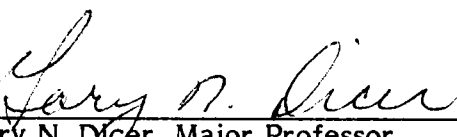


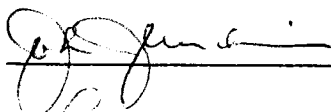
To the Graduate Council:

I am submitting herewith a dissertation written by Franz Gustav Rosenhammer entitled "An Exploratory Study of the Effects of Airline and Airport Policy, Including Locational, Political, and Cultural Factors on International Airliner Ground Support Activities." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Business Administration.

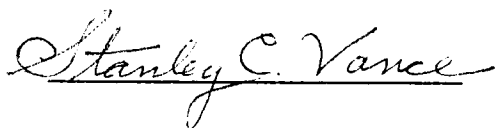


Gary N. Dicer, Major Professor

We have read this dissertation
and recommend its acceptance:







Accepted for the Council:



The Graduate School

AN EXPLORATORY STUDY OF THE EFFECTS OF
AIRLINE AND AIRPORT POLICY, INCLUDING
LOCATIONAL, POLITICAL, AND CULTURAL
FACTORS ON INTERNATIONAL AIRLINER
GROUND SUPPORT ACTIVITIES

A Dissertation
Presented for the
Doctor of Business Administration
Degree
The University of Tennessee, Knoxville

Franz Gustav Rosenhammer

March 1984

ABSTRACT

The choices faced by each air carrier as to how ground support activities should be performed are subject to both internal company policy and external environmental factors. In spite of the complexity of this decisionmaking environment, each carrier must ultimately determine a ground handling process which takes these factors in to consideration. In order to make an effective decision in any given ground services situation, the carrier needs to be aware of the crucial factors which may influence and/or constrain its options. It is the purpose of this study to identify and examine those crucial impacts and influences of the international operating environment which affect the airline ground handling decision.

The results of the study show that international airlines are severely impaired by ground handling monopolies, be they airport companies or national airlines. Preferential treatment of the host countries' airlines is widespread. Additional limiting factors were uncovered in the geographical, political, and cultural areas, where wide differences exist worldwide. The current blight of commercial aviation as a result of the worldwide recession has accentuated the problem as nations turn to mercantilistic methods to protect their own airlines.

Airlines continue to strive for additional freedom in ground handling their own aircraft, but the results have so far been discouraging. As a result, the airlines have largely resorted to compromise, trying to make the best of a situation which they cannot control. Given the confrontation of privately-owned versus state-owned carriers, and the absence of international agreements, a resolution of this problem in the near future appears highly unlikely.

TABLE OF CONTENTS

CHAPTER	PAGE
I. PROBLEM IDENTIFICATION AND DELINEATION	1
Overview	1
Statement of the Problem	5
Importance of the Problem	7
Scope of the Study	12
Methodology.	13
II. AIRLINE GROUND HANDLING LITERATURE REVIEW.	17
Overview	17
Summary	56
III. SAMPLE DESCRIPTION AND QUESTIONNAIRE AND INTERVIEW DATA.	59
Introduction	59
Airports.	59
Airport Responses	62
Airlines.	76
Airline Responses	80
IV. QUESTIONNAIRE AND INTERVIEW ANALYSIS AND FINDINGS .	98
Introduction	98
Airline Policy	98
Airport Policy	100
Geographical Factors	102
Political Constraints	103
Cultural Constraints	104

CHAPTER	PAGE
V. SUMMARY AND CONCLUSIONS	106
Introduction	106
Factors Bearing on the Problem	106
Current Practices and Trends	107
Conclusions	112
BIBLIOGRAPHY.	117
APPENDIX A	123
APPENDIX B	153
VITA	164

CHAPTER I

PROBLEM IDENTIFICATION AND DELINEATION

Overview

Commercial airlines are beginning to scrutinize every aspect of their operation in the face of rising costs over which they have little or no control. This renewed thinking not only focuses on aircraft which will be more economical to operate but also on the ground handling operations. However, the great majority of literature and research in the commercial air transportation field has traditionally been concerned with such topics as economic regulation, financial stability of carriers, route awards, noise abatement, bilateral agreements, airport congestion, and air traffic control. Very little effort has been directed to the logistical support each aircraft requires at home, en route, and at the turnaround station, or how these vital functions are performed. Although the type or degree of these services varies with the particular stop made by the aircraft, the following activities normally constitute standard ground handling requirements:

- Representational Services
 - General (e.g., liaison with local authorities)
 - Disbursements (e.g., customs, airport charges)
 - Communications (e.g., all messages pertaining to a flight)
- Traffic Services
 - Handling documents and load control
 - Passenger and baggage handling at the airport
 - Traffic services - town terminal

- Loading/Unloading
- Catering Services
- Aircraft cleaning
 - Exterior cleaning
 - Interior cleaning
 - Toilet service
 - Water service
- Aircraft Handling
 - Attendance (e.g., general supervision)
 - Marshalling
 - Parking
 - Starting
 - Safety measures
 - Moving of aircraft
- Aircraft Servicing
 - Fueling and de-fueling
 - Replenishing of oil and other fluids
 - Cooling and heating
 - Snow and ice removal
 - Cabin equipment (e.g., remove/install seats)
- Aircraft Maintenance
 - Routine services
 - Nonroutine services
- Accommodation and Material

- Accommodation (e.g., office space for carrier representatives, storage space for spares)
- Material handling (e.g., administer spare parts)
- Flight Operations
 - General (e.g., inform carrier of operational services/facilities, keep up-to-date manuals)
 - Flight preparation at the aerodrome of departure
 - Flight preparation at a point different from the aerodrome of departure
 - In-flight assistance
 - Post-flight activities
 - Company air-ground communications
- Cargo Services (e.g., clear, deliver, store)
- Surface Transport (e.g., for crew, passengers, cargo)
- Supervision and Administration
 - Supervision (e.g., presence at airport, meet aircraft/crew on arrival, check dispatch of messages, etc.)
 - Administration (e.g., establish and maintain local procedures, prepare and forward reports, etc.)¹

It can readily be seen that the above operations span an entire spectrum of activities. Not unlike an orchestra, the operations have to be coordinated into a harmonious unit. A copy of the IATA contract appears in Appendix A.

The categories have intentionally been kept general, since each operation is

¹Traffic Services, IATA Ground Handling Contract.

normally tailored to a specific carrier's requirements and needs. Not included are such activities as airport and ramp security and other general airport operations areas which are not normally billed to individual air carriers. These costs are part of the landing fees collected by the airport operator.

Ground operations require a broad spectrum of services through many different facilities and organizations to a wide variety of users. The nature and mix of these operations is not stable. On the contrary, daily, weekly, and seasonal peaks for different kinds of traffic aggravate the situation. The traffic flow through the facilities, the ramp and support requirements, and the relationship between them are affected by many, often interdependent, factors. These activities are further compounded since they have to exist and function in a social and economic environment which imposes conflicting objectives and subjects them to continuing competition and even political conflict.²

A recent statement by Carlos Van Rafelghem, chairman of the board and chief executive officer of Belgium's Sabena Airline, serves to summarize the industry's position in analyzing every cost factor. "Since the impact of fuel costs, inflation, and monetary instability, airlines have become acutely conscious of the need to control the evolution of costs, component by component."³

Airlines have three alternatives for ground handling aircraft: the in-house option, the single-contractor option, and the multiple-contractor option.

The in-house alternative in its purest form is found at the major air

²Richard de Neufville, Airport Systems Planning (Cambridge, Massachusetts: The MIT Press, 1976), p. 9.

³Eugene Kozicharow, "Flexibility Stressed for Cargo Survival," Aviation Week & Space Technology, Vol. 113, No. 16, October 20, 1980, p. 45.

terminals in the United States. Each airline operates its own facilities with its own personnel and equipment. A derivative of this concept would entail the positioning of personnel and equipment and the leasing of counter- and processing space from the appropriate firm or authority at an airport. A single contractor often takes the form of an airport authority or company. The contractor may insist on this right if the carrier does not bring its own resources. This method is prevalent at major European airports. Lastly, the carrier may be free to choose or elect the multiple-contractor option. The required ground services would then be performed by different contractors (e.g., catering and cleaning from different private firms and maintenance from the airport company, etc.), a method most often used at smaller airports.⁴ In this aspect, airlines are not all that different from a production or assembly function where the underlying make or buy decision has to be made.

Statement of the Problem

The choices faced by each carrier as to how ground support activities should be performed are subject to both internal company policy and external environmental factors. In spite of the complexity of this decisionmaking environment, each carrier must ultimately determine a ground handling process which takes these factors into consideration. In order to make an effective decision in any given ground services situation, the carrier needs to be aware of the crucial

⁴Source: Personal interview, Mr. Christian Haefner, Airport Consulting Services, Flughafen (Frankfurt Airport Company), September 5, 1981.

factors which may influence and/or constrain its options. It is the purpose of this study to identify and examine those crucial impacts and influences of the international operating environment which affect the airline ground handling decision.

We can hypothesize that substantial differences exist not only for obvious economic reasons (even though a particular service may be used anyway, regardless of cost, due to such factors as managerial inertia, unawareness of a cheaper service, or simply traditionalism), but also for the following noneconomic ones:

- Airline policy (e.g., nationalized versus privately owned carrier, centralized versus decentralized operations)
- Airport policy (airport management policy, e.g., monopolistic airport authority or senior host airline versus laissez-faire airport management)
- Political reasons (e.g., favorite treatment of national or friendly airlines versus impartial treatment of all or, conversely, substandard treatment of unfriendly airlines)
- Cultural restraints (e.g., native population insufficiently educated/trained, or unwilling to perform the required services)
- Geographical constraints (e.g., scheduled passenger or cargo service, charter only, frequent or infrequent calls, en route or turnaround station)

As can be readily seen, the reasons for choosing, or being forced to choose, one ground handling system over another, or working with a combination of alternative systems are highly complex. The decision process is further complicated by the international environment which forms the basis for this study.

Importance of the Problem

In this era of airline equipment and rate parity and service similarities which have to a large degree eliminated carrier loyalty by customers, it is increasingly difficult to distinguish between the line-haul characteristics of the many carriers. This not only holds true for the particular area under investigation, but for the entire physical distribution or logistics concept. It is not surprising that ever-increasing emphasis is placed on the nodal points where the smooth and relatively placid characteristics of the line-haul change to the highly turbulent and differentiated activities at the interchange point.

How important the nodal point is to one of the more lucrative groups of passengers, the business traveler, was brought out by a recent article which rated (based on reader responses) Amsterdam-Schiphol, Zurich, Frankfurt, and Singapore airports ahead of Dallas-Fort Worth, Charles de Gaulle, and London Heathrow. In order of importance, respondents rated amenities and services offered, efficiency, courtesy of staff, quality of information, and frequency of delays as key factors.⁵ Not all of these may immediately be attributable to the airline itself. However, the degree of control which can be exerted by the airline is largely dependent on how its work is being performed at the airport, e.g., was it the airline's own personnel that got a good rating on courtesy of staff or did the airline avail itself of a contractor? Is the frequency of delays based on airline equipment and personnel reliability, or were the responsible services contracted out? This vulnerability is reflected in another study where the majority of

⁵"Best and Worst Airports," Business Traveller, Vol. VI, No. 4, May 1981, p. 24.

questionnaire replies called for more courteous and competent employees. Improved baggage handling ranked number two.⁶ Both of these rated services could again have been accomplished or arranged for through a variety of methods.

The importance customers attach to certain services is in general matched by the airlines' allocation of resources. An analysis by the Civil Aeronautics Board of domestic operations of the domestic trunk airlines reveals that 52.58 percent of the total airline operating expenses were consumed by aircraft operating costs, which include maintenance (12.1 percent) and depreciation of flight equipment (6.24 percent).⁷ The remaining 47.42 percent went to passenger service (10.31 percent), aircraft and traffic services (18.66 percent), sales and general services (15.75 percent), and maintenance and depreciation of ground property and equipment (2.7 percent). Since similar figures are reported for the international field, we can readily see that almost one-half of the operating expenses are assignable to nonflying operations.⁸ It is therefore crucial to optimize ground handling procedures not only because of the high cost factor, but also because of the susceptibility to local cultural and policy constraints, reliance on low-skilled labor, and political considerations. Operating costs are climbing. Passenger service rose 22.1 percent, and ticketing, sales, and promotion jumped 21.9 percent between 1977 and 1978.⁹

⁶Lawrence Doty, "Pan Am, American Win Popularity Poll," Aviation Week & Space Technology, Vol. 107, No. 12, September 19, 1977, p. 38.

⁷Donna K. Henderson, "Passenger Handling Costs Climb, Productivity Dips," Air Transport World, Vol. 17, No. 9, September 1980, pp. 82-90.

⁸"The Top Performers-Interavia's Review of World Airlines," Interavia, Vol. XXXV, No. 11, November 1980, p. 1023.

⁹Ibid.

Similar concerns are expressed by the air cargo industry. They found that airfreight terminal costs can range from a high of 83 percent of the total costs for transporting a shipment 400 miles to 28 percent for a range of 5,000 miles. The high price of operating airfreight terminals is a direct result of labor costs. Labor expense can run as high as 80 percent of total terminal costs. More than half of the labor costs are accumulated by the myriad of paperwork, especially in international operations. Some carriers have attempted to automate their freight terminal operations, with mixed results. In general, automation was not cost effective. On the other hand, various studies have shown that labor productivity can be significantly improved by increasing the degree of containerization, particularly through the use of intermodal containers.¹⁰ Many of these managerial/technical innovations or concepts can only be applied in industrialized nations. Attempts at containerization met with dismal results in some Middle Eastern countries where the lack of skilled personnel on both the managerial and working levels resulted in one-way (inbound) container traffic. Empties usually were not returned, pointing out once again that noneconomic reasons can defeat the most efficient system designed.¹¹ Even in our own technology-oriented societies, problems arose.

Automation was heralded as a way of avoiding the spiraling cost of handling baggage and cargo and paying a large labor force. Airlines and airport authorities enthusiastically installed a number of devices. Few have worked, and fewer still

¹⁰ Nawal K. Taneja, The U.S. Airfreight Industry (Lexington, Massachusetts: D.C. Heath and Company, 1979), p. 219.

¹¹ Personal observations in Iran and Saudi Arabia, 1975-1977.

have reduced costs. Automation in this field has mostly shifted costs from labor to equipment maintenance and provided standby arrangements to cope with recurring breakdowns.¹²

The nodal-point problem is not easily defined, nor are there textbook solutions. An approach working well for one airline and one airport may meet with disastrous results when applied to a global setting.

One of the underlying basic problems faced by the airline industry is the option of using in-house resources versus contract services. The rise in the importance of service industries in general, the widespread usage of contractors, as well as the attention paid this phenomena by the U.S. government, allow some generalization at this point. Many government activities are being closely scrutinized for conversion to contractual arrangements. An Office of Management and Budget ruling, which states that overhead costs of 24.7 percent (up from a previous 7 percent) would have to be added to all government in-house cost estimates, makes contractual services very attractive and advantageous in such areas as automated data processing, security and custodial services, and contract maintenance.¹³

Similarly, commercial enterprises have increasingly availed themselves of contract services as a result of total cost analyses, which again illuminated high overhead costs for what can often be described as supplemental or ancillary services. Many firms concern themselves with primary business functions only.

¹²Richard de Neufville, op. cit., p. 7.

¹³Shirley Scheibla, "Private vs. Public Sector, the Government Wants to 'Contract Out' More Work," Barrons', Vol. XXXI, No. 10, October 25, 1976, p. 11.

They gladly shift the responsibility for such typical support activities as food service, custodial, and security to one or several specialized area contractors.¹⁴

As a corollary, the airlines' use of travel agents is in a similar category. Airlines are reluctant to criticize the commissions paid to travel agents because the agents provide a service which they cannot duplicate--that of providing ticket outlets in virtually every city and town throughout the country. Nevertheless, the airlines would like to have the travel agents deal with passengers who require a significant amount of counselling to make their travel plans. They would like to keep for themselves the passengers who simply tell the airlines where they want to go and are handed a ticket.¹⁵

It is not only the in-house versus contractual services issue plagues the airlines. The other main problem faced by international airlines is international business practices. As with any other economic activity that transcends national boundaries, they are faced by such barriers as a host nation's tolerance towards foreign operations, local labor laws (restrictions on importing labor, or mandatory hiring of local nationals), immigrations and customs restrictions for both passenger and cargo operations, and perhaps partial treatment before the law for a local contractor when disputes are settled in local courts.

A compounding factor is the often encountered dichotomy in nonindustrialized nations. Sometimes an ambitious government wants to rid itself of all

¹⁴Eugene Kozicharow, "U.S. Spurs Use of Private Contractors," Aviation Week & Space Technology, Vol. 99, No. 11, November 12, 1977, pp. 3-9.

¹⁵Michael Feazel, "Agent Fees Rise Despite Traffic Drop," Aviation Week & Space Technology, Vol. 114, No. 20, May 18, 1980, p. 41.

outside influences even knowing that its own manpower pool is incapable of complying with international business standards. Coupled with a desire to show the flag and operate their own airline, these nations have grown more intolerant about the operation of foreign flag airlines in their territory. This has resulted in a gradual deterioration of facilities and equipment with subsequent substandard services.¹⁶

Unlike production or some service industries which survive foreign operations through wholly owned subsidiaries which make the firm unrecognizable as a foreign venture, airlines are recognized as and often serve as national symbols.¹⁷ In many cases, the treatment received by an airline at a foreign airport is determined by the flag on its tailfin rather than the business venture for which it stands. However, with the number of airlines that are wholly or partially owned by their respective governments but still compete in a commercial environment, it becomes increasingly difficult to distinguish between carriers that are solely commercial ventures and those that also serve as tools for governmental power projection.¹⁸

Scope of the Study

Although the ground handling problems experienced by airlines are global, it

¹⁶Personal observations in Ethiopia and Turkey, 1974-1976.

¹⁷"Spotlight on U.S. Service Industries in World Markets," Commerce America, Vol. 11, No. 8, April 11, 1979, pp. 8-11.

¹⁸Ralph Ostrich, "Aeroflot," Armed Forces Journal International, May 1981, pp. 38-59.

is impossible to examine every airline and every airport. Therefore, this study is limited to certain airlines and airports in Western Europe, the United States, and one carrier from the Middle East. The reasons for selecting these geographical areas are: they are intensely competitive, they are the most developed, and they were the cradle of civil aviation.

The study centers on international rather than domestic operations. It analyzes the business philosophy pertaining to the ground handling of the various airlines and airports as it is exercised in the international environment. The study does not analyze the internal organizational practices and structure of the firms under consideration, but focuses on external policy issues.

The airlines and airports were selected because of their international character and business practices which are representative of the industry. The study does not address local service carriers or general aviation, only the international aviation arena. Neither does the study focus on any one country, but illustrates the interactions required by the commercial aviation industry in an international setting. Although the emphasis is on the industrialized Western environment, selected observations pertaining to emerging nations are used to provide contrast in an otherwise largely homogenous environment.

Methodology

This research project is exploratory, since a file search of published dissertations and the Defense Logistics Studies Information Exchange revealed no publications on this subject to date. The research was conducted from 1979 to

1984, with a continuing update of data as it became available. Information was obtained from two sources. For general background and trends in the industry, an exhaustive review of existing literature was conducted. For specific airline and airport information, questionnaires were sent to the sample firms and institutions, and the information received verified through personal interviews and observation.

The nature of the author's present work brings him in close contact with key officials of major European airports. It could perhaps be said that in many ways he represents an airline, although in this specific case he is required to make appropriate ground service arrangements for the potential deployment of the Civil Reserve Air Fleet (CRAF) which consists of several U.S. flag carriers, but which for the planned deployment option will largely function as one under military management. The author was able to conduct in-depth interviews of airport managers and airline officials and some host nation governmental officials as well. On-site observations which served as cross-references to verify the accuracy of the information obtained were made during frequent inspection trips.

Airline and airport policy statements or guidelines were analyzed to determine the effects of the noneconomic factors on ground operations. In addition, pertinent publications by the government concerned were reviewed and analyzed in detail. The experience and helpfulness of government officials in the respective Ministries of Transportation who willingly shared their wealth of information were of immense value.

To get a representative picture of both airlines and airports, the following sample design and size was used:

- A large national, government-owned airline (Deutsche A.G. Lufthansa, German Airlines)
- A large privately owned airline (Pan American World Airways)
- A charter airline (Transamerica Airlines)
- An all-cargo airline (The Flying Tigers Line, Inc.)
- An airline from a nonaligned nation (Swissair, Schweizerische Luftverkehr A.G.)
- An airline which operates on a low frequency (Alia, The Royal Jordanian Airline)
- Frankfurt/Main, Germany (large, extremely structured airport in an EEC nation)
- Aeroport de Luxembourg, Luxembourg (flexible, business-oriented, handles both IATA and non-IATA airlines)
- Wein-Schwechat, Vienna, Austria (neutral country, dealing with both Western and Eastern bloc airlines)
- Dallas-Forth Worth International Airport, Dallas-Fort Worth, Texas (privately owned, used by both U.S. domestic and international carriers)

The nature of the sample as well as the informational sources cited enabled the researcher to test the hypothesis that the logistical ground support required for commercial airliners engaged in international trade cannot readily be based on worldwide uniform procedures but rather depends on individual airline and airport policy, geographical location, and political and cultural constraints.

The study is structured as follows. Chapter 1 sets forth the parameters of the study. Appendix A contains the IATA Ground Handling Contract. Chapter II

is an exhaustive review of existing airline ground handling literature. Chapter III provides a comprehensive description of the airports and airlines selected, as well as the questionnaire and interview data. The complete questionnaire and supporting data are included in Appendix A. Chapter IV contains the data analysis and the findings derived from the data analysis. Chapter V presents the summary and the conclusions of the study.

CHAPTER II

AIRLINE GROUND HANDLING LITERATURE REVIEW

Overview

The purpose of this chapter is to review the literature as it pertains to ground handling and the in-house, single-contractor, or multiple-contractor options available to the airlines. As already alluded to in the previous chapter, literature on the subject under investigation is rather limited. Since ground handling of commercial airliners is a functional aspect rather than the glamorous portion of air travel, it has received little of the publicity associated with the many-faceted aspects of the commercial aviation industry. The ground handling services are simply in support of the line haul. As long as the customer receives what he perceives to be satisfactory services, he is not too interested in how this service came about.

The reception, handling, and dispatch of a commercial airliner are extremely time sensitive. Figure 1 illustrates the complexity of the situation and the interaction required between the various functional entities by showing the ground handling activity required in the handling of an A300 Lufthansa Airbus. Figure 2 shows Lufthansa's turnaround time constraints for an A300 Airbus.

-

Source: Klaus Hohle, "Ground Times Cost Money: Handling Problems at Airports," *Interavia*, Vol. XXXI, No. 12, Dec. 76, p. 1149.

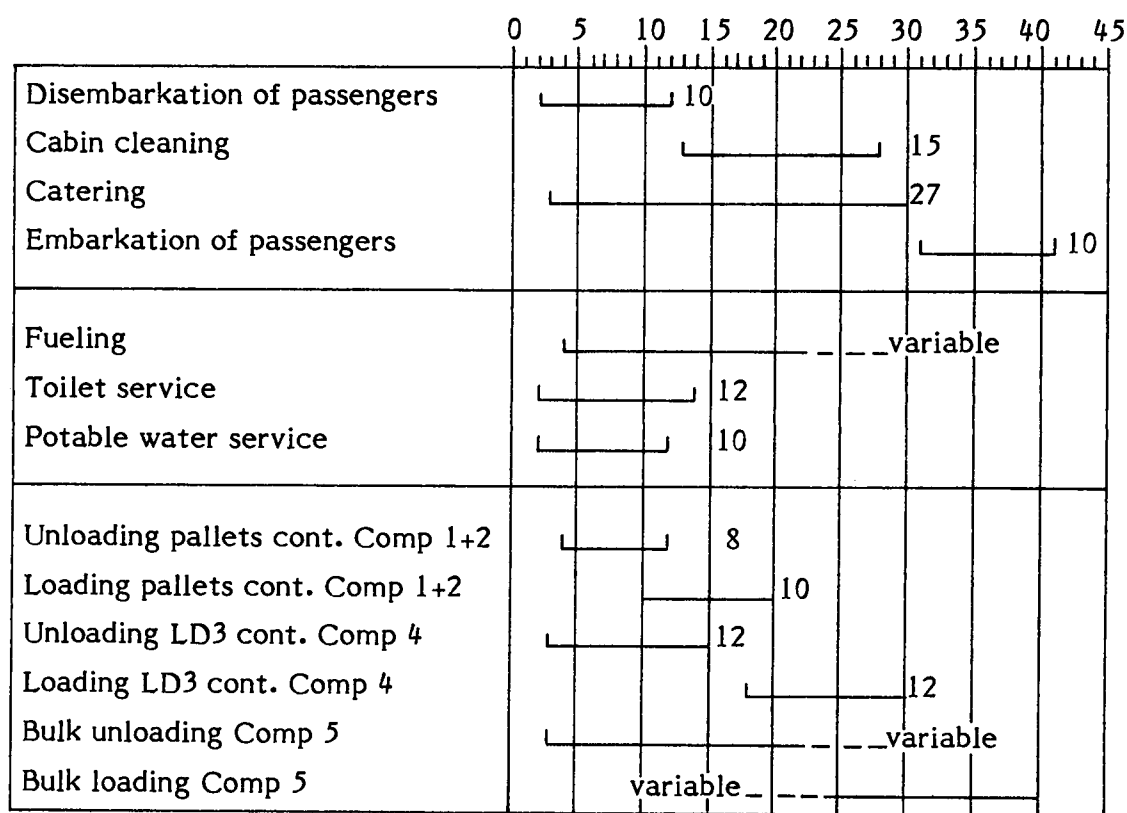


Figure 2. Lufthansa's Time Constraints for an A300 Airbus.

