

spective how intercity multimodal travel in 1991 will differ from today.

6. To discuss and describe traveler services research or planning that should be undertaken to encourage greater use of multimodal travel.

Due to the extensive informal discussion nature of the conference session, this summary has been written as a general summary of the individual introduction presentations in addition to the overall session findings. It does not include a verbatim treatment of all panel or audience remarks.

BACKGROUND

Samuel C. Tignor, Federal Highway Administration

I would like to welcome you to Session 20 on behalf of the Transportation Research Board (TRB) and TRB Committee A3B05 on Motorist Services. I am the chairman of Committee A3B05. I would like to give you a little background on this session.

Committee A3B05 started in January 1979 to consider what constituted services information for travelers wanting to use more than one mode of travel in an intercity trip. During 1979 and 1980 we investigated and discussed the broad aspects of this problem. We also recognize that other TRB committees have looked and are looking at selected elements of multimodal travel problems. For example, work is being carried out by committees A1E03 on "Intermodal Transfer Facilities," A1B02 on "Passenger and Freight Transportation Characteristics," and A1B12 on "Intermodal Freight Transport."

Committee A3B05 appears to be interested in individual travelers possibly more so than the other committees. This committee may be motorist-service oriented primarily because of its general highway orientation. However, during the past 1½ to 2 years, we have been looking at travelers' problems in general because of the commonalities that we believe exist insofar as the different modes of transportation are concerned.

I think we should consider for a moment the magnitude and importance of travel in the United States. The particular facts and figures that I am going to give you are not the most solid in the world, but I think they do give some idea of the overall magnitude of the problem. Travel is approximately a \$100-billion-a-year industry: there are approximately, at least from the source I had, 6.6 million jobs related to travel one way or another; gasoline accounts for about 18% of consumer travel expenditures; air-travel-plus-rental-car vacation trips represent 15% of the travel market. Fuel costs continue to increase. Generally, airlines have lost business while rail and bus have gained during the past year (it is difficult to get good statistics on this because the past year just ended about a week or two ago and certain regional areas seem to go one way while other areas go another way). Highway travel has decreased this year.

What does this scope of travel mean in terms of travelers service needs? We soon discovered in Committee A3B05 that this is a complex problem with many potential overlapping areas. Who provides the service? There are many kinds of service providers, both government or private. A major concern was what part of the problem should and could Committee A3B05 address.

For example, what will be the traveler service needs and desires in the future? Typical traveler problems might include: difficulty of obtaining pretrip information for multimode trip planning, incompatibility of modal schedules and trip needs,

nonexistence of needed enroute information or service, economic disincentives, and personal convenience trade-offs.

The purpose of this Session is to discuss the status of intermodal travel in the United States. Is it a reality or a myth in terms of meeting travelers needs now as well as the future? When I think about this problem, I sometimes remember Abraham Lincoln's remark: "If we could first know where we are and whether we are tending, we could better judge what to do and how to do it." I think, to a large part, this is the dilemma in which Committee A3B05 finds itself. Defining travelers' needs for multimodal travel is the problem.

We have identified six specific objectives (presented above) that we will discuss today. With respect to the Session mechanics, each panel participant, except for Mr. Glenbocki, who is substituting for a panel member who could not attend, will make a 5-minute opening presentation, after which panel discussion relative to the Session objectives will be undertaken. Some audience participation will be permitted after the panel participants have made their initial 5-minute presentations. I will monitor the audience participation.

The first panel participant is a member of Committee A3B05 and she will present a few examples of the problems sometimes experienced by travelers in trying to go from X to Y by more than one mode of transportation.

OPENING COMMENTS

Kay Colpitts, Montgomery County, Maryland

What do you think about when you are considering travel from one point to another -- especially when, for one reason or another, it is not possible or practical to drive your own car from door to door?

