an intermodal system according to the states needs. California has their own system data base for planning. It has not used the HPMS data in the past.

In California, the state is interested in all travel on air, land, and water. Caltrans is concerned with the movement of all people and goods. They not only need data on the links of transport, but they also need data on the connections. Connectors are important for all modes of travel, as well as to safety, efficiency, and economics factors. These are performance-based measures. Common denominators are required to allow evaluation between modes of travel and to compare mode equality in both performance and cost. Data needs for public transit will also be designed and carried out by the winning consultant including fixed guideway management systems.

James Reichart

Issues identified by Reichert include:

What data can we collect in the smart bus and smart car program? Vehicle location? Where are the congestion points in the system? Are rideshare matching programs needed as part of the transit information system? What is available? When will it be available? How can we access it? What information does the rider want and need to encourage their use of transit? What is a good pricing policy for the entire transportation system?

There are impacts for fitting transit into the air quality control system that will include buses and the fuel that they use.

A better job needs to be done in analyzing the data that we collect. How is it possible to make some operational decisions without the analysis of the data collected? More information is needed on mode split. Ridership is generally inflated. Better O/D data is needed and some criteria are needed to update it. Land use information is important.

What types of densities are required to make transit work? There is also a need for long-range financial planning.

Better traffic counts are needed for intersections in order to time the signals better.

Ed Christopher

The basic management system for the Chicago area is a bottom-up approach.

The CATS Policy Board represents many constituencies in the Chicago area. There are many implementing and funding agencies involved in the process. The staff of CATS is currently a group of 42 people, not the staff of 97 that CATS once employed. The staff is the travel forecasting experts of the area. They work in a participatory and conscientious process. They have years of project development and programming experience.

The data program has been developed to support the travel forecasting activities and special studies. It is a bottom-up approach through the local governments as witnessed through the operations "green light" program. It is based on a strategic regional arterial system. The process is to identify the links and then identify the problem.

Lots of data are collected in the region by different agencies and governments. All these data are not centralized or "management systemized." In order to cut down on confusion, it is necessary to be clear on who does what data collection. For the traffic congestion management system, it is necessary to publish system guidelines and definitions.

WORKSHOP REPORTS

Alvin R. Luedecke, Texas Department of Transportation, and Gordon Shunk, Texas Transportation Institute

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The workshop began with the realization that there are several management systems (ISTEA) that no one really knows exactly what they are, what they are going to be, or what the impacts are going to be.

In determining responsibility, (states/MPOs) the group realized that there was such a variety of relationships between states and MPOs (due to personnel constraints and funding constraints) that the bottom line is that it is a joint effort—a shared responsibility.

The workshop tried to stay focused on data issues as opposed to the policy issues. Data are simply the fuel for an operational administrative process. The workshop recognized that it is necessary to get proper data that will fuel the process and do it in a reliable way for decision makers that have to deal with the consequences.

The workshop focused on three management systems in ISTEA--congestion, transit, and intermodal.

Elements discussed included:

Congestion Management

- Surveys—O/D surveys, link level surveys; person vehicle trips; special generator surveys; parking supply and costs; and freight movements.

- Monitoring—time and speed performance of various facilities; physical attributes; vehicle

classification and occupancy; and time of day.

- Forecasting—projection of land use and traffic volumes.

- Survey Analysis—intersection traffic capacity; incident delays; cost-benefit analysis; and TSM measures.

Transit

- Surveys—intercity transit on-board surveys; attitudinal and population/employment within walking distance; land use density; and parking surveys.

- Monitoring—equipment inventory; ridership; vehicle ownership; comparative travel time and efficiency of service; service by modes and types; fare structure and operating costs; physical inventory—park and ride lots and special events; market share; and accidents and incidents.

- Forecast—forecast of ridership.

- Analysis—incentive programs/promotions; capital costs; safety and security; number of transfers and relative delays.

Intermodal

- Surveys—alternative modes (definition of intermodal - interfacing of various modes); varieties of modes; service area; regulating environment for each mode; commodity movement; number of terminals (train stations, ports, airports); production and consumption; network attributes.

- Monitoring—interconnection at terminals and how well they are performing and what their needs are. Market share by commodities that were being affected by those various modes; time profile—a peaking, or efficiency, or a measure of when you need to apply and mix; mode capacity.

- Forecasting—market share at each of the various modes to effect any changes on a timely basis; what the interconnection is going to be; and what the commodity movements are in the future; time and costs.

- System Analysis—comparative time and costs and the link connection between the modes; funding availability by mode either from public or private agencies.

National Highway System

- Surveys—area boundary and functional class; access control on the highway system; corridor preservation; and in urban areas parallel reliever arterials from a congestion management point-of-view.

- Monitoring—volume classification, performance volume capacity ratios; financial plan resources and innovative funding; maintenance and operation costs; revenue sources; capital costs; depreciation and interest rates.

- Forecasts—tax base trends; mode forecasts; maintenance and operation costs; congestion pricing.

HPMS

- HPMS was looked at as a national measure of how well we are doing, not necessarily one that you would use at the local level or necessarily at the state level. In Texas, they are using it with anincreased sample rate to do strategic planning which has received mixed support. No suggestions were put forth by the workshop to suggest changes or additions.

Other conclusions reached by the workshop include:

- A great deal of data coming out of congestion and intermodal systems is going to be from other sources.

- Employment data—accessing information poses a problem. Work is needed at the state level to provide a data base.

- Ability to collect data—is limited by resources both human and dollars. Both are major limitations to the development of an effective data management program.