Source: Klaus Hohle, "Ground Times Cost Money: Handling Problems at Airports," *Interavia*, Vol. XXXI, No. 12, Dec 76, p. 1149.

The above is best described as an ideal situation. The Lufthansa Airbus ground handling is done by Lufthansa personnel at Lufthansa's home station in Frankfurt, Germany, where all factors are under close company control.

In this chapter the various aspects of the airliner ground handling operation as reported in the trade journals and other interest group publications are

analyzed. It quickly becomes apparent that the above diagrams are indeed an ideal not always attained.

Impacts of Deregulation

As a result of the deregulatory practices in the United States, many of the new entrants into commercial aviation find ground handling a considerable obstacle. The established airlines are reluctant to give up the time and space advantages they have established over the years. In what presents the greatest upheaval in the commercial aviation industry since the drastic increase in fuel prices, deregulation dominates the pages of every publication that has commercial aviation as its main theme. It gets more than just peripheral attention by many other business- and travel-oriented publications. While in many cases the issue under investigation becomes shrouded even further, new and rather novel developments bring to the fore the need to closely scrutinize ground handling operations and the practices associated with the sale of passenger and cargo revenue space.

In the year which saw the demise of Laker Airways and Braniff International, in the year where the British, Belgian, and Israeli governments were seriously taking a different look at their respective national airlines, where aging equipment and slow traffic generation compounded the problem of an ailing industry, competition took some new and unexpected turns. Although mainly limited to the United States, the emergence of new and highly aggressive airlines changed the competitive picture. One way the new breed of cut-rate airlines

reduced costs was by contracting for ground services rather than buying equipment and hiring people to run it. "Some ask why we aid and abet the competition by contracting for our services," United Airlines Inc. chairman Richard J. Ferris recently said to employees. "Simple: it puts money in our pocket." The big carriers maintain that they produce all services in good faith. But the upstarts do not always buy that claim. The fact is that playing tough with the new entrants on service contracts and withholding airport cooperation were among the few weapons the full-service airlines had in the struggle against their new competition.¹

The upstarts all cite abysmal service in some parts of their systems when it is provided by another carrier, usually a direct competitor. Complaints include slow baggage handling and gate agents who arrive only minutes before scheduled takeoff. This results in delays and, of course, customer ill-will. Established airlines have other ways of disrupting operations as well. One upstart entering a new market was denied the use, even at a fee, of basic airport equipment that the dominant carrier at that terminal made available to all other airlines using the airport.² However, "having little investment in maintenance and other facilities" states New York Air president Neal F. Meehan, "saves considerably on front-end costs."³

¹William H. Gregory. "The Coming Airline Shakeup," Aviation Week & Space Technology, Vol. 114, No. 11, March 16, 1981, p. 9.

²"Are the Giants Unfair to the Upstarts," Business Week, No. 2696, July 13, 1981, p. 23.

³Ibid., p. 24.

In an editorial, the situation was described similarly, indicating that deregulation is creating a covey of small, new airlines. Pay scales for their less senior administrative staffers are markedly lower. The new airlines are usually nonunion, which means less restrictive work rules, though not necessarily much difference in worker pay scales when seniority is factored out. Disparity in operating costs is significant. For example, flight crew hourly costs can be less than half for those of the established trunk carriers. Productivity is also typically higher for the new airlines.⁴

Illuminating the labor situation, a similar article remarks how deregulation and other events of the past few years have placed a new importance on good relationships between airline labor and management. For U.S. carriers struggling to survive during a recession in the increasingly hostile environment of a deregulated industry, the writer feels that the threat of a strike has taken on a much more intense meaning. It is becoming apparent that a strike, instead of the inconvenient service interruption it used to be, could be a death knell for the airline involved. The new players in the industry are very capable though. They have distinct advantages over their established competitors since for the most part they have no unions. If they do have unions, the majority of the members are new in the industry and have little seniority and low wage scales.⁵

Labor is going to have to acquire a better understanding of the real world of airline economics when it is formulating new lists of demands for the bargaining

⁴"Upstarts in the Sky," Business Week, No. 2692, June 15, 1981, p. 92.

⁵"Labor, It Pays to be Young," Air Transport World, Vol. 17, No. 8, August 1980, p. 100.

session. In the future, when management says, "We can't afford it," they may be telling the truth.⁶

Options Available in Passenger Operations

A corollary of deregulation is the increasing importance of travel agents and bucket shops that have profited immensely from the confusion arising out of a multitude of fares and discounts which seem to perplex even airline sales personnel. The term "bucket shop" applies to discount ticket houses dealing primarily with blocks of low priced seats for particular airlines at particular times. What can be seen is a trend away from the in-house resource, i.e., the traditional airline sales office in favor of a multiple contractor option in the form of travel agents and bucket shops.

Travel agents around the world received an estimated \$3.37 billion in commissions from the airlines in 1979, an increase of 22.3 percent over 1978. An increase of 14 percent was realized from 1979 to 1980, and an increase of over 20 percent predicted for the outyears. The average commission rates being paid by the carriers in the present open-rate era cluster in the 9 percent ballpark. But they range from 5 percent being paid on domestic travel in the Far East to 15 percent paid by Transamerica. Travel agents created about 60 percent of airline passenger revenues during the survey period.⁷

⁶Ibid.

⁷Donna K. Henderson, "Travel Agent Commissions Soar as Rates Fluctuate," Air Transport World, Vol. 17, No. 10, October 1980, pp. 93-97.

However, airlines are reserved in criticizing the commissions paid to travel agents because the agents provide a vital service that the airlines could only duplicate at a tremendous cost. There are about 17,000 travel agencies in the United States who sell in excess of 60 percent of all airline tickets. A Civil Aeronautics Board ruling allows the carriers to offer joint advertising and other promotional allowances. A United Airlines spokesman indicated that travel agents and tour operators were a big source of income and that joint advertising ties airline and house agents closer together. The goal of course is increased revenue.⁸

To date bucket shop operations are still legal, but that may soon change. A committee of the International Civil Aviation Organization (ICAO) urged that the bucket shops be reduced or eliminated. If the International Air Transport Association (IATA) agrees, its 117 member airlines will stop issuing blank tickets to "consolidators," who in turn funnel them to bucket shops. The tickets are supposed to be used only when an airline cannot book a flight completely. In practice, however, the discounted seats are often sold instead of a full-fare ticket.⁹

Other writers take a much dimmer view. In their opinions, the airlines are slowly assuming the role of a wholesaler of revenue space with travel agents providing the ticket outlets. A move which seems to support such a view was the Air Traffic Association's (ATA) rescision of a previous prohibition to allow travel

⁸Renee Such, "New Routes in Co-op: Airlines and Agents," Advertising Age, June 15, 1981, pp. 5-19.

⁹"Battling Against the Bucket Shops," Newsweek, August 30, 1982, pp. 40-41.

agents at airports. Although to date there are only eight such agencies nationwide, and these limited to domestic operations only, the implications are clear.¹⁰ The airport operators are basically not opposed since these agencies would provide a new source of revenue with a concession fee based on a percentage of gross sales. IATA still bans agent airport sales, but the trend cannot be mistaken. It remains to be seen if such operations will entail some airline on-the-ground services, e.g., passenger and baggage check-in as well.

It may be a quiet revolution taking place in the airline industry with the airlines concentrating on the line-haul leaving many of the other aspects to the multiple contractor. Another writer contends that in the years before deregulation, airlines were profligate wasters of available resources. The theme then was to show the flag, beat out the other guy, and hang the expense. The writer continues to state that airlines no longer control their marketing. It is now in the hands of the travel agents. With the coming of block sales, agent groups have potential to control any particular route or even to impact on the fate of any specific airline. Airline management transferred this power bit-by-bit over the years to the point where airlines are rapidly becoming wholesalers. Before long the airlines will be told how much they can charge for their product.¹¹

In a related editorial, the above views receive tangible support. Braniff's bankruptcy was a facet of a fundamental change in the U.S. airline system: the growing force of the travel agent in airline marketing. Airlines became more

¹⁰George J. Mitchell, "Deregulation: Crucible for Airline Management," Aviation Week & Space Technology, Vol. 116, No. 25, June 21, 1982, p. 11.

¹¹Claire Walter, "Travel Agents at Airports: So When Does this Revolution Start?" Airport Services Management, Vol. 21, No. 5, May 1981, pp. 30-33.

dependent on the travel agent in the 1970s, but deregulation intensified the trend with its lack of fare structure. Airline employees could no longer follow the rapid shift in fares. Travelers had no choice but to use a travel agent to buy tickets with a semblance of sagacity. Travel agents began backing away from Braniff as its financial bind tightened. This happened despite a protection plan in which other airlines would honor previously sold tickets for Braniff flights. The experience of the passengers stranded by the collapse of Laker Airways was not lost on the agents. Braniff's business from travel agents at the end was off 40 to 50 percent from the previous year.¹²

Recently, Frontier Airlines tried to reduce the commission it pays to travel agents from 10 to 9 percent. If the rest of the nation's carriers did the same, the industry could save about \$150 million a year. USAir, Eastern, Pan Am, and Republic promptly picked up the theme. The pricecutters found themselves out on a limb when other carriers refused to follow suit. The idea died a quick death. All five price-cutting airlines now say they will continue paying 10 percent commissions.¹³

People are forced to go to travel agents because they don't understand what is going on. Travel agents now write tickets for 65 percent of all domestic flights and a higher percentage of international flights making them a critical airline link.¹⁴

¹²"Braniff Bites the Dust," Aviation Week & Space Technology, Vol. 116, No. 21, May 24, 1982, p. 9.

¹³"Effort to Cut Agent Fee Fails," Airport Services Management, Vol. 22, No. 5, May 1982, p. 24.

¹⁴James Ott, "Travel Agents Exert Leverage," Aviation Week & Space Technology, Vol. 116, No. 25, June 21, 1982, pp. 26-27.

An article by a travel agent gives somewhat futuristic views, but they could be representative of the industry's long-range goals. This particular writer advocates an open concourse concept at airports with counters only open when needed, manned with pooled personnel, and interchangeable signs. The airport would own all service equipment. Counter personnel would be airport employees. He contends that it would be cheaper to rent personnel and equipment than to maintain the employees and service fleets.¹⁵ A basic make or buy decision? Most assuredly, except that the writer only hints at who would do the ticket selling--a travel agent.

It may well be the future of commercial aviation, at least for the passenger portion. The highly structured European airports virtually have a ground handling monopoly now. Airlines have adapted themselves without apparent detriment.

Options Available in Cargo Operations

In cargo operations, airlines have always relied to a large degree on a variety of traffic generators besides their own sales personnel. The air cargo market is simply too diversified and diffused to allow a successful penetration by airline sales personnel unless it is for full plane loads or charters. IATA's international airlines rely on several marketing outlets to sell their cargo services. The following is a list of major IATA carrier's sales outlets:

- through an IATA member carrier
- through an IATA cargo agent

¹⁵Ray L. Cavaguaro, "A New Way to Run an Airport," Airport Services Management, Vol. 22, No. 3, March 1982, p. 25.

- through a non-IATA cargo sales agent
- through a general sales agent
- through an IATA approved freight forwarded (Consolidator)
- through a wholly domestic non-IATA member air carrier
- through a wholly domestic IATA associated member air carrier
- through an interline IATA member carrier
- through an interline non-IATA member air carrier

The above sources represent the major outlets used by the international air carriers where a shipper can secure a carrier's consignment. Each of the above sources, except the direct shipper, can receive an authorized sales commission for booking, handling, and/or servicing a shipment.¹⁶ But, even with the multitude of traffic-generating sources available, the commercial cargo industry remains highly competitive. Flying Tigers, for example, markets door-to-door, door-to-airport, airport-to-door, and airport-to-airport services based on ten different sizes of container or net and pallet. They also fly bulk shipments, oversized shipments, fruit and vegetables, seafood, live animals, and garments on hangars. All this is complemented by a Seatiger service involving both sea and air transport of certain categories of goods.¹⁷

In Germany, as elsewhere on the Continent, the company finds its American brand of free competition running head-on into the firmly entrenched state subsidized, ground transport system according to Al Hicks, Flying Tigers Vice-

¹⁶ John C. Cook, International Air Cargo (Philadelphia, Pennsylvania: The Philadelphia Freight Press Inc., 1973), p. 79.

¹⁷ Roger Goodson, "Being Biggest Isn't Easy - The New Flying Tigers Takes on the Current Cargo Scene," Interavia, Vol. XXXVI, No. 11, November 1981, pp. 1105-1106.

President for Europe. The company is also having a difficult time of it competing with Europe's nationalized airlines for air cargo contracts. The Middle East remains a lucrative one-way market.¹⁸

While Flying Tigers is continuing its operations in a rather traditional manner, Emery Worldwide came up with a novel approach. The firm contracted with other companies to maintain and provide crews for its new aircraft. It was "a shorter and easier step rather than trying to provide the services in-house," according to Vice-President of Operations J. M. Moore. This development is noteworthy. "It's a good question whether that is a more expensive approach," Moore said. "I suspect that we took the least expensive route short-term because we avoided the training and management costs and the cost of maintaining parts supplies. I don't know whether it is the least costly route long-term."¹⁹

On the other hand, packages sent via Federal Express never leave the company's hands because only company employees pick-up, sort, transport, and deliver shipments. This closed loop or single entity system has reduced the chances of shipments being lost, stolen, or damaged to some 4,500:1. That is basically the secret of Federal Express' success. The company provides a valuable service and charges the appropriate price for it.²⁰ This is the reason Federal Express can afford to consider Concorde operations, a project even the two government-owned airlines (British Airways and Air France) operating the

¹⁸ Ibid.

¹⁹ Michael Faelzel, "Emery Nears Decision on International Operations," Aviation Week & Space Technology, Vol. 116, No. 5, February 1, 1982, pp. 40-41.

²⁰ Paul Maurice, "Federal Express to Fly Concorde," Interavia, Vol. XXXVI, No. 11, November 1981, pp. 1103-1104.

Concorde now find less and less attractive. Federal Express admits that customs clearance difficulties at both ends of the Europe-U.S. route could still kill the Concorde project.²¹

It is interesting to see how different companies vary in their operations approach. In Federal Express we have a company that uses strictly in-house resources. But if the Concorde concept materializes, leasing the airframes and crews from a single contractor will be considered. This concept is referred to as "wet lease." Emery wet leases the airframes and accomplishes the other aspects of the air freight operation with in-house resources. Flying Tigers uses the several contractor option in its worldwide operations. Domestically, Flying Tigers is counting on having its own ground services trucking network. Not having to split the waybill revenue with an independent trucker would double shipment revenues according to a Flying Tiger spokesman.²²

The ability to pick-up and deliver small and large packages, whether for overnight or longer journeys, whether a customer happens to be on Tiger's domestic airport system or not, gives the company flexibility and access to a vast untapped market. The training of Flying Tiger managers and personnel to think transportation rather than single mode has begun. Flying Tigers currently obtains about 60 percent of its domestic traffic and 90 percent of its international business from forwarders.²³

Nevertheless, there is still room for improvement in the air cargo world. At

²¹Ibid.

²²Joan M. Feldman, "Flying Tiger and Seaboard: After Thirty-two Months, Finally a Merger," Air Transport World, Vol. 18, No. 1, January 1981, pp. 40-46.

²³Ibid.

an International Air Cargo Forum, a customer criticized the industry. He felt that speed of air cargo does not only relate to the velocity of the aircraft between two air terminals, but concerns the total transport time, including collection of goods at the shipper's premises, physical handling, and documentation. The same irate customer cited with dismay IATA studies showing that only 8 percent of the total airfreight travel time is actually spent in the air.²⁴

On the international scene, it appears that air cargo carriers do best when carrying traffic from their home country. Flying Tigers states that west-bound yields from Europe are terrible. They blame this, to a large degree, on the single currency and a homogeneity in cargo operations in the United States which simply does not exist in Europe.²⁵

A relative newcomer to the air cargo field, but one with notable achievements, is Air France. They successfully use pure freighter and mixed passenger/cargo wide-bodied aircraft. They have increased warehouse mechanization and use modern lifting and stocking equipment. Most important of all, they use computer systems to trace cargo loads, find lost pallets, and keep track of the contents and available warehouse space throughout the entire network.²⁶

Overall though, the air cargo business is likely to suffer even deeper distress unless the carriers start charging higher rates.

²⁴"Shippers Criticize Beleaguered Air Cargo Industry," Air Transport World, Vol. 17, No. 11, November 1980, pp. 90-92.

²⁵Roger Goodson, "Air Cargo: Traffic Increases While Profits Vanish," Interavia, July 1982, pp. 706-707.

²⁶Ibid.

Options Available in Terminal Operations

It is not only the basic make or buy decision (in-house resources, single contractor, or several contractors) airlines have to make. Some other aspects, though vital to their operations, are basically parameters determined by other players. An example are the airport leases. The way in which U.S. airports in their role as landlords deal with their airline tenants varies widely from place-to-place. In terms of who's got the power, the continuum is bordered at one extreme by Phoenix and Las Vegas, which operate with no leases in a more or less European style. There the tenant airlines get no vote on rates, charges, or capital projects. They have no formal exclusive right to airport facilities, and the city/county authorities set the rent by ordinance.²⁷

On the other end of the spectrum is the so-called Chicago or O'Hare contract. While there are many variations on the theme, it is basically the Chicago contract to which people refer when talk turns to the traditional airport/airline lease arrangement. What they are talking about is a long-term (usually 20-30 years) lease under which signatory airlines, in effect, manage the airport in conjunction with the sponsor.²⁸

A related issue concerns that of terminal maintenance. Who will do the housekeeping, and what is the most efficient way? Basically, there are three choices: use in-house resources (maintain a housekeeping staff), hire an outside contractor, or use a blend of the two. Each situation, of course, depends upon the

²⁷ Jack Gordon, "Who Runs the Airport? The Battle of the Leases," Airport Services Management, Vol. 21, No. 1, January 1981, pp. 24-30.

²⁸ Ibid.

particular needs of the airport and the community it serves. Donald P. Madden, Superintendent of Buildings at the Kansas City International Airport, holds the view that contractors tend to work well for about three months. Then they begin to slack off. Richard Peterson, Facilities Manager at Tucson International Airport, offers more explicit insights. Contractors promise the airport authority strict quality control, supervision at all times, and highly trained personnel. He goes on to say that the quality control disappears first, then the supervisors. The trained workers are replaced by part-time, inexperienced people. He does have some sound advice though: make the contract as specific as possible, right down to how many times a day floors will be washed and ashtrays emptied, make certain that the contractor provides close supervision and quality control, and ensure that only qualified people are employed by the contractor.²⁹

Diversity in Airport and Related Charges

Airport and en route charges are another area where wide diversity exists. One writer contends that these charges are the normal and proper method of recovering the cost of infrastructures made available to air carriers. As an integral part of aircraft operating costs, these charges are ultimately paid for by air transport users--passengers and freight shippers--not by the airlines. Thus, when computing the cost price and selling price of their services, airlines are actually relaying on the low percentage these charges constitute compared with other direct control items such as advertising, travel-agent commissions, and

²⁹"Terminal Maintenance: The Contractor Question," Airport Services Management, Vol. 21, No. 4, April 1981, pp. 57-58.

catering. The share of airport charges alone on a worldwide basis in 1978 amounted to about 1.9 percent for international and 2.4 percent of the total operating costs for U.S. domestic carriers.³⁰

A somewhat different view is expressed by Cornelius Lakeman, Head of the IATA and ICAO Affairs Department of the Royal Dutch Airlines (KLM). A B747 is charged \$9,722 for a peak-hour landing at Heathrow compared with \$3,780 in Paris and \$4,122 in Geneva. By comparison JFK charges \$3,616.³¹ Although Lakeman's article is somewhat dated, his observations are still valid. He contends that airport charges should be replaced by fuel throughput charges since the maximum takeoff weight includes fuel. He also comments that en route charges for smaller aircraft should be increased since they are normally the ones that require more help. Security charges, and the associated costs fees, should be paid by the respective governments for self protection.³²

He goes on to say that unlawful interference with commercial aviation is usually politically motivated and is generally directed against governments and not against the airline or its passengers. He takes to task environmental charges, which in his opinion are largely the result of zoning after the fact, with airlines not consulted. He also criticizes overtime charges for customs and several other services (ramp coordination, public address system, etc.) for which

³⁰D. Riemens, "Airport Charges: A Decreasing Element in Airline Operating Costs?" Interavia, Vol. XXXIII, No. 1, January 1978, pp. 52-53.

³¹"European Report," Air Transport World, Vol. 17, No. 10, October 1980, p. 11.

³²Lakeman, op. cit.

airlines are charged but which they often perform themselves.³³ What in essence he is saying is that an airline should only pay for those services it truly uses and then on an equitable basis.

A. J. Miyamoto, Chief of Airports Division, Hawaii Department of Transportation, holds similar views,

We favor the unassigned-gate concept at Honolulu International, because we get more efficient use of gate space this way. With this philosophy it appears only appropriate that we provide finished gates, complete with furniture, carpeting, loading bridges, air conditioning for the aircraft and 400-Hertz ground power.³⁴

Airlines at Honolulu are charged by gate use and added to the gate charge is a holding room charge. No landing fees are assessed at Honolulu. They would only be considered if revenue from other sources failed to meet the airport's operating expenses.

Heathrow currently assesses about \$3.60 per passenger for security services, Geneva \$1.50, France plans to institute a head tax, and only Frankfurt's security bill is borne by the State of Hesse at the cost of \$16 million annually.³⁵

The Role of Government in Commercial Aviation

Of course, airport and en route charges are only one way political influence is felt. Governmental influence can be felt at all levels of commercial aviation. Foreign government subsidization makes private carriers compete against national

³³Ibid.

³⁴Frank Furnham, "Big Plans for Honolulu," Airport Services Management, Vol. 22, No. 5, May 1982, p. 24.

³⁵Roger Goodson, "The Cost of Airport Security," Interavia, Vol. XXXVI, April 1981, pp. 322-324.

carriers that operate largely on a noneconomic basis. Foreign currency control restricts availability of foreign exchange for buying services and interferes with remittance of earnings to the United States. Discriminatory charges are made for use of foreign airports and airways. Illegal ticket discounting and rebating is practiced. Air carriers owned by foreign governments often have ground handling monopolies, and governmental procurement practices hamper U.S. sales.³⁶

The result of this commercial versus state-owned confrontation was the topic of a recent editorial. The writer indicates that in 1981, Pan American laid off 3,460 workers, TWA 2,380, and the now defunct Braniff system 3,567. Their rivals on international routes, meanwhile, have increased employment significantly. Japan Air Lines has expanded its workforce 46 percent from 1973 to 1980. Lufthansa has increased employment 30 percent. At the same time, the U.S. carriers are not able to modernize their fleets because of their inability to produce the financing.³⁷

Their competitors, meanwhile, are buying significant numbers of newer, more fuel efficient airplanes that will increase their advantages over the Americans even further in the years to come. U.S. carriers' figures show that out of 154 intercontinental-range transports on order, 135 had been ordered by non-U.S. airlines. The average age of the U.S. carriers' Boeing 747 fleet is eight years. The average age for the foreign fleets is only 4.6 years.³⁸

³⁶"Spotlight on U.S. Service Industries in World Markets," Commerce America, Vol. 11, No. 8, April 11, 1979, pp. 8-11.

³⁷"Through the Cracks," Air Transport World, Vol. 18, No. 6, June 1981, p. 2.

³⁸Ibid.

Confronted with what may be a snailpaced increase in passengers and cargo through the mid-1980s, airlines are rearranging their priorities. Besides paring staffs and shedding profitless flights to domestic backwaters or remote prestige stops, the industry has become obsessed with improving fuel efficiency and the productivity of ground employees. "There used to be a lot of sloppiness," says Richard D. Pearson, TWA's Vice-President for Technical Services, "but at seven cents a gallon, who cared?" As Pan Am's Edward Acker argues, "a large country has more (financial) staying power than a large airline."³⁹

The five U.S. airlines which account for 85 percent of U.S. overseas flights submitted an angry memo to the Reagan administration. "The international market is characterized by foreign government subsidies and other 'mercantilistic' practices by foreign governments designed to bolster the performance of each nation's own carrier at the expense of U.S. carriers," they charged. Except for a handful of generally profitable private carriers--such as Cathay Pacific and Varig, the vast majority of non-American airlines are state owned. Most nations are willing to run those flagships at a loss in order to bolster tourism, trade, and national prestige.⁴⁰

Is there hope for the U.S. airlines? There is at least promise because a step towards eliminating discriminatory practices encountered by U.S. airlines abroad will be taken by the United States at a ministerial meeting of General Agreement on Tariffs and Trade (GATT). U.S. Trade Representative William E. Brock summarized U.S. concerns:

³⁹"Trouble in the Skies," Newsweek, November 16, 1981, pp. 40-47.

⁴⁰Ibid.

- Foreign governments pour hundreds of millions of dollars into their civil aviation industry, while the U.S. government provides no support.

- There is no GATT agreement on services (e.g., airlines, construction, communications), only on the sale of goods.

- A framework GATT for services has been proposed, but would take years to implement.

- Why should a U.S. carrier in country "X" be forced to use an inefficient ground handling monopoly when the national flag carrier is afforded the opportunity to ground handle itself?

