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Report to the Honorable
John McCain, U.S. Senate

June 1998

AIRLINE COMPETITION

Cargo Airline Has Enhanced Competition in Hawaii but Faces an Uncertain Future

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United States
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-277484

June 18, 1998

The Honorable John McCain
United States Senate

Dear Senator McCain:

The transport of cargo throughout Hawaii is greatly affected by the state's unique geography. Because Hawaii comprises eight major islands remote from the U.S. mainland, many cargo customers must rely on air service as the only way to transport their goods in a timely fashion. Historically, two airlines—Aloha Airlines and Hawaiian Airlines—have provided service to meet this need. Under an exemption from provisions of the Airport Noise and Capacity Act, these two airlines are permitted to operate an interisland "turnaround" service (i.e., flights within Hawaii) with relatively noisy "Stage 2" aircraft, which are being phased out on the mainland.[1] Specifically, airlines that were providing turnaround service with Stage 2 aircraft when the act was passed in November 1990 are allowed to continue to do so.

In May 1995, the Federal Aviation Administration (FAA) determined that American International Cargo (AIC)[2] also qualified on the basis of its November 1990 operations, in which it provided what FAA deemed turnaround service in Hawaii—and "onward" service to the U.S. mainland—with a McDonnell-Douglas DC-8 Stage 2 aircraft. In November 1995, this airline began to conduct scheduled interisland cargo service consistent with FAA's decision. Shortly thereafter, in a reinterpretation of its 1995 decision, FAA concluded that AIC did not qualify to continue providing such service. FAA's revised interpretation required AIC either to begin operating quieter, Stage 3, aircraft on interisland routes or to exit these markets entirely. Converting an aircraft for Stage 3 operations typically costs an airline $1.5 million per engine. Legislation enacted in October 1996 allowed AIC to continue serving Hawaii's interisland markets with one Stage 2 aircraft through September 30, 1998. To help prepare the Congress to reexamine the issue as the deadline approaches, you asked us to determine on what basis FAA revised its interpretation of turnaround

[1]Under 49 U.S.C. 44715, the Federal Aviation Administration has issued regulations defining three classes of aircraft in terms of their noise levels. Aircraft certified before 1969 that do not meet the noise standards issued in that year are classified as Stage 1 aircraft (e.g., early model Boeing 707s and McDonnell-Douglas DC-8s). Aircraft meeting the 1969 standards (e.g., most Boeing 727s and DC-9s) are known as Stage 2 aircraft. Aircraft complying with more stringent standards issued in 1977 (e.g., Boeing 757s and MD-80s) are classified as Stage 3 aircraft.

[2]AIC is a subsidiary of American International Airways (AIA), based in Ypsilanti, Michigan. In August 1997, Kitty Hawk, Inc., of Dallas, Texas, purchased AIA and its subsidiaries, including AIC.

service. You also asked us to determine how AIC's November 1995 entry has affected—and how its potential future exit could affect—competition in Hawaii's air cargo markets.

Results in Brief

In May 1995, FAA determined that one segment of a flight American International Cargo had been operating in November 1990 with a single Stage 2 aircraft included a takeoff and a landing in Hawaii and that it therefore qualified as interisland turnaround service. Consequently, FAA concluded that, under the Airport Noise and Capacity Act, American International Cargo could legally initiate scheduled interisland service using its single Stage 2 aircraft. However, after a formal inquiry from Aloha Airlines and a broader assessment of the legislation's intent, FAA revised its interpretation of turnaround service. This revised decision held that the flight American International Cargo was operating in November 1990 did not constitute turnaround service because it included points outside Hawaii. Our review of relevant legislation and the legislative history found FAA's revised interpretation to be legally sound. In particular, the flight that American International Cargo conducted at the time the federal noise legislation was passed does not qualify as turnaround service—defined in a 1991 amendment as consisting of the operation of a flight between "two or more points, all of which are within the state of Hawaii"—and therefore does not render the airline exempt from statutory noise requirements.

American International Cargo's November 1995 entry into Hawaii's interisland markets has enhanced competition markedly by providing new services to a variety of customers. For instance, since that date, American International Cargo has offered scheduled daytime flights using large cargo containers—a service that its competitors do not offer. This service has facilitated the delivery of time-sensitive "express" cargo and has helped to create new mainland markets for some of Hawaii's agricultural producers, who previously had to rely on ocean transportation. In addition, although the airlines and their customers could not provide us with sufficient data to determine American International Cargo's overall impact on rates, anecdotal information indicates that the company has introduced some price competition into interisland markets. Consequently, while there could be a discernible effect on the breadth of services provided if American International Cargo exits Hawaii's interisland markets after September 30, 1998, the extent to which rates might increase remains unclear. American International Cargo told us that it wishes to continue serving Hawaii's interisland markets after this date. However, absent federal legislation extending American International

