Little Rock National Airport Air Cargo Study

Pulaski County

July 2004



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Prepared by Planning and Research Division Arkansas State Highway and Transportation Department

In cooperation with United States Department of Transportation United States Department of Homeland Security United States Postal Service Little Rock National Airport City of Little Rock Metroplan Air Cargo Providers Air Cargo Users

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Section I Executive Summary

The availability of air cargo service is becoming more significant in daily business shipping activities. Reasons for the escalating demand for air cargo service include: (1) the inventory practice of just-in-time delivery that requires specific time of day service; (2) the growing e-commerce marketplace where products are mailed directly from a warehouse; and (3) the increase in international business. Global air traffic is expected to become the fastest growing segment of freight distribution.

The purpose of this study is to provide air cargo data for use in developing the new master plan for the Little Rock National Airport. The analysis involved the assessment of current air cargo operations, the investigation of possible highway access improvements and the identification of air cargo issues and opportunities.

Study Authorization/Study Method

The study was prepared under the authority of Arkansas Highway Commission Minute Order 2002-098. The Minute Order authorized the Department to participate in a study to determine possible air cargo facilities, landside access improvements, and existing and potential air cargo shipments that might involve additional intermodal activities. The study is a team approach consisting of the airport consultant firm of Garver Engineers, various City of Little Rock departments, air cargo providers and the Department.

Information presented in this document was derived from a variety of sources. They include: (1) the results of an Air Cargo Questionnaire (see Appendix A), (2) the Department's Freight Goods Movement Database, and (3) joint meetings held with City of Little Rock and Airport representatives.

The Air Cargo Questionnaire was used to obtain existing air cargo patterns and user concerns. The Freight Goods Movement Database provided lists of commodities that enter or leave the study area and the means by which goods are moved. The origin and destination of the moves (Domestic – within the U.S. or International – outside the U.S.) were evaluated as well as the means by which goods are moved.

Study Area

The service area of the Little Rock National Airport for air cargo packages extends much further than the eleven county area identified as the Central Arkansas Economic Development Alliance Area. The eleven county area only extends 50 miles from the Little Rock area as illustrated in Figure 1-1. The population base of that eleven county area is nearly one million people. However, the total service area for air cargo service into and out of the Little Rock National Airport can extend as much as 150 miles. Several air cargo providers have satellite operations that provide pickup and delivery service of air cargo packages that come through the Little Rock National Airport. The airport's service area is not a true 150-mile radius due to Little Rock's proximity to the Memphis International Airport, which is the world's largest air cargo airport, and to the Dallas/Fort Worth Airport which serves as a major international gateway for air cargo shipments.

Some of the locations served by satellite air cargo operations are as follows:

- Batesville
- Conway
- El Dorado
- Malvern
- Pine Bluff
- Searcy

- Camden
- Dermott
- Hot Springs
- Mena
- Russellville

The extended service area is also shown in Figure 1-1. Consequently the total service area for air cargo shipments that are handled at the Little Rock National Airport includes 46 counties with a population base of a little over 1.5 million.

Figure 1-1 Study Area



Major Findings

Some of the major findings of the study are as follows:

- To fully develop Little Rock National Airport's potential in today's competitive air cargo arena, an air cargo terminal may be required that is centrally located with ample warehouse space for parcel sorting and packing, supporting freight modes, and a site for Customs service. A dedicated air cargo taxiway may be needed.
- The City of Little Rock plans to realign East Roosevelt Road which could enhance highway access to the current air cargo terminal.



Figure 1-2 Proposed Air Cargo Improvement Plans

- Southwest Airlines and Delta Airlines are the only two passenger airlines that have separate air cargo operations. All other passenger airlines handle air cargo over the counter just like passenger luggage.
- Federal Express has a multi-year, multi-billion dollar contract with the United States Postal Service (USPS). USPS shipments are trucked to Memphis and then put on Federal Express planes.
- Since 9-11-2001, no USPS package over 13 ounces can be shipped by air on passenger airlines out of Little Rock National Airport.

