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## Audits of airlines with conforming changes as of May 1, 1992; Audit and accounting Guide

American Institute of Certified Public Accountants. Civil Aeronautics Subcommittee

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**Industry  
Audit  
Guide**

# ***AUDITS of AIRLINES***

***With Conforming Changes As of May 1, 1992***

**AICPA**

American Institute of Certified Public Accountants

**Industry  
Audit  
Guide**

# **AUDITS of AIRLINES**

***With Conforming Changes As of May 1, 1992***

This edition of the industry audit guide *Audits of Airlines* has been modified by the AICPA staff to include certain changes necessary due to the issuance of authoritative pronouncements since the guide was originally issued. The changes made are identified in a schedule in Appendix B of the guide. The changes do *not* include all those that might be considered necessary if the guide were subjected to a comprehensive review and revision.

**AICPA**

American Institute of Certified Public Accountants

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## NOTICE TO READERS

This industry audit guide presents recommendations of the AICPA Civil Aeronautics Subcommittee on the application of generally accepted auditing standards to audits of financial statements of airlines. This guide also presents the committee's recommendations on and descriptions of financial accounting and reporting principles and practices for airlines. The AICPA Accounting Standards Executive Committee and members of the AICPA Auditing Standards Board have found this guide to be consistent with existing standards and principles covered by Rules 202 and 203 of the AICPA Code of Professional Conduct. AICPA members should be prepared to justify departures from this guide.

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## **Preface**

This audit guide has been prepared to assist the independent public accountant in conducting audits of financial statements of airlines. The guide describes conditions and procedures that are unique to the industry and illustrates the form and content of airline financial statements and informative disclosures pertaining to such statements. This guide is intended not to codify preferable accounting practices but, rather, to summarize the practices presently being followed by the industry.

*Civil Aeronautics Subcommittee*

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## Chapter 1

### ***The Airline Industry***

#### **Characteristics of the Industry**

**1.01** The United States first began promoting the airline industry through the adoption of the Air Mail Acts of 1925 and 1926, which transferred the carriage of mail from the U.S. Post Office to private carriers. Previously, though there had been interest in the development of military aircraft, private carriers had been unable to generate profits in substantially cargo-related efforts. After passage of the Air Mail Acts, growing demand, created by a small but competitive airline industry, stimulated the production of aircraft specifically designed for passenger and cargo service.

**1.02** The airline industry continued to grow despite the depression of the 1930s. Technological developments and a new network of lighted airports with reliable communication equipment created the environment for industrial growth. In 1938 the Civil Aeronautics Act provided government regulation of market entry and exit, air safety, and rates.

**1.03** World War II stymied airline industry growth, since military demands limited the amount of equipment and service that was available for civilian passenger service. However, military developments in aviation produced many improvements that were to result in more efficient and affordable service.

**1.04** Jet service was introduced in the late 1950s. Subsequent technological advances and improvements resulted in an increase in property and equipment investment by U.S. scheduled airlines from \$364 million in 1950 to over \$62 billion in 1990.

**1.05** The airline industry has been regulated in three major areas: market entry and exit, rates, and air safety. All three areas of regulatory responsibility came into existence with the Civil Aeronautics Act of 1938. The act created the Civil Aeronautics Board, whose primary duty, until amended by the Airline Deregulation Act of 1978 (ADA), was to promote and regulate the airline industry. The board's mandate was two fold: to maintain the highest priority for safety and to encourage competition in the airline industry. The key elements of deregulation are freedom of market entry and exit and freedom of pricing. A third element is protection of service to small communities.

**1.06** In addition to liberalizing the general provisions for awarding certificates to new airlines, the ADA established new provisions for automatic market entry and issuance of experimental certificates on a temporary basis. Other provisions eased restrictions on suspension and reduction of service and expedited market entry and exit. As a result, the ADA has enabled many new entrants to gain access to domestic markets and has allowed trunk, local service, and commuter carriers to expand and otherwise alter their service patterns. Airlines are now classified as scheduled (route) airlines, nonscheduled (charter) airlines, air-cargo airlines, and intrastate airlines. Within the route airline classification, airlines are now identified as major, national, regional, and air-taxi operators.

**1.07** In addition, the ADA transferred responsibility for overseeing airline operations to the Department of Transportation (DOT). The DOT has assumed responsibility for both monitoring the air safety and fitness characteristics of the various airlines and approving merger proposals and sales of airline

routes. In this new competitive environment, marketing strategies, pricing of tickets, and costs of service have become important business issues for the airlines.

1.08 For a "New Entrant" to enter a market, gates and take-off and landing slots (slots) must be available at the applicable airports. The frequency of take-offs and landings at some airports are currently at capacity; and at other airports the frequencies during popular travel times are at capacity. This situation hampers the ability of a new entrant to access the necessary airport. To reduce the problem and foster the policy of "new market access" the DOT has adopted a rule whereby slots at airports may be sold or traded to the new entrant by the airline presently using the slot. These transactions generally include the sale of a gate or access to gates for the new entrant. While these slots, particularly those in high demand time periods have always had value, the DOT policy has made this value "liquid" and, today, represents a resalable intangible asset.

### **International Air Transportation**

1.09 Air operations between two countries are usually governed by specific bilateral agreements between those two countries.

1.10 The International Air Transport Association (IATA), a voluntary organization of international air carriers, was established in 1946 to negotiate international air fares, cargo rates, conditions of service, and ancillary matters. The Federal Aviation Act required that U.S. carrier participation in such an organization be approved by the Civil Aeronautics Board. In 1946 the board granted U.S. carriers immunity from antitrust laws, permitting them to participate in IATA conferences for the purpose of establishing fares and rates.

1.11 Any agreement reached by the carriers at these meetings is subject to the approval of their respective governments.

1.12 IATA has established two types of carrier participation: one that deals with facilitation matters and is mandatory for all members and another that sets fares and rates for air transportation. Participation in the latter type is optional, but a member that chooses to participate in fare and rate conferences must do so for all areas it serves.

### **Air Transport Association of America**

1.13 Founded in 1936, the Air Transport Association of America (ATA) is a trade and service organization representing member U.S. scheduled airlines. The joint interests of the airlines as an industry are expressed through a system of councils and related committees on which airline and ATA representatives work together.

1.14 The ATA provides several industry accounting services. These services involve four functional activities: corporate accounting, revenue accounting, agency accounting, and internal auditing. They are performed by the ATA staff working through the economic and finance council and its committees. This council and its committees are composed of airline personnel in various areas of expertise who develop basic recommended positions, policies, and procedures for the ATA.

1.15 In the corporate accounting area, efforts center on developing airline industry positions on numerous accounting issues. Whether the issues arise from day-to-day activity, exposure drafts, or proposed rules, the ATA staff develops industry positions and communicates them to the regulatory or

legislative bodies. Once these issues evolve into regulatory rules, the ATA staff develops the necessary industry policies and procedures.

**1.16** With respect to revenue accounting, the ATA, through the revenue accounting committee and the Airlines Clearing House, Inc. (ACH), develops standard methods and procedures for the settlement of interline passenger and cargo transactions. To facilitate the process, the airlines settle their interairline receivables and payables through the ACH, utilizing sampling techniques derived at the ATA. These techniques allow the airlines to process millions of dollars of transactions by sampling only a small percentage of the actual documents. In addition, the ATA publishes a survey of airline passenger origin and destination information, which is collected and processed by the DOT, based on a sample of the used coupons.

**1.17** Since travel agent sales account for a significant portion of the airline business, the ATA designed the Area Settlement Plan (ASP) for domestic travel agents. Subsequently, similar plans called "Bank Settlement Plans" (BSP) have been introduced in various countries around the world. These plans enable each independent travel agent to submit one sales report to a processing center, which then distributes the agent's sales and receivable transactions to the respective carriers. Because of the dollar volumes involved, the ASP/BSP program requires continuous monitoring and updating, a service provided to the airlines and their agents.

**1.18** In addition to establishing policies, operating clearinghouses, and administering agency programs, the ATA is responsible for coordinating the internal audit of these functions.

### **Regional Airline Association**

**1.19** The Regional Airline Association (RAA) is the national association of member airlines that are engaged in scheduled air transportation of passengers and cargo in local, feeder, and short-haul markets throughout the United States and its territories. The RAA works with governmental and other organizations for the benefit of the public and the airline industry.

**1.20** The association's finance and accounting committee has developed a uniform system of accounts tailored specifically for commuter airline use. This system was patterned after the CAB's financial accounting and reporting system for certificated air carriers.

### **Air Safety**

**1.21** The Air Mail Acts introduced the first federal legislation dealing with air safety, though the 1938 Civil Aeronautics Act delegated responsibilities to a separate federal body—the Air Safety Board. In 1958 the Federal Aviation Act delegated air safety to the Federal Aviation Agency. Today the Federal Aviation Agency exists as the Federal Aviation Administration (FAA), which is an operating body of the DOT.

**1.22** Air safety regulation takes many forms and includes such regulatory measures as pilots' qualifications, continuing flight training programs, aircraft maintenance requirements, and review of aircraft safety in design, manufacture, and operation.

### **Unionization**

**1.23** Labor relations are obviously a significant factor in the administration of an airline, since the existence of several unions per carrier means that contract negotiations are constantly in progress. Airline industry employee unions are governed by the Railway Labor Act, which permits Congress to

intervene in the negotiation or settlement of strikes that create a national emergency by threatening to cripple the transportation industry. Under terms of the Railway Labor Act, contract employees may not walk out at the expiration of a contract. Negotiations begin before expiration and continue until a settlement is reached or until an impasse develops. In the event of an impasse, an outside arbitrator from the National Mediation Board may be called in to continue negotiations. Union members may call a strike after negotiations become deadlocked.

## **Aircraft Investment**

**1.24** The airline industry is characterized by substantial aircraft investment. The demand for air transportation generated by the economies of scale introduced by the jet engine is predominantly responsible for the increase in such investment since 1950. For example, the jet aircraft introduced in the late 1950s cost approximately \$5 million while in 1990 certain jets may cost in excess of \$126 million.

**1.25** Because of traffic projections and lengthy production schedules, most airlines acquire air fleets over a number of years. The large manufacturers typically require progress payments during the manufacturing period, with balloon payments upon delivery.

**1.26** Historically, most aircraft replacement has resulted from obsolescence due to technological advances and not from physical deterioration. Today, some aircraft are expected to be deemed obsolete (at least in the U.S.) based on proposed Stage II Aircraft Regulations.

**1.27** The rapidity of technological advances and the substantial plant and equipment investment needs have created large capital requirements, which cannot be met by internal funding alone. Cyclical earnings also hamper the ability of some airlines to raise money through equity and unsecured debt issues. This has increased reliance on secured debt, leasing, and other similar forms of financing. The large financing requirements that are characteristic of the industry make interest and rent expense a major component of fixed cost.

## **Maintenance Requirements**

**1.28** Maintenance requirements are dictated by the highly sophisticated nature of the industry's equipment. The timing and extent of maintenance procedures are determined by individual carriers using studies based on actual experience which demonstrate airworthiness to the FAA.

**1.29** Most carrier maintenance is provided in-house, requiring maintenance facilities outfitted with specifically designed equipment. Although equipment is usually available from the manufacturer, most large air carriers have found that it is more economical to design and construct their own testing equipment; this requires engineering departments and technical machinists. Some forms of maintenance—especially on engine cores and sophisticated electronic navigational equipment—may be performed by authorized outside facilities under contract.

**1.30** Maintenance costs in 1990, both direct and indirect, represented as much as 12 percent of the combined operating expenses of the route air carriers. Maintenance costs include labor costs.

**1.31** To provide more efficient maintenance, some air carriers have entered into pooling agreements. Pools of materials and parts are maintained separately by the individual carriers and made available to other carriers as required. Benefits result from reduced inventory requirements.

## **Terminal Facilities**

**1.32** Local governments play a major role in air transportation by financing, owning, and operating terminal facilities necessary for air travel. Generally, the cost of landing and terminal facilities and their maintenance is reimbursed by the air carriers through landing fees, charges for terminal facility rentals, and passenger facility charges (PFCs), which are scheduled to go into effect in May, 1992. In some cases, air carriers initially fund construction and modifications and are later reimbursed from proceeds of bond issues and/or rental credits.

**1.33** Local governments place maintenance and construction responsibility with agencies or authorities within their taxing districts.

**1.34** Historically, carriers have informed government authorities of their facility needs; more recently, however, the authorities propose construction and terminal modifications and submit their plans to technical committees composed of representatives of the servicing carriers.

## **Regulations and Reporting**

**1.35** Air carrier accounting information is prescribed by a Uniform System of Accounts and Reports (USAR), adopted by the DOT. The USAR consists of a list of titles and account numbers to be used, together with instructions for the use of individual accounts. The DOT's policy to date has been to conform its accounting requirements to generally accepted accounting principles.

**1.36** Financial data and reports are required to be filed with the DOT on Form 41 monthly, quarterly, and annually. Published financial reports may follow the wording and captions of the USAR accounts.

**1.37** For reporting purposes, the financial statement presentation of an airline organization is similar to that of other commercial enterprises. The USAR provides for the grouping of revenues and expenses by both objective and functional activity and for varying detail information, depending on the accounting requirements and the capacities of the air carrier. Generally, the income statement presentation is divided among operating revenues, operating expenses, nonoperating income and expense (net), income taxes, and net income.

**1.38** The functional classifications for revenues are basically divided among transport revenues and transport-related revenues. Transport revenues include all revenues for air transportation provided to all classes of traffic; they are broken into subclassifications for scheduled and nonscheduled services. Transport-related revenues result from services that are incidental to air transportation, such as liquor sales, sublease income, and maintenance work performed for other airlines.

**1.39** The functional classifications for operating expenses are based on the type of activity or service rendered. Essentially, operating expense functions fall into eight major categories, represented by the following captions:

## Audits of Airlines

<i>Classification</i>	<i>Expenses Included</i>	<i>Major Items</i>
Flying operations	In-flight operations and holding of aircraft (except depreciation) and operational personnel in readiness for assignment to an in-flight status.	Fuel, flight personnel (except flight attendants) payroll, employee benefits, and aircraft rentals.
Maintenance	Direct and indirect expenditures for repair and maintenance.	Labor, material, outside services, and general or overhead expense allocations.
Passenger services	Expenditures relating to comfort, safety, and convenience in flight and during delays.	Personnel and flight attendants' payroll and passenger food and supplies.
Aircraft and traffic servicing	Compensation to ground personnel and other expenses incidental to the protection and control of in-flight aircraft movement, handling and servicing while in operation, scheduling and preparation of operational flight crews for assignment, and handling of ground property and equipment.	Payroll costs and employee benefits, general services purchases, and servicing supplies, landing fees, and facility rentals.
Reservations, sales, and advertising	Outlays to create a public preference for an air carrier, to stimulate the development of an air transportation market, or to develop air transportation in general.	Passenger handling and traffic solicitations, payroll and benefits, travel agent commissions, and advertising.
General and administrative	Expenditures of benefit to more than one operating function.	Record-keeping and statistical personnel, federal excise and state taxes, stationery supplies, etc.
Depreciation and amortization	Depreciation of operating property and equipment and amortization of intangible assets.	Depreciation of flight equipment, maintenance equipment, and ground property; amortization of developmental and preoperating cost; and capitalized leases.
Transport-related	Costs relating to generation of transport-related revenues.	Liquor, maintenance for other carriers, and costs of subleases.

## Chapter 2

# ***Accounting and Auditing in an Airline Environment***

### **Accounting Environment**

2.01 Many airline activities are unique, and, as a consequence, several internal control structure policies and procedures are peculiar to the industry.

### **The Revenue Cycle**

2.02 The most unusual characteristic of the airline industry is its revenue cycle. Sales may be made at numerous locations by either the carrier or third parties (travel agents or other carriers); for some carriers, third parties handle a substantial portion of the ticket transactions. Tickets sold are not necessarily used, in whole or in part, on the carrier making the sale, and, except for cancellation penalties for certain fare types, tickets are generally refundable if not used by the customer for up to one year after the sales date. The determination of revenue earned may be decidedly complex, particularly for larger carriers.

2.03 Accordingly, controls over the following areas are very important:

- Unused ticket stock.
- Ticket sales, particularly sales by travel agents or other third parties.
- The passenger boarding process and lifting of flight coupons.
- Settlements between carriers—either through interline clearing-houses or directly between the involved parties—for providing travel services on tickets sold by other carriers.
- Ascertaining that the correct fares have been charged.
- Accounts receivable processing and collection.
- Ticket refund and exchange transactions.
- Processing flight coupons.
- Accounting for travel agent commissions and credits.

A discussion of the specific control procedures and auditing procedures for these areas is contained elsewhere in the guide.

### **Inventories**

2.04 The inventories in an airline operation are for internal consumption and not for sale; they therefore differ substantially from the classical definition. Inventories in an airline operation comprise primarily expendable (spare) parts and materials and supplies used in the airline's operation. Such inventories are valued at cost, less an allowance for obsolescence that corresponds to the lives of the related fleets.

### **Fixed Assets**

2.05 A major portion of an airline's fixed assets comprises aircraft and other flight equipment. Because such assets are constantly changing locations, the responsibility for physical custody and control of aircraft is substantially different from that of nonmobile fixed assets. (It should be noted that all aircraft are registered with the Federal Aviation Administration.)



## Subsidies

[2.06] [Deleted as the result of changes in regulation of the industry.]

## Overhaul

2.07 As a result of overhaul requirements established by the FAA, aircraft airframes and engines must be overhauled within specific intervals. The value (and usefulness) of an aircraft is heavily dependent on its stage of overhaul.