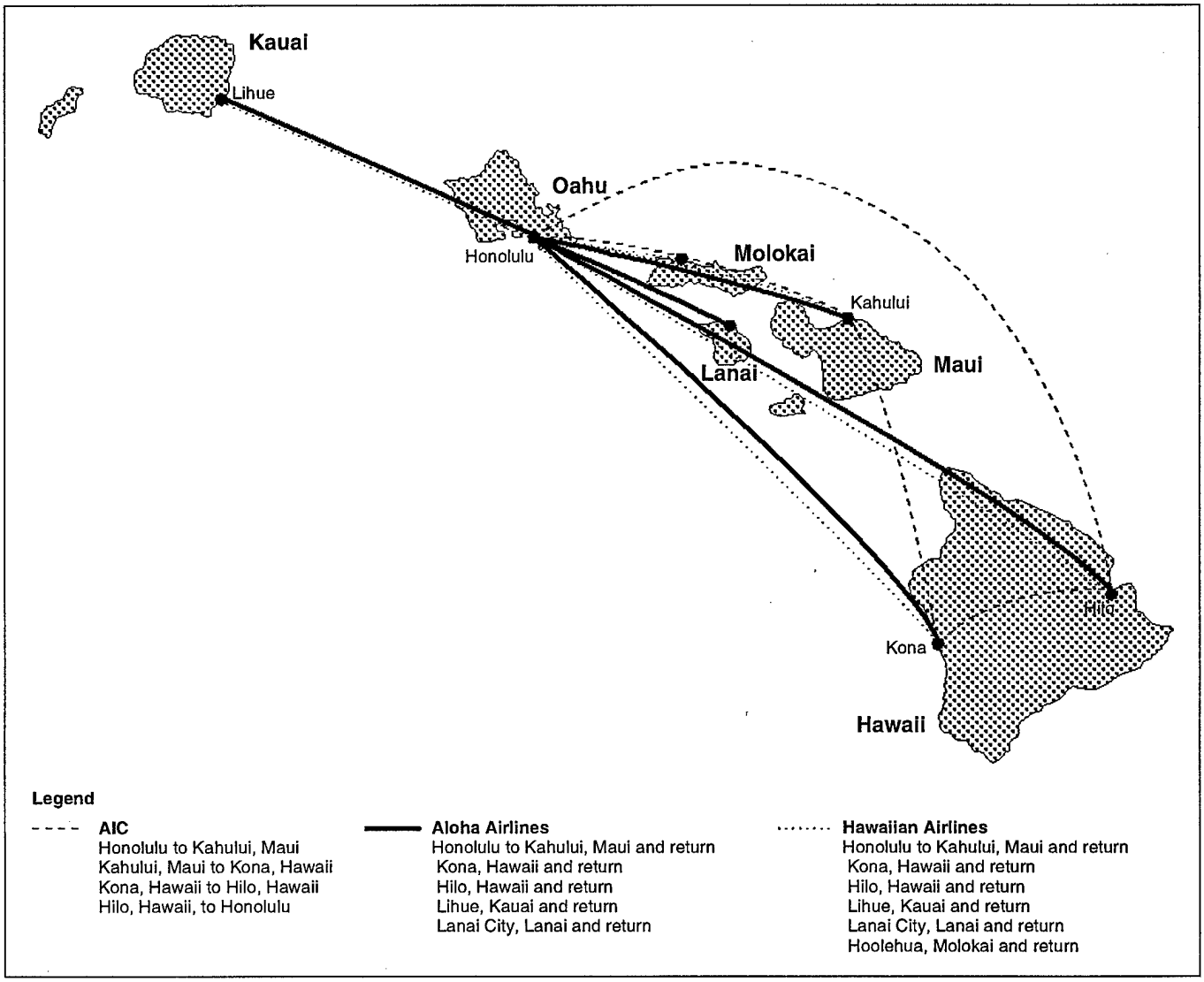
Cargo's right to use Stage 2 aircraft, the airline will need to use Stage 3 aircraft to remain in these markets.

Background

As a grouping of eight major islands located near the center of the Pacific Ocean, Hawaii has a geography that bears significantly on the manner in which goods and people can move throughout the state. In addition, Hawaii's relative lack of industry means that most finished goods must be imported from the mainland. Unlike much of the mainland—where transport relies on air, sea, rail, and highway—Hawaii must rely primarily on the first two means. For cargo customers, air shipment is the faster and more expensive option, and sea transport is the slower but less expensive option. Most cargo for which the speed of delivery is not critical moves by sea, both among the islands and between Hawaii and the mainland. However, other goods—particularly, perishable produce, mail, and time-sensitive items—move by air.

The bulk of interisland cargo shipments moves among four islands—Oahu, Maui, Kauai, and the "Big Island" of Hawaii. Honolulu, Oahu's urban center, is the largest city in the islands and the center of the state's economic activity. Its airport, Honolulu International, is by far the busiest in the state. The island of Hawaii, the state's second most populous, has two key airports, at Kona and Hilo, which serve distinct economic regions. The airport at Kona supports an active tourism trade and offers direct flights to the mainland. By contrast, the airport at Hilo supports no direct flights to the mainland but serves as a key distribution point for tropical plants and flowers, the cultivation of which is becoming increasingly important to Hawaii's economy. The islands of Maui and Kauai also support scheduled commercial jet service. Figure 1 shows the major Hawaiian islands, their key communities, and their scheduled air cargo service; table 1 summarizes key operating statistics for Hawaii's airports.

Figure 1: Hawaii's Major Islands, Commercial Airports, and Scheduled Air Cargo Service



Source: GAO's analysis of data from AIC, Aloha Airlines, and Hawaiian Airlines.

Table 1: Aircraft Departures, Number of Passengers, and Cargo Volume for Major Hawaii Airports, 1997

Airport (Island)	Aircraft departures	Number of passengers	Volume of cargo (in tons)[a]
Honolulu (Oahu)	82,438	8,938,773	219,840
Kahului (Maui)	29,474	2,548,939	18,500
Kona (Hawaii)	15,872	1,204,260	11,490
Hilo (Hawaii)	11,847	779,302	18,634
Lihue (Kauai)	16,250	1,186,391	4,774

[a]Volume includes cargo shipped among Hawaii's islands, as well as to destinations outside the state.

Source: DOT.

Prior to AIC's November 1995 entry into scheduled interisland service,[3] Aloha Airlines and Hawaiian Airlines were the chief providers of air cargo transport throughout the state. Aloha began its service to Hawaii's "outerisland" residential and commercial centers in 1946. In addition to over 180 daily jet flights among Oahu, Maui, Kauai, and the Big Island of Hawaii, Aloha operates a nighttime cargo service using some passenger aircraft with the seats removed. Aloha also operates an "Aloha Island Air" service using small propeller-driven aircraft to reach remote rural areas. Hawaiian Airlines, for its part, has provided air service among the islands since 1929. Hawaiian's cargo service is conducted in conjunction with its passenger service; all cargo is carried below deck on more than 150 daily flights among the state's major communities.