- DHL/Airborne Express and United Parcel Service (UPS) each have two air cargo flights daily. UPS formerly domiciled an all-cargo plane at Little Rock National Airport but discontinued it in July of 2003 thereby eliminating one-third of its capacity. Dedicated air cargo planes are essential for an efficient air cargo network as air cargo planes give shippers the flexibility to ship many types of cargo.
- The Arkansas Federal Security Director for the Transportation Security Administration strongly advocates moving the air cargo area to where the UPS processing center is located. The main reason is the security risk of the taxiways going over Temple Street.
- The air cargo industry is extremely time sensitive and very competitive. Demands now dictate time of delivery, not just date of delivery. Special service availability is necessary to compete.
- A major business in the Little Rock area used air transportation to import nearly two million pounds of goods in 2002. None of that tonnage went through the Little Rock National Airport due to service constraints. A proactive marketing plan is needed to highlight the Little Rock National Airport's air cargo operations.

Major Results

- Five options were identified as possible ways to improve highway access to the existing air cargo terminals. In all cases, highway capacity improvements such as intersection widening and signalization, additional traffic lanes and shoulder widening to facilitate truck movement were suggested.
- A viable method to simplify and improve the shipping process is a skycap air cargo center. The idea is to have a one-stop, air cargo check-in center where all packages would be verified and checked.
- The examination of freight databases revealed the potential for additional air cargo shipments. The most promising commodities are catfish, minnows, processed chicken and apparel.

Section II Air Cargo General Assessment

This section provides an overview of the Little Rock National Airport with emphasis on air cargo operations, a review of present highway routes to air cargo terminals and the identification of possible highway access improvements. Also included is a discussion of air cargo service issues and opportunities. Interviews and a questionnaire were used to determine highway access problems, possible solutions and how air cargo service might be improved. The interviews were conducted with air cargo providers and users, several City of Little Rock departments and the consultant for the airport.

Little Rock National Airport

The Little Rock National Airport is located southeast of the downtown area of Little Rock, north of Interstate 440 via the Bankhead Drive exit. The airport consists of 2,200 acres with three runways and has more than 90 commercial flights into and out of Little Rock every day. The Little Rock National Airport is ranked 83rd in passenger boardings by the Federal Aviation Administration. This national ranking can be partially attributed to the presence at the airport of the industry low fare leader, Southwest Airlines. Southwest now has 34 percent of the passenger market and attracts customers from all over the state as well as out-of-state. Figure 2-1 illustrates the location of the airport and highlights current landside access to the passenger terminal and current air cargo facilities. Table 2-1 lists passenger airlines and air cargo carriers that service the Little Rock National Airport.

Table 2-1

Airlines and Other Carriers Servicing the Little Rock National Airport

Passenger Airlines

- American Eagle
- Continental Express
- Delta Airlines/Delta Connector
- Northwest Airlines/Northwest Airlink
- Southwest Airlines
- US Airways Express

Air Cargo Carriers

- United Parcel Service (freight service only) (see photo on page 2-3)
- DHL (freight service only)
- Airborne Express (freight service only) (see photo on page 2-3)
- Federal Express Occasionally uses Little Rock National Airport as a temporary landing facility (back up to the Memphis International Airport)





UPS Facility at Air Cargo Terminal



Airborne Express Delivering Documents to Customs Broker at Air Cargo Terminal

Air Cargo Operations

The three air cargo carriers provide "Scheduled Air Cargo Service," which means that regular air cargo deliveries using dedicated airplanes are provided along with distribution services. This service consists of a fleet of trucks and vans. In other cases, freight is carried in the luggage compartment of passenger planes. Southwest Airlines and Delta Airlines have separate facilities to handle the receipt and handling of freight for their flights. All other passenger airlines handle air cargo over the counter just like passenger luggage.