## Revenue Recognition

2.08 Airline tickets usually are sold in advance of the transportation date, and the ticket sales date usually does not coincide with the revenue recognition date (the date that service is provided). Revenue recognition procedures are generally complex in the airline industry as a result of the volume of transactions to be processed; the multitude of fares that may be available for the same service; and the possibility that one or more segments of a flight may be on another airline, requiring the fare to be prorated between airlines.

## Flight Compensation

2.09 Compensation of flight personnel usually represents a significant portion of an airline's operating expenses. The amount of compensation is generally dependent on a number of variables, including, among others, flying status, type of equipment flown, hours flown, whether flights are made during the day or at night, and employee seniority.

## Decentralized Operations

2.10 The operations of an airline are, by necessity, decentralized. Substantially all aspects of airline operations are performed at the various station locations, which extend throughout an airline's route system. For most airlines, however, most accounting functions (recording of revenues, disbursements, revenues, and so on) are controlled and centralized at one location.

## Potential Problems

2.11 In addition to understanding the unique aspects of the airline industry, the auditor should be aware of potential problem areas that may exist in a company engaged in airline operations. Such areas may include the following:

- Unreported ticket sales, which can result from delays or from lack of controls surrounding the matching of tickets lifted with tickets sold.
- Expenses incurred at the local level in the pursuit of passenger service, including meals, transportation, and accommodations of various kinds for both scheduled and delayed passengers.
- Commissions, authorized or unauthorized, on sales of aircraft in foreign countries.
- Improper commissions or unauthorized payments to travel agents.
- The risk of ticket exchange transactions, whether authorized or unauthorized, and similar arrangements that are inherent in a business devoted to the sale of an attractive but perishable commodity.
- The failure to act properly or promptly on audit findings, including those of internal auditors and regulatory agency auditors.

## Internal Control Structure

2.12 SAS No. 55, *Consideration of the Internal Control Structure in a Financial Statement Audit*, provides guidance on the independent auditor's consideration of an entity's internal control structure in an audit of financial statements in accordance with generally accepted auditing standards. It describes the elements of an internal control structure and explains how an auditor should consider the internal control structure in planning and performing an audit.

2.13 An airline's internal control structure consists of three elements: the control environment, the accounting system, and control procedures. In all audits, the auditor should obtain a sufficient understanding of each of the three elements to plan the audit by performing procedures to understand the design of policies and procedures relevant to audit planning and whether they have been placed in operation.

2.14 After obtaining this understanding, the auditor assesses control risk for the assertions embodied in the account balance, transaction class, and disclosure components of the financial statements. The auditor may assess control risk at the maximum level (the greatest probability that a material misstatement that could occur in an assertion will not be prevented or detected on a timely basis by an entity's internal control structure) because he believes policies and procedures as unlikely to pertain to an assertion, are unlikely to be effective, or because evaluating their effectiveness would be inefficient. Alternatively, the auditor may obtain evidential matter about the effectiveness of both the design and operation of a policy or procedure that supports a lower assessed level of control risk. Such evidential matter may be obtained from tests of controls planned and performed concurrently with obtaining the understanding or from procedures performed to obtain the understanding that were not specifically planned as tests of controls.

2.15 After obtaining the understanding and assessing control risk, the auditor may desire to seek a further reduction in the assessed level of control risk for certain assertions. In such cases, the auditor considers whether evidential matter sufficient to support a further reduction is likely to be available and whether performing additional tests of controls to obtain such evidential matter would be efficient.

2.16 The auditor uses the knowledge provided by the understanding of the internal control structure and the assessed level of control risk in determining the nature, timing, and extent of substantive tests for financial statement assertions.

## Control Environment

2.17 The independent auditor should consider the following factors, which may be present and can affect his audit:

- An effective organizational structure with clearly defined management responsibilities.
- Detailed procedural manuals to control field (station) operations and purchasing or procurement operations.
- A comprehensive budgeting process with close monitoring of variations between the budget and actual results.
- An effective internal auditing function.
- Competence and integrity of personnel.

## Internal Auditors

2.18 Although not unique to the airline industry, an internal audit group may be a factor to be considered by the auditor in determining the nature, timing, and extent of auditing procedures to be performed. An important responsibility of the internal audit function is to monitor the performance of an entity's controls.

2.19 SAS No. 65, *The Auditor's Consideration of the Internal Audit Function in an Audit of Financial Statements*, states that when obtaining an understanding of the internal control structure, the auditor should obtain an understanding of the internal audit function sufficient to identify those internal audit activities that are relevant to planning the audit. Independent auditors are concerned with obtaining knowledge about whether policies, procedures, or records have been placed in operation in order to determine that the entity is using them. Evidential matter about the effectiveness of the design and operation of policies and procedures is obtained to support the assessed level of control risk. The control aspects of the internal audit function may be of special importance, particularly to airlines with numerous airport (station) locations and city ticket offices, if the airline's internal audit group conducts audits of stations on a regular basis.

## Regulatory Agency Auditors

[2.20] [Deleted as the result of changes in regulation of the industry.]

## Electronic Data Processing

2.21 Because of the volume and complexity of transactions associated with airline operations, the auditor can expect to encounter the use of electronic data processing (EDP) equipment, ranging from smaller carriers' limited use through service bureaus to extensive use of sophisticated EDP applications with a variety of equipment types. Airlines may use batch processing systems, on-line systems, or minicomputers. The types of applications that the auditor may encounter in the airline industry include

- On-line information systems that may allow third-party access to the system.
- Sales audit applications, including matching of passenger tickets lifted with tickets sold, testing of fare computations and any applicable commissions, and segregating and billing of interline transactions.
- Inventory systems to control and segregate rotatable and expendable parts.
- Revenue applications utilizing sophisticated statistical sampling techniques to determine earned revenue.
- Payroll applications to effectively control and prepare complex flight payrolls.

(See chapter 3 for further discussion.)

2.22 The objectives and characteristics of the internal control structure do not change with the method by which data are processed, and the objectives of the auditor's consideration of the internal control structure are the same whether or not EDP is used. In obtaining an understanding of the internal control structure, the auditor considers the complexity and sophistication of the entity's operations and systems, including whether the method of controlling data processing is based on manual procedures independent of the computer or is highly dependent on computerized controls. As an entity's

operations and systems become more complex and sophisticated, it is necessary to devote more attention to internal control structure elements to obtain the understanding of them that is necessary to design effective substantive tests.

### Station Locations

2.23 Each station location is responsible for providing substantially all aspects of airline operations. While most accounting functions for the stations are performed at a central location, all of the stations located throughout an air carrier's route system are responsible for performing, in whole or in part, most of the following functions:

- Ticket sales, reservations, and control of unused tickets.
- Collection of proceeds from ticket sales, including compliance with approved credit policies.
- Control over passenger boardings.
- Approval or control of local expenditures, including payroll, passenger food, landing fees, fuel, passenger refunds, and special expenses for delayed flights.
- Aircraft maintenance.
- Custody of inventory and fixed assets.
- Collection of certain incidental revenues, such as in-flight liquor sales.

2.24 Control procedures have various objectives and are applied at various organizational and data processing levels. The extent and degree of control procedures may vary, primarily with the size of the stations. Adequate segregation of duties may not be practical at smaller stations.

2.25 Because a substantial portion of an air carrier's sales may be made at the stations, which approve or control a variety of expenditures, the independent auditor is concerned with the control procedures in existence at the station locations. The auditor should obtain a copy of the standard procedures manual, which should be available at the station, and should become familiar with the procedures to be followed. As part of his audit, the auditor should evaluate the adequacy of controls at the station locations, as well as the home office's controls over station operations.

### Analytical Procedures

2.26 SAS No. 56, *Analytical Procedures*, provides guidelines for the auditor to consider in his application of analytical procedures. SAS No. 56, paragraph 2, states that "analytical procedures are an important part of the audit process and consist of evaluations of financial information made by a study of plausible relationships among both financial and nonfinancial data." One purpose of the auditor's use of analytical procedures is to identify, through the deviation from expected patterns or results, those areas or items that the auditor should investigate further. The investigation normally consists of obtaining explanations from management, which the auditor then evaluates, relying on his knowledge of the company and the industry and other information already obtained during the audit, some of which may require corroboration.

2.27 The auditor typically emphasizes the comparison of financial information with anticipated and prior-year results. The auditor also studies the relationship of financial and nonfinancial data by focusing on operational statistics developed independently of the accounting process and their relationship to current accounting data. It is this aspect of analytical procedures,

as it pertains to the airline industry, that this section will address. The common nonfinancial statistical data will be defined, and their uses will be described.

**2.28** The airline industry lends itself very readily to analytical procedures in both the operational and financial areas. This is particularly true for the larger carriers, for which statistical data is very useful. Through the study of certain operating data and statistics, the auditor can consider revenue trends, aircraft efficiency, capacity utilization, labor productivity, unit costs and profitability, and return on investment.

**2.29** Various units of measurement may be used in performing analytical procedures—such as cost per unit, physical quantities, ratios, or percentages. The data can be found in the carrier's monthly financial statements and operating reports and, with additional details, in periodic reports filed with the DOT. Similar data for the industry and other carriers are available from the DOT, the ATA, and the IATA.

**2.30** Using these sources, the auditor can extract or derive key operating data and statistics, such as yield, load factor, break-even load factor, aircraft utilization hours, fuel burnout (consumption), and cost per available seat mile.

**2.31** The available comparative cost data from independent public sources is a powerful tool for the auditor. Using data from such public sources as the DOT, ATA, and IATA, the auditor can perform tests of the cost levels of the airline. He can increase his confidence in the costs being reported by comparing them with those of other airlines. Items of comparison might include depreciation lives of aircraft and fuel costs.

**2.32** Certain operating statistics are used universally within the airline industry. They provide an indication of the carrier's operations and are used to derive other barometers of performance. (See the glossary for definitions.) Among these are

- Available seat miles (ASMs)
- Available ton miles (ATMs)
- Average flight segment length
- Block-to-block aircraft hours
- Break-even load factor
- Cargo ton miles (CTMs)
- Load factor
- Mail ton miles
- Revenue passengers
- Revenue passenger miles (RPMs)
- Revenue and operating cost per available seat mile
- Yield

**2.33** These statistics basically indicate how much capacity the carrier provides and how much is filled. However, relying on these statistics alone to assess a carrier's performance does not yield a meaningful evaluation. In attempting to use statistics and financial information to analyze the operations of a carrier, the auditor must recognize the complex interrelationship of the components of the carrier's operations. For example, while an increase in revenue passenger miles can signify a growth in revenue, the increase need not be proportional, due to such factors as fare discounts, route and segment lengths, and changes in the mix of passengers paying full fares versus discounted fares. Similarly, a change in available seat miles can result from the purchase of new equipment, a change in fleet mix (resulting from mothballing

certain equipment and using alternate fleet types), schedule changes (resulting in a longer aircraft day or utilization period), or the reconfiguration of existing equipment by adding or removing seats.

**2.34** By keeping these relationships in mind, the auditor can use statistical data effectively. To analyze the carrier's performance, the auditor can first look at load factor as an overall indicator of the strength of operations. Load factor is the percentage of revenue passenger miles to available seat miles in revenue passenger service, representing the proportion of aircraft seating capacity that is actually used. For cargo, it is the percentage of cargo revenue ton miles to available cargo ton miles.

**2.35** While RPMs and ASMs can be influenced by many factors, an increase in load factor usually means that more revenue passengers are being carried and, therefore, more revenue is being earned (if there has not been a greater, offsetting decrease in yield). Furthermore, since the carrier is generally not incurring significant additional costs to transport or serve those additional passengers, it is receiving a greater contribution towards operating income.

**2.36** A decreasing load factor usually indicates capacity in excess of market demand or a noncompetitive pricing, scheduling, or tariff structure. The carrier therefore transports fewer revenue passengers but still incurs the same fixed costs of providing service. Thus, the auditor will expect to see a decrease in operating income and an erosion in the carrier's gross operating margin. While it is possible for a carrier to increase revenues with a decreasing load factor, such a situation involves operational decisions that are beyond the scope of this discussion.

**2.37** The break-even load factor is a refinement of the load factor concept that examines the relationship of the revenues generated and the expenses incurred. The break-even load factor is the percentage of revenue passengers carried in scheduled revenue service that is required for scheduled passenger revenue less passenger traffic expenses to equal passenger capacity expenses.

**2.38** This division of cost types does not strictly represent "fixed" versus "variable" costs as those terms are used in accounting literature. Capacity expenses are those expenses related to the provision of aircraft capacity, regardless of the degree to which that capacity is used. They include such cost elements as flying operations expense, maintenance expense, depreciation and amortization, and aircraft servicing expense. (Aircraft servicing expense is the total of all expenses incurred on the ground incident to preparation for aircraft arrival and takeoff, such as inspection and routine checking, fueling and servicing of aircraft, flight crew scheduling, and wages of ground personnel.) Traffic expenses are expenses that relate to, and may vary with, the traffic (passenger or cargo) transported. They include such cost elements as reservations and sales expense, food and beverage, and traffic servicing expense (all expenses incurred on the ground after the carrier has become responsible for providing air transportation, as evidenced by the boarding pass given to the passenger in exchange for his ticket).

**2.39** The auditor can use the break-even load factor to review operating income and to investigate the cause of any significant changes in the gross operating margin. Splitting the statistic into its components will also allow the auditor to isolate operating expense variations.

**2.40** In his analysis of operating expense variations, the auditor focuses primarily on two significant costs: salaries and wages, and fuel expenses. Because of the interaction of units of manpower or fuel and the price of the units, the most efficient way to examine these expenses is to use price and

volume analysis. Such analysis simply seeks to explain the variation by breaking down the gross dollar amount into the change due to growth or decrease in units used (the volume component) and the increase or decrease in the price of such units (the price component). The change in certain operating statistics—for example, scheduled departures, block-to-block aircraft hours (the hours from the moment an aircraft first moves under its own power until it comes to rest at the next point of landing, including taxi time before takeoff and after landing), gallons of fuel consumed, or number of employees—will indicate the increase or decrease in volume or units used. The price component is more important and may be expressed as average price per gallon or average wage or salary per employee. By using price and volume analysis, the auditor can better isolate the causes of cost fluctuations and obtain more meaningful explanations.

**2.41** The auditor can analyze other operating expenses by developing statistics from financial and nonfinancial operating data for the purpose of making historical comparisons. For example, the auditor can look at overall changes in operating expenses by relating total operating expenses to revenue miles flown, total available ton miles, or available seat miles. If current-year results deviate significantly from historical patterns, additional detailed analysis may be warranted. In that case, the auditor may look at the relationship of aircraft servicing expenses to the total number of ground personnel or the relationship of traffic servicing expense to the total number of personnel in that function.

**2.42** In analyzing flight operations expense variations, a useful bench mark is the number of block hours per day for the aircraft, because this measures how effectively the carrier is using its available capacity. As block hours per day vary, so do revenues and expenses. Many costs are directly related to the length of time the aircraft is in revenue service. For example, the auditor may analyze the change in the following ratios between years:

- Flight crew salaries and expenses/total block hours.
- Other flight personnel salaries and expenses/total block hours.
- Fuel and oil expense/total block hours.

These ratios can also be reviewed on a fleet-type basis for further refinement of variation explanations.

**2.43** For other flight operation expenses, a more meaningful bench mark may be total hours flown, because certain costs are incurred on that basis, regardless of whether the aircraft is in revenue service. Using this measure, the auditor can derive the following ratios:

- Aircraft rentals/total hours flown.
- Flight equipment maintenance/total hours flown.
- Insurance/total hours flown.

**2.44** Because a significant portion of passenger service expense varies with passenger traffic volumes, the following ratios are useful in explaining variations in that item:

- Flight attendants' salaries and expenses/revenue passenger miles.
- Passenger meal expense/revenue passenger miles.

**2.45** The auditor can use other operating statistics to analyze other key expense items. He can divide landing fees (in total, by fleet type, or by station) by scheduled departures to obtain an average cost per landing. Or, he may analyze agency commission expense by determining what percentage of agency sales it represents and comparing the result with commission rates. In

short, most operating expenses can be analyzed effectively through the use of nonfinancial statistics and data.

**2.46** In applying analytical procedures to revenues, the auditor should focus on an important statistic, which is the yield (the average revenue per unit of traffic carried in revenue service). It is usually calculated as average revenue per passenger mile, or cents per RPM. (For cargo, it is calculated as average revenue per cargo ton mile, or cents per CTM.)

**2.47** Basically, yield indicates how well the carrier is pricing its product in a particular environment. While it does not bear a direct relationship to operating income, an increase or decrease in yield, if not offset by a corresponding increase or decrease in operating costs, can have a significant effect on income from operations. The passenger revenue yield for a carrier is the product of a mathematical calculation that is composed of three variables:

$$\frac{\text{Scheduled passenger revenues}}{\text{Revenue passengers enplaned} \times \text{average passenger trip lengths}} = \text{Yield}$$

Changing any one of the three variables will have an effect on the yield. Therefore, in its simplest form, a decrease or increase in yield can be attributed to one of three factors, assuming the other two factors are constant. Practically speaking, however, a change in yield results from a combination of factors. For example, as a carrier raises or lowers its fares, the number of passengers will increase or decrease, depending on such factors as the elasticity of demand, competitive pricing and scheduling responses from other carriers, and the availability of capacity to meet additional demand.

**2.48** For purposes of illustration, assume that a carrier has one 200-passenger aircraft, which flies a 5,000-mile route. In the base case, there is one fare, \$500, and the aircraft operates with 100 passengers on board. As certain variables (fare and passengers carried) are changed, the effect on yield will be as shown in exhibit 1.