- Currently, nations impose whatever policies or practices they deem appropriate for their own interests.

- U.S. airlines may fear retaliation; therefore, they don't complain.⁴¹

Adding support to the U.S. viewpoint is J. P. McKinnon of the CAB. He expressed concern over the financial and market share losses of U.S. carriers in international service and blamed their decline on a double standard used by some foreign nations in their bilateral dealings. He stated "While we can't control the economy, I don't think it's right to sit still and watch as the U.S. carriers that pioneered commercial aviation throughout the world are denied real access to foreign markets or are discriminated against."⁴²

Attacking the utility of some national airlines in general, Ives Robins contends that many of these airlines are operated for political prestige rather

⁴¹"U.S. Plans Drive on Airline Discrimination," Aviation Week & Space Technology, Vol. 116, No. 18, May 3, 1982, p. 30.

⁴²"Bilateral 'Give-and-Take' Policy Adopted," Aviation Week & Space Technology, Vol. 116, No. 9, March 1, 1982, p. 39.

than for market requirements. He uses Africa as a basis for comparison, stating that all forty-five sub-Sahara nations have their own airline, but that they all neglect their domestic routes in favor of the international ones.⁴³

However, a change is beginning to emerge for the national flag carriers as well. Herman De Croo, Belgian Minister of Communications, recently stated,

I do not intend to allow the Belgian taxpayer to spend money merely to have the Belgian flag displayed on aeroplanes around the world. It would be much cheaper to the state to rent⁴⁴ signs with the Belgian flag painted on them in front of all the airports.

Sabena Airlines has been losing money for the past 25 years. A change in state participation has been proposed that would leave Belgium with 50 percent rather than the present 90 percent of stock.

An immediate concern was voiced by Carlos Van Rafelghen, Sabena Chairman. He pointed out that, "With some foreign investors we must be very prudent." A wry, if understated reference to past plans, which were rejected for the "Beneluxation" of Sabena, implying eventual takeover by KLM.⁴⁵

Political and Cultural Impacts

Wherever airlines show the flag, from Tokyo to New York or Copenhagen to Lagos, the alarms are being sounded loud and clear. The losses cannot and will not continue forever, and even state-supported carriers can and will go bankrupt.

⁴³Yves Robins, "Air Transport in Black Africa," Interavia, Vol. XXXVI, No. 4, April 1981, pp. 318-322.

⁴⁴Roger Goodson, "Survival or Bankruptcy, Sabena Bites the Bullet," Interavia, No. 9, 1982, pp. 951-952.

⁴⁵Ibid.

The demise of privately owned Laker and Braniff and the current throes of other famous airlines have highlighted the catastrophic possibilities of bankruptcy.

An example of how political and cultural/religious factors can influence an airline was the recent demise of El Al Israeli Airlines. To win support of the ultraorthodox Agudal Israel Party, ex-Prime Minister Begin promised, among other things, that El Al would no longer operate on the Sabbath and other high religious holidays. The violent opposition by the airline employees combined with the financial instability of the carrier eventually led to the dissolution of El Al. How a future Israeli airline will operate has yet to be determined.⁴⁶ It is noteworthy though how the internal politics and religious inhibitions of a nation can ultimately ground its own airline. El Al Works Council Spokesman Gabriel Salzmann credits Begin with stating that it causes him anguish to see El Al aircraft fly on Sabbath. Quips Salzmann, "Will he like it better to see only German aircraft flying?"⁴⁷

How other cultural factors can exert influence on an airline's operation was cited in an article concerning Nigeria Airways. The author states that the airline has had problems in retaining clerical and maintenance workers. That stems partly from the fact that they are classified as civil servants and as such are paid relatively low salaries by the standards of the relatively affluent Nigerian economy. Another problem is that in Nigeria, airline positions do not have the same status as the same jobs in other nations. Some employees leave to find work

⁴⁶"El Al's Sabbath Ban Overruled," Flight International, Vol. 112, No. 3827, September 11, 1982, p. 738.

⁴⁷"Hoelle auf Erden," Der Spiegel, Vol. 36, No. 35, August 30, 1982, pp. 112-115.

with more prestige if not more money. Compounding the labor situation is Nigerian law which requires that approximately equal numbers of workers be hired from the nation's three main tribes which forces employers to overstaff. Additionally, members of one tribe often object to working for a member of another tribe.⁴⁸

Yves Robins contends that a shortage of funds, increased fuel costs, lack of skilled personnel, and inadequate facilities are major elements which will keep air transport in Black Africa in a difficult posture. The market potential exists, but it will take a long time before it develops into the highly useful tool the continent badly needs. Regional cooperation and foreign assistance will remain the only way in the medium term to provide sub-Saharan Africa with the needed air transportation infrastructure.

On the other hand, the African Airlines Association (AFRAA) is to study the feasibility of establishing joint-owned handling companies in airports outside Africa to reduce ground handling costs (twelve AFRAA airlines serve Paris, for example).⁵⁰

Supranational Impacts

But it is not only Black Africa that has problems in cooperation. A Common

⁴⁸David A. Brown, "Nigeria Airways Changing Management," Aviation Week & Space Technology, Vol. 115, No. 17, October 26, 1981, pp. 33-37.

⁴⁹Robins, op cit, p. 22.

⁵⁰Nick Brough, "Africa's Airlines Seek Closer Cooperation," Interavia, No. 6, 1982, pp. 600-601.

Market work group is seriously weighing the self-imposed European Economic Community (EEC) competition rules. Along with the 85th and 86th articles of the Treaty of Rome (which established the EEC) outlining key powers concerning fair competition and the prevention of abuse of dominant position, the draft regulation also cites certain elements of Article 90, which governs member state policies in running public services, including airlines. The group is to consider a "European" position, since current national and international laws protect airlines from the EEC's competition rules.⁵¹ However, two enormous hurdles will have to be overcome before any pro-competitive practices are likely to occur. The first one is the instinct for national sovereignty over national air transport. The second one is the difficulty of exporting deregulation even if the Common Market countries could agree to it themselves. To compound the matter further, the legal question whether the Treaty of Rome is really applicable to air transport or not, has yet to be decided. Although the treaty requires completely free competition for all businesses within the Common Market, airlines remain one of the few industries that remain heavily regulated.⁵²

However, some relaxing of European airline regulations is beginning to appear almost certain. Impetus for the move towards easing European regulations is coming from the European Civil Aviation Conference (ECAC), the European Economic Community (EEC), and from several countries. The ECAC has already recommended that member countries consider "the possibility for progressively introducing some additional degree of flexibility and competition." Additional

⁵¹"Common Market Group Weigh Competition Rule," Aviation Week & Space Technology, Vol. 114, No. 23, June 8, 1981, p. 12.

⁵²Ibid.

ECAC pressure to ease regulations is likely to continue over the next few years. More immediately, EEC is likely to act to ease restrictions on commuter type airlines and to restrict the amount of government subsidies flag carriers can receive.⁵³

Additional EEC directives are likely over the next two years that would give airlines more freedom to set fares and that would set up EEC procedures to punish airlines or detect governmental agreements that limit competition. Recently the ECAC documented the extent of such agreements and described how much competition in Europe is limited. An ECAC task force said that there are capacity limits on 90 percent of the routes among member ECAC countries, and that 7.580 percent of the ton-kilometers performed on intra-European flights are handled under pooling agreements that include some form of revenue or cost sharing.⁵⁴

The European Parliament has charged the EEC to develop a transport policy that includes movement towards free competition, or the Parliament will take the full EEC to the European Court of Justice. The Court of Justice has no power to force airline deregulation, but it can publicly deplore the failure of EEC ministers to act on at least twenty four different proposals to increase airline competition, thereby increasing the pressure to take action. There is a counterpressure which requires politicians to protect national airlines. Being blamed for supporting a policy that results in the failure of the national flag airline could be fatal to a European politician.⁵⁵

⁵³Ibid.

⁵⁴Ibid.

As a result, European officials predict a more moderate form of deregulation. They would allow more competition and freedom for airlines but would retain the ability to protect national airlines, at least for a transition period. The one thing that Europe has probably learned from American deregulation is that any extreme is dangerous. Many airline officials remain convinced that European or international air transport can never be deregulated completely. National airlines cannot be allowed to suffer the ultimate fate of inefficient carriers in a truly deregulated environment. According to Umberto Nordio, Chairman of Alitalia,

Profit squeezes will not impose the choice between more productivity and death because death will not come to the less efficient. Their lot will be subsidies, not disappearance. For these reasons, air transport is not and will never be a free market. It is and will remain a regulated market in which classical interplay of competitive forces cannot be the only, or the decisive factor.⁵⁶

Options Available for Catering

Carriers, especially privately owned ones, have to be highly innovative to survive. Various pooling or cooperative efforts are tried only to be discarded if another solution promising a carrier a competitive edge over the others is found. One such issue is in-flight catering. IATA agreements had to be formed to preclude extensive sandwich wars. Reality does look somewhat different though. Airlines all use aircraft which are indistinguishable in terms of technical quality.

⁵⁵Ibid.

⁵⁶Ibid.

Safety standards are identically high. They keep to their schedules. They charge basically the same fares. That, at any rate, is the official story. In practice, the picture is not quite uniform, as many passengers can testify. The airlines in turn know, or think they know, what makes an experienced and frequent traveler buy a ticket from one airline in preference to another.

In the first place, of course, the choice will go to the line which offers the best buy in purely practical terms. This includes punctuality and frequency of flights, suitable departure and arrival times, good connections, and a minimum of intermediate stops. Another significant factor is the service offered by the airline both before and after the flight. For the frequent travelers it cannot be determined that the standard service received on board is important criteria. The quality of the in-flight breakfast, lunch, or dinner will only be remembered if it greatly exceeds or falls short of expectations. What the airlines have to determine is the extent to which their in-flight catering constitutes a genuinely competitive factor and how much value to place on it.

For a catering organization, be it a division of an airline or an independent company, there is no real problem in providing the requisite number and type of meals on time, provided of course that passengers give adequate notice of any special requests. Nevertheless, various airports have a reputation among airlines of being trouble-spots. The catering services available there are only capable of providing a limited selection of items or do not always live up to their vaunted standards of quality. The airline's catering manager then has to make the decision to circumvent hazards of this nature.

The largest catering organizations prepare 10,000 or more items of food every day, ranging from sandwiches to complete first-class meals. United

Airlines, the world's largest airline in terms of fleet size, takes on 10,000 meals per day at Chicago-O'Hare Airport alone. Its catering division is among the ten largest food companies in the United States.⁵⁷

Carriers have selected differing types of organizations for handling their catering activities. Swissair, for example, runs its own catering operations in Zurich, Geneva, and Karachi, while purchasing most of these services from independent firms on other stations. When the Roma-Fiumicino airport became operational in 1961, Alitalia became the major shareholder in a catering company established at the time. The company functions under the name Societa Esercizi Aeroportuale Ristorante e Negozi. Deutsche Lufthansa preferred to split off its catering operation from the parent airline. In 1966 it established a wholly-owned subsidiary called Lufthansa Service Gmbh (Inc.), headquartered in Frankfurt with facilities at Frankfurt, Cologne, Duesseldorf, Hamburg, and Munich Airports.⁵⁸

Considerable financial losses can result from no-show passengers, and all airlines do their utmost to reduce the resulting overcatering. KLM and Alitalia regard it primarily as a matter of communications. A spokesman from the Netherlands carrier commented,

Our efforts to combat over-supply in the catering field are geared to obtain the latest possible number of passengers who board the airplane. The specific procedure differs from place-to-place (KLM has some 65 catering uplift stations throughout its worldwide network). At some airports deliberate under-catering is employed, with standby meals in refrigerator trucks held in readiness beside the aircraft.⁵⁹

⁵⁷Klaus Hohle, "In-Flight Catering: Competitive Value Versus Cost," Interavia, Vol. XXXI, No. 4, April 1979, p. 371.

⁵⁸Ibid., p. 372.

⁵⁹Ibid., p. 373.

Alitalia concurred with these remarks,

We keep careful note of the trends and relationships between the numbers of booked passengers and those actually boarded in order to optimize our meal-boarding procedures. Our over-catering level is currently around nine percent for first class and five percent for economy.⁶⁰

Swissair views catering pragmatically,

People have been telling us for 20 years that in-flight catering would eventually be cut back to an absolute minimum. But catering and on-board service in the broadest sense of the term are among the few means for distinguishing between one airline and another.⁶¹

Perhaps Swissair earned its reputation as the "Mercedes of the air" through its dependable, meticulous, and efficient service which it has pledged to maintain in the face of the current airline recession.⁶²

Figure 3 gives a representative sampling (1978 figures) of airline catering for comparative purposes.

Although food service represents only 3.6 percent of cash operating expenses of U.S. trunk and local carriers, it is a major sales tool. Menus are changed to enhance the overall marketing tactics, e.g., a meal quality increase on competitive routes.⁶³

That airline food service appears lucrative was shown by the recent decision of a department store chain not to push their traditional business much further and to turn instead to airline food service and restaurants to fatten their very

⁶⁰Ibid.

⁶¹Ibid.

⁶²Joseph Treen, "The 'Mercedes' of the Air," Newsweek, November 16, 1981, p. 44.

⁶³"Changes in Airline Foodservice," Institutions/Volume Feeding Magazine, March 15, 1978, p. 130.

<u>AIRLINE</u>	<u>MEALS/SNACKS PER YEAR</u>	<u>FLIGHT KITCHENS</u>
Aeroflot	95,000,000 (estimated)	2,000 (estimated)
United Airlines	32,743,000	21
American Airlines	29,000,200	26 (Sky Chefs)
British Airways	26,436,000	2
Trans World Airlines	24,360,000	5
Eastern Airlines	20,566,855	Outside Caterers
Delta Airlines	19,500,000	Outside Caterers
Pan American	14,600,000	10
Northwest Orient	14,200,000	5
Air France	10,500,000	5
Air Canada	8,000,000	2
KLM	7,100,000	3
Scandinavian	6,600,000	12 (Subsidiary)
Swissair	6,100,000	3
CP Air	5,000,000	CP Hotels Subsidiary
Varig	6,000,000	6
Iberia	5,500,000	Outside Caterers
Japan Airlines	5,359,000	3
Alitalia	5,100,100	2 (Subsidiary)
Mexicana	3,300,000	Outside Caterers

Figure 3. Airline Catering.

Source: "Airline Catering," Service World International, Vol. 12, No. 3, June 1979, p. 49.

lean profits. Carson Pirie Scott's main vehicle for this transformation will be Dobbs House Inc., the big airline caterer acquired from Squibb Corporation for \$108 million. However, Dobbs, trailing only Marriott Corporation in in-flight catering, is by no means a sure bet. Fully 85 percent of its business depends on the cyclical airline industry. Deregulation of airlines has opened up both opportunities and risks. New carriers entering some routes will raise the need for in-flight meals, but deregulation also means that airlines can quickly leave markets they do not like. Investing in new flight kitchens or long-term airport concession contracts has thus become chancier. Currently, Dobbs has catering agreements with sixty airlines.⁶⁴

Airlines which run tightly planned and closely calculated operations demand quick turnaround times to maximize aircraft use to improve operating economics. After safety, economy is the most important watchword of the airline industry. Consequently, ground handling will continue to be a fertile field of activity for cost cutters.

The introduction of new aircraft types, new or modernized airports, new apron vehicles and equipment all necessitate revision of handling procedures to adapt them to changing conditions. On the other hand, the continual refinement of turnaround techniques can have a long-term effect on the design of aircraft, terminals, and ground equipment. Quite apart from procedural changes forced upon them by current circumstances, airlines devote a good deal of time, both on their own behalf and on various planning committees, pondering the basics of

⁶⁴"Carson Pirie Scott: Hoping to Get Fat on Food Services," Business Week, No. 2680, March 23, 1981, pp. 65-68.

ground handling and defining a fundamental problem approach philosophy.

IATA Initiatives

During the 1950s airlines in Europe often contracted as handling agents for each other. When the airlines developed their own separate contracts, difficulties over the interpretation of various contract services arose. A small group of airline specialists decided to standardize handling contracts within Europe with a view to submitting a proposal to IATA for worldwide implementation. The first standard ground handling agreement was approved by IATA in 1964 after six years of study and development. Today, the IATA Standard Ground Handling Agreement is used throughout the world by most airlines, IATA and non-IATA, and many handling companies. Similarly, other types of interairline agreements, such as the IATA Multilateral Interline Traffic Agreements and Unit Load Devices Control Agreement, have generally adopted a common format devised by the various IATA specialist groups.⁶⁵

Preparing and concluding handling contracts is normally a head office function and the station manager will not be involved in preparation of the contracts. He will be consulted in respect to the local situation and practical details. However, at a station where an airline either contracts its handling functions to another company or acts as a handling company for other airlines, the station manager ought to know the rights and responsibilities detailed in the contracts. He will need to know what services are being paid for under the

⁶⁵International Air Transportation Association, Principles of Airport Handling (Montreal: International Air Transport Association, 1980), p. 53.

contract and which services are extra. There is normally a good deal of cooperation and give-and-take between member airlines, but to avoid misunderstandings, these facts should be known.⁶⁶

The general structure of IATA ground handling agreements consists of several parts. The main portion concerns agreement about the legal and administrative articles between the parties involved:

- date of effectiveness
- termination period
- liability and indemnity
- accounting and transfer
- standard of work

The main agreement is followed by Annex A. This part lists and describes all possible ground handling activities. The terms and wordings used have been accepted by IATA member airlines as a worldwide standard. Annex A precludes misunderstandings between user parties about the services and facilities included in the agreement. It should be emphasized that Annex A describes what should be done, not how it should be done.⁶⁷

Annex B to the basic agreement states the location(s) where the services will be provided. This annex, together with the handling services and facilities chosen from Annex A, gives the handling fee(s) for such service. Furthermore, it is possible to enter, when required, other ground handling matters which were

⁶⁶Ibid.

⁶⁷Ibid.

agreed upon during the negotiations:

- communication costs
- fee for technical landings
- extra services⁶⁸

The main agreement and Annex A are negotiated between the parties concerned. An Annex B is usually developed for each station. But it is also possible to prepare one Annex B covering several stations when the terms and conditions are similar.⁶⁹

Ground equipment and other operating equipment is expensive to buy and maintain. Some types of equipment are only used occasionally. But it is necessary to have them available at all stations where a carrier operates. If a carrier does not wish to provide all of the items of equipment itself, it makes economic sense that it can hire the equipment from another carrier. This principle works to the benefit of the equipment provider who gets greater use and financial return. It also benefits the hirer because he eliminates capital outlay. For this purpose, the International Airlines Technical Pool was established. Airlines belonging to the pool meet twice a year to determine what equipment is available for pool hire at which airports and at what cost. The costs are determined by a two-part formula involving capital depreciation and variable use time. Availability and costs are published among the airlines concerned. Settlement of accounts is made through the IATA Clearing House. Typical items

⁶⁸Ibid., p. 54.

⁶⁹Ibid.

used in the pool are aircraft engines, engine start units, aircraft loading equipment, and passenger steps.⁷⁰

Other Initiatives

Not only does IATA devote a considerable amount of time to ground handling. The Office of Technology Assessment (OTA) of the Congress of the United States commissioned a study which, although limited to the air cargo system, provides some interesting thoughts. The study contends that more efficient handling of cargo on the ground could have as much impact on future growth and profitability of air cargo as the introduction of more efficient aircraft.⁷¹ The private sector is developing more efficient systems, including standardized intermodal containers and mechanized equipment to move the containers between carriers or storage areas.

It has been estimated that complete containerization of cargo and a higher level of mechanized handling could reduce the cost of ground operations by as much as 70 percent. The allure of potential savings will produce market pressures sufficient to push cargo carriers and freight forwarders towards increased containerization and mechanization.⁷²

The study also addresses several concepts and limitations which will have an

⁷⁰Ibid., p. 55.

⁷¹Congress of the United States, Office of Technology Assessment, Impact of Advanced Air Transport Technology Part 2 - The Air Cargo System (Washington: Government Printing Office, 1982, p. 3.

⁷²Ibid., p. 4.

impact on the industry. Several major air cargo terminals are approaching full capacity with current operations and equipment. This creates a major problem for air cargo carriers. Lack of available land makes expansion of some terminals very difficult. Two options to accommodate air freight traffic increases would be: (1) off-site bulk freight processing, and (2) all-cargo airports. Off-site bulk freight processing terminals would move the freight consolidation operations away from crowded airports to less crowded, less expensive quarters.⁷³ Consolidated freight could be moved back to the airport in containers or special bins. The airport area could be used for aircraft loading and a limited amount of container storage and staging functions. Terminal productivity would increase because trucks and parcels would go to the off-site terminal. While some forwarders and all-cargo carriers favor this option, combination carriers generally consider their passenger and freight operations too closely integrated to have separate terminals.⁷⁴

The all-cargo airport would be entirely devoted to handling cargo. However, given the difficulty of developing any major new airports, this is a remote possibility. It might be possible to turn abandoned or underused military airfields into all-cargo airports.⁷⁵ The study goes on to say that airport curfews place a major limitation on air cargo carriers. Other operating restrictions imposed by some airports in the United States and by governments abroad also hamper the carriers. Figure 4 gives a brief comparison.

⁷³Ibid., p. 31.

⁷⁴Ibid.

⁷⁵Ibid., p. 32.

<u>Type of Airport</u>	<u>Total Airports</u> <u>Responding</u>	<u>Numbers with Noise</u> <u>Abatement Programs</u>
Large U.S. hubs	24	15
All other U.S. airports	76	35
Large foreign hubs	40	35

Figure 4. Airport Operating Restrictions, 1979.

Source: Report on Aircraft Noise Reduction Operating Procedures (Washington, D.C., Airport Operators Council International, 1979).

Many shippers depend on nighttime aircargo service for moving high-value or perishable goods. Shippers tender goods to the forwarder or carrier towards the close of the business day so that they can be shipped at night and be available at their destination in time for the next day's market. Delays resulting from curfews can cause severe disruption in distribution patterns and make it difficult for some firms to remain competitive with regional firms whose factories are located close to retail markets.⁷⁶

The airport curfew is only one of several types of operating restrictions imposed on U.S. carriers by foreign governments. Some of the restrictions are clearcut attempts by foreign countries to inhibit competition with their own national airlines. For example, U.S. carriers report that one European country, which owned no 747 freighters, refused landing rights to foreign 747 freighters until an arrangement was worked out to lease them a 747 for part of the week. Another European nation insisted that an airline could only provide pickup and

⁷⁶Ibid., pp. 42-44.

delivery service in towns where it also offered passenger service. Since the local carrier served many more cities than the U.S. carrier, competition for cargo business was definitely one-sided. In this particular instance, the problem was overcome with U.S. government assistance. In another example, one Asian country requires costly and time-consuming cargo clearance procedures for foreign carriers. In another instance, the national carrier is allotted prime terminal space and is the only carrier allowed full control of its freight from terminal to warehouse.⁷⁷

How restrictive airport operators are is shown in the following quotation from Airport Regulations for the Airports of the Federal Republic of Germany excluding Berlin (West):

The Airport Operator is entitled to perform traffic handling (ground handling service), for a servicing remuneration unless in certain individual cases alternative arrangements have been agreed upon. In such individual cases the Aircraft Operators are obliged to store any servicing equipment and handling vehicles against payment, in such spaces assigned by the Airport Operator.⁷⁸

Summary

In the preceding pages certain aspects of ground handling of commercial airliners were discussed as currently reported in pertinent literature. We have seen that ground handling constitutes a highly complex area. An area where an

⁷⁷ Ibid., p. 46.

⁷⁸ Arbeitsgemeinschaft Deutscher Verkehrsflughäfen, Airport Regulations for the Airports of the Federal Republic of Germany Excluding Berlin (West) (Stuttgart, Germany: Arbeitsgemeinschaft Deutscher Verkehrsflughäfen, 1975), pp. 5-6.

airline has to make a basic make or buy decision on how to have the ground services accomplished.

The emergence of new and aggressive airlines as a result of deregulation provided some insights not only into the strategy they use, but also the lessons they seem to have learned from the older, established airlines. In the area of sales, the increasingly important role of the travel agents was reviewed, a role which, if allowed to continue at its present trend, may soon reduce the airlines to wholesalers of passenger space.

The various approaches of in-house resources versus the single contractor or multiple contractor as they relate to the air cargo industry were reviewed, and some of the international implications discussed. This was followed by a brief discussion of airport leases and the existing differences. A corollary of this, airport and en route charges, were reviewed against the international setting.

The role of governments and their influence on commercial aviation activities was followed by political and cultural impacts which emphasized the importance of noneconomic factors pertaining to this industry.

The supranational aspect was reviewed as it currently affects commercial aviation in Europe. This was followed by carrier initiatives in certain areas of ground handling. The last section consisted of a review of noncommercial literature which revealed that, although a great deal of standardization exists, outside parameters cannot be overlooked.

Without a doubt, much work remains to be done in the area of ground handling. However, the following quote may well be an assessment of the airlines intentions:

When traffic growth returns, the airlines' fancy will turn, as it always does when they have made even the tiniest profit, to ordering new equipment. And the bankers, however much they will moan that the airlines cannot afford to invest such massive sums, will lend⁷⁹ them what they want, but back on the ground, it's the same old story.

The next chapter will describe the airports and airlines which were used in the sample and review the questionnaire responses received from them.

⁷⁹"Aircraft Industry: Tomorrow's Pterodactyles?" The Economist, Vol. 279, No. 7187, June 5, 1981, p. 4.