To get a handle on the factors that go into multimodal trip planning, I asked the members of the Motorist Services Committee to document case studies of how they planned and executed a specific trip. I categorized trips into four types: familiar, local trips; familiar, long-distance trips; unfamiliar, local; and unfamiliar, long-distance. I received case studies on 10 different trips from four Committee members. Since all four trip types were represented, I've selected a different trip type from each member to present to you today. The specific examples also represent the most commonly available modes of travel.

The first trip, a familiar, local one, was my own today -- from Rockville, Maryland (my office) to the Sheraton, a distance of just under 15 miles. The modes available to me were private automobile, public automobile, commercial automobile, bus, and combinations of those with subway. I eliminated bus and subway because either would take too long, especially at the off-peak times I would be traveling. Commercial automobile, taxi, would have been too expensive to take from door to door even for just one way. I could have carpooled in a government car, but I was not traveling at the same time as anyone else in my office. The major problem I anticipated in driving my own car was the lack of available parking. I decided to drive and check first to see if I could get parking in the garage at either the Sheraton or Shoreham Hotels; if not, I was going to backtrack, driving north on Connecticut Avenue until I could find a legal spot on a side street and either walk back, depending on the distance, or hail a taxi or bus, depending on whichever came first. I also left early enough to allow myself time to wait in line for a garage space if the line were short enough.

When I arrived at the Sheraton Hotel, it was full. The attendant suggested I try the Shoreham Hotel where I found a parking space. While this trip was not multimodal, it does illustrate the planning needed.

The second trip, a familiar, long-distance one, was taken by Dr. J. Edwin Clark, an Associate Professor in Clemson University's civil engineering department. Bus, train, and plane were the modes available for the terminal-to-terminal portion of his trip. He chose plane and listed convenience as the primary determining factor, with cost secondary. He selected personal automobile over taxi to get to and from the airport at the origin end because of cost and convenience, and he selected subway at the destination end because of its cost and his familiarity with the mode. He planned all steps in advance and no changes were necessary. Information available to him in planning the trip was the Official Airline Guide (OAG) and the Ground Transportation Services published by the OAG.

The third trip, an unfamiliar, local one, was taken by Gary L. Urbanek from his office at Allard Inc. in Ellsworth, Kansas, to Topeka, Kansas. Although it was 150 miles long, Gary considered this to be a local trip for the rural midwest area in which he lives. The modes available to him for the major portion of his trip were: bus, commercial air, and private air. He selected a combination of automobile, private air, and taxi. Both bus and commercial air schedules would have necessitated two overnight stays and private automobile would have meant 6 hours on Interstate-type roads. The primary variable that determined his choice was time. However, he translated the time into money because this was a business trip. When his chargeable hourly rate was included, the cost was greater for all modes other than private air. Gary also noted that, if information had been obtained in advance about the exact location of the meeting, he would have had the plane land at a different airport in order to minimize the ground taxi costs.

The fourth and final trip that I describe, an unfamiliar, long-distance one, is the most interesting of all those submitted. It was a business trip taken by Robert F. Jordan, Jr., of the Virginia Department of Highways and Transportation, from his home in Charlottesville, Virginia, to Northwestern University in the Chicago suburb of Evanston, Illinois. Although information about plane fares and schedules was more easily obtained, Bob decided to travel by Amtrak for the major portion of his 600-mile journey, primarily because of its reputed energy savings, its competitive prices, and the attractive scenery along the route during the mid-October trip. However, because of the long layover in Washington, D.C., he decided it was more practical to travel by Trailways bus for the first 100-mile leg of his trip.

Because the bus only stops at terminals, he had to get someone to drive him the 10 miles to the bus terminal even though the bus passed within two blocks of his home. When he reached the Trailways terminal in Washington, D.C., none of the four attendants he approached had any suggestions about how he could reach Union Station, only 2 miles away. A stranger told him he could reach a Metro subway station by walking eight blocks. Bob hauled his luggage that distance but does not highly recommend the area for those concerned about their personal safety. He apparently had no trouble in using Metro and was impressed with its informational displays. At Union Station he did experience trouble finding out what to do and where to go but finally managed to reach the right car at the right time, mainly be-

cause the conductors told him when he was at the wrong car rather than where the right one was. The car he boarded was too hot and the windows dirty so he transferred to a satisfactory one three cars away. Looking out the window, he found the train took a circuitous route to pick up passengers in Baltimore, Wilmington, Philadelphia, and Harrisburg -- where it was joined by the New York train and where he switched to a car that had separate sleeping compartments.