#### Exhibit 1

#### Determination of Yield

<i>Case</i>	<i>Fare</i>	<i>Passengers Enplaned</i>	<i>Scheduled Passenger Revenues</i>	<i>Trip Length</i>	<i>RPMs</i>	<i>Yield (\$/RPM)</i>
Base	\$500	100	\$50,000	5,000	500,000	.10
I	500	150	75,000	5,000	750,000	.10
II	400	100	40,000	5,000	500,000	.08
III	400	150	60,000	5,000	750,000	.08
IV	550	100	55,000	5,000	500,000	.11
V	550	90	49,500	5,000	450,000	.11

**2.49** This simple illustration ignores two other factors that will also affect yield: change in trip length and incremental pricing. Incremental pricing, as used by carriers today, means the selling of seats that otherwise would have gone empty at a discount from the regular fare. If a carrier uses incremental pricing correctly (after evaluating its break-even load factor, among other items), it will obtain an additional contribution towards operating income, assuming that it has recovered its fixed costs with regular-fare passengers and that the discounted fare exceeds the carrier's traffic expense. The concept of covering fixed costs, and the resultant restrictions on the availability of discount fares, is the key to incremental pricing. Unrestricted discount fares not only would mean a decrease in yield but could also result in a decrease in



revenues and a decrease in operating income. Applied correctly, discount fares will result in a decrease in yield, but the carrier should experience an increase in overall revenues, with a favorable impact on operating income.

**2.50** In explaining changes in a carrier's yield, the auditor must be aware of the effect of all these variables. These, in turn, can be linked to changes in business conditions, in the marketplace, and in consumer demand to provide a meaningful and business-oriented explanation of changes in yield.

**2.51** Because many elements of a carrier's operations can be reviewed analytically, this discussion is not all-inclusive. Although the analysis of the data will need to be supplemented by inquiries and other procedures, the auditor can audit a carrier's financial statements more effectively and efficiently by increasing the use of such data within the guidelines of SAS No. 56.

## Segment Information

**2.52** Financial Accounting Standards Board (FASB) Statement No. 14, *Financial Reporting for Segments of a Business Enterprise*, as amended, requires that the financial statements of publicly held business enterprises include information about the enterprise's operations in different industries, foreign operations, major customers, and export sales.

## Operations in Different Industries

**2.53** An industry segment is defined in FASB Statement No. 14 as "a component of an enterprise engaged in providing a product or service or a group of related products and services primarily to unaffiliated customers . . . for a profit." Airline operations are generally considered one business segment: air transportation, the common carriage of passengers, freight, and mail over routes authorized by the DOT. However, carriers may have operations within different industries, such as food service or hotels, which may constitute reportable segments under FASB Statement No. 14, and, if appropriate, the required disclosure should be made for these operations.

## Foreign Operations

**2.54** Foreign operations are defined in FASB Statement No. 14 as including "those revenue-producing operations . . . that (a) are located outside of the enterprise's home country (the United States for U.S. enterprises) and (b) are generating revenue either from sales to unaffiliated customers or from intraenterprise sales or transfers between geographic areas."

**2.55** Although FASB Statement No. 14 requires certain companies to disclose foreign operations in their financial statements, airlines have been reporting similar information to the DOT on Form 41. The DOT currently requires air carriers to report earned revenues and related expenses by "entities." These entities are defined as follows:

- Domestic operations
- Operations via the Atlantic Ocean
- Operations via the Pacific Ocean
- Operations within Latin American areas

**2.56** The DOT definition of foreign operations is based on international flights rather than on whether a revenue-producing operation exists in that geographic area. Footnote 12 of FASB Statement No. 14 addresses enterprises with mobile assets (for example, oceangoing vessels) and indicates that the determination of whether use of those assets constitutes foreign operations should depend on whether such assets are identified with operations located,

and revenue generated from, outside the home country (the United States). A carrier with a flight to England has foreign revenue under the DOT definition, though it may not have "operations" in that country.

**2.57** Many carriers classify airline operations (revenues and expenses) for segment disclosure as domestic or foreign operations on the basis of entity definitions prescribed in the DOT economic regulations.

### Revenues

**2.58** Under the DOT definition, revenues are classified among the entities on the basis of a flight's origin and destination. Exhibit 2 illustrates this classification.

### Expenses

**2.59** Certain expenses, such as flight payroll and fuel, may be directly attributable to an entity and are therefore directly charged to that entity. Other expenses, such as aircraft depreciation and maintenance expense, are allocated to the entities through the use of ratios, such as plane miles flown by entity to total plane miles flown, revenue passenger miles by entity to total revenue passenger miles, or some other measure of the total effort expended to produce the revenue.

#### Exhibit 2

### Classification of Foreign Operation Revenues

<i>Origin</i>	<i>Destination</i>	<i>Entity</i>
Chicago	New York	Domestic
Chicago	London	Atlantic
Chicago	London (with stop in New York)	Allocate between domestic and Atlantic*
Chicago	Sao Paulo, Brazil	Latin America
London	Rome	Atlantic
London	Tokyo	Allocate between Atlantic and Pacific*
Tokyo	Chicago	Pacific

\* The allocation of revenue between entities can be made by dividing the total fare on the basis of the ratio of plane miles flown, local fares, or some other logical method of splitting the fares.

### Identifiable Assets

**2.60** Similarly, certain assets, such as inventory and other ground facilities, may be directly attributable to an entity and therefore are identified directly with that entity. Other assets are generally used in more than one entity and therefore can be allocated to the entities by applying ratios similar to those used in the allocation of expenses.

### Audit Considerations

**2.61** SAS No. 21, *Segment Information*, provides guidance regarding auditing procedures when financial statements include information presented in accordance with FASB Statement No. 14. As noted therein, the tests of underlying accounting records normally applied in an audit of financial statements should include a consideration of whether the revenues, operating expenses, and identifiable assets are appropriately classified among different industry segments and geographic areas. For example,

- The test of the enterprise's revenue records should include procedures to test the classification and proration of revenue among the segments or entities.
- The test of the disbursements and payroll records should include procedures to test the distribution of direct expenses to the various segments or entities.
- The test of fixed asset records should include procedures to identify those fixed assets that are directly attributable to a segment or entity.

### **Major Customers**

**2.62** In general, airlines that provide the public with common carriage of passengers and cargo do not meet the major-customer criterion set forth in FASB Statement No. 14. However, an air carrier that specializes in either charter service or cargo carriage may do a substantial portion of its business with one travel agent or with a governmental unit or authority. The auditor should be aware of this possibility and should determine whether appropriate consideration has been given to the need to disclose that 10 percent or more of the airline revenue is derived from a single customer or governmental unit. In this connection, reference also should be made to FASB Statement No. 30, *Disclosure of Information About Major Customers*.

### **Export Sales**

**2.63** With respect to an enterprise's domestic operations, FASB Statement No. 14 defines export sales as "sales to customers in foreign countries." However, as discussed under "Foreign Operations," many carriers use the entity definitions prescribed in the DOT economic regulations to classify revenues and expenses as domestic or foreign operations for financial reporting purposes. Therefore, export sales information is not a very frequent disclosure in the airline industry.

## Chapter 3

# **Specific Accounting Principles and Auditing Procedures**

## **Revenue Accounting**

**3.01** Airline revenue is derived primarily from the carriage of passengers, cargo, and mail. The objective of the revenue accounting system is to recognize revenue according to the principle, "Revenue is generally recognized when both of the following conditions are met: (1) the earning process is complete or virtually complete, and (2) an exchange has taken place."<sup>1</sup>

**3.02** Since airline tickets usually are issued in advance of the scheduled transportation date, the ticket sales date seldom coincides with the revenue recognition date, also referred to as the service date. Therefore, the task for airline revenue accounting is twofold:

1. To record unearned revenue when a ticket is sold and scheduled service is at a later date.
2. To recognize revenue when the carrier provides the transportation service and thereby completes the earnings process.

**3.03** Revenue recognition is a complex task within the airline industry. It involves the quantification for financial statement presentation of four major balances related to transportation revenues: earned revenue, unearned revenue, accounts receivable, and accounts payable. This process is complicated by the many fare types available (first class, coach, economy, joint, and various forms of discounts) and the possibility that one or more segments of a flight may be on another airline, requiring the total ticket fare to be prorated for each airline's share. The process is further complicated by the large volume of tickets to be processed.

## **Free and Reduced-Rate Transportation**

[3.04—3.07] [Deleted as the result of changes in the regulation of the industry.]

## **Types of Revenue**

**3.08** Approximately 90 percent of operating revenues (excluding subsidies) is derived from passenger operations for certificated passenger carriers. Other operating revenue is derived from air cargo operations, principally air freight services, and mail services. Accounting for the paper flow is different for passenger and cargo operations. The primary emphasis of this chapter is on passenger revenue, since that is a carrier's major operating revenue. A brief section on air cargo, however, is included.

## **Ticketing Procedures**

**3.09** Tickets may be sold by airline ticketing agents at airports or other locations or by travel agents. Tickets may also be written by nonairline organizations using air carrier ticket stock from contracting airlines. Tickets may be paid for in cash, by check, by various credit cards, by government transportation request (GTR), or by the exchange of a previously purchased ticket.

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<sup>1</sup> APB Statement No. 4, *Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises* (1970), chapter 6, paragraph 150.

**3.10** A ticket for air transportation is similar to a negotiable instrument and may be issued weeks or months before the scheduled departure date. An unused ticket for a scheduled flight is not forfeited and may eventually be refunded, used on another carrier for the same itinerary, or rerouted and reissued for a different flight. Adjustments in fares between carriers for segments actually flown or additional charges to customers when discounts do not apply can arise in these circumstances. A ticket is usually valid for one year, with the specific period identified by a statement printed on the ticket.

**3.11** An airline ticket consists of several coupons indicating the itinerary of the passenger. One copy is the *auditor's coupon*, which is the initial document used to record a sale. An additional coupon represents each segment (leg) of the passenger's itinerary. This coupon is *lifted* (detached from the ticket booklet) by the carrier providing the transportation service at the boarding point as evidence of the service rendered.

**3.12** A ticket sold by an airline and ultimately used on that airline is referred to as an on-line (OL) sale; a ticket sold by one airline and used on another airline is referred to as an off-line (OAL) sale. One ticket can include several flight segments and, also, can include flights on various carriers. The carrier that issues the ticket collects the total fare from the passenger. Settlements of this fare are made among the other carriers on the basis of interline agreements (described in a later section of this chapter). In this case, the selling carrier is known as the OL carrier, and all other carriers for which transportation is scheduled are the OAL carriers.

**3.13** When a passenger ticket is sold and scheduled service is at a later date, the selling carrier uses the auditor's coupon to recognize cash received or accounts receivable, air traffic liability representing unearned revenue (for its share of the ticket), and accounts payable (for other airlines' shares of the ticket). The two sources of this sales information are station sales and travel agency sales.

**3.14 Station Sales.** A significant portion of an airline's operating revenue is generated through sales made at airport stations or other sales locations. Airlines also sell tickets via mail and telephone orders, usually from one central or several regional reservation centers. Sales from all locations (stations) are controlled and processed in a similar manner.

**3.15** Each station normally reports sales and refund activity to revenue accounting on a daily basis. The reporting can be accomplished via on-line computer processing, with each ticket automatically priced, printed, and recorded at the station. Reporting can also be performed manually by the preparation of daily ticket sales reports, which classify sales by ticket number as cash or charge sales. Under both systems, deposit slips and auditors' coupons are then sent to revenue accounting for verification.

**3.16** The carrier's audit of sales can commence when all documents are received at the revenue accounting office. The degree of this audit function—from zero to 100 percent—varies according to the airline's accounting policies and processing sophistication. The audit may include one or more of the following: verification of ticket number sequence, agreement of cash and charge sales with the sales reports, and, in some systems, ticket pricing and input of tickets into a sales file.

**3.17** The accounting entry for station sales recognizes cash received and credit card receivables and the related commission, with corresponding credits to the air traffic liability and related transportation tax accounts.

**3.18 Travel Agency Sales.** A large portion of airline industry ticket sales is generated through travel agencies. Since there are so many agencies, an important aspect of revenue accounting involves the settlement of revenues due the airlines and commissions due the agencies. The processing of sales through domestic travel agents and accounting for such sales are conducted under rules established by the Air Traffic Conference (ATC). Under the ATC guidelines, agency area settlement banks serve as the intermediaries between domestic travel agencies and airlines.

**3.19** An agent indicates the airline to which the ticket sale is to be credited via the coding of designated or undesignated ticket stock. The agent also includes the tax and commission codes on the auditor's coupon. The agent submits auditors' coupons, credit card vouchers, miscellaneous charge forms, and checks, net of the agency commission, for amounts due the airline to the area settlement bank on a weekly basis.

**3.20** The area settlement bank processes these documents and prepares invoices and reports necessary for settlement, including travel agency sales reports by airline and by agency, with the supporting auditors' coupons. The bank makes the settlement for the tickets sold by the agencies for those airlines with accounts at the bank. The bank also submits invoices and associated charge documents to the respective credit card contractors, who calculate the net settlement (for the credit card commission) and make direct payment to each airline.

**3.21** Airlines use the summary reports from the bank to record sales activity and associated commission expense. The issuing airline initially

records the total agency commission, but, once transportation is provided, the servicing airline incurs the commission expense. Batching and repricing of tickets for specific ticket entry into the sales system and for the accumulation of sales data are performed at this point according to the carrier's accounting policy and sophistication of processing. This sales input allows the airline to audit the travel agency product on a timely basis. Differences noted during the audit can then be charged back or credited to the travel agencies, with corresponding debits or credits to the air traffic liability clearing account and related transportation tax account.

**3.22** The accounting entry for travel agency sales recognizes a receivable, net of the related commission, and a credit to the air traffic liability account. Some carriers recognize commission as a prepaid expense and credit this account when transportation service has been provided.

### **Air Traffic Liability**

**3.23** When a passenger ticket is sold, the selling carrier records a cash receipt or account receivable and unearned transportation revenue. Air traffic liability (ATL) is the value of unused transportation sold by the reporting air carrier. This includes the liability for transportation to be provided by the carrier selling the ticket, as well as a liability for transportation that may be provided by other air carriers.

**3.24** With the concurrence of the Air Traffic Conference, members are permitted by regulatory authority to establish procedures for handling such interline operations. The details for these procedures are set forth in two primary interline agreements: the IATA bilateral agreement and a multilateral agreement. Some airlines participate in both agreements. The agreements cover interline passenger ticketing, cargo, and baggage procedures, specify the source of accepted published fares and procedures, and describe the process of settling funds between participating airlines. The interline agreements are permitted in order to simplify the ticketing process for air travelers and to minimize the number of tickets necessary to complete an itinerary that involves more than one air carrier.

**3.25** Under the interline agreements, the air carrier providing the first flight shown on a ticket for a multicarrier itinerary is allowed to issue a ticket for the entire trip. This is the preferred practice since the carrier that issues an interline ticket collects the total fare from the passenger. As a general practice, however, the carrier making the reservation issues the ticket even if it is the second carrier or does not provide any service. On the basis of the interline agreements, the selling carrier prorates the fare among the carriers providing service on the itinerary. The proration is a method of dividing the total fare among carriers according to either accepted published joint fares or cost factors applied to unpublished joint fares.

**3.26** Thus, the value of the interline ticket recorded in the air traffic liability account represents both the issuing carrier's liability to provide air transportation to the passenger and its liability to other carriers for their share of the ticket sales. Although part of a carrier's air traffic liability account represents interline amounts payable to other air carriers, other air carriers are also issuing interline tickets that the carrier has an obligation to service. Also, the actual obligation between carriers is not established until the transportation service is provided. This is because a ticket can be used on different airlines and for flights different from those originally designated.

**3.27** The carrier reduces unearned revenue in the air traffic liability account and recognizes earned revenue from on-line sales when transportation

service is provided. The basic methods of accounting and invoicing other airlines after transportation service has been provided are described in the "Interline Accounting" and "Revenue Recognition" sections of this chapter.

### **Interline Accounting**

**3.28** The main objectives of the carrier's passenger interline accounting department are to invoice other airlines for lifts of tickets that other airlines have issued and to audit interline payable billings from other airlines for lifts by those airlines that the carrier has sold. This department's processing function also develops data to be used in the recognition of revenue.

**3.29** OAL lifts represent interline receivables and revenue because the tickets were sold by another carrier and the service was provided by the airline. This service has not been previously recognized in the airline's financial statements; therefore, the tickets must be processed to record revenue and to initiate interline receivable billings.

**3.30** Flight coupons, which are collected and controlled at each boarding gate, provide the basis for processing interline receivables. All of the lifted documents should be cancelled and then transmitted to the revenue accounting office. An airline should have controls for the timely receipt of lifts that are by-products of systems established to meet the other daily statistical reporting requirements (such as origin and destination, passenger counts, and revenue passenger miles) that may apply.

**3.31** OAL lifts must be assigned prices in order to create interline billings to collect earned revenue. Some airlines price all of these lifts; most perform this pricing from a lift sampling based on ticket number digits, as selected by the airlines, on a monthly basis. Pricing of tickets can be done manually, but for most fares it is done via computer processing systems.