CHAPTER III

SAMPLE DESCRIPTION AND QUESTIONNAIRE AND INTERVIEW DATA

Introduction

The complexity of today's commercial aviation industry made the selection of a representative sample for both airlines and airports difficult. It could be argued that there is no "representative" sample. To arrive at a logical conclusion all airlines and all airports would have to be surveyed. This, however, would be well beyond the scope of this study. The samples were designed to represent the widest possible variations within the airline industry and, while not all inclusive, give a good indication of the different approaches used by both airport operators and airlines. The following sections give brief descriptions of the airports and airlines selected and the reasons for their selection. This will be followed by an analysis of the data as provided by both airports and airlines. The questionnaires sent to the selected airports and airlines used in the sample, as well as the interview data, are at Appendix B.

Airports

Frankfurt/Main, West Germany. Situated in the heart of highly industrialized West Germany, Frankfurt is not only the hub for Lufthansa, the country's national carrier, but serves as an en route or turnaround stop for many international carriers. In 1982 Frankfurt/Main handled 16,520,000 passengers, a

decrease of 2.6 percent from 1981 and 699,774 metric tons of cargo/mail, an increase of 0.5 percent from 1981. Total aircraft movement in 1982 was 231, 471, which included 3,985 commuter, 16,646 general aviation, and 14,947 military movements, an overall decrease of 2.2 percent from 1981.¹ Frankfurt/Main was selected because of its key role in Central Europe and the highly structured management system employed by the airport operator.

Aéroport de Luxembourg, Grand-Duchy of Luxembourg. Rather large for the tiny nation of Luxembourg, the airport continues to be the European turnaround station for Icelandic airways which pioneered low-cost transatlantic fares. Serving as hub for Luxair and Cargolux, Luxembourg Airport has a reputation for being flexible but business-minded. In 1982 Luxembourg handled 591,936 passengers (an increase of 6.3 percent from 1981) and 64,704 metric tons of cargo/mail (a decrease of 11.1 percent from 1981). Total aircraft movement in 1982 was 56,042, which included 41,864 general aviation and 651 military movements, representing a 13.1 percent decrease from 1981. The Aéroport de Luxembourg was selected because of its rather unique role in handling IATA as well as non-IATA airlines, and its aggressive business policies.²

Wien-Schwechat, Vienna, Austria. Located in neutral Austria, Wien-Schwechat is one of the main hubs in East-West commerce. The home base for

¹ Airport Operators Council International, Worldwide Airport Traffic Report 1982. Washington: Airport Operators Council International, 1982, p. 32.

² Ibid., p. 62.

Austrian Airlines, Wien-Schwechat is also used by a large number of communist airlines. In 1982 Wien-Schwechat handled 2,912,876 passengers (a decrease of .2 percent from 1981) and 37,839 metric tons of cargo (a decrease of 9.1 percent compared to 1981). Total aircraft movement in 1982 was 77,900, including 7,750 commuter, 22,348 general aviation, and 323 military movements, a 4.6 percent decrease from 1981.³ Wien-Schwechat was selected because of Austria's neutrality with Western leanings, and the airport's impartial handling of airliners from both the Eastern and Western blocs.

Dallas/Fort Worth International Airport, Dallas/Fort Worth, Texas. One of the most modern airports in the world, Dallas/Fort Worth Airport is the home base for American Airlines.

It was the home base for ill-fated Braniff International and is used by a number of national and international carriers. In 1982 Dallas/Fort Worth handled 24,726,471 passengers (an increase of 5.1 percent over 1981) and 293,247 metric tons of cargo (a decrease of 2.6 percent as compared to 1981). Total aircraft movement in 1982 was 441,881, which included 96,529 commuter, 20,611 general aviation, and 699 military movements, a decrease of 6.3 percent from 1981.⁴ Dallas/Fort Worth was selected for its private ownership and typical U.S. management style.

³Ibid., p. 1.

⁴Ibid., p. 375.

Airport Responses

A questionnaire containing 20 questions was sent to each of the four sample airports. The questions were designed to obtain information not only about the modus operandi of the airport but also to ascertain its capabilities and limitations as they pertain to the subject under investigation. Specific questions and the responses from the sample airports are as follows:

- **Question 1: Who owns the airport?**

-- Frankfurt/Main, West Germany: City of Frankfurt, 28.9 percent; State of Hesse, 45.2 percent; Federal Republic of Germany, 25.9 percent.

-- Aéroport de Luxembourg, Luxembourg: Grand Duchy of Luxembourg, 100 percent.

-- Wien-Schwechat, Vienna, Austria: City of Vienna, 30 percent; State of Lower Austria, 40 percent; Austrian Federal Republic, 30 percent.

-- Dallas/Fort Worth, Texas: Jointly owned by the cities of Dallas (7/11) and Fort Worth (4/11), which relates to the general population ratio between the two cities.

- **Question 2: How is airport management determined?**

-- Frankfurt/Main: Board of directors is appointed jointly by the City of Frankfurt, the State of Hesse, and the Federal government.

-- Luxembourg: Airport administrators are government employees, working for the Ministry of Transport, Aeronautical service.

-- Vienna: Board of directors is appointed jointly by the city of Vienna, the State of Lower Austria, and the Federal government.

-- Dallas/Fort Worth: The airport board is composed of seven members from Dallas and four from Fort Worth, appointed by the city councils of the respective cities. It is a semiautonomous body, acting for and on behalf of the cities. The board appoints the executive director who is free to hire the personnel he requires to operate the airport.

- **Question 3: Who draws up the general business conditions?**

-- Frankfurt/Main: The airport owners.

-- Luxembourg: The Luxembourg government.

-- Vienna: The airport owners.

-- Dallas/Fort Worth: The airport business manager.

- **Question 4: How much influence does airport management have in policy determination?**

-- Frankfurt/Main: Policy is determined by the board of directors in consultation with the appointing authorities.

-- Luxembourg: Airport management plays the role of consultant within the government's representative commission.

-- Vienna: Policy is determined by the board of directors under the guidance of the appointing bodies.

-- Dallas/Fort Worth: Airport management studies and documents all questions and then presents its findings to the board. The board is free to question any aspect of the staff's findings and can initiate studies on questions it feels need research.

- **Question 5: What percentage of your income is derived from providing ground services to carriers?**

-- Frankfurt/Main: In 1981, 34.9 percent.

-- Luxembourg: No ground services provided.

-- Vienna: In 1981, 28.6 percent.

-- Dallas/Fort Worth: No income is generated directly by providing ground services to carriers, though this is not absolute. Ground handling services are provided by the airlines.

- **Question 6: Which of the following ground services can you provide?**

A. Passenger processing (check-in, off/onload, baggage handling, etc.)

B. Cargo processing (receive, process, off/onload, intermodal transfer, etc.)

C. Refueling/servicing (to include liquid oxygen, lubricants, hydraulic fluid, etc.)

D. Aircraft maintenance (both en route/turnaround maintenance as well as component repair/replacement)

E. Aircraft cleaning (both in and outside)

F. Catering of aircraft with meals, snacks, and beverages

G. Aircraft lavatory service

H. Ground transportation of passengers and crews

I. Sales of passengers and cargo revenue space

Frankfurt/Main

A. Yes

B. Yes

C. No, provided by a consortium of nine fuel suppliers.

D. No, provided by the airline itself or contracting with another airline (e.g., Lufthansa).

E. Interior cleaning yes, exterior cleaning no.

F. No, this service is provided by catering firms, such as Lufthansa Service Incorporated, Steigenberger Catering, and SAS Catering.

G. Yes

H. Yes

I. No

Luxembourg

A. Performed by Luxair Airline.

B. Performed by Cargolux Airline.

C. Esso Aviation

- D. Performed by Cargolux Airline.
- E. Performed by Luxair and Cargolux Airlines.
- F. Performed by Luxair Airline.
- G. Performed by Luxair and Cargolux Airlines.
- H. Performed by Luxair Airline.
- I. Performed by Luxair and Cargolux Airlines.

Vienna

- A. Yes, sole handling agent ramp and traffic.
- B. Yes, sole handling agent ramp and traffic.
- C. Five private fuel companies.
- D. Only for light aircraft and engines, otherwise Austrian Airlines.
- E. Inside yes, outside no.
- F. Wien Airport Restaurant and Hotelbetriebsgesellschaft m.b.h.
- G. Yes
- H. Yes
- I. No

Dallas/Fort Worth

- A. Not normally, this is provided by the airlines themselves.
- B. Not normally, this is provided by the airlines themselves.
- C. Allied Aviation Fueling Company of Texas (Exxon).
- D. No contract maintenance available, emergency maintenance available through individual carriers.
- E. Not normally, this is provided by the airlines themselves.
- F. No, done by Dobbs House Catering.

G. Not normally, this is provided by the airlines themselves.

H. Not on a regular basis, occurs either when an aircraft is disabled and needs evacuation, or when a large number of transfers to a different carrier in a different terminal would tax the Airtrans Transportation System.

I. Not applicable.

- **Question 7: Which of the above activities is the airline free to perform and which, if any, must be performed by you?**

-- Frankfurt/Main: The Airport Company has a monopoly for those functions which it is able to provide except for Pan American and Flying Tigers Airlines, which are free to conduct their own operations.

-- Luxembourg: There are no restrictions imposed on airlines by National Civil Aviation Authorities.

-- Vienna: The airport company has a ground handling monopoly for the services it is able to provide.

-- Dallas/Fort Worth: There is no restriction on carriers to provide/arrange for these services themselves or for one another.

- **Question 8: Are independent suppliers, such as in-flight kitchens, fuel suppliers, aviation services, etc., allowed to operate on your airport?**

-- Frankfurt/Main: Yes

-- Luxembourg: No, approval by the Ministry of Transportation is required.

-- Vienna: Yes, with prior approval of the airport company.

-- Dallas/Fort Worth: Yes

- **Question 9: Are any of the following factors used in determining what services are to be provided by you or which the airlines are free to accomplish?**

- A. Number of aircraft movements
- B. Volume of passengers/cargo
- C. Nationality
- D. Governmental guidance
- E. Type of traffic, e.g., scheduled or charter

Frankfurt/Main

A, B, E. No

C, D. Pan American and Flying Tigers Airlines enjoy special status due to Berlin traffic and desire to have a cargo carrier, respectively.

Luxembourg: Factors cited are not used by the Ministry of Transport, but carriers availing themselves of Luxair or Cargolux services are subject to their conditions.

Vienna: None of the factors are used directly, although reciprocity has to be considered.

Dallas/Fort Worth: It is up to the individual airline to determine

whether it wants to provide its own ground services or approach another airline to contract for these services. The exception is the international terminal area, where the airport board will be at least partially responsible for providing basic ground handling services for the airlines in that area. This operation is subcontracted with Braniff through the end of 1983, at which time bids will be solicited for a new operator. The board is involved in this operation because some of the international carriers have infrequent schedules which do not justify the employment of many permanent people at the airport.

- **Question 10: Are any of the following noneconomic reasons used by airline operators in determining ground handling?**

- A. Managerial inertia
- B. Unaware of availability of service
- C. Traditionalism
- D. Preference to employ own personnel
- E. Airline or country of origin guidelines

Frankfurt/Main: The airport company exercises its monopoly in ground handling except for Pan American and Flying Tigers Airlines.

Luxembourg: Very insignificantly and depending upon the circumstances.

Vienna: Handling by the airport company exclusively.

Dallas/Fort Worth: Airlines are free to determine their own ground handling methods.

- Question 11: Do you have a sufficient pool of labor available to perform the services described in Question 6, supra, or do any of the following factors put constraints on your hiring policy?

A. Local nationals unwilling to perform certain functions for cultural (below their station) or religious reasons or insufficiently educated/skilled.

B. Governmental policy to hire a certain number of ethnic minority personnel regardless of qualification.

C. Governmental policy to hire native-born personnel only.

Frankfurt/Main

A. As is prevalent in German industry, certain low-wage, low-skill positions cannot be filled with German workers. The German work force is relatively highly skilled and is largely unwilling to perform what they consider menial jobs. Therefore, imported labor is used.

B, C. No

Luxembourg: Native labor pool is relatively small. Personnel are hired on the basis that native-born people have priority for employment.

Vienna: Those positions which cannot be filled by local labor are filled with imported labor.

Dallas/Fort Worth: The hiring practices of the airport are in consonance with federal laws.

- **Question 12**: Are foreign airlines free to bring their own (foreign) personnel to work at your airport?

-- Frankfurt/Main: Executive personnel only.

-- Luxembourg: Only administrative personnel.

-- Vienna: Management personnel only.

-- Dallas/Fort Worth: Yes

- **Question 13**: Are foreign airlines free to bring their own support equipment to your airport?

-- Frankfurt/Main: No, except for Pan American and Flying Tiger Airlines.

-- Luxembourg: Yes

-- Vienna: No

-- Dallas/Fort Worth: Yes

- **Question 14**: Does your airline's desire prevail should a conflict over ground servicing arise?

-- Frankfurt/Main: Airport company policy prevails.

-- Luxembourg: This would depend upon the importance of such a conflict. In case of serious conflict or crisis, the desire of the National Civil Aviation Authorities would surely prevail.

-- Vienna: Airport desires prevail.

-- Dallas/Fort Worth: Not a significant problem, since airlines provide their own handling.

- **Question 15: Does ICAO or IATA provide guidelines/recommendations on ground servicing of aircraft? What is your obligation to follow these?**

-- Frankfurt/Main: Guidelines are provided, but the airport company is not obligated to follow them.

-- Luxembourg: Guidelines are followed, if feasible.

-- Vienna: No obligation to follow guidelines; they are used when practical.

-- Dallas/Fort Worth: Not used.

- **Question 16: Do economic (e.g., EEC) or functional (e.g., airport operator association) bodies provide guidelines/recommendations on ground servicing of aircraft? What is your obligation to follow these?**

-- Frankfurt/Main: Yes, but no obligation to follow them.

-- Luxembourg: Yes, they are followed according to their feasibility.

- Vienna: Yes, but do not have to be followed.
- Dallas/Fort Worth: Not used.

- **Question 17:** Does your airport subcontract for any of the services described in Question 6, supra? If so, is this done for economic or other (e.g., political, cultural, locational, or airport/airline policy) reasons?

- Frankfurt/Main: Yes, for economic reasons (e.g., custodial).
- Luxembourg: National Civil Aviation Authorities make contracts with the national carrier Luxair mainly for economic reasons.
- Vienna: Very limited and then for economic reasons.
- Dallas/Fort Worth: Only for the international terminal operation which cannot be performed by the airport authority.

- **Question 18:** Airline support requirements can be generally categorized by the traffic function performed. In what order of importance do the following activities apply at your airport?

- A. Home station requirements
- B. En route station requirements
- C. Turnaround station requirements

- Frankfurt/Main: Lufthansa, which uses Frankfurt as home station, accounts for approximately 50 percent of aircraft movements. Pan

American also uses Frankfurt as home station for its Berlin operation. En route station requirements follow next, with turnaround station requirements accounting for the fewest movements.

-- Luxembourg: Both Luxair and Cargolux use the airport as home station, accounting for the majority of aircraft operations. Turnaround operations are next, followed by en route requirements.

-- Vienna: Since Austrian Airlines is based in Vienna, they account for over half of the aircraft movements. En route operations are next, followed by turnaround operations.

-- Dallas/Fort Worth: With Braniff no longer flying, the importance of home station requirements has decreased. Currently, en route operations are first in importance, followed by home-station requirements (American Airlines), and turnaround operations.

- **Question 19:** Should you be unable to perform any of the services described in Question 6, supra, in which order of importance would you discontinue these?

-- Frankfurt/Main

C, D, F, I. Not applicable, since not performed. We would discontinue other services in the following order: cargo processing, aircraft cleaning, aircraft lavatory service, ground transportation of passengers and crews, and passenger processing.

-- Luxembourg: These services are performed by Luxair and Cargolux.

-- Vienna

C, F, I. Not performed by the airport company. The specific situation would determine which services would be discontinued. Generally, it would be in the following order: aircraft cleaning, lavatory service, ground transportation of passengers and crews, cargo processing, and passenger processing.

-- Dallas/Fort Worth: The airlines and the subcontractor in the international area perform these services.

- **Question 20**: If you would have to discontinue services as described in Question 6, supra, how would you prioritize this discontinuance based on the following factors as they pertain to an airline?

- A. Number of aircraft movements
- B. Volume of passengers/cargo
- C. Nationality
- D. Governmental guidance
- E. Type of traffic, e.g., scheduled vs. charter operations

-- Frankfurt/Main: The decision to use Frankfurt rests exclusively with an airline. The airport company itself does not discontinue service for reasons A through D. If capacity is limited (e.g., a strike), airlines would be handled in the following priority: scheduled passenger traffic, scheduled cargo

traffic, charter cargo traffic, charter passenger traffic.

-- Luxembourg: Luxair and Cargolux would make this determination on a case-by-case basis.

-- Vienna: These decisions would not be made by the airport company but by the government. Should service be restricted, priority would be given to scheduled airline operations.

-- Dallas/Fort Worth: Since the airlines are free to provide their own handling, our role would be minimal. Should a conflict arise, then the airport board would be the final authority to settle disputes, unless national policy would dictate the decisions.

Airlines

Deutsche Lufthansa A.G. Originally founded in 1926, Lufthansa was the leading airline in Europe by 1939, operating an extensive European network with routes to South America, Asia, and the Middle East. It ceased operations in 1945. It was not until ten years later that West Germany regained the right to engage in aviation. On April 1, 1955, Lufthansa began domestic operations, adding European cities to the network and ultimately expanding into Lufthansa's current network which practically spans the globe. Owned 75 percent by the German Federal government (with the remaining shares owned by the German railroad, the state of Nordrhein-Westphalia, and some private investment), Lufthansa operates 95 aircraft, ranging from B-747s and DC-10s to the Airbus and B-737s.⁵ Lufthansa

⁵Green, op. cit., pp. 83-85.

flew 21,102 million revenue passengers and 1,526 billion freight ton kilometers in 1981, an increase of 5.5 percent and 1 percent, respectively.⁶ Lufthansa was selected because it is a large, government-owned airline.

Swissair, known in full as Schweizerische Luftverkehr A.G. Swissair is the official Swiss national airline and was founded on March 26, 1931. Swissair serves ninety cities on all continents except Australia and operates 51 aircraft, ranging from B-747s and DC-10s to the Airbus and DC-8-80s. Swissair is 24 percent owned by the Swiss government, with the remaining 76 percent held by private interests.⁷ In 1981 Swissair flew 10,953 million revenue passenger kilometers and 421,900 million freight ton kilometers, an increase over 1980 by 5 percent and 3 percent, respectively.⁸ Swissair was selected because of its reputation as a business-minded airline.

Alia, The Royal Jordanian Airline. Formed in October 1963 as the national airline of Jordan, Alia started service to other Middle East countries. They soon expanded service to most European and North African countries. The B-747 service to New York is the latest addition. Alia is wholly owned by the Jordanian government. Pan American provides operational assistance. The current fleet is comprised of 13 aircraft and ranges from B-747s to B-727s.⁹ In 1981 Alia flew

⁶ Air Transport World, op. cit., p. 67.

⁷ Green, op. cit., pp. 111-112.

⁸ Air Transport World, op. cit., p. 67.

⁹ Green, op. cit., pp. 145-146.

2,600 million revenue passenger kilometers and 80,200 million freight ton kilometers, an increase of 22.3 percent and 20.1 percent over 1980 operations, respectively.¹⁰ Alia was selected because of its low frequency.

The Flying Tiger Line, Inc. Formed in 1945 as the National Skyway Freight Corporation, the company took its new name in 1946, reflecting its original association with General Chennault's Flying Tigers in the China theater. Operating both scheduled and chartered services, Flying Tiger Line is the free world's largest cargo airline following its merger with Seaboard World Airlines. It is privately owned. Scheduled cargo service is provided to the Far East, Europe, and within the United States. Military charters still form a substantial part of Flying Tigers activities including some passenger operations. They operate a fleet of 36 aircraft, comprised of convertible B-747s and DC-8s.¹¹ Flying Tigers flew 2,999 million revenue ton kilometers in 1981, an increase of 14.2 percent over 1980.¹² Flying Tigers was selected because it is the free world's largest cargo airline.

Transamerica Airlines. Previously known as Trans International Airlines, the company was formed in 1948, functioning mainly as a supplemental and charter carrier. After changing ownership several times (for a while Studebaker Corporation was the owner), the airline was purchased by Transamerica Corpora-

¹⁰ Air Transport World, op. cit., p. 67.

¹¹ Green, op. cit., pp. 196-197.

¹² Air Transport World, op. cit., p. 89.

tion in 1968. Transamerica is the world's largest charter airline with authority to operate worldwide. Still specializing in military charters, Transamerica operates 37 aircraft, ranging from B-747s and DC-10s to DC-8s and L-100 Hercules.¹³ In 1981 Transamerica flew 6,027 million passenger revenue kilometers and 332,803 million freight ton kilometers, a decrease of 2.6 percent and 12 percent, respectively, from 1980 operations.¹⁴

Pan American World Airways. The company was founded in 1927 as Pan American Airways. Operations started with an airmail contract from New York to Savannah, Georgia. Pan American pioneered international air travel for the United States, flying to all continents. Budget constraints have forced Pan Am to consolidate much of their business operations.¹⁵ It now operates a fleet of 135 aircraft, ranging from B-747s to B-727s, providing service to all continents, within the United States, and within Germany to West Berlin. In 1981 Pan American flew 6,027 million revenue passenger kilometers and 1,620 million freight ton kilometers, a decrease of 6.3 percent and 12.1 percent, respectively, from 1980 operations.¹⁶

¹³Green, op. cit., p. 226.

¹⁴Air Transport World, op. cit., p. 60.

¹⁵William Green and Gordon Swanborough, The Observer's World Airlines and Airliners Directory (London: Frederick Warne, Inc., 1980), p. 99.

¹⁶Air Transport World, op. cit., p. 60.

Airline Responses

A questionnaire containing 20 questions was sent to each of the six sample airlines. The questions were designed to obtain information not only about the airlines' methods of operation, but also the reasons therefore. Specific questions and the responses from the sample airlines are as follows:

- **Question 1: Is policy concerning ground handling made at your company headquarters or is each station manager free to choose the method best suited for the particular station?**

-- Transamerica Airlines: Ground handling policy and general aircraft handling procedures are made at the corporate headquarters. Beyond this, the station manager has considerable flexibility to facilitate local requirements.

-- Flying Tigers Airline: Policy concerning ground handling is made jointly between company headquarters and the regional vice president.

-- Lufthansa: Corporate headquarters only.

-- Swissair: Corporate headquarters.

-- Alia: Company headquarters.

-- Pan American: General policy-making rests with corporate headquarters, but regional managers may make decisions to suit local conditions.

- **Question 2:** What percentage of your company's expenditures go to the following categories of ground handling?

- A. Passenger processing (check-in, off/onload, baggage handling, etc.)
- B. Cargo processing (receive, process, off/onload, intermodal transfer, etc.)
- C. Refueling/servicing (less cost of fuel, but to include the servicing with LOX, lubricants, hydraulic fuel, etc.)
- D. Aircraft maintenance (less cost of parts)
- E. Aircraft cleaning (inside, outside)
- F. Catering of aircraft with meals, snacks, and beverages
- G. Aircraft lavatory service
- H. Ground transportation of passengers and crews
- I. Sales of passenger and cargo revenue space

-- **Transamerica:** Assuming that total ground handling is 100 percent, then

- A. 4 percent--passenger processing
- B. 1 percent--cargo processing
- C. Unknown--refueling/servicing
- D. Unknown--aircraft maintenance
- E. 6 percent--aircraft cleaning
- F. 45 percent--catering
- G. 2 percent--aircraft lavatory service

H. 2 percent--ground transportation, passengers/crews

I. Unknown--sales, revenue space

Flying Tigers

A. 0.1 percent--passenger processing

B. 13.4 percent--cargo processing

C. 1.3 percent--refueling/servicing

D. 8.8 percent--aircraft maintenance

E. 0.1 percent--aircraft cleaning

F. 0.1 percent--catering

G. 0.1 percent--aircraft lavatory service

H. 0.1 percent--ground transportation, passengers/crews

I. 6.4 percent--sales, revenue/space

Lufthansa

A. 11.1 percent--passenger processing

B. 7.6 percent--cargo processing

C. Unknown--refueling/servicing

D. 12.5 percent--aircraft maintenance

E. 0.2 percent--aircraft cleaning

F. 3.5 percent--catering

G. 0.1 percent--aircraft lavatory service

H. 2.5 percent--ground transportation, passengers/crews

I. 14.1 percent--sales, revenue space

Swissair

A. 11.4 percent--passenger processing

- B. 6.1 percent--cargo processing
- C. 1.8 percent--refueling/servicing
- D. 13.3 percent--aircraft maintenance
- E. 0.4 percent--aircraft cleaning
- F. 4.2 percent--catering
- G. 0.2 percent--aircraft lavatory service
- H. 1.8 percent--ground transportation, passengers/crews
- I. 15 percent--sales, revenue/space

Alia

- A. 12.4 percent--passenger processing
- B. 3.8 percent--cargo processing
- C. Unknown--refueling/servicing
- D. 13.5 percent--aircraft maintenance
- E. 0.5 percent--aircraft cleaning
- F. 4.8 percent--catering
- G. Unknown--aircraft lavatory service
- H. 2.1 percent--ground transportation, passengers/crews
- I. 12.4 percent--sales, revenue space

Pan American

- A. 14.2 percent--passenger processing
- B. 10.1 percent--cargo processing
- C. Unknown--refueling/servicing
- D. 12.2 percent--aircraft maintenance
- E. 0.1 percent--aircraft cleaning

- F. 3.8 percent--catering
- G. 0.1 percent--aircraft lavatory service
- H. 2.8 percent--ground transportation, passengers/crews
- I. 12.8 percent--sales, revenue space

- **Question 3:** In selecting a particular method of ground handling, do you differentiate between the following and, if so, how?

