

PRESENTATION 1

Edwin Roth, APCOA, Inc., Cleveland

APCOA began in 1949 with the operation of the first airport pay parking lot at Cleveland Hopkins International Airport. In the most recent year, APCOA gross revenues amounted to about \$1 billion. At airports, parking revenues probably were second in size only to landing fee revenues.

Two issues concerning airport parking will be addressed: expansion and control of revenues. Expansion. Parking lot demand at airports is considerably different from the demand for conventional parking facilities in metropolitan areas: for example, airport parkers park either for less than two hours (short term) or for the period of their trip (long term). Short-term parking spaces may turn over up to 8 times a day compared with 1-1/2 to 2 times a day for urban central business district parking.

Parking garages are a likely solution to the increasing demand for airport parking. The structures should be as close as possible to the passenger terminal and should serve both short-term and long-term parkers. Certain mechanical structured parking facilities have worked in Europe, but probably would not work in the United States. Before a commitment is made to a specific structural parking solution at an airport, it is important to make a feasibility study and to analyze the airport user traffic patterns at that particular airport.

Revenue Control. The background of cash register technology was reviewed; the electronic cash register has shown a great deal of promise for airport parking. However, it can be relatively slow--requiring as much as 20 seconds per average transaction. In its search for improved cash register technology, APCOA looked to the fast food industry. Fast food operations, like airport parking facilities, are concerned with relatively limited numbers of items and high flow.

Parking lot employee theft results in considerably lower losses than customer cheating schemes. Customer cheating, including ticket swap scams, results in a revenue loss of about 2.7%; cashier miscalculations, up to 0.4%; and employee dishonesty, another 0.1%.

Wherever there is a cash operation, the opportunity for revenue loss exists. A number of methods to minimize this loss can be employed, such as:

1. Employee screening during hiring, including lie detector tests if appropriate;
2. Daily reconciliations;
3. Use of roving audit teams (incognito);
4. Gross index checks (i.e., comparing parking lot revenues and passenger volumes and the like); and
5. Rotating employees at collection stations.

To date, no revenue control equipment has been devised that is foolproof or 100% reliable; therefore, successful parking revenue control systems require reliable backup procedures.

Some revenue control systems are not fast enough. The "ultimate" revenue control system would somehow label individual cars, but such a system has not been developed yet.

Factors that affect parking lot systems include the following:

1. Climate variability (weather, humidity, etc.),
2. Sticking of tickets,
3. Dust control (on photo cells),
4. Ticket sizes,
5. Electrical circuit disturbances which can result in altered time clock settings, and
6. Wild miscalculations which are otherwise unexplainable.

Regarding the efforts of equipment companies to devise better systems, there are some half dozen manufacturers in the revenue control market. Rather than try to design a single system for any and all airports, they should develop control system components which could then be combined into a package for specific applications at the individual airports.

The presentation concluded by stressing the importance of comparing the benefits (in terms of a reduction of losses) with the costs before deciding on a "revenue control system."

PRESENTATION 2

Martin Bloom, Park-N-Fly, St. Louis

The presentation began with a discussion of the evolution of the high level of service in the Park-N-Fly facilities. Only after operations were under way was it understood that a high level of service was the foundation of success for remote airport parking facilities.

When Park-N-Fly began operations at airports, its parking lots were lightly used. They had originally planned that patrons would be picked up by shuttle buses at specific locations within parking facilities and transported to the passenger terminal. Because of the light usage, however, the shuttle buses were able to follow the cars of departing passengers when they entered the parking facilities so that passenger pick-up would occur at the car, thus minimizing walking distance and baggage handling. The passengers were then transported directly to curbside. The same type of service was provided for arriving passengers.

Once business improved in the Park-N-Fly lots, operators found it was important to continue this car-to-curbside service. Park-N-Fly is currently operating six off-airport parking facilities and building three more.

Remote lots with prompt shuttle service offer the best kind of long-term parking service provided at large airports today. A comparison of remote parking with available garage parking at major airports, demonstrates the favorable rate structures and walking distances of remote facilities.

Regarding the applicability of valet parking, it is fine for departing passengers and for arriving passengers in the off-peak, but for arriving passengers during peak periods, considerable delay is incurred in waiting for the automobile to be brought to the valet pick-up point.