Under FAA's Reinterpretation of Turnaround Service, AIC Must Use Stage 3 Aircraft or Discontinue Interisland Operations

In 1990, the federal government acted to reduce aviation noise. Specifically, the Congress passed the Airport Noise and Capacity Act, requiring the gradual phaseout on the U.S. mainland of Stage 2 aircraft weighing over 75,000 pounds by December 31, 1999.[4] The law did not cover any aircraft operations in Hawaii. In October 1991, the act was amended in part to require that no airline operate a greater number of Stage 2 aircraft in the state of Hawaii than it had operated on November 5, 1990, when the act was first passed.[5] According to the amendment's legislative history, this amendment was included to ensure that Hawaii

[3]From April 1990 until February 1991, AIC operated a cargo service from Los Angeles through Honolulu and Hilo and back to Los Angeles. After a 6-month hiatus, AIC restarted its Los Angeles-Honolulu roundtrip service in August 1991, with no onward segment to Hilo. Finally, in November 1995, AIC started serving Hilo from Honolulu on a frequent, scheduled basis.

[4]49 U.S.C. 47528.

[5]49 U.S.C. 47528(e).

does not become a "dumping ground" for Stage 2 aircraft as these aircraft are phased out on the mainland.[6]

Thus, in order to use Stage 2 aircraft within Hawaii, an airline must have provided turnaround service on November 5, 1990. As long-standing incumbents, Aloha Airlines and Hawaiian Airlines meet this qualification and currently serve all major communities in Hawaii using Stage 2 aircraft. On May 25, 1995, in response to a formal request from AIC, FAA determined that AIC also had provided qualifying turnaround service during November 1990. As described, in November 1990, AIC was operating an air cargo service routed from Los Angeles to Honolulu to Hilo and then back to Los Angeles. In a subsequent letter to AIC, FAA explained that because the airline's service involved at least one takeoff-and-landing cycle in Hawaii, the airline qualified to provide scheduled interisland service with Stage 2 aircraft between Honolulu and Hilo.

However, in May 1996, FAA issued a revised interpretation of turnaround service. Earlier, in February 1996, FAA had received a complaint from Aloha Airlines in which this airline challenged AIC's legal right to operate scheduled interisland service with Stage 2 aircraft in Hawaii. According to an FAA attorney, the agency reexamined its position on turnaround service because of comments submitted as part of a related rulemaking action begun on May 11, 1995. In its reinterpretation, FAA quoted language from the 1991 amendment's legislative history, which described turnaround service as "local flights between two Hawaii cities and/or counties which also serve as the origin and destination. . . ." FAA cited further language from the legislative history, emphasizing that the 1991 amendment was designed to "ensure that Hawaii does not become a dumping ground for Stage 2 aircraft. . . ." On the basis of these statements, FAA concluded that the Congress had intended to preclude an airline from flying an aircraft from the mainland to Hawaii, and then flying that same aircraft between two points in Hawaii in order to qualify the latter segment as turnaround service.

Although AIC argued to FAA that one takeoff and one landing constituted a flight, under the 1991 amendment a flight qualifying as turnaround service consists of operation among "two or more points, all of which are within the state of Hawaii." Thus, the 1991 provision clearly contemplates that such a flight may consist of more than one takeoff and one landing. There is no indication either in the statute or in the legislative history that turnaround service may include points outside of Hawaii. The use of the

[6]Senate Report No. 102-148 at p. 57 (1991).

word "local" in the Senate report also supports the assertion that only points within Hawaii may be considered to constitute turnaround service.

According to AIC, the procompetition mandates of the Federal Aviation Act, as well as other public policy encouraging competition in air transportation, should also bear on any legal interpretation of turnaround service. AIC has maintained that two sections of the Airport Noise and Capacity Act direct the Secretary of Transportation to consider various competitive impacts of the requirements to phase out Stage 2 aircraft.[7] However, these sections are not relevant for operations in Hawaii because the noise legislation's mandatory phaseout of Stage 2 aircraft applies only in the contiguous 48 states on the U.S. mainland.

As a result, from our own review of the statutory provision set forth in the act's 1991 amendment and the relevant Senate committee report, we found that FAA's most recent interpretation of the law is correct. We believe that a route from Los Angeles to two points in Hawaii and back to Los Angeles does not qualify as turnaround service within the meaning of the 1991 amendment. Because AIC did not provide turnaround service at the time the Airport Noise and Capacity Act was passed, under an October 1996 amendment it must either cease serving Hawaii's interisland cargo markets after September 30, 1998, or provide service with Stage 3 aircraft, as a company official has indicated it may do. Alternatively, the Congress could pass legislation temporarily extending AIC's right to operate Stage 2 aircraft, which would allow the airline to continue interisland service without modifying the single aircraft that provides it.

AIC's Entry Into Interisland Markets Has Enhanced Competition

AIC's November 1995 entry has enhanced competition in Hawaii's interisland air cargo markets, most markedly by offering new service options for some customers. For example, executives with a small-package delivery firm and a freight forwarding company told us that they have benefited primarily because AIC provides them with a daytime all-cargo service and convenient connections to the mainland. Additionally, many Big Island agricultural producers with whom we spoke consider certain specialized features of AIC's service—such as its ability to handle large shipping containers and its ability to refrigerate cargo at Honolulu International Airport—as crucial to their immediate and long-term needs.

[7]49 U.S.C. 47528(b)(2) and 47528(c).

We also found that many customers consider each of the three competing airlines' interisland cargo rates when making shipping decisions but that they seldom select an airline on the basis of rate considerations alone. Three customers told us that they had observed a price decrease during the past 2 years and that they attribute this to AIC's presence in interisland markets. We could not obtain sufficient data to draw broad, marketwide conclusions about the airline's effect on interisland rates. Nevertheless, if AIC exits from interisland markets, the breadth of services provided would decrease discernibly unless one or more airlines were to initiate similar service.

AIC Has Become the Second-Largest Airline Serving Hawaii's Air Cargo Markets

Since November 1995, when AIC began providing scheduled interisland cargo service, it has acquired nearly one-fifth of the total market. According to data from Hawaii's Department of Transportation, this made AIC the second-largest cargo airline in the state during 1997, in terms of the volume of cargo shipped. AIC has achieved this rapid growth primarily by using one cargo-dedicated Boeing 727 aircraft.[8] Although the B-727's fuselage has virtually the same circumference as that of the Boeing 737s used by Aloha Airlines, the AIC aircraft's interior space is larger because, as a cargo aircraft, it contains no overhead luggage bins. Consequently, AIC's aircraft can accommodate the same basic type of cargo container used by Aloha and can also carry taller containers. At the time of our study, AIC provided twice-daily service to Maui, Kona, and Hilo—once during the day and once at night—with onward connections to the mainland.

