CAB data on cargo traffic is incomplete since not all carriers report as they did prior to passage of the cargo deregulation act. Starting in 1979, the FAA had to develop estimates for revenue tons enplaned and revenue ton miles by extrapolating from the information reported by those carriers who still report.

FAA recognizes that in comparison to passenger traffic, air cargo does not generate a great deal of operational traffic at FAA facilities. However, working with this limited data can serve as a test case for the development of forecasting techniques that are not dependent, or as dependent, on the type of data FAA has obtained from the CAB in the past.

Industry Changes

This discussion has focused on the uses of CAB data -- with the view of determining what data series should be preserved and continued. Regardless of the eventual degree of success in acquiring data from the air carriers, there is a need to plan today for the time when the data base will be much leaner. Air carrier activity forecasting in the future is more likely to resemble general aviation forecasting of today than the air carrier forecasting now being conducted.

Deregulation is only one reason for these changes in forecasting methodology.

The changing characteristics of the industry are also going to influence how forecasts are developed. For example, a major issue is fuel prices -- not only aviation fuel prices, but also alternative transportation mode fuel prices. Fuel price increases are driving operating costs ever higher. This dramatically impacts the cost of air transportation in differing ways. A few months ago FAA calculated that revenue generated per passenger mile ranged from three cents for a World Airways transcontinental trip to 75 cents for a commuter trip.

Clearly, in the future, analysts will have to differentiate long and short haul traffic in their forecasting. Today, more than 50 percent of passenger enplanements are for trips of less than 500 miles. Will this continue to be true in the future? The current rapid increases in commuter traffic were assisted by deregulation. They have occurred because flying is still less expensive or more convenient for many travelers than using an automobile. In general, the current traffic growth rates being experienced by short haul carriers -- commuters and local service carriers -- indicate they are competing effectively with the automobile. Thus it will be necessary to gain a much broader perspective -- a perspective on all of transportation -- to maintain a high level of accuracy in FAA forecasts. There is no alternative to flying for long haul travel. There is an alternative for short haul travel.

As of now, there is no mechanism for the collection of Form 41 type data after 1984. The commuters have never reported as extensively as the certificated air carriers. The ongoing changes in the industry indicate that those changes should provide the basis for determining what data will be needed in 1985 and beyond. It is not enough to say that a certain Form 41 data element is absolutely required and that another element is highly desirable, and so on.

Future Planning

In planning for the post-1984 data environment it seems wise to assume the availability of only a minimum of data and that the available data will be very similar to what now exists for general aviation.

FAA current forecasts of general aviation are based on three types of aviation data:

1. Airport counts of general aviation operations. The count is fairly accurate for FAA towered airports. FAA Form 5010 is used by non-towered airport operators to report traffic at their fields. FAA currently has a project under way to improve the accuracy of these counts.

2. Fleet counts are obtained from the aircraft registration files. Aircraft utilization rates are obtained from a survey conducted annually by FAA and the Civil Air Patrol.

3. The third major source of data is manufacturers who report their sales through their trade association, the General Aviation Manufacturers Association. It is this source on which we depend for early warning of changes occurring within the general aviation industry.

As you can see, FAA's general aviation forecast models were developed, utilizing a minimum data base.

In summary, it is known what data is available. Over the next few years the user community has to determine the minimum they require to effectively perform their work.

> The type of data desired has to be defined and agreed upon. There are costs associated with collecting the data. So, while FAA would like to have the smallest commuter airline complete a Form 41, it just is not realistic to expect that level of specificity.
>
> The frequency and precise level of detail to be required has to be set out. Much of the general aviation data FAA uses is annual and often is available many months after the year is over. FAA does not like it that way necessarily but, in the absence of legislation, it is all that is available.

There is much to be done. Forecasting will become more difficult after 1984. However, FAA will still be doing it -- somehow.

STATUS OF CAB DATA REQUIREMENTS PLANS

Clifford M. Rand, Civil Aeronautics Board

Summary

Despite the numerous secondary uses which have evolved, the principal reason for CAB data collection has been its regulatory needs. The main body of data used by the Board and others will continue to be available for the next few years. While the CAB is aware that there is a continued need for data to support the international program, the service to small communities program, those involving air safety and airport operations and to monitor the overall condition of the air transport industry, these needs do not require all the data now submitted to CAB. Accordingly, major reductions in

> data collection, primarily in the domestic market data systems, can be expected. Concerned users should work together and with the CAB to define a new information relationship that relies more heavily upon the private sector for collection and dissemination of air transport data.