- A. Home station (departure point)
- B. En route stations
- C. Turnaround stations

-- Transamerica: No differentiation

-- Flying Tigers: The selection for a particular method of ground handling is not made directly on the type of station it is to service, but rather as an economic determination and desire for flexibility based on the following:

1. Cost of establishing our own handling vs. cost of contracted ground handling services.
2. Anticipated cargo volumes and growth at particular stations.
3. Availability of adequate facilities.
4. Desire for operational flexibility, e.g., uncertain market or long-term commitment.

-- Lufthansa: Our criteria for methods of ground handling or handling concepts are quality and economy, which are often negatively influenced

by monopolies.

-- Swissair: Home station with company personnel, other categories as is practical and economical, but mainly contract.

-- Alia: Company personnel are used in Amman, our home station. For en route and turnaround stations we make contractual arrangements.

-- Pan American: Basically, we do not differentiate methods as related to location. Pan Am procedures are alike worldwide, with minor deviations to meet local limitations. Depending on the situation/location we may decide to buy ground handling rather than handle it with own staff.

- **Question 4: Which of the services described in Question 2, Supra, can you provide at the following:**

- A. Home station
- B. En route stations
- C. Turnaround stations

-- Transamerica: All options with company or contract personnel, whichever is more advantageous and feasible.

-- Flying Tigers: In one way or another we have the potential to provide all these services at most stations with the exception of "E." Many of the above services would be contracted throughout many stations. At stations where we provide our own ground handling, the following services are generally provided by our own people: A, B, D, and I. The other services would be provided by our

own people at only the largest stations.

-- Lufthansa: This depends on the ground handling concept and the capability of our handling organization, if applicable. For example, maintenance is performed almost exclusively by our own personnel at all stations. At home station we perform those services for which the airport company does not have a monopoly. At large en route and turnaround stations, we normally use our own personnel for passenger and operations functions.

-- Swissair: Most functions can be performed at home station, except for H. At en route and turnaround stations they normally limit themselves to managerial and sales personnel and catering at some stations.

-- Alia: They provide the full range of services at home station only. Normally, they only have a station representative at en route and turnaround stations, with the functions contracted out.

-- Pan American: With the exception of passenger and crew transport (item H), we can provide most of the services cited at all stations, although we contract for some of these.

- **Question 5: Is providing these services contingent on your or the airport's desires?**

-- Transamerica: Usually a combination of both.

-- Flying Tigers: Both. Provision of services is generally contingent upon the company's economic analysis. However, at many international stations, services are contingent upon what the host country will allow.

-- Lufthansa: Depends on both Lufthansa's desire and the restrictions of handling monopolies or local regulations.

-- Swissair: A combination of both, based on economics and local restrictions.

-- Alia: In the international arena, they have to rely, to a large degree, on contractual services.

-- Pan American: They try to provide as much of the needed services as possible with their own resources, but have to comply with local restrictions.

- **Question 6:** Does you or the airport company's/authority's desire prevail should a conflict arise?

-- Transamerica: Airport authority usually prevails.

-- Flying Tigers: Usually the airport company.

-- Lufthansa: Lufthansa's desire will prevail, unless monopolies or local regulations are restrictive.

-- Swissair: They normally try to comply with the airport's desires if the situation warrants.

-- Alia: Airport usually prevails.

-- Pan American: This depends entirely on the specific circumstances.

- **Question 7: If such a conflict would arise, what recourse do you have?**

-- Transamerica: Very little, other than going to another airport.

-- Flying Tigers: Government bilateral agreements, IATA airport consultant committees, airport operating committees.

-- Lufthansa: In those cases the aids available are rather limited. They depend on legal rights. In some cases, common actions with other carriers can help.

-- Swissair: They would attempt to resolve differences through available business channels.

-- Alia: They would ask IATA for help.

-- Pan American: This would depend on the strength of bilateral agreements, they would also pursue this through IATA channels.

- **Question 8: Do ICAO, ATA, or IATA provide guidelines/recommendations on ground servicing of aircraft and, if so, what is your obligation to follow these?**

-- Transamerica: They are not members of ICAO/ATA/IATA. All provide guidelines, no carrier is obligated to concur.

-- Flying Tigers: Yes, these organizations do provide guidelines. They are just guidelines; however, it is usually in the best interest of both parties to operate within these guidelines.

-- Lufthansa: ICAO recommendations are binding when ratified. Guidelines or recommendations provided by IATA are worked out by the IATA

members in order to facilitate international air traffic. These IATA recommendations reflect Lufthansa's interest and are binding, when adopted.

- Swissair: As a member airline they abide by the guidelines.
- Alia: They comply to the extent possible.
- Pan American: Not to their knowledge.

- **Question 9:** If location is the primary determinant, which of the following noneconomic reasons are considered (please indicate order of priority)?

- A. Proximity of airport to labor sources
- B. Structure of your routes
- C. Home, en route, or turnaround station
- D. Traffic generation and specific airport

-- Transamerica: As a charter airline, they are bound to alternative D.

-- Flying Tigers: In order of priority, we usually choose D, B, A, C.

-- Lufthansa: They select ground handling methods within the criteria of quality and economy which often are negatively influenced by handling monopolies.

-- Swissair: Option D is of the most relevance followed by B.

-- Alia: They are only concerned with D and B.

-- Pan American: D and B determine, respectively.

- **Question 10:** If the primary determinants are of a political nature, which of the following are considered (please indicate order of priority)?

- A. Your government's desires
- B. The host nation government's desires
- C. Bilateral government agreements
- D. Political climate of host nation

-- **Transamerica:** B and D.

-- **Flying Tigers:** The primary determinants for operating in any particular city or country is always economic for this company. The same goes for selecting a ground handling company. When choosing a handling service vs. self-handling, Flying Tigers considers the following:

- 1. Options available per bilateral agreement
- 2. Monopoly, or alternate handling services available
- 3. Cost of establishing self-handling
- 4. Local labor laws
- 5. Handling services required/available, including reliability, redundancy, appropriate equipment and facilities, and guarantees.
- 6. Costs
- 7. Flexibility, both in cargo handling and in accommodating our procedures.

-- **Lufthansa:** Bilateral government agreements will have priority.

-- **Swissair:** In order of priority they would consider C, A, B, D.

-- Alia: The options would be taken under consideration with C first, followed by A, B, D.

-- Pan American: C, A, B, D.

- **Question 11: If the primary determinants are of a cultural nature, which of the following are considered (please indicate order of priority)?**

-- Transamerica: C and D.

-- Flying Tigers: Same as 10 above.

-- Lufthansa: Same as 10 above.

-- Swissair: They would consider A, D, B, C, respectively.

-- Alia: They would select A, D, C, B.

-- Pan American: They would use their own people if they cannot obtain the needed services.

- **Question 12: If the primary determinants are of such a (noneconomic) managerial nature, which of the following could apply?**

A. Unawareness of a service availability

B. Traditionalism

C. Managerial inertia

D. Promoting goodwill

Transamerica: A and C.

Flying Tigers: Same as 10 above.

Lufthansa: Not applicable.

Swissair: Although they are unaware of such practices, it could be A and B.

Alia: A, D, B, C.

Pan American: Not applicable.

- **Question 13: Would you describe your company's management as centralized or decentralized?**

-- Transamerica: Centralized

-- Flying Tigers: Centralized

-- Lufthansa: Decentralized

-- Swissair: Centralized

-- Alia: Centralized

-- Pan American: Centralized

- **Question 14: Are there differences in the ground handling methods employed between operations within your home country and operations conducted abroad and, if so, what are they?**

-- Transamerica: Standards in the Americas, Europe, and the Far East are basically similar. However, in the emerging nations and the underdeveloped areas, there are no similarities due to a lack of equipment. The situation is aggravated by unskilled labor.

-- Flying Tigers: Ground handling methods are most mechanized in the United States and most labor-intensive in Asia.

-- Lufthansa: No perceptible difference from their standpoint.

-- Swissair: They strive to maintain a high standard.

-- Alia: No difference.

-- Pan American: Basically, they do not differentiate between the methods as related to location. Pan Am procedures are alike worldwide, with minor deviations to meet local deviations.

- **Question 15: Does your company have dialogues with governmental officials (other than airport operator/authority) of the respective host nations where you operate (e.g., for initial/ongoing operations, what level of government)?**

-- Transamerica: Yes, at civil aviation and foreign office level.

-- Flying Tigers: Yes. Government at all levels, both local and national, ministries of transport, customs, trade, etc.

-- Lufthansa: Not as a rule, and then only at local levels.

-- Swissair: Yes, but normally limited to trade and tourism officials.

-- Alia: Not as a rule, only to facilitate local operations.

-- Pan American: Yes, with representatives and department heads of civil aviation sections within the Ministry of Transportation of the Federal Republic of Germany.

- **Question 16:** Does your company work through State Department/Foreign Ministry channels to obtain the required support for your operations conducted abroad?

-- Transamerica: Only when we cannot resolve our problems.

-- Flying Tigers: Yes

-- Lufthansa: Indirectly

-- Swissair: Seldom

-- Alia: Yes

-- Pan American: If need be, yes.

- **Question 17:** In the area of food service, which of the following factors are considered for your catering food selection options (please indicate in order of priority)?

A. Passenger preference

B. Availability of food items, abroad

C. Religious taboos/preferences of both supplier and consumer

D. Overstocking rather than local procurement

-- Transamerica: A, B, D (as applicable)

-- Flying Tigers: Relatively small quantities of catering required for limited passenger operations, priorities: B, A, C, D.

-- Lufthansa: The criteria are quality of food, hygiene, and economy.

-- Swissair: The company continues to maintain excellence for in-flight meals; therefore, the options are ranked A, B, D, C.

-- Alia: C, A, B, D.

-- Pan American: A, B, C.

- **Question 18: Do you perceive any difference between the treatment accorded you and the national airline(s) of the countries in which you operate?**

-- Transamerica: All things being equal--no difference. However, if there is a shortage of manpower or equipment, the host nation carrier receives preferential treatment.

-- Flying Tigers: Yes. Most often reflected in restricted choices of facility site and design, and limits to which inbound, and to a lesser extent outbound, traffic can be self-handled.

-- Lufthansa: In some countries the national carrier has been granted rights and privileges such as ground handling monopolies, preferences in office accommodation, etc., resulting in disadvantages to the international carriers.

-- Swissair: To some degree

-- Alia: Yes, in some countries, of minor concern in others.

-- Pan American: Yes, the national carrier being a government-owned entity has a number of advantages such as preferred facilities at the

airport, support by government travel agencies, exclusive domestic travel rights, support by local government.

- **Question 19:** Do you think the general political climate in a foreign country towards your own country has an impact on your operations?

-- Transamerica: Depends on the degree to which the two countries disagree; however, in most cases the level of technology and state-of-the-art equipment, procedures, etc., have more of an impact.

-- Flying Tigers: Yes, possibly in restricted overall operational objectives rather than day-to-day operations.

-- Lufthansa: Not on technical operations. Perhaps some impact in the traffic and sales areas.

-- Swissair: No

-- Alia: No

-- Pan American: No. Unless the political conditions such as civil war, etc., prohibit a safe operation, Pan Am is not concerned with the political climate.

- **Question 20:** What do you think the trend in selecting ground support service is? Please indicate order of priority.

-- Transamerica: Relying mainly on charter operations, they only place company personnel where the operations warrant, otherwise they contract.

-- Flying Tigers: The use of contracted ground services for implementation of new services will probably continue because less capital and less risk is required to get started in this manner, as opposed to starting with one's own operation. The quality of service received and cost would be a major consideration when evaluating a change to self-handling at a later date.

-- Lufthansa: The airlines' desire to freely choose their handling concepts. However, monopolies are restricting this more and more.

-- Swissair: They will continue to obtain quality service. Although cost is always an important factor, they will not compromise on their standards.

-- Alia: Trend will probably be towards more contracting and subcontracting.

-- Pan American: Economy, efficiency, local law (handling monopoly by airport authorities).

This chapter provided a description of the sample airports and airlines, as well as the answers received from them in response to the questionnaires. The following chapter will address the questionnaire and corroborating interview findings.

CHAPTER IV

QUESTIONNAIRE AND INTERVIEW ANALYSIS AND FINDINGS

Introduction

The responses provided by the airport operators and the airlines form the basis of this chapter. The information obtained through the questionnaires was largely verified through personal visits to the airports and with the airlines constituting the sample. Additional verification was obtained through a careful review of the literature as it pertains to the subject, as well as the author's continual exposure to commercial aviation matters.

The nature of the sample as well as the informational sources cited enabled the researcher to test the hypothesis that the logistical ground support for commercial airliners engaged in international aviation cannot readily be based on worldwide uniform procedures. It depends instead on individual airline and airport policy, geographical location, and political and cultural constraints.

Airline Policy

Corporate headquarters decides which method of ground handling to choose (in-house, single contractor, multiple contractors) for most airlines. Regional managers or station managers participate in the decision process for some airlines if the local situation so demands. Centralized management appears to predominate government-owned airlines. Little decisionmaking authority is delegated to

the local level. Privately-owned airlines, on the other hand, do allow some participation at the regional or even local level.

To establish the relative importance of ground handling, the airlines were asked to provide expenditure figures for ground handling, along with a breakdown of the expenditures per service. In general, about 50 percent of the airlines' total expenditures are for ground handling. Passenger and cargo processing rank first, followed closely by aircraft maintenance and sales of passenger and cargo revenue space. Food service (catering) is last. No great expenditure difference was noted between government or privately owned airlines or between scheduled or charter airlines.

There was a considerable divergence of responses concerning the applicability of ICAO, ATA, and IATA guidelines/recommendations. While one carrier was unaware of any such guidelines, another one indicated full compliance. The other carriers took somewhat of a middle ground, stating that they comply whenever it is feasible or practical.

The managerial determinants were largely identified as unawareness of the availability of a certain service. No trend could be detected for other managerial influences. Responses from each airline differed, citing traditionalism, managerial inertia, and goodwill in differing orders of priority.

In the area of food service, airlines are generally driven by passenger preference. This results in a large number of in-flight kitchens to meet specific demands. A corollary of this is the availability or rather nonavailability of certain food items abroad which leads carriers to overstock at home station.

The airlines feel that providing ground handling services is a middle-of-the-road proposition where their own and the airport's desires are equally

considered. They are acutely aware of handling monopoly restrictions, however, and think that the airport's desires would normally prevail should there be a conflict of interest. The airlines' recourse, should they find airport treatment unfair, differs somewhat. Non-IATA charter airlines would be forced to go to another airport. The scheduled airlines would seek redress mainly through IATA channels or through government assistance based on the contents of bilateral agreements.

A mixed reaction resulted from the question on how the airlines perceived the trend in determining ground services. Contracting is becoming more important for some airlines due to the lessened risk factor and lower capital requirement. Other airlines feel strongly about airport handling monopolies which deprive them of the opportunity to select their own method. Quality of service and cost of service seem to be the overriding concern. As long as the airlines receive quality service, they do not seem opposed to the contracting option.

Airport Policy

To determine the relative importance of ground handling, airports were asked how much of their total income is derived from providing ground servicing. For those airports having a handling monopoly, ground handling accounted for approximately one-third of their total income. For those airports where either the national airlines provide the service or where airlines are free to conduct their own handling, no income was reported.

The influence airport management has in determining the general business conditions vary considerably. While the board of directors is the actual

policy-making body for some airports, their decisions are influenced by the appointing authority at various governmental levels. This is bordered by an extreme on one side where the government operates the airport with civil service employees, and the basic U.S. model where airport management is relatively free to operate the airport without day-to-day interference. Consequently, business conditions for airport operations are drawn up by a national government on one hand, and range through the airport owners to the other end of the spectrum, where the airport business manager rules.

The amount of freedom an airline is granted in handling itself varies considerably. Airports with a handling monopoly allow the carriers to perform only those functions the airport operator cannot provide. At airports without a handling monopoly, carriers act for themselves or contract with another airline.

Independent suppliers (e.g., caterers, fuel suppliers, etc.) are generally allowed to conduct business on all airports surveyed. Prior permission has to be granted in some cases. In one country the Ministry of Transportation is the granting authority.

Airport replies did not reveal any discrimination towards any airline regardless of number of movements, volume of traffic, nationality, or host government guidance.

The airports feel rather strongly about settlement of disputes over ground handling. With the exception of one airport (where airlines provide their own ground handling), they all indicated that their desire shall prevail over that of an airline. Consequently, airports are in a strong position vis-a-vis the special interest groups (e.g., ICAO, IATA) or economic bodies (e.g., EEC) whose guidelines they do not feel obligated to follow, although they will do so when practical.

Subcontracting is used by all airports surveyed, but for economic rather than noneconomic reasons. Economics seems to be the driving factor should an airport be forced to discontinue certain ground services. Those operations which net relatively little profit (e.g., lavatory service, aircraft cleaning) are the ones that would be discontinued first. Similarly, should an airport's operation become severely restricted (e.g., strike, weather, etc.), priority would be given scheduled passenger traffic, which generates the largest amount of revenue.

Airports differ considerably in what ground handling services they offer. The spectrum runs from an almost complete range of services to barely no services, which is mainly due to a difference in philosophy. While some airports have a handling monopoly, others want the airlines to handle themselves.

Geographical Factors

The scheduled airlines indicated little differentiation between ground handling methods employed in the home country or abroad. The charter airline responded that considerable differences exist between industrialized nations and emerging nations. The latter are plagued by a lack of equipment and unskilled labor. The cargo airline reported that ground handling methods were most mechanized in the United States and most labor-intensive in Asia. Scheduled airlines try to apply worldwide high standards which, however, are tempered by local conditions.

Traffic generation and route structure are the main reasons for choosing certain locations regardless of such other factors as availability of labor or en route or turnaround station. The airlines have the capability to provide almost all

ground handling services at all stations. Airport monopolies are a limiting factor, although airlines generally have managerial and sales personnel at all en route and turnaround stations. One airline reported that it maintained maintenance capabilities at almost every station. The others only maintained a sizeable organization at the larger stations. All airlines perform the majority of ground services at home station unless the airport operator has a monopoly on some tasks.

Airports responded that location was most important if they were the home station for an airline. In these cases, aircraft movements of the indigenous airline accounted for about one-half of all movements. En route station requirements were rated next in order of importance, with only one airport stating that turnaround station requirements were the second largest.

Political Constraints

Collectively, the airlines feel rather strongly about the treatment accorded them as compared to the treatment accorded the national carrier of the country into which they operate. Their responses indicate that the national carrier enjoys special advantages such as preferential treatment if manpower or equipment shortages exist, favorable facilities and sites, ground handling monopolies, channeling of traffic, exclusive domestic travel rights, etc.

Airlines are not too concerned about the general political attitude of the host nation towards their own nation as long as operations can be conducted safely. They feel that a deterioration of the relationship between the respective nations would probably result in overall restrictions and a lessening of traffic

generation. They feel about equally obligated towards their own government and the host nation's government. They cite bilateral government agreements as an important factor.

All airlines indicated that they work with foreign government officials, although at different levels. The privately owned airlines are more active in this area than the government-owned airlines. Similarly, airlines do work with their own government officials to obtain support for their operations conducted abroad.

Political considerations are important to the airports since they are all owned by public bodies, be it a federal government or a municipality. The ownership in turn influences airport management, since the board of directors or airport board is normally selected on political considerations. Airports, especially those who have a handling monopoly, are rather restrictive in allowing airlines to use their own personnel or ground equipment. Of course, airlines are free to do so where they have to provide their own services. An interesting exception was reported by one monopolistic airport which allows two American flag carriers to operate virtually unrestricted, as a result of the 1945 Four-Powers Agreement of then-occupied Germany.

Cultural Constraints

The airlines' primary concern in this area is the availability of skilled labor, which is a considerable obstacle in underdeveloped nations. Religious taboos are of primary importance to the charter operator (annual Moslem pilgrimage). It is a serious consideration for the carrier from a basically Moslem nation as well. The attitude of the native population, which may be in direct contrast to an airline's

safety requirements could force the airlines into using their own personnel instead of relying on contractual services.

As opposed to underdeveloped countries, airports in Europe find it generally hard to fill low-wage, low-skill positions with native labor. The work force in many European countries is highly skilled and, therefore, unwilling to perform what they consider menial jobs. Vacancies are normally offered to native-born workers, but are filled with imported labor if the native labor pool is too small or unwilling to perform certain jobs. Federal law has some impact on the hiring practices of the American airport surveyed.

This chapter contained an analysis of the questionnaire and interview data. The following and last chapter of the study will provide a summary and the conclusions reached.

CHAPTER V

SUMMARY AND CONCLUSIONS

Introduction

The purpose of this final chapter is to review the parameters of the study, summarize its results, and discuss the study's implications for the international aviation industry. The study was based on the hypothesis that airlines engaged in international aviation cannot conduct their ground handling on the basis of worldwide uniform procedures. Rather, they are subject to airline and airport policies, as well as geographical, political, and cultural restraints.

Three basic options for ground handling were considered. The first one was the in-house option, where airlines would perform all ground services themselves. The second one was the single contractor option, where an airline would have ground handling accomplished by a single contractor. The third option involves several contractors performing ground servicing. The model considered these options against a numerically limited, but highly varied, background of airports and airlines to attain a representative sample. As a result, the study is of a descriptive rather than a normative nature. Although some of the implications may benefit international air carriers, the study is not intended to provide ready solutions to reduce the turbulence of this industry.

Factors Bearing on the Problem

The rather stable environment of domestic U.S. air transportation was thoroughly upset by deregulation. As a result, foreign airlines and governments

have given no indication of being interested in adopting deregulation. On the contrary, a certain amount of retrenchment can be observed as a result of what is still largely referred to as the American experiment. Another unsettling factor is the worldwide economic recession, which created havoc among the international carriers. Rather than gaining additional freedoms, carriers find themselves constrained by protectionism. National governments are determined to provide support to their airlines in many ways. These include subsidies to cover operating losses, tax exemptions, loan guarantees, and other preferential treatment with which privately owned carriers simply cannot compete. Of importance to this study is one of these disparities, the one of preferential treatment. Ground handling activities have a direct impact on a carrier's performance. For example, on-time departures, baggage handling, cleanliness of the aircraft, and cargo processing are all candidates for discrimination. Although these factors may be completely outside a carrier's control, shoddy performance can cause customer ill will, which ultimately will result in loss of revenue traffic.

Current Practices and Trends

We assume that air carriers use the most economical ground handling method available. Although many international carriers would like to do so (after all, almost half of their expenditures go to ground handling), they are severely hampered by factors beyond their control or factors which are self-imposed. Most airlines use a centralized form of management. This allows for little participation by station managers. As a result, management is often unaware of certain service options throughout its worldwide network and continues its

high-level decision making to the detriment of the overall operation. The problem is less severe in the United States, where, as a result of deregulation, carriers are largely free to determine whichever method of ground handling they prefer. The spectrum ranges from total company control for the larger, established trunk carriers to operation of the aircraft only, with all other services contracted for by the newer upstart airlines. Review of the literature revealed the growing importance of travel agents, especially in the United States. Whether or not airlines will ultimately be reduced to the role of wholesalers of air transportation, only time will tell. There is real concern, however, over the increasing role of travel agents. Attempts by the airlines to decrease commission payments have so far met with dismal results. As a rule, carriers attempt to follow interest-group guidance (e.g., IATA), but only if this guidance fits the carriers' particular needs. Most airlines feel that their desires will be subordinate to the wants or needs of the airport company.

Airport companies, on the other hand, differ considerably in their approach to airliner ground service. The main difference is between the U.S. system, which allows the carrier to provide its own ground handling, and that in the international arena, where monopolistic airport companies or the host nation's state airline performs these services exclusively. Since about one-third of the monopolistic airport operator's income is generated by ground handling, these companies are adamant about the degree of freedom granted to international carriers.

Business conditions for airports are determined by a variety of bodies, ranging from federal governments to the airport's business managers. As a result, the rules for some airports are rather stringent, driven by political considerations.

Others are flexible and are mainly concerned with economic considerations. The more stringent the guidelines, the more restrictive the options for a carrier to provide his own ground handling. Normally, monopolistic airport companies or state carriers allow foreign carriers to conduct only those services which they themselves cannot provide. A disparity exists in the replies received from sample airports and airlines. The airports indicated that they did not discriminate against any carrier on the basis of traffic volume, nationality, or governmental guidance. In contrast the carriers felt that there was considerable discrimination. Preferential treatment went to the state airlines, while corresponding restrictions were levied against their own operations.

Sometimes foreign carriers are subjected to quiet-hour rules which obviously favor the indigenous carrier, as well as detrimental sales and currency restrictions. Customs clearance procedures and onward transportation availability can also be applied to a foreign carrier's disadvantage.

Monopolistic handling companies feel secure that their desires will prevail should any disputes arise between their companies and international carriers. They similarly consider interest group guidance as applicable only when they consider it practical. Airports generally agree about which services they would discontinue regardless of the carrier's country of origin. Support for scheduled services would be provided, while support for charter operations would be curtailed or even be discontinued. Airports would also start to discontinue services in order of revenue generation.