When he awoke in the morning, the view outside was of Ohio instead of Indiana where the schedule said they were supposed to be. Rail bed conditions were such that the Chicago arrival was almost 6 hours behind schedule and the conductors told Bob this was typical. He noted the crew changed frequently during the 22-hour trip but none of the crew or station personnel could tell him how to get to Evanston during the taxi strike then occurring in Chicago. He finally took a very slow and crowded bus and transferred to an elevated train to complete the trip, but later found out he could have taken one of two nearby commuter trains. One of the commuter lines, however, was then being victimized by a "subway slasher" who had murdered two and wounded one that week, and the passenger cars on that line were rumored to display bullet holes on their exterior siding. Bob completed the first half of his round trip feeling sympathetic for Amtrak's problems, but, nevertheless, he paid 25% more; he completed the return trip home by plane, including one transfer, in 3 hours.

The conclusions I have drawn from examining these multimodal trip planning case studies include the following:

1. Each modal system operates largely independently of all other modal systems; little concern is shown by system planners, designers, and operators for how, when, and where a user gets to and from each modal system.
2. Most travelers choose the familiar whenever they can. If the destination is an unfamiliar one, the mode of travel is more likely to be a familiar one; but, if the destination is a familiar one, travelers are more willing to consider alternative modes to the ones they have tried previously.
3. Travelers are not as strictly concerned with out-of-pocket expenses as some might believe. A significant amount of concern is given to energy conservation, to the value of time, and to convenience. (This conclusion is based on my own personal observations.)
4. The "glue" that holds a multimodal trip together is the pedestrian mode. Yet, these modal "users" are the most neglected during intermodal trip transfers. They are deprived of convenient transfer locations and facilities; adequate information about schedules, fares, and station locations; physical protection in the form of protection from weather and criminal elements; and facilities designed to be used by all types of travelers whether in a wheelchair or on crutches or handicapped by a load of suitcases or a fear of escalators.
5. Until travelers are able to transfer from one to another safely and conveniently, and can be sure of this in advance, they will plan trips to use as few modes as possible. And often this will be only one mode -- the private automobile -- from origin to destination. If one of this country's transportation goals is to provide increased mobil-

ity to its citizens, we will have to find ways of making multimodal trips more attractive to travelers without restricting free enterprise competition.

OPENING COMMENTS

Leon F. Jackson, Amtrak

I am very pleased Dr. Tignor just acknowledged that we are trying to illustrate a number of problems without really picking on any particular mode of transportation. If we looked hard enough and long enough, we could probably find equally disruptive types of problems relative to any mode of transportation.

While listening to Ms. Colpitts, I thought for a minute that I was going to hear another Amtrak horror story and, sure enough, I did. Although there were comments about the bullet holes in the commuter train and other things, the one item that does concern me is the on-time performance. All the equipment now is head-in power electric. I was on that same train a month or so ago and it was 45 minutes ahead of schedule. Six-hour delays are few and far between these days; the record can be checked. It happens sometimes, of course; however, with the kind of weather we have now, I would have to add that rail does go, and, despite the weather, you will get there sooner or later.

"Intermodality," although a word you will not find in most standard dictionaries, is a word that is being used increasingly in the travel industry. And even though we probably cannot agree on a standard definition of that word, for our purposes here, we can define it as the use of all the different transportation modes -- air, rail, bus, ship, and car. I would also consider hotel/motel and rental cars as part of the total travel picture.