**3.32** To aid in billing interline receivables, the airline industry has established clearinghouse settlement plans in which most carriers participate. The settlement procedures are described in the interline agreements. Airlines Clearing House, Inc., performs this interline settlement function for most western hemisphere carriers, and the IATA Clearing House performs this function on a worldwide basis. Some airlines are members of both clearinghouses. Airlines transmit summaries of their interline invoices to the clearinghouse, which tabulates accounts receivable and accounts payable for each member airline and reports the balance semimonthly to each member. The net balances are calculated monthly in U.S. dollars, Canadian dollars, or pounds sterling, and settlement is made through each participating airline's account. Each airline is also responsible for preparing invoices that detail the airline billed and the amount of the invoice and that identify the tickets that were priced. The invoice, all lifted tickets, and, in most instances, magnetic tapes summarizing the pricing that was performed are sent monthly to the appropriate airline.

**3.33** Each carrier is responsible for auditing the interline billings it receives. This audit is performed after the settlement through the clearinghouse. Any differences noted in the audit are rejected and rebilled to the appropriate carrier in subsequent months. The percentage of pricing for this audit (sampling or 100 percent) is a matter of airline choice. If a sample is used, the sampling method and size of sample is agreed upon by each airline clearing with the billing carrier.



### Refunds and Exchanges

**3.34** There are several types of refunds and exchanges that can be made for an airline ticket. They include refunds, reissue/even exchanges, reissue/refunds, and reissue/additional charges. If a passenger does not want to use a ticket and does not have an alternative itinerary, a refund is required. If a ticket is surrendered in place of another ticket, for a different route or for a different airline with the same fare, a reissue/even exchange is required. If a ticket is surrendered in place of another ticket with a lower fare, a reissue/refund is required. If a ticket is surrendered in place of a ticket with a higher fare, a reissue/additional charge to the passenger is required.

**3.35** Refunds and exchanges can be executed at station locations, by travel agencies, by the airline refund department, or by other airlines. At a station, a refund draft, refund application, or additional charge is made, according to the type of exchange required. If a new ticket is written, the old ticket is collected from the passenger. The old ticket, the auditor's coupon of the new ticket, and refund drafts or refund applications are batched and submitted to revenue accounting with the daily ticket sales report documents. The revenue accounting department sorts such refund documents, logs them in a control record, and sends them to refund accounting for pricing, auditing, and, if applicable, issuance of checks.

**3.36** A travel agency that issues a refund or an exchange voucher reports such items, after subtracting the original commission, in the usual manner through the area settlement bank or directly to the carrier involved. When the revenue accounting department receives the documents, they are logged in and sent to refund accounting for processing. When tickets are sold by travel agents and refunded by another source, the travel agency must be charged by the airline for the commission involved.

**3.37** Refunds and exchanges can also be requested directly from the refund department, which then audits and processes the requests. A refund department should maintain a check register and separate check stock for drafts written by the department. Most station locations also have a separate stock of drafts for passenger refunds.

**3.38** If a carrier executes a refund or exchange for an OAL ticket, that carrier then bills the refund back to the OL carrier via the interline billing. This refund item is audited by the OL carrier as part of the interline payables audit; if any difference is noted, the item is rejected and rebilled.

**3.39** An airline should list all refunds that it makes in a register, which is often prepared by on-line or keypunch processing, in order to track and control the documents. Such a listing is also used as input for a sales/match system of revenue accounting.

**3.40** Refunds and exchanges are recorded in the air traffic liability account, in accounts receivable, and in cash accounts as part of the station, travel agency, and interline sales entries.

### Revenue Recognition

**3.41** Lifted flight coupons represent earned revenue, whether they originate as on-line or as off-line sales. On-line lifts indicate that one carrier has completed the sales cycle, both selling the ticket and providing the service. The carrier must process on-line lifts in order to determine the amount to be transferred from the unearned to the earned revenue account. Each OL coupon can be entered in a sales/lift match file if that is the method of revenue recognition used by the carrier. Such files range from a ticket number

file to a detailed data history file for each coupon. Revenue may be determined by valuing each coupon lifted or by sampling the lifted coupons.

**3.42** The carrier initially uses a sample of lifted coupons to obtain statistical data that must be submitted to the DOT. Lifted coupons are then sorted into off-line and on-line batches for different processing activities.

**3.43** OAL lifted coupons represent revenue to the OAL carriers for the transportation service provided. If the carrier uses a sales/lift match system, the OAL lifts represent part of the credit entry to earned revenue. If the carrier uses a sampling method for recognizing revenue, off-line coupons must also be surveyed to determine the credit entry to earned revenue.

**3.44** There are two basic methods for calculating earned revenue: the sales/lift match method and the sampling method.

**3.45** *Sales/Lift Match Method.* The principal objectives of the sales/lift match method are to record all sales information by coupon and to match the usage of all recorded coupons. In this type of system, all OL coupons issued must be recorded in the air traffic liability account and tracked by ticket and coupon number. Lifted OL flight coupons are matched against the recorded coupons, and this usage amount is deducted from air traffic liability and added to earned revenue. Interline payable billings by other carriers also represent a usage of OL sales, which must be matched against the recorded coupons and deducted from the air traffic liability account. Adjustments to the unearned revenue account are made periodically for unmatched tickets, lost tickets, or tickets not processed for some other reason.

**3.46** In such a system, OAL lifts are directly recorded as revenue. Since all tickets must be processed at the sales and usage points, this method is likely to require computer capacity to accommodate the large volume of processing.

**3.47** *Sampling Method.* The objective of the sampling method is to recognize revenue on the basis of a survey of lifted off-line and on-line coupons for the period. There are two attributes for which a sample of lifted coupons may be tested: number of revenue passenger miles or number of revenue passengers. When the revenue-passenger-mile attribute is used, a sample of the dollar value of coupons is accumulated and divided by RPMs flown to produce an average yield per RPM. This average yield is then multiplied by the total number of revenue passenger miles flown by the carrier to determine earned revenue. The number-of-passengers attribute system develops an average fare per passenger from the sample. Earned revenue is then determined by applying this average fare to the number of passengers transported for the period. The average yield per RPM is the most common attribute used for sampling systems.

**3.48** Carriers use various methods to sample lifted coupons, such as testing all lifted coupons with a number ending in a selected digit. If statistical sampling methods are used by the airline, the independent auditor must be satisfied that the sampling plan has statistical validity, that it has been properly applied, and that the resulting precision and reliability, as defined statistically, are reasonable in the circumstances.

**3.49** Under the sampling method, all off-line lifts are initially recorded in the air traffic liability account (in which on-line tickets were previously recorded). All lifts are processed for statistical data required by the DOT and for the required sampling data. Earned revenue is recognized on the basis of the sampling data of all lifts and is deducted from the total of coupons recorded in the air traffic liability account. Off-line coupons are recorded in

the air traffic liability account to develop a total of all coupons sold, from which revenue of lifted coupons can then be recognized. Interline payable billings are deducted from the air traffic liability account when they are paid. Differences, such as those arising from clerical inaccuracies, between amounts originally recorded and amounts billed may be rejected and rebilled, or written off if the original recorded fare was incorrect.

### **Air Traffic Liability Verification**

**3.50** In order to validate the ATL account under the sampling method of revenue recognition, as well as to comply with DOT requirements, each air carrier annually performs a physical verification of its passenger revenue accounting practices. The purposes of this verification are to assess the degree of reliance that can be placed on the carrier's earned passenger revenue and, at the same time, to assess the balance in the ATL account.

**3.51** When a sampling method is used, the airline frequently opens a new account for unearned revenue on the first day of the month in which the test begins. Only credit entries for coupons sold for the new period are recorded in this account. All lifts, refunds, exchanges, and liabilities for OAL coupons must be segregated between those sold in the prior period and those sold in the new period. The applicable amounts are charged to the appropriate period's unearned revenue account.

**3.52** The carrier conducts a verification of the prior-period ending balance by analyzing lifted tickets, refunds, exchanges, and invoices for a period of time in the current period. The length of time of the analysis varies but rarely exceeds twelve months. All transactions with a validation date (sales date) prior to the first of the new period are accumulated in this analysis. When the flow of lifted coupons with a prior validation date becomes minimal, it can logically be concluded that virtually all such tickets have either been used or refunded.

**3.53** The value of the prior-period coupons used in the verification may be derived from the priced fare of each prior-period coupon lifted, or it may be an amount determined by the sampling of such coupons.

**3.54** When the sales/lift match method is used, aging of the inventory of passenger ticket sales provides the required verification.

### **Air Cargo**

**3.55** The administrative and accounting aspects of the air cargo operation involve the processing required to route and trace shipments and to perform the accounts receivable and accounts payable functions for the associated shipping charges. Shipments and charges for each shipment are based on airbill information. The shipper or, in the case of an infrequent shipper, the carrier prepares an airbill when an air shipment is to be originated.

**3.56** The carrier whose airbill is used for initiating and routing the shipment becomes the *issuing airline*; later, when transferring the shipment to another carrier, it becomes the *transferring airline*. The carrier accepting this transferred shipment becomes the *receiving airline*, and the carrier that terminates the shipment by delivery to the consignee becomes the *delivering airline*.

**3.57** Revenue accounting for air cargo concerns the determination of what charges should be paid by whom for the air freight services performed. The revenue recognition process is similar to that for passenger transportation: to record unearned revenue when an airbill is sold and to recognize revenue when

a carrier provides the shipping service and thereby completes the earning process.

**3.58** The basic air cargo revenue accounting functions consist of airbill pricing and airbill invoicing. Airbill pricing includes the establishment of rates according to published tariffs, rate extension, and revenue apportionment between carriers. Airbill invoicing includes direct customer billing and interline settlement.

**3.59** This process is further complicated by rules regarding prepaid and collect shipments. On a prepaid shipment, the paid carrier is identified on the shipping instructions; therefore, all downline carriers can bill directly to the paid carrier. On a collect shipment, however, the identity of the collecting carrier frequently is not known to upline carriers because of shipment reroutings; therefore, carriers that participate in a collect shipment perform "snowball" billing. Each carrier bills the adjacent downline carrier in the route segment for all transportation services up to the point of transfer to that carrier, thus "snowballing" the bills to the collecting carrier.

**3.60** The issuing airline is responsible for retaining an accounting copy of each airbill, supplying airbill copies to the freight revenue accounting audit sections of participating carriers, and accepting invoices from delivering airlines for shipments carried on prepaid airbills. The delivering airline must accept invoices for collect shipments from the immediately previous transferring airline and can invoice the issuing airline for actual transportation charges for prepaid shipments. Interline settlements are handled in the same manner as settlements of passenger ticket lifts.

### **Auditing Considerations**

**3.61** Since many of the sales billing and revenue applications of a carrier are computerized, the auditor should consider using computerized audit programs.

**3.62 Station Sales.** The auditor should consider the following procedures when testing station sales:

- a. Tests of controls. The following are some of the control procedures that an auditor would expect to find:
  - Ticket sales credited to the ATL account are supported by ticket sales reports, which are balanced with auditors' coupons on a daily basis.
  - The numerical sequence of tickets and all other accountable documents is accounted for via inventory reports on a daily basis.
  - Ticket stock is maintained and disbursed by the carrier or an independent source, with ticket issues reported to the main office.
  - Internal verification of cash and charge sales on the ticket sales report is performed.
  - Segregation of duties exists between the sale of tickets and collection of cash, the recording of sales, the recording of accounts receivable, and the processing of lifted coupons.
  - Deposits are made daily, and bank reconciliations are prepared by a person independent of the cash receipts function.
  - Tickets are repriced on a test basis to the extent considered necessary and are appropriately recorded.

- b. Review of the bank reconciliations of station accounts for propriety.
- c. Test of the cutoff of station sales at the fiscal year-end.
- d. Review of input to the air traffic liability account and the sales/lift match system, if applicable.

**3.63 Travel Agency Sales.** The auditor should consider the following procedures when testing travel agency sales:

- a. Tests of controls. The following are some of the control procedures that an auditor would expect to find:
  - Tickets and reports are received from travel agencies or from appropriate area settlement banks on a scheduled basis.
  - The entry to receivables and air traffic liability is supported by travel agency reports and auditors' coupons.
  - Tickets may be priced individually and introduced into the sales system via a subsidiary sales file, which is balanced with travel agency reports.
  - Differences between the airline and travel agencies are adjusted on a timely basis.
  - Segregation of duties exists between the sale of tickets, the recording of ticket sales, and the recording of accounts receivable.
  - The deposit of cash is performed by the settlement bank.
  - The ATA periodically audits the agencies to ensure that ticket sales are properly reported to the banks.
  - Provision has been made for review of the carrier's controls, and procedures exist for determining unreported agency sales. (A sales/lift match system or a variation thereof is the best control for unreported sales.)
- b. Review of the area settlement bank statements and bank reconciliations for propriety.
- c. Confirmation of receivable balances with the area settlement banks during the period under audit. (See SAS No. 67, *The Confirmation Process*.)
- d. Test of the sales cutoff at the fiscal year-end.
- e. Investigation of the differences arising from the carrier's audit of agency tickets and notation of the disposition of such differences.
- f. Review of the input to the air traffic liability account and the sales/lift match system, if applicable.
- g. Agreement of recorded commissions with the travel agency sales summary.
- h. Test of commissions withheld by the agency.
- i. Test of agency debit and credit memoranda.
- j. Review and test the commission override process.

**3.64 Interline Receivables.** The auditor should consider the following procedures when testing interline receivables:

- a. Tests of controls. The following are some of the control procedures that an auditor would expect to find:
  - Receivables are supported by lifted tickets.

- Internal verification of ticket pricing for billing purposes is performed.
  - Procedures require the billing and recording of sales on a current basis.
  - Segregation of duties exists for the recording of sales and accounts receivable and the reconciliation of clearinghouse bank statements.
- b. Examination of subsequent receipts per the clearinghouse statements.
- c. Confirmation of receivable balances with carriers or performance of alternative tests. (See SAS No. 67.)
- d. Review of documentation in support of tickets rejected and rebilled.

**3.65 Interline Payables.** The auditor should consider the following procedures when testing interline payables:

- a. Tests of controls. The following are some of the control procedures that an auditor would expect to find:
- Internal verification of coupons included in the billing from other carriers is performed for pricing and accuracy.
  - If differences are discovered during the audit, the affected items are rejected and rebilled to carriers on a timely basis.
  - Individually priced ticket files are matched and deducted from the sales file.
  - Segregation of duties exists between the payables input and payment processing.
- b. Agreement of the payable amount during the period under audit.
- c. Agreement of subsequent payments with clearinghouse statements.
- d. Review of documentation in support of tickets rejected in the payable audit and assurance that such tickets are included in the receivable file.

**3.66 Revenue Recognition.** The auditing considerations are different for the two types of revenue recognition methods.

1. *Sales/lift match method*

- a. Tests of controls over additions of coupons to the unearned revenue file. The following are some of the control procedures that an auditor would expect to find:
- Station sales are supported by ticket sales reports, which are balanced with auditors' coupons on a daily basis.
  - Internal verification of cash and charge station sales on the ticket sales report is performed.
  - Tickets are repriced to the extent considered necessary before they are recorded in the sales file.
  - The entry to receivables and air traffic liability is compared with travel agency reports and auditors' coupons.
  - The subsidiary sales file of tickets is balanced with travel agency reports.

- A cutoff of station and travel agency sales is performed.
- b. Tests of controls, such as the following, over deductions of coupons from the unearned revenue file:
    - The flight movement report (FMR) or ticket lift report (TLR) is used as a control for lifted tickets received from stations.
    - On-line tickets are matched and deducted from the sales file.
    - Interline payable billings from other carriers are internally verified and repriced before being deducted from the sales file.
  - c. Tests of specific additions and deductions from this file for the period under audit.
  - d. Tests of selected coupons in the unearned file at one point in time for propriety and cutoff.
  - e. Review of the aging of this unearned file for unusual items.
  - f. Test of the cutoffs of the file via a review of lifts prior and subsequent to the period under audit for proper deletion from and inclusion in the file.
  - g. Apply analytical procedures to balances, key passenger statistics, and activity in the revenue and air traffic liability accounts for reasonableness.
  - h. Tests of aging and controls of on-line tickets lifted for which no sale has been recorded.
  - i. Test of the pricing system file and changes thereto.
2. *Sampling method*
    - a. Review of the sampling method and tests of the carrier's method for generating the statistical sample and calculating yield entries for the period under audit.
    - b. Tests of controls, such as the following, over additions of coupons to the unearned revenue file:
      - Station sales are supported by ticket sales reports, which are balanced with auditors' coupons on a daily basis.
      - Internal verification of cash and charge station sales on the ticket sales report is performed.
      - Tickets are repriced to the extent considered necessary before they are recorded in the sales file.
      - The entry to receivables and air traffic liability is compared with travel agency reports and auditors' coupons.
      - The subsidiary sales file of tickets is balanced with travel agency reports.
      - A cutoff of station and travel agency sales is performed.
    - c. Tests of controls, such as the following, over deductions of coupons from the unearned revenue file:

- The flight movement report is used as a control for lifted tickets received from stations.
  - Interline payable billings from other carriers are internally verified and repriced before being deducted from the sales file.
- d. Review of the balance in the air traffic liability at the audit date and of the earned revenue accounts for the period under audit by testing the verification procedure performed by the carrier via pricing of lifts, refunds, and interline receivables and payables subsequent to the audit date.
  - e. Apply analytical procedures to balances, key passenger and revenue statistics, and activity in the revenue and air traffic liability accounts for reasonableness.
  - f. Tests of aging and controls of on-line tickets lifted for which no sale has been recorded.

## Airframe and Engine Overhaul Expense \*

**3.67** The Federal Aviation Administration has established overhaul cycles for each airframe and engine component in an effort to prevent potential hazards and to ensure transportation safety.