As has been made clear by participants on this panel, the Civil Aeronautics Board collects a great deal of air transport data from the airlines. Moreover, while the panel may not represent all users of CAB data, it is obvious from their presentations that CAB data are widely used in a number of ways to make decisions that are important to the air transportation system. Of course, the reason there is so much interest in the CAB's data is the scheduled sunset of the CAB, at least by the end of 1984, and the impact that this is expected to have on the continued availability of the data the CAB has traditionally collected. The discussion which follows will give some insight into the impact expected on the continued availability by reviewing the impact that deregulation has already had on the CAB data systems, discussing the CAB's plans for changes of the data collection systems over the next few years, and speculating on what might be expected when CAB again makes a major review of the need for these data in 1982 and 1983, as final plans are made for sunset.

One point must be kept in mind initially in order to put the CAB's plans for future data collection in proper perspective. As numerous and diverse as the other uses of CAB data are, it should be noted that all of the uses described today have evolved as secondary uses or by-products of the CAB data collection efforts. The principal reason that CAB has collected all these data has been to meet its own data needs for the regulation of air transportation. In the past the CAB's needs for data have been so great that the data collected by the CAB were the best data available for all these other various purposes. As sunset approaches the CAB's needs for data are lessening. Thus, to assess the possible future need for a data collection system it is necessary to determine whether the original need for the data continues, or if not, whether there are new regulatory needs.

Since the CAB's primary purpose of collecting data has been to meet its own regulatory needs, the Airline Deregulation Act of 1978 (ADA) pratically mandated a complete reevaluation of all the CAB's data collection systems. This was necessary because first, the whole thrust of deregulation is to reduce government involvement in private enterprise. Second, one of the areas of government involvement most often criticized is the paperwork it imposes. Third, the sweeping changes in the CAD's role during the phase-out period of regulation and the eventual sunset of the agency with only some of its functions transferring to other agencies requires a review of all the data collected to determine if it continues to serve any regulatory or government purposes.

In order to accomplish this major reassessment of its data needs, the CAB established an Information Planning Project Team in 1979 to evaluate the CAB's information requirements in light of the ADA and to develop a plan that would ensure the future availability of necessary regulatory air transportation information. To oversee and guide the work of the project team, the CAB also established an Information Policy Steering Committee which was composed of 15 top level representatives from each of the Board's program areas and was chaired by Member Elizabeth E. Bailey. A summary report of the project team's review was approved by the Board on October 2, 1980. This report, and its supporting documentation, represents the Board's plan for changing its data systems to meet its needs during the phase-out period of regulation. It contemplates another review in 1982 and 1983 to determine further changes in data collection before sunset.

Some of the recommendations of the project team have already been implemented; others are in the process of being implemented. The remainder of this presentation will highlight the effect that the project team's recommendations have had or will have on the data collected by the CAB and discuss some of the long-range possibilities for the CAB data systems.

Passenger Origin-Destination Survey (O&D Survey)

The O&D survey was found to be needed to provide data for various Board programs including the ongoing international program and essential air service program and to provide information that will be needed for the Board's report to Congress on domestic deregulation which is due by January 1, 1984. Since there was the possibility that the O&D survey might not survive as a voluntary system which it had been ever since it was created, the Board decided that the carrier participation should be made mandatory. A rule requiring carriers to submit O&D survey was adopted October 8, 1980. This rule has a sunset date of December 31, 1983 to insure a future restudy in terms of the data needed after 1983.

Service Segment Data

CAB's evaluation found there was a continuing need for service segment data both inside and outside the CAB. Within the CAB, service segment data is needed for a variety of regulatory programs some of which extend beyond the date of sunset. Outside the CAB, the service segment data is used to support several programs of the Department of Transportation for reviewing service needs, facilities planning and the development of airport policy. Of course, the service segment data is also widely used by consultants, state and local governments, equipment manufacturers and the airlines themselves.

It was decided that the service segment data base should remain intact through 1983, but it should be reviewed again in 1983 when CAB needs for domestic carrier data will decline.

Form 41 Financial Data

It was concluded that the Board was collecting more financial information than was necessary for the conduct of its remaining regulatory responsibilities, and that this was especially true of the smallest certificated carriers.

With this in mind the Board has already eliminated ten schedules, limited two others to subsidized carriers only, and reduced monthly financial data reporting from two pages to just seven key data elements. Under a proposal (EDR-417) adopted by the Board on December 18, 1980, several other financial schedules are proposed for elimination or for submission by only the larger carriers. It also proposes consolidation of data on other schedules.