Current Access Routes

The air cargo terminals at the Little Rock National Airport are located on Temple Street. UPS has a major facility in this area where their own planes are loaded and unloaded. Packages that are loaded onto the planes are sorted originally at the UPS Processing Center located on Fourche Dam Pike and then transported by truck to the air cargo facility at Temple Street for loading onto a UPS plane. Packages that are unloaded from UPS planes are loaded onto UPS express vans and taken to the UPS Processing Center for sorting and delivery (see photo of processing center on page 2-5). USPS also has a major facility in the air cargo terminal to handle air express packages and documents (see photo on page 2-5). DHL/Airborne Express has an air cargo operation similar to UPS except their facility is located off Lindsey Road on Pratt Remmel Road.

Table 2-2Air Cargo Terminal Tenants

Individual Tenants

- United States Postal Service
- United Parcel Service
- Airborne Express

General Use Tenants

- Delta Airlines (see photo on page 2-6)
- Southwest Airlines (see photo on page 2-6)



UPS Processing Center on Fourche Dam Pike



USPS Facility at Air Cargo Terminal



Delta Air Cargo Building at Air Cargo Terminal



Southwest Airlines Cargo Building at Air Cargo Terminal

Primary highway access to the air cargo terminals at Temple Street is from Interstate 440 via local city streets. Traffic conflicts now occur between passenger vehicles traveling to the ticket and departure terminal and trucks enroute to the air cargo terminal on Temple Street. To access the air cargo terminal on Temple Street, traffic must use a taxiway underpass. According to Arkansas' Federal Security Director for the Transportation Security Administration, the tunnel is a security problem.



Taxiways over Temple Street

In addition, the Little Rock National Airport has a National Highway System (NHS) freight intermodal connector. NHS intermodal connector routes are the roads leading to major intermodal terminals, as defined by the Federal Highway Administration. The NHS route for the Little Rock National Airport is shown in Figure 2-2.

Figure 2-2 NHS Freight Intermodal Connector Route



Traffic Volumes

Figure 2-3 exhibits the 2004 average daily traffic (ADT) volumes and truck percentages. The highest truck volumes occur on East Roosevelt Road and on Lindsey Road near the Interstate 440 exit.

Highway Access Options

Five options were suggested as possible ways to improve highway access to the air cargo terminals. The options are described below and are shown on the following figures.

Option 1 - User Recommendations

The recommendations that air cargo users suggested are illustrated on Figure 2-4. The proposal includes a skycap air cargo center that would simplify the shipping process for all air cargo shipments. The idea is to have a one-stop, air cargo check-in center where all documents would be verified and all packages checked. This concept is similar to the curbside, passenger luggage check-in operation now in use at the airport. The proposed skycap air cargo center could be located at one of several places. Possible sites are at the existing air cargo facility at Temple Street, on Lindsey Road across from the airport in the Little Rock Riverport complex, or by the existing UPS Processing Center. The other recommendation was highway capacity improvements to segments of Airport Drive, Lindsey Road and Fourche Dam Pike to facilitate truck movement¹. Airport Drive and Lindsey Road are major routes to and from the airport. The Fourche Dam Pike interchange with Interstate 440 is being used more extensively as an access route due to industries located in the Little Rock Port area and the construction of two commercial truck stops.

Option 2 - Little Rock Department of Public Works

The Little Rock Department of Public Works discussed an option that could better link the growing downtown area of Little Rock to the airport. The key corridors would be East 6th Street and East 15th Street to the back part of the airport. To accomplish this, linkage of two tunnels under runways would be required. Additionally, a one-way couplet system is proposed on East Roosevelt Road west of the main entrance into the airport. This option is illustrated on Figure 2-5 and includes moving the existing air cargo operation on Temple Street to a new location near the UPS Processing Center on Fourche Dam Pike.

