the Public From the Waterborne Commerce Statistics Center." The types of data available include reports on waterborne commerce of the United States, transportation lines of the United States, summary of U.S. flag vessels and the vessel owners, principal port tonnages and specific requests for statistical data. The publication indicates the cost of printed reports and computer tapes for these various reports. Of particular interest is the description of special requests for statistical data. The publication indicates the process for submitting a special request to the Waterborne Commerce Statistics Center and the names, titles and telephone numbers of four contact persons.

Illinois' Water Transportation Database

Appended to this paper is the list of tables to the Illinois water transportation database. The "List of Tables" comprise the historic shipping data for Illinois. Several features of these tables that may be useful to other states and government agencies that are interested in developing a water transportation database are:

1. The ordering of the tables involves a progression of tonnage data from the national to the state level, including U.S. foreign and domestic shipments, shipments through the Port of Chicago and on inland waterways within the borders of Illinois. Table 1 is a national summary of U.S. foreign and domestic shipments for the years 1970-1983, Table 2 to Table 11 present the tonnage of U.S. export and import commodities and container cargoes, and Table 12 to Table 19 present data on U.S. coastwise, lakewise, and inland and intracoastal waterway shipments. Illinois-specific data is presented in Tables 20 through 56.
2. The data presented in the tables is readily available in reports prepared by federal agencies. Historic tonnage data on U.S. foreign exports and imports and on domestic coastal, Great Lakes and barge shipments are presented in the Waterborne Commerce on the United States report. Data on container shipments is presented in the annual report by the Maritime Administration entitled Containerized Cargo Statistics. Data on shipments through the St. Lawrence Seaway is available in the annual Traffic Report by the Saint Lawrence Seaway Development Corporation. Barge tonnage data for Illinois, presented in

Table 31 through Table 56 are not available in Corps of Engineers' reports. The development of these tables is discussed below.

3. Data on historic shipments, in some tables, is presented for the years 1970, 1975, 1980 and 1983. (1983 is the most recent year for which annual reports are presently available from the Corps.) These intervals were selected as base years for trend analysis and as the basis for comparing national totals to Illinois shipments in particular categories.
4. Some tables present tonnage data for commodity groups and other tables present data for commodities. The Corps of Engineers Commodity Classification for Waterborne Commerce has 30 two-digit commodity groups and there are 158 four-digit commodities within these 30 groups. As an example of the numbering system, Farm Products are designated as group 01 and individual commodities have four-digit numbers such as corn, 0130; wheat 0107; and soybeans, 0111.

Several years ago, IDOT contracted with Data Resources, Inc. (DRI) to prepare tables on historic barge shipments to and from Illinois. DRI prepared the tables, with the permission of the Corps of Engineers, from the Corps' dock-to-dock computer tapes.

The tables on historic barge shipments present tonnage data on shipments originating and terminating in Illinois by river, by commodity group and by 10 port ranges. The waterways in the state were divided into 10 port ranges as the basis for disaggregating the barge data. The port ranges were selected by IDOT at the start of the project as being suitable subregions for data presentation within the limits of the amount of funds budgeted for the project.

Data is presented by two-digit Corps commodity groups for the tons loaded into barges and unloaded from barges in each of the 10 port ranges for the years 1970-1983. The 10 port ranges include 3 port ranges on the Mississippi River, 2 port ranges on the Ohio River, and 5 port ranges on the Illinois Waterway, all bordering or within Illinois.

As an example of the types of analyses that can be conducted with the water transportation database, we have determined that, in 1983, the State of Illinois generated 31% of all farm products shipped by barge on the inland and intracoastal waterway system, 16% of the coal shipments and 8% of the petroleum product shipments.

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State Inventory of the Water Transportation System
by
Jerry Tolliver
Kentucky Commerce Cabinet

In 1984, a comprehensive inventory of the inland waterway system that serves Kentucky was prepared for the Kentucky Transportation Cabinet. The inventory was published in a report entitled Waterways Transportation in Kentucky, March 1984. Responsibility for the riverport program was transferred to the Kentucky Commerce Cabinet in December 1985.

Kentucky is served by eight different navigable rivers including the Ohio, Mississippi, Kentucky, Green, Cumberland, Tennessee, Licking and Big Sandy. For each of these rivers, the inventory identifies the number of river miles in Kentucky, number of locks and dams, number of cargo handling terminals, 1980 tonnage for the entire river (not just the portion in Kentucky), major commodities, approximate annual expenditures by the Corps of Engineers for maintaining the rivers within the borders of Kentucky, and if a federal navigation study is being conducted on any of the rivers within the state.

The inland waterways that serve Kentucky include 1,090 miles of navigable waterways and 18 locks and dams, of which 10 are on the Ohio River. Through the end of 1983, there were 186 river terminals that primarily handled coal, grain, aggregates, petroleum products, chemicals and steel. Coal accounted for 55 percent of the waterway shipments in the state, and nearly one-fourth of the state's coal production was shipped by barge.

Since 1966, nine autonomous port authorities have been created to promote waterborne commerce and water-oriented industrial development. Eight of the port authorities are located on the Ohio River.