Form 41 Statistical Data

It was also decided to make an effort to reduce the number of statistical schedules filed by certificated carriers. The reductions as outlined in EDR-417 would be accomplished by combining service classes and dropping or combining individual data

elements. These actions would result in a net reduction of five statistical schedules from the CAB Form 41 report.

Also under the Board's proposal, the smallest certificated carriers, those with annual revenues below $10 million, would continue to file nonstop market data established on a new Schedule T-9 adopted in July 1980 and a single schedule of summary statistics that was introduced in EDR-417. Under that proposal, this schedule would provide detailed service segment data, and summary statistical data would only be obtained for data that cannot be obtained from Schedule T-9. Therefore, for the smallest carriers, CAB would have to generate its own summary data from the detail data reported on Schedule T-9.

Charter Reporting

Effective October 2, 1980, the Board eliminated reporting of off-route charter mileages on the CAB Form 41 Schedule T-41. In addition, the staff is currently preparing a rulemaking notice which would greatly condense the charter reporting on CAB Form 41 Schedule T-6. In the meantime, a waiver has been issued which permits the carriers to implement some of the reductions of charter reporting on Schedule T-6 before the rulemaking is completed.

Commuter Reporting

The project team recommended financial and statistical reporting for commuter carriers providing essential air service. The recommended reporting included a balance sheet and income statement, a report of aircraft operating expenses, some summary statistics, and a nonstop market data report (Schedule T-9 similar to what is being received from the smaller certificated carriers). This is a condensed form of service segment data.

At this point the Board's staff is evaluating the cost and benefits associated with this reporting and is testing some alternatives for satisfying CAB's data needs. The principle alternative now being considered is an audit-survey approach where the necessary information could be obtained by CAB auditors from a smaller number of carriers than would become subject to recurrent reporting requirements.

In summary, the result of the project team's efforts is that the main body of data, the data most relied on and used by the Board and outsiders, will continue to be available for the next few years. While substantial reductions have been made and others will be made, they mostly affect lesser used report schedules and reports of smaller carriers.

Even though the most useful CAB data will continue to be available, some objections to our proposals to reduce data are expected. For example, the Board has proposed changes in the statistical schedules that may be objected to by large carriers with highly automated reporting systems; and it has proposed to eliminate the details for airframe and aircraft engine maintenance costs by aircraft type which is not expected to be favored by aircraft manufacturers. The basic body of air transport data will, however, remain relatively intact for the near future.

Long-Range View

The CAB is aware that the government will have a continued need for data for the international program and the service to small communities program. These continue after sunset. It will also need data for other agency programs that will continue after CAB sunset such as those involving air safety and airport operations. It is also safe to assume that the government will have a continuing interest in financial and statistical data necessary to monitor the overall condition of the air transport industry. These needs for data, however, will not support all the reports now submitted to the CAB. Based on the standards used today to evaluate the need for data, that is the regulatory purpose of the data collected, there will be substantial reductions in the amount of data collected after CAB sunset.

Many of CAB's traditional programs requiring data are phasing out. In many cases the need for data collected for those programs has been replaced by a need for data to report to Congress on the effects of deregulation. CAB's next review of the data systems will examine the need for data to support the CAB programs that continue beyond the sunset of the CAB, current DOT programs, and other government needs such as the U.S. commitment to provide data to the International Civil Aviation Organization. The deregulation of routes and fares, a change in overall cost increases for setting foreign fare levels, and completion of the report to Congress on deregulation will terminate the government's need for a considerable amount of data.

Most likely the major reductions in data collected will involve data for individual domestic markets, costs and statistics by aircraft type, and reports of detailed functional and objective expense accounts. The domestic market data systems appear particularly vulnerable because they will be subject not only to a declining regulatory need for the data but also to an increasing reluctance on the part of the carriers to continue disclosing this commercially sensitive information in a deregulated environment. The detailed costing schedules are vulnerable because they have been primarily used to develop unit costs for analyzing and projecting operations in route and rate cases, and these regulatory activities will terminate for domestic operations. Although it will not be known for certain until further study, it appears that the most likely candidates for elimination or substantial reduction are domestic service segment data, domestic origin-destination statistics, domestic charter market statistics, and Form 41 schedules that are primarily used to develop detailed operating costs such as:

