

COMMUTERS, SHORT HAUL, AND AIRPORTS
Terrence L. Parker, Aviation Planning Associates

This session discussed demand and supply factors in short-haul passenger activities and airports. Participants, who were from manufacturers, government agencies, airlines, and consultants, considered the questions:

What are the key factors impacting commuters, short-haul activity, and airports in the next ten years? Twenty years?

How will these factors work, and what future assumptions are appropriate?

Are there specific areas needing research?

The group's discussions identified factors and constraints summarized below, and developed a possible scenario for future short-haul activities. Airport impacts upon short-haul and commuter activities were also covered.

Findings

Demand factors and constraints limiting growth were categorized into four areas:

- Market/service characteristics
- Socio-economic and demographic factors
- Technology impacts
- Constraints and operational issues

Market/Service Characteristics

There are three distinct types of short-haul service.

High Density Origin and Destination (O&D) - specialized short-haul services will continue together with large carrier service where traffic levels warrant. New carriers offer low fares, no frills, and use large jets. There will be use of less congested airports in hub cities (e.g., Love Field and Midway).

Feeder Activities - the traditional commuter role will continue, feeding the hub activities of larger carriers. The mix of equipment and service levels will depend on the characteristics of each market.

Specialized Services - these are tailored to meet specialized needs. Examples are downtown heliport service to the airport, and contract services for off-shore oil activities.

Additional market and service characteristics discussed were:

Community Isolation - a number of isolated small communities will lose service in the future as the cost increases beyond acceptable thresholds and subsidies are no longer available.

Purpose of Travel - short-haul services have been mostly for business travel, but a more equal business/pleasure split is expected in the future. Very short-haul markets are anticipated to keep a business orientation.

Trip Length - short-haul generally means less than 500 miles. Minimum stage lengths will depend on the type of service provided and

competing travel alternatives. Stage lengths using small aircraft will continue to be limited by passenger convenience and comfort.

Types and Numbers of Carriers - the distinction between commuter and other short-haul operators will disappear. Services will be differentiated by the type and size of the equipment. Operating economics and loss of subsidies in 1988 will eliminate many of the smaller operators. Commuter growth will be slowed, and consolidation will occur. The "80/20 rule" will prevail in the short-haul markets, i.e., 80 percent of the activity by 20 percent of the carriers.

Frequency of Service - this will continue to be significant in the success of short-haul services as travelers view their travel alternatives.

Type of Aircraft - aviation gasoline availability, the elimination of subsidies in 1988, and other causes will mean that small piston aircraft will disappear from scheduled commuter service. If a market cannot support service with at least 15-20 passenger turbine aircraft without subsidy, it will likely not be served. The role of helicopters in serving short-haul markets was discussed. Technological advances have reduced operating costs and reliability problems, and have eliminated some of the fare and scheduling constraints. Seat-mile costs remain above fixed-wing aircraft, but there is an important role for helicopters in short-haul service, particularly in meeting specialized needs. Success will depend upon tailoring the circumstances under which the helicopter is utilized and eliminating barriers, e.g., the lack of center-city heliports in many high density markets.

Socio-Economic and Demographic Factors

Price and income elasticities will influence short-haul travel demands in the traditional way. As stage length decreases, more travel alternatives become available and these elasticities become more significant.

For other economic and demographic factors, the participants agreed that GNP, population, etc., were reasonable variables to consider in estimating short-haul demand.

Technological Impacts

Participants discussed technology of airframes, engines, avionics, maintenance and reliability issues, flight characteristics, safety, and passenger acceptance. The consensus was one of great optimism. Technology is advancing so rapidly that many problems or constraints today could likely disappear within ten years.

Constraints and Operational Issues

Potential constraints which could limit short-haul growth involve five areas:

- Airports
- Finances
- Regulation
- Operational issues
- Alternative modes

Most important are airport constraints, particularly airspace/airside limits at large hubs. Access to large airports may have no simple solutions, as large aircraft are replaced by a large number of smaller aircraft. Airports already having peak hour congestion will have increasingly severe problems as more aircraft desire access at peak times.