Some of AIC's growth represents the provision of entirely new air transportation services. For example, some customers who had previously shipped by sea are now shipping by air with AIC. Another portion of AIC's growth has occurred at the expense of Aloha and Hawaiian. Figure 2 shows cargo being unloaded from AIC's B-727 at Honolulu International Airport. Figure 3 shows the three airlines' volume of cargo shipped and their respective market shares.

[8]Although the law allows AIC to maintain an aircraft in reserve for interisland service, AIC officials told us that after Kitty Hawk, Inc., bought AIC in 1997, the parent company moved that aircraft out of Hawaii.

Figure 2: AIC's Cargo Is Unloaded From Its Boeing 727 Aircraft

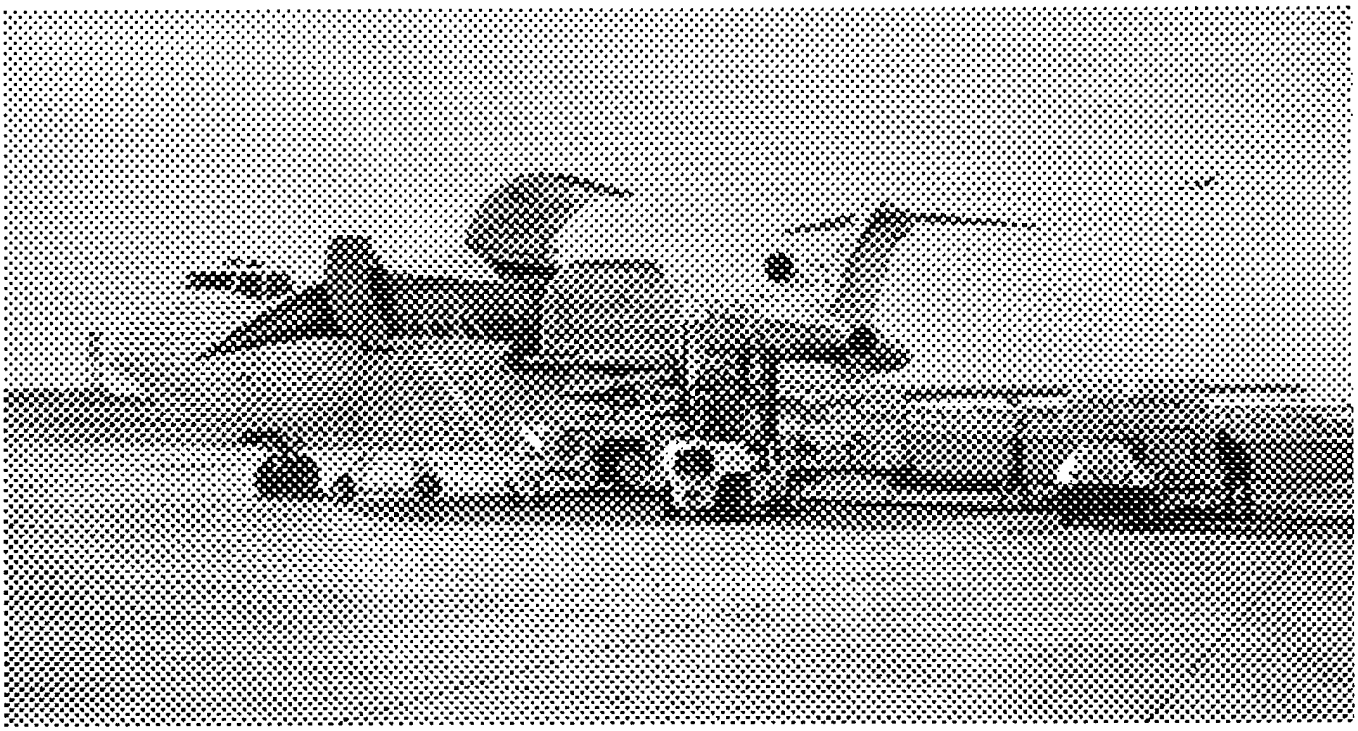
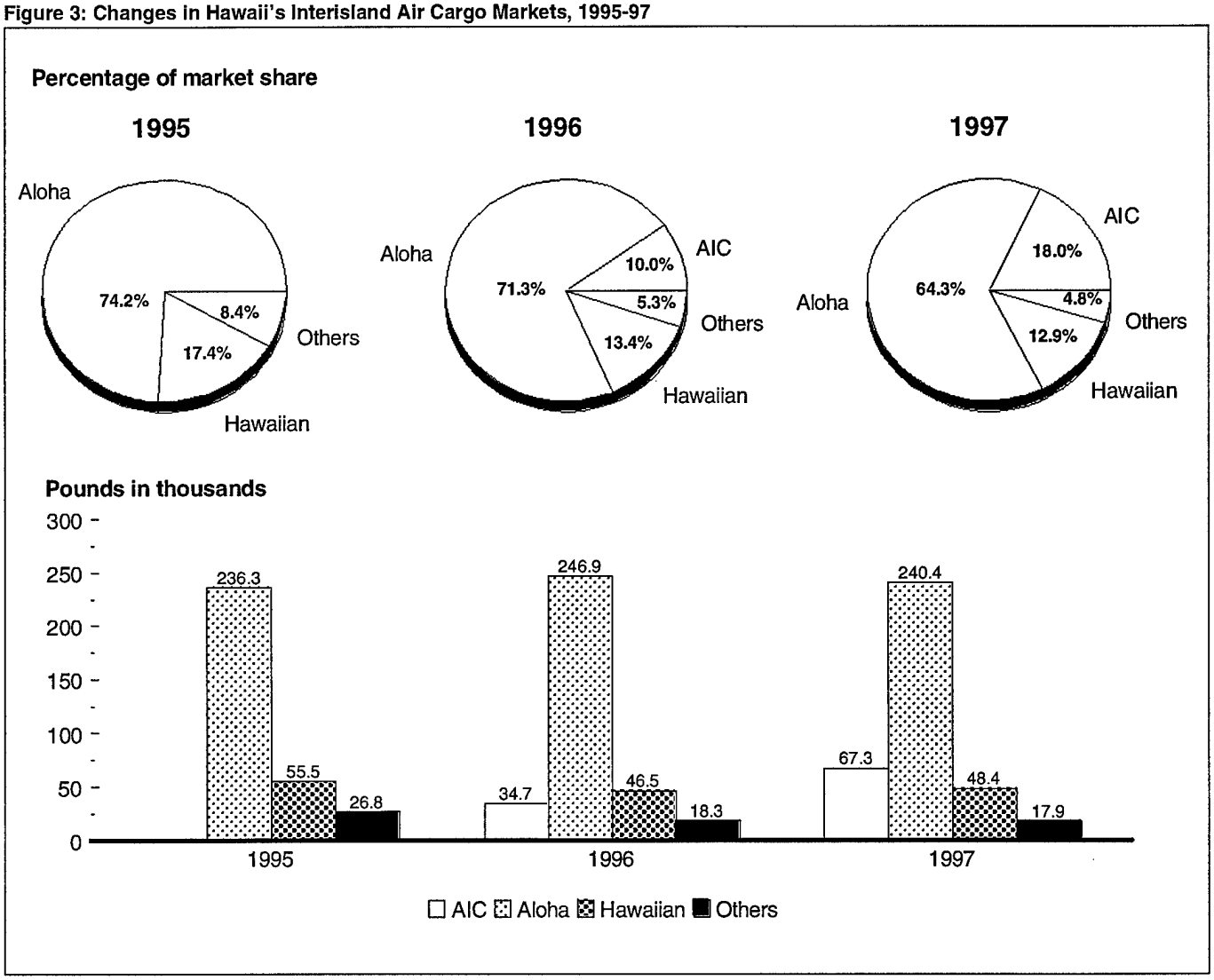