**3.68** For accounting purposes, airframe and aircraft engine overhauls encompass all inspections or replacements of major components, which the civil air regulations require at specific maximum periodic intervals to recertify that the frame or engine is completely airworthy. An overhaul does not include, however, the cost of routine replacement of minor parts and servicing or inspection of airframes and aircraft engines. Also excluded from overhauls are costs accounted for as restoration of assets, such as extraordinary costs associated with the renewal of major structural parts beyond the scope of normal periodic overhauls, and other costs with a life span similar to the depreciable service life of the related airframe or aircraft engine.

**3.69** Overhauls may be performed on a continuous basis or in one operation (*block* or *one-shot* basis). In recent years technological advances in the maintenance of airframes and aircraft engines have resulted in the wider use of continuous overhaul programs. However, entrants to the airline industry may not be suited to the continuous overhaul program. In addition, the aircraft fleets and inventories of aircraft engines operated by most air carriers have grown to the point at which actual overhaul costs have become fairly stable from year to year. As a result of these technological advances and the growth in aircraft fleets, many air carriers now recognize all of their overhaul and maintenance costs as expenses as they are incurred.

## Leased Aircraft

**3.70** Lease agreements often contain provisions that require the aircraft to be returned to the lessor with a minimum number of hours remaining to the next overhaul. Cash payments to the lessor may be required if the aircraft is returned with fewer hours remaining than the minimum required by the lease agreement.

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\* See Statement of Position (SOP) 88-1, *Accounting for Developmental and Preoperating Costs, Purchases and Exchanges of Take-off and Landing Slots, and Airframe Modifications*, which is included as Appendix A of this guide, for a discussion of accounting for airframe modifications.



**3.71** This factor should be considered in the carrier's policy of accounting for overhauls. The impact will vary according to the overhaul accounting method used and the terms of the individual lease agreements. The objective is to avoid having either unamortized overhaul costs or an unneeded accrual on the books when the aircraft is returned. Also, if it appears that a cash payment will be required, the objective is to recognize the expense as the related aircraft hours accumulate. The specific methods used to achieve these objectives depend on the circumstances. The selection of an accounting method may be influenced by these factors.

### Used Aircraft

**3.72** Used aircraft are acquired in various conditions and at various times between overhauls. The existing stage of overhaul may need to be considered in determining the amount and timing of overhaul expense. For example, the built-in overhaul accounting method requires the buyer to allocate the total purchase price between the cost of the aircraft and the overhaul component. The aircraft's stage of overhaul when purchased would have an impact on the amount of the overhaul component, as well as the initial overhaul amortization period. Similar considerations may be required when other overhaul accounting methods are used in order to avoid distorting overhaul expense, particularly in the period between the purchase date and the first overhaul performed (see "Accounting Methods").

### Accounting Methods

**3.73** Air carriers should adopt an accounting method that recognizes overhaul expenses in the appropriate period. This may result in different methods for different aircraft, as well as different methods for airframe overhauls and engine overhauls. The method chosen should recognize, among other things, the carrier's operating practices with respect to airframe and engine overhauls. The following accounting methods are most often employed:

- Direct expensing method
- Built-in overhaul method
- Deferral method
- Accrual method

**3.74 *Direct Expensing Method.*** All trunk carriers and some others recognize the cost of overhauls as expenses as they are incurred because, in the case of carriers with large fleets, such costs are relatively constant from period to period.

**3.75 *Built-in Overhaul Method.*** The built-in overhaul method is based on segregation of the aircraft costs into those that should be depreciated over the useful life of the aircraft and those that require overhaul at periodic intervals. Thus, the estimated cost of the overhaul component included in the purchase price is set up separately from the cost of the airframe and engines and is amortized to the date of the initial overhaul. The cost of the initial overhaul is then capitalized and amortized to the next overhaul, at which time the process is repeated.

**3.76 *Deferral Method.*** Under the deferral method, the actual cost of each overhaul is capitalized and amortized to the next overhaul.

**3.77 *Accrual Method.*** The accrual method provides for estimating the cost of the initial overhaul and accruing the cost, based on an hourly rate, to the overhaul.<sup>[2]</sup> At that time, the actual cost of overhaul is charged to the

<sup>[2]</sup> [Footnote deleted as the result of changes in regulation of the industry.]

accrual, with any deficiency or excess charged or credited to expense. The cost of the next overhaul is then estimated, based on the new rate, and accrued to that overhaul, at which time the process is repeated.

### **Auditing Considerations**

**3.78** In the case of the built-in overhaul and accrual methods, the estimated cost of initial overhauls should be tested by reference to manufacturers' specifications, historical experience, and the like. Actual capitalized costs of succeeding overhauls should be examined for propriety. Time between overhauls (TBO) should be tested by reference to FAA overhaul requirements, manufacturers' specifications, or the carrier's experience. Resulting rates and their application should be tested for reasonableness.

**3.79** In the case of the deferral method, the appropriateness of the capitalized cost should be tested. In addition, the amortization period should be tested by reference to FAA overhaul requirements, manufacturers' specifications, or the carrier's experience.

### **Insurance**

**3.80** Insurance programs for airlines normally include passenger liability, hull, contents, and group and workmen's compensation insurance. Contents and group and workmen's compensation insurance are comparable to the insurance practices of other industries.

**3.81** Passenger liability insurance relates to the insurance of risks associated with providing air transportation services to passengers. Premiums are normally determined on the basis of a rate for passenger miles flown. The rate is normally fixed; passenger miles flown is a variable.

**3.82** Hull insurance relates to flight equipment, and rates are normally based on dollar value of insured equipment. The insured value of equipment may be determined in several ways (net book value, replacement cost, or estimated fair value). The rate applicable to insured value of equipment is normally fixed.

**3.83** The recognition of insurance expense is based on the policies and rates in effect for the period. For example, insurance expense for passenger liability and hull insurance can be based on actual data for the period; that is, the expense recognized with regard to passenger liability insurance is based on a policy rate times the number of passenger miles flown.

### **Auditing Considerations**

**3.84** The auditor's objective relative to an airline's insurance program is to satisfy himself that the costs of obtaining insurance have been recognized in the appropriate period.

**3.85** The auditor should review the insurance policies in force to determine that the costs of coverage have been accounted for properly. The auditor should obtain an analysis of prepaid insurance, accrued premiums payable, and insurance expense and compare it with the financial records. He should consider testing the amounts recorded on the policies in force and related actual data for policies with variable items, such as the number of revenue passengers and the dollar value of insured equipment.

### **Payroll (Flight Personnel)**

**3.86** Payroll expenses represent a substantial amount of an airline's operating expenses, with a significant portion of that expense for payment of

flight personnel. The pay of flight personnel is usually determined by applying the rates specified in the contractual provisions between the airline and the respective employee bargaining group to the following items: number of hours flown, the type of equipment flown, whether the hours flown were day or night hours, seniority, and flying status (pilot, copilot, flight engineer, flight attendant). Crew members are also reimbursed at a specified rate for the number of hours spent away from their assigned home base.

**3.87** After a flight has been completed, the senior officer on the flight prepares a report (time sheet) detailing the other crew members working the flight, actual travel time on all segments of the flight, the flight number, and equipment type. The time sheet is then submitted to either the payroll department or the crew members' base station, where the data is posted to a monthly summary schedule maintained for each individual.

**3.88** The airline calculates the employees' pay by applying the rates specified in the union contract to the time flown. The payroll check representing monthly salary, less any advance, is forwarded to the crew member along with a copy of the monthly flight summary and the calculation that was used to arrive at the pay. An example of the calculation of an individual's pay for a single flight is shown in exhibit 3.90. Alternatively, under some labor agreements, flight crews may be paid a monthly guaranteed salary, based on a certain level of flight time credit. If the individual has worked less than the base flight time credit, he will receive the guaranteed salary. If the individual works more than the base flight time credit, then he will receive added compensation for his overtime. Under this approach, the complex data gathering and price-out are not performed to calculate an individual's pay but rather to allocate his base guarantee and overtime to various flights.

**3.89** In addition to the normal month-end salary accrual, other accruals frequently are associated with the payroll costs of flight personnel:

- *Flight time over the maximum.* Most union contracts specify a maximum number of hours that a crew member can fly during a month. Frequently, flight personnel exceed that maximum because of scheduling problems or other reasons. Certain airlines establish a credit plan account, required by union contract, which is used to accumulate hours flown in excess of the maximum. The crew member can use that time at his discretion in future periods in lieu of working the required hours. At any point in time, the accumulated credit plan account hours valued at the current pay rate represent a liability to the airline and are accrued. Airlines that do not have such a plan pay crew members on a current basis for all hours flown.
- *Vacation accrual.* Vacation time earned during one fiscal year must be taken during the next fiscal year. Accordingly, for each accounting period, the airline accrues the liability for earned vacation time for estimated probable future payments attributable to employees' service during that period.
- *Retroactive pay accrual.* When employees continue to work after the expiration date of their contract, the airline generally accrues an amount representing the anticipated increase in wage rates and certain fringe benefits because such increases are generally retroactive to the expiration date of the prior contract. Consideration should be given to the provisions of FASB Statement No. 5, *Accounting for Contingencies*. Determinations should be made of the

probability that the increase will be retroactive and of whether the amount is reasonably estimable at the audit date.

**Exhibit**

**3.90**

**Sample Wage Calculation for One Flight for a Crew Member**

Equipment		707	
Actual departure time		1724	
Ramp minutes <sup>1</sup>		97	
Scheduled minutes		99	
	<i>Day</i>		<i>Night</i>
Pay minutes <sup>2</sup>	<u>36</u>		<u>63</u>
Rate (\$) <sup>3</sup>	.8600		.8800
Total pay (\$)	30.96		55.44
Total flight pay (\$)		86.40	

<sup>1</sup> This is the flight time reported by the pilot on his time sheet.

<sup>2</sup> The union contract stipulates that the crew member will be paid the greater of ramp time or scheduled time. Also, any flight time between 18:00 and 6:00 (24 hour clock) is considered to be night flight time.

<sup>3</sup> The rate is determined by type of equipment flown, crew member seniority, and flying status as specified in the union contract.

**Auditing Considerations**

**3.91** Controls over payroll in the airline industry are similar to those in effect in other industries. When the auditor tests controls in the payroll area, the objectives include assurance of the following:

- Employees shown on the payroll records were authorized and hired by the appropriate persons.
- Payrolls were accurately calculated, using the proper measures of service time and the authorized rates for reimbursement.
- Payroll deductions were determined in accordance with legal requirements or employee authorizations and were paid to the government, unions, and other parties.
- Payroll transactions were properly recorded at the dates that wages were earned or paid, whichever was appropriate.
- Payroll expenses were charged against operations in the proper accounting period.

**3.92** In addition to the procedures normally applied in testing payroll transactions, such as system review and the application of analytical procedures to test the overall reasonableness of the various categories of payroll expense, the following procedures should be considered when testing the payroll of flight personnel:

- Documentation and testing of the internal controls in effect for the transmittal of flight times to the payroll department.
- Verification of crew members' seniority by examination of their personnel records.
- Testing of scheduled minutes for reasonableness by comparison with the airline's timetable of arrivals and departures.

- Testing of ramp hours by agreeing arrival and departure times with the flight logs.
- Tests of the split between day and night hours, as well as the calculation of hours to be paid (ramp hours or scheduled hours).
- Tests of the type of equipment flown by reference to the flight logs.
- Verification of pay rates applied to hours to be paid by agreement with the union contract.
- Tests of the accumulated vacation time and credit plan account hours.
- Discussion of the status of union contract negotiations with company officials.

## Fixed Assets and Depreciation Policies

**3.93** An air carrier's fixed assets generally consist of flight equipment, ground property and equipment, and capital leases. Rotable parts and assemblies and work-in-progress accounts used to accumulate costs to be capitalized are also classified as fixed assets. Some air carriers include progress payments on flight equipment purchase contracts made to aircraft manufacturers as fixed assets; however, some carriers include these under other noncurrent asset captions.

**3.94** Flight equipment consists of airframes, engines, and improvements to owned or leased aircraft. Flight equipment is classified as operating or nonoperating in accordance with DOT regulations. Operating property and equipment include all items in use in air transportation services or in services related to air transportation. In addition, property and equipment undergoing overhaul, modification, or repair and property and equipment held for standby use (ready for immediate use as backup) remain in the operating accounts.

**3.95** Ground property and equipment consist of land, buildings, leasehold improvements (such as those made in passenger and cargo terminals), and equipment (including that used to service aircraft and traffic loads on airport ramps and in terminals, to prepare and service food, to maintain flight and ground properties, and to conduct sales, training, and other office functions).

**3.96** Capital leases recorded by an air carrier include leases that meet the requirements for capitalization of FASB Statement No. 13, *Accounting for Leases*, as amended, and related interpretations. Both flight equipment and ground property and equipment may be acquired through capital leases.

**3.97** The auditor should adopt procedures to determine that the aircraft exist and are owned by the carrier. This is in addition to the usual audit procedures performed on fixed assets, other than rotatable parts. Such steps may include:

- Physical inspection of aircraft.
- Review of flight logs.
- Confirmation with the FAA that the carrier owns the aircraft.

## Elements of Asset Valuation

**3.98** The total cost recorded by the air carrier for property and equipment includes all expenditures applicable to its acquisition. These include the manufacturer's sales price, sales tax, freight costs, and costs of any additions, improvements, and modifications. In addition, interest related to funds for major project expenditures (such as progress payments on aircraft purchase

contracts and many construction projects) generally are capitalized as part of the cost of the asset and disclosed in accordance with FASB Statement No. 34, *Capitalization of Interest Cost*.

## Purchase Incentives

**3.99** Airlines frequently negotiate purchase incentives with aircraft manufacturers whereby, as an inducement to purchase a particular manufacturer's aircraft, the manufacturer will issue credits, which can be used for the purchase of spare parts but may not be applied as part of the purchase price of aircraft. Examples of other incentives are guaranteed trade-in values and purchase credits for flight crew training equipment (flight simulators). For accounting purposes, though, the credit can be applied as a reduction of the purchase price of the aircraft or amortized over the life of the related aircraft.

## Depreciation

**3.100** The function of depreciation is to allocate, over the expected period of use, the cost of the asset and any capitalized improvements, less estimated residual value. This is accomplished through the use of any acceptable depreciation method. The straight-line method is the prevalent one in the industry.

**3.101** A depreciation method may be applied to a single asset (unit depreciation) or to a group or pool of assets that are similar in nature (group depreciation). Under the unit method, the airline depreciates the cost of the individual items of property and equipment. Under the group method, the airline depreciates the aggregate cost of a group of equipment that is fairly homogeneous, despite differences in the service lives of individual items.

**3.102** An air carrier can use unit or group depreciation methods on different groups of assets. Group depreciation usually is applied to groups of assets that are significant in number but have relatively small unit values, such as rotatable parts and assemblies. In these cases, the ease of application is the basis of selection between the two methods. Unit depreciation is generally used for other fixed assets, such as aircraft and engines, that have large unit costs and are comparatively few in number.

**3.103** The period over which an asset is depreciated (its expected useful life) and its estimated residual value are determined on the basis of many factors. Aircraft are maintained in relatively the same condition throughout their service lives; therefore, property and equipment are replaced primarily because of market growth, technological developments, operating cost efficiency, and revenue-generating capability. Because such factors may affect each carrier in a different way, various air carriers often have different estimated useful lives for the same type of equipment. Residual values for the same type of equipment also vary among air carriers for the same reason. The determination of aircraft lives and residual values also varies according to each company's projections of when aircraft will be replaced, its ability to finance replacements, length of flights, number of takeoffs and landings, and similar factors affecting the cost of maintaining aircraft in flying condition.

**3.104** Once depreciation of an aircraft begins, it continues until the aircraft is permanently removed from service and is being held for sale or other disposal. Accordingly, depreciation continues even if the aircraft is temporarily out of service, for example, because of strikes, lack of traffic, or other grounding reasons.

## Leased Property and Equipment

**3.105** All leases should be classified as either capital or operating in accordance with FASB Statement No. 13, *Accounting for Leases*. That statement contains a number of definitions, and a carrier should review it and all its amendments and interpretations carefully before determining whether a lease is capital or operating. (Subleases of equipment should be reviewed for classification in the same manner as all other leases.)

**3.106** Although the practice is uncommon, some air carriers lease fixed assets to other carriers. The carrier should review such leases to determine that they are classified and accounted for in accordance with the provisions of FASB Statement No. 13 and all its interpretations and amendments.

**3.107** Specific criteria apply to leases involving government-owned property (for example, municipally operated airports). FASB Interpretation No. 23, *Leases of Certain Property Owned by a Governmental Unit or Authority*, issued in August 1978, states that, if certain conditions are met, such leases should be classified as operating. (If the conditions are not met, the lease is subject to FASB Statement No. 13 criteria for classifying leases not involving government-owned property.) The most significant condition listed in FASB Interpretation No. 23 is the following:

The lessor, or in some cases a higher governmental authority, has the explicit right under the lease agreement or existing statutes or regulations applicable to the leased property to terminate the lease at any time during the lease term, such as by closing the facility containing the leased property or by taking possession of the facility.

## Disposals of Property and Equipment

**3.108** An airline can dispose of property and equipment either by sale or by involuntary conversion. For such property the difference between the proceeds realized on a sale or involuntary conversion and the cost of the property less accumulated depreciation is recorded as a nonoperating gain or loss.

**3.109** Aircraft held for sale are not carried at amounts in excess of net realizable value. If aircraft remain unsold for a period of time, it may indicate that the carrying value is too high. Where applicable, the auditor should review the sales prices of similar aircraft and, perhaps, the book value that other carriers assign to similar aircraft. This information is filed with the DOT under part 241 of its economic regulations and is available upon request. The information may provide a basis for evaluating net realizable value of unsold aircraft.