Option 3 - Little Rock Department of Planning and Development

The Little Rock Department of Planning and Development alternative is similar to Option 2 except there would be no tunnels. Better access to the proposed air cargo-processing center on Fourche Dam Pike would be accomplished by improving the Lindsey Road interchange with Interstate 440. This option is illustrated on Figure 2-6.

¹ Capacity improvements include possible intersection widening, signalization and additional traffic lanes.









Option 4 - Little Rock Port Authority

Option 4 involves moving the existing air cargo processing center on Temple Street to Lindsey Road in the Little Rock Riverport complex. This option includes improving the capacity from the Interstate 440 interchanges at Lindsey Road and Fourche Dam Pike. This option is illustrated on Figure 2-7.²

Option 5 - Airport Consultant

The Airport's consultant submitted several options. All options keep the existing air cargo terminals in the same location with suggested highway access improvements to the terminals from Interstate 440 at the Bankhead Drive interchange.

- Option 5A is illustrated on Figure 2-8 and allows through freight traffic to be separated from passenger traffic using an elevated structure in the area of the ticket and departure terminal and nearby parking.
- Option 5B is illustrated on Figure 2-9 and switches the northbound lanes to the west side and the southbound lanes to the east side in front of the Passenger Terminal parking lots along Airport Drive. Two flyovers would be needed to put this option in place.
- Option 5C is illustrated on Figure 2-10 and is similar to Option 5B except the eastern lanes of Airport Drive would be converted to a two-way road. This option would only require one flyover.
- Option 5D which is illustrated on Figure 2-11 provides for a new at-grade, twoway road east of existing Airport Drive with a flyover at the southern end of Airport Drive for freight traffic.
- Option 5 (1) and Option 5 (2) are illustrated on Figures 2-12 and 2-13. One of these two options would be used in coordination with either Option 5A, 5B, 5C, or 5D. Option 5 (1) would provide improvements to Temple Road north of the taxiway underpass. Option 5 (2) would provide a new alignment to the air cargo terminal and enable expansion of the area.

Air Cargo Considerations

There are several air cargo issues at the Little Rock National Airport. The main issues are:

- Southwest Airlines and Delta Airlines are the only two passenger airlines that have separate facilities for handling air cargo. Other airlines handle air cargo over the passenger counter.
- Air cargo marketability is hampered by the proximity to Memphis where the world's largest air cargo airport is located. The majority of expedited shipments in the Little Rock Airport service area are either trucked to Memphis or Dallas.
- United States Postal Service and Federal Express have a multi-billion dollar contract which allows Federal Express to handle USPS air cargo at Memphis. Therefore, the majority of air cargo packages sent by USPS are trucked to Memphis to be loaded onto Federal Express planes.

² Capacity improvements include possible intersection widening, signalization, and additional traffic lanes.













Figure 2-12 Option 5 (1) – Widen Temple Road Airport Consultant



Figure 2-13 Option 5 (2) – Move Temple Road Airport Consultant

- DHL/Airborne Express and United Parcel Service provide the only dedicated air cargo plane service. Together DHL/Airborne Express has four flights daily, with two of the flights carrying international shipments to and from the Little Rock service area. United Parcel Service has two air cargo flights daily. United Parcel Service formerly domiciled an all-cargo plane at Little Rock National Airport but discontinued in July of 2003 thereby eliminating one-third of its capacity.
- Air cargo trucks use the same access routes to the airport that passenger vehicles use.
- Security issues at airports are very critical and are coordinated by the U.S. Department of Homeland Security. The Arkansas Federal Security Director for the Transportation Security Administration would like to eliminate potential security problems by moving the air cargo terminal to the location presented in Figures 2-5 and 2-6.

Air Cargo Opportunities

The air cargo industry is ever evolving and its niche is one of urgency and convenience. The Little Rock National Airport with its prime geographic location has opportunities that can enhance its air cargo operations. The following are examples.