Figure 3: Changes in Hawaii's Interisland Air Cargo Markets, 1995-97



Notes: Data on U.S. passenger airlines' interisland operations were unavailable for 1995-97.

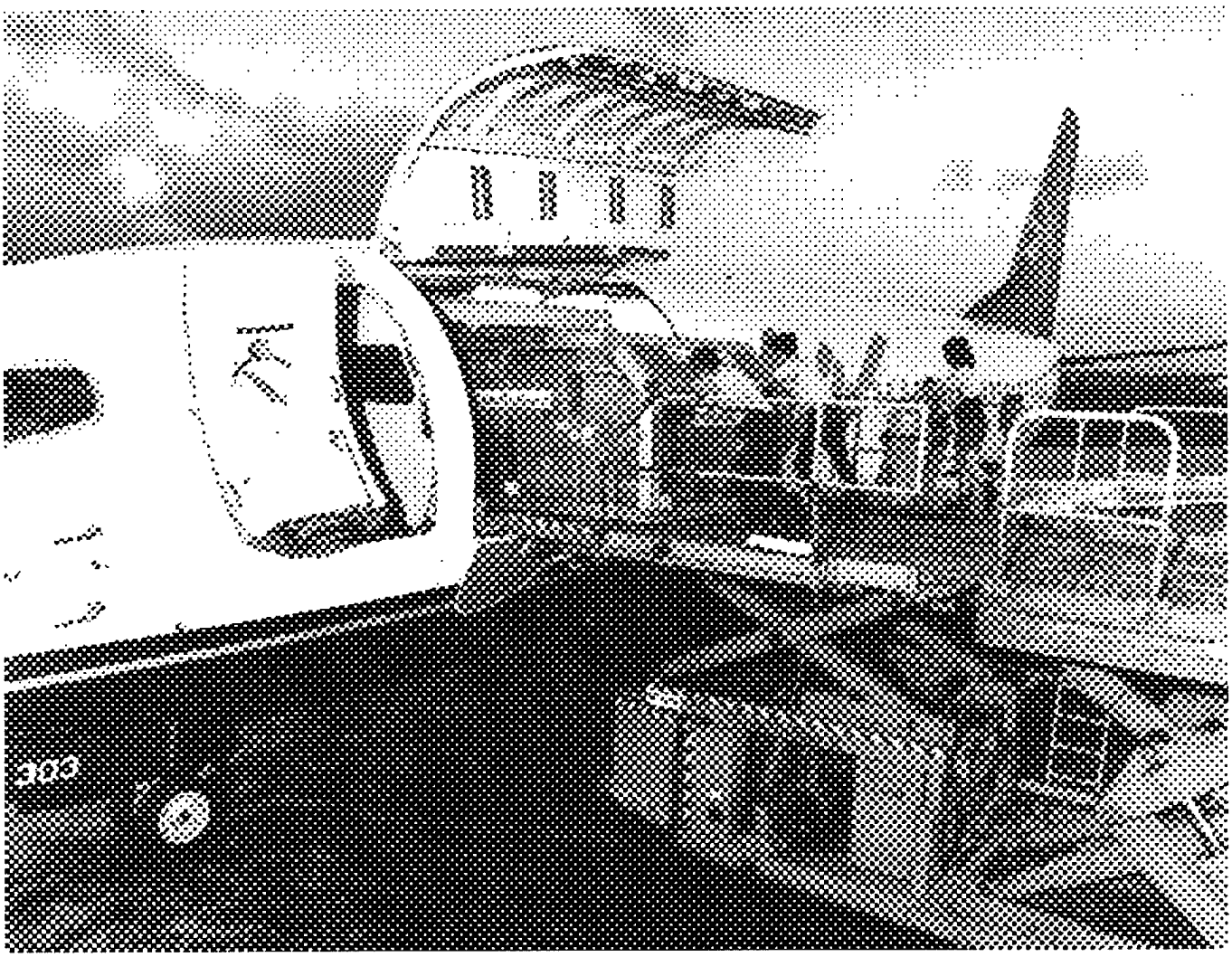
Others include several small cargo airlines providing service among the islands using propeller-driven aircraft.