Smaller aircraft will likely generate less airport revenues through user fees than the larger aircraft they replace, complicating the problem for the airport. With expected changes in the Airport Development Aid Program (ADAP) law and funding, and the practical difficulty of expanding any airport today, airside capacity limits could be a major constraint on operators of small aircraft. Allocating capacity by pricing or public benefits would have just as serious an impact on small aircraft operators and on the affected communities.

Other constraints at large airports are access to airport landside facilities, and to the airport itself. Gates, ticket counters, etc., must be obtained at rates which do not unduly burden the smaller airline, yet provide adequate capital for the airport. Problems in getting to and from the airport itself to make short-haul air trips increase the attractiveness of other modes. At smaller airports, problems are lack of facilities, both airside and landside; the financial capability to resolve these lacks; competing land uses for airport property; and the future availability of fuel, particularly aviation gasoline.

Lack of center-city heliports in large hubs limits the role of the helicopter, whether from center city to outlying airport, or from city to city. Providing heliports raises issues including noise, finances, and competing land uses for valuable real estate. Until there are such facilities, the role of the helicopter cannot be fully exploited.

Finances are potential limitations to short-haul growth. For example:

The use of the larger turbine equipment increases the entry cost for new operators.

Fuel costs and availability, government regulations, and other operating costs will continue to press operating costs upward.

Labor and union influences are expected to increase short-haul costs.

These financial considerations are expected to mean consolidation of many carriers, and slower growth of new carriers.

Regulatory factors will impact the growth of short-haul activities. Interestingly, the loss of subsidies and the loan guarantee program were not viewed as major factors from an industry standpoint. However, losing subsidy in 1988 may mean loss of service for 80 to 100 small communities. Loss of service in these markets will be offset to some extent, for the industry, by the likely gain in markets abandoned by local service carriers in the absence of subsidies.

Loss of mandatory joint fares would have significant local impacts, but a lesser impact on industry growth.

Other issues and potential constraints identified included:

Aircraft availability - the proper aircraft for the type of service offered.

Passenger considerations - safety, and quality of service.

Alternative modes - surface transportation, including auto and high speed rail.

Future Scenario

On such assumptions the group formulated a possible 1985-1990 scenario for the short-haul air travel industry. There will be:

Fifteen to twenty Air Wisconsin type operators utilizing 30 to 60 passenger aircraft, and feeding traffic from small and medium communities into larger hub facilities.

A greater number of operators using 15 to 30 seat turbine aircraft also feeding larger hubs, but generally from smaller feeder communities. This includes the small community subsidy program.

Ten or so low fare, high frequency, jet operators providing point-to-point O&D service in high density markets.

Continuation of the existing feeder activities of the larger carriers, such as Delta at Atlanta.

Research Recommendations

Three issues needing more research were identified:

Access To Large Hub Airports. Ensuring adequate access for short-haul operators, particularly those utilizing small equipment, is a difficult problem. "Arm's length" allocation or pricing could virtually eliminate small operators from large congested facilities. Expansion of these facilities may be difficult due to environmental or financial limitations.

Center-City Heliports. If the helicopter is to be fully utilized in specialized roles for which it is best suited, adequate downtown facilities must be provided. In view of this need, questions on financing of these facilities, and other operational considerations, must be resolved.

Aircraft Types. For reasons including reliability, airline operating economics, aviation gasoline availability, and the elimination of subsidies, questions were raised regarding the future role of small piston twins in scheduled commuter service. A limited role was envisioned for these aircraft in the future, and questions were raised regarding the large number of small aircraft in the current FAA forecasts.

GENERAL AVIATION

Vincent J. Drago, Battelle Columbus Laboratories

The purpose of this mini-session was to portray the present and probable future of general aviation, identify and discuss important assumptions and issues, and recommend areas of research. This is