- Implementing the skycap air cargo concept suggested as Option 1 and illustrated on Figure 2-4 could be an ideal method to simplify the air cargo shipping process now handled over the counter. By simplifying the process, more air cargo tonnage might be generated and create more revenue for the airport.
- Moving the existing air cargo terminal from Temple Street to a location near the UPS Processing Center as suggested by the City of Little Rock and illustrated on Figures 2-5 and 2-6 could improve delivery and shipment of air cargo.
- Southwest Airlines recently announced that their Little Rock reservations center will be closing in early 2004. The reservations center is located next to the UPS Processing Center and could be an excellent location for the proposed new air cargo terminal and skycap air cargo center.
- Marketing the airport's proximity to major markets could be an opportunity to attract additional service providers for air cargo operations. A brochure that would illustrate the airport's potential as a site for air cargo operations, both domestically and globally, might be beneficial. This brochure could be used in state, regional and local business marketing campaigns.

Section III Air Cargo Shipments

An evaluation of existing and potential air cargo was made by examining the airport's data on air cargo shipments and other freight databases. The data is by year and it shows volumes by air cargo carrier as well as indicates the airmail and packages handled in pounds. Several air cargo providers and shippers were interviewed to obtain assessments of the air cargo potential as well as what obstacles there are at the Little Rock National Airport in handling air cargo economically and efficiently.

Table 3-1Air Cargo Volumes at the Little Rock National AirportTotal Volume in Pounds

Year	<u>Air Cargo On</u>	<u>Air Cargo Off</u>	* <u>Airmail On</u>	* <u>Airmail Off</u>	<u>Total</u>
1997	8,566,166	12,580,496	9,120,974	13,504,959	43,772,595
1998	9,219,751	13,600,905	8,766,759	11,761,331	43,348,746
1999	8,557,155	12,356,861	8,871,855	10,376,353	40,162,224
2000	9,492,016	11,480,432	10,622,997	10,438,356	42,033,801
2001	9,353,175	10,282,612	6,202,603	8,165,618	34,004,008
2002	8,511,200	10,636,023	2,303,435	3,833,278	25,283,936
2003	8,696,943	10,794,934	1,548,343	3,312,490	24,352,710

* Airmail total is freight tendered by United States Postal Service to airlines

Figure 3-1 Yearly Volumes of Air Cargo and Airmail



Analysis of Air Cargo Data at Little Rock National Airport

- Federal Express' contract with USPS has greatly diminished airmail volume. A large volume of airmail now goes by truck to and from Memphis. Additionally, airmail volume has diminished with growth of e-mail technology.
- Prior to 2001, airmail volume was approximately 50% of yearly total amount. Loss of airmail tonnage has not been recovered.
- Little Rock National Airport has always handled more inbound air cargo than outbound air cargo.
- The only air cargo carrier that has increased its volume from the pre-2001 time period is Southwest Airlines and it has increased its volume by 40% since 2000.
- Northwest and TWA were major air cargo carriers prior to 2001 but Northwest only handled 24,000 pounds of air cargo in 2002. American Airlines has acquired TWA and handles no appreciable amount of air cargo.
- Southwest Airlines and Delta Airlines are the only passenger airlines that provide a separate air cargo service.

Air Cargo Analysis of Central Arkansas

- Air cargo providers in the Little Rock area serve a market that is up to 150 miles away. Communities serviced include Russellville, Batesville, Conway, Hot Springs, Camden, Pine Bluff, El Dorado and Searcy.
- The economic climate has hindered air cargo growth in the last two years.
- The international market area has the greatest growth potential.
- Less-than-truckload service in Central Arkansas area now regularly provides next day service within a 500 mile radius thereby minimizing the need for domestic air cargo unless it is extremely time sensitive (next flight out service) or high dollar items needing special handling.
- A major portion of air cargo is transported by expedited truck movements. Major gateways for domestic air cargo movements are Dallas and Memphis. Additional gateways for international air cargo movements include Los Angles and Chicago.