Figures sometimes do not add to the total because of rounding.

Source: GAO's analysis of data from Hawaii's Department of Transportation.

Between 1995 and 1997, Aloha Airlines was the dominant cargo airline in Hawaii's interisland markets. As shown in figure 3, in 1997 Aloha was estimated to have carried over 3.5 times the cargo volume that AIC carried. None of the B-737 aircraft that Aloha uses to carry interisland cargo is permanently dedicated to cargo service; instead, Aloha reconfigures five aircraft nightly by removing the passenger seats. This activity, which takes about 15 minutes per aircraft, is reversed each morning. However, Aloha cannot remove the overhead luggage bins, thus somewhat limiting the height of cargo containers that its aircraft will hold. Aloha uses its "quick-change" aircraft extensively throughout the night, operating multiple flights into and out of Kona, Hilo, Maui, and Kauai. For example, Aloha makes five nightly roundtrips between Honolulu and Maui and four nightly roundtrips between Honolulu and Kona. Figure 4 shows Aloha employees moving cargo into one of its five quick-change B-737s.

Figure 4: Aloha Airlines Carries Cargo Using Boeing 737s Converted From Passenger Service to Cargo Service



Hawaiian Airlines, which in 1995 was the state's second-largest cargo airline, has carried a decreasing total cargo volume since then, as have several smaller airlines.[9] Hawaiian provides no service dedicated solely to cargo. Rather, Hawaiian offers cargo customers the opportunity to ship their items in the belly of its daytime DC-9 passenger flights. The relatively small space available in the belly of these aircraft limits the size and weight of cargo that can be shipped, and passengers' luggage and the U.S. mail must take priority over other types of belly cargo. Hawaiian also operates to 4 destinations on the mainland, and another 13 destinations via marketing agreements with other airlines. Finally, several major U.S. airlines—including American Airlines, Delta Air Lines, United Airlines, and United Parcel Service (UPS)—also carried interisland cargo during part or all of the 1995-97 period, but did not report data to the state of Hawaii. Figure 5 shows cargo being loaded into the belly of one of Hawaiian's aircraft.

[9]In general, these other airlines—such as Corporate Air, Genavco, and Trans Air—have operated smaller commuter aircraft that serve outerisland airports, which cannot accommodate larger jet aircraft. Most of these companies' small aircraft are equipped with engines that do not produce significant amounts of noise.

Figure 5: Hawaiian Airlines Carries Cargo in the Belly of Its DC-9s

Source: Hawaiian Airlines.

AIC Has Expanded Shipping Options and Has Opened New Markets for Agricultural Producers, but Many Customers Still Prefer Competitors' Services

Small-package delivery companies and freight forwarders have benefited from AIC's presence in interisland markets because the airline provides new services that have increased the customers' shipping options. A senior official with FedEx, which alone accounts for half of AIC's customer base, told us that it contracts with AIC primarily because the airline provides convenient daytime departures to key outerisland destinations. According to the official, this daytime service is crucial to satisfying FedEx's overriding need, which is to guarantee on-time delivery for its customers

at certain key points during a business day. Additionally, several freight forwarders that transport cargo among the islands confirmed that AIC's daytime service and convenient mainland connections are key to meeting their own needs. For example, a senior official with a forwarder that arranges for cargo transport from the mainland, through Honolulu, to key outerisland destinations explained that AIC's presence provides the company with greater choice than would otherwise be the case. An additional forwarder mentioned that AIC's focus on cargo service encourages more careful handling of cargo than is the case with competing airlines. Finally, several customers expressed satisfaction that, because AIC operates an all-cargo service, none of their freight will get "bumped" in favor of passengers' needs.

AIC's all-cargo service is also expanding the number of mainland markets in which Big Island agricultural producers can offer their large tropical plants for sale. AIC's service has accomplished this by decreasing the transport time from 10 days to less than 1 day, allowing plants to arrive fresh at their destinations. Alternative air transportation is not a viable option because no competing airline accommodates the size of container necessary to ship these plants properly. Prior to AIC's entry, cultivators of tropical plants relied on ships for the trans-Pacific voyage to California. After the 10-day voyage, the plants had to be "refreshed" at a greenhouse, at substantial additional cost. Typically, even with this care, the plants could not be fully restored to their original condition and therefore could not sustain additional transport to markets on the East Coast or elsewhere on the mainland. By contrast, a 12-hour voyage by air eliminates the need for such greenhousing. Sealed at Hilo for shipment to the mainland, the plants arrive at Los Angeles International Airport in nearly original condition. This allows the farmers to sell them at any mainland location at a price commensurate with their original quality. Big Island farmers also cultivate a wide variety of tropical flowers for sale to mainland florists. In this case as well, AIC's Hilo to Los Angeles service allows the flowers to arrive fresh and to be shipped onward from Los Angeles to any U.S. destination in a timely manner. The president of the Hawaii Florists' & Shippers' Association told us that members of his organization prefer AIC's unique services, which include refrigerated storage in Honolulu and "seamless" connections to the mainland, offered jointly with FedEx.

Nevertheless, other air cargo customers, including national small-package delivery companies, local freight forwarders, and at least one bakery need not make use of the larger container used exclusively by AIC. In their cases, a variety of alternative considerations is more important. Several company

executives whom we interviewed cited successful sustained business relationships with Aloha and Hawaiian but also explained that these two incumbents offer both a frequency and quality of service that AIC has not yet demonstrated. According to the president of a local bakery, Aloha's frequent nighttime flights and its effective backup strategies in the event of an aircraft's mechanical breakdown are persuasive reasons to continue signing long-term contracts with this airline. The bakery president stated that his company's credibility with consumers depends entirely on the distribution of his baked goods every morning. Only Aloha, he said, currently maintains an ability to deliver his appreciable amount of cargo on time daily, with few delays. In addition, according to two freight forwarders with whom we spoke, Aloha's consistency in following up on damage claims is a similarly compelling reason to select the airline's interisland service.

