During our first year, we carried 110,000 people. We anticipated in our study that we would carry about 50,000. We have reevaluated our system because it included some things that we have not really liked, such as service for school children, which cuts into other kinds of service. Since we are a city operation, we can change the philosophy behind the system quite readily, and we do.

We use the DRT system as a patrol system. A typical monthly report will give an idea of what a DRT operator reported: "Dead animal; small garage fire; bus 16 involved in a hijack; broken glass on a street; two signals malfunctioning; illegal dumping; dead animal; small brush fire; county truck involved with a private vehicle in an accident; two dead animals; two large shepherd dogs loose in an intersection"—this kind of reporting is a worthwhile service to the community. As a matter of fact, when we started DRT, I indicated to the city council that I could justify the $100,000 subsidy on the basis of services other than transit. We make other public facilities available. We emphasize charter service. During those times of the day when demand is low, we give free rides to the swimming pools in the summer or we have contracts with shopping centers.

We have a radio communications system that we could not have if we did not have DRT. We have a sophisticated FM paging system, and we only have that because we have DRT.

Community image is important to us because we are not a property-taxed city and we are always looking for business and industry. DRT has done a great deal in enhancing our image. Because of the publicity we got by being one of the earliest cities to have DRT, people from all over the world have visited the city. Being in Los Angeles County where there are 78 cities, La Mirada is almost unheard of. Many times a good image may help an industrialist make the location decision.

In La Mirada, we had a major train accident in which a gasoline tanker exploded and several propane cars were piled underneath. Thirty minutes after the police and firemen were there our DRT system was in operation. The vehicles were available and in use. What I am saying is that there are many other aspects to DRT than just transit. In our case, they have paid off.

John H. Davidson, Yellow Cab Company, Los Angeles

My comments are based on personal experience and the experiences of personnel in day-to-day supervision of demand-responsive services.

We have 2 forms of communication: the telephone that the patron uses and the radio that we use to and from the vehicles and the communications center and possibly between the vehicles if we use a Simplex radio frequency.

We start by getting the order. The DRT customer is quite similar to the taxicab customer. A high percentage of the people have never used this type of transportation before and many have language difficulties.

Sufficient time must be allowed to receive the orders, including recording the address, the name of the party, the number in the party, and the destination and giving the patron an estimated bus arrival time. An analysis of more than 120,000 orders indicates that a DRT order taker can handle from 2 to 2½ orders a minute. By comparison, a taxicab order taker can handle about 4 orders a minute.

Telephone equipment should be simple at the start. We started out with a simple instrument with a single incoming line without transfers or hold buttons and moved to the sophisticated Automatic Call Distribution system with a large number of incoming lines, hold buttons, and transfers. A beginning installation of 2 incoming lines, 2 instruments with both lines, and hold buttons duplicated on each instrument will handle 200 calls per hour.

Some peripheral equipment is useful and is available from the telephone system or from equipment manufacturers. We found call counters on the lines to indicate

incoming flow to be valuable and also circuit overload counters and all-truck-busy counters. A device that we have found useful in DRT operation and in taxicab operations is a linear recording device that shows when the call was answered and how long the conversation lasted.

Another item of peripheral equipment that is quite useful is a tape system to record all incoming calls and all radio conversations. The cost is not excessive. It stops many budding problems between dispatcher and driver and gives the DRT system operator a tool for analyzing and responding to complaints. The gruff order taker may make a drastic change in attitude if conversations are recorded.

Radio equipment should also be simple. A dispatcher or order taker must have the ability to route the calls and keep nonproductive mileage as low as possible. We find that an experienced dispatcher can handle about 1.8 to 2.2 orders per minute. A portion of the time is spent in the analysis of the orders to determine the most economical routing, and a portion of the time is spent in radio conversations. Excluding the calls by driver when the patron is picked up and again when the patron is delivered, radio conversations with the driver average 5½ to 6 per trip. In taxicab activity, the number of contacts will average from 4½ to 5 per order.

If DRT is operated by a municipality or transit district, cooperation from the FCC is better if the radio frequency used is from the public safety or transit bus frequency blocks. If a private operator is to operate the system, even though under contract, the use of assigned taxicab frequencies will expedite the initiation of the service.

Communications also include communications with the public and with the operating personnel. In regard to communications with the public, although a taxicab operator can start one of these operations in about a week from a technical standpoint, the public needs more time to realize what additional transportation will be offered. One system was inaugurated with 1 month's publicity and had 6,200 patrons in the first month. Another system in an adjacent community had 1 week's promotion and had only 3,000 patrons in the first month. The second operation required more than 8 months to approach, on a patron per vehicle hour basis, the first operation.

A continual line of chatter with employees must be maintained. This includes maintenance and office personnel, who are a vital part of this service. Let them know that the service is important to the community.

Discussion

EDWARD FRANZEN: What is the relation of the passengers per vehicle trip and the type of vehicle used, such as a big bus or a taxi?

CLAUDE KLUG: We started out with 3 minibuses and then 3 vans. We like the smaller vehicles because there are so many cul-de-sac streets and people on the streets are not so bothered by the little vans. If DRT is working well, a bus should only have 2 or 3 people aboard it at one time, but people get disturbed when they see so few people on board. We did not use the cabs because we wanted to change the image of public transit. We have armchair seating so people can talk in a pleasant atmosphere.

DAVID SHILLING: The smaller vehicles are better received. We have 19-passenger buses in our system. Rarely are more than 5 people on a bus at any one time. The operating costs of the buses and the vans are approximately the same because the key factor is the labor involved. As a transit authority, we have to plan our vehicle requirements for the next 6 to 12 years to plan for the peak periods, and that is why we operate the larger vehicles.

MARCEL ZOBRAK: A taxicab is cheaper to run than a van, so a trade-off must be made. Many people who do not know each other do not like to sit close together as