Geographical factors are of varying importance. While the scheduled passenger airlines surveyed indicated little differentiation in ground-handling standards worldwide, the charter and cargo airline voiced considerable concern

over lack of equipment and skilled labor in the lesser-developed nations. Most airlines are theoretically able to provide their own ground handling worldwide, but are kept from doing so by monopolistic handling companies. The degree of representation at international airports differs between airlines, with the majority limited to managerial and sales personnel, although some also provide their own maintenance and in-flight kitchens. For its promotional value, catering receives quite a bit of attention by the airlines. In-flight kitchens are established at crucial points by some carriers. Other carriers prefer to overpack meals if they cannot be procured locally.

It is of considerable importance to airports whether they are mainly a home station for an airline, or are used as an en route or turnaround station. If an airport is a home station for an airline, a considerable amount of revenue generation is assured, since the home-based airline accounts for approximately one-half of all aircraft movements. En route operations are ranked next in order of importance, followed by turnaround operations, which account for the least traffic generation.

Some rather strong responses were received from the carriers when questioned about political constraints. They all felt that they were at a disadvantage vis-a-vis the state carriers. While such items as subsidies or favorable loans impact mainly on the financial end of the spectrum, it is the preferential ground treatment these carriers receive that causes the concern by the foreign carriers. The domestic or national carrier is accorded priority if there are manpower or equipment shortages, it receives the favorable facilities and sites, it often has ground-handling monopolies, traffic is channeled in its direction, and it almost always has exclusive domestic travel rights.

Airlines deal with their own as well as with foreign governments to gain advantageous positions. As could be expected, more contacts along this line are required by the charter airline as a result of its irregular operations. Also, the privately owned airlines reported more contact on the government level as compared to national carriers. The political climate between the nation of origin and the host nation appears to be of secondary importance to the airlines as long as safety of flight can be assured.

Bilateral agreements between nations are cited as having considerable importance, although these agreements are normally silent on ground handling procedures and available options. Attempts at multi-national cooperation and control have largely failed so far. This holds true not only for the highly industrialized nations of the EEC but the lesser-developed ones of the African Continent as well. In the end nationalistic views and mercantilism prevail over the establishment of joint ventures. Reducing overcapacity on some routes as well as new service on others could largely correct the current imbalances.

The airports' constraints are largely political. Since airports are almost universally owned by some public body, a considerable amount of political pressure is brought to bear on the airport users. Work rules, labor laws, and employment of indigenous workers are the factors that influence ground operations by foreign airlines.

A rather interesting disparity could be noted from the responses concerning cultural restraints. The carriers in general indicated that they felt the detrimental effects of unskilled labor in the overseas operations. The airports of Western Europe reported that they had problems in finding unskilled labor to fill menial positions. What we see here is a lack of basic skills in many of the lesser-

developed nations. The European laborers are too skilled to accept jobs which they find below their station. Carriers try to overcome labor problems by positioning their own personnel when allowed, as we saw with one carrier, which has in-house maintenance resources at almost every station. In some cases, efficiency is seriously degraded when hiring practices are determined by government fiat, as is the case in one nation where an equal number of workers from the country's three main tribes has to be hired.

Religious constraints seem to be of secondary importance to most carriers. It is important to the charter carrier which derives considerable revenue from the annual Moslem pilgrimage traffic and to the carrier from the Middle East. But as was seen in another example, campaign promises to an ultra-conservative party led to the ultimate shutdown of that country's airline when the employees refused to obey the no-flying rule for the Sabbath and other high religious holidays.

Conclusions

Although the sample size was small, the diversity of airlines and airports surveyed allows for some generalization at this point. The fact that privately owned airlines are at a distinct disadvantage when meeting state-owned airlines in the free marketplace head-on is sufficiently well known to preclude further elaboration. What is of interest here are the results of the study, which show that the operations of commercial airliners are severely impaired while they are on the ground in a foreign nation. Although dissatisfaction is widespread, no optimal ground-handling option can be ascertained. What works well for one airline in one country could result in unsatisfactory results for another one.

Ground handling is normally optimal when totally performed by the carrier itself. This does not present serious problems for the larger U.S. domestic carriers which maintain their own terminals and services at major U.S. airports. Nor does it present a problem for foreign airlines when they operate from their home station where they can use their own services. The problem arises when these airlines have to rely on other companies to perform the ground handling for them, be they airport companies or other airlines. Review of the literature revealed that many of the upstart airlines in the United States receive less than satisfactory service, even when fully contracted for, from the senior airlines on station. Similarly, we find that many foreign airlines complain bitterly about the restrictions imposed on them when operating in foreign countries, but find monopolistic practices by themselves at their home stations to be quite normal.

Attempts by ICAO and IATA to allow carriers to provide or arrange their own ground handling have so far met with little success. Although cost is always a factor in commercial aviation, the study has shown that noneconomic factors play a vital role as well. Showing the flag, projecting power, gaining prestige, and hampering competition seem to be the order of the day in international aviation. The carriers themselves are partly responsible for this debacle as well, since they show unity only when it suits their own needs. We saw that ground handling policy is largely made at corporate headquarters, with little reliance on the station managers. Some airlines also indicated that they were unaware of the availability of certain services.

Given the current state of the industry, little can be done to encourage additional aviation autonomy. The carriers in general have resigned themselves to dealing with monopolistic airports and national airlines as long as they receive

reasonable service. Where some advances could be made would be in the careful selection of station managers and greater reliance on their expertise.

The impacts of the noneconomic constraints which formed the basis of this study could be lessened considerably if the airlines would attach greater importance to the differences between domestic and international operations. This holds true not only for Pan American operating through Frankfurt, or for Transamerica flying into Jedda, it has the same implications for Lufthansa aircraft turning around in Buenos Aires and for Flying Tigers in Tokyo. The implication is clear--no one country has the same rules as another one, even though outward appearances may often be deceiving.

It is impossible to impose worldwide standards based on home-country practices. As is true with most international ventures, the main problems arise from a basic misunderstanding of the host nation's idiosyncrasies. Not free to conduct ground handling of aircraft in their preferred manner, airlines must gain a better understanding of the limiting factors in each country they serve. A well-qualified, knowledgeable station manager could considerably lessen the impact of monopolistic airports or national airlines which provide ground handling services.

This, of course, is only an intermediate solution. What is needed is complete freedom for commercial airlines to choose their own ground-handling method, be it the in-house, single contractor, or multiple-contractor option. If that freedom were coupled with an awareness of the constraining factors as they apply in each nation, the current disparities could be overcome. As long as privately owned carriers must compete against state-owned carriers, and nationalistic policies overshadow commercial aviation, the possibilities for such an occurrence are

rather remote. It is entirely possible that the threat of some countries to put their national airlines on a commercial footing will be carried out. Whether or not this would set a trend for further commercialization is hard to predict. It is also hard to predict whether or not monopolistic airport companies will relax their business restrictions. Through IATA, the carriers continue to strive for additional freedom. This endeavor is seriously hampered by the carriers' own reluctance to surrender privileges in their practice of restricting foreign carrier freedoms in their home country while attempting to secure additional ones in a host country.

Airlines engaged in international operations find themselves in an environment which differs considerably from that in which their domestic operations are conducted. Although it would be ideal to employ the same methods of ground handling for both domestic and international operations, certain factors make such an approach unworkable. These factors are airline and airport policy, as well as geographical, political, and cultural constraints. As a rule, airlines have total control over their ground handling operations only at their home station. The moment they enter the international arena, they become subject to the conditions imposed by the host country, with a corresponding decrease in desired ground handling options.

The main factor which can be derived from this rather complex environment is that airlines must work with the constraining factors rather than against them. A full understanding of why certain operations cannot be conducted the way they are conducted at home station is elementary for success in the international arena. It simply is not enough to accept a compromise and be dissatisfied with it. What must be understood is that the methods which work well in the home country

cannot summarily be used on a worldwide basis over the objections of the indigenous governments and the aviation industry.

This study is only a first step in analyzing the complexities of airliner ground handling in international aviation. Although only exploratory in nature, it could form the basis for further research with the ultimate aim of developing ground handling methods which would accommodate the desires of both airlines and airports.

BIBLIOGRAPHY

BIBLIOGRAPHY

"Storm Signals for International Air Transport." Interavia, Vol. XXXV, No. 11, November 1980.

Neufville, Richard de. Airport Systems Planning. Cambridge, Massachusetts: The MIT Press, 1976.

Kozicharow, Eugene. "Flexibility Stressed for Cargo Survival." Aviation Week & Space Technology, Vol. 113, No. 16, 20 October 1980.

Source: Personal interview, Mr. Christian Haefner. Airport Consulting Services, Flughafen (Frankfurt Airport Company), 5 September 1981.

"Best and Worst Airports." Business Traveller, Vol. VI, No. 4, May 1981.

Doty, Lawrence. "Pan Am, American Win Popularity Poll." Aviation Week & Space Technology, Vol. 107, No. 12, 19 September 1977.

Henderson, Donna K. "Passenger Handling Costs Climb, Productivity Dips." Air Transport World, Vol. 17, No. 9, September 1980.

"The Top Performers-Interavia's Review of World Airlines." Interavia, Vol. XXXV, No. 11, November 1980.

Taneja, Nawal K. The U.S. Airfreight Industry. Lexington, Massachusetts: D.C. Heath and Company, 1979.

Personal observations in Iran and Saudi Arabia, 1975-1977.

Scheibla, Shirley. "Private vs. Public Sector, the Government Wants to 'Contract Out' More Work." Barrons, Vol. XXXI, No. 10, 25 October 1976.

Kozicharow, Eugene. "U.S. Spurs Use of Private Contractors." Aviation Week & Space Technology, Vol. 99, No. 11, 12 November 1977.

Feazel, Michael. "Agent Fees Rise Despite Traffic Drop." Aviation Week & Space Technology, Vol. 114, No. 20, 18 May 1980.

Personal observations in Ethiopia and Turkey, 1974-1976.

"Spotlight on U.S. Service Industries in World Markets." Commerce America, Vol. 11, No. 8, 11 April 1979.

Ostrich, Ralph. "Aeroflot." Armed Forces Journal International, May 1981.

Gregory, William H. "The Coming Airline Shakeup." Aviation Week & Space Technology, Vol. 114, No. 11, 16 March 1981.

"Are the Giants Unfair to the Upstarts?" Business Week, No. 2696, 13 July 1981.

"Upstarts in the Sky." Business Week, No. 2692, 15 June 1981.

"Labor, It Pays to be Young." Air Transport World, Vol. 17, No. 8, August 1980.

Henderson, Donna K. "Travel Agent Commissions Soar as Rates Fluctuate." Air Transport World, Vol. 17, No. 10, October 1980.

Such, Renee. "New Routes in Co-op: Airlines and Agents." Advertising Age, 15 June 1981.

"Battling Against the Bucket Shops." Newsweek, 30 August 1982.

Walter, Claire. "Travel Agents at Airports: So When Does this Revolution Start?" Airport Services Management, Vol. 21, No. 5, May 1981.

Mitchell, George J. "Deregulation: Crucible for Airline Management." Aviation Week & Space Technology, Vol. 116, No. 25, 21 June 1982.

"Braniff Bites the Dust." Aviation Week & Space Technology, Vol. 116, No. 21, 24 May 1982.

"Effort to Cut Agent Fee Fails." Airport Services Management, Vol. 22, No. 5, May 1982.

Ott, James. "Travel Agents Exert Leverage." Aviation Week & Space Technology, Vol. 116, No. 25, 21 June 1982.

Cavaguaro, Ray L. "A New Way to Run an Airport." Airport Services Management, Vol. 22, No. 3, March 1982.

Cook, John C. International Air Cargo. Philadelphia, Pennsylvania: The Philadelphia Freight Press Inc., 1973.

Goodson, Roger. "Being Biggest Isn't Easy - The New Flying Tigers Takes on the Current Cargo Scene." Interavia, Vol. XXXVI, No. 11, November 1981.

Faelzel, Michael. "Emery Nears Decision on International Operations." Aviation Week & Space Technology, Vol. 116, No. 5, 1 February 1982.

Maurice, Paul. "Federal Express to Fly Concorde." Interavia, Vol. XXXVI, No. 11, November 1981.

Feldman, Joan M. "Flying Tiger and Seaboard: After Thirty-two Months, Finally a Merger." Air Transport World, Vol. 18, No. 1, January 1981.

"Shippers Criticize Beleaguered Air Cargo Industry." Air Transport World, Vol. 17, No. 11, November 1980.

Goodson, Roger. "Air Cargo: Traffic Increases While Profits Vanish." Interavia, July 1982.

Gordon, Jack. "Who Runs the Airport? The Battle of the Leases." Airport Services Management, Vol. 21, No. 1, January 1981.

"Terminal Maintenance: The Contractor Question." Airport Services Management, Vol. 21, No. 4, April 1981.

Riemens, D. "Airport Charges: A Decreasing Element in Airline Operating Costs?" Interavia, Vol. XXXIII, No. 1, January 1978.

"European Report." Air Transport World, Vol. 17, No. 10, October 1980.

Furnham, Frank. "Big Plans for Honolulu." Airport Services Management, Vol. 22, No. 5, May 1982.

Goodson, Roger. "The Cost of Airport Security." Interavia, Vol. XXXVI, April 1981.

"Spotlight on U.S. Service Industries in World Markets." Commerce America, Vol. 11, No. 8, 11 April 1979.

"Through the Cracks." Air Transport World, Vol. 18, No. 6, June 1981.

"Trouble in the Skies." Newsweek, 16 November 1981.

"U.S. Plans Drive on Airline Discrimination." Aviation Week & Space Technology, Vol. 116, No. 18, 3 May 1982.

"Bilateral 'Give-and-Take' Policy Adopted." Aviation Week & Space Technology, Vol. 116, No. 9, 1 March 1982.

Robins, Yves. "Air Transport in Black Africa." Interavia, Vol. XXXVI, No. 4, April 1981.

Goodson, Roger. "Survival or Bankruptcy, Sabena Bites the Bullet." Interavia, No. 9, 1982.

"El Al's Sabbath Ban Overruled." Flight International, Vol. 112, No. 3827, 11 September 1982.

"Hoelle auf Erden." Der Spiegel, Vol. 36, No. 35, 30 August 1982.

Brown, David A. "Nigeria Airways Changing Management." Aviation Week & Space Technology, Vol. 115, No. 17, 26 October 1981.

Brough, Nick. "Africa's Airlines Seek Closer Cooperation." Interavia, No. 6, 1982.

"Common Market Group Weight Competition Rule." Aviation Week & Space Technology, Vol. 114, No. 23, 8 June 1981.

Hohle, Klaus. "In-Flight Catering: Competitive Value Versus Cost." Interavia, Vol. XXXI, No. 4, April 1979.

Treen, Joseph. "The 'Mercedes' of the Air." Newsweek, 16 November 1981.

"Airline Catering." Service World International, Vol. 12, No. 3, June 1979.

"Changes in Airline Foodservice." Institutions/Volume Feeding Magazine, 15 March 1978.

"Carson Pirie Scott: Hoping to Get Fat on Food Services." Business Week, No. 2680, 23 March 1981.

International Air Transportation Association. Principles of Airport Handling. Montreal: International Air Transport Association, 1980.

Congress of the United States, Office of Technology Assessment. Impact of Advanced Air Transport Technology Part 2 - The Air Cargo System. Washington: Government Printing Office, 1982.

Arbeitsgemeinschaft Deutscher Verkehrsflughäfen. Airport Regulations for the Airports of the Federal Republic of Germany Excluding Berlin (West). Stuttgart, Germany: Arbeitsgemeinschaft Deutscher Verkehrsflughäfen, 1975.

"Aircraft Industry: Tomorrow's Pterodactyles?" The Economist, Vol. 279, No. 7187, 5 June 1981.

Airport Operators Council International. Worldwide Airport Traffic Report 1982. Washington: Airport Operators Council International, 1982.

Green, William, and Gordon Swanborough. The Observer's World Airlines and Airlines Directory. London: Frederick Warne, Inc., 1980.

World Airline Statistics. Air Transport World, Vol. 18, No. 5, May 1982.

Green, William, and Gordon Swanborough. The Observer's World Airlines and Airlines Directory. London: Frederick Warne, Inc., 1980.

Airport Ground Transportation: Problems and Solutions. Washington, D.C.: U.S. Department of Transportation, February 1981.

Congress of the United States, Office of Technology Assessment. Impact of Advanced Air Transport Technology Part 1, Advanced High-Speed Aircraft. Washington: Government Printing Office, April 1980.

APPENDIXES

APPENDIX A

IATA GROUND HANDLING CONTRACT



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — MAIN AGREEMENT

SECTION:..... 8
AHM:..... 810
SHEET:..... 1
ISSUED:..... APR 1980

CONTRACT FOR GROUND HANDLING AND RELATED SERVICES

RECOMMENDED that,

Members shall adopt the IATA Standard Ground Handling Agreement set out hereunder:

IATA STANDARD GROUND HANDLING AGREEMENT

between: ABC Airlines

and: XYZ Airlines

The present agreement consists of:

MAIN AGREEMENT.

ANNEX A (DESCRIPTION OF SERVICES).

ANNEX(ES) B (LOCATION(S), AGREED SERVICES AND CHARGES).

CONTENTS OF MAIN AGREEMENT

ARTICLE 1. PROVISION OF HANDLING FACILITIES AND SERVICES

ARTICLE 2. FAIR PRACTICES

ARTICLE 3. SUB-CONTRACTING OF SERVICES

ARTICLE 4. CARRIER'S REPRESENTATION

ARTICLE 5. STANDARD OF WORK

ARTICLE 6. REMUNERATION

ARTICLE 7. ACCOUNTING AND TRANSFER

ARTICLE 8. LIABILITY AND INDEMNITY

ARTICLE 9. ARBITRATION AND JURISDICTION

ARTICLE 10. STAMP DUTIES, REGISTRATION FEES

ARTICLE 11. DURATION, MODIFICATION AND TERMINATION

ARTICLE 12. CAPTIONS

Effective Date:

Termination period:

**IATA STANDARD GROUND HANDLING AGREEMENT — MAIN AGREEMENT**

SECTION:..... 8
AHM:..... 810
SHEET:..... 2
ISSUED:..... APR 1980

MAIN AGREEMENT

An agreement made this

between: ABC Airlines having its principal office at hereinafter referred to as
'the Carrier' or 'the Handling Company' as the case may be (optional)

and: XYZ Airlines having its principal office at hereinafter referred to as
'the Handling Company' or 'the Carrier' as the case may be (optional)

WHEREBY THE PARTIES AGREE AS FOLLOWS:

ARTICLE 1**PROVISION OF HANDLING FACILITIES AND SERVICES**
(hereinafter referred to as 'the Services')**1.1. General**

The services will be made available within the limits of possibilities of the Handling Company and in accordance with the current IATA rules and regulations.

It is not considered necessary or possible to specify every detail of the handling services it being generally understood among IATA carriers what such services comprise and the standards to be attained in their performance.

1.2. Documents for Traffic Handling

Documents used for traffic handling will be the Handling Company's own documents, if applicable, and provided that these documents are IATA standard.

1.3. Scheduled Flights

The Handling Company, without advance request, agrees to provide for aircraft operated by, or on behalf of, the Carrier on scheduled flights at the location(s) mentioned in the Annex(es) B those Services of Annex A as are listed in the Annex B for the respective locations. The carrier, in turn, agrees to inform the Handling Company as soon as possible about any changes of schedules and/or frequencies and/or changes in types of aircraft.

1.4. Special Flights

The Handling Company will also provide the services to aircraft on other than scheduled flights operated by or on behalf of the Carrier, at the same locations, provided that reasonable prior notice is given and the provision of such additional services will not prejudice commitments already undertaken.

1.5. Priority

In case of multiple handling, priority shall, as far as possible, be given to aircraft operating on schedule.

1.6. Special Assistance (emergency cases)

In case of emergency such as forced landings, accidents or acts of violence, the Handling Company shall without delay and without waiting for instructions from the Carrier take all reasonable and possible steps to assist passengers and crew and to safeguard and protect from loss or damage baggage, cargo and mail carried in the aircraft.

The Carrier shall reimburse at cost the Handling Company for any extra expenses incurred by the Handling Company in rendering such assistance



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — MAIN AGREEMENT

SECTION:..... 8
AHM:..... 810
SHEET:..... 3
ISSUED:..... APR 1980

1.7. Additional Services

As far as possible, the Handling Company will, upon request, provide to the Carrier any additional services. Such services may be governed by special conditions to be agreed between the parties.

1.8. Other Airports

In case of occasional calls of the Carrier's aircraft at airports not being locations designated in the present agreement, where the Handling Company maintains a ground handling organisation, the Handling Company shall, on request, make every effort, subject to the means locally available, to furnish necessary services.

ARTICLE 2

FAIR PRACTICES

- 2.1. The Handling Company will take all practicable measures to ensure that sales information contained in the Carrier's flight documents is made available for the purposes of the Carrier only.

ARTICLE 3

SUB-CONTRACTING OF SERVICES

- 3.1. The Handling Company is entitled to delegate any of the agreed services to sub-contractors with the Carrier's consent, which consent shall not be unreasonably withheld, it being understood that, in this case, the Handling Company shall nevertheless be responsible to the Carrier for the proper rendering of such services as if they had been performed by the Handling Company itself. Any sub-contracting of services will be recorded in the Annex(es) B concerned.
- 3.2. The Carrier shall not appoint any other person, company or organisation to provide the services which the Handling Company has agreed to provide by virtue of this Agreement, except in such special cases as shall be mutually agreed between the parties.

ARTICLE 4

CARRIER'S REPRESENTATION

- 4.1. The Carrier may maintain at its own cost, its own representative(s) at the location(s) designated in the Annex(es) B. Such representative(s) and, by prior arrangement, representative(s) of the Carrier's Head Office may inspect the facilities and services furnished to the Carrier by the Handling Company pursuant to this Agreement, advise and assist the Handling Company and render to the Carrier's clients such assistance as shall not interfere with the furnishing of services by the Handling Company.
- 4.2. The Carrier may, by prior written notice to the Handling Company and at its own cost, engage an organization (hereinafter referred to as 'the Supervisor') to supervise the services of the Handling Company at the location(s) designated in Annex(es) B. Such notice shall contain a description of:
- (a) the services to be supplied by the Handling Company;
 - (b) the supervisory function of the Supervisor with regard to these services.
- The Supervisor shall have the same authority as defined above in Article 4.1. for the Carrier's own representative.
- 4.3. Such assistance, when performed by the Carrier's representative(s) and/or Supervisor(s) will be the sole responsibility of the Carrier, unless requested by the Handling Company.
- 4.4. The office equipment and premises, which may be made available by the Handling Company to the Carrier to enable the Carrier's representative(s) and/or Supervisor(s) to perform the above-mentioned activities, shall be the subject of separate arrangement.



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — MAIN AGREEMENT

SECTION:..... 8
AHM:..... 810
SHEET:..... 4
ISSUED:..... APR 1980

ARTICLE 5

STANDARD OF WORK

- 5.1. The Handling Company shall carry out all technical and flight operations services in accordance with the Carrier's instructions, receipt of which must be confirmed in writing to the Carrier by the Handling Company.
- In the case of absence of instructions by the Carrier, the Handling Company shall follow its own standard practices and procedures.
- 5.2. All other services shall be provided in accordance with standard practices and procedures usually followed by the Handling Company. Nevertheless, the Handling Company will comply with reasonable requests of the Carrier as long as these do not conflict with the applicable orders and regulations of the appropriate authorities or of the Handling Company.
- 5.3. The Handling Company agrees to take all possible steps to ensure that the Carrier's aircraft, crews, passengers and load receive treatment not less favourable than that given by the Handling Company to other carriers.
- 5.4. The Handling Company agrees to ensure that authorisations of specialised personnel performing services for the Carrier are kept up-to-date.
- In the case of occasional or continuous inability of the Handling Company to provide authorised personnel as requested by the Carrier, the Handling Company shall inform the Carrier immediately.
- 5.5. The Carrier shall supply the Handling Company with sufficient information and instructions to enable the Handling Company to perform its handling properly.
- 5.6. In the provision of the services as a whole, due regard shall be paid to safety, local and international regulations, the relevant resolutions of IATA and the aforementioned request(s) of the Carrier in such a manner that delays and damage to the Carrier's aircraft and load are avoided and the general public is given the best impression of air transport.
- 5.7. The Handling Company will report to the Carrier's Representative immediately all loss of or damage, threatened or actual, to aircraft and loads noticed in the course of the handling or which otherwise comes to the knowledge of the Handling Company.

ARTICLE 6

REMUNERATION

- 6.1. In consideration of the Handling Company providing the services, the Carrier agrees to pay to the Handling Company the charges set out in the respective Annex(es) B. The Carrier further agrees to pay the proper charges of the Handling Company and to discharge all additional expenditure incurred for providing the services referred to in Article 1.4., 1.6., 1.7. and 1.8.
- 6.2. The charges set out in Annex(es) B do not include:
- permit, landing or departure fees;
 - charges for parking and picketing;
 - charges for transmitting messages;
 - any other charges, fees or taxes imposed or levied by the airport, customs or other authorities against the Carrier or the Handling Company in connection with the provision of services herein by the Handling Company or in connection with the Carrier's flights. Such charges, fees or taxes shall be borne ultimately by the Carrier;



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — MAIN AGREEMENT

SECTION: 8
AHM: 810
SHEET: 5
ISSUED: AUG 1980

- expenses incurred in connection with stopover and transfer passengers and with the handling of passengers for interrupted, delayed or cancelled flights.

ARTICLE 7

ACCOUNTING AND TRANSFER

- 7.1. The Handling Company shall debit the Carrier monthly with the charges arising from the provision of the handling services of Annex A as listed in Annex(es) B at the rates of charges set out in Annex(es) B.
- 7.2. Settlement of account shall be effected through the IATA Clearing House unless otherwise agreed in Annex(es) B.