Finally, for some customers, the business relationships that they have maintained with Aloha and Hawaiian during more than five decades of interisland service are more important than the new services that AIC has begun to offer. According to one senior state official, the uniqueness of Hawaii's remote island geography creates a situation in which customers throughout a variety of local industries place high value on long-term market presence. For these customers, this consideration may take precedence over an immediate economic benefit, such as a lower interisland cargo rate or a new service feature. These customers know that, in Hawaii, air service is essential to their business, and they are therefore inclined to contract with long-serving incumbents that have a proven ability to provide frequent, consistent service. Having recently witnessed the entry, and subsequent exit, of several passenger airlines that also carry cargo—including MidPacific Airlines, Discovery Airlines, and Mahalo Air—these customers prefer the long-term stability of the two largest incumbents.

Customers' Service Needs Weigh Heavily in Their Consideration of Rates

AIC's, Aloha's, and Hawaiian's primary types of customers—small-package delivery firms, freight forwarders, and agricultural producers—have distinct shipping needs. The three airlines have responded to these distinctions by pricing their cargo services in a variety of ways. For example, with small-package delivery firms such as FedEx, UPS, and Airborne Express, the airlines typically prenegotiate a standard set of interisland rates for an established period of time. By contrast, the airlines often negotiate with freight forwarders to meet the forwarders' need to move individual cargo shipments. A forwarder often seeks the best option

available for a shipment of heavy cargo on the basis of which airline can offer the best combination of a low rate, adequate space, and a timely departure. Finally, AIC typically works with the agricultural producers to prenegotiate a "through-rate" from Hilo to Los Angeles.

The dissimilar nature of competing airlines' interisland services—and customers' concerns about confidentiality—made broad empirical conclusions about interisland rates impossible. We discussed rate considerations during 10 interviews with small-package delivery firms, freight forwarders, the U.S. Postal Service (USPS), Big Island agricultural producers, and one bakery. Also, as part of a structured survey, we solicited rate data from USPS and 36 private companies. Because the rates charged for interisland cargo shipments are negotiated privately between the customers and the airlines, many customers cited the need to keep these data confidential and declined to provide them to us; others explained that data searches would be time-consuming or that they lacked historical records. (See app. I for full details on our data-gathering efforts.)

Nevertheless, we discovered a recurring view about rates. While several of the customers we contacted considered rates to be an important factor in their shipping decisions, they explained that rates must only be viewed relative to the services provided and to the extent to which an airline's performance meets their expectations.

For example, a manager for one small-package delivery firm explained to us that, while the rates AIC charges his company are reasonable and competitive, this is outweighed by its poor performance with regard to its aircraft's availability: In December 1997, he said, AIC's only aircraft was out of service on several occasions for mechanical reasons. He added that he would not like to see AIC's exit because this would likely encourage Aloha and Hawaiian to increase their own rates. Still, he explained, spotty reliability to date has kept his company from selecting AIC as a long-term partner and has kept AIC from bringing meaningful competitive pressure to interisland markets as a whole.

According to some freight forwarders whom we interviewed, AIC's service is valuable primarily because it provides an additional shipping option as they make daily decisions regarding how to move individual shipments at a given price. However, for one executive, the additional option is meaningful only when AIC's rates are set below those of its competitors.

According to this executive, when AIC's and Aloha's rates are comparable for a particular interisland shipment, he often selects Aloha because it consistently arrives on time and always provides a backup aircraft quickly in the event of a mechanical breakdown.

One freight forwarder expressed a preference for the daytime belly-cargo service offered by Hawaiian Airlines because this service is typically priced far below all-cargo service. Nevertheless, this customer asserted, the most important factor is that an airline retain its ability to offer timely, reliable delivery of its goods. Precisely because belly cargo can be bumped from a daytime interisland passenger flight, some customers prefer Aloha's and AIC's all-cargo services.

For their part, many Big Island agricultural producers told us that rates are important but emphasized that their primary concern is retaining the "through-service" that AIC operates from Hilo to the mainland. Retaining this service, they said, outweighs rate considerations. An official with the Hawaii Export Nursery Association confirmed the farmers' remarks and added that it is impossible to compare the rates that AIC charges for its through-service to the rates charged either for Aloha's nighttime all-cargo service or for Hawaiian's belly-cargo service because all of the services provided are so dissimilar.

AIC's Exit or Other Emerging Trends Could Change the Dynamics of the Interisland Markets

Unless new legislation is enacted extending AIC's right to operate Stage 2 aircraft, after September 30, 1998, AIC will have to serve its interisland customers using aircraft powered by quieter engines. Alternatively, the airline may decide to exit interisland markets. If AIC takes such a step, there could be a discernible effect on a variety of interisland customers. AIC's exit would likely reduce the types of services offered to customers. The effect would probably be more dramatic for agricultural producers than it would be for customers in other industries, as Big Island farmers who have contracted with AIC would lose the ability to sell their goods in a variety of U.S. mainland markets. In remarks reflecting the importance of agriculture to the state's economy, Hawaii's agriculture secretary explained to us that, unless another airline fills the void, AIC's exit from interisland markets would affect the pace at which Hawaii recovers from the stagnant economic growth of recent years. The extent to which rates might increase in AIC's absence remains unclear because there were only a few instances in which we were able to determine the effect AIC's market presence has had on rates. As a result, it is possible only to speculate on

the extent to which the airline's exit would cause cargo rates to increase, if at all, on a marketwide basis.

Other emerging trends could also change the dynamics of Hawaii's interisland air cargo markets. Major U.S. cargo airlines could begin to provide scheduled interisland service using Stage 3 aircraft, in direct competition with Aloha's and AIC's all-cargo services. For instance, FedEx may decide to operate its own interisland service, and could do so if greater volumes of interisland cargo in future years were to make this service cost-efficient. Such a decision would likely lead FedEx to sign fewer contracts with AIC for interisland service. This would affect AIC's economic fortunes, as the airline would lose the business of tropical flower cultivators and other customers who must ship time-sensitive items. In addition, several major passenger airlines could expand nonstop service from outerisland communities to the mainland or initiate additional interisland cargo services. According to a state official with whom we spoke, several services that are planned or proposed would affect incumbent airlines' pricing, as well as the types of services that these airlines continue to offer.