B-10	Unamortized developmental and preoperating costs
P-5	Aircraft operating expenses
P-6	Maintenance, passenger service and general administrative expense functions
P-7 & P-8	Aircraft and traffic servicing, and promotion and sales expense subfunctions
T-2	Traffic, capacity, aircraft operations, and miscellaneous statistics by type of aircraft
T-9	Nonstop market report

It should be pointed out at this time that the Board does not intend a sudden cutoff of major data systems. Along with the summary report of the planning project, the Board approved a policy statement on the collection of information. In that policy statement the Board's position on "outsiders' needs" is specifically addressed as follows:

"The Board's primary reason for information collection is to provide the data needed for

> our regulatory purposes, including the compilation of essential air transportation systems facts. Persons and organizations outside the Board including other federal agencies may need information concerning air carriers or the air transportation system beyond that collected and made public by the Board. Where we may be considering a cessation of collection or other modifications and there are outsiders that rely on these data, we will allow users an opportunity to justify continuation or modification of the reporting requirements."

Now that does not mean they will continue forever. Under this policy CAB will attempt to develop alternatives involving the private sector, and will allow for a transition period offering opportunities for various other organizations to pick up the systems CAB drops. It is in the best interest of data users to work with the Board in developing these alternatives.

It is not possible to predict which data systems will terminate because the data needs beyond sunset will depend to a large degree on the data needs of the Department of Transportation (DOT). DOT not only uses CAB data now for its current programs, but also will take over responsibility for major CAB programs after sunset. For current CAB planning purposes, it is envisioned that the CAB information programs that must be continued after sunset, along with their necessary resources, will be transferred to DOT. Of course, future planning in the next review will be closely coordinated with DOT. The CAB is currently considering legislative proposals to accomplish the transfer of information collection functions from CAB to DOT at sunset. This is necessary because the ADA and its legislative history are silent on the matter, and it is assumed this was an oversight.

In view of the widespread use of air transport data collected by the CAB that has evolved, the termination of some of the basic data systems is viewed by many users as catastrophic. However, termination of some of these data systems is a very real possibility. Since users of airline industry data are being forewarned of this possibility, concerned users should band together and work with the CAB in defining a new information relationship that relies more heavily upon the private sector for collection and dissemination of air transport information.

The alternative to private sector collection and dissemination of air transport data is for the government to change the way it judges whether to collect data. Instead of basing the decision on the government's need for the data, it would have to base its decision on whether the data collection activity would be benefical to the air transport system. This will not happen unless it is directed by legislation. Since legislation directing the expansion of data collection activities would run counter to the current trend, which has been for legislation to curtail data reporting requirements, there is not a favorable climate at this time for legislation to expand the bases of collecting air transport data strictly to meet the needs of the users outside the government.

AN AIRLINE'S USE OF TRAFFIC, FINANCIAL AND COST DATA

J. R. Meyers, American Airlines

Summary

American Airlines has made extensive use over the years of airline data as submitted to the CAB for both routine and special purpose studies. Today more use than ever before is made of such files because of their availability via computer services. Although American and the other airlines will be able to make do with a lesser amount of CAB data, it would be helpful if an organized method of collecting and sharing data can continue.

American Airlines makes extensive use of airline data as submitted to the CAB. Through the years these data have been used for both routine and special purpose studies. Today, more than ever before, more use is made of such files because of their availability via computer services. The computer sourced data is not only quickly obtained, but also can be machine processed and produced in the form desired by the user.

American feels that it is healthy to compare data with industry averages and trends and also with the airline leader in a revenue or expense category. Competitors and leaders are easily recognized in the air transport industry. A viable carrier must be competitive both in terms of profits and service.

One group of applications of airline data can be described as those of a routine and recurring nature (Table 1), as contrasted to special purpose studies and uses.

Table 1. Applications of airline data.

Routine Uses

- Origin and destination traffic by
  - Geographic area
  - Type of equipment
  - Type of service
  - Competitive segment
  - Market share - market gap
- Other statistics
  - Miles flown
  - Hours flown
  - Aircraft utilization
  - Fuel consumption
- Financial
  - Income statement accounts
  - Balance sheet accounts
  - Yields per
    - Revenue passenger mile
    - Ton mile
  - Analysis of airline maintenance costs

For years airlines have made extensive use of origin- and destination traffic data. Such data have been collected and analyzed by geographic area, type of equipment, and type of service, competitive segment, market share, and share gap. Other statistical data which is closely followed and compared between carriers includes miles flown, hours flown, aircraft fleet size and utilization, and fuel consumption.