**3.110** Occasionally, a carrier retires a major portion of its fleet. At such a time, in addition to determining that the value of the aircraft is not in excess of net realizable value, the auditor should focus attention on the carrying value of the related rotatable and expendable parts. Those parts that can be used only on the retired aircraft and those whose carrying value exceeds net realizable value are written down.

## Developmental and Preoperating Costs

**3.111** Developmental and preoperating costs, as the terms are used in this guide, are not considered research and development costs within the meaning of FASB Statement No. 2, *Accounting for Research and Development Costs*.

## Nature of the Costs

[3.112] [Deleted—See SOP 88-1, *Accounting for Developmental and Preoperating Costs, Purchases and Exchanges of Take-off and Landing Slots, and Airframe Modifications*, which is included as Appendix A of this guide, for a discussion of accounting for developmental and preoperating costs.]

## Deferred Costs

[3.113—3.114] [Deleted—See SOP 88-1, *Accounting for Developmental and Preoperating Costs, Purchases and Exchanges of Take-off and Landing Slots, and Airframe Modifications*, which is included as Appendix A of this guide, for a discussion of accounting for developmental and preoperating costs.]

## Criteria for Deferral

[3.115—3.116] [Deleted—See SOP 88-1, *Accounting for Developmental and Preoperating Costs, Purchases and Exchanges of Take-off and Landing Slots, and Airframe Modifications*, which is included as Appendix A of this guide, for a discussion of accounting for developmental and preoperating costs.]

## Auditing Considerations

[3.117] [Deleted—See SOP 88-1, *Accounting for Developmental and Preoperating Costs, Purchases and Exchanges of Take-off and Landing Slots, and Airframe Modifications*, which is included as Appendix A of this guide, for a discussion of accounting for developmental and preoperating costs.]

## Rotable and Expendable Parts

3.118 Rotable parts and assemblies of significant value are classified along with flight equipment as fixed assets, and expendable parts are classified as current assets.

3.119 Both rotable and expendable parts relate to flight equipment. Their classification ordinarily depends on the carrier's maintenance program.

3.120 Some carriers base the distinction between rotable and expendable parts on manufacturer or engineering studies, while other carriers have a unit value limitation below which a rotable part becomes an expendable part.

3.121 Because they are fixed assets, the asset valuation of rotable parts and assemblies is similar to that of all other property and equipment. Rotable parts and assemblies are normally depreciated over their useful lives or service lives according to a group method of depreciation. Generally, the cost of repairing rotatables is charged to expense as it is incurred.

3.122 Expendable parts are recorded at cost in a current asset account for spare parts and supplies, which is similar in nature to a prepaid expense, and are charged to expense as they are used. Materials and supplies held in small quantities and purchased as needed are charged to expense when they are purchased.

3.123 Reusable spare parts and supplies recovered in connection with construction, maintenance, or retirement of property and equipment are included with expendable parts at the average cost of comparable items. This valuation is typically based on the condition of the part or group of parts and their continuing utility.

3.124 An airline generally establishes an allowance for obsolescence to distribute the cost of the base support stock of expendable parts over the



service lives of the related equipment. In making this calculation, the carrier can classify parts by type of aircraft. The carrier also takes into account the estimated useful life of each aircraft fleet, the estimated cost of expendable parts expected to be on hand at the end of the useful life, and the estimated salvage value of the parts.

**3.125** Typically, the provision is made by dividing the net book value of the spare parts (cost or average cost of the parts less accumulated allowances for obsolescence) by the remaining useful or service life of the aircraft to which they relate. A good management practice would be to review the allowance accounts periodically for reasonableness in relation to changes in technology and changes in the estimated useful or service lives of the aircraft.

### **Auditing Considerations**

**3.126** The auditor usually can test controls over expendable and rotatable parts, looking for controls over such functions as receiving and shipping (to line stations or maintenance shops), parts requisitioning, surplus and obsolescence parts declaration, scrap sales, and physical inventory verification. The auditor may observe the physical counting of the expendable and rotatable parts or perform other procedures to determine the reasonableness of the inventory quantities of these items, such as test counts on a cycle count basis, confirmation of line stores and inventory quantities with the station personnel, and cutoff work on receiving and shipping. In addition, customary inventory procedures to discover surplus and obsolete parts and to determine the realizability of the related costs should also be performed. Furthermore, the auditor should test the assumptions employed in determining the provision for obsolescence and fleet phase-out by referring to engineering or management studies of market and salvage values and useful or service lives.

### **Take-off and Landing Slots**

**3.127** See SOP 88-1, *Accounting for Developmental and Preoperating Costs, Purchases and Exchanges of Take-off and Landing Slots, and Airframe Modifications*, which is included as Appendix A of this guide, for a discussion of accounting for take-off and landing slots.

## Chapter 4

### ***Regulatory Matters***<sup>[3]</sup>

[Chapter deleted as the result of changes in regulation of the industry.]

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<sup>[3]</sup> [Footnote deleted.]

## Chapter 5

### ***Illustrative Financial Statements***

5.01 The following sample financial statements of an airline are included for illustrative purposes only and are not intended to establish reporting requirements. Furthermore, the dollar amounts shown are illustrative only and are not intended to indicate any customary relationship among accounts. The sample financial statements do not include all of the accounts and transactions that might be found in practice. The notes indicate the subject matter generally required to be disclosed, but they should be expanded, reduced, or modified to suit individual circumstances or materiality considerations. In addition to the illustrative notes that are presented, some of which are more or less peculiar to airlines, the notes to an airline's financial statements should include any other appropriate disclosures, such as information concerning related-party transactions and subsequent events.

**Example Air Lines, Inc.**  
**Balance Sheets**  
**December 31, 19X9 and 19X8**

(in thousands)

<u>Assets</u>	<u>19X9</u>	<u>19X8</u>	<u>Liabilities and Stockholders' Equity</u>	<u>19X9</u>	<u>19X8</u>
Current assets			Current liabilities		
Cash	\$ 16,673	\$ 36,745	Current installments of long-term debt (note 3)	\$ 45,859	\$ 38,153
Short-term investments, at cost, which approximates market	10,053	—	Current portion of capital leases (note 2)	5,755	5,237
Receivables, principally traffic, less allowance for doubtful receivables (\$1,045 in 19X9 and \$2,428 in 19X8)			Accounts payable	47,161	39,450
Expendable parts, less allowance for obsolescence (\$2,989 in 19X9 and \$2,390 in 19X8)	77,924	53,168	Air traffic liability	56,174	42,621
Prepaid expenses	18,382	16,983	Accrued expenses	20,906	21,913
Total current assets	<u>126,465</u>	<u>111,082</u>	Total current liabilities	<u>175,855</u>	<u>147,374</u>
			Long-term obligations		
			Debt (note 3)	174,545	229,291
			Capital leases (note 2)	93,250	98,532
				<u>267,795</u>	<u>327,823</u>



## 5.03

**Example Air Lines, Inc.**  
**Statements of Earnings and Retained Earnings**  
**Years Ended December 31, 19X9 and 19X8**

(in thousands)

	<u>19X9</u>	<u>19X8</u>
Operating revenues		
Passenger	\$559,715	\$463,271
Cargo	63,366	48,854
Mail	10,867	10,562
Public service revenues (note 6)	10,472	13,671
Other	12,646	15,106
Total operating revenues	<u>657,066</u>	<u>551,464</u>
Operating expenses		
Flying operations	200,468	156,839
Maintenance	115,013	106,537
Passenger service	56,213	46,218
Aircraft and traffic servicing	79,787	53,782
Promotion and sales	76,411	63,186
General and administrative	31,687	33,769
Depreciation and amortization	49,547	49,235
Total operating expenses	<u>609,126</u>	<u>509,566</u>
Operating income	<u>47,940</u>	<u>41,898</u>
Nonoperating expense and (income)		
Interest expense	27,803	32,779
Interest capitalized	(2,127)	(3,078)
Gain on disposition of property and equipment	(3,644)	(1,786)
Other, net	(690)	4,204
Total nonoperating expense, net	<u>21,342</u>	<u>32,119</u>
Earnings before income taxes	26,598	9,779
Income taxes (note 4)	956	570
Net earnings	25,642	9,209
Retained earnings at beginning of year	76,570	67,361
Less cash dividends (\$.50 per share)	(3,577)	—
Retained earnings at end of year	<u>\$ 98,635</u>	<u>\$ 76,570</u>
Net earnings per common share	<u>\$ 3.58</u>	<u>\$ 1.29</u>

See accompanying notes to financial statements.

## 5.04

**Example Air Lines, Inc.**  
**Statements of Changes in Financial Position \***  
**Years Ended December 31, 19X9 and 19X8**  
(in thousands)

	<u>19X9</u>	<u>19X8</u>
<b>Working capital provided</b>		
Net earnings	\$ 25,642	\$ 9,209
Items that do not use (provide) working capital		
Depreciation and amortization	49,547	49,235
Deferred income taxes	203	—
Gain on disposition of property and equipment	(3,644)	(1,786)
Other	461	5,446
Working capital provided from operations	<u>72,209</u>	<u>62,104</u>
Proceeds from new borrowings	2,107	3,327
Proceeds from disposition of property and equipment	4,434	6,052
Total working capital provided	<u>78,750</u>	<u>71,483</u>
<b>Working capital used</b>		
Additions to property and equipment, net of advance payments	25,834	16,786
Advance payments on equipment purchase contracts	2,665	2,914
Current installments and repayments of long-term debt	59,772	69,312
Cash dividends	3,577	—
Total working capital used	<u>91,848</u>	<u>89,012</u>
Total decrease	<u>\$(13,098)</u>	<u>\$(17,529)</u>
<b>Changes in components of working capital</b>		
Increase (decrease) in current assets		
Cash	\$(20,072)	\$ 7,908
Short-term investments	10,053	(10,042)
Receivables, net	24,756	(14,135)
Expendable parts, net	1,399	340
Prepaid expenses	(753)	223
(Increase) decrease in current liabilities		
Current installments of long-term obligations	(8,224)	(6,515)
Accounts payable	(7,711)	2,263
Air traffic liability	(13,553)	390
Accrued expenses	1,007	2,039
Total decrease	<u>\$(13,098)</u>	<u>\$(17,529)</u>

See accompanying notes to financial statements.

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\* [Note: FASB Statement No. 95, *Statement of Cash Flows*, as amended, supersedes APB Opinion No. 19, *Reporting Changes in Financial Position*, and requires a statement of cash flows as part of a full set of financial statements for all business enterprises in place of a statement of changes in financial position. A statement of cash flows will be updated in future editions.]

## 5.05

**Example Air Lines, Inc.**  
**Notes to Financial Statements**  
**Years Ended December 31, 19X9 and 19X8**

**1. Summary of Significant Accounting Policies**

The following is a summary of significant accounting policies of the company that are not disclosed elsewhere in the accompanying financial statements or related notes.

*Expendable parts.* Flight equipment expendable parts are priced at average cost. An allowance for obsolescence is provided for flight equipment expendable parts to allocate the costs of these assets, less estimated residual value, over the useful lives of the related aircraft and engines.

*Preoperating costs.* Significant costs, such as those for traffic promotion and personnel training, related to the inauguration of service over major new routes and to the introduction of new types of aircraft are deferred and amortized over a period of two to five years.

*Property and equipment.* Flight equipment and other property are carried at cost. Major additions, betterments, and renewals are capitalized. Maintenance and repairs, including major overhauls, are charged to operating expenses as they are incurred. Depreciation and amortization to estimated residual values are computed on the straight-line basis over the estimated useful lives of the related assets, which are fourteen years for new aircraft, to a common retirement date of 19Y6 for used aircraft and all related flight equipment, and two to ten years for other property and equipment.

At the time assets are retired or otherwise disposed of, the cost and accumulated depreciation and amortization are removed from the related accounts, and the difference, net of proceeds, is recorded as a gain or loss.

Interest related to deposits on aircraft purchase contracts is capitalized and amortized over the useful lives of the aircraft.

Leases primarily for flight equipment are classified and accounted for as capital leases under SFAS No. 13.

*Passenger and cargo revenues.* Passenger and cargo sales are recognized as earned revenue when the transportation is provided.

*Investment tax credits.* [Deleted—Investment tax credits are generally not available for equipment placed in service after 1985.]

*Earnings per share.* Earnings per common share are based on the weighted average number of common shares outstanding during the year.

*Segment information.* The company operates within one industry (air transportation), and, accordingly, no segment information is provided.

**2. Flight Equipment**

The company was committed at December 31, 19X9, to acquire aircraft at a total cost of \$ 25,100,000, of which \$ 2,665,000 has been paid in advance.

The company leases, or has constructed as leasehold improvements on leased real property, its principal facilities, including airport and terminal facilities, sales offices, overhaul and maintenance bases, training center, and



general offices. The leases are generally on a long-term net rent basis whereby the company pays taxes, maintenance, insurance, and certain other operating expenses applicable to the leased premises. Management expects that, in the normal course of business, leases that expire will be renewed or replaced by other leases.

The assets and related obligations for capital leases were initially recorded at amounts equal to the present value of future minimum lease payments using incremental borrowing rates at the inception of the leases. The assets are amortized over the life of the lease by the straight-line method. Interest expense is accrued on the basis of the outstanding obligations under capital leases. Leased equipment under capital leases is included in the balance sheets at December 31, 19X9 and 19X8, as follows.

	<u>19X9</u>	<u>19X8</u>
	(in thousands)	
Flight equipment	\$105,350	\$105,350
Other property and equipment	6,765	5,250
	<u>112,115</u>	<u>110,600</u>
Less accumulated amortization	33,635	26,544
	<u>\$ 78,480</u>	<u>\$ 84,056</u>

At December 31, 19X9, minimum lease payments under leases expiring after December 31, 19Y0, were as follows.

	<u>Capital leases</u>	<u>Operating leases</u>
	(in thousands)	
19Y0	\$ 11,218	\$ 7,213
19Y1	9,911	6,789
19Y2	9,595	6,506
19Y3	9,595	6,318
19Y4	9,595	6,108
Thereafter	114,933	84,663
Total minimum lease payments	<u>164,847</u>	<u>\$117,597</u>
Less amount representing interest *	<u>65,842</u>	
Present value of obligations— capital leases	99,005	
Less current portion of capital leases	5,755	
Long-term obligations — capital leases	<u>\$ 93,250</u>	

\* Amount necessary to reduce minimum lease payments to present value calculated at the company's incremental borrowing rates at the inceptions of the leases.

Total rental expense for all operating leases, net of sublease rentals, was \$10,988,000 for 19X9 and \$10,225,000 for 19X8. Contingent rentals, sublease rentals, and rental payments under leases with terms of a month or less that were not renewed are not disclosed separately since they are immaterial.

The above minimum rental payments and total rental expense do not include landing fees, which amounted to \$11,709,000 for 19X9 and \$10,335,000 for 19X8.

### 3. Long-Term Debt

Long-term debt is summarized as follows.

	<u>19X9</u>	<u>19X8</u>
	(in thousands)	
Notes payable to banks, 1/4 to 3/4 over prime and 8% to 9%, payable in varying installments to 19Y9	\$ 96,811	\$119,644
Notes payable to institutional lenders, 5 1/4% to 10 1/2%, payable to 20X1, of which \$11,786,000 is secured by real property	48,258	53,847
Notes payable, other, 1% over prime, payable to 19Y7	<u>75,335</u>	<u>93,953</u>
Total long-term debt	220,404	267,444
Less current installments of long-term debt	<u>45,859</u>	<u>38,153</u>
Net long-term debt	<u><u>\$174,545</u></u>	<u><u>\$229,291</u></u>

The aggregate amounts of principal maturities of debt outstanding at December 31, 19X9, for the five subsequent years are as follows.

19Y0	\$45,859,000
19Y1	35,757,000
19Y2	36,991,000
19Y3	37,496,000
19Y4	10,908,000

### 4. Income Taxes

Income tax expense is comprised as follows.

	<u>19X9</u>	<u>19X8</u>
	(in thousands)	
Current income taxes		
Federal	—	—
State	\$ 753	\$ 570
Total current income taxes	<u>753</u>	<u>570</u>
Deferred income taxes		
Gross deferred taxes arising from		
Accelerated depreciation	9,605	8,572
Other timing differences	3,374	(4,145)
Total gross deferred taxes	<u>12,979</u>	<u>4,427</u>
Tax credits applied	<u>12,776</u>	<u>4,427</u>
Net deferred income taxes—state	<u>203</u>	<u>—</u>
Total current and deferred income taxes	<u><u>\$ 956</u></u>	<u><u>\$ 570</u></u>

Taxes are deferred as shown above because, under the applicable tax statutes and regulations, some items of income and expense are not recognized in the same years for tax reporting and financial statement purposes.

The difference between income tax expense and that derived by applying the statutory federal income tax rate to earnings before income taxes is shown below.

	<u>19X9</u>	<u>19X8</u>
	(in thousands)	
Computed taxes at statutory rate	\$12,767	\$ 4,693
Increases (decreases) in computed taxes resulting from		
Investment tax credits applied	(12,776)	(4,427)
Other items, individually insignificant	<u>965</u>	<u>304</u>
	<u>\$ 956</u>	<u>\$ 570</u>

**5. Contingent Liabilities**

The company is a defendant in several legal actions regarding environmental issues (primarily noise), alleged employee discrimination, and other matters.