ARTICLE 8 (Optional)

LIABILITY AND INDEMNITY

In this Article all references to the Carrier or the Handling Company shall include their servants, agents and sub-contractors.

- 8.1. The Carrier shall not make any claim against the Handling Company and shall indemnify it (subject as hereinafter provided) against any legal liability for claims or suits, including costs and expenses incidental thereto, in respect of:

- (a) delay, injury or death of persons carried or to be carried by the Carrier and of any employees of the Carrier; and
- (b) damage to or delay or loss of baggage, cargo or mail carried or to be carried by the Carrier; and
- (c) damage to or loss of property owned or operated by or on behalf of the Carrier and any consequential loss or damage;

arising from an act or omission of the Handling Company in the performance of this Agreement unless done with intent to cause damage, death, delay, injury, or loss or recklessly and with the knowledge that the damage, death, delay, injury or loss would probably result.

PROVIDED THAT all claims or suits arising hereunder shall be dealt with by the Carrier; and

PROVIDED ALSO THAT the Handling Company shall notify the Carrier of any claims or suits without undue delay and shall furnish such assistance as the Carrier may reasonably require.

- Δ 8.2. The Carrier shall not make any claim against the Handling Company in respect of damage, death, delay, injury or loss to third parties caused by the operation of the Carrier's aircraft arising from an act or omission of the Handling Company in the performance of this Agreement unless done with intent to cause damage, death, delay, injury or loss or recklessly and with knowledge that the damage, death, delay, injury or loss will probably result.

- Δ 8.3. (a) Notwithstanding the provisions of 8.1., in the case of claims arising out of surface transportation which is provided on behalf of the Carrier and is part of the operation of loading/embarking or unloading/disembarking and/or is covered by the Carrier's Contract of Carriage the indemnity shall not exceed the limits specified in the said Contract of Carriage.
- (b) In the case of claims arising out of surface transportation which is *NOT* provided on behalf of the Carrier and/or is *NOT* part of the operation of loading/embarking or unloading/disembarking and/or is *NOT* covered by the Carrier's Contract of Carriage the waiver and indemnity herein contained shall not apply.

- Δ 8.4. The Handling Company shall not make any claim against the Carrier and shall indemnify it (subject as hereinafter provided) against any legal liability for claims or suits, including costs and expenses incidental thereto, in respect of:

- (a) injury to or death of employees of the Handling Company; and



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — MAIN AGREEMENT

SECTION:..... 8
AHM:..... 810
SHEET:..... 6
ISSUED:..... AUG 1980

- (b) damage to or loss of property owned or operated by or on behalf of the Handling Company and any consequential loss or damage;

arising from an act or omission of the Carrier in the performance of this Agreement unless done with intent to cause damage, death, delay, injury or loss or recklessly and with knowledge that the damage, death, delay, injury or loss would probably result.

ARTICLE 9

ARBITRATION AND JURISDICTION

- 9.1. Unless otherwise agreed, any difference or dispute arising from the interpretation or the implementation of the present agreement or relating to any rights or obligations herein contained shall be referred to arbitration in accordance with the IATA Arbitration Rules in force at the time of appeal, said Rules being considered part hereof. The decision of such arbitration shall be final and enforceable on the parties hereto.
- 9.2. In case of above disputes the applicable law shall be the law of the country where the Head Office of the Handling Company actually involved as handling party to this agreement is registered.

ARTICLE 10

STAMP DUTIES, REGISTRATION FEES

- 10.1. All stamp duties and registration fees in connection with this agreement, which may be prescribed under the national law of either party to this agreement, are payable by that party.
- 10.2. All stamp duties and registration fees in connection with this agreement, which may be prescribed under the national law of the location(s), as mentioned in the Annex(es) B and not being a location situated in the country of either party to this Agreement will be shared equally between the parties.

ARTICLE 11

DURATION, MODIFICATION AND TERMINATION

- 11.1. This agreement shall be effective from and shall supersede any previous arrangements between the parties governing the provision of the services.
- 11.2. Modification of, or additions to this agreement or its Annexes must be approved in writing by the parties.
- 11.3. This agreement shall continue in force until terminated by either party giving 60 days previous notice to the other party.
- 11.4. Notice of termination of all or any part of the assistance to be furnished at a specific location must be given by either party upon 60 days previous notice unless otherwise agreed in the Annex B concerned.
- In the event of part termination of handling services, consideration shall be given to an adjustment of charges.
- 11.5. Any notice referred to under this Article 11 given by one party under this agreement shall be deemed properly given if sent by registered letter to the respective Head Office of the other party.
- 11.6. In the event of the Carrier's or the Handling Company's permit(s) or other authorisation(s) to conduct its air transportation services, or to furnish the services provided for in the Annex(es) B, wholly or in part, being revoked, cancelled, or suspended, that party may terminate the Agreement or the relevant Annex(es) B at the effective date of such revocation, cancellation or suspension by giving to the other party notice thereof within 24 hours after such event.
- 11.7. Either party may terminate this agreement and its Annexes at any time if the other party becomes insolvent, makes a general assignment for the benefit of creditors, or commits an act of bankruptcy or if a petition in bankruptcy or for its reorganisation or the readjustment of its indebtedness be filed by or against it, provided the petition is found justified by the appropriate authority, or if a receiver, trustee or liquidator of all or substantially all of its property be appointed or applied for.

© International Air Transport Association 1980



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — MAIN AGREEMENT

SECTION:..... 8
AHM:..... 810
SHEET:..... 7
ISSUED:..... AUG 1980

- 11.8. Both the Handling Company and the Carrier shall be exempt from obligation if prompt notification is given by either party in respect of any failure to perform their obligations under this agreement arising from any of the following causes:

- labour disputes involving complete or partial stoppage of work or delay in the performance of work;
- force majeure or any other cause beyond the control of either party.

- 11.9. In the event of the agreement or part thereof being terminated by notice or otherwise, such termination shall be without prejudice to the accrued rights and liabilities of either party prior to termination.

- 11.10. The Handling Company shall have the right at any time to vary the charges set out in the Annex(es) B upon giving to the Carrier not less than 30 days previous notice in writing of its intention to do so, accompanied by full details of the charges which the Handling Company proposes to introduce, together with the date (not earlier than the expiration of such notices) on which the new charges are to be brought into effect.

Notwithstanding the foregoing, when schedule changes as mentioned in Sub-Article 1.3. affect the handling costs, the Handling Company shall have the right to adjust the charges as from the date of the schedule change provided that the Handling Company does so within 30 days of the schedule change.

ARTICLE 12

CAPTIONS

- 12.1. The Article captions in this agreement are for reference purposes only and form no part of the agreement.

.....
Signed the

.....
at

.....
on behalf of

.....
by

.....
Signed the

.....
at

.....
on behalf of

.....
by



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 8
ISSUED:..... APR 1980

ANNEX A — GROUND HANDLING SERVICES

to the IATA Standard Ground Handling Agreement

Effective from:

between: ABC Airlines, hereinafter referred to as 'the Carrier' or 'the Handling Company' as the case may be (optional)

and: XYZ Airlines, hereinafter referred to as 'the Handling Company' or 'the Carrier' as the case may be (optional)

valid from:

replacing:

TABLE OF CONTENTS

INTRODUCTION

SECTION 1. REPRESENTATIONAL SERVICES

1.1. General

R.1.2. Disbursements

SECTION 2. COMMUNICATIONS

SECTION 3. TRAFFIC SERVICES

3.1. Handling Documents and Load Control

3.2. Passenger and baggage handling at the airport

3.3. Cargo handling services

3.4. Mail handling services

3.5. Traffic services — town terminal

SECTION 4. LOADING/UNLOADING

SECTION 5. CATERING SERVICES

SECTION 6. AIRCRAFT CLEANING

6.1. Exterior cleaning

6.2. Interior cleaning

6.3. Toilet Service

6.4. Water service

SECTION 7. AIRCRAFT HANDLING

7.1. Attendance



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 9
ISSUED:..... APR 1980

SECTION 7. AIRCRAFT HANDLING *(Continued)*

- 7.2. Marshalling
- 7.3. Parking
- 7.4. Starting
- 7.5. Safety measures
- R.7.6. Moving of aircraft

SECTION 8. AIRCRAFT SERVICING

- 8.1. Fuelling and de-fuelling
- 8.2. Replenishing of oil and other fluids
- R.8.3. Cooling and heating
- R.8.4. Snow and ice removal
- R.8.5. Cabin equipment

SECTION 9. AIRCRAFT MAINTENANCE

- 9.1. Routine services
- R.9.2. Non-routine services

SECTION 10. ACCOMMODATION AND MATERIAL

- R.10.1. Accommodation
- R.10.2. Material handling

SECTION 11. FLIGHT OPERATIONS

- 11.1. General
- 11.2. Flight preparation at the aerodrome of departure
- 11.3. Flight preparation at a point different from the aerodrome of departure
- 11.4. In-flight assistance
- R.11.5. Post-Flight activities
- R.11.6. In-flight re-dispatch
- R.11.7. Company air-ground communications

SECTION 12. CARGO SERVICES

SECTION 13. SURFACE TRANSPORT

SECTION 14. SUPERVISION AND ADMINISTRATION

- 14.1. Supervisory functions
- 14.2. Administration functions



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 10
ISSUED:..... APR 1980

INTRODUCTION

For the sake of clearness, terms used in this Annex are defined hereunder:

- (a) Passengers shall include Carrier's service and free passengers.
- (b) Cargo and Mail shall include Carrier's service cargo and mail.
- (c) Airport Terminal shall mean all buildings used for arrival and departure handling of aircraft.
- (d) Loads shall mean baggage, cargo, mail and any aircraft supplies including ballast.
- (e) Services marked "R" are services which may be performed on request and against additional charge.



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION: 8
AHM: 810
SHEET: 11
ISSUED: APR 1980

SECTION 1. REPRESENTATIONAL SERVICES

1.1. General

- 1.1.1. If required, arrange guarantee or bond to facilitate the Carrier's activities. Cost for provisions of such guarantee or bond may be recharged to the Carrier.
- 1.1.2. Liaison with local authorities.
- 1.1.3. Indicate that the Handling Company is acting as handling agent for the Carrier.
- 1.1.4. Inform all interested parties concerning movements of the Carrier's aircraft.

R.1.2. Disbursements

- R.1.2.1. As specified by the Carrier, payment on behalf of the Carrier of all airport, customs, police and other charges relating to the services performed.
- R.1.2.2. As specified by the Carrier, payment on behalf of the Carrier of all out-of-pocket expenses such as accommodation, transport and catering charges.

SECTION 2. COMMUNICATIONS

- 2.1. Compile, dispatch and receive all messages in connection with the services performed by the Handling Company. Inform the Carrier's representative of the contents of such messages.
- 2.2. Maintain a message file containing all above-mentioned messages pertaining to each flight for 90 days.
- R.2.3. (a) provide
(b) operate
suitable means of communication between the Carriers' aircraft on the ground and the ground station.

SECTION 3. TRAFFIC SERVICES

3.1. Handling documents and load control

- 3.1.1. Convey and deliver flight documents between the aircraft and appropriate airport buildings.
- 3.1.2. (a) prepare
(b) sign
(c) distribute
(d) clear
as appropriate, documents such as loading instructions, loadsheets, balance charts, manifests, etc. in accordance with local or international regulations or as reasonably required by the Carrier.

- 3.1.3. Compile and dispatch statistics, returns and reports as mutually agreed.

3.2. Passenger and baggage handling at the airport

- 3.2.1. Inform passengers and/or public about time of arrival and/or departure of Carrier's aircraft and surface transport.



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 12
ISSUED:..... APR 1980

- 3.2.2. Guide passengers from aircraft through controls to surface transport and vice versa.
- 3.2.3. (a) handle baggage in the baggage sorting area;
(b) deliver baggage in accordance with the local procedures.
- 3.2.4. Arrange portage services for passenger's baggage.
- 3.2.5. Make arrangements for stopover, transfer and transit passengers and their baggage and inform them about services available at the airport during transit.
- 3.2.6. If admissible, storage of baggage in the customs bonded store if required (any storage fees to be paid cash by the passengers).
- 3.2.7. Assist passengers requiring special attention, e.g. disabled passengers, unaccompanied children, etc. and arrange for special equipment and specially trained personnel for such assistance, when requested by the Carrier.
- 3.2.8. Ensure that open tickets are valid for the flight for which they are presented and complete them accordingly.
- 3.2.9. By mutual agreement, check travel documents (passports, visas, vaccination and other certificates) for certain points on the flight concerned, but without liability for the Handling Company.
- 3.2.10. (a) weigh and/or measure as applicable, and tag checked and unchecked baggage;
(b) effect the conveyance of checked baggage from the baggage check-in position to the baggage sorting area.
- 3.2.11. Enter baggage figures on passengers' tickets and detach flight coupons.
- 3.2.12. Make out excess baggage tickets, collect excess baggage charges and detach excess baggage coupons.
- 3.2.13. Take care of passengers when flights are interrupted, delayed or cancelled, according to instructions given by the Carrier. If instructions do not exist, deal with such cases according to the custom of the Handling Company.
- 3.2.14. Deal with lost, found and damaged property and report such irregularities to the Carrier.
- 3.2.15. Notify the Carrier of complaints and claims made by the Carrier's clients.
- 3.2.16. Head check of passengers upon embarkation (count to be compared with aircraft documents).
- 3.2.17. Where applicable, collect Airport Service Charges from departing passengers accounting therefor to the appropriate authorities.
- R.3.2.18. Carry out Carrier's seat allocation or selection system as mutually agreed.
- 3.3. **Cargo handling services**
- Export Cargo
- 3.3.1. Provide accommodation and services for acceptance of cargo and ensure adequate control that shipments and documents when delivered for transportation by shippers either directly or through the intermediary of Carrier's agents are made 'ready for carriage'. Any irregularity to be reported to the Carrier.
- 3.3.2. In accordance with local regulations put cargo under Customs' control.



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 13
ISSUED:..... APR 1980

- 3.3.3. (a) sort
(b) store
export cargo for a period to be mutually agreed prior to dispatch in accordance with the nature of goods and the routing of the cargo.
- 3.3.4. Provide essential equipment and storage facilities for special cargo such as perishables, live animals, valuables, news-films, restricted articles and other special shipments.
- 3.3.5. Tally and assemble for dispatch by weight and volume cargo up to capacity available on Carrier's flights.
- 3.3.6. Prepare for delivery onto flights:
(a) bulk cargo;
(b) unit load devices — e.g. pallets, containers, etc.
- 3.3.7. (a) prepare cargo manifest(s);
(b) split Air Waybill sets. Forward applicable copies of manifest and Air Waybills as mutually agreed;
(c) where applicable return copy of air waybill to shipper endorsed with flights details.
(d) dispatch Unit Load Devices Control Messages according to UCM procedure.
- 3.3.8. Obtain Customs' export clearance.
Transfer Cargo
- 3.3.9. (a) offload bulk cargo from vehicles;
(b) break down and/or empty unit load devices, e.g. pallets, containers, etc.;
(c) check incoming cargo against document(s).
- 3.3.10. In accordance with local regulations put cargo under Custom's control, clearing discrepancies.
- 3.3.11. (a) sort
(b) store
transfer cargo for a period to be mutually agreed prior to dispatch in accordance with the nature of goods and the routing of the cargo.
- 3.3.12. Provide essential equipment and storage facilities for special cargo such as perishables, live animals, valuables, news films, restricted articles and other special shipments.
- 3.3.13. (a) prepare transfer manifest(s) for cargo to be transported by another Carrier;
(b) prepare the Unit Load Device receipt (LUC) for all transfer of Unit Load Devices and distribute copies according to the Carrier's instructions.
- 3.3.14. Provide transport to the warehouse of the receiving Carrier, for transfer cargo under cover of transfer manifest or any other document agreed.



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION: 8
AHM: 810
SHEET: 14
ISSUED: APR 1980

Import Cargo

- 3.3.15. (a) offload bulk cargo from vehicles when applicable;
- (b) break down and/or empty unit load devices — e.g. pallets, containers, etc.;
- (c) check incoming cargo against document(s);
- (d) dispatch unit Load Devices Control Messages according to UCM procedure;
- (e) sign the Unit Load Device receipt (LUC) upon receipt of a Unit Load Device and distribute copies according to the carriers instructions.

- 3.3.16. (a) sort
- (b) store

import cargo for a period to be mutually agreed and in accordance with local regulations.

- 3.3.17. Provide essential equipment and storage facilities for special cargo such as perishables, live animals, valuables, news films, restricted articles and other special shipments.
- 3.3.18. Place cargo under Customs' control, clearing discrepancies, in accordance with local regulations.
- 3.3.19. Notify consignee/agent of arrival in accordance with applicable instructions.
- 3.3.20. Provide facilities for collection of CC and/or COD amounts.
- 3.3.21. Take action in accordance with applicable instructions when consignee refuses acceptance or payment.

General

- 3.3.22. Present to Customs, as required, cargo for physical examination.
- 3.3.23. Deal with lost, found and damaged cargo and report such irregularities to the Carrier.
- 3.3.24. Notify the Carrier of any complaint and claim made by the Carrier's client(s).
- 3.3.25. Take immediate action in accordance with Carrier's instructions in respect of irregularities, damage or mishandling of restricted article shipments.
- 3.3.26. Take appropriate action to protect the Carrier's pallets, containers, nets, straps, tie-down rings and other lashing material in the custody of the Handling Company against damage or loss. Notify the Carrier immediately of any damage or loss of such items.

3.4. Mail handling services

- 3.4.1. Distribute incoming/outgoing AV7.
- 3.4.2. Check incoming mail against AV7.
- 3.4.3. Deliver mail to postal authorities against AV7 for receipt.
- 3.4.4. Accept and check outgoing mail from the postal authorities against AV7 receipt.
- 3.4.5. Deal with transfer dispatches.



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 15
ISSUED:..... APR 1980

- 3.4.6. Handle Carrier's service mail in accordance with local practice.
- 3.4.7. Handle diplomatic mail as mutually agreed.
- 3.4.8. Deal with lost, found and damaged mail and report such irregularities to the Carrier.
- 3.5. Traffic services — town terminal
- 3.5.1. Receive passengers ex airport coach.
- 3.5.2. Deliver baggage to passengers in accordance with local procedures.
- 3.5.3. Arrange portering services for passengers' baggage.
- 3.5.4. Inform passengers/public about time of arrival/departure, and as far as possible, the reason for delay.
- 3.5.5. Receive embarking passengers and baggage.
- 3.5.6. Carry out ticket and baggage handling as described in Section 3.2., Subsections 3.2.7. to 3.2.15. inclusive.
- 3.5.7. Make arrangements for stopover and transfer passengers.

SECTION 4. LOADING/UNLOADING

- 4.1.
 - (a) provide adequate passenger steps
 - (b) position/remove adequate passenger steps
 - (c) provide passenger loading bridges
 - (d) position/remove passenger loading bridgeswithin limits, if specified in Annex(es) B.
- 4.2.
 - (a) provide
 - (b) operatesuitable loading/unloading equipment.
- 4.3.
 - (a) provide
 - (b) operatesuitable equipment for transport of loads between agreed points on the airport as required.
- 4.4.
 - (a) unload loads;
 - (b) assemble/deliver/receive loads;
 - (c) load, stow and secure loads in accordance with the Carrier's instructions and procedures. (Lashing materials may be charged at cost);
 - (d) weigh pallets/containers/load units.
- 4.5. Load, stow and secure special cargo such as perishables, live animals, valuables, news films, restricted articles and other special shipments in accordance with the Carrier's instructions.
- 4.6. Re-distribute loads in cargo holds according to Carrier's instructions.
- 4.7. Secure and lock cargo hold doors and hatches when loading is complete.



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 18
ISSUED:..... APR 1980

R.4.8. Provide

(a) passenger

(b) crew

transport between aircraft and airport terminal where required by Carrier or local authorities.

R.4.9. Refill the Carrier's ballast bags with ballast approved by the Carrier.

R.4.10. Provide filled ballast bags.

R.4.11. Arrange for safeguarding of all loads with special attention to valuables and vulnerable cargo during loading, unloading and during transport between aircraft and airport terminal.

R.4.12. (a) provide

(b) position/remove

steps in excess of 4.1.

SECTION 5. CATERING SERVICES

5.1. Unload/load and stow pantry equipment and catering supplies from/on aircraft.

5.2. Convey removable pantry equipment and catering supplies between aircraft and catering department at the airport.

5.3. Liaison with the Carrier's supplier and handling of requisitions made by the Carrier's authorized representative.

R.5.4. Empty, wash, clean and install removable pantry equipment items.

R.5.5. Refill removable galley containers with hot and/or cold drinking water.

R.5.6. Provide, according to Carrier's requirements:

(a) bonded

(b) unbonded

(c) air-conditioned

(d) deep freeze

storage accommodation.

R.5.7. Store Carrier's:

(a) spare catering equipment;

(b) consumable material;

(c) food stock;

(d) bar stock.

R.5.8. Arrange for laundering cabin linen (headrest covers, pillow cases, sheets).

R.5.9. Supervise preparation and set-up of meals and refreshments.

R.5.10. Prepare food trays



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION: 8
AHM: 810
SHEET: 17
ISSUED: AUG 1980

- R.5.11. Prepare meals and supply unprocessed articles as defined in special agreement.
- R.5.12. Maintain stocks at levels laid down by the Carrier replenishing as necessary by demand on the Carrier or by local purchase as instructed.
- R.5.13. Pack and dispatch serviceable and unserviceable items as required.
- R.5.14. Complete stock returns and other documentation.
- (R.5.15.)

SECTION 6. AIRCRAFT CLEANING

6.1. Exterior cleaning (upon request)

- 6.1.1. Exterior cleaning of cockpit windows.
- 6.1.2. Reasonable cleaning of aircraft integral steps.
- 6.1.3. Wipe excess oil from engine nacelles and landing gear.
- R.6.1.4. Clean wings, controls, engine nacelles and landing gear extensively.
- R.6.1.5. Clean cabin windows.

6.2. Interior Cleaning

- 6.2.1. Clean and tidy cockpit according to the Carrier's instructions and, if specified, under the control of a person authorised by the Carrier.

By:

- (a) emptying ash trays
- (b) disposing of litter
- (c) clearing waste from seat-back stowages and racks
- (d) wiping crew tables
- (e) cleaning and tidying seats
- (f) mopping floor
- (g) cleaning windscreen on inside as requested.

- 6.2.2. Clean and tidy as appropriate:

- (1) crew compartments (other than cockpit)
- (2) lounges
- (3) bars, pantries
- (4) passenger cabins
- (5) toilets
- (6) cloakrooms
- (7) vestibules, etc



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 18
ISSUED:..... AUG 1980

By:

- (a) emptying ashtrays
- (b) disposing of litter
- (c) clearing waste from seat-back stowages and hatracks
- (d) wiping tables
- (e) cleaning and tidying seats and passenger service units
- (f) cleaning the floors (carpets and surrounds)
- (g) wiping surfaces in pantries (sinks and working surfaces) and toilets (wash basins, bowls, seats, mirrors and surrounds)
- (h) remove as necessary any contamination caused by airsickness, spilled food or drink and offensive stains.

△

△

△



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 19
ISSUED:..... AUG 1980

- 6.2.3. Fold and rack blankets.
- 6.2.4. Clean and tidy pantry fixtures and empty and clean refuse bins.
- R.6.2.5. Clean
 - (a) cargo holds;
 - (b) cargo cabins.
- R.6.2.6. Clean floor and floor covers extensively.
- R.6.2.7. Clean cabin fixtures and fittings.
- R.6.2.8. Disinfect and/or deodorize aircraft (materials may be supplied by the Carrier).
- R.6.2.9. Make up berths.
- R.6.2.10. Change head- and pillow-covers (covers to be supplied by the Carrier).
- R.6.2.11. Clean cabin windows.
- R.6.2.12. Distribute in-cabin and toilet items provided by the Carrier.
- 6.3. Toilet service
 - 6.3.1. (a) provide
 - (b) position and remove
 - toilet cart
 - (c) empty, clean, flush toilets and replenish fluids (materials may be supplied by the Carrier).
- 6.4. Water service
 - 6.4.1. (a) provide
 - (b) position and remove
 - water cart
 - (c) replenish water tanks with drinking water (upon request superchlorinated water).

SECTION 7. AIRCRAFT HANDLING

- 7.1. Attendance
 - 7.1.1. Standby before arrival and after departure.
 - 7.1.2. General supervision of aircraft handling activities
- 7.2. Marshalling
 - 7.2.1. Provide marshalling equipment.
 - 7.2.2. (a) provide
 - or
 - (b) arrange for marshalling at arrival/departure



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 20
ISSUED:..... AUG 1980

7.3. Parking

- 7.3.1. (a) provide
(b) position/remove
wheelchairs.

7.3.2. Position/Remove:

- (a) landing gear locks;
(b) engine blanking covers;
(c) pitot-covers;
(d) surface control locks;
(e) tailstands.

7.3.3. Provide headsets.

7.3.4. Perform ground-to-cockpit communication.

- 7.3.5. (a) provide
(b) position and remove
cockpit steps.

- 7.3.6. (a) provide
(b) position and remove
(c) operate

suitable ground power unit for supply of necessary electrical power during a time limit to be specified in the Annex(es) B.

R.7.3.7. Ground power unit in excess of 7.3.6.

- R.7.3.8. (a) provide
(b) arrange for
suitable parking/hangar space.

