Trade between China and the Upper Midwest States

Trade between China and the U.S. has grown substantially in the past decade. This has placed substantial burden on a transportation systems that already had capacity limitations and flow constrictions at critical nodes. It is important to understand the magnitude of this transportation flow and its potential impacts on the Upper Midwest States.

Currently, we have data that shows freight shipments by air and by water to China from the seven states in the Upper Midwest States (Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin). These data are available by volume and by value for 1999 through 2004. (See the attached spreadsheet. Data for 2005 will be available within the next few months.) All states show a dramatic increase in trade with China from 1999 to 2004. In nearly all cases, the flows of goods from these states to China have increased by a factor of two or more.

We currently do not have data that shows shipments from China to the Upper Midwest States, although one would expect that:

- The absolute values of the shipments from China to the Upper Midwest States are greater than values of the shipment from these states to China
- The rate of growth in the shipments from China to the U.S. is at least as great as the shipment from the U.S. to China.

In short, the goods coming from China are substantial and are likely to continue to grow. Efforts are currently underway to obtain access to data on goods coming from China.

In addition, the data on trade with China are meant to illustrate the capabilities that we have to examine international trade. These same data could be presented for trade from the U.S. to Japan, Korea, or other U.S. trading partner.

Air Freight

As shown in the spreadsheet, airfreight moving to China from the U.S. (both by volume and by value) has increased dramatically. It is likely that all or nearly all of this freight was brought to the departing airport via the road network. Illinois has the largest amount of cargo, most likely because Chicago is a major hub for international air travel and a substantial amount of airfreight moves as belly cargo in passenger jets. Minnesota also has significant international connections via Minneapolis, which helps to explain its large air cargo movement to China.

Water Freight

As shown in the spreadsheet, water freight moving to China from the U.S. (both by volume and by value) has increased dramatically. Only a very small amount of this freight moves through great lakes ports or down the Mississippi to China. The freight tends to move from the Upper Midwest States to West Coast ports via truck and rail, with the majority moving intermodally with trains doing the line-haul work. Once again, Illinois is the largest point of departure, in part, because of its

role as a critical intermodal connection point. Ohio and Michigan are also large trading partners with China due, in part, to their manufacturing emphasis.

Possible Alternative

Currently, inbound and outbound international freight movements between the Upper Midwest States and China and other eastern rim countries, face significant air, rail, truck, and intermodal bottlenecks in Chicago and delays at the West coast ports. These problems are likely to increase unless some relief can be found.

Air Freight:

The two largest airports in the Upper Midwest States, Chicago O'Hare and Detroit Metro, have congested air space and/or congested road networks that feed these airports. In the past decade, airports in Indianapolis, Indiana and Columbus, Ohio have been selected by Federal Express as major cargo hubs for its package delivery network. There may be other airports in the Upper Midwest States that are well located, have ample room for development, and limited congestion. These could serve as alternative collection points and destinations for air cargo.

Water Freight:

There appear to be four alternatives for water based transportation to the eastern rim.

1. Via rail or truck to the U.S. west coast ports. Currently, this is the most heavily used route, but it is congested and adds substantial time and cost to the journey.
2. Great Lakes ports through the St. Lawrence Seaway, through the Panama Canal. Even if the lock limitations on the Seaway could be addressed, this alternative is not very attractive for trade with China because of the length of the journey and the delays associated with moving through the Panama and Seaway/Great Lakes locks. This may be an attractive alternative for trade with Europe, Africa, or South America.
3. Great Lakes ports through the Illinois River and locks to the Mississippi River and through the Panama Canal. This is not the most direct route, but could be a possible alternative as the delays at the West Coast ports increase.
4. Via rail from two or three points in the Upper Midwest States using Canadian National (CN) exiting at the Port of Vancouver or Prince Rupert. This route is shorter in both distance and time from the Upper Midwest States to China, Japan, and Korea, it by-passes the capacity constrained intermodal facilities in Chicago and the Port of Long Beach, and it uses rail lines that can take long, high capacity trains with fewer delays along the route.

Summary
As we collect data on trade moving from China to the Upper Midwest States, we should be thinking about strategies to move goods efficiently into and out of our region. As the spreadsheet shows, our exports to China are substantial. The faster and more efficient we are at moving products the more competitive our manufactures will be in the global market place.