Because of the unsettled status of the law involved in many of the areas, the outcome of these actions is difficult to predict. It is, however, the present opinion of management, based on advice from legal counsel, that final disposition of these matters will have no material adverse effect on the company's financial statements.

**6. Public Service Revenues**

[Deleted as the result of changes in regulation of the industry.]

**Appendix A****Statement of  
Position****88-1****Accounting for Developmental  
and Preoperating Costs,  
Purchases and Exchanges of  
Take-off and Landing Slots,  
and Airframe Modifications**

**NOTICE TO READERS**

Statements of Position of the Accounting Standards Division present the conclusions of at least a majority of the Accounting Standards Executive Committee, which is the senior technical body of the AICPA authorized to speak for the Institute in the areas of financial accounting and reporting. Statement on Auditing Standards No. 69, *The Meaning of Present Fairly in Conformity with Generally Accepted Accounting Principles in the Independent Auditor's Report*, identifies AICPA Statements of Position as sources of established accounting principles that an AICPA member should consider if the accounting treatment of a transaction or event is not specified by a pronouncement covered by Rule 203 of the AICPA Code of Professional Conduct. In such circumstances, the accounting treatment specified by this Statement of Position should be used or the member should be prepared to justify a conclusion that another treatment better presents the substance of the transaction in the circumstances. However, an entity need not change an accounting treatment followed as of March 15, 1992 to the accounting treatment specified in this Statement of Position.

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## SUMMARY

This statement of position (SOP) provides guidance on applying generally accepted accounting principles in accounting for developmental and preoperating costs, purchases and exchanges of take-off and landing slots, and airframe modifications. Briefly, the SOP recommends the following:

- Developmental costs related to preparation of operations of new routes should not be capitalized as previously permitted under *Audits of Airlines*, the AICPA Industry Audit Guide. However, preoperating costs related to integration of new types of aircraft would continue to be eligible to be capitalized, as permitted by the guide. The amortization period for such deferred preoperating costs should begin when the new aircraft is ready to be placed in service.
- The costs of acquiring take-off and landing slots are identifiable intangible assets that should be accounted for in conformity with Accounting Principles Board Opinion No. 17, *Intangible Assets*. When airlines exchange slots, the slots acquired should be recorded in conformity with APB Opinion No. 17 and APB Opinion No. 29, *Accounting for Nonmonetary Transactions*.
- The costs associated with airframe modifications that enhance the usefulness of the aircraft should be capitalized and depreciated over the estimated useful life of the aircraft or the modifications, whichever is less. The cost of the replaced asset net of accumulated depreciation and anticipated recovery value should be charged to income in the current period.

The provisions of this statement are effective for transactions initiated after September 30, 1988.

# **Accounting for Developmental and Preoperating Costs, Purchases and Exchanges of Take-off and Landing Slots, and Airframe Modifications**

## **Industry Developments**

### ***Deregulation***

1. In 1981, when the AICPA Industry Audit Guide, *Audits of Airlines*, was issued, airlines were regulated by the Civil Aeronautics Board (CAB). However, the Airline Deregulation Act of 1978 (ADA) terminated the CAB's authority over rates and route access on January 1, 1983, and its responsibility for evaluating the fitness of new entrants on January 1, 1985.

2. In addition to liberalizing the general provisions for awarding certificates to new airlines, the ADA established new provisions for automatic market entry and issuance of experimental certificates on a temporary basis. Other provisions eased restrictions on suspension and reduction of service and expedited market entry and exit. As a result, the ADA has enabled many new entrants to gain access to domestic markets and has allowed trunk, local service, and commuter carriers to expand and otherwise alter their service patterns. Airlines are now classified as certificated scheduled (route) airlines, certificated nonscheduled (charter) airlines, air-cargo airlines, and intrastate airlines. Within the route airline classification, airlines are now identified as major, national, regional, and air-taxi operators.

3. In addition, the ADA transferred responsibility for overseeing airline operations to the Department of Transportation (DOT). The DOT has assumed responsibility for both monitoring the air safety and fitness characteristics of the various airlines and approving merger proposals and sales of airline routes. In this new competitive environment, marketing strategies, pricing of tickets, and costs of service have become important business issues for the airlines.

### ***International Air Transportation***

4. Airline operations between countries continue to be governed by specific bilateral agreements between the countries. The access of U.S. airlines to routes between the United States and other countries requires the approval of the respective countries for both landing rights at specified airports and frequency of flights.

5. The International Air Transport Association (IATA), a voluntary organization of international airlines, was established in 1946 to negotiate international air fares, cargo rates, conditions of service, and ancillary matters. The Federal Aviation Act required U.S. airlines participating in such an organization to obtain approval from the CAB. In 1946, the CAB granted U.S. airlines immunity from antitrust laws, permitting them to participate in IATA conferences for the purpose of establishing fares and rates. Agreements reached by the airlines at those meetings are subject to the approval of the respective governments.

6. In anticipation of deregulation in the United States, IATA established two types of airline participation: one deals with facilitation matters and is mandatory for all members; the other sets fares and rates for air transportation. Participation in the latter is optional, but a member choosing to participate in fare and rate conferences must do so for all areas served.



### ***Air Transport Association of America (ATA)***

7. Founded in 1936, the Air Transport Association of America is a trade and service organization representing member U.S. scheduled airlines. The joint interests of the airlines as an industry are expressed through a system of councils and related committees on which airline and ATA representatives work together.

8. Because travel agent sales constitute a significant portion of the airline business, the ATA designed the Area Settlement Plan (ASP), which is operated by the Airlines Reporting Corporation. The plan enables each travel agent to submit one sales report to an area processing center that then distributes the agent's sales and receivable transactions to the respective airlines. Because the dollar volumes involved and competitive needs for sales information are substantial, the ASP program requires continuous monitoring and updating. This service is provided to the airlines and travel agents by the ATA.

9. Other plans, called bank settlement plans (BSPs), have been established recently in Japan, the United Kingdom, the Federal Republic of Germany, and other countries. The BSPs, although not identical to the ASP, contain many of the same features.

### ***Regional Airline Association***

10. The Regional Airline Association, formerly the Commuter Airline Association, is the national association of member airlines engaged in scheduled air transportation of passengers and cargo in local, feeder, and short-haul markets throughout the United States and its territories. In addition, the association's finance and accounting committee has developed a uniform system of accounts for regional airline use.

### ***Regulations and Reporting***

11. Although the CAB is no longer in existence, airline accounting information continues to be reported to the DOT in conformity with the Uniform System of Accounts and Reports (USAR) previously issued by the CAB. The USAR consists of a list of titles and account numbers and instructions for their use. DOT—and, previously, CAB—policy has been to conform its accounting requirements to generally accepted accounting principles.

12. Financial data and reports based on the USAR must be filed with the DOT on Form 41 quarterly and annually. Securities and Exchange Commission filings and annual financial reports frequently follow the wording and captions of the USAR accounts.

### ***Computerized Reservation Systems (CRSs)***

13. Computerized reservation systems (CRSs) developed by several airlines (CRS vendors) have significantly affected the industry. The systems are marketed to travel agents as an efficient method of accessing airline schedules and information regarding hotels, car rentals, and so forth. The CRSs permit the agency user to, among other things, check seat availability, make reservations, and print tickets for flights on participating domestic and international airlines. In 1984, the CAB ordered the elimination of display preference in the systems for all participating airlines (those paying a fee to participate) and required CRS vendors to charge uniform booking fees for airline users of CRSs, based on the level of service received. Nonparticipating airline schedules are also included in the CRSs for informational purposes.

14. The CRS vendors receive booking fees per segment from participating airlines on which flights are booked and user fees from the travel agencies.

Some airlines have contracted with CRS vendors to process all of their reservations through the CRS vendors' reservation systems, thereby eliminating the need for the airlines' in-house reservation systems.

15. The CRSs increase the amount of information that may be captured online at the time the reservation is booked. This information normally includes passenger name, ticket number, the travel agent selling the ticket, itinerary, class of service, and price.

### **Marketing Arrangements**

16. One of the developments in the deregulated environment is the *hub and spoke strategy* that has been adopted by many airlines. Under this concept, the airline identifies certain cities as hub cities to serve both long-haul flights and connecting short-haul flights. This strategy has led carriers operating from a hub city to enter into agreements with other carriers to coordinate flight schedules at the hub city to facilitate the interchange of passengers. The advantage to both airlines is that each feeds passengers to the other. The agreements may include joint promotion and advertising efforts, use of the major carrier's reservation system, and dual designation of flights in a CRS or other reservation systems and the official airline guide. The dual designation of flights (that is, a national or regional flight arriving at or departing the hub city using the same flight number as the major carrier) is the subject of controversy within the industry.

### **Commissions**

17. Before deregulation, commissions to travel agents were limited to amounts authorized by the CAB or foreign governments. Since deregulation, a myriad of commission arrangements has evolved both domestically and internationally. In addition to basic commissions, travel agents may be entitled to incentive commissions for certain routes, travel periods, and defined volumes. The independent accountant should consider the increasingly significant cost of travel agents' commissions when designing compliance and substantive tests of commissions expense.

### **Accounting Issues**

18. The guidance presented in this statement modifies certain aspects of the guide and addresses issues that have developed as a result of deregulation.

### **Developmental and Preoperating Costs**

19. Developmental and preoperating costs are as follows:

*Developmental costs* include those types of costs directly related to the development of new routes (or extension of existing routes), such as advertising and promotion expenses, related travel and incidental expenses, and expenses of regulatory proceedings.

*Preoperating costs* include flight crew training, maintenance training, pre-revenue flight expenses, insurance, and depreciation. Like developmental costs, preoperating costs relate directly to specific preoperating projects, such as preparation for operation of new routes . . . or integration of new types of aircraft . . .

20. Before deregulation, costs meeting the foregoing criteria for developmental and preoperating costs were normally deferred and amortized over the expected period of benefit, generally two-to-five years. In that regulated environment, the expected future benefit and recoverability of such costs was generally not in doubt.

21. Under the ADA, new domestic routes can be obtained more readily without regulatory delay, and there is presently little domestic protection against new entrants. The designation of additional U.S. cities as gateway cities with direct service to various international cities, as well as the increased competition over traditional international routes, has altered the historical competitive relationship and earnings potential that previously existed on given routes. Therefore, the future benefits to be derived from new routes may be uncertain in the present operating environment.

### ***Division's Conclusions***

22. Because of the current deregulated environment and the uncertainty regarding the recoverability of route developmental costs, the majority of the Accounting Standards Executive Committee (AcSEC) believes that developmental costs related to preparation of operations of new routes should not be capitalized, as previously permitted under the guide. Route expansion or alteration has become a recurring activity among the airlines, and any related cost is considered a normal and recurring cost of conducting business.

23. Preoperating costs related to the integration of new types of aircraft would continue to be eligible to be capitalized, as permitted in the guide.

24. A minority of AcSEC believes that the current accounting model permits the capitalization of developmental costs. They believe that the airline industry should not be precluded from capitalizing those costs.

25. After the decision has been made to defer certain preoperating costs, questions arise about the appropriate cost-accumulation periods (in other words, the end-of-the-deferral period) and the date on which amortization of deferred costs should begin. Generally, current practice is to terminate the cost-deferral period and, consequently, begin the cost-amortization period on the date scheduled air service commences. AcSEC believes that it is inappropriate to defer preoperating costs after the new aircraft type is ready to be placed in service and that the amortization period for such costs should begin when the new aircraft is ready to be placed in service.

### ***Take-off and Landing Slots***

26. New entrants to a market and airlines expanding in markets need gates, and take-off and landing slots available to them at the airports in those markets. At certain airports, the frequency of take-offs and landings at all times is generally at capacity. At other airports, the slots during popular travel times are at capacity.

27. Because an airline cannot enter a market where no slots are available, the DOT has adopted a rule under which airlines may sell or trade slots. These transactions frequently include the sale of or access to gates for the acquiring airlines. Although slots, particularly those in high-demand time periods, have always had intrinsic value, the DOT policy of transferability through sale or exchange has made the slot a salable right.

### ***Division's Conclusions***

28. When airlines buy slots, the recorded asset is an identifiable intangible asset that should be accounted for in conformity with Accounting Principles Board Opinion No. 17, *Intangible Assets*. When establishing a policy for amortization of the cost of such intangible assets, the following factors should be considered:

- The accelerated pace of change in the airline industry and the effects of competition among airports

- The uncertainty of the continuation of the current governmental policy regarding sale of and access to landing slots
- The terms of existing facility leases at airports
- Probability of new airport construction to serve the same metropolitan area
- Traffic patterns and trends and local operating restrictions

29. When an airline exchanges slots with another airline, the slots acquired in the exchange are nonmonetary assets that should be recorded in conformity with APB Opinion No. 29, *Accounting for Nonmonetary Transactions*, and amortized in accordance with APB Opinion No. 17.

### ***Airframe Modifications***

30. Historically, airlines have undertaken major programs to modify interior configurations of certain aircraft types—including the reconfiguration and replacement of seats, galley equipment, and storage space—in response to market forces and passenger demands. Since deregulation, such changes have been more frequent.

### ***Division's Conclusions***

31. If the modifications enhance the usefulness of the aircraft, the costs associated with the changes should be capitalized and depreciated over the estimated useful life of the aircraft or the modifications, whichever is less. The cost of the replaced asset net of accumulated depreciation and anticipated recovery value should be charged to income in the current period. However, detailed records may often be inadequate to permit identification of the cost of the replaced asset; therefore, estimates may be required.

### ***Effective Date***

32. The conclusions in this statement of position should be applied to transactions initiated after September 30, 1988. Restatement of previously issued financial statements is not permitted.

## Appendix B

### ***Schedule of Changes Made to Audits of Airlines***

<u>Reference</u>	<u>Change</u>	<u>Date</u>
General	The term "examination" has been changed to "audit" to conform to the terminology used in SAS No. 58.	October, 1990
General	The term "analytical review procedures" has been changed to "analytical procedures" to conform to the terminology used in SAS No. 56.	October, 1990
Chapter 1	Rewritten as the result of changes in regulation of the industry.	May, 1992
Paragraph 2.01	Conformed to the terminology used in SAS No. 55.	May, 1992
Paragraph 2.02	Modified to add "except, for cancellation penalties for certain fare types," to the third sentence.	May, 1992
Paragraph 2.03	Revised by the addition of control areas relating to the revenue cycle.	May, 1992
Paragraph 2.06	Deleted as the result of changes in regulation of the industry.	May, 1992
Paragraphs 2.12 and 2.13	Replaced by paragraphs 2.12 through 2.16 to conform to the terminology used in SAS No. 55; subsequent paragraphs renumbered.	May, 1992
Renumbered paragraph 2.18	Conformed to the terminology used in SAS No. 65.	May, 1992
Paragraph 2.19	Added to reflect the issuance of SAS No. 65.	May, 1992
Renumbered paragraph 2.20	Deleted as the result of changes in regulation of the industry.	May, 1992
Renumbered paragraph 2.22	References to AICPA Audit and Accounting Guide, <i>The Auditor's Study and Evaluation of Internal Control in EDP Systems</i> , and SAS No. 3 deleted.	October, 1990
Renumbered paragraphs 2.22 and 2.24	Conformed to the terminology used in SAS No. 55.	May, 1992
Renumbered paragraph 2.26	Reference to and quote from SAS No. 23 changed to reference to and quote from SAS No. 56.	October, 1990
Renumbered paragraphs 2.29, 2.30, 2.31, and 2.32	Revised to reflect changes in regulation of the industry.	May, 1992
Renumbered paragraph 2.47	Reference to CAB deleted.	May, 1992

<u>Reference</u>	<u>Change</u>	<u>Date</u>
Renumbered paragraph 2.51	Reference to SAS No. 23 changed to SAS No. 56.	October, 1990
Renumbered paragraphs 2.53, 2.55, 2.56, 2.57, 2.58, and 2.63	References to CAB changed to DOT.	May, 1992
Paragraphs 3.04—3.07	Deleted as the result of changes in regulation of the industry.	May, 1992
Paragraph 3.30	Reference to CAB deleted.	May, 1992
Paragraphs 3.42, 3.49, and 3.50	References to CAB changed to DOT.	May, 1992
Paragraph 3.62	Conformed to the terminology used in SAS No. 55.	May, 1992
Paragraph 3.63	Conformed to the terminology used in SAS No. 55; Reference to SAS No. 67 added; Additional control areas added.	May, 1992
Paragraph 3.64	Conformed to the terminology used in SAS No. 55; Reference to SAS No. 67 added.	May, 1992
Paragraphs 3.65 and 3.66	Conformed to the terminology used in SAS No. 55.	May, 1992
Paragraph 3.67 (caption)	Note reference to SOP 88-1 added.	May, 1992
Paragraph 3.77	Footnote deleted as the result of changes in regulation of the industry.	May, 1992
Paragraph 3.91	Conformed to the terminology used in SAS No. 55.	May, 1992
Paragraphs 3.94 and 3.109	Reference to CAB changed to DOT.	May, 1992
Paragraph 3.111	Reference to APB Opinion No. 17 deleted.	May, 1992
Paragraphs 3.112—3.117	Deleted by the issuance of SOP 88-1.	May, 1992
Paragraph 3.126	Conformed to the terminology used in SAS No. 55.	May, 1992
Paragraph 3.127	Added to make reference to SOP 88-1.	May, 1992
Chapter 4	Deleted as the result of changes in regulation of the industry.	May, 1992
Paragraph 5.01	Note reference to FASB Statement No. 95 added.	October, 1990
Paragraph 5.05	Investment tax credit note deleted; Note 6 (public service revenues) deleted as the result of changes in regulation of the industry.	May, 1992
Appendix A	Notice to Readers revised to reflect the issuance to SAS No. 69.	May, 1992

<u>Reference</u>	<u>Change</u>	<u>Date</u>
Glossary	Revised to reflect changes in regulation of the industry; References to CAB changed to DOT.	May, 1992

In addition to the above, notes have been added to highlight areas that will be updated in future editions. These areas include:

Chapter 5, *Illustrative Financial Statements*, will be amended to replace the statements of changes in financial position with statements of cash flows.