Private operations of remote parking facilities compete very favorably with remote parking facilities being operated by airport sponsors. Airport-operated remote parking is treated as an "economy" service and is tailored for low operating costs rather than convenience of the airline passenger. The emphasis generally is on maximum cost efficiency. As a result, shuttle frequencies are generally lower at airport-operated remote facilities than at privately operated facilities. Airport-operated facilities also require passengers to go to a pick-up point, and this requires walking within the lot. For these reasons, the airport-operated remote facilities have not been as well used as the privately operated facilities, even though the latter often charge higher rates. The customers appear to be prepared to pay a premium for quality service.

In summary, airport operators should consider planning for remote lots with first-class, service-oriented shuttle systems in lieu of additional close-in parking structures. The higher costs of better shuttle service can be recouped through the higher charges the airline passengers appear willing to pay.

PRESENTATION 3

James T. Murphy, Federal Aviation Administration, Washington, DC

Parking facilities at Dulles International Airport and Washington National Airport were briefly described. Dulles parking facilities are located in a single lot of 3,600 spaces. At National Airport, about 4,000 spaces are provided in 7 lots.

At Dulles, the biggest complaint of users is the service provided at parking exit booths. Dulles is unique because 40% of its passenger traffic occurs in 1-1/2 hours in the evening peak. Dulles parking facilities accommodate a number of long-term parkers (e.g., passengers on flights to Europe who park for durations of 2 to 3 weeks). Until recently, because of the peak exiting, there occasionally was a 40-minute wait at the parking lot exits.

At National Airport, 351 of the 4,000 spaces are devoted to short-term parking. These short-term spaces accommodate 46% of the cars, with a turnover rate of 12 to 15 times a day. The use of the parking space is controlled by pricing.

Computerized Revenue Control System at Dulles
An improved revenue control system was recently introduced at Dulles Airport and has increased revenues per enplaned passenger. Under the new computerized system, revenues have risen about \$200,000 per year. In addition, the new system has resulted in "no lost tickets."

The system operates as follows: Entering cars receive a ticket from a conventional ticket spitter. During nighttime hours, a license plate inventory is recorded and entered into the computer system. Upon the exit of a car from parking, the license plate number is punched into the computer system at the cashier's booth. Within an average of 15 seconds, the computer cross references the nighttime inventory to check if the ticket time corresponds with the inventory. Another advantage was that the new system leaves a "perfect audit trail."

The FAA strongly favors this new parking revenue control system, and workshop attendees were invited to visit Dulles Airport for an on-site inspection of the system.

PRESENTATION 4

Richard Hall, Peat, Marwick, Mitchell & Co., San Francisco

This presentation focused on the planning process for airport parking. Because of their size alone, airport parking facilities have an impact on all aspects of airport land use planning. Airport garages, like the one at O'Hare International Airport in Chicago, rank among the largest buildings in the nation, and surface parking at many airports is (or will be) measured in the tens of acres. For example, at Tampa International Airport, a lot of more than 10 acres is needed for overflow conditions just for holiday periods of the year.

The financial impacts of airport parking are also significant. Construction of structured parking costs several thousand dollars per space, whereas costs for shuttle bus service to remote surface parking--as at Houston Intercontinental Airport--are measured in the hundreds of thousands of dollars per year. Parking is a major contributor to airport revenues. Airport Operators Council International survey data for airports serving medium and large hubs indicate that annual parking revenues account for an average of about 20% of total gross revenues.

Three topics in the planning of public parking facilities were addressed:

1. Determining space requirements,
2. Environmental concerns, and
3. The need for more data and studies.

The discussion focused primarily on long-term parking where the traveler parks his vehicle for the trip duration. Long-term parking typically accounts for less than 10% of air passengers at an airport, but the vehicles typically occupy more than 50% of the total parking spaces in use.

Parking space requirements tend to grow in direct proportion to air passenger levels. As a result, parking requirements increase somewhat faster than other airport facilities requirements such as aircraft gates. Improved private or public transit service to airports has not yet had a significant effect in reducing automobile parking requirements.

However, the relationship of spaces versus passengers is qualified. The relationship refers to originating rather than enplaning passengers, and, in some instances, further detail is needed for planning purposes. At Tampa International, for example, peak space requirements for long-term parking do not necessarily occur in the peak of the tourist season. It is the resident air traveler, rather than the visitor, who contributes to the demand for long-term parking.

Air passenger traffic is growing rapidly because of discount fares and other factors, and this raises another point concerning parking spaces--a