Agency Comments

We provided copies of a draft of this report to the Department of Transportation (DOT) and the Federal Aviation Administration (FAA) for their review and comment. To obtain comments, we held discussions with DOT and FAA officials, including DOT's Director, Office of Aviation and International Economics, and the FAA staff attorney responsible for the agency's interpretation of turnaround service. DOT and FAA generally agreed with the information in our report and provided technical corrections, which were incorporated into the report where appropriate.

Scope and Methodology

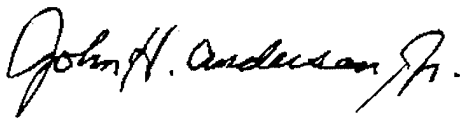
To determine the basis on which FAA revised its interpretation of turnaround service, we obtained detailed legal positions prepared by AIC, Aloha Airlines, and Hawaiian Airlines. In Washington, D.C., we met with attorneys for AIC and Aloha, as well as with the FAA attorney responsible for drafting the agency's initial and revised interpretations of turnaround service. The FAA attorney provided us with the agency's current position on whether AIC has the legal right to operate interisland service after September 30, 1998, and with documentation indicating how FAA's interpretation evolved over time.

To determine the effect of AIC's entry on competition in Hawaii's interisland air cargo markets, we prepared a structured survey to solicit information pertaining both to the rates charged and to the services provided. However, we were unable to obtain sufficient rate data from this survey to conduct a comprehensive marketwide analysis. We then conducted 17 personal interviews during January 1998 in Hawaii. In Honolulu, we met with AIC, Aloha, and Hawaiian; interisland cargo customers; state officials responsible for transportation, agriculture, justice, and natural resources policy; and an independent private economist. In Hilo, we met with agricultural producers who cultivate tropical plants and flowers destined primarily for U.S. mainland markets. See app. I for a complete description of our scope and methodology. We conducted our review from August 1997 through April 1998 in accordance with generally accepted government auditing standards.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 10 days after the date of this letter. At that time, we will send copies to the Secretary of Transportation; the Administrator, FAA; the Director, Office of Management and Budget; and other interested parties. We will send copies to others upon request.

If you have any questions, please call me at (202) 512-2834. Major contributors to this report are listed in app. II.

Sincerely yours,



John H. Anderson, Jr.
Director, Transportation Issues

Scope and Methodology

To gain perspectives on whether, legally, American International Cargo (AIC) can continue to provide turnaround service, we obtained detailed legal positions from AIC, Aloha Airlines, and Hawaiian Airlines. In Washington, D.C., we conducted personal and/or telephone interviews with attorneys for AIC, Aloha, and the state of Hawaii. Also in Washington, we met with the Federal Aviation Administration (FAA) attorney responsible for drafting the agency's initial and revised interpretations of turnaround service. The attorney provided us with the agency's current position on whether AIC has the legal right to operate interisland service after September 30, 1998, and submitted documentation indicating how FAA's interpretation has evolved over time.

To gain a full understanding of the key factors affecting the transport of air cargo throughout Hawaii, we solicited information pertaining both to the rates charged and the services provided. We attempted to obtain data on rates charged for interisland service during calendar years 1994, 1995, 1996, and 1997 (through October). Obtaining a substantial amount of empirical data from this 4-year period would have permitted us to conduct a complete economic analysis and to draw meaningful conclusions regarding the effect that AIC's November 1995 entry may have had on the rates charged by all airlines operating in the interisland markets. However, we were unable to obtain sufficient rate data to conduct such an analysis and to draw such conclusions.

We used two methods to gather information regarding the potential effect of AIC's entry on interisland rates. First, we sought data from AIC, Aloha, and Hawaiian, which are the three airlines carrying significant amounts of cargo throughout the state of Hawaii. Although AIC provided us with the basic rates that it charged its 20 largest customers during 1996, these data alone could not provide us with the historical perspective necessary to draw meaningful conclusions. For a proper historical analysis of the rates charged prior to AIC's entry as well as since its entry, we would have needed to obtain similar data from other airlines and from these airlines' customers. Although Aloha provided us with cargo yields per pound since 1993 and with a list of its key customers, neither Aloha nor Hawaiian was able to share historical, customer-specific rate information.

Second, in a mailed survey, we solicited information from 37 of AIC's, Aloha's, and Hawaiian's interisland customers. These customers included small-package delivery firms, freight forwarders, and agricultural producers. Thirty customers declined to provide us with the level of detail that we needed, despite our pledge of confidentiality. Customers cited

concerns ranging from confidentiality clauses with airlines and the time-consuming nature of data searches to the absence of historical records as reasons for failing to provide the information. Taken together, the level of detail that we obtained was not sufficient to allow for meaningful analysis of interisland air cargo rates. Although we were unable to collect sufficient data with regard to the rates paid, we were able to use the survey as a means to identify candidates for structured personal interviews conducted during January 1998.

During January 1998, we conducted 17 structured interviews in order to understand further the impact that AIC's entry may have had on interisland air cargo markets. In Honolulu, we met with officials from AIC, Aloha, and Hawaiian, and we toured the airport facilities of AIC and Aloha, observing both airlines' cargo operations there. Also in Honolulu, we interviewed several freight forwarding companies; two national small-package delivery firms; officials from Hawaii's departments of Transportation, Agriculture, Justice, and Land & Natural Resources; an independent economist with the Bank of Hawaii; an official of the U.S. Postal Service; and a Delta Air Lines cargo representative. In Hilo, we met with a variety of agricultural producers who cultivate tropical plants and flowers destined primarily for mainland markets. We also met with the executive officers of two key agricultural associations—the Hawaii Export Nursery Association and the Hawaii Shippers' and Florists' Association. We did not provide a pledge of confidentiality for information obtained from personal or telephone interviews.

Major Contributors to This Report

Aaron Casey
Alice Feldesman
David Hooper
Joseph Kile
Steve Martin
Marnie Shaul
John Skeen