## Glossary

- airbill.** The nonnegotiable shipping document used by domestic air carriers as evidence of an air freight shipment. The document contains shipping instructions, commodity descriptions, and transportation charges applicable to the freight shipped. Sometimes the term is used interchangeably with *air waybill*; however, these terms are correctly synonymous only when the domestic airbill meets the uniformity requirements of the air waybill set by the Warsaw Convention. (See *air waybill*.)
- air cargo.** In the United States, the total volume of freight, mail, and express traffic that is transported by air. U.S. air cargo consists of the following classes of service: priority mail (airmail and air parcel post), nonpriority mail (airlift of first-class mail on a space available basis), foreign mail (mail destined to or from foreign countries), air express (priority movement of packages, generally under fifty pounds), and air freight (the airlift of commodities of all kinds).
- air carrier.** Any person who undertakes, whether directly or indirectly or by a lease or any other arrangement, to engage in air transportation.
- aircraft miles flown.** The miles (computed in airport-to-airport distances) for each flight stage actually completed, whether or not performed in accordance with the scheduled pattern. For this purpose, operation to a flag stop is a stage completed, even though a landing is not actually made. In cases in which the interairport distances are inapplicable, aircraft miles flown are determined by multiplying the normal cruising speed for the aircraft type by the airborne hours.
- aircraft servicing expense.** Compensation of ground personnel and other expenses incurred on the ground incident to the protection and control of the in-flight movement of the aircraft; scheduling or preparation of aircraft operational crews for flight assignment; landing and parking of aircraft; visual inspection; routing, checking, servicing, and fueling of aircraft; and other expenses incurred on the ground incident to readying for aircraft arrival and takeoff.
- airframe.** The structure of an aircraft, excluding engines and accessories. The principal parts of the airframe of an airplane include the fuselage (the body), wings, empennage (the assembly of stabilizing and control surfaces at the tail), landing gear, and nacelles or pods (engine housings).
- air freight forwarder.** Any indirect air carrier that, in the ordinary and usual course of its undertaking, (1) assembles and consolidates, or provides for assembling and consolidating of, property for shipment by air, or performs or provides for the performance of break-bulk and distributing operations for consolidated shipments, and (2) is responsible for the transportation of property from the point of receipt to the point of destination and uses, for the whole or any part of the transportation, the services of a direct air carrier.
- air traffic liability.** The value of air transportation services sold but as yet unused by the passenger, including sales for air transportation to be provided by the reporting air carrier and air transportation to be provided by another air carrier for whom sales were made. This is sometimes referred to as *unearned transportation revenue*.
- air waybill.** The nonnegotiable uniform shipping document used in air freight transportation (especially in international transportation) by air carriers as evidence of a shipment. The document contains shipping instructions,



commodity description, and transportation charged applicable to the freight shipped. While the document is standardized for international shipments by the Warsaw Convention, the term is sometimes used interchangeably with *airbill*—a largely domestic document that may or may not have uniformity within a county. (See *airbill*.)

**airworthiness.** The ability of a particular aircraft or component part to perform its function satisfactorily through a range of operations determined by the Federal Aviation Administration.

**available load.** The maximum salable load. It is the allowable gross weight, less the empty weight, less all justifiable aircraft equipment, and less the operating load (consisting of minimum fuel load, oil, flight crew, steward's supplies, etc.). For passenger aircraft, the available load must not exceed the weight of the maximum number of passengers who can be accommodated in the seats installed in the aircraft, plus the weight of the traffic that can be accommodated in the cargo space.

**available seat miles (ASMs).** The aircraft miles flown on each flight segment multiplied by the number of seats available for revenue use on that segment.

**available seats.** Installed seats in an aircraft (including seats in lounges), exclusive of any seats not offered for sale to the public by the carrier, provided that in no instance shall any seat sold be excluded from the count of available seats.

**available ton miles (ATMs).** The aircraft miles flown on each flight segment multiplied by the number of tons available for the transportation of passengers, freight, mail, and express for revenue use on that segment.

**average flight segment length.** The average distance in statute miles covered by an aircraft in revenue service from takeoff to landing.

**block-to-block aircraft hours.** The hours from the moment an aircraft first moves under its own power (including taxi time before takeoff and after landing) for purposes of flight until it comes to rest at the next point of landing. This term is sometimes referred to as *ramp-to-ramp aircraft hours*.

**bonded fuel.** Aircraft fuel imported into the United States that is destined for use only in international operations and upon which federal taxes are not levied. Such fuel must be segregated from fuel used in domestic operations and stored under a carrier's or supplier's bond that the tax-exempt fuel will be used only in international operations.

**break-even load factor.** The load factor in scheduled revenue service that is required for scheduled passenger revenue less passenger traffic expense to equal passenger capacity expense. (The split into types of cost is not strictly "fixed" versus "variable" costs as those terms are used in accounting literature. See *traffic expense* and *capacity expense*.)

**built-in overhaul.** The portion of the cost of flight equipment that represents the estimated cost of the initial overhaul of the flight equipment.

**capacity expense.** Expense related to the provision of available aircraft capacity, regardless of the degree to which that capacity is utilized.

**cargo ton mile (CTM).** One ton of cargo (freight, express, and mail) transported one mile.

**certificate of public convenience and necessity.** [Deleted as the result of changes in regulation of the industry.]

- certificated point.** A city, place, or population center authorized to receive scheduled air service under a certificate of public convenience and necessity or under an exemption issued to an air carrier.
- certificated route air carrier.** One of a class of air carriers holding certificates of public convenience and necessity issued by the DOT authorizing the performance of scheduled air transportation over specified routes and a limited amount of nonscheduled operation. This general carrier grouping includes all-purpose carriers and all-cargo carriers.
- commission override.** The payment by direct air carriers to travel agents of a higher amount of commission than the standard rate provides.
- conjunction ticket.** Two or more tickets concurrently issued to a passenger that together constitute a single contract of carriage.
- coupon.** See *flight coupon* and *ticket*.
- deplaned traffic.** A count of the number of passengers exiting and tons of cargo being unloaded from an aircraft. For this purpose, passengers and cargo on aircraft leaving a carrier's system on interchange flights are considered to be deplaning at the interchange point; and passengers and cargo moving from one operation to another operation of the same carrier, for which separate reports are required by the DOT, are considered to be deplaning at the junction point.
- developmental and preoperating costs.** Costs accumulated and deferred in connection with the alteration of operational characteristics, such as the development and preparation for operation of new routes and the integration of new types of aircraft or services.
- domestic trunk.** Domestic operation of the domestic trunk carriers. This group of carriers operates primarily within and among the fifty U.S. states over routes serving primarily the larger communities.
- dry lease.** An aircraft lease in which the lessor provides only the aircraft.
- economy class.** Transport service established for the carriage of passengers at fares and quality of service below that of coach service.
- enplaned traffic.** A count of the number of passengers boarding and tons of cargo being loaded on an aircraft. For this purpose, passengers and cargo on aircraft entering a carrier's system on interchange flights are considered to be enplaning at the interchange point; passengers and cargo moving from one operation to another operation of the same carrier, for which separate reports are required by the DOT, are considered to be enplaning at the junction point.
- expendable parts.** Parts that are ordinarily used up and replaced with new parts, as opposed to those parts that are capable of being used over and over after being refurbished (*rotable flight equipment*).
- fare.** The amount per passenger or group of persons stated in the applicable tariff for the transportation, including baggage, unless otherwise specified.
- fare dilution.** The difference between the revenue that should be received for the carriage of traffic at published full fares and the revenue that is actually received for that carriage. The fare dilution reflects the effect of discount, promotional, and other less-than-full fares on revenues.
- fare ladder (fare calculation column).** The "for issuing office only" box of a ticket containing the individual fares for each portion of a passenger's

itinerary, the sum of which constitutes the passenger's total fare for the transportation authorized by the ticket.

**first class.** Premium quality services provided to passengers.

**fixed-base operator.** One who conducts a business operation at an airport or airfield, involving the selling or servicing of aircraft, flying instructions, charter flights, etc.

**flag stop.** A point on an air carrier's certificated route that is scheduled to be served only when traffic is to be picked up or discharged.

**flight coupon.** A coupon in a ticket issued for transportation that contains the itinerary of the passenger(s) but is valid only for carriage between the passenger's point of enplanement and deplanement on a single flight, as noted on the coupon. It also includes the class of service, stopover code, carrier, date of travel, flight number, and applicable fee. (See *ticket*.)

**flight equipment.** Airframe, aircraft engines, aircraft propellers, aircraft communications and navigational equipment, miscellaneous equipment used in the operation of the aircraft, and improvements to leased flight equipment.

**flight equipment expendable parts.** Flight equipment replacement parts of a type recurrently expended and replaced rather than repaired for reuse.

**group depreciation.** A plan under which (1) depreciation is based on the application of a single depreciation rate to the total book cost of all property included in a given depreciable property and equipment account or class, despite differences in service life of individual items of property and equipment, (2) the full original cost, less any salvage realized, of a retired item of depreciable property or equipment is charged to the allowance for depreciation regardless of the age of the item, and (3) no gain or loss is recognized on the retirement of individual items.

**group ticket.** A single ticket valid for the transportation of two or more passengers over the same itinerary.

**hours per aircraft per day—carrier's equipment, revenue.** Average hours of productive use per day in revenue service of a reporting carrier's equipment, determined by dividing (1) aircraft days assigned to the service carrier's equipment into (2) revenue aircraft hours minus revenue hours on another carriers interchange equipment plus total hours by others on the carrier's interchange equipment.

**hours per aircraft per day—carrier's routes, revenue.** Average hours of productive use per day in revenue service on a reporting carrier's routes, determined by dividing aircraft days assigned to the service carrier's routes into revenue aircraft hours.

**interchange agreement.** An agreement under which aircraft of one air carrier are used to provide one-plane service over its own routes and the routes of other air carriers.

**joint fare.** A fare, published as a single factor, that applies to transportation over the joint lines or routes of two or more carriers and is made and published by arrangements or agreement among the carriers, evidenced by concurrence or power of attorney. (See *local fare*.)

**joint rate.** A rate, published as a single factor, that applies to transportation over the lines or routes of two or more carriers and is made and published

by arrangement or agreement among the carriers, evidenced by concurrence or power of attorney.

**landing fees.** Fees paid to an airport or other governmental authority for each aircraft landing. Usually, the fees are levied on the weight of the aircraft that has landed.

**load factor.** The percentage of revenue passenger miles to available seat miles in revenue passenger service, representing the proportion of aircraft seating capacity that is actually utilized. For cargo, the term refers to the percentage of cargo revenue ton miles to available cargo ton miles.

**local fare.** A fare that applies to transportation over the lines or routes of one carrier only. (See *joint fare*.)

**local service carriers.** Certificated domestic route air carriers operating routes of lesser density between smaller traffic centers and between those centers and principal centers.

**mail revenue ton mile.** All of the priority U.S. mail, nonpriority U.S. mail, and foreign mail times the miles transported in revenue service.

**mail ton mile.** One ton of U.S. and/or foreign mail transported one mile.

**nonoperating property and equipment—net.** Costs, less related accumulated depreciation or amortization, of property and equipment (1) assigned to other than air transportation and its incidental services but not accounted for within a nontransport division and (2) held for future use.

**nonrevenue traffic.** Passengers and cargo transported by air for which no remuneration or token service charges are received by the air carrier. Airline employees, officers, and directors or other persons, except for ministers of religion, who are traveling under reduced-rate transportation authorized by section 403(b) of the Federal Aviation Act and part 223 of the board's economic regulations, as well as travel agents, cargo agents, and tour conductors traveling at reduced fares, are also considered non-revenue traffic.

**oversale (overbooking).** The sale of (or, in the case of overbooking, the acceptance of reservations for) more space (passenger seats) than is actually available on a flight. A practice that is used sometimes by the air carriers as an allowance for that historical percentage of passengers who fail, for some reason, to use the space they have reserved on a flight. In those cases in which the actual number of passengers with purchased tickets exceeds the available space for a flight, the carrier is liable for denied boarding compensation to those passengers not accommodated on the flight or on comparable air transportation.

**passenger mile.** One passenger transported one mile. Passenger miles are computed by multiplying the aircraft miles flown on each flight stage by the number of passengers transported on that stage.

**passenger service expense.** All expenses chargeable directly to activities contributing to the comfort, safety, and convenience of passengers while in flight and when flights are interrupted.

**prepaid ticket advice (PTA).** A form used by air carriers to indicate that payment for air transportation has been made in a different place than where the transportation commences.

**proportional rate.** A rate that may be used only to construct a combination rate on traffic that (1) originates at a point beyond the point from which the proportional rate applies, (2) is destined to a point beyond the point

to which the proportional rate applies, or (3) both originates at a point specified in (1) and is destined to a point specified in (2).

**proration.** Division of a joint fare among the concerned carriers on an agreed basis or the relationship of the local fare of each carrier to the total combination of local fares.

**ramp-to-ramp aircraft hours.** See *block-to-block aircraft hours*.

**rate.** The amount per unit stated in the applicable tariff for the transportation of property.

**reporting unit.** The different operations, such as domestic and international and territorial operations, that may be conducted by a carrier, for which separate detail data are reported.

**revenue passenger.** One fare-paying passenger transported by the carrier.

**revenue passenger load factor.** The percentage of seating capacity that is actually sold and utilized, computed by dividing revenue passenger miles flown by available seat miles flown in scheduled revenue passenger service.

**revenue passenger mile (RPM).** One fare-paying passenger transported one mile. Revenue passenger miles are computed by multiplying the number of revenue passengers by the miles that they are flown.

**revenue ton mile.** One ton of revenue traffic transported one statute mile. Revenue ton miles are computed by multiplying tons of revenue traffic (passengers, freight, mail, and express) by the miles that this traffic is flown.

**revenue ton mile load factor (overall revenue load factor and ton load factor).** The percentage of total capacity available for passengers, freight, and mail that is actually sold and utilized, computed by dividing total revenue ton miles actually flown by total available ton miles.

**revenue traffic.** Passengers and cargo transported by air for which remuneration is received by the air carrier. Airline employees, officers, and directors or other persons, except ministers of religion, who are traveling under reduced-rate transportation authorized by section 403(b) of the Federal Aviation Act and part 223 of the board's economic regulations; travel agents; cargo agents; tour conductors traveling at reduced fares; and other passengers and cargo carried for token service charges are not considered revenue traffic.

**rotatable flight equipment.** Rotatable parts are normally repaired and reused, as opposed to those parts that are consumed in the operations (*expendable parts*).

**scheduled departure.** A takeoff scheduled at an airport, as set forth in published schedules.

**seat mile.** One passenger seat transported one statute mile. This statistic is used to report available passenger-carrying capacity on an aircraft; however, when the seat is occupied by a revenue passenger, the measurement unit is referred to as a revenue passenger mile (RPM).

**spare parts.** Parts, appurtenances, and accessories of aircraft (other than aircraft engines and propellers), of aircraft engines (other than propellers), of propellers, or of appliances that are maintained for installation or use in an aircraft, aircraft engine, propeller, or appliance but that are not yet installed or attached.

**subsidy.** [Deleted as the result of changes in regulation of the industry.]

- tariff.** The notice of fares and rates applicable to the transportation of persons or property and the rules relating to or affecting such fares and rates of transportation.
- through fare.** The total fare from point of origin to destination. It may be a local fare, a joint fare, or a combination of separately established fares.
- ticket.** A printed document that serves as evidence of payment of the fare for air transportation. Generally, this takes the form of the standard Air Traffic Conference ticket, which is composed of an auditor's coupon, agent's coupon, flight coupon(s), and passenger's coupon. It authorizes carriage between the points and via the routing indicated and also shows the passenger's name, class of service, carrier(s), flight number(s), dates of travel, and all conditions of the contract of carriage.
- ticket liability.** The value of transportation sold but unremitted for travel supplied by other carriers.
- ton mile.** One ton transported one mile. Ton miles are computed by multiplying the aircraft miles flown on each flight stage by the number of tons transported on that stage.
- traffic expense.** Expense that relates to, and varies with, the traffic (passenger and/or cargo) actually transported. It includes such cost elements as traffic servicing expenses, reservations and sales expense, and advertising and publicity expense.
- traffic servicing expense.** Compensation of ground personnel and other expenses incurred on the ground incident to handling traffic of all types and classes on the ground subsequent to the issuance of documents establishing the air carrier's responsibility to provide air transportation. It includes expenses attributable to the operation of air traffic offices but not costs of reservation sales centers. It also includes expenses of enplaning and deplaning traffic.
- travel agent commission.** The payment by airlines to a travel agent of specified amounts of money in return for the agent's sales of air transportation. Travel agents' commissions usually are charged to expense and paid by each carrier as a percentage of the value of the air transportation sold on that air carrier.
- unearned transportation revenue.** See *air traffic liability*.
- wet lease.** An aircraft lease in which the lessor provides both the aircraft and the crew.
- yield.** The average revenue per unit of traffic carried in revenue service. Usually, yield is calculated as average revenue per revenue passenger mile, or cents per RPM. For cargo, it is calculated as average revenue per cargo revenue per ton mile, or cents per CTM.
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