Potential Air Cargo Shipments

In examining national databases of freight good movements by air for the service area of Little Rock National Airport as well as visiting air cargo users and providers, several general commodity groups surfaced as potential air cargo. Some of these commodity groups are as follows:

- Fresh Fish or Marine Products
- Apparel
- General Industrial/Construction Machinery
- Paper Products-Periodicals-Newspapers
- Medical Supplies-Pharmaceuticals
- Electronic Equipment and Parts
- Passenger Baggage

Several of these freight categories have great potential and have been examined in more detail.

Fresh Fish and Processed Chicken

Arkansas is a major producer of fresh catfish, minnows, and processed chicken. These products are shipped to east and west coast markets and overseas. Having special handling facilities like a freezer unit could help attract some of these products to the airport for air shipment.

<u>Apparel</u>

The Central Arkansas Region is the home of several large department store warehouses and specialty retailers. A large majority of this product is imported. Having specialized services available to handle expedited shipments of apparel would enhance Little Rock National Airport's competitive advantage in handling these shipments effectively and efficiently.

General Industrial/Construction Machinery

The manufacturing base of the region has air cargo needs to ensure that its manufacturing needs are met. By understanding the needs of a few major industries, the airport could create a just-in-time service for those key manufacturers.

Medical Supplies – Pharmaceuticals

The region has several large medical facilities and has the need for expedited services not only for medicines but also for equipment. Reaching out to the medical industry and having the specialized services available to provide to the medical community would be of great benefit.

Electronic Equipment and Parts

The region has several companies that specialize in the electronic and telecommunications industry. By marketing to that industry, the service that is needed on a daily basis would be greatly enhanced.

Passenger Baggage

Because of increased security at our airports, it is increasingly difficult to check in passenger baggage, particularly for business travelers or vacationers going on extended trips. These passengers could check their baggage into an air cargo center and have it moved as air cargo to their hotel or other destination. Having this service readily available at or near the airport would provide a value-added service that would greatly enhance the traveling experience of many passengers.

Marketing

Little Rock National Airport has several obstacles to overcome so it can better market its air cargo capacity. Some of these obstacles are as follows:

- No air cargo carriers are home based at the airport.
- One major importer, located in the Little Rock area, air freighted approximately two million pounds in 2002 and 2003 but did not use Little Rock National Airport for any of their movements because of insufficient scheduled air cargo service.
- The geographic proximity to Memphis, the world's largest air cargo airport, and the excellent less-than-truckload service of the region suggests that air service is very competitive.
- Only two passenger airlines have an air cargo operation with all other airlines providing minimal air cargo service over the counter only.
- Current air cargo area has security issues that have been deemed to be unsafe by the state's Federal Security Director for the Transportation Security Administration.

The air cargo industry is ever evolving and its niche is one of urgency (such as Next Flight Out Services) and by providing special services. For the Little Rock National Airport to be competitive in the 21st Century in the field of air cargo, the airport must actively seek out and provide additional services and market its competitive advantages.

Section IV Summary

The Little Rock National Airport air cargo market has been slow to expand. Yet, the centralized geographic location of the Little Rock region offers the potential for air cargo transportation growth. Possible enhancements and strategies for establishing the Little Rock National Airport as a prime location for air cargo shipments are as follows:

- Move the air cargo terminal as proposed and illustrated on Figures 2-5 and 2-6.
- Provide a dedicated air cargo taxiway with supporting facilities for package sorting and packing.
- Until the air cargo terminal is moved to a new location, a skycap air cargo service may need to be provided at the existing air cargo terminal to simplify air cargo procedures. A skycap air cargo service would be similar to the skycap baggage checking process used for passengers. The skycap air cargo service would be a one-stop air cargo service with knowledgeable personnel that would know the next flight out and what the air cargo capacity would be for each carrier and what service would be provided at what cost.
- Undertake an active marketing campaign by visiting major shippers and soliciting their air cargo needs. The airport could then address those needs and provide the services that are needed to develop Little Rock National Airport's potential in today's competitive air cargo arena.
- Recruit several reliable global air cargo carriers that would provide efficient and effective air cargo service and Customs service.
- Most routes recommended for improvements are off the highway system. Little Rock National Airport should continue to work with local governments to develop a plan to provide these improvements.