7.4. Starting

- 7.4.1. (a) provide
(b) position and remove
(c) operate

appropriate unit(s) for normal engine starting at departure.

R.7.4.2. Starting unit in excess of 7.4.1.



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 21
ISSUED:..... AUG 1980

7.5. Safety measures

7.5.1. Report immediately to the Carrier's authorized representative all damage noticed at or inside the aircraft irrespective of cause or time of occurrence.

7.5.2. (a) provide

(b) position and remove

(c) operate

suitable fire-fighting equipment and other protective equipment as required.

R.7.5.3. (a) provide

(b) arrange for

security personnel and facilities.

R.7.6. Moving of Aircraft

R.7.6.1. (a) provide

(b) position and remove

suitable towing equipment;

(c) tow/push aircraft on the designated handling area according to the Carrier's instructions and in accordance with the local regulations.

R.7.6.2. Tow/push aircraft in excess of R.7.6.1. (c).

R.7.6.3. Move aircraft under its own power according to the Carrier's instructions.

SECTION 8. AIRCRAFT SERVICING

8.1. Fuelling and de-fuelling

8.1.1. Liaison with fuel suppliers.

R.8.1.2. Inspect fuel appliances for contamination of fuel.

R.8.1.3. Prepare aircraft for fuelling/de-fuelling.

R.8.1.4. Supervise fuelling/de-fuelling operations.

R.8.1.5. Check the delivered fuel quantity.

R.8.1.6. Drain water from aircraft fuel tanks.

8.2. Replenishing of oil and other fluids

8.2.1. Liaison with suppliers.

R.8.2.2. Supervise replenishing operation.

R.8.2.3. (a) provide

(b) operate

special replenishing equipment



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 22
ISSUED:..... AUG 1980

R.8.3. Cooling and heating

- R.8.3.1. (a) provide
(b) position and remove
(c) operate
cooling unit.

- R.8.3.2. (a) provide
(b) position and remove
(c) operate
heating unit.

R.8.4. Snow and ice removal

- R.8.4.1. Remove snow from the aircraft without de-icing.

- R.8.4.2. (a) provide
(b) position and remove
(c) operate
de-icing unit.

R.8.5. Cabin equipment

- R.8.5.1. Rearrange cabin by removing/installing seats and other cabin equipment.

SECTION 9. AIRCRAFT MAINTENANCE

9.1. Routine services

- 9.1.1. Perform line inspections in accordance with the Carrier's current instructions.
9.1.2. Enter in the aircraft log and sign for the performance of the line inspection.
9.1.3. Enter remarks in the aircraft log regarding defects observed during the inspection.
9.1.4. Perform pre-flight check immediately before aircraft departure.
9.1.5. Provide skilled personnel to assist the flight crew or ground staff in the performance of the inspection.

R.9.2. Non-routine services

- R.9.2.1. Rectify defects written up in the aircraft log as reported by the crew or revealed during the inspection to the extent requested by the Carrier.
However, major repairs must be especially agreed upon between the Carrier and the Handling Company
R.9.2.2 Enter in the aircraft log and sign for the action taken
R.9.2.3 Report technical irregularities and actions taken to the Carrier's maintenance base in accordance with the Carrier's instructions.



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 23
ISSUED:..... AUG 1980

R.9.2.4. Maintain the Carrier's technical manuals, handbooks, catalogues, etc.

R.9.2.5. Provide engineering facilities, tools and special equipment to the extent available.

SECTION 10. ACCOMMODATION AND MATERIAL

R.10.1. Accommodation

R.10.1.1. Provide office space for accommodation of the Carrier's representatives).

R.10.1.2. Provide suitable storage space for accommodation of the Carrier's spare parts and/or special equipment, technical or otherwise.

R.10.1.3. Provide suitable storage space for accommodation of the Carrier's spare power plant.

R.10.2. Material handling

R.10.2.1. (a) obtain custom clearance for

(b) administer

the Carrier's spare parts, power plants and/or equipment, technical or otherwise.

R.10.2.2. Provide periodic inspection of the Carrier's spare parts and/or spare power plant in accordance with the Carrier's current instructions.

SECTION 11. FLIGHT OPERATIONS

11.1. General

11.1.1. Inform the Carrier of any known project affecting the operational services and facilities made available to its aircraft in the areas of responsibility specified in Annex(es) B.

11.1.2. Keep up to date all necessary manuals and instructions that the Carrier must provide and ensure that all prescribed forms are available.

11.1.3. After consideration of the Carrier's instructions, suggest the appropriate action to pilot-in-command in case of operational irregularities taking into account the meteorological conditions, the ground services and facilities available, aircraft servicing possibilities and the overall operational requirements.

11.1.4. Maintain a trip file by collecting all documents specified by the Carrier, all messages received or originated in connection with each flight and dispose of this file as instructed by the Carrier.

11.2. Flight preparation at the aerodrome of departure

11.2.1. Arrange for the provision of the meteorological documentation and aeronautical information for each flight.

11.2.2. Analyse the operational conditions and

(a) prepare or request

(b) sign

(c) make available

the operational flight plan according to the data provided by the Carrier



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT -- ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 24
ISSUED:..... AUG 1980

- 11.2.3. (a) prepare or request
(b) sign
(c) file
the Air Traffic Services (ATS) Flight Plan.
- 11.2.4. Furnish the crew with an adequate briefing.
- 11.2.5. (a) prepare
(b) sign
the fuel order.
- 11.2.6. Hand out flight operation forms as specified by the Carrier and obtain signature of pilot-in-command where applicable.
- 11.2.7. Supply the appropriate local ground handling unit with the required weight and fuel data.
- 11.3. Flight preparation at a point different from the aerodrome of departure
- 11.3.1. Analyse the operational conditions and
(a) prepare or request
(b) sign
the operational flight plan according to the instructions and data provided by the Carrier.
- 11.3.2. Send to the Carrier or its representative at the aerodrome of departure:
(a) the operational flight plan
(b) the ATS flight plan
as specified in Annex B, including information for crew briefing.
- 11.4. In-flight Assistance
- 11.4.1. Follow up the progress of the flight against flight movement messages, flight plan messages and position reports received.
- 11.4.2. Provide information on flight progress to the Carrier's ground handling representative.
- 11.4.3. Assist the flight as requested and/or deemed necessary to facilitate its safe and efficient conduct, in accordance with the flight plan.
- 11.4.4. Monitor movement of the flight within VHF range and provide assistance as necessary.
- 11.4.5. Take immediate and appropriate action in case of in-flight irregularity, according to the Carrier's instructions (written or verbal).
- 11.4.6. Log and notify as specified by the Carrier any incident of an operational nature (delays, diversions, engine trouble, etc.)



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 25
ISSUED:..... AUG 1980

R.11.4.7. Perform in-flight assistance, including re-dispatch until adjacent area is able to accept responsibility if, for reasons of communications failure, weather phenomena, safety of aircraft or emergency, it is undesirable to stop these services at the area boundary specified in Annex(es) B. Similar conditions may make it desirable to transfer these services to the next area before the area boundary is crossed.

R.11.4.8. Provide assistance to the flight, as required, beyond the VHF range.

R.11.5. Post-flight activities

R.11.5.1. Obtain a debriefing from incoming crews, distributing reports or completed forms to offices concerned, whether governmental or Carrier's.

R.11.6. In-flight re-dispatch

R.11.6.1. Analyse meteorological information and the operational flight conditions for re-dispatch, calculating and planning it according to the data provided by the aircraft in flight, and informing the pilot-in-command about the results thus obtained.

R.11.7. Company air-ground communications

R.11.7.1. (a) provide

(b) operate

suitable equipment for Company air-ground communication between the Carrier's aircraft in flight and the ground station.

SECTION 12. CARGO SERVICES

12.1. Clear cargo through Customs in accordance with the instruction(s) of the Carrier's clients and in concurrence with local regulations.

12.2. Deliver cargo to the consignee's address (to be made only when normally provided for the Handling Company's customers).

12.3. Transport cargo from Town Reception Office, or other mutually agreed collection and delivery localities, to the Airport and vice versa.

12.4. Store cargo in excess of:

(a) 3.3.3. (b)

(b) 3.3.11. (b)

(c) 3.3.16. (b)

and in accordance with local regulations.

SECTION 13. SURFACE TRANSPORT

13.1. Make all necessary arrangements for passenger/crew transport together with their baggage between airport and town terminal or other agreed point(s).

13.2. Make all necessary arrangements for special transport within the limit of local possibilities.

13.3. Make all necessary arrangements for the transport of passengers, baggage and cargo between separate terminals at the same airport.



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 26
ISSUED:..... AUG 1980

SECTION 14. SUPERVISION AND ADMINISTRATION

- 14.1. Supervisory functions (pre-flight, in-flight and post-flight).
 - 14.1.1. Presence at the airport as necessary to supervise and co-ordinate the ground handling services.
 - 14.1.2. Co-operate with the Carrier's designated representative, as required.
 - 14.1.3. Ensure that the Handling Company(ies) is (are) timely informed about operational data, including alterations.
 - 14.1.4. Check the availability and preparedness of staff, equipment, supplies and services of the Handling Company(ies) to perform the ground handling services.
 - 14.1.5. Check preparation for documentation.
 - 14.1.6. Ensure that prompt notification of the Carrier's requirements is given to all interested parties.
 - 14.1.7. Check that cargo and mail, including necessary documents, will be ready in time to be loaded on the flight.
 - 14.1.8. Meet aircraft upon arrival and contact crew.
 - 14.1.9. Receive briefing from crew and give information about irregularities, changes in schedule or other matters.
 - 14.1.10. Supervise and co-ordinate the ground handling services, deciding non-routine matters as required.
 - 14.1.11. Check dispatch of operational messages.
 - 14.1.12. Check tracings of baggage, cargo, mail and lost and found articles. Follow up if necessary.
 - 14.1.13. Note irregularities in station log and inform Carrier's designated representative in accordance with the relevant directives.
- 14.2. Administrative functions
 - 14.2.1. Establish and maintain local procedures in accordance with the Carrier's requirements.
 - 14.2.2. As required take action on all communications addressed to the Carrier.
 - 14.2.3. Prepare and forward reports/statistics and perform any other administrative duty that may be required by the Carrier or local conditions.
 - 14.2.4. Maintain the Carrier's manuals, circulars, etc. connected with the performance of the services.

© International Air Transport Association 1980



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX A

SECTION:..... 8
AHM:..... 810
SHEET:..... 27
ISSUED:..... AUG 1980

14.2.5. Check and sign on behalf of the Carrier invoices, supply orders, handling charge notes, work orders, etc. as agreed with the Carrier.

.....
Signed the

.....
at

.....
on behalf of the Handling Company

.....
by

.....
Signed the

.....
at

.....
on behalf of the Carrier

.....
by



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX B

SECTION:..... 8
AHM:..... 810
SHEET:..... 28
ISSUED:..... AUG 1980

ANNEX B — LOCATION(S), AGREED SERVICES AND CHARGES

to the Ground Handling Agreement effective from

between: ABC Airlines, hereinafter referred to as the Carrier

and: XYZ Airlines, hereinafter referred to as the Handling Company

for the location(s):

valid from:

replacing:

PARAGRAPH 1. HANDLING CHARGES

1.1. For a single ground handling consisting of the arrival and the subsequent departure of the same aircraft, the following rates shall apply:

1.1.1. For the services of Annex A listed in its Section(s)
..... per
(price) (aircraft type)

1.1.2. For the services of Annex A listed in its Section(s)
..... per
(The number of)

1.2. (Optional)
Handling in case of technical landing for other than commercial purposes will be charged at 50% (fifty per cent) of the above rates, provided that a physical change of load is not involved.

1.3. (Optional)
Handling in case of return from take-off point to ramp will not be charged extra, provided that a physical change of load is not involved.

1.4. (Optional)
Handling in case of return from take-off point to ramp involving a physical change of load will be charged as for handling in case of technical landing in accordance with Paragraph 1.2. of this Annex.

1.5. (Optional)
No extra charges will be made for providing the services at night, on Sundays and legal holidays, for cargo aircraft, turnrounds or overnight stops.

PARAGRAPH 2. ADDITIONAL CHARGES

2.1. For the services enumerated in Section 12 of Annex A, charges will be recovered from the consignor/consignee at identical rates to those of the Handling Company or its agents to its own clients.

2.2. (Optional)
For the services of Annex A listed in its Section(s)
..... per
(price) (aircraft type)

(the number of these clauses can be extended as far as necessary and desirable).



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX B

SECTION:..... 8
AHM:..... 810
SHEET:..... 29
ISSUED:..... AUG 1980

- 2.3. Services marked 'R' in Annex A which are not included in Paragraph 1. of this Annex, and all other additional services will be charged for at current local rates.

PARAGRAPH 3. DISBURSEMENTS

- 3.1. The handling charge(s) agreed upon do not include disbursements which may arise to the Handling Company in connection with the services provided for the Carrier. The Carrier will reimburse such expenses to the Handling Company at cost price *plus accounting surcharge of % (optional)*.

PARAGRAPH 4. COMMUNICATIONS

- 4.1. (Optional)
The Handling Company shall be entitled to use the originator code of the Carrier in all messages dispatched on behalf of the Carrier.

PARAGRAPH 5. AREA OF RESPONSIBILITY

- 5.1. The area of responsibility as mentioned in Sub-section R.11.4.7. of Annex A is ...

PARAGRAPH 6. TRANSFER OF SERVICES

- 6.1. In accordance with Article 3.1. of the Main Agreement, the Handling Company subcontracts the services of Annex A Section(s) to (the number of these clauses can be extended as far as necessary).

PARAGRAPH 7. SETTLEMENT OF ACCOUNTS

- 7.1. Notwithstanding Article 7.2. of the Main Agreement, settlement of account shall be effected



AIRPORT HANDLING MANUAL

IATA STANDARD GROUND HANDLING AGREEMENT — ANNEX B

SECTION:..... 8
AHM:..... 810
SHEET:..... 30
ISSUED:..... AUG 1980

PARAGRAPH 8. SUPERVISION AND ADMINISTRATION

8.1. (Optional)

The services of Annex A, Section 14, covered by Paragraph 1.1..... of this Annex B refer only to the following services of Annex A which are performed for the Carrier by other organization(s) under cover of separate agreement(s):

Section(s) etc.

.....
Signed the

.....
at

.....
on behalf of the Handling Company

.....
by

.....
Signed the

.....
at

.....
on behalf of the Carrier

.....
by

APPENDIX B

AIRPORT AND AIRLINE QUESTIONNAIRES

The attached questionnaire was sent to the airport operators of Frankfurt/Main, Germany; Aeroport de Luxembourg; Luxembourg, Wien-Schwechat, Vienna Austria; and Dallas-Fort Worth in June 1983. Replies were received as follows:

Frankfurt/Main:

G. Gladitsch, Air Freight Coordination Center, Flughafen Aktien Gesellschaft (FAG) Frankfurt/Main, July 15, 1983.

Luxembourg:

G. Mayer, Deputy Commandant, Luxembourg Airport, November 6, 1983.

Vienna:

F. Schoechl, Public Relations, Flughafen Wien Betriebsgesellschaft m.b.h., October 10, 1983.

Dallas-Fort Worth:

Unsigned and undated reply received through Karl-Heinz Koepfle, Manager, User Charges, Lufthansa.

The attached questionnaire was sent to Transamerica Airlines, Oakland, California; Flying Tiger Line, Inc., Director for Germany, Frankfurt/Main, Germany; Deutsche Lufthansa A.G., Cologne, Germany; Swissair, Schweizerische Luftverkehr A.G., Zurich, Switzerland; Alia, the Royal Jordanian Airline, Amman, Jordan; and Pan American World Airways, Germany Operations, Frankfurt/Main, Germany in June 1983. Replies were received as follows:

Transamerica:

F. E. Curran, Director, Military Services, December 22, 1983.

Flying Tigers:

O. Buttler, Director for Germany, July 4, 1983.

Lufthansa:

Karl-Heinz Koepfle, Manager, User Charges, August 23, 1983.

Swissair:

R. Zengler, Customer Relations Division, November 17, 1983.

Alia:

M. Hedir, International Operations, December 15, 1983.

Pan American World:

H. Lenninger, Director, Passenger Services, Germany, July 6, 1983.

In addition to the questionnaires, interviews were conducted with managerial personnel from not only the sample airport and airlines, but also with officials of the Amsterdam, Brussels, Duesseldorf, Norfolk, Dhahran and Adana airports, as well as representatives from Republic, Austrian, British Airways, Cargolux, and Luxair Airlines.

Further information and verification was obtained from officials of the German Federal Ministry of Transportation, the Luxembourg Ministere des Transports, and the Dutch Ministry for Transport.

Questionnaire for the Airport Operator

Different methods are employed by various airlines for the logistical support (ground handling) of their aircraft at various airfields. This logistical support may be supplied by in-house resources, through one contractor (e.g., airport authority/operator), through several contractors, or through a mixture of the three. Apart from economics, there appears to be locational, political, cultural, and managerial (other than economic) reasons for the selection of a particular method. The following questions are an attempt to group the noneconomic reasons for a particular method of ground handling into categories for analytical reasons.

1. Who owns the airport?
2. How is airport management determined?
3. Who draws up the general business conditions?
4. How much influence does airport management have in policy determination?
5. What percentage of your revenue is derived from providing ground services to carriers?
6. Which of the following ground services can you provide?
 - A. Passenger processing (check in, off/onload, baggage handling, etc.)
 - B. Cargo processing (receive, process, off/onload, intermodal transfer, etc.)
 - C. Refueling/servicing (to include LOX, lubricants, hydraulic fluid, etc.)
 - D. Aircraft maintenance (both en route/turnaround maintenance as well as component repair/replacement)
 - E. Aircraft cleaning (both in and outside)

- F. Catering of aircraft with meals, snacks, and beverages
 - G. Aircraft lavatory service
 - H. Ground transportation of passengers and crews
 - I. Sales of passenger and cargo revenue space
7. Which of the above is the airline free to perform and which, if any, must be performed by you?
8. Are independent suppliers such as in-flight kitchens, fuel suppliers, aviation services, etc., allowed to operate on your airport?
9. Are any of the following factors used in determining what services are to be provided by you or are airlines free to select their own method of aircraft ground handling?
- A. Number if aircraft movements
 - B. Volume of passengers/cargo
 - C. Nationality
 - D. Governmental guidance
 - E. Type of traffic; e.g., scheduled passenger or cargo versus charter
10. Are any of the following noneconomic reasons used by airline operators in determining ground handling?
- A. Managerial inertia
 - B. Unaware of availability of service
 - C. Traditionalism
 - D. Preference to employ own personnel
 - E. Airline or country of origin guidelines

11. Do you have a sufficient pool of labor available to perform the services described in question 6, supra, or do any of the following factors put constraints on your hiring policy?
 - A. Local nationals unwilling to perform certain functions for cultural (below their station) or religious reasons, or insufficiently educated/skilled.
 - B. Governmental policy to hire certain number of ethnic minority personnel regardless of qualification.
 - C. Governmental policy to hire native born personnel only.
12. Are foreign airlines free to bring their own (foreign) personnel to work at your airport?
13. Are foreign airlines free to bring their own support equipment to your airport?
14. Does your airline's desire prevail should a conflict over ground servicing arise?
15. Do ICAO or IATA provide guidelines/recommendations on ground servicing of aircraft, and what is your obligation to follow these?
16. Do economic (e.g., European economic community) or functional (e.g., airport associations) bodies provide guidelines/recommendations on ground servicing of aircraft, and what is your obligation to follow these?
17. Does your airport subcontract for any of the services described in question 6, supra, and if so, is this done for economic or other (e.g., political, cultural, locational, or airline/airport policy) reasons?

18. Airlines support requirements can be generally categorized by the traffic function performed. What percentage of the following activities apply at your airport?
- A. Home station requirements
 - B. En route station requirements
 - C. Turnaround station requirements
19. Should you be unable to perform any of the services described in question 6, supra, and again provided below, in which order of importance would you discontinue these?
- A. Passenger processing
 - B. Cargo processing
 - C. Refueling/servicing
 - D. Aircraft maintenance
 - E. Aircraft cleaning
 - F. Catering
 - G. Aircraft lavatory service
 - H. Ground transportation of passengers and crews
 - I. Sales of passenger and cargo revenue space
20. Again, if you would have to discontinue certain services as described in question 19, above, how would you prioritize this discontinuance based on the following factors as they pertain to an airline?
- A. Number of aircraft movements
 - B. Volume of passengers/cargo
 - C. Nationality
 - D. Governmental guidance

- E. Type of traffic; e.g., scheduled passenger/cargo versus charter operations

Questionnaire for the Air Carrier

Different methods are employed by various airlines for the logistical support (ground handling) of their aircraft at various airfields. This logistical support may differ between home station, en route, and turnaround airfield and can be supplied by in-house (company personnel) resources, through one contractor (e.g., airport operator/authority), through several contractors, or through a mixture of the three. Apart from economics, there appears to be locational, political, cultural, and managerial reasons for the selection of a particular method. The following questions are an attempt to group the noneconomic reasons for a particular method of ground handling into categories for analytical reasons.

1. Is policy concerning ground handling made at your company headquarters or is each station manager free to choose the method best suitable for the particular station?
2. What percentage of your company's expenditures go to the following categories of ground handling?
 - A. Passenger processing (check in, off/onload, baggage handling, etc.)
 - B. Cargo processing (receive, process, off/onload, intermodal transfer, etc.)
 - C. Refueling/servicing (less cost of fuel, but to include the servicing with LOX, lubricants, hydraulic fluid, etc.)
 - D. Aircraft maintenance (less cost of parts)
 - E. Aircraft cleaning (in and outside)
 - F. Catering of aircraft with meals, snacks, and beverages

- G. Aircraft lavatory services
 - H. Ground transportation of passengers and crews
 - I. Sales of passenger and cargo revenue space
3. In selecting a particular method of ground handling, do you differentiate between the following and, if so, how?
 - A. Home station (departure point)
 - B. En route stations
 - C. Turnaround stations
 4. Which of the services described in question 2, supra, can you provide at the following:
 - A. Home station
 - B. En route stations
 - C. Turnaround stations
 5. Is the provision of these services contingent on your or the airport/authority desires.
 6. Does your or the airport company's/authority's desire prevail should a conflict arise?
 7. If such a conflict would arise, what recourse do you have?
 8. Do ICAO, ATA, or IATA provide guidelines/recommendations on ground servicing of aircraft, and, if so, what is your obligation to follow these?
 9. If location is the primary determinant, which of the following noneconomic reasons are considered (please indicate order of priority)?
 - A. Proximity of airport to labor resources
 - B. Structure of your routes
 - C. Home, en route, or turnaround stations

- D. Traffic generation and specific airport
10. If the primary determinants are of a political nature, which of the following are considered (please indicate order of priority)?
- A. Your government's desires
 - B. The host nation government's desires
 - C. Bilateral government agreements
 - D. Political climate of host nation
11. If the primary determinants are of a cultural nature, which of the following are considered (please indicate order of priority)?
- A. Native population insufficiently educated/skilled
 - B. Work to be performed too menial for native labor
 - C. Religious taboos
 - D. Attitude of local population
12. If the primary determinants are of a (noneconomic) managerial nature, which of the following could apply?
- A. Unawareness of a service availability
 - B. Traditionalism
 - C. Managerial inertia
 - D. Promoting goodwill
13. Would you describe your company's management as centralized or decentralized?
14. Are there differences in the ground handling methods employed between operations within your home country and operations conducted abroad, and, if so, what are they?

15. Does your company have dialogs with governmental officials (other than airport operator/authority) of the respective host nation where you operate (e.g., for initial/ongoing operations, what level of government, etc.)?
16. Does your company work through State Department/Foreign Ministry channels to obtain the required support for your operations conducted abroad?
17. In the area of food service, which of the following factors are considered for your catering selection options (please indicate order of priority)?
 - A. Passenger preference
 - B. Availability of food items abroad
 - C. Religious taboos/preferences of both supplier and consumer
 - D. Overstocking rather than local procurement
18. Do you perceive any difference between the treatment accorded you and the national airline(s) of the country in which you operate? Please explain briefly.
19. Do you think the general political climate in a foreign country towards your own country has an impact on your operations? Please explain briefly.
20. What do you think the trend in selecting ground support services is (please indicate order of priority).

VITA

Franz Gustav Rosenhammer was born in Mattighofen, Austria, on July 21, 1939. He attended elementary schools in that city and was graduated from Vocational High School in July 1957. He emmigrated to the United States in 1960, when he also joined the United States Air Force. He received his United States citizenship in 1963. In 1967 he was selected by the U.S. Air Force for the Airman Education and Commissioning Program. Consequently, he earned a Bachelor of Science degree in Transportation from the University of Tennessee, Knoxville, in June 1969 and was commissioned a Second Lieutenant in the U.S. Air Force in September 1969.

Following various assignments as a transportation officer in the Artic, Europe, and the Middle East where he became intimately familiar with the indigenous transportation systems, he was again selected by the Air Force and entered the Graduate School of the University of Tennessee, Knoxville, in 1977 and received a Master of Business Administration degree in March 1979. Following completion of the USAF Transportation Staff Officers Course and the Combined Air Warfare Course, he was again assigned to Europe where he was involved with airport support issues.

Major Rosenhammer is a graduate of the Armed Forces Staff College (Class 74), and received his Doctor of Business Administration degree from the University of Tennessee in March 1984. He is a member of Beta Gamma Sigma, Delta Nu Alpha, Phi Kappa Phi, and the National Defense Transportation Association. Major Rosenhammer will continue his career with the United States Air Force.