With the exception of the automobile, of course, almost every trip is intermodal. Our research, regarding our transportation to Amtrak stations, shows that 7% arrive by local bus, 3% by intercity bus, 55% by private automobile, a little over 1% by rental car, about 15% by taxi, 12% by local commuter train, and, the remaining percent by other means. If alternate modes are not there, they cannot be used.

At Amtrak, we feel strongly about intermodal travel as a concept for the future, although it is a concept that is here now. The Board of Directors, the President of Amtrak, and the Vice President of Marketing, as well as our complete executive staff, have completely endorsed this concept and it is part of our marketing plan. We keep this in mind in everything we do. Alan Boyd, the President of Amtrak, was quoted recently in Travel Management Daily as being intensely interested in forging an alliance with the bus companies and the airlines, and he has succeeded in doing quite a bit of this. Today, for example, Amtrak has interline arrangements with over 60 bus lines, 9 rail lines, a steamship company -- I do not have the figures, but there are a few tour packages with airlines, air-rail type packages. And, as most of you know, as of the end of October, the rail link between Baltimore-Washington International Airport and Washington began. Some of the things we are interested in and working on in these agreements are joint ticketing, joint advertising, the tour packages, of course; probably the main thing is the stations, the sharing of the stations.

While we are committed to intermodal travel, there are a number of problems. We look at this like carriers in the past who have suffered from short-sightedness in their approach to travel; but there is also another category here you might call carrier narrow-mindedness. Carriers in general have

tended to think of themselves rather than looking at the passengers and the passengers' problems. We know of cases, for example, where freight train crews have just parked the train and left, tying up passenger trains for hours because they had put in their 8 hours or had satisfied their work rules.

You have probably all heard a number of stories about our conductors and, unfortunately, too many of them are true. A conductor goes 200 miles or 8 hours, whichever comes first (this is a work rule that goes back to 1890). Some of them work 2 days a week to complete their weekly work and are paid quite well for this. Frequently we have standee problems or sleeper space problems on down lines; the conductor on board at that time does not worry because he gets off at the next station and it will then be the next conductor's problem.

I think the tendency for public carriers to put their own interests ahead of the traveler has evolved due to economic and some regulatory factors rather than due to any deliberate planning to get out of solving passengers train problems. For example, rail was the dominant mode before World War II. After the war, it went into a steady decline until it became the least dominant mode. We believe the reason for this was that freight business was more profitable. They had no interest in passengers. If they had done some marketing, gone after it, worked with the other modes, chances are what happened never would have happened. But we see passenger demand returning, and it is growing each year. There are some good reasons for this. Energy, environmental, congestion, inflation -- these are all reasons why rail demand is returning. Although it will never reach the status it once enjoyed, we do believe it is here to stay. For example, it is the only mode that can use electricity. That may be coming for the automobile but it is not here now. In the northeast corridor, between Washington and New York, and part way to Boston, more than half of Amtrak's total system carriage is moved by electricity over those routes; this is about 2,000,000 passengers a month.

There are several things unique to rail: operation on electricity; more leg room than any other mode; the traveler can also get up and move around. He may be thrown against the wall if he is not careful, over some of the trackage, but he can get up and walk around. There is also sit-down dining services; the train goes in any kind of weather; and it is a traveling hotel (there are over 1,000 beds per night).

The need, as we see it, is for a balanced transportation system which includes all of the modes. The need is to approach travel from an integrated point of view, or what some people might call the systems approach, with service to the traveler as the primary objective. This includes urban as well as intercity travel, along with lodging and food services.

We look at travel in the broad perspective as including five phases: First, the pretravel phase or the planning part of the trip, which has probably been sorely neglected in the past; next the getting there, the second phase; the being there, the third phase; the returning, fourth phase; and then the posttravel experience, the fifth phase.

Traditionally, carriers have concentrated on the second and the fourth phases, the getting there and returning, and that is all they have cared about. Recently, some of the air carriers have looked into the being there phase, but it is usually when they have worked out an agreement with some promoter at the local scene. Phase three, has involved the people on the local scene, the hotels and the motels, the tour travel promoters in the