APPENDIX A Air Cargo Questionnaire

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT AIR CARGO QUESTIONNAIRE

Name of Air Cargo Provider:	
Subsidiary of (if applicable):	
Contact Person:	
Phone Number:	
Mailing Address:	

Air Cargo Issues: Please rate the importance of the following air cargo issues for Arkansas. 5(very important) to 3(moderately important) to 1(unimportant)

<u>Issue</u> (not listed in any order)	Importance
A) Available Service	
 Destination of flights 	
 Cargo space on available flights 	
• Time of departure	·
• Cut-off time	
On time arrivals/departures	
• Frequency of flights	
B) Airport Service Provided	
Road access	
• Security	
• Pick-up and delivery hours	
Gate & terminal access	
C) Ability to participate in intermodal transportation	
D) Lack of support facilities (warehouses)	
E) Ability to handle international shipments	
F) Ability to effectively handle domestic shipments	
G) Condition of infrastructure/equipment	
H) Other Issues:	
What do you consider to be the number one air cargo issue?	

What do you consider to be the number one air cargo issue?_____

GENERAL INFORMATION AIR CARGO

(Note: Please provide Arkansas data only)

A) Service area (Please list either towns or counties)

B) Types of air cargo services provided (priority package, document delivery, film, medicine supplies, international cargo, etc;)_____

- Days and hours of operation______
- What are the critical times of each day to ensure timely pickups and deliveries? Please include times necessary to meet flight schedules.

C) How many trucks/vans in fleet?

Types of trucks/vans ______

D) What specialized equipment/services are required by your customers?_____

E) What future markets are being considered by your firm?

G) What infrastructure enhancements are needed to expand air cargo business?

- Street/highway network-Be as specific as possible.

AIR CARGO PROVIDER QUESTIONNAIRE

(Note: Please provide Arkansas data only)

Annual Volume (Excluding Hazardous volume) in Weight by pounds <lbs.>

Year	Outbound	Inbound	Intrastate	Thru or
				Bridged
1998				
1999				
2000				
2001				

Annual Hazardous Volume in Weight by pounds <lbs.>

Year	Outbound	Inbound	Intrastate	Thru or Bridged
1998				
1999				
2000				
2001				

- **Outbound:** Origination in Arkansas With Final Destination Outside of Arkansas
- Inbound: Origination Outside of Arkansas With Final Destination in Arkansas
- Intrastate: Origination and Final Destination Both in Arkansas
- Thru or Bridged: Origination and Final Destination Outside of Arkansas

Commodities Handled: (Year 2001)

A. Top Commodities with	,	No. Of	Primary
Origination in Arkansas	Weight	Shipments	Destination
1.			
2.			
3.			
4.			
5.			

B. Top Commodities with Fina	1	No. Of	Primary
Destination in Arkansas	Weight	Shipments	Origin
1.			
2.			
3.			
4.			
5.			

AIR CARGO ECONOMIC IMPACT

(Note: Please provide Arkansas data only)

Please provide this information for use in estimating the impact that your air cargo firm has on the Arkansas economy:

A) Employees – Year 2001		
	full Time (Number)	
	Part Time (Number)	
A	Annual Payroll	\$
B) Annual Expenditures – Year 2001		
S	Supplies/Materials/Tools	<u>\$</u>
F	Fuel	\$
Г	Cerminal Operations	\$
F	Repairs/Maintenance	\$
Ι	Lease/Rentals	\$
I	nsurance/Taxes	\$
(Cost of Freight Loss or Damage	\$
	Jtility Cost	\$
	Other	\$
Т	Total Annual Expenditures	\$
C) Arkansas Shippers – Year 2001		
Ν	Number of shippers	
Ν	Number of inbound shipments	

Number of outbound shipments

Thank you for taking time to complete this survey. Your participation enables us to better plan for the state's air cargo needs. Please return to:

Bill Bastress Planning and Research Division Arkansas State Highway and Transportation Department P.O. Box 2261 Little Rock, AR 72203 Phone: (501) 569-2209 Fax: (501) 569-2597

APPENDIX B Intermodal Terms and Definitions

Intermodal Terms and Definitions

accessorial service – service rendered by a carrier, other than a transportation service, such as warehousing service

ADT – Average Daily Traffic

air cargo – Freight, mail, and express packages transported by air

bill of lading – a contract document between carrier and shipper

broker – an intermediary between the shipper and the carrier

breakbulk – the separation of a bulk load into smaller shipments

cargo – four types

- bulk cargo basic commodities in an unpacked condition (grains, coals, or other materials that are voluminous and loose)
- general cargo consists of large units of semi- or manufactured commodities which are packaged (boxes, drums) or self packaged
- neo-bulk cargo consists of a limited number of commodities such as scrap metal, lumber, automobiles, or paper
- outside cargo general cargo that is so heavy or large it cannot be accommodated or handled by normal means, and requires use of special loading and/or transportation equipment

cargo movements – three types

- online movements cargo is transported by a single carrier
- single mode movements cargo is transported by one or more carriers of a single mode
- intermodal movements cargo is transported by two or more modes, involving the transfer of cargo between modes

consignee – party to whom articles are shipped

common carrier – for-hire carrier that serves the general public

consignor – party by whom articles are shipped

container terminal - area designated for storage of containerized freight

contract carrier – for-hire carrier that serves shippers through contract arrangements

- *Customs duty* amount payable to the government on goods imported or exported
- *distribution warehouse* a warehouse used to store finished goods and to assemble customer orders
- *drayage* freight hauled by a motor carrier
- FHWA Federal Highway Administration
- *Foreign Trade Zone (FTZ)* a designated area where imported goods can be stored, displayed, sold, and/or manufactured without being subject to certain quota restrictions and some Customs formalities; for exports, an FTZ provides accelerated status for purposes of excise tax rebates and Customs drawbacks
- *freight forwarder* a person engaged in consolidating small shipments of goods for transport as a single shipment
- *gateway* point where freight moving between territories is interchanged
- *interchange* transfer of cargo between carriers
- *intermodal transportation facility* freight exchange terminal that also provides warehousing and transfer loading
- intermodal transfer transfer of commodities between two modes of transportation
- *JIT (just-in-time)* inventory system used by manufacturers and distributors to minimize levels of inventories, for which reliable transportation is essential
- *lead time* total time that elapses from placement of an order until goods are received
- *line haul* movement of freight from one point to another
- *logistics channel* network of intermediaries engaged in transfer, storage, handling, and communication functions that contribute to the efficient flow of goods
- *LTL* less than truck load shipment
- *multimodal* moving cargo from origin to destination by more than one freight transportation mode

- *outsourcing* contracting with an outside firm for services (e.g., shipping, packaging, storage, billing and/or inventory control)
- *seamless service* level of cooperation among intermodal carriers that makes the modal transfer smooth and effortless with no shipment delay
- *through movement* shipment of a container inspected and sealed by Customs at the factory site and then transported without the need of further inspection until arrival at the destination
- *TL* truckload (shipment)
- *transit time* total time that elapses from pickup to delivery of a shipment
- *transload site* a location where products are temporarily stored and then loaded into a truck or container

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